

DR. CHASE'S
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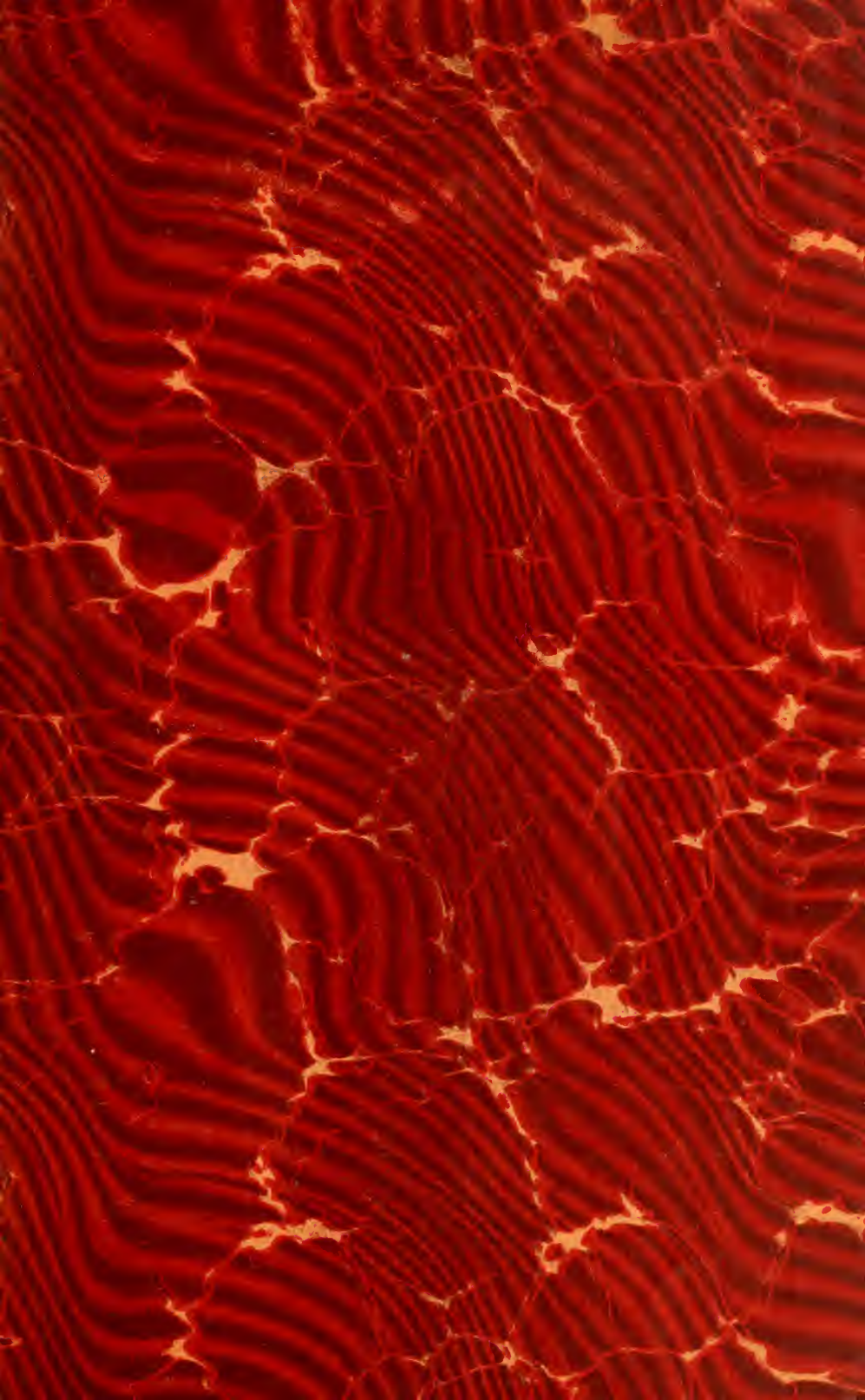


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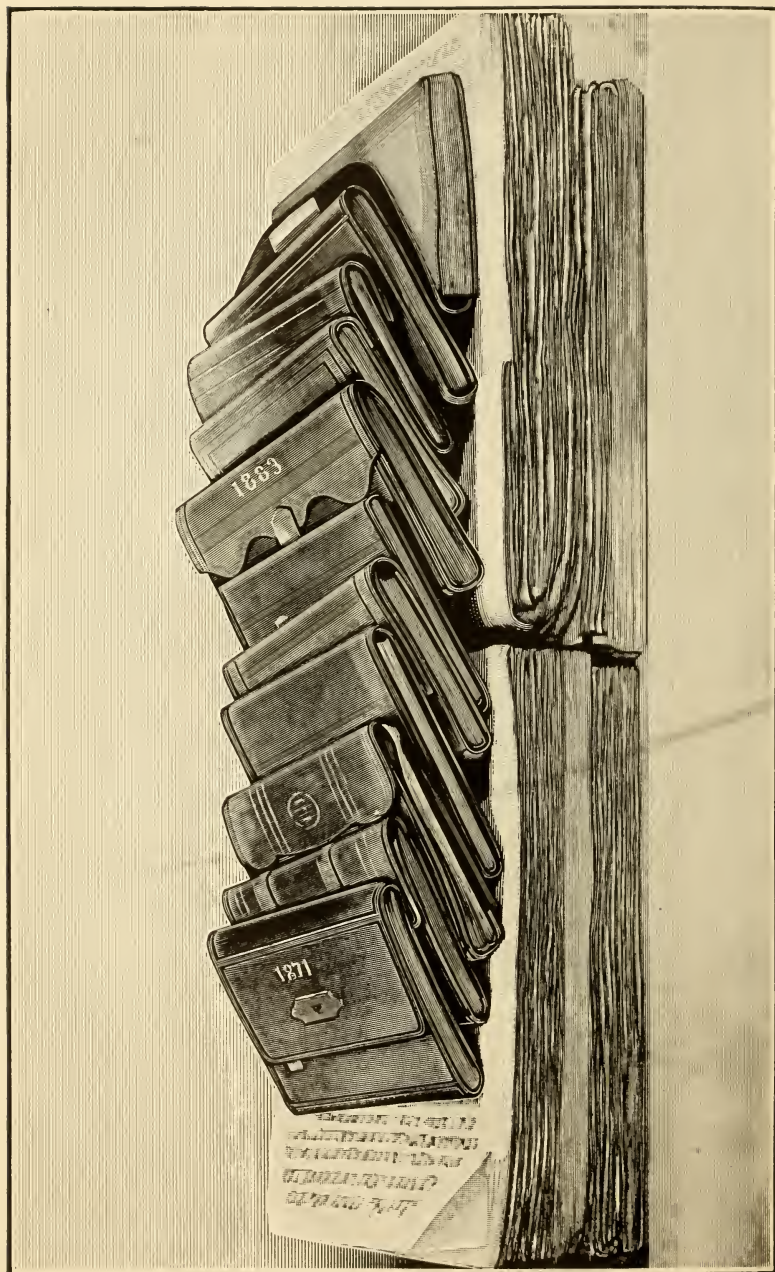
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Combination Edition

DR. CHASE'S
**COMBINATION
RECEIPT BOOK**

BEING A COMBINATION OF THREE BOOKS

1. The Favorite Medical Receipt Book and Home Doctor
2. Dr. Chase's Receipt Book
3. A Practical Law and Business Guide for Home and Office

By Dr. A. W. CHASE

Enlarged by over One Hundred Physicians
and Authors

Published by

THE F. B. DICKERSON COMPANY
DETROIT, MICHIGAN

1915

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PUBLISHER'S PREFACE

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"DR. CHASE'S COMBINATION RECEIPT BOOK" contains the Favorite Medical Receipts of over One Hundred of the Best Physicians and Nurses of this and Foreign Countries. It also contains the Original, Genuine, Last and Complete Collection of Medical and Cooking Receipts and the Very Choicest Miscellaneous Receipts of the World Renowned Dr. A. W. Chase. Furthermore, it contains A Practical Law and Business Guide for Home and Office. We believe these Three Practical Books bound in one volume and costing but one price will be found the most useful "Combination" book ever published.

The practical value of Dr. Chase's Receipt Book is attested by the fact that during the past fifty or sixty years several million copies of the various editions of this book have found their way into as many homes in this and foreign countries, the book having been translated into several languages. This record has never been equaled by any similar book. For over half a century Dr. Chase's Receipt Book has been considered standard authority the whole world over. Dr. Chase himself, however, realized that new methods are constantly being discovered and that it was necessary from time to time to enlarge his book. Nevertheless, the "Old Doctor" had a plain, simple and home-like style of writing never before nor since attained by any other writer on similar subjects, and for this reason the publishers have steadfastly refused to have his receipts revised or changed in any way by any other author. They have therefore deemed it wise and best to retain the whole of Dr. Chase's Medical and Cooking Receipts and the very choicest of his Miscellaneous receipts exactly as they came from the pen of the "Old Doctor" himself and in the same form in which he wrote them for the "Memorial Edition" of his book. But in order that the book might be complete and up-to-date as well as simple and practical we have seen fit to add to Dr. Chase's Receipts the Favor-

ite Remedies of Over One Hundred of the World's Best Physicians and Nurses of this and other countries.

Though it has taken a small fortune as well as years of time and labor to gather these favorite remedies from the whole world over yet it is fitting that only the very best receipts that the world affords be made a part of Dr. Chase's Book. After years of labor these favorite remedies were first edited by Dr. Josephus Goodenough and published in separate form and over One Hundred Thousand Copies placed in as many homes that they might be tried and tested in a thoroughly practical manner. The results have been so entirely satisfactory that it is with great pleasure that we now print them alongside the famous Dr. Chase's Receipts.

It was always Dr. Chase's desire to give the people heap- ing good measure for their money and for this reason the publishers have added to this book "A Practical Law and Business Guide for Home and Office." This manual was first edited by F. B. Dickerson who for over twenty-five years was publisher of Dr. Chase's Books. Mr. Dickerson has had a successful business career of over thirty-five years' duration and has held many public positions of trust and honor under several governors of his own state and Presidents of the United States. As a business man he has had a wide and practical experience. His aim was to produce a practical rather than a technical book and that he has succeeded is evidenced by the fact that his business manual before being combined with this book was successfully tried out in many thousands of homes and offices where it has proved to be a source of practical business information and money-saving ideas.

"Dr. Chase's Combination Receipt Book" is a combination of three of the most useful and practical books ever published. It contains Medical, Cooking and Miscellaneous Receipts of all kinds besides A Practical Law and Business Guide for Home and Office and no matter how many of the former editions of Dr. Chase's Books the customer may have he cannot afford to be without this last and enlarged "Combination Edition" of Dr. Chase's Receipt Book.

The Publishers.

COMPILER AND EDITOR'S PREFACE.

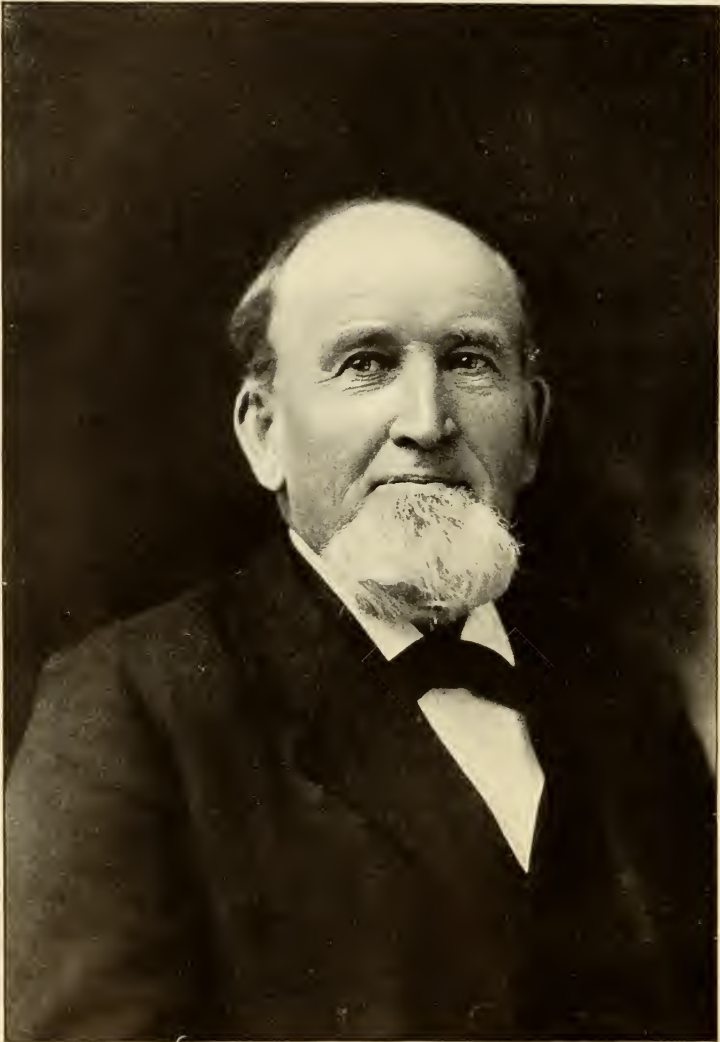
EVERY reputable physician is to a certain extent a specialist. There are certain diseases he is most successful in treating, and for which he has his favorite remedies. The aim of this book has been to furnish its patrons with these favorite remedies—the safest, simplest and best known to the medical fraternity. To accomplish this we have gathered from many of the best physicians of this and other countries their favorite receipts, or prescriptions. The remedies thus collected cover all diseases to which the human body is subject, and have been arranged in a systematic and convenient form for the homes of this and other lands. We consulted with, and obtained these receipts from, over one hundred of the leading physicians and nurses of the world, to which has been added the combined experience and practice of the compiler and editor.

The scope of this work is entirely original, nothing like it ever before having been published. It contains complete yet simple treatises on Diseases of Women, Diseases of Children, Poisons and their Antidotes, etc., also a department on What Girls and Mothers Should Know by one of the most successful lady physicians in this or any other country. The illustrations are superior to those of any other family medical book in existence, and have been made, at great expense, especially for this work.

COMPILER AND EDITOR'S PREFACE.

To gather these favorite remedies from the best physicians of many lands and arrange them in convenient form for the homes and mothers of the world, has been a long, patient, but pleasant task, and if we have succeeded in supplying our patrons with a book that will serve them faithfully "in time of need," we will be amply rewarded for our labor.

In the preparation of this work Dr. W. R. Henderson, United States Post-office Physician, at Detroit, Michigan, U. S. A., has been our constant counselor and adviser, and to him we are much indebted for his valuable contributions and suggestions.



JOSEPHUS GOODENOUGH, M. D.

The Favorite
Medical Receipt Book
and
Home Doctor

Comprising the Favorite Remedies
of over 100 of the World's Best
Physicians and Nurses

SUPPLIED ESPECIALLY FOR THIS WORK

Compiled and Edited by
JOSEPHUS GOODENOUGH, M. D.

Published by
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1915

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PHYSICIANS WHOSE FAVORITE REMEDIES WILL BE FOUND IN THIS BOOK.

A number of physicians sent remedies for this book who, for professional reasons, desired that their names should not be printed. The work contains in all the choice remedies of more than one hundred leading doctors, of this and other countries, and, in addition, many home remedies of experienced and practical nurses.

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Department I.

DISEASES.—CAUSES, SYMPTOMS, TREATMENTS, Etc.

ABORTION.—(See DISEASES OF WOMEN).

ABSCESS.—A collection of pus or purulent matter among the tissues of the body, and in a cavity of new formation, attended with constitutional disturbance more or less pronounced according to the location and size of the tumor; and, if near the surface, noticeable by prominence, throbbing and tenderness.

Cause.—Abscesses are the result of acute local inflammation where swelling and pressure shut off nutrition until the part dies. Gradually the tissues soften, turn to pus, and the pus is discharged. This is Nature's means of elimination. Abscesses are usually acute, or *warm*; occurring in weak or scrofulous persons, they may last indefinitely, in which case they are spoken of as chronic, or *cold*.

Symptoms.—Inflammation, swelling, and pain in the affected part. When they occur in internal organs, the symptoms indicating their presence are obscure and would not be recognized with any degree of certainty by other than a practiced physician. Diagnosis in such cases is not always made during life. Occurring in the brain, may cause headache, dilation of the pupil of the eye on the affected side, vomiting and convulsions in the early stages; also respiration may increase up to a certain point or degree, and then gradually decrease to a temporary cessation (Cheyne-Stokes breathing). Paralysis may occur in the later stages.

Boils and Carbuncles.(see description) come under the head of *abscesses*.

TREATMENTS.—

What to Do in Advance of a Doctor.—When abscesses form near the surface, poultice with flax-seed meal or bread and milk. Open as soon as pus has formed. Keep clean with castile soap and water. Take something to purify the blood. Keep the bowels regular. For abscesses of this character it is not necessary

to call a doctor, but it may be advisable in severe and obstinate cases to have them lanced by a doctor. If there are indications of an abscess on the brain, a physician or surgeon should at once be consulted.

A. In the early stage apply poultice of flax-seed until the abscess is soft to the touch of the finger, then open with a knife which has been thoroughly cleansed and dipped in boiling water. Press lightly on the sides of the incision to force out the pus, but do not press too hard. Dress the wound twice a day by washing, using castile soap, and cover with clean, soft linen.

B. Dried Sulphate of Iron.....	1 drachm.
Sulphate of Magnesia.....	4 "
Elixir Vitriol.....	6 "
Syrup Ginger.....	½ ounce.
Add enough water to make the whole	3 "

Mix.—Take a teaspoonful in a wineglassful of water after meals.—(19).

Note.—Where the patient has a healthy color, the Sulphate of Iron should be omitted.

C. Where the abscess is slow, take Hepar Sulphur or Sulphide of Calcium in 2-grain pills. This hastens suppuration and the healing process.—(12).

D. When forming, poultice with flax-seed or bread and milk, and open freely as soon as pus has formed. After opening apply clean linen, or absorbent cotton pad wet with solution of Carbolic Acid, teaspoonful to pint of boiling water. Change as often as soiled. *Never poultice an abscess after it is open.*—(13).

Remark.—A poultice of ground flax-seed or ground elm bark is recommended by Dr. J. T. Johnson.

E. Open and syringe out with boiled rain or filtered water, containing 20 drops strong Carbolic Acid to the teacupful. Keep a clean cloth wet with the same over the part. Renew when soiled. Syringe out daily.—(14).

ABDOMINAL DROPSY.—(See *Ascites* under DROPSY).

ACNE.—(See SKIN DISEASES).

ADDISON'S DISEASE.—(See BRONZED SKIN DISEASE).

AGUE.—See *Intermittent Fever* under MALARIAL FEVERS).

ALBUMINURIA.—(See KIDNEY DISEASES).

ALCOHOLISM.—The physical and mental phenomena induced by the use of alcohol, of which *drunkenness* is an acute form and *delirium tremens* an incident of the chronic form.

Drunkenness.—*Symptoms.*—Intoxication begins with a period of exhilaration. The ordinary case does not go further than this, the effects passing away in sleep. In the more acute

form, produced by imbibing an excessive quantity of alcoholic stimulants, the exhilaration is followed by a delirious stage, which is in turn succeeded by a state of coma not unlike that in *apoplexy*, the breathing being sonorous in character and the face bloated and congested. (See page 470.)

Chronic Alcoholism.—The continued indulgence in alcoholic drinks brings about morbid changes in the various organs and tissues of the body. Dyspepsia, diseases of the heart, liver and kidneys, organic brain diseases and epilepsy may be brought about through this cause.

Symptoms.—Dyspepsia, usually vomiting in the morning, sleeplessness, restlessness, and an increasing muscular tremor. All the functions of the mind become perverted, and the individual comes in time to have an imbecile expression added to bloated and repulsive features.

TREATMENTS.—

A. Continue the use of liquor, for a time at least, but restrict to a certain amount. Take perhaps two ounces a day, in the form of sling, and the balance of the time, or whenever there is a desire for liquor, drink Scullcap tea (see chapter on herbs) freely. If this is continued, the nerves will become toned up and the taste for alcoholic drinks will gradually die out.

It is also claimed that the dried root of Angelica (see chapter on herbs), taken in doses of 15 to 20 grains, will cause a disgust for all spirituous liquors.

A tea made from Stramonium (see chapter on herbs) leaves is claimed not only to cure or relieve the appetite for alcohol, but also for tobacco. This tea may be given in ordinary tea or coffee, oftentimes without the patient's knowledge.

B. Those wishing to stop the use of intoxicating drinks will find the following a most excellent substitute. It will relieve the catarrhal condition of the stomach, aid digestion, and give vigor and tone to a weakened or shattered nervous system:

Strychnine Sulphate.....	1 grain.
Fowler's Solution.....	2 drachms.
Lloyd's Hydrastus.....	4 "
Tincture Chloride of Iron.....	3 "
Glycerine	2 ounces.

Add enough water to make 4 ounces. *Mix*, and take one teaspoonful before or after each meal.

C. Aromatic Spirits of Ammonia, a teaspoonful or two in a glass of water, helps to sober up and overcome the depression following excesses. May be repeated in half an hour or an hour. (14.)

D. Hot bath daily; bowels kept open by the use of salts; Aromatic Spirits of Ammonia, a teaspoonful in a little milk every two or three hours.

E. Bromidia in teaspoonful doses in water every hour. To produce sleep and quiet nervousness, $\frac{1}{4}$ grain of Morphine Sulphate by hypodermic injection is good if some one can be depended upon to give it. Do not tell the patient he is being given Morphine.—(9.)

Note.—Morphine is only to help the patient to get sobered, and is not to be continued.

F. Bromide of Soda.....	10 grains.
Bromide of Potash.....	10 “
Bromide of Ammonia.....	10 “

Mix.—Dissolve in water and take every two or three hours until relieved.—(22).

G. Total abstinence, with 20-grain doses of Bromide of Potash every three hours more or less often as needed to control the nervous system.—(7.)

H. Celerina (proprietary).....	3 ounces.
Comp. Tincture Cinchona.....	3 “
Tincture Nux Vomica.....	2 “
Fowler's Solution.....	1½ drachms.

Dose.—Teaspoonful in water three times a day, before meals.

or,

Peacock's Bromides.....	4 ounces.
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Dose.—Teaspoonful in water three times a day, between meals and at bedtime.—(20.)

I. Sulphate of Iron.....	1 drachm.
Magnesia	2 “
Peppermint Water.....	12 “
Nutmeg	12 “

Dose.—Two teaspoonfuls, twice daily, after breakfast and supper.

This is a tonic and stimulant, and has proven beneficial in numerous cases.—(70.)

Note.—Dr. Burns states, in giving this remedy, that it cured of drunkenness the father of no less a personage than the celebrated divine, Rev. Newman Hall.

Dutchman's Temperance Lecture—Short, but Sound Common Sense.—“I shall tell you how it vas I drunk my lager; den I put mine hand on my head, and dere vas one pain. Den I puts mine hand on my body, and dere vas pain. Den I puts my hand on my pocket, and dere vas notting. So I jine mit de Demperance. Now dere is no pain in my head, and de pain in my body vas all gone away. I put mine hand on mine pocket, and dere vas 20 dollars. So I stay mit de Demperance beeples.”

Delirium Tremens.—This is an incident in *chronic alcoholism*, and occurs in consequence either of unusual excesses or the withdrawal for a short time of the accustomed stimulus. It is the result of exhaustion of the nerve functions and consequent irritation of the brain.

Symptoms.—The delirium itself is usually preceded by two or three days of mental depression and restlessness, during which the patient is peevish and irritable and his sleep disturbed; or he may suffer from loss of appetite and nausea, and perhaps vomit occasionally. He is greatly dejected, and is haunted with a sense of impending danger or misfortune. As delirium develops he talks incessantly, mingling the real with the imaginary, his ravings frequently becoming unintelligible through a trembling of the tongue. There is a rapid pulse, a tremor of the muscles of the limbs, a fidgeting of the hands, a constant activity of the body and utter sleeplessness. Bodily and mentally he is busy day and night. He suffers from one delusion after another, being haunted with spectres, threatened with dangers, attacked by enemies, and at times covered with loathsome objects, as reptiles, vermin, etc., which he is unable to shake off. These symptoms continue until sleep is produced or the patient sinks from exhaustion. If he is unable to obtain refreshing sleep in four or five days, the disease is likely to terminate fatally.

TREATMENTS.—

What to Do.—Put the patient to bed and keep him as quiet as possible. It is a good idea to give a little hot sling—just enough to keep the brain slightly stimulated—but not to give it more than once a day. Bromide of Potassium may be given in from 5 to 10-grain doses, or a doctor may be called for further treatment.

In cases where delirium comes on while a man is still carrying on his long-continued debauch, there will generally be a greater determination of blood to the head than in the ordinary cases arising after a debauch has been discontinued for a short time. In this case there must be the most active derivative treatment to draw the blood away from the head, such as the feet in water as hot as it can be borne, with mustard in it, mustard plasters to the feet and back of the neck, sponging with strong cayenne whiskey, an active cathartic, etc., this to be followed with quieting treatment. A warm bath continued from three hours even to ten hours, with cold applications to the head, has proven a very successful remedy, patients often falling asleep in the bath.

A person suffering from delirium tremens is not to be trusted alone for a moment, as he is liable to injure himself by jumping out of a window, or in some other way, to free himself from his imaginary enemies.

A. Force feeding with strong coffee, soups and milk or beef tea. Get patient in quiet place and to sleep if possible. If stomach will hold, give 20 grains of Bromide of Potash every two hours till quiet. Keep bowels open. Give ginger and pepper tea. No whiskey. Or give teaspoonful Tincture of Cinchona Compound in water every two or three hours.—(No. 13.)

B. Teaspoonful doses of Tincture of Capsicum. Milk diet. 20-grain doses of Bromide of Potash, taken in water every three or four hours.—(No. 7.)

ALCOHOL.

In making the following statements concerning the effects of alcohol upon the human system, the aim has been to confine the thought entirely to the diseased changes produced upon the various tissues and organs by the continued use of alcoholic stimulants. The statements are not overdrawn, the object being to give the facts.

Alcohol is absorbed from the stomach into the circulation. No change takes place in the alcohol in the stomach; it circulates in the blood as alcohol, and in this diluted state it comes in direct contact with the tissues and inflames them. Its first effect is upon the nervous system.

Nerves of the Blood Vessels.—The nerves which govern the size of the blood vessels become paralyzed, the small vessels become relaxed and dilated, and the organs are flooded with blood which they do not need. The cells and organs receiving this increased blood supply become larger and, as a result, new cells begin to form. They develop by a division of the parent cells, and thus there is an increase in tissue. This new growth lacks quality, as alcohol is never a true tonic. The individual is bloated and the flesh is flabby. The effect is deceitful and superficial, and the alcohol steadily saps the vital forces and undermines the constitution.

Connective Tissue.—The new tissue mentioned is a form of connective tissue. As naturally supplied, connective tissue develops with the growth of the individual and acts as a framework for all the structures of the body. When resulting from inflammation, however, it invariably contracts. As the contraction continues, the unyielding pressure on surrounding tissues causes a shrinkage in the size of the organ it envelops, and the functions of that organ are correspondingly interfered with.

The Stomach.—Commencing with the stomach, where the first effects of alcohol are produced, the little glands of the lining membrane, which collect from the passing blood stream certain materials and transform them into digestive ferments (see *Digestion*), are squeezed and pressed out of shape. Some are entirely obliterated, others are closed, the openings of others are narrowed or closed, and they become useless. Many glands that are not destroyed may have some of their secreting cells destroyed. The stomach may be dilated and may contain more or less fluid, but the secretions are changed in quality and the digestive fluids are lessened. It contains too much mucus, and chronic dyspepsia is the result. This is proven by the morning vomiting of drunkards and by post mortem examinations.

The Liver.—The same change takes place in other parts: First in the liver, because the alcohol is carried direct to that organ from the stomach. The changes in the liver are practically the same as in the stomach, *i. e.*, first overgrowth of connective tissue and then shrinkage of the organ, and the cause is the same—chronic inflammation. The shrinkage of the liver prevents more or less the return of the blood that passes through it. This return circulation comes from the stomach, digestive tract, spleen, etc.; and as the blood is forced back to these organs, the changes in the stomach are increased and congestion and inflammation of other organs follow. There results diarrhea, enlarged spleen, piles, abdominal dropsy, or more than one of these conditions may exist at the same time. This disease is called *cirrhosis*, or *sclerosis* of the liver, meaning a hardening. It is also called *hob-nailed liver*, *rum-drinker's liver*, *whiskey liver*, etc. With the single exception of syphilis, this disease can only be produced by alcohol and is frequently met with in habitual drunkards.

During the early stages of inflammation, liver abscess may form, and death may occur before the liver has had time to shrink.

The Kidneys.—The effect of alcohol upon the kidneys is much the same as upon the liver, and is the most chronic of all forms of kidney disease. The blood vessels supplying the kidneys are large in proportion to the size of the organs. This subjects them to a proportionately large amount of the irritating effects of alcohol, hence their great liability to disease.

The whole organ becomes shrunken, and the outer portion is nearly obliterated. This is also called *sclerosis*. It is one form of Bright's Disease and is most often produced by alcohol.

The Heart.—Blood cannot circulate freely through the kidneys, as many small vessels have been destroyed, hence it is crowded into other channels. This renders them full and tense, and the heart beat is increased in proportion. The heart is

enlarged, and the muscle fibres of the small arteries throughout the whole body are increased as a result of the extra strain upon them.

Fatty Degeneration of the heart may and does follow the low form of inflammation produced by alcohol. Gradually the cells of which the organ is formed lose their vitality, degenerate and are changed more or less into fat. The muscle fibres become indistinct, and the tissues are soft and easily torn.

The Arteries.—Degeneration of the walls of the arteries takes place, *i. e.*, many cells change more or less to fat. While in this condition the cells constituting the arteries are unable to exert their selective power, and lime salts are frequently deposited. These salts are always present in the circulation, but in health are prevented from entering the walls of the blood vessels. Any disturbance of the nervous system leaves the tissues without proper support, and the individual cells are unable to absorb proper nourishment. The larger arteries are comparatively free from danger, because their walls are thicker and stronger. The medium-sized arteries are most affected—those of the upper and lower extremities and those supplying the brain. Ultimately some of these vessels become changed into a hard, brittle tube, like the stem of a clay pipe.

In amputation such arteries are secured with difficulty, as the ligature or thread with which they are tied is liable to cut through. This condition of the arteries is the principal cause of *apoplexy*, as in their diseased condition any strain, heavy lifting, or sudden bending forward, may so increase the blood pressure as to cause rupture of such vessels in the brain. Aneurism (see *Aneurism*) or Aortic Stenosis (see *Stenosis*) may also occur.

Brain and Spinal Cord.—Upon the brain and spinal cord alcohol produces the same effect as upon other organs or tissues: First, congestion; second, a low form of inflammation, followed by an overgrowth of connective tissue. The contraction of this tissue produces hardening here as elsewhere.

The contraction of the connective tissue in the brain and cord causes pressure upon the nerves, nerve cells and surrounding tissue, obliterates many small vessels, interferes with nutrition, and the result is hardening and loss of function. The hardening is called sclerosis. This is responsible for many forms of spinal paralysis, and may be caused by alcohol or other irritants.

Bronchial Tubes, etc.—Alcohol also produces a low form of inflammation of the mucous membrane lining the bronchial tubes and air cells of the lungs. This is called chronic bronchitis. Alcohol produces the same changes here as elsewhere. At first the mucous membrane is congested and thickened, the calibre or

size of the air tubes is lessened, and the secretions are increased by reason of the increased amount of blood. This produces irritation and cough, and more or less expectoration of thick, tenacious mucus.

The same catarrhal condition may be produced in the mucous membrane of the digestive tract, causing chronic diarrhea. Chronic catarrh may also result.

Absorption of Water.—Alcohol absorbs water from every part of the body, and this is the reason so much water is needed after drinking liquor. Alcohol also extracts water from the blood corpuscles, leaving them shrunken. The absorption of water causes condensation and hardening of all the tissues. This is most marked in the brain because the brain requires so much blood and contains so much alcohol. The brain is the seat of reason, judgment, memory, emotion, sympathy, charity, love, etc., but the effects of alcohol bring these noble qualities to the brute level.

Delirium tremens is caused by alcohol, which absorbs so much water from the brain tissues. As the brain shrivels and shrinks, and the vessels become irregular, the optic nerve, or nerve of sight, becomes so drawn and bent that it transmits to the brain tortuous, grotesque and frightful objects, while the excitement of the victim is the result of the poison acting as an irritant. For a time the user of alcohol lives fast in a physical sense, and enjoys animal exhilaration, but while he is doing this, the changes already described are taking place—slowly, but surely. It is true that it may require several years to produce the change in some people, while in others the same condition is produced in a shorter time; but sooner or later these changes occur in all who continue the use of alcohol.

AMENORRHEA.—(See under DISEASES OF WOMEN).

AMYLOID DEGENERATION. — (See DISEASES OF LIVER).

ANÆMIA.—In this disease there is a deficiency in the number of the red corpuscles of the blood. The corpuscles present contain the normal amount of coloring matter, but for some reason their number is diminished. There are two forms of this disease—*Anæmia* and *Pernicious Anæmia*. *Ischæmia* is localized Anæmia. The last is generally due to the sudden shutting off of the blood supply.

Causes.—Anæmia may result from deficient food supply or improper food, lack of fresh air, want of sunshine, a scrofulous tendency or disposition, overwork, unhygienic surroundings, or indigestion followed by a catarrhal condition of the stomach and bowels; or may follow protracted fevers, ulcer of the stomach, or Bright's Disease. See *Pernicious Anæmia*, following.

Symptoms.—The patient is pale, weak and irritable; the lips look bloodless, and the conjunctiva, or mucous membrane which lines the eyelids, is pale and white looking; there is loss of appetite, dyspepsia, and may be acid fermentation in the stomach and eructations; at times there may be nausea and vomiting. There may also be dizziness or fainting, or palpitation of the heart. The palpitation, when it occurs, is sympathetic, and is the result of the condition of the stomach. The heart and stomach lie in close relation and the same nerves supply both organs.

TREATMENTS.—

A. In this disease the blood lacks the normal elements as a result of indigestion and constipation, and contains many impurities; hence the treatment consists wholly in regulating the condition of the bowels and in nourishing food, never forgetting an abundance of fresh air and regular habits. The remedies which may be used in this disease are Iron, and Fowler's Solution. Bland's Pills in 5-grain doses after meals are recommended by some, and are undoubtedly of value. We recommend as an excellent combination the following:

Lloyd's Hydrastus.....	3 drachms.
Tincture of Chloride of Iron.....	6 "
Fowler's Solution.....	2 "
Glycerine	1½ ounce.
Simple Elixir, enough to make.....	4 "

Mix, and take one teaspoonful three times a day, after meals.

Iodide of Arsenic is also a good remedy; if substituted for the foregoing, the dose should be 1-50 of a grain, taken between meals and at bedtime.

If the *heart* is troublesome, give 2 drops of Fluid Extract of Digitalis three or four times a day, or less often; or give 2 grains of Caffeine every three hours, or as needed. Give either one of these often enough to keep the heart regular.

For the *digestive tract*, give 10 grains of Salol after meals and at bed time—four doses a day.

If *constipation* is present, give 15 drops of Fluid Extract of Cascara in the morning, or morning and night. This amount may be increased or diminished to suit the case. Before giving the Cascara, give 1-5 of a grain of Calomel every hour until two grains have been taken, and if while giving the Cascara the liver seems to be inactive, give an occasional ¼-of-a-grain dose of Podophyllin. This amount may be given every night, if necessary. It will not be necessary to continue the Calomel.

If there is *headache* or *dizziness*, give one pill or tablet of Aconitine Amorphus, 1-100 grain, every one or two hours.

If there are *neuralgic pains*, give one pill or tablet—1-250 of a grain—of Gelsemine every thirty minutes until it takes effect. If the eyelids become heavy and droop, it is from the effects of the Gelsemine, and if continued, the amount of the dose should be decreased or taken less often.

B. The successful treatment of anæmia demands pure, dry air; a wholesome, mixed diet, adapted to the digestive powers; daily moderate and cheering exercise; a daily stimulating and cleansing bath; and the employment of such medicines as strengthen the digestive organs and improve the quality of the blood. Flannel should be used next the skin, and should be changed frequently.

The following may be used with advantage:

Caulophyllin.....	2 scruples.
Ptelea.....	2 “
Strychnia.....	1 grain.
Extract Dandelion.....	2 scruples.

This should be mixed and formed into about forty pills, one of which should be taken three times a day, an hour before eating.

In connection with this take the following:

Ammonia-Citrate of Iron.....	½ ounce.
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Dissolve in two ounces of water, and add two ounces of Lemon Syrup. Take a teaspoonful half an hour after each meal.

This treatment should be persevered in, especially the Iron, for sometime after all anæmic symptoms have disappeared.

ANÆMIA, PERNICIOUS OR PROGRESSIVE.—In the pernicious form all of the conditions which produce the ordinary anæmia are exaggerated.

Cause.—There has never been any cause given for this disease, yet we wish to state what seems to us to be a reasonable cause for this ailment. First, however, we will enumerate the

Symptoms.—The disease comes on without warning. First there is languor and constipation, followed by palpitation of the heart, difficult breathing, dizziness, fainting, poor appetite, nausea and vomiting; later there is fever and disturbance of sight. The patient is thin and weak. There are degenerative changes in the arteries and in the marrow of long bones, fatty degeneration of the liver and spleen, and rupture of small vessels just beneath the skin causes hemorrhage and gives the skin a mottled appearance. There are also hemorrhagic spots in the liver and kidneys, and degeneration of the heart muscles.

This condition and all of these symptoms indicate a lack of nourishment from some cause—poor food, dyspepsia, or bad hygiene. We believe the greatest cause to be the unhealthy condition of the digestive tract. There are four avenues of elimination for the waste material in the body: One is the lungs, poison being

eliminated by the air cells and tubes. Carbonic acid gas is given off through this channel, also $1\frac{1}{2}$ pints of fluid in the form of watery vapor, every 24 hours. This vapor contains many poisons, the nature of which is not known. Another avenue is the skin. Many waste materials are eliminated through the pores of the skin. Another avenue is the kidneys. The kidneys eliminate many waste products, the principal one being urea, a deadly poison. The remaining channel for elimination is the digestive tract, but elimination by this route is checked, and the constipation allows degenerative changes to go on, resulting in the production of many poisons. These are absorbed more or less into the circulation, gradually the system becomes permeated with the impurities, and gradually the patient is brought under their lowering tendencies. This condition would not only account for pernicious anæmia, but for typhoid fever, consumption, cancer, softening of the brain, and any and all chronic diseases. The primary, or first cause, is dyspepsia, followed by constipation and lack of elimination, as stated.

TREATMENT.—

First, cause thorough elimination by the digestive tract by means of cathartics, and also flush the bowels with large injections of warm water. Give ten doses of Calomel, 1-5 of a grain each, every 30 minutes, and follow with one or two tablespoonfuls of Laxol (see *Index*). Arrange for good ventilation, see that the surroundings are all made clean and wholesome, and give frequent feedings of the most nutritious food. If there is evidence of dyspepsia, give artificial digestants (see *Index*). Give 1 teaspoonful of Bovinine with each meal, increasing the dose to 2 or 3 teaspoonfuls if the patient does not object. Give 1-50 of a grain of Iodide of Arsenic three times a day, between meals and at bedtime, or perhaps a better remedy would be the following:

Tincture of Chloride of Iron	$\frac{1}{2}$ ounce.
Fowler's Solution.....	3 drachms.
Glycerine.....	2 ounces.
Simple Elixir, enough to make	4 "

Mix, and take 1 teaspoonful after meals.

Give 10 grains of Salol four times a day. Give frequent baths, keeping the skin clean and healthy. Following the baths rub the surface lightly each time. Cod Liver Oil may be applied to the skin after each bath, or, if the odor is objectionable, Sweet Oil instead. This will relieve the friction and allow massage to go on to greater lengths; also the oil that is absorbed is digested and appropriated by the system.

ANASARCA.—(See under DROPSY).

ANEURISM.—Aneurism is a tumor formed by the bulging of an artery. The artery may become weakened at some point, as described under *Atheroma*, or aneurism may be the result of violent exercise or heavy lifting. The force of the circulation may be brought so direct as to cause slight bulging, which gradually develops into a large tumor. This sac formation, small at first, gradually becomes larger, as with each heart beat the blood is driven into it with greater force. It may occur on any artery, but usually occurs on one of the larger arteries.

Cause.—Aneurism may be caused by diseased arteries, such as result from syphilis, alcohol, old age, or any condition where there is mild inflammation long continued, as described under *atheroma*. It may also result from Bright's disease, from violent exercise, from heavy lifting, or from the formation of an abscess near an artery.

Symptoms.—The most prominent symptom of aneurism is a pulsating tumor. By making pressure upon the artery above the tumor, that is, on the side toward the heart, the tumor will disappear, showing that the blood has drained away; by making pressure below the tumor, or on the side farthest from the heart, the tumor will become larger as the blood is gradually pumped into it. These tumors also produce a peculiar whirring sound. They may form on the aorta, that is, the large artery that is given off from the lower left cavity of the heart and which is the beginning of the arterial system. If the tumor forms in the chest cavity, it may cause pressure upon the nerves which supply the lungs, and will cause cough; if it presses upon the nerve which supplies the heart, it may excite or depress the heart's action; if it presses upon the nerve that supplies the organ of voice, it will cause hoarseness. The same nerves supply all of these organs. They pass down, one on either side of the neck, and enter the chest cavity. Aneurism may exist for a limited time without noticeable symptoms, but as the tumor grows it presses upon and wears away any and all tissues with which it may come in contact. It wears away bone as well as soft tissue.

TREATMENT.—

The first object should be to secure quiet. The patient should rest as much as possible. If the aneurism is not large, the patient can be around, but lying down several hours a day will be of great benefit. When we remember that the number of heart beats is from 20 to 30 less to the minute while lying down, we can readily understand the advantage of this suggestion, because the whole object is to lessen the circulation and lessen both the frequency and force of the heart beat. It is only by this means that any relief can be secured. A very low diet is also of great

benefit. Veratrum and Aconite are given internally in 1-drop doses every hour with a view to slowing the heart's action and lessening the force of the pulse. Mechanical pressure is also used. When the aneurism is favorably located, by making pressure above it, on the side toward the heart, the circulation is brought to such a low ebb that the aneurism remains nearly empty. If the disease is the result of syphilis, anti-syphilitic treatment should be given. If the artery is on an arm or a leg, and all other means fail, the artery may be tied above the aneurism, thus shutting off the blood pressure. Should gangrene follow the tying of an artery, amputation would be necessary.

ANGINA PECTORIS.— (See under DISEASES OF THE HEART).

DISEASES OF THE ANUS.

The anus is the lowest part, or termination, of the bowel. It is surrounded by muscular fibres, called *sphincter ani*, which keep the orifice closed when the bowels are not to be evacuated. It is subject to

Fissures,
Fistulas,
Hemorrhoids, or Piles,
Prolapsus Ani.

Itching.—An annoying itching is often felt at the anus, for which the best treatment is to keep the parts very clean with good soap and water, and to take internally Sulphur and Cream of Tartar. Also the application of an ointment made of Carbolic Acid in the proportion of $\frac{1}{2}$ teaspoonful of Carbolic Acid to $\frac{1}{2}$ pound of fresh lard, will stop the itching and burning so common in diseases of the anus.

FISSURE OF THE ANUS.—An ulceration of the anus.

Cause.—There are various causes which may result in such an abscess, among which are constipation and piles.

Symptoms.—In case of a *fissure* the pain attendant upon evacuation continues for several hours instead of a short time, as in the case of piles.

TREATMENT.—

Fissure should be treated by a physician. The treatment recommended below is the proper one, but really requires a physician to make the application.

A. Clean the parts thoroughly and touch up the cracks with Nitrate of Silver. If this does not cure, have the parts stretched under Ether. (10).

FISTULA.—An unnatural passage leading from the skin or mucous membrane to any other surface. Occurring in the bowel, it is simply the track of an unhealed ulcer.

Cause.—In a rectal fistula the ulcer is the result of constipation or injury; usually the former. The pressure from the dry and hardened fæces produces irritation and inflammation to such an extent that an ulcer forms. This may be one, two, three or four inches above the external opening; usually it is about two and one-half inches above. Suppuration continues, extending toward and usually appearing upon the surface. Where the pus burrows through until an opening is made on the surface, the fistula is spoken of as *complete*; if it does not reach the surface, it is spoken of as a *blind* or *incomplete* fistula.

Symptoms.—The most prominent symptom is the passage of fæces through the false opening. There is also a feeling of uneasiness and, sometimes, more or less pain, although the pain and burning sensation are not so marked as in fissure.

TREATMENT.—

The first part of the treatment only belongs to the patient to perform for himself, and consists in taking an active cathartic, and, after the bowels have moved thoroughly, to wash out the lower bowel with an abundance of water—two or three quarts. A physician will then pass a groove-director through the external opening into the bowel, cut through to the surface and make provision for dressing the wound.

HEMORRHOIDS—PILES.—Piles are tumors situated about the anus or just within the rectum. The former are *external piles*, the latter, *internal piles*. Both varieties may exist at the same time. In some cases these tumors break and blood is discharged from them, in which case they are spoken of as *bleeding piles*; if there is no discharge of blood, and they remain internal, they are spoken of as *blind piles*.

Cause.—What seems to be an imperfection in the anatomical structure of the veins surrounding the rectum is the primary cause of this trouble. The veins throughout the body and lower extremities are well supplied with little valves which prevent a return of the blood, but for some unknown reason those surrounding the rectum are not thus supplied. The absence of these valves favors congestion, and the veins gradually bulge until small sacs are formed. Everything that irritates the lower bowel, as strong physics, habitual costiveness and any of the causes which tend to produce it, as straining at stools, etc., will cause an increase of blood in this part and a consequent congestion, and piles are the usual result.

Symptoms.— Pain, often a burning sensation, and a protrusion of the pile. Usually there is hemorrhage, which may be slight or very profuse. If the hemorrhoids are large and remain internal, there will be a constant desire to evacuate the bowels for the reason that the sensation is the same as though the mass consisted of fecal matter. An examination will reveal the true condition.

TREATMENTS.—

All conditions are benefited by the free use of intestinal antiseptics: 10 grains of the Sulphocarbolate of Soda in tablet form, or the same amount of Salol, either in tablet form or powder, should be taken four times a day. To insure greater regularity of bowel movement, avoid meats and all heavy foods for supper. It is a well established fact that by eating light suppers difficulties of constipation are more readily overcome.

Local Applications:

A. The following ointment will be found of value in many cases of piles:

Vaseline.....	1 ounce.
Nut-Galls, pulverized.....	80 grains.
Pulverized Opium.....	½ drachm.

Put on a plate and mix together thoroughly with a case-knife or something of the kind. Use after each movement of the bowels.

If the bowel comes down, put it back, carrying it up with the index finger as far as possible. This will cure simple piles, but in case of fistula or hemorrhoids it will be necessary to have a surgical operation.

B.

Tincture of Iodine.....	10 drops.
Carbolic Acid.....	10 “
Morphine Sulphate.....	5 grains.
Nut-Galls, powdered.....	80 “
Lanoline, enough to make.....	1 ounce.

(80).

C.

Flour of Sulphur.....	2 ounces.
Nut-Galls, powdered.....	1 “
Opium, powdered.....	1 drachm.

Add lard enough to make a paste and mix thoroughly. (63.)

D.

Tannic Acid.....	15 grains.
Borax, powdered.....	10 “
Carbolic Acid.....	20 drops.
Vaseline.....	2 ounces.

Mix, and apply to piles two or three times each day. Keep bowels regular with mild laxatives. (42.)

E. Take the inner bark of the white oak tree, boil and strain, and boil again until you obtain $\frac{1}{2}$ pint of the extract, very thick; then add $\frac{1}{2}$ pint of oil of the oldest and strongest bacon you can procure; simmer together until a union takes place when cold. Apply by the finger up the rectum every night. Abstain from strong and stimulating diet.

While the foregoing remedies are recommended as the most satisfactory methods of palliative treatment, a cure cannot be promised by their use. After the sacs have once formed, local treatment is uncertain. In many cases it will relieve, and possibly in some cases effect a cure. The only *sure* treatment, however, is the injection method or removal with the knife. The latter requires anesthetics and two weeks in bed; the injection method requires neither, and does not interfere with the occupation whatever it may be. The injections are made by the use of a hypodermic needle, and the treatment would, therefore, almost necessarily belong to a physician to perform.

PROLAPSUS ANI.—A falling of the lower intestine, which is sometimes protruded from the body at great length.

Cause.—This trouble occurs in weak and delicate children and is the result of general debility. The whole system is relaxed, and the sphincter muscle, which in health guards the external opening to the bowel, loses its sensitiveness and power to control. The connective tissue support is relaxed and weakened along the digestive tract, and the prolapse is simply the result of gravitation.

TREATMENT.—

The bowels should be kept regular, and a small quantity of cold water should be injected into the rectum each time before the bowels move. This contracts the tissues, is stimulating in its effects, and tends to prevent the trouble. When prolapse occurs, the part should be carefully replaced; usually this may be done without much trouble. The child should lie down with the hips elevated, and Sweet Oil or Vaseline be applied, as it will facilitate movement. Now carry the part inward carefully, by the finger. If this does not succeed, wrap a thin, soft cloth about the finger. The surface of the bowel adheres to the cloth, hence is more rapidly replaced. If the bowel is exposed for any great length, the part should first be bathed with cold water. This contracts the tissues. Now apply the Sweet Oil, elevate the hips, and stand the child on its head, if necessary; but usually there is no trouble.

APHASIA.—Aphasia means partial or complete loss of the power of expression. The patient may not be able to recall words, or may not be able to comprehend words, either written or spoken. In that variety of Aphasia known as *ataxic*, the patient is unable to control the muscles of the face and mouth. This disease, or these difficulties result from some lesion or imperfection in the brain. There is no danger to life, and they are not amenable to treatment other than good hygienic surroundings and the usual attention to proper habits and principles.

APHONIA.—Aphonia means the loss of voice, partial or complete. Partial loss of voice may be caused by any interference with the nerves that supply the larynx, or organ of voice. This is a branch of a nerve that rises in the back part of the brain, passes down the neck into the chest and supplies the lungs, heart and stomach. Interference with this nerve, or with the branch that supplies the organ of voice, may be caused by tumors, by an aneurism, by tuberculosis of the vocal chords, or by cancer of the throat. A temporary cause may be, and usually is, the paralysis that follows diphtheria. In the absence of some local cause, the lesion or difficulty must be in the brain.

TREATMENT.—

Tuberculosis of the vocal chords may be benefited by treatment, but this treatment would have to be applied by a physician. There might be a temporary relief afforded in *cancer* of the throat by spraying with antiseptic solutions. The *aneurism* (for treatment, see under ANEURISM) or the *tumor* would be found in close relation to the jugular vein, either in the neck or high up in the chest cavity.

For a *tumor*, the probable treatment is removal, or tying of the arteries that supply it. This would necessitate an operation. Before resorting to surgical means, however, the following treatment may be given a trial:

Local applications of Iodine should be made and the patient should take large doses of Iodine internally, as 2 teaspoonfuls of Syrup of Hydriodic Acid between meals and at bed time; or, 12 to 15 drops of Tincture of Iodine in $\frac{1}{2}$ glass of milk taken instead. The dose of Acid or Iodine should be increased until the eyes present a catarrhal condition. This is an indication that the patient is taking all the system will bear. He should then go back to half the dose and gradually increase as before. If there is no improvement at the end of four weeks, an operation is justifiable.

APOPLEXY.—A disease characterized by the sudden loss of the power of sense and motion. The name is derived from certain Greek words which mean a striking or knocking down, inasmuch as the subject of it falls to the ground unconscious as if he had received a violent blow.

Cause.—It is caused by pressure on the brain substance, resulting from the rupture of an artery. Men are more subject to it than women, and those attacked usually have short necks and corpulent figures. Excesses in diet and alcoholic drinks are predisposing causes, also Bright's disease and syphilis.

Symptoms.—There are three forms of attack. A person seized with the first form falls suddenly in a state of insensibility, breathes heavily with a snoring sound, pulse full and strong, face generally flushed, body covered with a clammy sweat, veins of the head and temples standing out as though overfilled, and the eyes fixed and bloodshot. Sometimes convulsions occur, foam issuing from the mouth. The face is drawn toward one side.

In the second form the disease begins with a sudden pain in the head; the patient becomes pale, sick and faint, and usually vomits; the skin is cold and the pulse feeble; occasionally there are slight convulsions; the patient may or may not fall, but is likely to recover soon from all the symptoms except a headache, which will continue until after a time the patient becomes oppressed, forgetful, unable to connect ideas, and finally sinks into insensibility from which he never rouses. In some cases this form is accompanied with palsy of one side; in other cases no palsy occurs. While this form of attack does not appear so frightful as the first, it is of more serious import.

The third form is the sudden loss of power on one side of the body, also a loss of speech but not of consciousness; or, if the first attack is accompanied with stupor, it soon passes off. The patient appears rational and endeavors to answer questions and indicate his desires by signs. This may be called paralytic apoplexy, and in some cases it passes into apoplexy proper and the patient dies. In other cases, under proper treatment, he may recover rapidly, or the recovery may be gradual; or he may live for years with imperfect speech and the loss of the use of an arm or a leg.

TREATMENTS.—

What to Do Till the Doctor Comes.—Send for the doctor, and while waiting for him loosen the clothing, especially about the neck, raise the windows to give free circulation of air, prevent crowding about the patient, put the feet in hot water, as hot as ought to be borne, and apply a mustard plaster to the calf of the legs and along the spine, and, if the patient can swallow, give a large dose of Castor Oil or some active cathartic.

A. Keep patient in semi-erect resting posture. Apply cold to head and heat to extremities. If possible, give something to act thoroughly on the bowels. Mustard to back of neck. Send at once for doctor.—(14.)

B. Apply cold application to the head. Put cord around arm, three inches above elbow, and draw it down tightly. When the large vein just below the cord is tense and full, cut with a sharp pointed knife, and when one pint or a pint and a half of blood is taken, remove cord and put a compress on the wound, or hold with finger pressed on it. Use a clean knife.—(9.)

C. Tincture of Aconite, 15 drops in $\frac{1}{2}$ a glass of cold water. Give 2 teaspoonfuls every half hour until improvement sets in, then every hour or two hours. I have been very successful with this for over thirty years.—(18.)

Persons who have a tendency towards apoplexy, and especially those who have had one stroke, should avoid highly seasoned food and stimulating drinks. If an immediate attack is feared, use frequent cathartics, say twice a week, eat plain food, drink no spirits, use cool baths for the head and hot ones for the feet, and take plenty of out-of-door exercise, but avoiding fatigue, excitement, or over-exertion.

APPENDICITIS.—The appendix is a narrow tube, usually from two to four inches in length, and in diameter about the size of a goose quill, or a little larger. It is situated in the abdominal cavity, rather low down and toward the right side. It is attached to the back part of the cæcum. The cæcum is the somewhat dilated commencement of the large bowel. Appendicitis is inflammation of the appendix. The attached end of the appendix opens into the cæcum and the outer end is closed. Sometimes appendicitis occurs more than once in the same person. This is called *recurrent appendicitis*. The appendix consists of a mucous lining, an outer and inner muscular coat and a peritoneal covering. These are all continuous with the structures of the cæcum, in fact, the appendix is merely a branch or offshoot of the cæcum, and its structure is the same. There is localized peritonitis in appendicitis, and in severe cases the tendency is toward the formation of an abscess.

An abscess always renders the case more grave, yet an abscess is the exception and not the rule, and even when it forms it is often, though not always, absorbed, that is, carried away by the circulation, and complete recovery follows. There is altogether too much excitement and fear regarding appendicitis. This is the natural result of the extravagance in operative procedures. If the price of operation was brought down to a reasonable limit, at least seventy-five per cent of the operations would cease at once.

Cause.—Many statements have been made and many theories advanced regarding appendicitis, yet the cause is not so mysterious. The first cause of appendicitis is indigestion; following

this is unhealthy blood and an unhealthy condition of the digestive tract. Constipation results, with the production of many poisons and irritating substances. This condition produces a low form of inflammation, which extends along the digestive tract and into the appendix, and the secretions of this organ become unhealthy. The result may be simply a catarrhal condition which is so mild as to give no symptoms other than a few colicky pains, or the attack may extend all the way from this state to a more severe form, and even to death. Injury to the appendix, irritation from external causes, or any condition producing congestion and lowering the vitality of the organs will aid in producing appendicitis. It has been stated that the cæcum is the somewhat dilated commencement of the large bowel, and that the appendix is attached to and opens into the cæcum. When the food does not digest, it ferments, gases are formed, and the cæcum becomes dilated. When the cæcum dilates, the opening into the appendix is enlarged and the pressure of gases may force many substances into the appendix that never would have entered if this part of the digestive tract had been healthy. If the surgeon operates at this time, he makes the startling discovery that appendicitis was caused by—well, whatever he happens to find. Some irritating substance finding its way into the appendix may act as an exciting cause, but the *real* cause is excessive irritation produced by a diseased digestive tract. This results in inflammation, and, if the appendix is involved, it is appendicitis. Usually the attached end of the appendix remains open and the products of inflammation are discharged into the bowels. This is why ninety per cent of the cases recover without operation.

The condition of the mucous membrane of the appendix in appendicitis is the same as that of the bowel in diarrhea. The only danger is that the membrane may become so swollen that the attached end will be closed, in which case there would be no opportunity for drainage and the swelling and pressure would soon shut off circulation. This is the first step towards the formation of an abscess. The swelling and pressure may be so rapid and the circulation shut off so suddenly that gangrene will result in patches. This accounts for those exceptional cases where rupture occurs during the first 48 hours; the rupture follows the gangrene. These cases are fatal. An operation could have been performed early enough to save life, but the trouble is that a rupture is not expected so soon. These cases seldom occur.

Symptoms.—The symptoms are:

First, sudden onset of pain. This may occur in the region of the appendix, or anywhere in the abdominal cavity.

Second, nausea and, usually, vomiting.

Third, elevation of temperature, or fever.

Fourth, the localizing of the pain over the seat of the appendix, though later, in severe and even fatal cases, both pain and fever may disappear and the patient feel and appear comfortable. *Continued pain and soreness is not evidence of a severe case; on the contrary, it is evidence that the case is not severe.* The pain is the result of neuralgic conditions, while the soreness is simply evidence of a diseased digestive tract. When the appendix is attacked, the abdominal wall or muscles over that region may be more or less tense. This is Nature's effort to protect the parts beneath, yet these symptoms amount to little because this tension or resistance may be entirely wanting within a few days and yet the case prove a fatal one. *After the first onset the most severe and dangerous cases are attended with the fewest symptoms, as will be shown.*

When an abscess forms, there is usually thrown out a false membrane, forming a sack, which surrounds the appendix and encloses the pus. An abscess increases in size by the destruction of tissue from within outward, first destroying the walls of the appendix. In like manner the inflammation keeps extending further back, and always keeps outside the pus. This inflammatory zone constitutes the sack already mentioned which surrounds the appendix. If there should be an abscess within the appendix, and the appendix should rupture, the newly formed sack would hold the pus for a few days, when, if absorption did not take place, that is, if the pus was not carried away by the circulation, the sack too would rupture and allow the contents to pour into the cavity of the abdomen; the poison would then cause general peritonitis, and death would result. Sometimes the sack is wholly impervious, that is, completely retains the contents, which renders the disease purely local. In these cases, instead of the usual symptoms of abscess, such as chills, fever, etc., there are no marked symptoms; the temperature is about normal, there is no pain, and the patient may feel able to attend to his accustomed duties. These abscesses may escape detection from even the most experienced surgeon. Such cases should be operated upon, yet in many of these the real condition is not understood. The patient may seem to be making rapid progress toward recovery, when suddenly there is a change; the abscess has ruptured, the patient has collapsed, and in a few hours death closes the scene. We are aware that some surgeons may criticise our statement that they cannot always detect an abscess in the abdominal cavity when it is present, yet the foregoing is the result of our experience in the field of operation and we feel it our duty to state the facts.

Some physicians claim to cure all cases by medication; others contend that even after the abscess forms it is better to wait for

one week, and then, if absorption does not take place, to operate; still others can see only one form of treatment for all cases, that is, operation. While the first is depending upon his medicine, and the second waiting for absorption, rupture may suddenly occur, with the results already described. In the case of the man who always operates, death may result from the operation itself, that is, the removal of the appendix from a healthy man will cause death in two or three per cent of cases.

If an operation reveals an abscess, and the appendix and surrounding structures are found firmly bound by inflammatory adhesions, it is good practice to wash out the abscess cavity and drain, and not persist in the efforts to tear the appendix loose, as such efforts might cause rupture into the abdominal cavity and this would be liable to result fatally.

TREATMENTS.—

What to Do Till the Doctor Comes. — As the pain in appendicitis is very severe, it is assumed that a doctor will be sent for immediately. In the meantime, however, much may be done to relieve the patient.

If a severe pain is felt in the right side of the abdomen, put a mustard plaster over the pain, and give injections of water as hot as can be borne, the water to be made slippery with soap—soft soap is really better for this purpose than castile. Or, take a tablespoonful of Turpentine and the yolk of two eggs, beat thoroughly together, put into a quart of hot water, and use that. The latter makes an excellent injection as it serves to draw the gas from the bowels. Also give warm drinks—some balm tea. Catnip tea, or something of that kind, is soothing and quieting to the nerves, and gets the patient to sweating. Of course, he will be put to bed. In place of the mustard plaster, cloths may be wrung out of a hot decoction of some bitter herb (as Smartweed, Wormwood, Tansy, etc.), and applied hot.

A. Perfect quiet and a good physician.—(4.)

B. Take a tablespoonful of Epsom Salts in a goblet of hot water. Apply hot fomentations and send for a doctor. Keep constantly in a reclining position.—(14.)

C. Send for a surgeon. In the meantime Epsom Salts, tablespoonful in water every three hours until bowels move freely. Do not give an opiate.—(19.)

APTHÆ.—(See under DISEASES OF CHILDREN).

ASCITES.—(See under DROPSY).

ASTHMA.—Asthma is paroxysmal, and is usually a chronic disorder or disease of the organs of respiration (breathing).

Cause.—The exact cause of this disease has never been satisfactorily determined. It is believed by some to be hereditary, but it may start from diseases of the lining membrane of the nasal passages. It may be caused by sudden changes from a dry to a damp atmosphere. It is seldom entirely cured.

Symptoms.—It is characterized by extreme difficulty in breathing and an oppressive sense of suffocation. There is wheezing, and a distressing tightness about the chest. The trouble usually comes on quite suddenly, sometimes in a few hours. After the first attack the sufferer has warning symptoms of its approach. These warnings are the symptoms proper, only in a milder form. During the attack the face is usually flushed, and spasm of the respiratory muscles may exclude the air from the lungs to the extent that *cyanosis* may result. In cyanosis the patient turns blue, the eyeballs become prominent, and the respiratory muscles, especially those of the neck, become distended. In some cases respiration becomes a mere gasp as the poor victim struggles for breath. The attack may last for a few hours only, or for a whole day or night, or both.

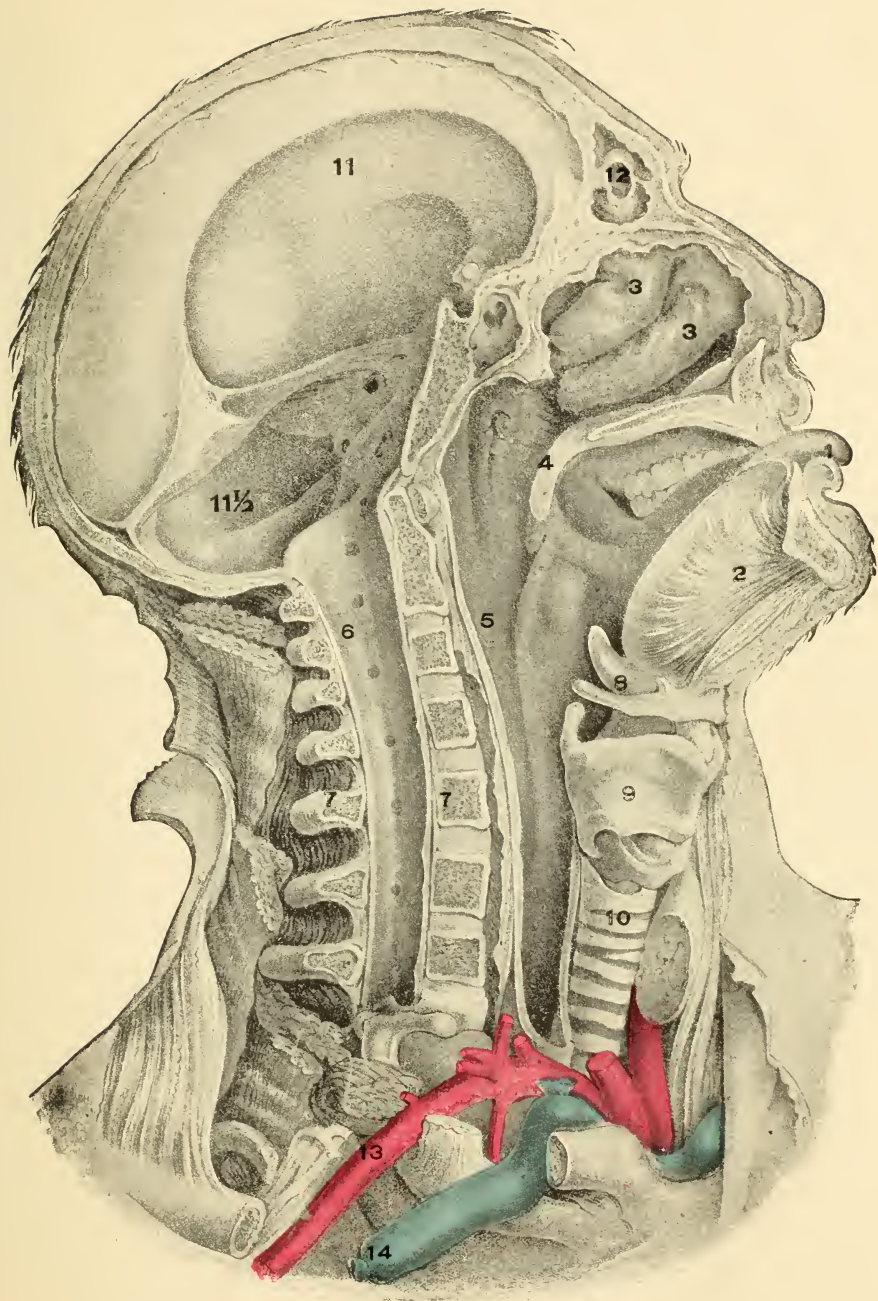
TREATMENTS.—

What to Do Before a Doctor is Called.—If one is subject to asthma, he should have on hand, to take when a paroxysm occurs, the following:

Ipecac, powdered (or the crushed root).....	1	drachm.
Bloodroot, powdered (or the crushed root).....	½	“
Lobelia Seeds, crushed (or the leaves).....	2	“

Mix these three ingredients together, then fill a coffee cup (about one-half pint) one-third full of white sugar, or say half full, drop in the mixture and stir all together thoroughly with a spoon. Fill the cup nearly full of boiling water. Pour it out of a teakettle that has been boiling, turning it in slowly and stirring thoroughly with a spoon at the same time. Continue to stir it occasionally as long as the water remains warm, then set it to one side and let it settle. When thoroughly settled, strain. During a paroxysm, take a teaspoonful of this liquid every fifteen or twenty minutes until sick at the stomach. By that time the lungs will have relaxed and the person be comfortable. Probably the second dose will be sufficient to relieve him.

NOTE.—If the above mixture is put into a bottle, corked tight and set in a cool place, it will keep four or five weeks. By adding one or two ounces of Glycerine to each pint, the mixture, bottled, will keep for months.



No. 1.

1, Tongue. 2, Muscles of Tongue. 3, Bones of Nose. 4, Soft Palate. 5, Gullet. 6, Spinal Canal. 7, Vertebrae. 8, Opening to Wind-Pipe. 9, Thyroid Cartilage. 10, Wind-Pipe. 11, Upper Brain. 11½, Lower Brain. 12, Eye Cavity. 13, Artery. 14, Vein.

A. The following is a most excellent remedy to take between the attacks of asthma:

Nitrate of Strychnine.....	$\frac{1}{3}$ grain.
Sulphate of Atropine.....	1-20 "
Glonoïn.....	1-10 "
Glycerine.....	2 ounces.
Simple Elixir.....	2 "

Mix, and take one teaspoonful before meals and at bedtime.

In case of threatened attack, take one teaspoonful every hour until the throat is dry or the face flushed; then take one teaspoonful every two or three hours for a few doses.

The Strychnine is a systemic or general tonic; the Atropine dilates the small vessels, brings the blood to the surface, relieves congestion, and is one of the best remedies to relieve muscular spasm. Glonoïn produces the same effect on the circulation and is also a powerful heart stimulant, but has no direct action upon the muscles involved.

This remedy has recently been tried by us in some severe cases, and been uniformly successful. It is by reason of this success that we feel justified in recommending it to our friends across the water. (62.)

B. Pulverized Lobelia.....	1 drachm.
Sulphuric Ether.....	1 ounce.

Mix, and let stand two weeks, shaking the mixture every day.

Use.—Pour 15 or 20 drops on a handkerchief and inhale through mouth and nose. Should relieve asthma in three minutes. If not, repeat the inhaling process. (58.)

C. Dried Mullein leaves, soaked in a strong solution of Nitre (Saltpetre) and again dried. Smoke in a pipe and inhale the smoke, or inhale from a saucer.

To an adult, 25 drops of Laudanum. Inhalation of steam. Keep room well ventilated. (14.)

D. Oil of Lobelia.....	1 drachm.
Potass Iodide.....	3 "
Water.....	3 ounces.
Syrup.....	3 "

Mix and dissolve.

Dose: A teaspoonful three or four times a day. (8.)

E. Inhalation of fumes from Jamestown weed. (60.)

F. If the spasmodic action is very considerable, and has arisen soon after a full meal, let an emetic (see *Emetics*) be at once given. Probably the best emetic in this case would be

Ipecac, the dose of which would be one teaspoonful of the powder, or a teaspoonful of the fluid extract, or from one to three teaspoonfuls of the syrup; to be taken every fifteen minutes until the spasm is relieved. In the meantime get the feet into hot water for fifteen or twenty minutes, followed with Mustard to the feet, to divert the blood from the lungs. Warm water, or some warm herb tea may be drank with the Ipecac (or other emetic that may be used) to assist its action.

G. No one thing will be found to cure absolutely in all cases, because there will be found complications of other diseases, differing in different persons, but permanent cures in some cases are claimed to have been effected with the following preparation:

Lobelia Seed.....	1/2 ounce.
High Cranberry Bark.....	1/2 "
Stramonium Seed.....	1/4 "
Capsicum.....	1/4 "
Alcohol.....	1 quart.

Mix, and let stand for two weeks, shaking daily.

Dose: From one-half to one teaspoonful three or four times a day as a cure, and every thirty minutes for relief.

Bathing daily is believed by some to be absolutely necessary to enable the system to resist the tendency to take cold, which is almost certain to bring on an attack of asthma with all who are subject to the disease. Begin by using warm water, but gradually use cooler water until able to bathe in cold water, keeping this up until the little changes in the atmosphere do not have so quick an effect on the system. For those for whom a daily cold bath would be too severe, the following is recommended: a daily sponging with a tincture of Cayenne, 1/4 ounce of the Cayenne to one quart of whiskey, sponging the whole surface before dressing in the morning; and with this sponging, a cold or tepid bath two or three times a week.

In connection with either of these forms of bathing, some internal remedy (as recommended above) should be persevered in if permanent relief is expected. One difficulty with asthmatic patients in not being able to effect a cure, or at least a very considerable benefit, is that they do not continue the use of a remedy sufficiently long to make a lasting impression. To work an alterative effect, the remedy must be taken three or four times daily for a month, or two or three months, as the previously short or long establishment of the disease would seem to call for.

Following are a few cases given by Dr. Ray, who uses Ferrocyanuret of Potash—more commonly called Prussiate of Potash—in the treatment of asthma. A full history of each case is given:

1. "Mrs. S., aged 48, has suffered for many years from palpitation of the heart, with dyspnœa (difficulty of breathing) and asthma, had often been under treatment by different medical men of some notoriety, but without permanent benefit, all of which was made known on my first visit. Prescribed as follows:

Ferrocyanuret (Prussiate) Potassa...	1 ounce.
Water	2 "
Simple Syrup.....	6 "
Sulphuric Ether	1 drachm.

Mix. Dose:—One teaspoonful five times a day for a period of three or four months, with entire relief both of heart symptoms and of the respiratory organs."

2. "M. M., aged 60, male, feeble from long indisposition and much medication, subject to chronic bronchitis of long standing, expectorated freely a tough and glairy mucus, sometimes streaked with blood, making constant efforts to clear his throat, troublesome cough at night and much irritability of the throat. Called at my office and gave the above history, stating that he had lost all hope of relief, having often been treated before. Prescribed as follows:

Ferrocyanuret of Potassa.....	1 ounce.
Alcoholic Extract of Hyoscyamus...	1 drachm.
Water	2 ounces.
Simple Syrup.....	3 "

Mix. Dose:—One teaspoonful 5 times a day, which was taken for some months, with gradual but permanent relief."

3. "Mrs. McD., widow, aged 30, seamstress, robust constitution, but for many years subject to severe attacks of neuralgia upon the slightest change in the atmosphere, even a change in the direction of the wind often inducing an attack. She would suffer intolerable pains, either in her face, head or limbs, the disease not confining itself to any especial organ even in the same attack. Called at my office for medical aid, and in addition to the above stated that her digestive organs were in good condition, bowels regular, catamenia (turns) appearing at regular intervals, and of natural color and duration. Prescribed as follows:

Ferrocyanuret of Potash.....	1 ounce.
Water	2 "
Simple Syrup.....	6 "
Sulphuric Ether.....	40 drops.

Mix. Dose:—One teaspoonful five times a day.

Improvement constant. No return of symptoms since. Continued treatment for two or three months. The case being one of nervous irritability, needed no other than a sedative treatment."

ATHEROMA.—Atheroma means a chronic disease of the arteries. This frequently occurs in old people as a natural result of old age; it also occurs in the young and middle aged as the result of syphilis, the prolonged use of alcohol, Bright's disease, chronic indigestion, or some form of excess. In this disease the arteries degenerate—lose their elasticity and become soft and flabby, and the coats may contain considerable fat, and during this change lime salts may also be deposited in the coats of the arteries. This is the same form of lime salts of which bone is formed. These salts are always present in the circulation, but during health the various cells of the body, including those of the arteries, select from the passing blood stream only such elements as are suited to their individual use; during the degenerative change going on in the arteries by reason of the diseased condition, the cells cannot exercise their selective power, and lime salts may be deposited. This may occur in patches, or may include the artery for some distance. In this condition and as a result of some sudden strain, as heavy lifting or bending forward, an artery may easily be ruptured. This frequently occurs in the brain and is the cause of apoplexy. Sometimes there is an overgrowth of connective tissue in the arteries, and when this contracts it hardens and becomes firm and resistant. This is called *Arterial Sclerosis*. In any of these conditions the tissues are poorly nourished.

TREATMENT.—

Give attention to diet, take nourishing food and keep the bowels regular. Guard against any symptoms of indigestion, avoid excitement, heavy lifting or athletic exercise, and take internally one teaspoonful of Syrup of Hydriodic Acid four times a day—between meals and at bedtime. Occurring in the old, care should be taken to guard against injury, as this is the condition present when dry gangrene is liable to occur, and the injury, be it ever so slight, even as the result of carelessness in the cutting of a toe nail, may excite inflammation and cause gangrene.

If the disease is caused by syphilis, give anti-syphilitic treatment; if it is the result of Bright's disease, see treatment under that head.

ATROPHY.—Atrophy is a wasting of tissues or of an organ that was originally well formed. It means a loss of weight, size and function, and is dependent upon some disorder of nutrition. What is called *active atrophy* is due to the failure of the cells or tissues to assimilate the nourishment brought to them; *passive atrophy* is understood to mean a diminished supply of nourishment. Adipose or fat tissue is merely connective tissue (see chapter on ALCOHOL for description of connective tissue);

where many of the cells are distended with fat. In atrophy the natural fat is gradually removed and the cells diminished in size, although the cells may still contain all the elements essential to normal function or activity, the fat not being necessary to the well-being of the part. Strictly speaking, however, atrophy means a decrease in the *normal* tissue elements, though as usually found it is more or less associated with fatty degeneration, that is, aside from the disappearance of the fat originally contained in the tissues, the structure proper is more or less degenerated and converted into fat. So long as waste and repair are equal and the waste is eliminated as fast as produced, health is maintained and atrophy does not occur.

Cause.—Atrophy is a natural result of old age; occurring in the young and middle aged, it depends upon diseased conditions. It may result from lack of circulation, from pressure, from inflammation, from lack of food, from lack of assimilation, from lack of exercise, and from bad hygiene. There is a certain amount of atrophy in the arteries and tissues following amputation; there is atrophy of the optic nerve after removal of the eye; atrophy may result from tumor pressure or from aneurism, or from connective tissue overgrowth. Examples of the latter are found in the kidneys in Bright's disease and in a sclerosed liver following the prolonged use of alcohol. Atrophy occurs in tuberculosis and other wasting diseases. It may occur in bone as well as soft tissue, and the cause is the same.

Order of Progression.—The first effects of atrophy are found in the disappearance of the normal fat lying just beneath the skin; second, that contained in the abdominal cavity; third, a shrinking of the muscle fibers; fourth, the same effects are found in the arteries and nervous tissue; fifth, and last, destruction of the connective tissue. It is the destruction of the nervous tissue of the brain that causes insanity during starvation.

TREATMENT.—

Barring the natural decline of old age, atrophy signifies disease, either local or general. If in the kidney or liver, see treatment under those heads; if the result of tuberculosis or other wasting diseases, see treatment as described under those heads. In the absence of any known cause, atrophy requires general systemic treatment. This includes nourishing food and attention to digestion and elimination; it includes bathing and well-ventilated sleeping rooms, daily exercise in the open air, never carried to the point of fatigue, and attention to hygienic surroundings. These cases will be benefited by 1-40 of a grain of Strychnine in pill form, taken before meals. Also by 5-drop

doses of Fowler's Solution at the same time. If the patient is pale and anæmic, give 20-drop doses of Syrup of Iodide of Iron between meals and at bedtime.

BALDNESS. — Baldness may be caused by the infectious diseases, such as syphilis, or by a severe case of eruptive fever where the disease is protracted. Baldness may also be caused by some forms of ringworm (See RINGWORM). Perhaps the greatest cause of baldness is a lack of circulation in the scalp. The hair follicles are little thimble-shaped depressions in the skin, and at the bottom of each follicle is a tiny loop of blood vessels which supports the growth of the hair and nourishes the connecting gland. The gland, in turn, furnishes an oily secretion which keeps the hair and skin smooth and soft. When the circulation is interfered with, nourishment is lacking, and gradually the hair loses "tone" and eventually becomes loosened and falls out. In the majority of cases the vitality of the hair follicles is destroyed and baldness is permanent.

Many cases of falling out of the hair may be benefited or cured. Baldness resulting from a "run of fever" needs no particular treatment. Baldness resulting from a lack of circulation requires stimulating applications, as any of those following. Massage regularly and persistently applied will improve the circulation and aid materially in the support of the hair. Pilocarpine is credited with the power of producing a new growth of hair where the hair follicles are not destroyed. This remedy is very expensive and we cannot speak from personal experience. If used, it must be taken internally and continued for a long time. The dose must be governed by the effect in each individual case. If it causes an increase in the flow of saliva, this will indicate that the dose must be lessened; if this symptom is not present, the amount can be continued and increased to the point of effect. Perhaps the average dose would be 1-10 of a grain four times a day.

The discovery that Pilocarpine would cure baldness was accidental. Patients who had been kept for several months in some of our hospitals and given Pilocarpine for other causes, had, in case of baldness, noticed the hair began to grow. This surprised both patients and physicians. The latter became interested, and by comparing notes it was discovered that very many cases of baldness had been cured by the prolonged use of Pilocarpine; at least, there was no other known cause.

Pilocarpine increases the secretions of the whole body, including those of the scalp. During the course of treatment, where the Pilocarpine is given, the hair follicles and their connecting glands always contain an increased amount of secretions. Putting the two facts together, that is, the increase in the secre-

tions and the growth of hair in those cases that had been bald for years, the only intelligent solution that could be arrived at was that the new growth of hair was due solely to the Pilocarpine.

TREATMENTS.—

A. Take a small handful each of the bark of Witch Hazel and Bittersweet. Put this into an iron dish and pour on to it one quart of boiling water. Let it simmer (not boil) down to one pint. Strain and add four ounces of Bay Rum and $\frac{1}{2}$ ounce of Glycerine. Rub thoroughly into the scalp once a day, shaking the bottle well each time before using. If the hair follicles are not destroyed, this will promote a growth of hair.

Of course, the scalp must be kept clean. Wash occasionally with soap—about one ounce of the tincture of Green soap added clear, a little at a time—rub the scalp gently, rinse thoroughly with clear water, and then apply the above wash.

B. Alcohol.....	2 ounces.
Water of Ammonia.....	$1\frac{1}{2}$ drachms.
Glycerine.....	1 "
Salts of Tartar.....	1 "
Castile Soap, powdered.....	8 grains.
Water, enough to make.....	5 ounces.

Mix, and rub well into the scalp two or three times a week.

C. A most excellent application is the following:

Resorsin.....	4 drachms
Listerine.....	2 ounces.
Glycerine	20 drops.
Rosewater enough to make.....	8 ounces.

Apply to the scalp twice a week.

D. Friction of the scalp with a moderately stiff hair brush, and application of an ointment made of Carbolic Acid and Vaseline in the proportion of 1 part Carbolic Acid to 48 parts of Vaseline; or Oil of Tar 1 part to 24 parts of liquid Cosmoline. (7.)

E. Frequent shampoo and massage with Tar soap. (5.)

F. Tincture Spanish Fly.....	1 drachm.
Castor Oil	$\frac{1}{2}$ ounce.
Purified Beef Marrow.....	1 "
Lemon Juice.....	$\frac{1}{2}$ "

To be rubbed into the scalp morning and evening. (27.)

G. Tincture Cantharides.....	2 drachms.
Quinine Sulphate.....	1 "
Rum.....	8 ounces.
Rosewater, sufficient quantity to perfume.....	

Rub a small quantity well into the scalp once a day.—(21.)

H. Sulphate of Quinine.....	I drachm.
Tincture of Spanish Fly	I “
Liquid Vaseline.....	I ounce,
Aromatic Spirits of Ammonia.....	½ “
Bay Rum, enough to make.....	8 “

Mix together and use with a wet brush twice a day, rubbing in well.—(53.)

BARBER'S ITCH.—(See RINGWORM OF THE BEARD).

BED SORES.—*Bed Sores* mean sores that are occasioned by lying too long in one position. Sometimes only the skin is destroyed, sometimes the deeper structures. Lesions of this kind are most apt to occur in old people, and are very difficult to heal. Circulation is poor and nutrition is at a low ebb, and there is but little to stimulate the healing.

Cause.—Failure of nutrition due to low vitality and pressure. These sores occur at points sustaining the greatest weight. The pressure shuts off the blood supply, partially or completely, the tissues die and, in severe cases, slough away.

Symptoms.—The skin may first assume a brighter red, then gradually changes in color and becomes darker. Death may occur at one point in the center and spread, or may occur simultaneously at several points and gradually unite.

TREATMENTS.—

In case of long illness, especially of old people, bed sores are very apt to occur, and those having the care of them should employ

Preventive Treatments.—The position of the patient should be frequently changed. Bathing and friction should also be used daily, and especially over the surface where the greatest pressure occurs. This will improve the circulation and aid largely in keeping up a healthy condition. Clean sheets should be kept on the bed, and the sheets and mattress upon which the patient lies should be kept as smooth and free from wrinkles as possible. Great protection may be had by placing under the patient pillows, cushions, or soft quilts folded together. Air pillows are used in many cases. These are simply circular hollow rubber tubes filled with air.

Under *Preventive Treatments* the following applications are recommended for suspected or exposed parts.

A. Tannic Acid	½ ounce.
Glycerine.....	4 “
Alcohol	4 “

B. Prevent by keeping patient changing from side to side. Do not let him lie in one position too long. Sponge back and hips three or four times a day with the following:

Alum.....	1 drachm.
Alcohol	½ ounce.

Pad back with soft cotton so as to keep pressure off tender places.—(13.)

C. To prevent bed sores, bathe exposed parts three or four times a day with clear alcohol.—(8.)

Applications for Sores.—The surface should be thoroughly cleansed at least twice a day—morning and evening—with warm water and Castile soap, after which any of the following applications may be made:

A. Oxide of Zinc.....	1 drachm.
Ichthyol.....	2 “
Vaseline, enough to make	1 ounce.

Mix well, spread on a muslin and place over sore.

B. Two per cent solution of Formaldehyde, which is made as follows:

Formaldehyde.....	10 drops.
Water.....	1 ounce.

After bathing, as above directed, wet a soft cloth in the solution and lay it over the sore, covering the cloth with a light bandage.

BELLYACHE.—This is a term somewhat loosely applied to the various pains that may occur either in the stomach or bowels. These pains are the result of indigestion, constipation, or pressure from the formation of gases, either in the stomach or digestive tract. They are sometimes “colicky” in nature. They all indicate practically the same condition, indigestion, either from overeating or eating too fast, and may also be influenced by sedentary habits as these tend to a sluggish condition of the digestive organs. It is a form of neuralgia, the same as rheumatism, lumbago, etc. Neuralgia is not a separate disease, but a painful reminder of our errors.

TREATMENTS.—

A. A cathartic should be given, and the individual should be more careful regarding his diet. He should eat less for a few days and drink more water between meals. This will render the digestive tract more active and digestion will be improved, also elimination. Many of these cases call for better ventilation.

B. Give some warm tea freely, as Peppermint, Spearmint, etc.

C. For babies, Catnip tea with a little Anise seed added. If bowels are too close, use Elder blows (Sweet Elder flowers), in place of Catnip.

Adults: Ten drops Essence Peppermint and 4 or 5 drops Spirits Camphor in form of hot sling. (14.)

D. A teaspoonful of Paregoric for adult, followed by oil or salts. In children the dose of Paregoric should be gauged to suit the age of patient: a child one year old should have 10 drops; a child ten years old, $\frac{1}{2}$ teaspoonful. Never awaken anyone to give him Paregoric, or Opium in any form, such as Morphine or Laudanum. (9.)

E. For baby, strong Peppermint water without sugar, or Catnip tea. If hands and feet are cold, wrap up. Warm flannel over stomach.

Older children same, with suitable doses of Paregoric, according to age. Give careful diet. Watch out for tender point over the appendix on right flank. (13.)

F. Paregoric.....	1	ounce.
Tincture of Capsicum.....	1	“
Spirits of Camphor.....	1	“
Syrup of Rhubarb.....	2	“
Spirits of Chloroform.....	$\frac{1}{2}$	drachm.
Simple Syrup.....	4	ounces.

Mix, and take one teaspoonful in warm water every hour until relieved.

Note.—While *Paregoric* has been and is a very common remedy for children, we wish to remind the reader of two things: First, *Paregoric* contains Opium, and its effect is the same as to give Laudanum diluted; second, small children and babies do not bear Opium well. Codeine will quiet nervousness or irritability and is perfectly safe. 1-60 to 1-40 of a grain would be a suitable dose for a child one year old.

BILIARY STONE.—(See GALL-STONES).

BILIOUSNESS.—See LIVER, CONGESTION OF).

BLACK-HEADS.—(See under SKIN DISEASES).

THE BLADDER AND ITS DISEASES.

The bladder is a membranous sac designed as a receptacle for the urine. It is situated in the pelvic cavity. Its position is subject to great change, according to the amount of its distention, also according to the condition of the surrounding structures. The bladder has four coats. The lining mucous membrane forms the inner coat, next is connective tissue, then the muscular coat, and last the serous coat. The connective tissue unites the mucous membrane to the muscular coat. The serous or outer coat is formed of the peritoneum (the lining membrane of the abdomen) and does not entirely cover the bladder. The ureters lead from the kidneys into the back wall of the bladder near the bottom. The bladder may be considered simply as a dilatation of the ureters. What is called the neck of the bladder, the point of outlet, is surrounded by the prostate gland, and it is at this point that the urethra begins.

DYSURIA.—The meaning of this term is *painful urination*. It is not a disease of itself, but there are three conditions especially that are liable to produce it: the first is inflammation of the bladder, the second is stricture, and the third, which is less severe, arises from an enlarged prostate gland. Any of these conditions may result in complete retention of urine, in which case distention of the bladder soon follows and the pain is agonizing.

TREATMENT.—

Depending upon inflammation, it is amenable to early treatment (see **BLADDER, INFLAMMATION OF**). In case of stricture or an enlarged prostate gland (see under those diseases), the conditions are overcome with difficulty and require prolonged treatment. In case of complete retention relief can only be had by use of the catheter, an instrument designed to be introduced into the bladder to draw off the urine. After one application by the doctor a soft catheter can be applied by any one.

Retention of Urine.—Take corn silks and pumpkin seeds, make a tea and drink freely of it, and place wheat bran poultices as hot as can be borne over the bladder. If these fail, use catheter.

BLADDER, INFLAMMATION OF.—The bladder is subject to inflammation from the following causes:

The injudicious use of irritating drugs, especially Cantharides and Copaiba.

External injury.

Extension of inflammation from surrounding structures.

From local irritation, as in the formation of stone.

It may result from taking cold.

It may be caused by the urine when it contains too much acid. This acid is the result of indigestion.

It may be caused by tumors or cancer.

It may be either acute or chronic.

Acute Form.—

Symptoms.—The onset is sudden. There is moderate fever and burning pain in the region of the bladder, and especially along the urethra following urination. The pain is increased by pressure. The mucous membrane is red and swollen and there is an almost incessant desire to urinate. This is not done freely and is accompanied with great distress. The increased blood supply results in an overproduction of new cells on the surface of the mucous membrane, and these drop away into the urine and are eliminated. The natural secretions of the mucous membrane are changed to a thick, tenacious form, and if the inflammation is severe enough small vessels will rupture and *blood will also appear in the urine*. At first the urine may be clear, but as the result of new cell formation and the thick, ropy mucus, it soon becomes cloudy and undergoes decomposition. If the inflammation is in the neck of the bladder there may be complete retention of urine (see DYSURIA), and great pain in the perineum as well as great distress in the bladder. If continued, this would result in distention of the kidney and blood poison. The bladder lies in close relation with the rectum, and sometimes the irritation causes a frequent desire to evacuate the bowels. This is called *tenesmus*.

TREATMENTS.—

What to Do Till the Doctor Comes.—Put the patient to bed and use hot applications to ease the pain until the doctor can arrive. Cloths may be wrung out of hot water, but are more effective wrung out of a decoction of Smartweed. They should be put across the abdomen as hot as the patient can bear them and changed often enough to keep the surface hot. Or an excellent way is to put the Smartweed into two sacks, steep them up, wring one out at a time and lay across the patient, changing as often as necessary.

The hot applications tend to evacuate the bladder, but if the case is too obstinate for relief to be afforded by such means, it will be necessary for the doctor to attend to this on his arrival. In calling the doctor he should be informed of the nature of the difficulty in order that he may bring the necessary instruments with him.

A. Give a large dose of Castor Oil or other active cathartic, and put the patient to bed. Absolute quiet is necessary. If the urine is highly acid, which is indicated by a high color, give a teaspoonful of the following every two hours:

Acetate of Potash	½ ounce.
Tritica	4 “

If the urine is alkaline and contains thick ropy mucus, give one teaspoonful of the following mixture every two hours:

Benzoate of Soda.....	½ ounce,
Glycerine	1 “
Water.....	3 “

Mix together,

or,

Salicylate of Soda.....	½ ounce.
Glycerine	1 “
Water.....	3 “

Mix, and take one teaspoonful every three hours.

or,

Salol 10 grains every three hours.

B. Tea made of corn silks—green silks if in season. May be drank freely.

Quinine in 3-grain doses four times a day in connection with the remedy mentioned above. Avoid eating acids or anything sour. Drink alkaline waters after meals.—(9.)

C. Benzoic Acid.....	1 drachm.
Borax	1½ “
Water	8 ounces.

Mix, and take tablespoonful every two hours until relieved.

D. Tartar Emetic	2½ grains.
Epsom Salts.....	2 ounces.
Sulphate of Morphine.....	2 grains.
Tincture of American Hellebore ...	1½ ounces.
Aromatic Sulphuric Acid.....	½ drachm.
Syrup Ginger.....	2 ounces.
Water.....	10 “

Mix. Dose:—A tablespoonful every two, three or four hours.—(20.)

E. Treatment depends upon conditions and causes, and requires investigation by a medical man to be intelligently treated.

—(14.)

F. Give watermelon or flaxseed tea, and inject Laudanum and warm water into the bowel.—(6.)

Chronic Form.—Inflammation of the bladder may become chronic. This is more liable to occur in old people, and may be caused by stricture or by stone, but is more often due to an enlargement of the prostate gland, which surrounds the neck of the bladder and in an enlarged state keeps up a constant irritation. This is followed by congestion, a low form of inflammation and an overgrowth of tissue. The walls of the bladder may become one-half inch thick. The desire to pass water is unduly frequent, and the bladder never entirely empties itself. (See PROSTATE GLAND ENLARGED.) The urine presents a cloudy appearance, is alkaline and contains a large amount of mucus and pus. On standing, it deposits a thick, ropy sediment, and often gives offensive odor because the retained urine undergoes decomposition. Chronic inflammation of the bladder is also accompanied with a dull pain and more or less emaciation and weakness.

TREATMENTS.—

A. Give 10 grains of Salol four times a day, or 10 grains of Benzoate of Soda four times a day. The bladder should be completely emptied several times a day. Eat plain food and drink large quantities of pure water. If chronic inflammation continues until the walls of the bladder become thickened, there is no cure. Avoid active exercise, walking or riding, as these tend to aggravate the case and increase the inflammation.

B. One ounce best Gum Arabic dissolved in a glassful of water.

Dose.—A teaspoonful every two or three hours.

Especially useful in chronic and sub-acute cases.—(8.)

What is called ammoniacal decomposition of urine may present a cloudy appearance. This may occur without inflammation of the bladder. Normal urine has what is called an acid reaction. If a piece of blue litmus paper is thrust into it, it will change to red. After the decomposition mentioned this change will not occur, but the urine will now change red litmus to blue. This form of fermentation is caused by the small trace of mucus that is always present, and other organic matter in the urine acting as a ferment converts the urea, which is normally present, into Carbonate of Ammonia. This form of decomposition can be detected by the odor. If the litmus paper which has been changed to red is allowed to dry, the original blue color will return as soon as the Ammonia has evaporated.

BLADDER, GRAVEL or STONE IN.—Gravel may be present in the bladder, having been carried through the ureters from the kidneys. As stated under DISEASES OF THE KIDNEYS,

this gravel is clusters of uric acid crystals. Gravel may be more abundant in the bladder because there is more room for it. It may collect in such quantities as to cause irritation. In the case of an enlarged prostate gland where the bladder is not entirely emptied, the accumulations may continue to the formation of one or more stones of large size.

Cause.—The cause of gravel is fully stated under Diseases of the Kidneys. Stones may originate in the bladder, but are usually discharged from the kidney into the bladder where they continue to grow in size. Stone may result from alkaline urine following inflammation of the bladder. In this case, as in the kidney, the stone would be formed of phosphates.

Symptoms. — Stone in the bladder first produces uneasiness, followed by a dull pain in the region of the organ. The desire to urinate is more frequent, especially during the day, or when the patient is exercising. Walking and riding increase the irritation and pain. Urination may increase the pain, because it is apt to disturb the stone, which is sometimes drawn over the entrance to the urethra and effectually stops the flow. By changing position, the stone may be removed and the bladder empty itself. If the stone is rough, with sharp edges, it produces severe pain when brought in direct contact with the sides of the bladder as it is being emptied. There is usually more or less mucus present in the urine, and blood may also be present at times. A stone that is perfectly smooth may reach large proportions and produce no symptoms at all.

TREATMENTS.—

A. For medical and general systemic treatment, see *Stone in the Kidney*. If medical treatment fails, an operation will be called for. It should be remembered, however, that the symptoms of stone in the bladder may be caused by other conditions, and an operation should never be made until an examination has demonstrated the presence of stone. This examination is made by passing a *sound* into the bladder, and by careful manipulation bringing it in contact with the stone. The contact must be both heard and felt. This leaves no room for doubt and is the only sure method of diagnosis.

B. Drink freely of Gravel Weed tea (*see chapter on herbs*). If this does not dissolve the stone, and the trouble continues, consult medical aid. The stone may have to be crushed with instruments.

BLEBS.—*Blebs* are *water blisters*, varying in size from a bean to an egg, which form on the skin. They are characteristic of a skin disease known as *pemphigus*. (See PEMPHIGUS).

TREATMENT.—

A. Open them and apply an ointment made as follows:

Carbolic Acid.....	1 part.
Lard, or Cosmoline.....	20 "
(7.)	

BLISTER.—A thin bladder raised on the skin, containing a watery fluid. It may be caused by some injury, as burns, unaccustomed friction, etc. Blisters are sometimes raised with plasters over the seat of a severe pain as a means of relieving the pain. The *vesicles* that form in *small-pox* are small water blisters. If the fluid in a water blister, or vesicle, becomes purulent, that is, changes to pus, it is then called a pustule.

TREATMENTS.—

A. For a severe blister take cabbage leaves, soften them by putting in warm water, take out stems, and apply warm over the blister. If the cabbage leaves are not at hand, dress the blister with bread and milk poultice.

B. Draw a coarse thread in blister with a needle, cut thread and leave ends protrude at least half an inch from blister. (4.)

C. The blister should not be molested so long as there is any sensation of the burn, but when the pain has subsided, puncture near the base, but be careful not to rupture the skin of the blister as it acts better as a covering for the raw surface than any artificial dressing that can be substituted. (9.)

BLOOD BLISTER.—Blood blisters are caused by a slight injury, as a light blow, or pinching the skin. When these effects are severe enough, some of the little vessels that are just beneath the skin are ruptured, blood escapes, the outer layer of the skin is raised, and this constitutes a blood blister. If these are opened they should be opened with a sharp needle, which should enter the skin a short distance from the base of the blister and be pushed through to where blood is contained. This allows free drainage and does not disturb the outer layer of the skin.

BLOOD POISONING.—This means poison in the circulation. It is not understood to mean blood poisoning resulting from contagious diseases, such as scarlet fever, diphtheria, small-pox, etc., but includes only those cases of blood poisoning resulting from an unhealthy or infected wound, where poison is being absorbed into the circulation. Medical writers divide blood

poisoning into several separate forms, as follows: *Septicemia*, *Sapræmia* and *Pyæmia*. Septicemia is frequently spoken of as *Septic Infection*, and Sapræmia as *Septic Intoxication*.

These divisions are largely theoretical. The cause, symptoms and treatment are practically the same in all. In treating a case of blood poisoning, neither the doctor nor the public consider the conditions indicated by the foregoing terms. It is treated simply as a case of blood poisoning.

Cause.—The cause of blood poisoning is the absorption into the system of a specific virus or poison, usually from a poisoned wound. It may follow a case of confinement where the after-birth or some part of it is allowed to remain in the uterus, or it may result from abscess formation in the body—bone abscess, abscess of the kidney, of the liver, ulcers formed in the digestive tract during typhoid fever, abscess of the lung or abscess of the middle ear. Any of these conditions may produce blood poisoning, and the cause is the same—the absorption into the circulation of a specific poison or virus. In some cases there is also absorption of pus or other putrid matter. The absorption of both the specific poison and the putrid matter is called *Pyæmia*, meaning pus in the blood.

Symptoms.—The symptoms of blood poisoning commence soon after the introduction of the diseased matter. When following confinement it usually makes its appearance four or five days after labor. In many cases there is a chill or sense of chilliness, restlessness, high temperature, nausea, vomiting and, later, diarrhea. The eliminations may contain blood, and hemorrhage may occur in spots beneath the skin. There is a dry, coated tongue, headache, weak, rapid pulse, scanty, high-colored urine, loss of strength and emaciation. If the disease continues, the temperature falls below normal, there is a gradual failing of respiration, increasing heart failure, unconsciousness and death. Delirium may occur during the progress of the disease. In what is called *Pyæmia*, small abscesses may form in different parts of the body, hence in these cases the symptoms may vary slightly, as, a chill may follow the formation of each new abscess, and following the chill a few hours later there may be profuse sweating, the result of weakness.

TREATMENTS.—

The treatment is the same in all cases. If the poison has been absorbed from a wound, first thoroughly cleanse the part. If on the surface, make a large opening and wash out carefully with a strong antiseptic solution, and secure thorough drainage. Dress the wound with antiseptic cloths and bandages. This will cut off the supply, and the patient has now only to get rid of the

poison in the system. If the wound is on the hand or foot, and red lines extend towards the body, it is evidence that resistance is being overcome and that the poison and inflammation are extending. These lines, which are the veins, gradually assume a darker hue. They should be cut open at frequent intervals and the poisoned blood be allowed to escape. Wash thoroughly with antiseptics and use antiseptic dressings. The wound should be dressed once or twice a day, as the case demands. Thorough cleanliness must be maintained or success will not follow the treatment. If the foot, hand or arm is badly swollen and the inflammation is extending toward the body, the limb may be wrapped with a loose bandage and kept wet with a solution of Corrosive Sublimate, 15 grains to one quart of water. If the disease is the result of a poisoned uterus, the uterus should be thoroughly washed out with warm water containing 20 grains of Carbolic Acid to the pint. If any portion of the after-birth is present, it must be removed by mechanical means. Like the wound, the uterus may need washing out once or twice a day for a few days.

These cases need stimulants. Some use large quantities of Whiskey and Quinine; others depend upon 1-30 of a grain of Strychnine or 2 drops of Fluid Extract of Digitalis about once in three hours. These remedies are especially strengthening to the heart. Give an active cathartic, secure thorough movement of the bowels once or twice a day, keep the skin active by means of baths and brisk rubbing, feed the patient at frequent intervals with the most nourishing foods, secure good ventilation and give abundance of pure water. If this general treatment is well observed, there will be less danger of heart failure. If there is much vomiting, put a large mustard plaster over the stomach or give small quantities of milk and lime water, equal parts. The lime water must be fresh. The following is also good:

Carbolic Acid.....	1 drop.
Subnitrate of Bismuth.....	2 drachms.
Lime Water.....	2 ounces.

Mix, and take $\frac{1}{2}$ a teaspoonful every twenty or thirty minutes more or less often as needed, or give, as one dose,

Lactopeptine	10 grains.
Bismuth	10 "

every thirty minutes or every hour. In many cases crust coffee is more effectual in checking vomiting than any other treatment. It should be given without sugar or milk.

The points to be remembered in treating blood poisoning are:

First, thorough cleanliness.

Second, free elimination and nourishing food.

Third, give stimulants as the case requires.

BLOODY FLUX.—(See *Dysentery* under DIARRHEA).

BLOODY URINE.—This is not a disease, but is a condition that may be present in inflammation either of the bladder or kidneys. Its presence would indicate some trouble of this kind, and an investigation into the cause of it should be made. It may also be due to injury.

BOIL.—A boil is an acute affection of the skin in the form of a circumscribed inflammation. It starts as a small pimple and gradually increases in size until it attains certain dimensions, when it suppurates and casts out pus, and a tough, whitish mass of dead matter called a "core." A boil is about a week in developing sufficiently to discharge its contents, after which the part heals.

Cause.—A vitiated condition of the blood.

A. Keep constantly covered with Carbolized Vaseline. Go to your doctor for internal medicine.—(14.)

B. Boils are local troubles and do not come from bad blood, as supposed by many. Some foreign matter finding its way into the skin alongside of a hair is the origin of a boil. Boils need poulticing until they contain pus, and should then be opened with a clean knife. Do not bruise the flesh by pressing after opening. Apply soft oiled cloth after the boil is open.—(9.)

Note.—The above statement as to the cause of boils is somewhat contrary to the opinion popularly held, but it is the opinion held by one of the physicians represented in this book, and we desire to give all sides of a question so far as the scope of the present volume will admit.

- C.** Carbolic Acid..... 10 drops.
Cocaine, 10 per cent solution..... 5 "
Fluid Extract of Ergot 1 drachm.

Mix. Put 5 drops on a plaster made of the yolk of one egg and one teaspoonful of salt. Apply twice daily.—(22.)

BONE DISEASES.

Bones are two-thirds lime salts and one-third soft tissue. There are 200 separate bones in the human body not counting the teeth. They act as a framework and support other structures. The surface of bones is firm and compact; the inner portion is somewhat porous, that is, contains many openings, which extend in various directions. These accommodate the passage of blood vessels and nerves for the purpose of nutrition. All bone is surrounded by a thin firm membrane called *periosteum*. It is through the periosteum that the blood vessels are distributed, and from there they enter the various channels and divide

throughout the bone substance; hence, whenever the periosteum is destroyed, or torn loose by accident, that portion of bone which it covered may die from lack of nourishment. Bone is subject to disease the same as soft tissue. *Abscess*, *caries* and *necrosis* are preceded by inflammation. In inflammation of bone the pain is intense because the bone is resistant and unyielding, hence the pressure is greater.

INFLAMMATION OF BONE.—When this occurs in the center of a long bone, it is called *myelitis*; when occurring on the surface, it is called *ostitis*; when it includes the whole bone, it is called *osteo-myelitis*; when occurring in the periosteum, which surrounds the bone, it is called *periostitis*. (*itis* means inflammation.)

Causes.—Injury, syphilis, extension of inflammation from other tissues. When digestion is poor, the blood contains many irritating substances. Such irritation may, and often does, cause inflammation of the kidneys, liver or lung, and may also cause inflammation of bone. In the young and healthy, injury is the most frequent cause. Inflammation of bone may terminate in caries, suppuration or necrosis.

Symptoms.—In acute inflammation of bone the pain is always severe. It is deep, "boring," and at times agonizing, because the structure is firm and resistant and there is no room for swelling as in soft tissue. This is why a bone felon is so painful. The pain is usually worse at night, and is also influenced by damp weather. If pus forms, there are one or more chills, and later there is redness and swelling on the surface.

TREATMENT.—

In acute inflammation of bone put the patient to bed, elevate the affected part, put on a bandage as tight as can be borne, and wet with the following solution:

Sugar of Lead	4 drachms.
Laudanum	2 ounces.
Water.....	2 quarts.

Give an active cathartic. Give Morphine or Opium internally, if necessary. If the disease has existed for some time, apply heat instead of Lead, water and Laudanum. Also apply counter-irritants. A large mustard plaster wrapped around the limb would answer for this purpose. If unable to control the case, cut the tissues clear to the bone, including the periosteum. This will relieve the pressure and also the pain to some extent. If there is evidence of pus, continue the opening into the bone, and if pus is discovered, give free drainage and dress as directed under *necrosis*. Any surgical measures would require the services of a physician.

BONE ABSCESS.—Abscess of bone is a chronic disease. Bone abscess was first described by Sir Benjamin Brodie, hence is sometimes called Brodie's Abscess. It usually occurs near the ends of long bones, as those of the leg or arm. These bones are larger and contain more blood; again, they are subject to greater strain, hence to greater irritation.

Cause.—The cause is inflammation resulting from injury. At first there is an increase in the blood supply. This is followed by an increase in bone tissue. The pressure from the newly formed cells and from the congested and inflamed vessels continues until circulation and nutrition are shut off and the structure dies. The death of the first cells occurs at any point where the pressure is greatest. The surrounding bone thickens and hardens by reason of the inflammation of the periosteum. Pus usually breaks through at the end of the bone because the ends are not covered by the periosteum, hence there is less resistance at this point. The cause of abscess in bone is the same as in soft tissue and the changes are the same. See abscess in *Appendicitis*.

Symptoms.—There is pain, which is usually worse at night and which is aggravated by dampness. The pain is localized and persistent. Later there is discoloration of the skin. Motion or dependent position or any slight injury causes violent attacks of pain. The nearest joint is especially subject to pain, the cause being the sensitiveness of the synovial membrane. This membrane surrounds the joint and is the part first affected in inflammatory rheumatism.

TREATMENT.—

We have stated before that wherever pus is discovered the abscess should be opened at once. There is no exception to this rule. In opening bone abscess open at the point of greatest tenderness. Give free drainage, scrape away dead bone, and by means of a syringe wash out the cavity with any antiseptic solution. Maintain absolute cleanliness. Dress the wound every day, more or less often as needed. Of course the treatment also includes attention to the general system, to food, ventilation, elimination, etc.

ULCERATION OF BONE.—CARIES.—Ulcer in bone is the same as ulcer elsewhere. The only difference between ulcer and abscess is that an ulcer opens on the surface and an abscess does not. Caries is death of bone resulting from ulceration or suppuration. This is sometimes called *molecular death*, meaning that only molecules or minute particles of bone are destroyed at a time: it is a gradual destruction. Caries of bone excites some inflammation around the diseased area, and some new tissue forms. This new tissue protects the healthy bone, and at the

same time some of the new tissue is destroyed by inflammation and pressure and aids in the formation of pus, which is discharged.

Causes.—It may be caused by syphilis, scrofula, tuberculosis, or any condition where there is lowered vitality and a lack of nutrition. Caries may also be caused by mercury or phosphorus; it may also be caused by freezing or by burns; it may follow scarlet fever or typhoid fever where the disease is protracted, as in that case the health of the patient becomes very low and the system debilitated. It usually occurs in the young. Injury is probably the exciting cause, that is, the immediate cause.

Symptoms.—This form of bone disease commences on the surface of the bone, hence the pus can readily escape through the skin. In abscess the disease commences below the surface and within the substance of the bone. The symptoms are the same as those of inflammation of bone, though less severe. There may be some soreness, and enlargement or swelling due to the pus may be noticed. If not opened, the pus breaks through and is discharged. The pus from caries, or slow death of bone, contains small particles of bone matter and feels gritty. This is positive evidence that the bone is diseased. The odor from this kind of abscess is very foul. A probe inserted through the bone and coming in contact with it causes a dull sound. A healthy bone would give a clear note. The surrounding bone is softened, and oftentimes the probe can be pushed through it. If not treated, the opening from caries does not heal and the discharge becomes chronic.

TREATMENT.—

If due to syphilis, give anti-syphilitic treatment; if it is the result of scrofula or tuberculosis, give treatment described under those diseases; if it has been caused by the fumes of mercury or phosphorus, those employed in factories where these are used should change their occupation. The opening through which the pus passes out should be enlarged, the dead bone scraped away and the cavity swabbed with some strong antiseptic solution, even pure Carbolic Acid, and then washed out with pure water. The greatest care should be exercised to maintain cleanliness, both in the cavity and out. New dressings are usually required once or twice a day for a time, but may be lessened as the condition improves. General systemic treatment is required.

SOFTENING OF BONE.—OSTEO MALATIA.—MOLLITES OSSIIUM.—In this disease the bones become gradually softened, are dissolved, and are carried away by the circulation. The urine contains an excessive amount of bone salts. This change commences toward the center of the bones and extends toward the surface.

Cause.—The cause is said to be unknown, although some believe it is the presence of lactic acid in the blood. Undoubtedly the cause of bone softening is a lack of nutrition, which means poor food, indigestion, lack of elimination, bad air, etc.

Symptoms.—There may be light pains, rheumatic in character. Fractures occur as the result of very slight cause. Later, the bones may bend out of shape and various deformities thus result.

TREATMENT.—

Mechanical support in the way of splints. Try to strengthen the system by means of nourishing foods and good hygienic surroundings.

DEATH OF BONE.—NECROSIS.—Necrosis means death. Gangrene is necrosis. When applied to bone, necrosis means death of a portion or portions large enough to be seen.

Cause—Tearing off or destroying the periosteum may be the cause. The vessels which supply the bone are first distributed through the periosteum, hence destruction of this membrane cuts off nutrition; inflammation may be the cause, as inflammation destroys or shuts off the circulation and the tissues die for want of nourishment; it may be caused by taking Mercury or Phosphorus; it may die from injury or may follow a burn or freezing; or it may follow scarlet fever or typhoid fever where the inflammation is slow and the patient becomes greatly emaciated.

Where a shell of bone dies and becomes separated from the surrounding healthy bone, it is called a *sequestrum*. The dead bone is light in color because it contains no blood and because bone is naturally white. The dead bone is a foreign body and the surrounding healthy bone is greatly inflamed, the same as any soft tissue following gangrene, and this line of inflammation would correspond to the line of demarkation as described under *Gangrene*; the periosteum surrounding the dead bone is also greatly inflamed; there is a production of new tissue, the same as that following inflammation elsewhere. This new tissue breaks down and causes suppuration, and this leaves a space between the dead bone and the living. The dead bone cannot escape, and if the pus is not absorbed it breaks externally and the dead bone is left in the cavity. The surrounding case of healthy bone is called an *involucrum*, meaning a sheath of bone. The opening through which the pus escapes is called a *cloaca*, meaning a canal.

Symptoms.—The first symptom is that of inflammation of bone. The pain stops when the pus escapes because the pressure is relieved. A probe inserted through the cavity will strike the healthy bone, which will be hard, and which, on tapping

lightly, will give a clear note; in caries the sound is dull, because in caries the surrounding bone is more or less affected and is soft. These openings do not heal.

TREATMENT.—

The treatment consists in making a large opening and giving free drainage. Scrape the cavity, if necessary, and swab it out with a strong antiseptic solution. Clear Carbolic Acid is recommended by some. Pack the cavity with Iodoform gauze and dress with a bandage. These abscesses require daily dressing—the dressings should be frequent enough to maintain thorough cleanliness of the surface. Remove the dead bone as soon as it becomes loosened. These cases usually require special attention to food and careful hygienic surroundings. If the disease is caused by syphilis, give anti-syphilitic treatment; if the result of phosphorus, change the occupation.

HYPERTROPHY OF BONE.—This means an overgrowth.

Cause.—Increased blood supply. This may result from a low form of inflammation; said to result in some cases from excessive use of the part; may also result from injury in the young and robust as this might cause chronic inflammation. There is slight overgrowth following the healing of bone abscess or the repair of fracture.

TREATMENT.—

Local treatment is not needed for hypertrophy or overgrowth of bone. If the cause is removed, that is, if the injury heals or the inflammation is checked, the overgrowth will remain a permanent addition to the bone. If the overgrowth is the result of a low form of inflammation long continued, it will eventually end in abscess, ulcer, softening or death of bone. Constitutional treatment may do much to prevent this result. Much depends upon diet, fresh air and proper exercise.

ATROPHY OF BONE.—(See **ATROPHY**).

BOWELS, INFLAMMATION OF.—Inflammation of the bowels is confined to the mucous membrane lining the digestive tract, and is accompanied with soreness, diarrhea, fever and more or less prostration. The conditions in inflammation of the bowels are inseparably connected with those resulting from diarrhea and dysentery. Diarrhea and dysentery are different stages of the same inflammation, and the treatment for any one of these three

conditions is only a modification of the treatment for the others. The three can be more intelligently treated under one heading, and the reader is therefore referred to the subject of *Diarrhea*.

DISEASES OF THE BRAIN.

The brain, which is the acknowledged medium of communication between mind and matter, is incased in three distinct membranes and inclosed within the skull. Both the brain and its membranes are subject to disease. Any disease of the brain causes a disturbance of the mental faculties, the acute form being characterized by delirium and the chronic form by the loss or perversion of some or all of the mental faculties. All diseases of the brain have a tendency towards convulsions and paralysis. Owing to its inclosed position its diseases can be diagnosed only by symptoms, and in cases of abnormal changes in the structure of the brain the diagnosis is seldom made during life, although improved surgical methods now reach and relieve or cure many cases of abscess and other local lesions.

Diseases Particularly Affecting the Brain.—Alcoholism, chronic dyspepsia, Bright's disease and syphilis bring about morbid changes in the structure of the brain which not only render it more liable to disease, but to impairment of the mental faculties.

ACUTE MENINGITIS.—The term *meningitis* refers expressly to an inflammation of the membranes covering the brain. It runs a rapid course. Death may result in a few days, or the fever may continue for two or three weeks.

Causes. — It may occur during the course of acute infectious diseases, *i.e.*, scarlet fever, measles, etc. Continued sleeplessness, exposure to the sun, syphilis and delirium tremens are among other causes.

Symptoms. — The earlier symptoms are: intense pain in the head; redness of the face and eyes, the latter being wild and brilliant and sensitive to light, and the pupils much contracted; dryness of the skin; thirst; lack of sleep; sensitiveness to sound; costiveness; vomiting; convulsions; and delirium, which, as the fever develops and increases, becomes violent.

In a few days, or perhaps hours, an entire change of symptoms takes place: light and sound no longer affect the patient, his vision and hearing now being dull and perverted; the pupil of the eye from being contracted now expands unnaturally; instead of being wildly delirious he is likely to lie in a semi-unconscious state, muttering indistinctly; there is a twitching of the muscles, and local paralysis may occur in any part of the body.

If the patient recovers, these symptoms gradually disappear, yet the paralysis may be obstinate or even permanent, or there may be a permanent impairment of the vision or hearing. If the patient does not recover, he sinks into a state of coma, succeeded by death.

TREATMENTS.—

What to Do Till the Doctor Comes.—When there is indication of serious brain trouble, send immediately for your doctor. In the meantime the point is to recall the blood from the upper to the lower extremities. For this purpose apply heat to the feet and cold to the head. The feet may be put into hot water, or cans of hot water laid to the feet and along the limbs. For the head, the nicest thing, if there is a butcher's shop anywhere around, is to get a beef's bladder, fill it about half full with crushed ice, tie it so it cannot drip, and lay the head on that. It makes a cool, soft pillow, does not allow dampness to spread to the bed or clothing, and will sometimes keep for twenty-four hours without melting. If the patient is in a stupor, this is all that can be done till the doctor comes; if he is not in a stupor, and is wild, a little Laudanum, say from 5 to 10 drops, according to age, may be given. For a child, use Paregoric in place of Laudanum.

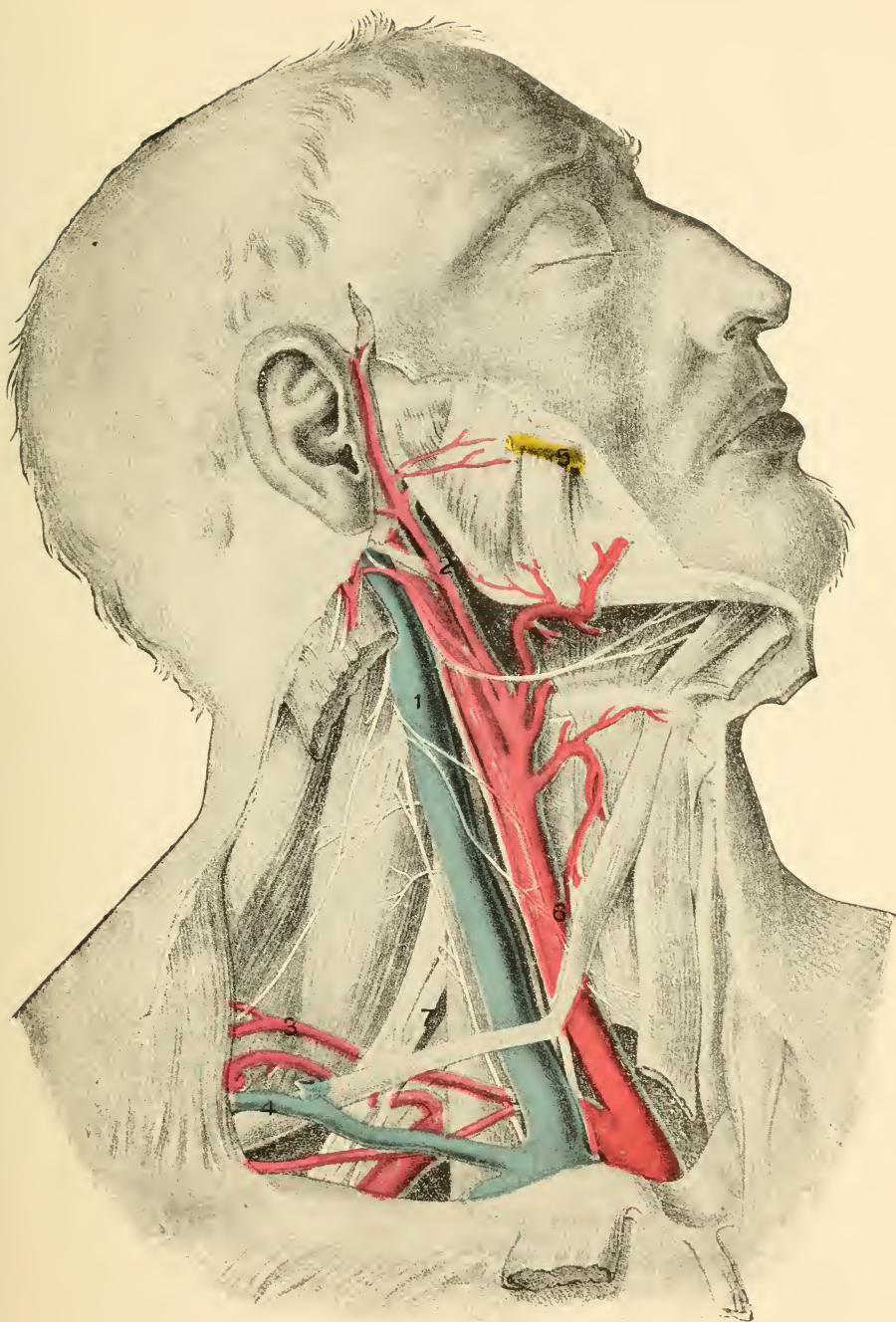
A. Keep head cool by cold applications. Quiet, darkened room, moderate temperature, Mustard to neck. Send for a doctor.—(14).

B. For further treatment, see *Cerebro-Spinal Meningitis* (inflammation of the brain and spinal cord). The same treatment will be found most satisfactory for *Inflammation of the Brain* alone.

There is another form of this disease where the inflammation attacks the coverings of both the brain and spinal cord. This is called

CEREBRO-SPINAL MENINGITIS.

Symptoms.—A typical case begins without previous symptoms or warning. The attack is sudden and frightful. There is vomiting, an agonizing headache, dizziness and an overwhelming sense of weakness. The vomiting is peculiar; there is a forcible ejection of the contents of the stomach without apparent effort, called projectile vomiting. With children there may be convulsions, loss of consciousness, and rapidly rising temperature—103 to 105. Within a few hours the muscles of the back of the neck and back contract and become rigid. The head and shoulders are drawn backward, while the feet and lower limbs are drawn in the same direction. Only the heels and back



No. 2.

- 1, Jugular Vein. 2, Artery supplying Face and Scalp. 3, Artery. 4, Vein.
5, Salivary Duct. 6, Large Artery of Neck. 7, Nerves.

of the head touch the bed. There is great pain in the slightest effort to move. Sleep is absent, and, if a child, its screams may be heard for some distance. The whole body has now become extremely sensitive, and the nervous manifestations seem past all control.

Cramps or spasms of individual muscles may occur; this trouble usually takes place in the lower limbs. Usually within twenty-four hours there is a slight rash of a bluish red color on the face and upper eyelids, especially the latter, hence it is sometimes called *Spotted Fever*. The head is hot, the feet cold. There may be dark spots along the spine, caused by an excess of blood and the rupture of some small vessels just beneath or into the skin.

Altogether Cerebro-Spinal Meningitis presents a degree of suffering seldom met in any other disease. In some cases there is early collapse, that is, great prostration of the vital powers, followed by rapid death, which may occur within 48 to 72 hours. Where recovery takes place, the disease passes into a convalescent state in from ten days to two weeks.

The foregoing symptoms are not overdrawn, but are taken from actual experience. In like manner the following suggestions regarding treatment are not only prompted by that same experience, but are the most effective in checking the disease.

TREATMENT.—

For a Child.—Place the child in a tub of warm water. If he is old enough to sit upright, there should be water enough to cover the shoulders; if an infant, he must be supported so that his face will be kept above the surface. Pin or hold a quilt around the child's neck and allow it to fall over the tub. This will retain the heat and aid materially in producing sweating. Pour in hot water from time to time—pour it against the side of the tub and keep the water within the tub moving so as to prevent the hot stream from striking the child. Gradually increase the temperature of the water in this way until quite hot. Allow the child to remain in the water until profuse sweating takes place, say from thirty minutes to one hour—two or three hours will do no harm if the child is quiet. The relief is so great that the child often falls asleep in the water.

In a severe case, according to our experience, the hot bath is required once in about fifteen hours for two or three days, then less often.

For an Adult.—The same treatment applied to an adult will meet with equally satisfactory results, but cannot always be accomplished as conveniently. The bath may be substituted by artificial heat, as bottles or jugs filled with boiling water placed

around the patient. Also hot herb drinks may be given. These are not likely to cause nausea, and aid in producing perspiration, which is the object of the treatment. The patient should be kept well covered.

How does this benefit the patient? Simply by *equalizing the circulation*. Just beneath the skin is a dense network of blood vessels estimated to be capable of holding one half the blood in the body. The heat from the warm water dilates these small vessels, and they are immediately filled with blood; this relieves the brain and spinal cord. The treatment should be repeated often enough to keep the patient quiet. The need of it will be indicated by contraction of the muscles and increasing pain. The head will be hot and the feet cold.

All physicians understand that drug medication is of little value, and may do actual harm by irritating the stomach, which is *extremely sensitive*, and thus increase the vomiting.

Absolute quiet must be maintained as far as possible. When the appetite returns, the question of feeding is an important one, as any interference with digestion may cause alarming symptoms and even a relapse. Only the most nourishing and easily digested food should be allowed, and this in small quantities at first.

TUBERCULAR MENINGITIS—This disease is an inflammation of the membrane covering the brain. During the disease the under surface of this membrane is covered more or less with small elevations or tubercles about the size of a millet seed, hence the name—*Tubercular Meningitis*.

The tubercles are situated mostly on the under side of the membrane, that is, next to the brain substance. They follow the small arteries, and this obstructs the circulation and causes pressure, and there follows an escape of the blood into the brain substance. The ventricles or lymph spaces are distended, which increases the pressure still more. This pressure accounts for the over-sensitiveness and delirium which are often present, also for the insensibility, deepening into coma, which precedes death.

Cause.—This disease is caused by irritants in the blood. These may be the result of scarlet fever, measles, typhoid fever, or may result from improper food and indigestion. The reason children are especially liable to this disease is that the brain is not well developed and lacks the power of resistance.

Symptoms. — Irritability, poor appetite, child loses flesh, abdomen may be enlarged, loss of sleep, sudden screaming of the child either day or night. The head is often thrown backwards or rolled from side to side, the child may keep its hands more or less about the head, and there may be vomiting. All of these symptoms gradually grow worse. The child is very sensitive to

noise. Later the symptoms subside, the fever disappears, there may be delirium or stupor, and the child lies motionless, taking no food. The result is always fatal.

TREATMENT.—

There are some remedies recommended for this disease, but without much hope of cure. The only treatment seems to be symptomatic. Make the child as quiet and comfortable as possible, secure good ventilation, give the most nourishing food, etc. Syrup of Iodide of Iron is recommended by some, also small doses of Quinine, or Cod Liver Oil if the child can take it. Salol is also a good remedy.

Of the Syrup of the Iodide of Iron, the dose for a child one year old would be from 3 to 5 drops taken in a little sweetened water four or five times a day between feedings; of the Quinine, 1-5 of a grain dose four times a day; of the Cod Liver Oil, a teaspoonful of the clear oil of good quality may be taken three times a day. The Salol is intended for the bowels, the dose for a child one year old being from one to two grains four times a day. If the bowels are free from offensive odor, give one grain; if not, increase the dose until there is an improvement and then return to the original dose.

For this disease we wish to recommend the treatment under *Cerebro-Spinal Meningitis*. We would suggest three baths every day, allowing the child to remain in the water at least one hour each time.

SOFTENING OF THE BRAIN.—When softening of the brain occurs, it usually follows diseased arteries. It may result from a weak heart. Diseased arteries and a weak heart are the natural results of old age. Softening of the brain may follow Bright's disease, or accident or injury where from hemorrhage or blood clot the circulation is shut off. It may follow mental overwork, aneurism, or inflammation, where swelling and pressure interfere with nutrition. When occurring in the young or middle aged, it is the result of alcohol or syphilis. These produce chronic inflammation of the arteries and the vessels become soft and flabby, lose their elasticity, and change more or less to fat; this constitutes *Atheroma*. The arteries are formed of three coats or membranes. The inner coat is composed of a single layer of flat cells joined together edge to edge, like a tile floor. This layer of cells has the power to prevent the coagulation—clot formation—of blood. In the inflammation following syphilis or the prolonged use of alcohol, the inner coat is sometimes destroyed in places, and wherever this occurs blood clots form. These may be broken loose by the circulation and carried to the brain,

when, on reaching some artery too small for their passage, they completely shut off the circulation, and for want of nutrition that part of the brain supplied by such an artery will die and degenerate. The diseased artery may occur in the brain and be followed by blood clot. In this case the symptoms are of a more chronic nature. In the plugging of an artery in other portions of the body the congestion and exudate are usually absorbed, or may become organized, that is, bands of connective tissue may form and later be followed by arteries. In this case the circulation and nutrition of the part gradually improves, and the diseased area returns to its normal state, barring the contraction of the new tissue formation, which resembles a scar; but in the brain, softening generally results. The muscles and skin are the most resistant to degenerative changes, and the brain and bowels the least. When through a lack of circulation the brain is deprived of nourishment, it readily undergoes degenerative changes, the tissues softening. Softening of the brain means death of the part. The dead area is not circumscribed, but passes insensibly into the surrounding tissues. The brain is composed of nerve cells and their prolongations, the nerve fibres, all held together by a form of connective tissue called *neuroglia*. The cells are dark and situated on the surface; the fibres are light in color and are situated beneath the surface. The cells are first affected, though the fibres first show degenerative changes. Later the cells degenerate, and finally the connective tissue and the arteries, and together these break down in a granular mass containing much fat, hence may be called fatty degeneration, though is generally called softening. As the tissues soften they change in color to red, yellow or white, the color being governed by the amount of blood in the vessels and the amount of exudate. Softening of the brain is named in accordance with the color of the tissues. The so-called yellow softening is simply a later stage of the red softening where the color of the blood has gradually faded. Where the circulation is shut off suddenly, as by a blood clot, the color may remain white, or white softening may become red as a result of hemorrhage into the diseased area; hence we see that these divisions are of little value. Brain softening is most common in the aged as a result of narrowing of the arteries following chronic inflammation and a weak heart.

The brain is supplied by two sets of arteries. Both arise from the same source, yet in their distribution they are entirely separate. One set supplies the surface and outer portion, and the other supplies the central portion. There is no communication between them, hence there is a borderland of diminished blood supply; and this accounts for some cases of softening, especially in the aged.

Symptoms.—Where the circulation is shut off suddenly, as the result of a blood clot or hemorrhage, there would be dizziness, fainting and unconsciousness. Occurring less suddenly, there would be pallor, more or less loss of power, dizziness, headache, and occasionally fainting might occur. This condition and these symptoms would follow disease of the arteries from old age, alcoholism, syphilis, Bright's disease, or any condition where there was general debility. In these cases softening of the brain would be secondary and there would be other evidences of disease before the degenerative change in the brain had made its appearance.

TREATMENT.—

Since the degenerative changes in the brain are secondary to other diseases, the treatment must be directed to the general system. If from syphilis, give anti-syphilitic treatment; if due to alcohol, stop the use of alcoholic drinks; if from Bright's disease, see treatment under that head. Whether from these causes or from old age, the treatment consists practically in diet, tonics, and the internal administration of some of the Iodides. The Iodides in any form are simply a means of administering Iodine, which cannot be taken in the pure form (or raw state) because it is too irritating. Iodine is valuable following chronic inflammation because it is one of the best known remedies to liquefy the products of inflammation and render them in a condition to be more rapidly taken up and carried away by the circulation. Iodine is also a most excellent antiseptic, thus aiding the blood in overcoming the morbid influences of disease and putrefactive changes. In treating this condition, elimination must receive special attention. If there are any evidences of indigestion, artificial digestants should be given. If the bowels are inactive, give Podophyllin in $\frac{1}{4}$ -grain doses at bedtime. Also give 10-grain doses of Salol four times a day. Regarding the choice of Iodine preparations, Iodide of Arsenic may be given in doses varying from 1-100 to 1-50 of a grain four times a day, between meals and at bedtime; or one teaspoonful of the Syrup of Hydriodic Acid four times a day may be substituted. Iodide of Potash is equally as valuable, but its taste is decidedly unpleasant. If the patient is pale and anæmic, Iodide of Iron would be the best preparation—1-50 of a grain four times a day, between meals and at bedtime. Only the most nourishing and easily digested food should be allowed. The amount of exercise will depend upon the condition of the patient. If the brain trouble is the result of a blood clot or hemorrhage, if the pulse is full and the temperature elevated, an active cathartic should be given, followed by small doses of Aconite until the condition is changed. The same treatment should follow inflammation of the brain. Absolute rest and mental quiet would also be indicated.

BRAIN, HARDENING (Induration) OF.—In cases of chronic inflammation, a directly opposite effect may be produced, the brain matter hardening instead of softening. Such chronic inflammation may follow any of the infectious diseases, or be the result of rheumatism, etc.

Cause.—The hardening process is the direct result of new tissue growth. This tissue as naturally supplied acts as a framework for all the structures of the body, including the brain, but when resulting from inflammation it invariably contracts, and the natural tissue is either pressed upon or caught in the mesh of the contracting fibers and destroyed.

Symptoms.—In the early stages hardening of the brain matter causes convulsions because of the pressure.

TREATMENT.—

What to Do Till the Doctor Comes.—It is assumed that in case of convulsions a doctor will be called. In the meantime put the patient in bed, surround by hot packs, cover with quilts, and, if able to swallow, give hot drinks—hot teas of herbs that possess sweating properties, as Pleurisy Root, Golden Seal, etc., would be best. Sweating relaxes the system and, if the disease has not progressed too far, relief may be had in a short time. It will readily be seen, however, that the conditions are such that only temporary relief is likely to be afforded.

BRAIN, CONCUSSION OF.—Due to a shock or injury to the brain, as a fall from a horse, etc. In accidents of this kind the brain substance is liable to be ruptured or torn. This result may follow when there is no fracture of the skull, or fracture may occur without serious injury to the brain substance. Fracture where there is no displacement of bone may be overlooked.

Symptoms.—The patient usually lies in an unconscious condition. He may partially recover and indulge in incoherent, rambling talk, or may lie and moan; periods of delirium may occur. Also vomiting may occur, according to the part of the brain affected. Injury to the base of the brain will produce vomiting. Any brain injury sufficient to produce unconsciousness should be considered dangerous.

TREATMENTS.—

What to Do Till the Doctor Comes.—Get the patient out of an exposed condition, either from a hot sun or from cold, as soon as possible. It would be a good idea to put the feet into hot Mustard water and to put a Mustard plaster to the nape of the neck. If the surface is cold, apply artificial heat by any means. If he is in a stupor, this is all that can be done till the doctor comes; if

he has revived and is delirious, a little Laudanum, say from 5 to 10 drops, according to age, may be given. If a child, give Paregoric in place of Laudanum.

A. The recumbent posture; ice cap to the head. 2-drop doses of Tincture of Aconite every three hours. Sips of hot water to relieve vomiting, if present. (7).

BRAIN, ABSCESS ON.—(See ABSCESS).

BRAIN, TUMORS ON.—Tumors may form on the brain which do not suppurate, that is, do not become abscesses. The effect produced, however, is very much the same, that is, characteristic of brain lesions. These lesions (changes brought about by disease or injury) of whatever nature, if produced by constitutional disease, as syphilis, etc., are benefited by constitutional treatment.

BRAIN, WATER ON.—(See *Hydrocephalus*, under DROPSY).

BREASTS, DISEASES OF.—(See under DISEASES OF WOMEN).

BRIGHT'S DISEASE.—(See under KIDNEY DISEASES).

BRONCHITIS.—(See under LUNG DISEASES).

BRONCHOCELE.—(See GOITRE.)

BRONZED SKIN—ADDISON'S DISEASE.—This is a constitutional disease, consisting of a peculiar anæmic condition. It is characterized by a coloring of the skin that has given rise to the term, "bronzed skin disease." It first affects the supra-renal capsules—small organs situated at the upper margin of the kidneys.

Cause.—Diseased conditions of the blood, as from scrofula or syphilis.

Symptoms.—It begins insidiously. There is a gradual lessening of vital force, causing a feeling of languor and indisposition. The person is easily fatigued, is troubled with shortness of breath and some palpitation of heart. There is loss of appetite, indigestion, depression of spirits and an inclination to sleep a great deal. The skin at first presents a pale appearance, the pallor extending also to the mucous membrane of the mouth, then gradually turns dark, later becomes jaundiced, and finally changes to a mulatto or bronze hue. In persons of fair complexion, probably the first noticeable change would be a darkening of the skin. The tendency of the disease is towards death, which usually occurs within a year or two.

TREATMENTS.—

What to Do.—In diseases of this kind that creep on stealthily, a doctor is not usually consulted until the disease is too far advanced to give him a fair opportunity to do anything for the patient. Therefore, if a person is not feeling well, he should try to improve his condition by taking care of himself and taking the simple home remedies that seem to fit his case; but if after a reasonable trial there is no improvement, he should see his doctor without further delay.

- A. Compound Syrup of Stillingia.....4 ounces.
 Iodide of Potassium.....1 drachm.
 Shake, and let dissolve.
Dose.—1 teaspoonful three times a day, between meals and at bedtime. Take an alkaline bath twice a week.

B. Fresh Sulphurous Acid should be frequently applied. Get small vial at a time and keep well corked, as it otherwise absorbs Oxygen and becomes Sulphuric Acid, which irritates and excoriates.—(14.)

C. Perfect rest and freedom from care and mental worry. Good, nutritious diet. Stimulation with coarse towels after a hot bath. By using a little Sweet Oil on the surface the rubbing, or massage, may be carried on indefinitely without irritation, and more than that, it produces a soft, healthy texture. Any portion of the Oil that is absorbed goes to nourish the system. Also give 1-20 grain doses of Arsenic after meals, and 10-drop doses of Tincture of Iron three times a day after meals.—(7).

BUNIONS—BURSA, ENLARGED.—A bursa is an irregular cavity formed in the loose connective tissue around joints, being situated between the tendons. The bursa is filled with a fluid which is poured out over the surface of the tendons to facilitate their movements and prevent friction. A bursa may be either superficial or deep. The superficial are those that protect the small tendons in their movements over light joints near the surface, as, for instance, the ball of the great toe; the deep bursa is to protect the large tendons in their passage over rough bony prominences situated around large joints, as, for example, the hip joint. Continued pressure from tight shoes excites a mild inflammation of the bursa over the great toe joint and increases its secretions. This constitutes a bunion and, if continued, results in an overgrowth of the bone, causing permanent deformity.

TREATMENTS.—

A. Turpentine externally and poultices of hot Flax seed at night. Chloroform liniment to relieve pain.—(7.)

B. Put cloths saturated with Turpentine over the bunion on retiring. Bandage to keep cloths in place.

C. Get shoes to fit. Apply bunion plaster.—(13.)

D. Paint with Tincture of Iodine. When very painful, apply hot fomentations of Smartweed and Wormwood. Avoid irritating part.

CANCER.—There are two principal varieties of cancer, one called *sarcoma* and the other called *carcinoma*. The first usually occurs before forty years of age, and the second, after that period. These two forms of cancer differ only in the appearance (as shown under the microscope) of the cells of which they are formed, and in the kind of tissue in which they occur. Practically there is no difference, for, unless successfully removed, either is destructive to life.

Cause.—There are two theories regarding the cause of cancer: One is that it is caused by a germ, and the other that it is the result of degenerative changes going on in the body. While there are a number of investigators who hold to the germ theory, although unable to discover the germ, the majority believe that cancer is the result of the retrograde changes mentioned. That standard authority, Green's Pathology, page 249, states that the germs or parasites found, which are claimed to be the cause of cancer, "apparently are not parasites, but are degenerate cells or products of cells. In the few cases in which parasites have been present in the tissues, they may have been there as a secondary infection." Page 256 states, "Some cancers seem to be due to irritation in people whose resistance is diminished."

First, let us remember that the human body, all parts, tissues and organs, are composed of small particles of matter called cells. The life work of these cells is to take up nutrition, to constantly build up their own structure and to eliminate waste material. The failure from any cause to take up nutrition is the first step in the chain of malignant tissue growth that leads to cancer. In health the blood contains elements of nutrition, which are supplied through the circulation. When nutrition is lacking, it is an indication that the blood is unhealthy,—the result of poor food, or of indigestion from some cause. In health the tissues and individual cells are under the intelligent guidance of the nervous system and for a time can successfully resist the morbid influence or effects of unhealthy blood, but when this condition exists too long, or the amount of poison in the blood increases beyond a certain limit, it will cause congestion; mild at first and perhaps unnoticed, yet after a time, at some point where the resistance is least, the nerve fibres become more or less paralyzed, and this allows the congestion to increase, lessens nutrition and leaves the

tissues without proper control. In health the nervous system controls the function of the cells and retards decay and death; but with this power or influence lessened and the tissues gorged with unhealthy blood, the cells at that point multiply more rapidly and deviate more or less from the normal. This is the beginning of cancer.

The conditions from which cancers arise, then, may be enumerated as follows, remembering that inflammation always depends upon an irritant which excites an increased blood supply:

First, an unhealthy digestive tract, lack of nourishment and the formation of many poisons.

Second, the absorption of the poisons, which act as irritants.

Third, the irritants produce first, congestion, and second, inflammation.

Fourth, the result of the inflammation is an increase in the blood supply, and the tissues at that point being overfed, the cells first enlarge, then divide and subdivide, first one and then another, and thus new tissue forms. But the blood is unhealthy, the vitality low, and the morbid effects of the degenerative changes which are constantly going on in the new growth renders the cells malignant and the blood more impure, and in turn the inflammation and growth are increased.

In health the cells constituting the different organs and tissues of the body have a certain well defined size and shape, not all alike, but each peculiar to the organ or part to which it belongs, and which under the microscope can be recognized just as a man can be recognized by his appearance. But as a result of the conditions described the cells constituting the growth lose their identity, and this is the reason that there is no specific cancer cell, that is, no particular size or form. The cells may be large or small and variously shaped, due to their malignancy and mutual pressure upon each other. As a result of rapid growth and from lack of vitality, they break down easily. The cells constituting "proud flesh" may be large or small like the cancer cells, but they too lack vitality and break down easily. When the general system is unhealthy and the surrounding tissues offer but slight resistance, the growth is rapid. The new cells do not have time to develop, but remain small and the growth soft. The softer the growth the more numerous the blood vessels, hence more blood and lymph are supplied. These are the reasons why this form of cancer is more rapidly fatal. If the vitality improves, the resistance improves also, and the growth is checked in proportion. Cancerous growths have a framework of connective tissue the same as other organs. This connective tissue is strong and fibrous. It pervades and supports all the organs and structures of the body. The growth of the malignant cancer cells may

be lessened, and the inflammation may still continue to cause an increase in this connective tissue. But connective tissue resulting from inflammation always contracts and hardens. This is the condition when a large, hard, slowly growing lump appears in the breast or elsewhere. Rapid increase in tissue cells always results in a diminution, or loss, of vitality. Most cancers grow so rapidly that the cells do not have time to mature; their vitality is low and pressure upon each other aids in their own destruction; they break down easily. They are constantly undergoing this change, and furnish the phenomena known as suppuration. If on the surface, as the nose, face or lip, it breaks externally and the acrid discharge corrodes the skin if allowed to come in contact with it; or when situated internally, the poison excites inflammation around the growth. Dead and dying tissue always excites inflammation, and the inflammatory zone aids in checking its spread. This is Nature's method of localizing disease. A more common example of Nature's effort to check disease is found in the inflammatory zone which surrounds every abscess, and the red line which separates the living from the dead in gangrene; in gangrene it is called the line of demarkation.

Yet in spite of efforts to localize the disease, the morbid effects of the malignant growth gradually pervade the system and digestion and assimilation are reduced to a low ebb. This is why the patient grows so thin and weak, and this is why the disease ends fatally.

The individual cells of the body need stimulation the same as a man needs exercise. Such stimulation is the natural result of repair and waste. The cells are actively engaged in taking up new elements from the blood and reforming and refitting them into their own structure; these elements become living matter. In health there is given off an equal amount of waste. This is a natural action and produces a natural stimulation. All life's forces depend upon this stimulation. Besides the work mentioned, many of the cells manufacture new products which are necessary in maintaining life and health: The liver cells manufacture bile; those of the salivary glands, ptyalin; those of the thyroid gland, iodine; and those of the stomach manufacture pepsin. These products all act as ferments and aid digestion. (See *Digestion* under STOMACH DISEASES.) The pancreas also furnishes four ferments which aid in the same work. The kidney cells eliminate urea, and those of the lungs and skin eliminate many other poisons. This aids still more in stimulating the organs, but when irritation from impure and poisonous blood renders these changes excessive, it is called inflammation. This lowers the powers of resistance and disease results, hence the statement in Green's Pathology, "Cancer seems to be due to irritation in people whose resistance is diminished."

Symptoms.—A cancer growing within the body may present no early symptoms. The first evidence of its presence may be a gradual loss of appetite and of weight. Among the early symptoms are stinging, darting pains. Later, as the growth develops, the pain becomes more constant. By this time, if the cancer is situated in the breast, stomach or abdominal cavity, it can be felt. When in the stomach, the appetite is affected earlier than when in other situations, and sooner or later there is vomiting. In some cases vomiting is delayed until three or four weeks before death. If on the surface—face or lip—there is first a small, hard lump, which bleeds easily and does not entirely heal. This may develop to the size of a small pea and then remain stationary for some months, when it begins to grow again and soon forms a slowly extending ulcer. The edges of such an ulcer are hard and ragged or irregular. The discharge is foul-smelling and irritating, and destroys the skin if allowed to come in contact with it. In cancer of the breast the inflammation extends to the skin, giving it a puckered appearance. The skin looks dark and congested.

TREATMENTS.—

In many cases cancers are treated by surgical means only, that is, are removed by the surgeon's knife. Those who follow this method of treatment claim that by making liberal allowance for the growth,—“cutting wide of the mark”,—complete removal is assured, and that, if the operation is made early, it is the only safe and intelligent method of dealing with this otherwise fatal malady. On the other hand, there are those who treat cancers by local applications—plasters—and who believe that in all cases where the growth appears on the surface, it can be successfully treated in this way. Statistics favor this claim. Certain it is that many a cancerous growth treated in this way has been lifted out *whole*, with the fibres, or roots, unbroken, the part from which it has been removed showing all the various avenues into which these roots penetrated. The danger in using the knife is that some of these roots may be cut off, and should the least portion of one of them remain, the cancer is almost certain to grow again. The applications named below have been used with great success; in action they seem to follow up the various branches of a cancer, and to seek out and destroy its uttermost parts.

The following are a few of the more important remedies used and recommended by leading doctors. The list includes the treatment employed by Doctor Lombard, the noted “cancer doctor.”

A. The first remedy is one recommended by F. W. Brewer, M. D., and reported in the *Chicago Medical Times*, as follows:—

Chloride of Zinc	½ ounce.
Powdered Blood Root	½ ounce.
Flour.....	½ ounce.

Make into a paste with Aromatic Sulphuric Acid. Spread on a soft cloth and apply. Continue the application until the growth is destroyed. Then dress with any mild application, as Vaseline containing ten drops of Carbolic Acid to the ounce.

B. The second remedy is used by W. N. Sherman, M. D., and reported in the *Medical World*:

Chloride of Zinc.....	5 grains.
Powdered Alum	5 grains.
Tannic Acid.....	2 grains.
Persulphate of Iron.....	3 grains.
Glycerine sufficient to make a paste.	

Apply as above. The after treatment is the same.

C. Dr. J. L. Horr says, in the *Boston Medical and Surgical Journal*:

"Having, without solicitation on my part, become possessed of the knowledge of the secret remedies employed by the late Doctor Lombard, the famous 'cancer doctor' of Maine, I feel it my privilege, as a member of the scientific profession that has only for its object the advancement of knowledge and the relief of suffering, to make a simple statement of the remedies and methods which were employed in the so-called 'treatment of cancer.' The remedy employed, if the cancer was small, was the dried juice of the leaves of *Phytolacco* (Poke Root), which was applied in the form of a plaster until sloughing took place. The after treatment was some simple dressing, like simple Cerate.

"If the tumor had obtained considerable size, Doctor Lombard first used a paste composed of Chloride of Zinc and pulverized Blood Root until a scar was produced, and then used the same dressing as before until the mass sloughed away.

"The knowledge of these remedies was given to me by Doctor Lombard himself while I was attending him during his last illness, but a few days before he died."

D. There are many other remedies used for the removal of cancer. Chromic Acid, melted on the end of a glass rod and applied direct, or made into a paste and applied to the growth, is used by many. The juice of fresh Sorrel, dried down to a paste and applied, will prove equally satisfactory.

CANCERUM ORIS.—(See under MOUTH, DISEASES OF).

CAPILLARY BRONCHITIS.—(See under LUNG DISEASES).

CARBUNCLE.—A carbuncle is an inflammation of the deeper layer of the skin, and includes more or less of the tissue beneath the skin. The swelling or inflammation strangulates the circulation more or less, nutrition is shut off and the tissues destroyed, hence pus is formed. A carbuncle differs from a boil as

it is divided into many sections or parts by a framework of connective tissue, giving to the whole structure a honeycombed appearance. It is larger than a boil, has a flat top, and when suppuration takes place it discharges from several openings, which correspond to the number of its divisions. They appear most frequently in persons above middle age. They occasion great suffering, and sometimes prove fatal. They usually occur on the back and posterior portions of the neck, but upon the head or neck they are more dangerous than in other situations.

Cause.—Carbuncles are due to irritation from unhealthy blood. The irritation becomes excessive and is followed by inflammation; the inflammation becomes localized, swelling and pressure interfere with nutrition, the tissues break down and pus forms. Like inflammations elsewhere, a carbuncle is enclosed by an inflammatory zone which prevents the spread of the pus.

Symptoms.—There is burning, throbbing, deep-seated pain, and a decided loss of strength and energy. Constitutional symptoms, as chills and fever, are also present.

TREATMENTS.—

To Abort.—When a carbuncle first begins to come, paint it over with the Tincture of Iodine twice a day until the surface becomes sore, and attend to the general health. For instance, if the bowels are constipated, regulate them with Castor Oil, with Senna steeped up, or with some mild cathartic pill, and take the following for a blood purifier, which is also good for boils:

Burdock root.
Yellow Dock root.
Wild Cherry bark.
Dandelion root.

Take a small handful of each, add a quart of hot water and steep in an iron kettle. Simmer until the strength is out of the roots, strain, and then boil the liquid down to a pint. Sweeten, if preferred, and take a tablespoonful three times a day.

Do not meddle with the carbuncle itself. Do not squeeze it, do not pick at it, but paint it over when it first starts with Iodine, and if it is not aborted (prevented from developing) by the above treatment, that is, if pus begins to form, poultice it. Bread and milk with Catnip leaves stirred into it thoroughly, makes a soothing poultice.

A. Alcohol.....	1 ounce.
Glycerine	1 "
Boracic Acid.....	2 Grachms.
Corrosive Sublimate.....	1 grain.
Water.....	8 ounces.

Mix, and apply locally on wet cloth, keeping parts continually moist.—(46.)

B. Carbolic Acid.....20 drops.
Glycerine..... 1 ounce.

Apply on cotton.—(6.)

C. Should be opened early and freely and dressed with Carbulated Vaseline to which 10 drops of Turpentine has been added.—(14.)

D. Silicea, 12th dilution, applied night and morning. When opened, wash frequently with Permanganate of Potash in solution—2 grains of the Potash to 1 ounce of water. This wash will stain, and clothing should be protected from it.—(3)—Homeopathic.

CARIES.—(See under BONE DISEASES.)

CATALEPSY.—An hysterical state in which the mind, or intellect, seems for the time being to be cut off from the body. All movement ceases and the trunk and limbs remain fixed in the position in which they were when the fit occurred. If moved by another person, they remain as placed. The breast does not rise and fall, and the person does not seem to breathe, but a professional ear can detect a slight beating of the heart. The eyes are fixed and staring and the subject of the fit is said to be *in a trance*. The fit may be brief or may continue indefinitely, a peculiarity being that when consciousness is regained the person immediately completes the act that he was about performing when his senses were arrested.

TREATMENTS.—

What to Do Till the Doctor Comes.—During the fit hold Hartshorn to the nostrils, rub the head and back part of the neck with a Turpentine liniment, put Mustard to the feet and calf of the legs—may also be applied to the spine. Give Catnip tea or Asafœtida pills .

A. Keep the person warm and apply Mustard to the feet.

CATARRH.—This disease is an inflammation of a mucous membrane, from which a fluid is discharged.

Cause.—It is induced by “taking cold.” The lining of the nose, throat and bronchial passages are especially liable to attack as the result of a cold in the head. Catarrh may be either *acute* or *chronic*.

Symptoms.—*Acute Nasal Catarrh* is attended with a cough, thirst, lassitude, chilliness followed with slight fever, watery eyes, feeling of fullness in the nostrils, dull pain in the forehead and a discharge from the nose. This discharge is at first watery and later purulent in character. The air passages leading into the throat also become inflamed and the discharge is ejected by

the mouth or swallowed. If constant care is exercised, however, in keeping the nostrils open and the mouth closed, the patient not permitting himself to breathe through the mouth, the inflammation is less likely to extend to the throat and bronchial passages.

TREATMENTS.—

A. Take the root of Colt's-Foot (for a description of this plant see **A CHAPTER ON HERBS**), wash, dry in the sun or by the fire, and powder. Sift, and use same as snuff. Salt and water snuffed up the nose is also good. Take 3 grains of Sulphite of Soda and 6 grains of Chlorate of Potash, dissolve in a glass two-thirds full of warm water. Snuff up both nostrils, draw through to the throat and spit out.

B. Camphor..... 15 grains.
Menthol (crystal)..... 15 "
Mix until of clear appearance and add
Vaseline to make 1 ounce.
Make into an ointment.

When having this ointment made up, secure from the druggist a small glass tube, about as big around as a pipe stem. Dip this into the ointment, taking up a small quantity, and pass the tube well up into the nostril. Hold the other nostril closed, and also press the nostril around the tube so as to exclude the passage of air; then give a hard snuff and the ointment will be drawn from the tube well up into the head. It not only clears the passages, but heals the mucous surface. It may be used several times a day (too often may cause nausea as some of it will pass through into the throat). A fresh cold in the head will often be entirely overcome, and it will give relief in the most stubborn case of catarrh. Probable cost, thirty cents.

From a head and throat specialist of Milwaukee, Wis.

C. To half a pint of water use one ounce of Glycerine, ten drops of Carbolic Acid, and a half teaspoonful each of baking soda and salt, to which add a teaspoonful of Listerine. This will always relieve cold or catarrh in the head.

CATARRH, CHRONIC NASAL.—When catarrh becomes chronic, the air passages are widely dilated, and both bones and cartilages may be more or less destroyed. The mucous membrane which lines the cavities, once thick and swollen, has now become thin, firm and resistant as a result of the contraction of the newly formed connective tissue. The sense of smell is more or less interfered with—in some cases is entirely lost. The natural secretions are changed both in quality and quantity; they are unhealthy and ill-smelling, and sometimes of a greenish color. The secretion, reaching the surface, forms crusts or scales, which must be removed before successful treatment can be instituted.

TREATMENTS. —

A. Boracic Acid.....	1 ounce.
Pure Water	1 quart.

Dissolve the acid in the water, pour in a fountain syringe and hang syringe on the wall at some convenient place. The patient should bend the head well forward, place the tip of the syringe in the nostril, first one, then the other, and allow the solution to pass through the nasal openings and out through the mouth, which should be kept open. This will thoroughly saturate, loosen and remove the crusts which form in chronic nasal catarrh, and when you have rendered the surface clean and wholesome, you have cured the disease. Any mild antiseptic may be used in place of the Boracic acid.

B. The following may be used morning and evening, and will be found most satisfactory in all cases not too far advanced:

Menthol.....	5 to 10 grains.
Oil Eucalyptus.....	10 drops.
Oil Wintergreen	2 “
Liquid Alboline.....	1 ounce.

Mix, and use in Atomizer morning and evening. When using the atomizer, draw in the breath, and be sure the vapor passes through the nasal cavities into the throat.

C. Ely's Cream Balm is a catarrh remedy that is well known and has for years been sold throughout the country. See PATENT PREPARATIONS.

D. Use the following as a nasal spray three times daily:

Camphor Gum	30 grains.
Menthol.....	10 “
Liquid Alboline.....	1 ounce.
	—(46).

E. Castile soap and water snuffed up the nose from the hand will always improve, and often cure.—(12).

F. Iodine	10 grains.
Alcohol.....	1 ounce

Put into a 2 oz. vial, and when the Iodine is dissolved fill the vial with soft water. Inject a little of the mixture into the nostrils with a small syringe 3 times daily. An alterative containing Iodine, taken internally, will be a desirable thing in treating an obstinate case of chronic catarrh.

The above has been a very successful treatment.—(65).

CATARACT.—(See under EYE, DISEASES OF).

CEREBRO-SPINAL MENINGITIS.—(See under BRAIN, DISEASES OF).

CHANGE OF LIFE.—(See under **WOMEN'S DISEASES**).

CHAPPED HANDS.—**REMEDIES.**

A. Quince Seed.....	1/2 ounce.
Borax.....	1/4 "
Glycerine.....	2 "
Water.....	12 "

Add the Quince seed to the warm water and let stand until it becomes quite thick. This may require several hours. Strain, and carefully dissolve the Borax in a little of the mixture, add the two together and lastly add the Glycerine; add perfume as desired. This makes a preparation that will keep the hands soft and free from all roughness. It dries in a few minutes, and kid gloves may then be put on with ease.

B. Flostilla is a remedy for chapped hands that is widely known throughout the country. It will be found among the **PATENT PREPARATIONS**. It is a very satisfactory preparation and will please all who use it.

C. Sweet Oil.....	3 ounces.
Spermaceti.....	4 "
Pulverized Cr'nphor.....	1 "

Heat gently in a clean earthen vessel, stirring to prevent scorching, and apply, after warming a little, night and morning. Butter just churned and unsalted may be substituted for Sweet Oil—same quantity.—(79).

D. Deer's Tallow.....	4 ounces.
Glycerine.....	1 "
Pulverized Camphor.....	1/2 "
Honey.....	1/4 "

Carefully incorporate together by gentle heat, or by rubbing with a knife or spatula on a plate, or in a mortar.

Makes a very healing ointment for chaps, sore lips, etc., also for chafing from trusses.—(79).

E. Wash clean at bedtime with warm water containing a liberal amount of wheat bran, and after wiping apply Glycerine and rub dry. (17).

F. Pulverized Orris Root.....	1 drachm.
Water (warm).....	4 ounces.

Let stand 24 hours, strain through fine gauze, and add:

Glycerine.....	1/2 ounce.
Bay Rum.....	2 "

Mix, and apply often, thoroughly washing and drying before using.—(3).—Homeopathic.

G. Wash at night in corn meal water or bran water till soft; rub dry, then rub in Cosmoline thoroughly and sleep in old clear gloves. Keep the hands out of water during day and repeat every night until well.—(13).

CHICKEN-POX.—(See under ERUPTIVE FEVERS).

CHILBLAINS.— Chilblains are inflammatory swellings affecting the hands and feet, and are produced by exposure to cold. The swellings are of a purplish or bluish color, and are accompanied by an unbearable itching. They may blister, or, in severe cases, be attended with ulceration and sloughing.

REMEDIES.—

A. Twenty grains Carbolic Acid to one ounce Vaseline; apply to parts.—(14).

B. Rub every night with Turpentine, or get Citron ointment, one ounce, and apply to chilblains at night.—(13).

C. Keep feet dusted with Boracic Acid. It will relieve the most obstinate case.—(18).—Homeopathic.

D. Carbolic Acid.....	1 drachm.
Tincture Iodine.....	2 “
Tannic Acid.....	1 “
Simple Cerate	4 ounces.

Mix, and apply twice daily.—(46).

E. Hydrochloric Acid.....	1 drachm.
Rainwater.....	7 ounce.

Wash the feet two or three times daily, or wet the stockings with the preparation until relieved.—(81).

F. Tincture of Iodine.....	1 ounce.
Soap Liniment.....	1 “

or,

Turpentine.....	½ ounce.
Ether.....	½ “
Oil of Thyme.....	½ “

Sometimes little water blisters form. These may be painted over with Balsam Peru or Collodion, ½ drachm.

G.—Paint chilblains freely with Muriate Tincture of Iron.

CHILL.—A disagreeable sensation of coolness accompanied with shivering.

TREATMENTS.—

A.—Immediate relief by surrounding patient with hot water bottles and giving internally from 1 to 2 ounces of Whiskey. Rectal injection of hot salt solution—2 teaspoonfuls of salt to 2 quarts of water.—(60).

B. Cover warmly, give warm drinks and get to sweating. After sweating is produced give, for an adult, 3 to 5 grains of Quinine every four or five hours.

C. Keep the surface of the body warm with hot blankets and hot drinks. Take Quinine after the chill to prevent a recurrence.—(7).

D. Drink hot lemonade until chill passes off, and then take Quinine.—(17).

CHILLS AND FEVER.—(See *Intermittent Fever* under **MALARIAL FEVERS**).

CHLOROSIS.—(See under **WOMEN'S DISEASES**).

CHOLERA.—This disease is characterized by vomiting and purging as the essential symptoms, also by griping, and spasms in the legs and arms. *Asiatic Cholera* is the more malignant form.

ASIATIC CHOLERA.—This form of *cholera* is of oriental origin. Epidemics are known to have occurred for several centuries, but it was not until the early part of the nineteenth century that the attention of European physicians was generally directed to the disease. This was occasioned by a violent epidemic which broke out in India.

Cause.—Due to unhealthy surroundings, poor food, bad air. The eating of unripe fruits and indigestible foods and drinking of alcoholic liquors all predispose to an attack in time of an epidemic. The statement has been made that "With pure water, pure air, pure soil and pure habits, cholera need not be feared."

Symptoms.—The beginning of this disease is marked by a derangement of the digestive organs, impaired appetite, thirst, lassitude, chilliness, and especially by a painless diarrhea; there may also be twitchings of the calves of the legs. These indispositions, which might easily be occasioned by other causes, continue from a few hours to several days. Or the attack may be quite sudden and marked with profuse evacuations.

The characteristic feature which distinguishes cholera and marks the beginning of the disease itself, is the vomiting and purging of a colorless fluid which looks almost like rice water. This is accompanied with increasing thirst and with cramps of the calves of the legs and other muscles, but if the attack is not a severe one, it may be arrested at this stage. If not arrested, the cramps become severe and exceedingly painful, and soon attack the bowels and stomach. At this stage the breathing is hurried, with distress about the heart, and the secretion of urine is greatly diminished or entirely stopped.

The discharges, which consist largely of serum (the watery portion of the blood), leave the patient in a state of great prostration from which he seldom recovers. The pulse is hardly perceptible, skin cold and clammy, and the patient presents a frightful appearance of emaciation; yet there is a sense of great heat in the stomach accompanied with intense thirst. The emaciation or shrinking of the tissues is the result of draining the water from the system through the digestive tract.

The foregoing symptoms represent a typical case of cholera. These cases are seldom met at the present. With attention to cleanliness cholera is fast becoming a disease of the past, and to-day we do not fear it.

TREATMENTS.—

What to Do Till the Doctor Comes.—Cholera proper is preceded by a relaxed state of the bowels, that is, by a mild diarrhœa. In time of an epidemic, or in sections regularly visited by cholera, a looseness of the bowels, however mild, should not be neglected for a moment. An excellent remedy for the looseness is the following:

Capsicum (Cayenne Pepper)	20 grains.
Gum Camphor (powdered).....	10 “

Put into a teacup, fill two-thirds full of hot water and stir thoroughly. Take a teaspoonful of the solution every hour, or oftener, if necessary, until the diarrhœa is controlled. If this solution does not seem to have a controlling effect, secure medical aid without delay.

A. For Cholera, Cholera Morbus, Colic or Painful Diarrhœa:

Oil of Cajeput	1 ounce.
Oil of Cloves.....	1 “
Oil of Peppermint.....	1 “
Oil of Anise	1 “
Alcohol	4 “

Dose.—From 10 to 15 drops every 30 minutes; or $\frac{1}{2}$ teaspoonful every hour. It should be taken in simple syrup, mucilage of slippery elm bark, or hot brandy and water sweetened.

In epidemics of cholera, as much as a teaspoonful of this mixture has been given every fifteen minutes, one or two such doses generally succeeding in relieving the pains and spasms.—(76).

B. Chloroform	1 drachm.
Tincture of Camphor	1 “
Tincture of Capsicum	1 “
Tincture of Opium	1 “
Tincture of Ginger	1 “

Mix.

Dose.—Teaspoonful every hour.—(7).

CHOLERA MORBUS.—*Cholera Morbus*, or *Simple Cholera*, is a disease that is prevalent in warm weather.

Cause.—This disease occurs in summer and fall. It is influenced by extreme heat, and perhaps by hard work which lowers physical power, or the power of resistance; also caused by eating unripe fruit and vegetables and by drinking cold water. In other words it is caused by acute indigestion when the system is relaxed.

Symptoms.—This form usually comes on suddenly, with retching, distension and flatulency of the stomach, griping pain in the bowels, and vomiting and purging of irritating matter. The patient is tormented with thirst, but water is rejected by the stomach as soon as swallowed. There is also heat, quick breathing, a frequent but weak and fluttering pulse, and, in very severe cases, cramps of the legs. When the disease is violent, there is great loss of vitality, with cold, clammy sweats and coldness of the extremities, sometimes ending in death. Usually the symptoms, pretty severe for a few hours or for a day or two, gradually lessen, leaving the patient in a state of great debility. The features are sunken and the eyes look "hollow," due to the amount of water that has been drained from the tissues.

TREATMENTS.—

What to Do Before Calling a Doctor.—Usually due to overloading the stomach. Give Brandy sling; or make a Camphor tea by dropping into hot water a few drops of the Spirits of Camphor and sweetening. Peppermint tea is also good. For griping add, for an adult, from 15 to 20 drops of Laudanum. Usually there are from three to six evacuations of the bowels and vomiting, and then the patient is entirely relieved, although left very weak; but if the attack is not controlled within a few hours, then call a doctor.

If a person is attacked violently in this way, it is advisable to send for a physician at once. In the meantime, put hot applications over the abdomen—cloths wrung out of hot water or the hot decoction of some bitter herb—and give hot sling, or any of the simple remedies mentioned.

A. The one thought to bear in mind is to bring the blood abundantly to the surface. The vomiting and the continued evacuations of the bowels is the result of prostration brought on by the cause given above. The circulation near the surface of the body is feeble, while the internal organs are congested, the congestion being the result of the irritation produced by the acute indigestion. This is why the surface is pale, cold and clammy. If the blood can be drawn to the surface, immediate relief will follow. For this purpose apply external heat; and

give, for an adult, Atropine in $\frac{1}{100}$ -grain doses. If there is severe pain, add from 20 to 40 drops of Laudanum. Repeat the dose of Atropine every hour until the surface is flushed, which will mean that the circulation has been equalized and the internal organs relieved. Atropine internally and artificial heat externally are the best possible means of bringing about favorable results.

- B.** Paregoric..... 1 ounce.
 Tincture of Capsicum..... 2 drachms.
 Subnitrate of Bismuth..... 2 “
 Simple Syrup..... 4 ounces.
Mix, and take teaspoonful every hour until relieved.—(46).

C. Wash out stomach with hot water. For adult 10 drops Laudanum in strong Peppermint water every hour till relieved. Children may take appropriate doses of Paregoric in strong Peppermint.—(13).

CHOLERA INFANTUM, or SUMMER COMPLAINT OF INFANTS.—This is a disease to which children are subject during the summer months.

Cause.—The conditions are the same as those described under *Cholera Morbus*.

Symptoms.—It begins with restlessness, pain, vomiting and diarrhea. The eliminations from the bowels are foul-smelling and often contain undigested food. The pulse is rapid and feeble and the surface cold. Sometimes there is but a limited amount of diarrhea, and at the same time the bowels are distended with their contents. More or less gas may be present, and in this case the abdomen is bloated and tender. In a well-developed state the child lies in a stupor, taking no notice of the surroundings. There is but little or no fever. Where the bowel eliminations are frequent, with abundant watery discharges, the features of the child look shrunken and wasted as a result of the water that has been drained away.

TREATMENTS.—

What to Do Till the Doctor Comes.—This is a dangerous disease and a doctor should be called early. In the meantime, an excellent thing to give is the following:

- Rhubarb (powdered)..... 1 teaspoonful.
 Bicarbonate of Soda (baking soda) $\frac{1}{2}$ “
 White Sugar..... 2 tablespoonfuls.

Mix well and add twenty drops of Essence of Peppermint. Put this into a teacup and pour two-thirds full of boiling water, stirring at the same time you are pouring in the water. Set to one side and let settle. Dip from the surface. For a child one year old, half a tea-

spoonful every hour; three years old, a teaspoonful every half hour. A warm bath may be given, and injections of hot water are also beneficial. If the child is very fretful and distressed, a few drops (from five to ten) of Laudanum may be added to the injection. Bitter herbs, as Hops, Smartweed, etc., may be steeped up, enclosed in flannel and laid across the bowels. If there is nothing else to give before the doctor can arrive, teaspoonful doses of hot sling will not be out of place.

A. This trouble occurs from various causes and requires treatment accordingly too grave for guess work. Send for your doctor at once; may give a few drops Paregoric pending his arrival. Salted water often stops vomiting.—(14).

B. Stop all food for twenty-four hours. Keep the child quiet. In some cases the movement of the bowels may be slight or absent. In any event it is a good plan to add one tablespoonful of warm water to an equal amount of Glycerine, mix well and inject into the bowels, and with a soft cloth hold the injection for five or ten minutes. Repeat the injection if results are not satisfactory. The discharges are usually offensive; for this, give the following:

Sulphocarbolate of Zinc.....	20 grains.
Glycerine.....	4 teaspoonfuls.
Water	6 “

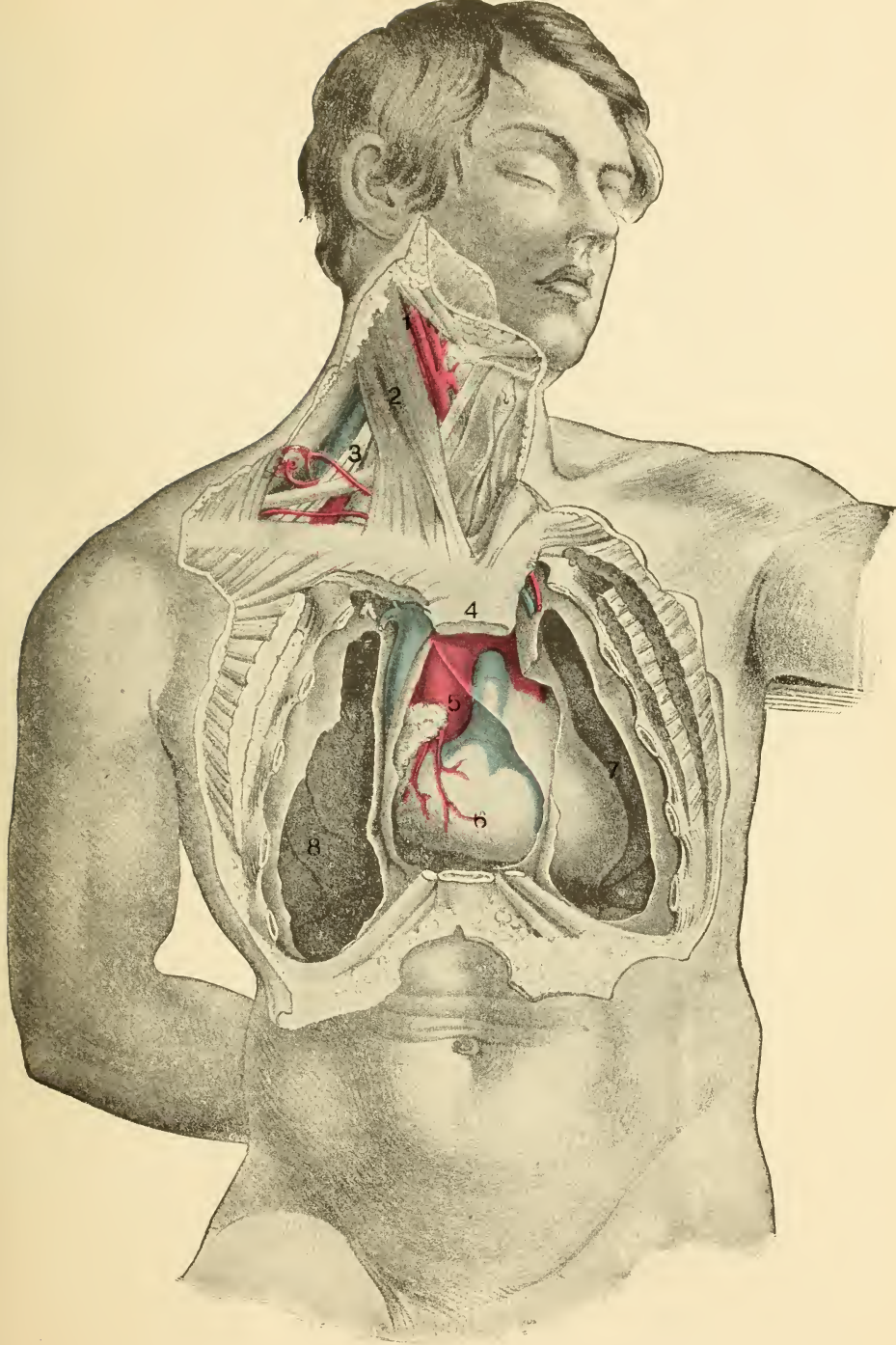
Dissolve the Sulphocarbolate in the Glycerine and water and give one teaspoonful every two hours.

The same amount of Salol may be given if the Sulphocarbolate cannot be had. Place the Salol on the tongue dry, and give water with teaspoon. During the disease the drinking water should be boiled and cooled and given to the child freely. If the child is pale and cold, apply external heat. Equal parts of powdered wood charcoal and Lactopeptine should be mixed and 5 grains given every hour or two.—(74).

C.—Stop all feeding and give liberally of hot water into which a few live coals of wood have been dropped. Send for doctor.

D. Tincture Nux Vomica.....	2 drachms.
Dilute Nitro-Muriatic Acid.....	2 “
Subnitrate of Bismuth.....	2 “
Lactopeptine	2 “
Tincture Red Pepper.....	½ teaspoonful.
Simple Syrup.....	4 ounces.
Sherry Wine.....	4 “

Mix together and take one teaspoonful in water three or four times a day.—(53).



No. 3.

1, Artery of Neck. 2, Large Muscles of Neck. 3, Large Nerve.
4, Upper End of Breast Bone. 5, Large Artery coming from Heart.
6, Heart (with sac partly removed). 7, Left Lung. 8, Right Lung.

CHOREA.—(See under CHILDREN'S DISEASES).

CHORDEE.—(See under VENEREAL DISEASES).

CIRRHOSIS.—This means a hardening of the tissues of an organ, and follows a mild form of inflammation long-continued. The inflammation may be the result of syphilis or of irritating matter resulting from indigestion and constipation, but is more often the result of the continued use of alcoholic liquors. This inflammation always produces an overgrowth and shrinking of tissue as described under *Alcohol*. The new tissue contracts and hardens, destroying and replacing normal tissue in proportion. This change most often takes place in the liver or kidneys, and next most frequently in the spinal cord and lungs; however, it may occur anywhere in the body.

COLIC.—An attack of pain in the abdomen, of spasmodic character, usually attended with constipation of the bowels. There is no attendant fever, and the pain is relieved by pressure over the abdomen—points which are of importance in distinguishing it from inflammation.

There are several forms of *Colic*.

BILIOUS COLIC.—Strictly speaking *Bilious Colic* means *Biliary Calculi* or *Gall-Stones*, but as the term is more or less commonly used, it is given here. As usually understood bilious colic, flatulent colic and wind colic are one and the same, and the cause is the same—undigested food. When the trouble has existed for some days and comes on in the form of an acute attack, there is nausea and vomiting of bilious matter, hence the term, *Bilious Colic*.

For treatment the reader is referred to the remedies under *Flatulent, or Wind, Colic*.

FLATULENT, or WIND, COLIC.—This form is due to indigestible matter in the intestines, which not only excites pain, but by beginning to undergo decomposition also gives rise to gases which cause a painful distension of the bowels.

TREATMENTS.—

What to do Before Calling a Doctor.—First give an active cathartic. Follow with hot applications over the abdomen and give hot drinks—hot sling, hot pepper tea, Camphor tea—or any of the remedies mentioned below.

A. Spirits of Chloroform..... 1 ounce.
Paregoric..... 2 "

Dose.—For an adult, take a teaspoonful in hot water every half hour,

or,

Morphine, $\frac{1}{8}$ grain every two hours, for adult.

Apply hot flannels or hot bottles over bowels and stomach. If pain is in right side and there is tenderness over the appendix, it is best to have a doctor at once.—(13).

- B. Laudanum..... 25 drops.
 Pepper Sauce..... $\frac{1}{2}$ teaspoonful,
 Spirits of Camphor 5 drops.

Dose.—For an adult, the whole taken in a wineglassful of hot water.—(14).

- C. Tincture of Cardamon Compound.... 1 ounce.
 Aromatic Spirits of Ammonia 1 “

Mix, and take one teaspoonful, for the adult, every hour more or less often as he need.

This prescription I have used in some most severe cases of colic of this country with the finest success. Give also a cathartic—a 5-grain dose of Calomel. The Salines or Castor Oil are not so good for bilious colic. The Calomel is better.—(77).

D. A friend who has suffered very much from colic recently obtained from a physician the following prescription, which afforded him such immediate and perfect relief that he desires to give it to the public. It is as follows:

- Pulverized Opium 1 grain.
 Sulphate of Morphia (Morphine) 1 “
 Pulverized Camphor 5 “
 Capsicum 5 “

Make into 10 pills with a thick solution of gum.

One pill will generally afford relief, but if not materially benefited after an hour or two, another may be taken. The remedy was accompanied by the following letter:

“Please find prescription, which I hope will alleviate the pains of some mortal as it has done for me. Hoping it may prove profitable to you, and, through your book, a blessing to many kind,
 I remain, yours, etc. _____

We have not permission to publish the gentleman's name.

E. A splendid remedy is the following:

- Powdered Wood Charcoal..... 1 ounce.
 Lactopeptin 1 “

Dose for adult, $\frac{1}{2}$ to $\frac{2}{3}$ of a teaspoonful; for child one year old, one teaspoonful divided into ten powders and given with a little water.

F. For the wind colic of children, about the nicest thing that can be given them is a tea made of soot. Take some soot from the chimney, put into a dish, pour on some hot water, and drink of it. Or a tea may be made of red pepper, or even of black pepper

—anything that is warming—but the soot tea is best as it starts the gas at once. If, however, the child is not relieved within a reasonable time, say within an hour or so, send for a doctor.

When babes are tongue-tied, they draw air into the stomach in nursing, and if a babe is constantly bothered with colic, the tongue should be examined to see if it needs cutting.

LEAD or PAINTER'S COLIC.—(See **LEAD POISONING**).

RENAL COLIC.—(See **GRAVEL**).

COLDS AND COUGHS.—Many people are troubled with colds, influenza, sore throat, lame back, etc. Prevention is the best thing for colds, as for everything else. People need not be so sensitive to colds if they would gradually accustom themselves to cold baths or cold sponging, in either case bringing the temperature of the water down gradually; and most people would soon learn to appreciate them. Finish by drying thoroughly, rubbing the skin well but not enough to produce irritation. To practice deep breathing for several minutes at a time will also be found of great benefit. Even when out in the cold, deep breathing will increase the heart action and send the blood tingling and the chills flying. The feet should always be kept warm and dry. Shoes should be large enough to allow free circulation.

Another preventative may be had by drinking plenty of water. Water flushes the small vessels, aids in keeping the bowels active and in carrying away waste.

TREATMENTS FOR COLDS.—

A. To prevent.—Out-door exercise and cold baths.

To cure.—Hot baths, sweats and rubbing.—(5.)

B. To Prevent Taking.—Rub the entire surface of the body, in a warm room on retiring, with fresh hog's lard every night, followed by bath in the morning. Do not use sweet oil or any vegetable oil. Vigorous people may take a cold sponge bath with good rubbing after and will seldom take cold.—(8).

C. If a person finds he has a cold, it is better to remain in for a day or two, take a hot foot bath, or better, an alcohol sweat at night. Take 10 grains Quinine and 10 grains of Dover's Powder. This will be all that will be needed in any ordinary attack.

D. Lemons for Colds.—For a fresh cold a good cathartic followed by a bowl of hot lemonade on retiring will usually prove most effective. Roasted lemon is also an effective remedy, especially in a cold of longer standing accompanied with cough. It should be roasted for thirty minutes in an oven not hot enough

to blacken or dry it. When it begins to crack open, take out, press out the juice, sweeten with loaf sugar, and take a little at a time, but take often.

E. For children make an onion syrup, and give in teaspoonful doses every hour or two. Grease the nose and around the throat and chest with lard containing a little Turpentine.—(67).

F. Hot foot bath and 10 drops Tincture of Gelsemium at bedtime. Take Cathartic the following morning.—(46).

G. In case of an adult, take 6 grains Quinine, drink one pint of water, bathe feet in hot water and go to bed. From ten to twenty-four hours in bed after the above treatment will usually terminate any ordinary cold. A cold should not be regarded as a light matter as it may be the forerunner of serious troubles.—(9).

H. A good cathartic—tablespoonful of Salts. At night take a hot foot bath and a strong cup of hot Ginger tea, also a big dose of Quinine—from 6 to 10 grains—get into a warm bed and get up a good, heavy sweat. This will break up an ordinary cold.—(13).

Ancient Method of Cure.—The *Evening Post* says the following plan for the cure of Colds has been in use since 1340:

Put your feet in hot water,
As high as your thighs;
Wrappe your head up in flannelle,
As low as your eyes;
Take a quarte of rum'd gruelle,
When in bedde, as a dose;
With a number four dippe,
Well tallow your nose.

This will be found as valuable and practical at the present time, except perhaps as to the depth of the foot bath and the amount of "rum'd gruelle." Perhaps a pint of that would be sufficient now-a-days, if made tolerably strong, repeating the treatment one or two nights until the cold is broken.

REMEDIES FOR COUGHS.—

A. A most excellent and satisfactory cough mixture may be made as follows:—

Fluid Extract of Ipecac.....	1 ounce.
Chloroform.....	¼ "
Tincture of White Pine.....	4 "
Water	14 "
Sugar	28 "
Tincture of Gelsemium.....	½ "

First dissolve the sugar in the water, next add the Ipecac and the Gelsemium, and last the White Pine and Chloroform.

Dose: One teaspoonful every two or three hours, as needed.

This prescription was used by an old physician who had practiced many years and had learned to depend upon it in all cases of ordinary coughs and colds. It will not disappoint any who use it.

- B. Syrup of Ipecac..... I ounce.
 Syrup of Tolu I "
 Syrup of Rhubarb..... I "
 Spirits of Nitre..... I "
 Paregoric..... I "

The dose for an adult is one teaspoonful every two to four hours; for a child one year old, give 5 drops. Dose may be increased, if necessary.

This is a very simple remedy and the results are satisfactory in nearly all cases.—(67).

C. Paregoric and Hive Syrup, one part of the former to two parts of the latter, taken in 30-drop doses every four hours.—(7).

- D. Fluid Extract Tolu..... I ounce.
 Wine Antimony I "
 Paregoric..... I "
 Fluid Extract Grindelia Robusta..... I "

Mix, and take one teaspoonful three or four times a day,

or,

- Dilute Hydrobromic Acid..... 3 drachms.
 Fluid Extract Grindelia Robusta I ounce.
 Paregoric I "
 Syrup of Tolu..... 1½ "
 Glycerine, add to make..... 6 "

Mix, and take one teaspoonful every three or four hours.

E. *For Cough and Sore Lungs*.—To one quart of water add one large handful of strong hops. Let the water boil till reduced to one pint, then thoroughly strain, rinse out kettle and replace hop water. Carefully stir in one pound of heavy brown sugar and bring to a simmering heat, then remove from the fire and, when cold, add from one-half to one pint of the best Jamaica rum.

Dose, from one to two teaspoonfuls as often as required.

F. We have used the following cough mixture for many years with the most satisfactory results. We have also given the formula to a number of physicians who have been equally successful.

- No. 1. Wild Cherry bark, cut fine..... 2½ ounces.
 No. 2. Ipecac Root, powdered..... 2½ drachms.
 Blood Root, powdered..... 3 "
 Squills, powdered..... 1½ "
 Licorice Root, powdered..... 2 "
 Anise Seed, ground..... ½ ounce.
 Fennel Seed, powdered..... 1 drachm.
 Sulphuric Acid..... 15 to 20 drops.
 Fresh Orange Peel..... ½ to 1 ounce.
 Alcohol..... 1 pint.

Put No. 1 into a large bottle and add one pint of water, allowing it to stand for one week. Of No. 2, first add the Sulphuric Acid to the Alcohol, then add the other ingredients. Also allow this mixture to stand one week, then mix No. 1 and No. 2 together and allow to stand for one week or ten days more. Each bottle should be shaken before the mixtures are added together and the bottle containing the two should be shaken. At the end of ten days, after the two solutions are mixed, get several large sheets of filtering paper from the drug store, place two layers carefully in a funnel, set the funnel in a clean bottle and pour on the mixture, allowing it to strain through. While straining, keep well covered to prevent evaporation. By using filtering paper the solution will come out clear and bright. Now add 10 ounces of sugar and dissolve by shaking the bottle. More sugar may be added if desired. Three or four grains of Sulphate of Codeine should be added to each 4 ounces when it is used. This preparation will keep for any length of time.

Dose, one teaspoonful. It is perfectly safe to give to children of any age as it contains neither Opium nor Morphine. For a child five years old the dose would be $\frac{1}{3}$ teaspoonful. For adults where the cough is severe and there is a good deal of pain, if the mixture does not control the condition $\frac{1}{8}$ of a grain of Morphine may be added to each dose for two or three doses.

WINTER COUGH REMEDIES.—

A. Zinc Sulphate, $\frac{1}{2}$ grain dissolved in a teaspoonful of water. To be taken every one, two or three hours. Take no water or anything right after it as you want its local effect.

This is the best remedy on earth. Try it.—(30).

B. Ammoniated Tincture of Guaiacum.

Dose.—5 drops on a little sugar every half to one hour. Let it slowly dissolve in the mouth and swallow it. Take nothing right away after it. This is a good one also. These cheap remedies are really superior to the expensive cough syrups.—(30).

C. Liquor Ammonia Acetatus.....	2 drachms.
Syrup of Squills Compound.....	2 “
Fluid Extract of Licorice.....	6 “
Syrup of Wild Cherry enough to make	3 ounces.

Dose.—One teaspoonful every hour or two.—(34).

COLOR BLINDNESS.—(See under EYE, DISEASES OF).

CONGESTIVE CHILL—CONGESTIVE FEVER.— (See *Pernicious Fever* under MALARIAL FEVERS).

CONSTIPATION, OR COSTIVENESS.—This is a common disorder. It is due to a sluggish state of the liver and bowels, the bowels retaining the fæces longer than is warranted by a state of health. Constipation means the production of many poisons in the digestive tract which are absorbed into the system and produce a chronic state of disease.

Cause. —It may be due to the character of the food taken, or to the habits of the individual, especially habits of neglect. Some have held the theory that constipation is due to a lack of development in the thickness of the muscular walls of the digestive tract; others, that it is due to imperfect nerve supply and poor circulation; still others argue that it is congenital, that is, exists from birth. But such claims seem to be more a matter of theory than of practical demonstration.

TREATMENTS.—

A. Try to overcome it by diet and habit. Eat graham mush and graham bread, corn bread, coarse food of all kinds, prunes, figs, baked apples, fruit, etc. Drink lots of water before bedtime—a pint every night—and a glass of hot water the first thing in the morning twenty or thirty minutes before breakfast. Have a regular time to have bowels move, say the first thing after breakfast.

If medicine is needed, take 10 to 20 drops of Fluid Extract Cascara Sagrada once or twice a day. Massage over bowels will cure many cases.—(13).

B. The Aloin Strychnine, Belladonna and Cascara pills kept by druggists will give excellent satisfaction in relieving constipation, taken one or two at bedtime, as needed. These pills are a tonic, and there is absolutely no danger in their continued use in chronic constipation. If used with judgment, and regular habits observed, they will result in a permanent cure.—(46).

C. Teaspoonful of Epsom Salts in a glassful of water the first thing in the morning. This treatment should be long continued.—(11).

D. A teaspoonful of corn meal in a glass of cold water on getting out of bed in the morning. A teacupful of very hot water sipped from a teaspoon on sitting down to breakfast. Fruits usually good. Prolonged rubbing and kneading of the bowels, and especially the cultivation of a fixed time or habit in movement of bowels.—(8).

E. A fresh egg beaten in a gill of water and drunk on rising in the morning, and at each meal, for a week or ten days, has cured obstinate cases. It might be increased to two or three at a time as the stomach will bear.—(68).

F. Drink liberally of cold water at bedtime and of hot water as soon as you arise. Then attend to nature's calls "religiously." Let nothing hinder.—(17).

CONSUMPTION.—(See under TUBERCULOSIS).

CONVULSIONS.—Convulsions are due to nervous manifestations. The body is drawn into violent spasmodic contractions, the spasm being confined to the external or voluntary muscles. There is usually loss of consciousness.

Cause.—Convulsions may result from different causes, as uræmic or puerperal convulsions, due to the retention of urea in the system. Infantile convulsions may be due to teething or to worms. With children convulsions are most often caused by indigestion; in this case the trouble is confined to the stomach, hence a dose of Ipecac is always in order. Convulsions also occur in *Epilepsy*. (See *EPILEPSY*).

Convulsions in Children.—

A. Put babe in warm water—temperature of 105—*i. e.*, comfortably warm for hand. As soon as possible give him full dose of Castor Oil, and inject the bowels with warm water or soap suds. Keep body and extremities warm.—(13).

B. Give the patient a dose of Salts or Oil for laxative purposes. If necessary protect the tongue from the closure of the jaws by inserting a cork, piece of wood or knife-handle between the teeth. If severe, a doctor might administer a little Chloroform.—(7).

C. In children little to be done during the convulsion. As soon as possible give $\frac{1}{2}$ to 2 teaspoonfuls of Castor Oil, according to age. The cathartic relieves the head and also the digestive apparatus, which is generally the locality at fault. If the head remains drawn back after the spasm, look out for spinal meningitis, which is very fatal.—(14).

CORN.—A hardening of the outer layer of cells of the skin of the toes or other portions of the foot. A kernel is developed in the calloused portion, about the size of a small pea and cone-shaped. At times it is soft instead of hard, forming what is called a soft corn. This occurs on the side of the foot or between the toes, and is caused by the part being continually moist with sweat.

Cause.—Long-continued pressure or friction caused by ill-fitting shoes.

A. Salicylic Acid..... 30 grains.
 Extract Indian Hemp..... 20 "
 Collodion..... $\frac{1}{2}$ ounce.

Mix, and apply with a soft brush once daily for six days, then soak corn in warm water. Repeat the application if necessary.—(46).

B.—Get felt corn plaster at drug store and place over corn. Then apply on top of corn the following:

Salicylic Acid..... $\frac{1}{8}$ ounce.
Collodion $\frac{1}{2}$ “

First soften corn, every night, with Glycerine or soaking in hot water, then make above application. Wear properly fitting shoes and corns will disappear.—(13).

C.—Remove the pressure by change of foot gear. Remove hard part of corn and cover with an ointment made by thoroughly mixing together equal parts of cooking Soda or Saleratus and Mutton Tallow or Vaseline. The corn will soon disappear.—(14).

D. Take Sheep Sorrel, mash, press out the juice, spread on a plate and dry down to a thick salve. Mix a little pulverized Potash with this salve and bind on a very little of the mixture for two or three nights, or until the corn turns black, showing that it has been killed, then leave it to come out.

or,

Potash, powdered 1 ounce.
Salt of Lemon, powdered..... $\frac{1}{2}$ “

Mix, and bind a little on corn for four or five nights.—(70).

E. Warm a stick of Lead Plaster and rub on to a bit of white silk, which bind on to corn and wear until kernel can be pulled or picked out.

F. Wet lint or batting with Spirits of Turpentine and bind over corn.

CRAMPS.—Cramps are caused by irritation of a nerve or nerves controlling one or more muscles. The irritation is the result of waste products in the system. All life's forces are kept up by irritation (see *Cancer*, cause of), but when this irritation is carried too far, the condition is usually indicated by pains or cramps. Irritation is but another term for stimulation. At first over-stimulation increases the nerve forces with the result that one or more muscles become spasmodic. When these spasms relax and contract, it is called *clonic*; when the muscle remains rigid, it is called *tonic* spasm or cramp.

TREATMENT.—

Usually change of position and massage applied to the affected parts will relieve the trouble. Like other painful conditions, cramps are an indication that more careful diet and more thorough elimination are necessary. Cramps may be influenced by too much hard work, by a lack of exercise or a lack of fresh air. Cramps, pains in the stomach and bowels, rheumatism,

acute or chronic, lumbago, neuralgia in any form, sciatica, headache, and all other forms of aches and pain require the same general treatment, *i. e.*, diet, elimination and fresh air.

CROUP, SPASMODIC.—This disease is a mild degree of catarrhal inflammation of the larynx associated with spasm. It does not often occur before the age of six months nor after the fifth year.

Causes.—It occurs in the otherwise healthy as well as the sickly. Some children seem predisposed to it, and those who have had it once are likely to have it again. Those who have large tonsils and catarrhal throats are more subject to it, the immediate cause being a cold or a fit of indigestion.

Symptoms.—The attack is usually preceded by cold or hoarseness. The child plays around by day and in the evening there is a hollow, barking cough. Towards midnight there is an increase in severity; the breathing becomes more difficult and may be heard in an adjoining room, the child struggles for breath and is in great distress, and the cough is hoarse and ringing. In a few hours the breathing becomes easier, the attack passes away and the child falls asleep. In the morning he is apparently well, but for some hoarseness, and plays as usual. Next night there is a fresh attack, usually little different from the first night. The third night it will be mild or absent. Many children have such attacks several times during the cold season. This disease is very alarming to parents until the child has come through two or more attacks, but is never dangerous.

A. For spasmodic croup keep child warm and hot flannels about neck and over chest. Give $\frac{1}{2}$ teaspoonful Syrup of Ipecac every ten or fifteen minutes till child vomits freely. Give plenty of warm water to wash out stomach. If there is any diphtheria in country, look upon every croup case with suspicion.—(13).

B. For spasmodic croup, nothing is better or more prompt than flannels wrung out of cold water and applied to throat, and then covered with heavy dry flannel cloth. Renew every ten minutes.—(60).

C. Alum pulverized, $\frac{1}{2}$ teaspoonful in a little Molasses, is a simple remedy and one that is almost always at hand. One dose seldom fails to give relief, but if it should, it may be repeated ~~in~~ an hour.

- D.** Oil of Wintergreen.....10 drops.
Oil of Lobelia.....16
Dilute Alcohol..... 1 ounce.

Mix, and give from 1 to 10 drops every fifteen or twenty minutes until the paroxysm passes off, which it usually does in a very short time.—(82).

E. Inhale steam from lime while it is being slacked. Give $\frac{1}{4}$ grain of Calomel every two hours.—(9).

CROUP, MEMBRANOUS.—(See under DIPHTHERIA).

DANDRUFF.—This affection is a disorder of the sebaceous glands, technically known as *seborrhea*. Seborrhea may affect the skin of any portion of the body, but the term *dandruff* is understood to mean the scurfy deposit which forms on the scalp.

Cause.—Dandruff depends upon a diseased condition of the oil glands which open into the hair follicles. The glands become irritated and furnish too much oil, which dries on the surface and forms the crusts or scales commonly known as dandruff. The disease is constitutional, the same as eczema, and the irritation mentioned is caused by irritants in the blood.

TREATMENTS.—

A. Put one tablespoonful Flour of Sulphur in a quart of rain water, and use once a day, after shaking well, as a wash to the scalp. Do not wet your hair with anything else and you will soon cure your dandruff.—(13).

B.—Wash scalp in salt water, use brush and avoid the use of fine combs. Do not use metallic combs. Apply Vaseline twice a week, rubbed well into scalp.—(9).

Those who object to Vaseline by reason of its being too greasy, may find a valuable substitute in Glycerine and Rose Water. The advantage of Glycerine lies in its easy removal. It readily unites with water, therefore may easily be washed off. The Vaseline would cover over and mask the symptoms and allow the condition to become worse. It is in cases like these that Coke Dandruff Cure, or any good antiseptic, is especially valuable.—(See under PATENT PREPARATIONS).

C. Bay Rum and rain water, equal parts.

For shampoo use two or three fresh eggs. When the head is clean, apply the Bay Rum and rain water, rubbing into the scalp with the balls of the fingers.—(50).

D. Shampoo head with white of an egg, and afterwards rub scalp thoroughly with Vaseline.—(46).

DEAFNESS.—There is so much of enjoyment and happiness dependent upon the ability to hear well, that a considerable anxiety arises at once on inability to hear the slightest sound; and although there are but few who are entirely deaf as compared with the mass who can hear, yet there are quite a good many whose hearing is more or less affected.

Cause.—Inflammation of the middle ear is the general cause of deafness. It may follow taking cold, or may follow the infectious diseases, especially scarlet fever.

Symptoms.—The symptoms, or sensations realized, on the approach of an inflammation and consequent deafness, if the inflammation is not subdued, will be a feeling of fullness of the parts, uneasiness, singing noises, and pain, more or less severe. If not relieved, ulceration may follow.

TREATMENTS.—

A. Let an active sweat be taken, and let this be repeated at least once a day in acute cases and once a week in chronic cases until relief is obtained. There is no plan quite equal to the spirit, or hot-air bath, but according to the choice of the patient or the conveniences at hand. In connection with the sweating process, a diaphoretic, or sweating medicine, must be given that will have a tendency to keep up a little perspiration, such as a tea of the Virginia Snake-Root and of Pleurisy-Root, equal parts, say $\frac{1}{4}$ ounce of each, to water, 1 pint, drank in the course of the day, and continued as needed. Active cathartics should also be given; this is of first importance.

Such active systemic treatment is particularly necessary when the inflammation is acute, the result of such treatment being to draw the blood away from the inflamed part, equalize the circulation, and thus prevent the danger of the formation of an abscess, which is liable to follow an acute attack of inflammation of any part.

B. Deafness is not infrequently caused, or at least a partial loss of hearing, by the accumulation of the natural secretions of the ear (ear wax). In some cases this secretion is excessive. In these cases there is a mild local inflammation from some cause, and the result is not only an increase in the secretion, but the moisture evaporates more rapidly, leaving the exudate (discharge) a dry and hardened mass. This is continually surrounded by a fresh supply, which keeps the surface unirritated and the condition unnoticed by the individual. This accumulation is in the external canal and can be easily removed. Lay the sound ear on the table, and with a small syringe fill the affected ear with the following solution:

Baking Soda	1 teaspoonful.
Glycerine	8 teaspoonfuls.
Water.....	8 teaspoonfuls.

Mix, allow the solution to remain in the ear ten or fifteen minutes, let it drain and plug with batting.

Repeat twice a day for two or three days, then syringe out with soap and warm water. This will remove any accumulations, and in cases where deafness is the result of such accumulations, hearing will be restored.

C. Hen's Oil, 1 gill; and a single handful of the sweet clover raised in gardens stewed in the oil until the juice is all out; strain it and bottle for use.

Where deafness is recent, it will be cured by putting three or four drops daily into the ear; but if of long standing, much relief will be obtained if continued a sufficient length of time. Syringe out ears with warm soapsuds twice a day—morning and evening.

DELIRIUM.—The term *delirium* means a wandering of the mind dependent upon some disease, as a fever, and so distinguished from insanity. In a delirious state the ideas of a person are wild, irregular and unconnected.

TREATMENTS.—

What to Do Till the Doctor Comes.—Give a few drops of Paregoric to quiet and produce sleep: If a child, from 15 to 20 drops; if an adult, a teaspoonful of the Paregoric, or from 15 to 20 drops of Laudanum. As a general thing, delirium is produced by fever, and a doctor is visiting the patient every day; but sometimes illness comes on in that way—a person may be taken delirious—and the above is the thing to do until the doctor comes. The feet may be immersed in warm water, as the object is to draw the excess of blood from the brain.

A. Reduce the fever with cold sponging and cold cloths to head. Keep feet warm. Keep quiet. Do not let in any company. Give an adult 20 grains Bromide of Potash in water if there is no contra-indication. Always consult doctor. (13).

DELIRIUM TREMENS.—(See under ALCOHOLISM).

DIABETES.—There are two varieties of this disease, *Diabetes Mellitus* and *Diabetes Insipidus*.

DIABETES MELLITUS.—This is a disorder of nutrition in which fruit sugar accumulates in the blood and later is carried from the system with the urine, which is greatly increased.

During digestion the starch contained in the different food products is converted into glucose or grape sugar. This is absorbed and carried by the veins direct to the liver, where some of it is converted into a substance called glycogen. The glycogen is stored up by the liver cells and delivered to the circulation as the system requires. In health it unites with the oxygen from the air we breathe and is oxidized. This produces heat and aids in

maintaining the bodily temperature; but the system cannot oxidize the amount present in diabetes, hence its appearance through the kidneys.

Cause.—While there are a number of theories advanced regarding the cause of *Diabetes Mellitus*, all investigators are agreed that the disease is preceded by some disordered state of the nervous system. Undoubtedly the first cause is indigestion and constipation. Both are present. The return circulation from the digestive tract passes through the liver, the latter becomes unhealthy and unable to convert the glucose into glycogen, in which case more glucose is left in the circulation than the system can oxidize. Passing through the circulation, the glucose irritates and weakens the kidneys until some of it finds its way into the secreting tubes and is carried off with the urine. Primarily this is called *Diabetes*; later it causes *Bright's Disease*.

Symptoms.—The onset of this disease is nearly always stealthy, and is unnoticed by the patient. The first thing noticed in many cases is excessive thirst or a large increase in the amount of urine, or it may be unusual weakness. The urine is pale in color, very acid, the specific gravity is increased, and sugar is constantly present. At times the appetite is voracious, and at the same time there is a loss of flesh.

The normal amount of urine daily is about fifty ounces, or three pints. In this disease the amount varies from six or eight pints in mild cases to thirty or forty pints in severe ones. The tongue is usually dry, red and glazed. The skin is dry and harsh.

TREATMENTS.—

What to Do.—Keep the patient on a strict diet. Avoid all starchy foods, and also those that contain sugar.

Drink as small a quantity of fluids of all kinds as possible. A cold, *weak* infusion of common tea is the most harmless, and at the same time quite as efficient in quenching thirst as any drink that can be taken. Patients may be allowed to take a swallow of this every hour or two.

Attention to the skin is also a matter of importance. Frequent bathing is desirable. The warm alkaline and spirituous bath may be used before going to bed, and the cold sponge bath in the morning before dressing. Both should be followed with a brisk friction, especially on the spine. To prevent irritation apply Sweet Oil.

A compound Taraxacum and Podophyllin pill should be given every night and morning, or in such quantity as will at least secure one evacuation from the bowels every day. Other valuable remedies for the constipation which is always present

are: the well-known Aloin, Strychnine and Belladonna combination in pill form; or the Fluid Extract of Cascara Sagrada in 10-drop doses morning and night, more or less, as needed.

As a tonic, a decoction of Ptelea and Wild Cherry may be given in wineglassful doses three times a day.

A. Milk diet. Avoid sugar or starchy foods.

Basham's Mixture in teaspoonful doses 3 or 4 times a day.—

(7).

B. Abstain from sugars and starch and reduce mental work and worry.—(3.)

C. Avoid sugars and starches in diet. Diet alone will sometimes cure, but must be continued for a long time.—(50).

D. *Dr. King makes the following report:* "I have treated four cases of Diabetes Mellitus successfully by the internal administration of Nitrate of Ammonia in doses of from 10 to 20 grains repeated three times a day and given in solution. In conjunction with this agent I also employed the following pills, alternating them every four weeks:

"No. 1. Citrate of Iron and Strychnia.....	45 grains.
Quinine Sulphate.....	45 "
Opium.....	60 "

Mix, divide into 90 pills, and give one pill three or four times a day.

"No. 2. Bromide Potassium.....	270 grains.
Extract Conium Maculatum.....	90 "
Extract Aletris.....	90 "

Mix, divide into 90 pills and give same as above, giving No. 1 for four weeks and then giving No. 2 for the next four weeks, and so on."

Rennet wine was prescribed to be taken after the breakfast and dinner meals, and the usual attention bestowed upon the skin, kidneys, bowels, diet, etc.

E. Carbonate of Ammonia.....	90 grains.
Phosphate of Ammonia.....	90 "
Carbonate of Soda.....	2 drachms.
Tincture of Ginger.....	½ ounce.
Glycerine.....	1½ "
Simple Elixir enough to make..	4 "

Dose, a teaspoonful in water three times a day.

This mixture is very grateful to the patient. It relieves thirst and mitigates the morbid appetite. The tongue gradually becomes moist, and the urine diminishes in quantity and contains less sugar.—(74).

DIABETES INSIPIDUS.—This disease usually comes on slowly. Increased secretion of urine and great thirst are the chief symptoms. The amount of urine may be from twenty to forty pints a day and even more. It is extremely pale and watery, and of low specific gravity. The low specific gravity and absence of sugar in the urine will distinguish this disease from *Diabetes Mellitus*.

In many instances *Diabetes Insipidus* does not interfere with the general health, the greatest inconvenience being frequent passing of water and constant thirst. If the primary cause of this trouble is some organic disease, the health may be much impaired. Where there is no other disease, the patient may have good health indefinitely, or nature may restore him to normal health.

TREATMENT.—

The treatment is the same as that for *Diabetes Mellitus*. True, sugar may not be present, but the danger is that this form will run into *Diabetes Mellitus* proper; hence the advisability of following the treatments outlined above.

DIARRHEA.—The *Alimentary Canal* is about 30 or 32 feet long and begins in the mouth. It is lined throughout with mucous membrane. The different portions of this tract have been given different names, as follows:

First, the mouth.

Second, the throat.

Third, the œsophagus, which leads from the throat to the stomach and which is about nine inches in length.

Fourth, the stomach, which is from 10 to 12 inches in length and is capable of holding from 3 to 8 pints, according to the amount of distension.

Fifth, the first part of the small bowel, called the duodenum, which is 10 to 12 inches in length.

Sixth, the small bowel, which is about 25 feet in length and is capable of holding about 15 pints.

Seventh, the large bowel, which is 5 or 6 feet in length and is capable of holding about 8 pints, but, moderately distended, will hold twice that amount.

The mouth is designed for the mechanical division of food and the first step in digestion, called *insalivation*. The œsophagus conveys the food to the stomach. The stomach is simply a dilatation of the canal, being that part of the tract where some of the principal digestive changes are produced and in which the partial reduction and solution of the food takes place. In the small bowel the digestive changes are rendered more complete

and the nutritive principles of the food are separated and absorbed into the circulation, the unused portion being passed on into the large bowel as waste material and, in health, eliminated from the system. Excessive and rapid eating, drinking of strong tea and coffee and the excessive use of the various alcoholic liquors, followed by indigestion and a lack of elimination together with consequent degenerative changes and the absorption of many poisons, are responsible for most of our ills.

The glands of the mouth furnish one kind of digestive ferment, those of the stomach three kinds, and those of the small bowel several other kinds. (See DIGESTION). There is little or no digestive fluid furnished by the glands of the large bowel.

The mucous membrane which lines the digestive tract and the various glands which it contains is a delicate structure, and was not designed by Nature to suffer the abuse and neglect to which it is often subjected. The coats of the small bowel are very thin. Commencing just below the duodenum, or about one foot below the stomach, the small bowel is so thin that a newspaper may be read through it.

The digestive tract is subject to many diseases, which are usually described under separate heads, but which for convenience and clearness are here described together. Strictly speaking, they are not different diseases, but different stages of the same disease—different stages of the same inflammatory process—and that is why it seems advisable to group them together.

The following are some of the different terms applied to the different stages of the disease found in the digestive tract:

Diarrhea.—This is a morbid condition marked by frequent movements and an increased amount of fluid eliminated. The mucous membrane is congested and presents a catarrhal condition.

Inflammation of the Bowels.—This is a catarrhal inflammation of the mucous membrane of the bowels accompanied with fever, soreness and frequent movement. It is sometimes called *Catarrhal Diarrhea*. It is said to be confined more to the large bowel, but, like dysentery, it includes more or less of the small bowel. The mucous membrane is swollen and presents a catarrhal appearance. The swelling may be so great that vessels rupture and blood appears in the eliminations. The glands are swollen and elevated and show a strong tendency to ulcerate. The condition of the mucous membrane may be considered a stage between diarrhea and dysentery.

Dysentery.—This is an inflammation of the mucous membrane of the large bowel particularly, but also includes more or less of the small bowel. Dysentery is sometimes called *Bloody*

Flux, because during these attacks some small blood vessels in the mucous membrane may rupture and blood appear in the eliminations, but this same evidence of inflammation may and often does occur in bowel difficulties which are known by other names. This is only an aggravated case of diarrhea. The disease extends all the way from a mild form of inflammation to the more serious condition where the inflammation is so great that nutrition is shut off, ulcers form and parts of the mucous membrane slough away.

Cause.—The cause of diarrhea is indigestion, constipation, or both. Diarrhea usually occurs during the summer months because the system is weakened and relaxed by the heat. This is especially true of children as they have not sufficient vitality and physical strength to withstand its effects. Again, people drink more during the summer; this favors free action of the bowels, and may interfere with digestion, especially if taken soon after meals. Another important reason is found in the amount of unripe fruit that is eaten. Unripe fruit contains starch, which is converted into glucose or fruit sugar during the process of ripening. A considerable quantity of this sugar in some kinds of fruits is what gives them their sweet taste. Uncooked starch is not digestible and acts as an irritant in the digestive tract, thus stimulating increased activity. This form of diarrhea is usually acute, but the inflammation is mild and tends to early recovery. At other seasons of the year constipation is the rule, because the heat is replaced by a bracing atmosphere and the many varieties of green fruit are not indulged in.

The stages of diarrhea known as *Inflammation of the Bowels and Dysentery* are the result of unhealthy conditions that have existed for some time. First, the morbid effects cause only congestion, and this passes unnoticed into a mild form of inflammation before the diarrhea begins. The mucous membrane has become unhealthy to the extent that degenerative changes have made their appearance. Distributed throughout the mucous membrane are little thimble-shaped depressions called glands, which open into the bowel. Before dysentery begins these become swollen and choked with unhealthy secretions until they are ready to break down and ulcerate. With the increased inflammation there is increased distension of the blood vessels and increased exudate from the swollen glands. When the unhealthy secretions from the diseased glands and other products of inflammation reach a certain point, the irritation, acting as a stimulus, causes increased action, resulting in dysentery. These cases do not recover as rapidly as simple diarrhea because a greater derangement precedes the attack, yet, as stated, all of these so-called diseases are but different stages of the same inflammatory pro-

cess. Following constipation, there is more pressure, hence more soreness, and the disease is of longer duration because it comes on gradually and the morbid changes in the mucous membrane reach greater proportions before giving evidence of the conditions present.

Symptoms.—The symptoms in a mild case of Diarrhea may be colicky pains and a little nausea, and there may also be some headache and a feeling of languor; the inflammation is slight as there has been no structural change in the mucous membrane, and the symptoms largely disappear with thorough elimination. With simple diarrhea there is no fever present in the beginning. This form of the disease usually lasts three or four days. The movements are frequent and include large quantities of water, showing the distension of the blood vessels from which the water was drained. The odor is bad. In many of these cases food, showing but little or no effects of digestion, is eliminated. This is due to the unhealthy condition of the bowel. The mucous membrane lining the bowel is swollen and presents a catarrhal condition. There is no rupture of small vessels and blood does not appear.

If there is a burning or scalding sensation, it shows that the inflammation has progressed a step further. The eliminations now present a greenish appearance, the odor is increased, and the mucous secretions thicken more or less as the disease advances.

This disease occurring in children makes them irritable; they cry a great deal, are peevish, fretful, and appear to suffer considerably. They vomit easily, and the eliminations contain undigested food, also curdy lumps if the child drinks milk. These lumps are formed of that part of the milk called caseine, or milk albumen.

Chronic Diarrhea may follow frequent attacks of acute. In chronic diarrhea the symptoms are all aggravated, and the change in the mucous membrane resembles that found in dysentery. Both the mucous membrane and the submucous or deeper tissues present a catarrhal condition. There is an abundance of mucus furnished by the glands mentioned. Many of these glands break down and small ulcers form, hence pus may also appear. Chronic diarrhea, inflammation of the bowels and dysentery are most marked in the large bowel, although more or less of the small bowel is included.

As any of these forms of disease continue, the whole thickness of the mucous membrane becomes involved and the number of glands that are broken down and converted into ulcers are increased, and not only the mucous membrane, but the outer portion of the bowel may become involved and form adhesions to the surrounding structures.

First the mucous membrane, and the connective tissue beneath which joins it to the muscular layer, slough away in large patches, and the whole thickness of the bowel becomes infiltrated with blood and serum, which presents more or less a dark hue by reason of the continued congestion and inflammation. The bowel is swollen and thickened as the result of new tissue growth. Later the contraction of this tissue tends to close the ulcers, thus permanently destroying many of the glands, and the walls of the bowels are more or less thinned as a result of the contraction of the new tissue and the destruction of the natural. The contraction is not uniform, hence the bowel presents an unequal diameter; in some places it is narrowed, and in others, dilated. It contains mucus, pus, and other products of inflammation.

TREATMENT.—

The treatment of any and all forms of diarrhea or dysentery is not difficult, and is practically the same, because all forms present characteristics more or less in common. Dosage should be regulated according to age, but otherwise the treatment for infant, child or adult is the same.

First, secure thorough elimination. For this purpose Castor Oil, Epsom Salts or Rochelle Salts are most frequently used, and their frequency is in the order named. One large dose of either may be given, although several small doses of the Salts frequently repeated will perhaps act more thoroughly. The Castor Oil is most rapid and certain in its action, therefore would be preferable if the case was urgent. Castor Oil, however, is very nauseating to many, hence we recommend in its stead Laxol (see Index), which is nearly 100 per cent. pure Castor Oil, with the taste of the Oil disguised. Those who prefer to buy it will find it at any drug store.

With the Salts the action depends more upon the large amount of water they attract into the bowel from the congested or inflamed mucous membrane, hence their effects are *more* cooling, and for this reason they would be the better remedy in inflammation. The Salts also produce more or less nausea. For some years past we have used in their place the Seidlitz Salts manufactured by the Abbott Alkaloidal Co. of Ravenswood, Chicago, Illinois. This preparation is 98 per cent. Epsom Salts, the other two per cent. being of such a nature as to render the compound effervescent and pleasant to take. From a teaspoonful to a tablespoonful of the Salts may be taken every morning, or as needed.

Calomel is another excellent remedy. In making this statement we realize that there is much prejudice against this drug. It may be taken in one dose of 5 to 10 grains, or $\frac{1}{4}$ -grain doses may be taken one hour apart until the bowels move freely.

The laxatives mentioned are for the purpose of freeing the digestive tract of irritating substances, and should be followed by antiseptics. For this purpose we especially recommend the following:

Ten grains of Salol every three hours, or the same amount of the Sulphocarbolates of Lime, Zinc and Soda combined; or if the movements are very frequent and it is desired to control this particular feature, give Sulphocarbolate of Zinc alone—5 grains every two hours. The preparation of Zinc is astringent while the combination or Salol is not; otherwise there is no difference. In either case the purpose is to render the digestive tract clean and healthy. These remedies stop fermentation and render ulcers and other unhealthy surfaces clean and wholesome. As soon as there is improvement, give less often—perhaps two or three times a day.

The main thought to keep in mind is cleanliness. Ulcers or any degenerative changes in the digestive tract should be treated the same as on the surface. For this purpose, the Sulphocarbolates of Lime, Zinc and Soda combined, or Salol, are the best remedies. Regulate the dose and the treatment for infants, children and adults is the same.

Arsenite of Copper is another remedy of value and may be given in doses of $\frac{1}{100}$ of a grain every two to four hours. Half this amount, $\frac{1}{200}$ of a grain, may be given either with the Sulphocarbolates or the Salol. The tablets are most convenient.

The following remedy will check fermentation, relieve the congestion of the mucous membrane and free its surface of unhealthy secretions, stimulate digestion and regulate movement. It is a valuable remedy for many cases of bowel troubles that occur in summer, and especially so with children:

Carbonate of Soda.....	1 drachm
Wine of Ipecac.....	1 “
Fluid Hydrastus.....	6 “
Syrup of Rhubarb sufficient to make 4 ounces.	

Dose.—One teaspoonful every 2 to 4 hours, as indicated by the condition of the bowels. Give a dose of Laxol before commencing this remedy.

Fever may be present with both inflammation of the bowels and dysentery. If it is, the foregoing treatment will be ideal, as it is aimed directly at the cause, *i. e.*, the unhealthy condition of the bowels. Additional treatment for the fever consists of Aco-

nite and Veratrum in one-drop doses every hour or two. A better remedy for fever resulting from inflammation of the bowels is the following:

Fluid Extract of Ipecac.....	10 drops.
Tincture of Aconite	10 “
Glycerine.....	½ ounce.
Water enough to make	4 “

Dose.—1 teaspoonful every hour.

If there is much pain and restlessness with children, give Codeine. For a child one year old, $\frac{1}{30}$ of a grain two or three times a day is usually sufficient. For adults where there is pain and soreness due to inflammation or dysentery, give one grain of Opium. One or two doses a day are usually sufficient. Opium is constipating and this effect must be overcome by Laxol, Seidlitz Salts, or some other remedy. It is generally understood that in inflammation of the bowels and dysentery the pain and soreness are marked. We have seen many cases where the pain and soreness were severe in an ordinary case of diarrhea, and have seen chronic cases free from both.

In many cases of bowel trouble there is rapid emaciation, because digestion and assimilation are interfered with to such an extent that the patient receives but little nourishment; hence the question of diet is an important one. In simple diarrhea, if all food is stopped for 24 hours it will be of great benefit to the patient, and then only such food should be allowed as is easily digested, and should be taken in rather small amounts for a few days. Milk, or milk and lime water, equal parts, is perhaps best of all. Next are toast, boiled rice and meat broths. The less solid food taken the better. In chronic cases, toast, meat broths, soft cooked eggs and other concentrated foods that are easily digested should be taken.

Diarrhea.—REMEDIES RECOMMENDED.—

A. Give a little hot brandy sling. Take the bark of Blackberry roots and leaves and steep up and make a strong decoction. Drink this freely, but avoid other drinks as much as possible, especially cold water. A little grated nutmeg may be put into the tea, and it may be sweetened with loaf sugar if desired.

B. Paregoric.....	4 drachms.
Aromatic Syrup of Rhubarb	3 “
Aromatic Spirits of Ammonia.....	2 “
Subnitrate of Bismuth.....	2 “
Blackberry Wine enough to make..	4 ounces.

Dose; 2 teaspoonfuls (bottle well shaken) in a little water every three hours.—(22).

C. Arsenate of Copper	$\frac{1}{100}$ grain.
Water.....	8 ounces.

Dose: 1 teaspoonful every ten to twenty minutes till relieved,

or,

Paregoric.....	1 ounce.
Tincture Red Pepper.....	1 drachm.
Subnitrate of Bismuth.....	½ “
Syrup.....	4 ounces.

Mix, and take teaspoonful every half hour until relieved.—(46).

D. Tincture of Rhubarb	1 ounce.
Spirits of Camphor	½ “
Laudanum.....	½ “
Tincture of Ginger.	½ “
Essence of Cinnamon.....	½ “
Tincture of Capsicum	¼ “

Mix, and shake when using.

Dose: One-half teaspoonful, on sugar or in a little sweetened water. In severe cases repeat every 30 minutes until relief from pain is obtained, then every hour or two as needed until the evacuations are lessened and improved in appearance.

E. Tincture of Aconite.....	5 to 10 drops.
Tincture of Ipecac.....	15 drops.
Water	4 ounces.

Dose: 1 teaspoonful every hour.—(77).

F. Dr. Owen reports a case of a friend of his who cured himself of a most obstinate diarrhea of several months standing, after trying everything else he could hear of, simply by eating once a day, as his dinner, a slice of raw bacon, a raw onion and plenty of salt, and bread. It required only two weeks to effect the cure. The doctor adds: “The remedy is not bad to take if one is hungry.”

Diarrhea of Old Age.—Sometimes with old people there is a relaxed condition of the bowels that causes diarrhea. These cases are not frequent, but are occasionally met, and the treatment especially recommended for them is as follows:

Sulphate of Strychnine.....	½ grain.
Hyoscyamine.....	I-10 “
Sulphocarbolate of Zinc.....	24 “
Glycerine.....	2 ounces.
Simple Elixir.....	2 “

Mix, and take one teaspoonful every two or three hours until there is improvement, then less often.

Inflammation of the Bowels.—REMEDIES RECOMMENDED.

What to Do Till the Doctor Comes.—Evacuate the bowels, if possible, with an injection of soapsuds, as hot as can be borne. Put the patient to bed and cover the bowels either with cloths

wrung out of the hot decoction of some bitter herb, such as Mayweed or Smartweed steeped up, or with a poultice made of Flaxseed meal. Or cloths may be wrung out of hot water alone. The hot applications afford relief, but if the pain is very severe and there is any Laudanum in the house, from 8 to 12 drops may be given, if an adult.

A. Warm poultices to the abdomen. Half teaspoonful doses of Epsom Salts every two hours till the discharges are frequent. Milk diet. Laudanum or Paregoric to relieve pain.—(9).

B. Keep the bowels moving, and apply hot flannel cloths with flannel binder around the abdomen.—(17).

C. Give tablespoonful of Epsom Salts in goblet of hot water. Apply hot fomentations. Insure absolute rest in bed and send for a doctor.—(14).

Dysentery.—REMEDIES RECOMMENDED.

What to Do Before Calling a Doctor.—In the first place give Castor Oil according to age: for a child, a teaspoonful with 1 to 2 drops of Laudanum; for an adult, a tablespoonful of the Oil with from 10 to 15 drops of Laudanum. Hot brandy sling is good. A most excellent remedy is a tea made from Blackberry roots: Take a small handful of the roots, put into a dish and steep, and let the patient drink freely of it. If for a child, it may be sweetened by adding loaf or white sugar.

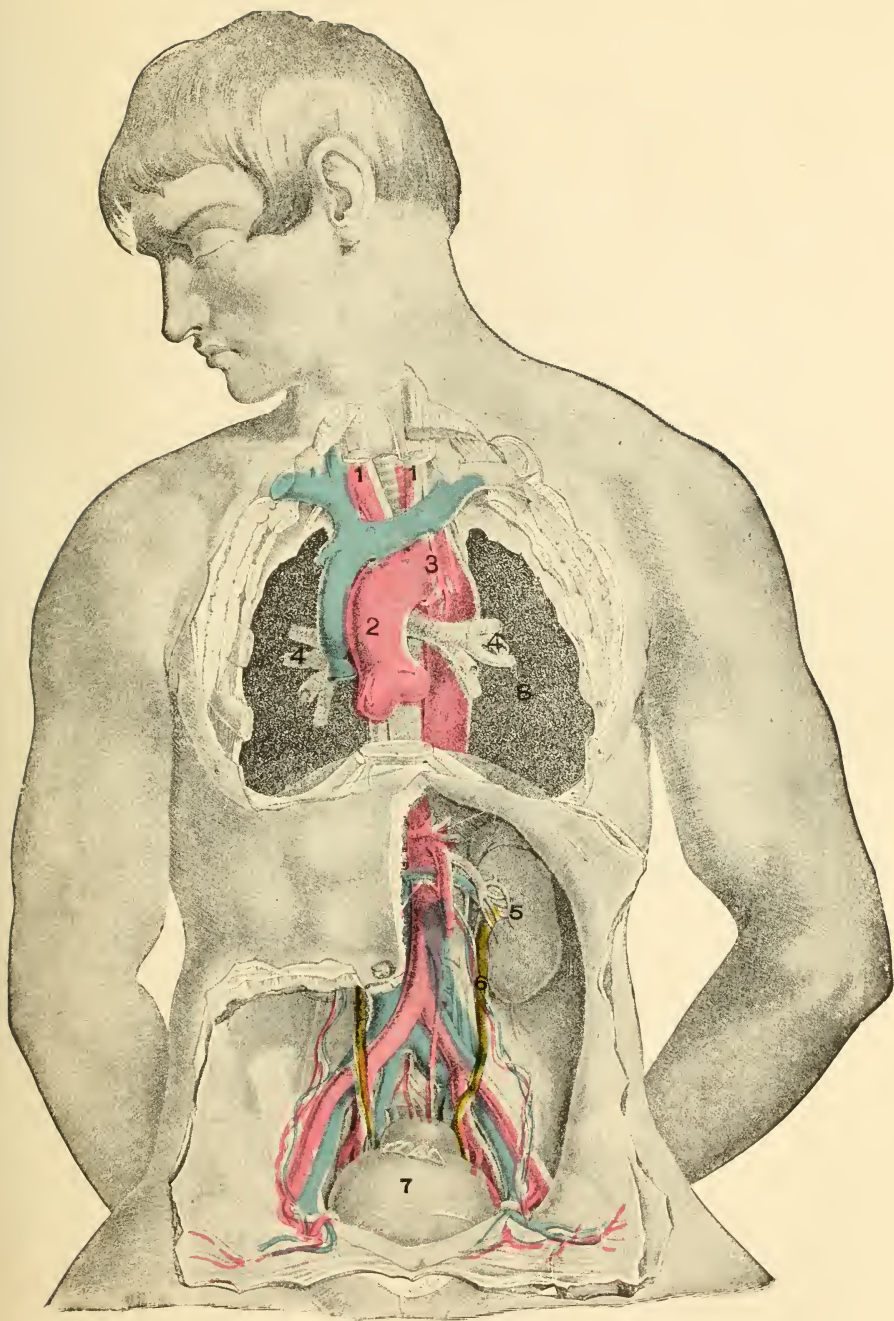
In country districts remote from a physician the physic may be followed with a tea made of the bark of White Oak—the young growth, or saplings. Steep it, add a few drops of the Spirits of Camphor, and give a teaspoonful to a dose, repeating every three or four hours. The Oak tea should not be given until the physic has operated. The Blackberry tea may be given from the start.

The diet should be of the mildest and most nourishing kind, as boiled milk with a bit of flour thickening, making a kind of porridge, or thickened milk, rice boiled in milk, or rice flour, if it can be obtained, scalded with water then boiled in milk, or boiled milk with bread crumbled in it, until the strength begins to mend, then avoid everything likely to produce a relapse, which is almost always worse than the first attack.

A. Dover's Powder	½ drachm.
Subnitrate of Bismuth	½ ounce.
Salol	½ drachm.

Mix, divide into twelve powders and take one every hour or two.—(46).

B. Empty bowels by Oil or Salts in small doses. Give adult 5 to 10 drops of Laudanum in one teaspoonful of Castor Oil every two to four hours.—(13).



No. 4.

1, Arteries supplying Neck and Brain. 2, Large Artery arising from Heart (which is removed). 3, Nerves. 4, Bronchial Tubes (cut off). 5, Left Kidney 6, Left Ureter. 7, Bladder 8, Left Lung.

C. Give hot starch injections and encourage free perspiration.—(5).

D. 10 drops of Laudanum in a tablespoonful of Castor Oil. Very plain diet. Drink hot salt water (teaspoonful to the pint). Wash the bowels out with hot soapsuds.—(7).

E. *Dysentery of Small Children*.—Dr. Hall reports his success with dysentery of small children. His treatment is so uniform that it is only necessary to give one case to have a general understanding of it. "A child of eight months had diarrhea, commencing in the morning, but in the evening the stools became small and bloody, attended with tenesmus (straining). Pulse 130 and hard, surface hot, very restless, nausea with occasional retching. Discharges about every ten minutes. Child regarded by the parents as in a dangerous condition, one having died in the same house from the same disease the week previous.

" Prescribed at 11 p. m.:

Tincture of Aconite.....	5 drops.
Tincture of Ipecac.....	15 "
Water	4 ounces.

Dose.—A teaspoonful every hour.

"No dysenteric discharges after 4 a. m. next morning, and the child was well the second day."

The Ipecac is believed to be certain, or *specific*, in its action upon mucous surfaces—the internal surface of the intestines is mucus—and the Aconite lowers the circulation and thus reduces fever. A child 2 to 4 years old might be given twice the amount. An adult might take a tablespoonful as a dose.

DIPHTHERIA.—Diphtheria is an acute communicable disease characterized by the formation of a false membrane upon certain mucous surfaces, especially of the tonsils and throat. Like other inflammations it varies in severity, ranging from a mild to a severe form. In the mild forms there is little constitutional disturbances; in the severe forms there is great prostration and heart weakness. It is often followed by paralysis of the throat. A severe case is one of the most dreaded diseases of childhood. Though often epidemic, it is always present in large cities.

Cause.—Diphtheria is due to a certain specific poison. Some claim this poison is the result of germ action, and others claim that it is a constitutional disease.

The period of inoculation is from two to five days. Second attacks are very common.

Symptoms.—There is considerable variance in the intensity of the symptoms and the development of the disease. It may begin mildly with a sensation of chilliness followed by slight

fever, indisposition, and some uneasiness in swallowing. Or the onset may be severe, a chill being followed with great febrile reaction, swallowing becoming painful, the limbs aching and the prostration being marked.

The first local symptom is a redness of one or both tonsils, accompanied with a swelling of the glands at the angle of the jaw. After this redness comes an exudation which gradually forms a membranous tissue covering more or less the surface of the tonsils. The membrane may extend to the nasal passages, giving rise to an offensive discharge from the nose of a thin, serous fluid, slightly tinged with blood. The disease may also extend from the throat along the Eustacian tubes to the middle ear and cause deafness. In such cases the tympanum, or outer membrane, may be perforated, and there may be caries (death) of the bones of the ear. The membrane formed in the throat is usually of a grayish or leathery color, which, if removed, *leaves a raw and bleeding surface—a characteristic feature of a diphtheritic membrane as distinguished from whitish patches that may form in the throat in other affections.* Not infrequently portions of this membrane are expectorated, and in severe cases ulceration and sloughing also occur. The odor arising from the putrid secretions in *diphtheria* is exceedingly offensive.

Nausea, vomiting or bleeding at the nose, when occurring late in the disease, paralysis before the exudate (membrane) disappears, subnormal temperature and all complications are unfavorable. Also convulsions occurring late are unfavorable, while as ushering-in symptoms they are of no especial significance. Diphtheria paralysis is usually recovered from, though paralysis of the heart may occur when least expected. Even after the danger seems past, the child while at play may by reason of sudden effort topple over dead, and for this reason should be kept quiet during convalescence. Paralysis of the muscles of respiration or of the diaphragm give rise to grave symptoms. Complications may prove fatal by their attack upon other organs, as the kidneys, liver or brain. Paralysis of the muscles of the throat may cause fluids to pass out through the nose. Imperfect closure of the epiglottis may allow food to enter the trachea (windpipe).

TREATMENTS.—

What to Do Till the Doctor Comes.—Diphtheria is generally confined to childhood. If the disease is prevalent and any member of the family complains of "sore throat," be on guard. It may prove to be only a sore throat from taking cold, but diphtheria generally commences in that way. The first thing the child complains of is that his throat feels sore, that it hurts him to swallow, & perhaps that his throat pains him. First give a cathartic.

Squeeze out the juice from lemons and stir in sulphur until you have it about the consistency of thick cream. Give the child a little in his mouth every half hour and have him swallow it. Keep watch of the throat, and if the lining membrane, that is, the inside of the throat, assumes an ash-colored hue, put him to bed, in a room by himself, and keep others away; keep him warm and send immediately for your doctor. Bathe the throat with Camphorated Oil, putting on the Oil pretty freely and afterwards wrapping with a flannel cloth. Give all the lemonade he can drink.

An excellent gargle for diphtheric sore throat is made of the Chlorate of Potash and the Sulphite of Soda, put up in powders of twenty grains of the Potash to ten grains of the Soda. Put one of these powders into a common goblet, fill two-thirds full of hot water, so as to dissolve it, and gargle the throat every two or three hours. Have the child gargle as low down as possible, and occasionally let him swallow a quarter of a teaspoonful—just enough to moisten the membranes of the throat—especially if he cannot gargle well. If he cannot gargle and it is necessary to use a swab, take Glycerine and Carbolic Acid, 15 parts Glycerine to one part Carbolic Acid, or say 15 drops of Carbolic Acid to one ounce of Glycerine, and swab the throat with that.

A. Carbolic Acid, full strength	15 drops.
Chlorate of Potash.....	1 drachm.
Tincture of Myrrh.....	1 "
Oil of Wintergreen.....	5 drops.

Mix, and add slowly by trituration (stirring rapidly) four ounces of honey.

Dose.—Give child one tablespoonful every half hour, if the case is severe. This remedy has proven very successful in the treatment of diphtheria and those who use it will find the results most satisfactory.

The food should be of the most nourishing kind, milk, eggs, beef, broths, toast, etc. Small amounts must be given at frequent intervals day and night.

If there is discharge from the nose, spray the cavities with Peroxide of Hydrogen, and spray the throat with the same remedy. Sleep should not interfere with treatment, either medicinal or feeding.

Antitoxin is considered by many a specific for diphtheria, and is quite generally used, but can be administered only by a physician.

B. Bathe the throat internally and externally with ordinary coal oil. Give Sulphur mixed in molasses, and if improvement is not soon apparent, send for your doctor.—(17).

C. Iodide of Potash.....	2 drachms.
Whiskey.....	4 ounces.

Mix, and give teaspoonful every four hours.

Give Antitoxin as soon as the disease is diagnosed.

Give teaspoonful of Salt in $\frac{1}{2}$ glass of warm water every three to four hours, and at the same time give 3 to 10 drops of the Tincture of Digitalis in water three times daily, according to age.—(46).

Note.—If the salt solution causes nausea, lessen or omit that part of the treatment.

D. Diphtheria Antitoxin, first and last. Throat disinfected with Hydrogen Peroxide sprayed, full strength.—(60).

E. Antitoxin. Calomel cathartic—from 1 to 5 grains of Calomel, according to age. Use disinfectant gargle. Patient ordinarily well in four or five days.—(54).

F. Iodide of Mercury, first dilution. Give 2 tablets every two hours. Chlorinated Lime Water, give 2 drops in water every two hours. Alternate the two remedies. Use Alcohol for gargling, and as strong as possible. Make patient eat the most nourishing foods. Do not use Antitoxin unless it is *known* to be fresh and pure.—(18)—Homeopathic.

G. Report of two cases where Phytolacca was used as treatment:

1. "Mrs. B., 31. Nov. 16th. Throat commenced to feel sore in morning, followed by high fever all day, right tonsil very much swollen; at noon commenced to see substance forming on the tonsil. Was called 10 P. M., found right tonsil covered completely with pseudo-membrane, fauces and soft palate very much inflamed, deglutition almost impossible, loss of appetite, great frontal headache, bowels moved every two hours, with severe pain in umbilical regions, great prostration, vertigo" (dizziness) "so great she could not walk. Pulse 127, soft. Gave Phytolacca 4 drops every hour, and a gargle of same every hour, consisting of 50 drops in tumbler water. 18th, very much better; pulse, 100, throat did not feel near so sore, false membrane began to come off, back and limbs ached but slightly, headache nearly gone; continued same treatment three days. Discharged her cured. Diarrhea stopped second day."

2. "Mrs. G., 21, nursing a babe. Dec. 11th, throat commenced to feel sore, very restless night. 12th, slight headache with severe pain in back and legs, very chilly all the time, throat very sore, both tonsils very much swollen and covered in patches with dark-colored pseudo-membrane, deglutition" (swallowing) "very difficult, face very much flushed, great prostration, could not sit up any, so faint and weak, bowels regular. Gave Phytolacca

4 drops every $\frac{1}{2}$ hour, with gargle of same. 13th, felt very much better; fever all gone, back and legs did not ache any, throat felt very sore, tonsils very red and swollen, covered in patches with the pseudo-exudation, deglutition very painful. Continued same treatment once an hour. 14th, felt quite well; pseudo-membrane off from both tonsils, large holes eaten into tonsils, could swallow quite well. Continued same treatment every two hours, discharged her cured next day. Babe nursed her throughout, did not take disease."

LARYNGEAL DIPHTHERIA—CROUP, TRUE OR MEMBRANOUS.—For many years the medical fraternity has been divided as to the identity of membranous croup and diphtheria, but to-day most physicians consider them one and the same.

The treatment and general care of the child is the same as that already given under *Diphtheria*.

DROPSY.—Dropsy is not a disease, but a symptom. It is a result of disease and indicates a serious condition of the health. It consists of an effusion of the watery part of the blood into a cavity, or into the loose connective tissue which envelops the body and lies just beneath the skin. In the latter case it is called *Anasarca*. Occurring in the abdominal cavity, it is called *Ascites*; in the chest cavity, *Hydrothorax*; in the brain, *Hydrocephalus*; in the sac which surrounds the heart, *Hydro-Pericardium*. The two latter seldom occur. *Hydrocephalus*, or *Water on the Brain*, is a disease of infancy. Swelling is the universal evidence of dropsy. Dropsy always depends upon obstruction of the return circulation. The obstruction may be due to tumors, inflammation acute or chronic, or may be due to a weak heart. When due to tumor or inflammation, it is localized, that is, the return circulation being blocked, the blood is forced back, oozes out through the veins, and is found in the nearest cavity or tissue. Dropsy may result from Bright's disease. In health the kidneys contain a large amount of blood. During inflammation the blood cannot circulate through them, but is forced back toward the heart. At first the force of the heart beat is increased to overcome the extra demands made upon it, but later the heart may become diseased and weakened, when the return circulation will be correspondingly slow. *Oedema* is a term often applied to swelling or localized dropsy occurring just beneath the skin. Inflammatory swellings are sometimes spoken of as *oedematous*.

Dropsy may also affect other smaller cavities of the body, deriving its name therefrom, as *Dropsy of the Testicle*, called *Hydrocele*.

TREATMENTS.—

A. If due to tumor, remove the growth; if due to inflammation, weak heart or Bright's disease, see treatment under those heads. In all cases relieve as far as possible by keeping the bowels active. Water may be drawn from the abdomen, chest or any other cavity by inserting a *trocar*. This is a hollow needle and the water drains through it. It will be understood, of course, that this simply relieves the patient but does not cure. The only cure is removal of the cause, and this may be difficult or impossible.

B. One of the best remedies for any form of dropsy is Dwarf Elder (see chapter on herbs for description and directions). Of course, when dropsical symptoms appear, consult a doctor as to their nature and cause.

In the chapter on HERB REMEDIES will be found many herbs that produce a free discharge of urine, and thus help to relieve, and in many cases have cured dropsy in some of its forms.

C. Jalap.....	½ ounce.
Cream of Tartar.....	1 “
Elaterium, powdered	4 grains.
Capsicum	1 drachm.

Mix, and divide into 20 powders.

Dose.—Take one powder in a little syrup or molasses, morning, noon and night, and if this does not cause as free a cathartic action as the patient can well bear, take another at late bedtime, until a free and full cathartic action has been brought about, which may be repeated every three or four days, as needed.

D. Is only a symptom of some diseased condition, which, if it be possible to remove, the dropsy will disappear.—(14).

E. Purgative doses of Salts and a purely milk diet. No liquor or stimulant drinks.—(7).

F. Hydrocele.—Draw off the water and inject into the sac Tincture of Iodine, diluted one-half with water.—(10).

G. Hydrocele.—Rest in bed, with support of the parts, and cathartic doses of Epsom Salts.—(7).

H. Hydrocephalus.—For a child a year old, one grain Iodide Potassium in a tablespoonful of water, three times a day, between meals.—(14).

DYSENTERY.—(See under DIARRHEA).

DYSMENORRHEA.—(See under DISEASES OF WOMEN).

DYSPEPSIA. (See under STOMACH DISEASES).

DYSURIA.—(See under BLADDER DISEASES).

THE EAR AND ITS DISEASES.

The ear consists of three parts—the external, middle and internal.

The External Ear.—The external ear is formed of cartilage and bone and is covered with skin; the expanded portion is formed of cartilage without bone and is popularly recognized as “the ear.” The border of the external ear gradually verges or approaches towards the opening which leads to the middle ear. This opening, called the external auditory canal, is about $1\frac{1}{2}$ inches in length. The first half inch is formed of cartilage; the remaining portion is situated in bone, and all is covered or lined with skin which becomes more modified as it extends inward. It is supplied with numerous glands which secrete or furnish an adhesive yellow and bitter substance, the purpose of which is supposed to be the entanglement of insects, dust and other foreign bodies. The direction of the external canal is inward, forward and a little downward. It is narrower in the center than at either end, which makes it difficult to remove foreign bodies that may become lodged in it. It is separated from the middle ear by a membrane called the *tympanic membrane*. This membrane is composed of three layers: The outer layer is skin, the middle layer is connective tissue and forms the framework, and the internal layer is mucous membrane.

The Middle Ear.—The middle portion of the ear is hollow and is called the *tympanum*, meaning a drum. As stated, it is separated from the external ear by the tympanic membrane; it is separated from the internal ear by a bony partition. This partition is covered with mucous membrane and contains two openings, one round and the other oval, and these openings are lined with a delicate membrane. Extending across the middle ear is a chain of three very small bones held together by a delicate structure of cartilage. The inner end of this chain fits into one of the openings in the bony partition, and the cartilage blends with that lining the opening. The mucous membrane which covers the partition is reflected over and covers the entire chain, and blends at the outer end of the chain with the tympanic membrane. By means of the mucous membrane and the cartilage which supports it, the chain is allowed to vibrate back and forth, thus when wave sounds are received any jarring of the delicate structures of the internal ear is prevented.

Leading from the middle ear to the throat is a small tube or canal called the *Eustachian tube* after its discoverer. This tube is formed of connective tissue and cartilage, and is lined with mucous membrane which is continuous with the mucous membrane of the throat.

The Internal Ear.—This portion of the ear is sometimes called the *labyrinth*, meaning a winding passage. It is divided into three parts: first, the vestibule, or common opening, situated next to the middle ear; second, three small canals, each forming a half circle with both ends opening into the vestibule; third, the *cochlea*—so-called from its resemblance to a snail shell—which also opens into the vestibule. The cochlea is about $\frac{1}{4}$ of an inch in length and consists of a central column of bone. This column tapers from base to top and is surrounded by a spiral canal which makes $2\frac{1}{2}$ turns. The canal, which is divided lengthwise into two parts by a thin layer of bone and delicate membrane, is about $1\frac{1}{2}$ inches in length. Its termination resembles the half of an inverted funnel cut in two lengthwise. The two parts communicate at the top. The lower end of one opens into the vestibule, and the lower end of the other extends to the round window in the bony partition between the internal and middle ear, but is prevented from opening into the middle ear by reason of the mucous membrane which covers the window. The vestibule, the three half circular canals and the spiral canals of the cochlea, are lined with mucous membrane.

Each of the spiral canals contains a closed membrane in the form of a tube. This tube about one-third fills the space. Surrounding it and filling the balance of the space in the canals is a fluid called *perilymph*. The same kind of fluid fills the tube, and is here called *endolymph*. Covering the outer surface of the wall of the cochlea or snail shell is a delicate membrane which follows the whole length of the spiral canal. It is composed of cells whose arrangement somewhat resembles the key-board of a piano. These cells are supplied with delicate hair-like processes. The base of the cochlea is about 1 inch in breadth and contains numerous openings for the passage of the branches of the auditory nerve, or nerve of hearing. Upon entering, one-half of this nerve goes to supply the vestibule and half-circular canals, and the other half ascends the spiral canal in the cochlea and divides into delicate filaments or fibers which join the hair-like processes of the cells. The different sound waves traveling along the external canal are transmitted across the middle ear by the chain of bones, communicate with the internal ear and are received by the cells forming the key-board. This produces the different tones, and the various impressions are conveyed to the brain.

EARACHE.—Earache is a trouble usually met with in children. It may follow taking cold, and is one of the symptoms in congestion, inflammation, or suppuration of the middle ear. As usually met with, earache is not a serious condition. However, it should be remembered that the ear is a very sensitive organ, and it requires but very slight pressure to cause pain. As stated in the foregoing, the middle ear is lined with mucous membrane which is continuous from the throat, passing along the Eustachian tube, therefore inflammation of the throat may and often does extend to the middle ear and cause earache. Inflammation or abscess in one of the cavities of the mastoid process (see *Abscess of the Mastoid Process*) may cause earache.

TREATMENTS.—

A. Earache as ordinarily met should be treated with hot applications; hot cloths should be applied to the side of the head, or better, cloths wrung out of hot water, or apply hot poultices, because moist heat can be applied at a higher temperature than dry heat.

Give internally 5 grains of Bromide of Potash and $\frac{1}{800}$ of a grain of Atropine every one or two hours. This dose is suitable for a child five years of age. Children are usually restless and worry a great deal with this trouble, therefore $\frac{1}{3}$ of a grain of Codeine should be added to the Atropine and Bromide. In the proper dose these remedies are perfectly harmless for small children and even babies. If the child is quiet, omit the Codeine; if the face flushes or the pupil of the eye dilates, stop the Atropine.

If there is evidence of pus, the abscess should be opened at once and thoroughly washed out. It will require washing two or three times a day with water containing a few drops of Carbolic Acid, or some other antiseptic. While opening an abscess in the middle ear is a very simple procedure, it requires the services of a physician, and he would instruct regarding the antiseptics and the after treatment.

B. Laudanum poured into the ear. A drop is sufficient.—(7).

C. Equal parts of Tincture of Opium and Tincture of Belladonna. Drop 5 drops warm into the ear every hour or two if necessary. For infant, 2 drops will be sufficient.—(45).

D. Laudanum and Sweet Oil, equal parts, warm, dropped into the ear. Hen's Oil or Glycerine will do equally as well in place of the Sweet Oil. Apply hot salt bag, or bag of hops very hot.—(9).

E. Hydrochlorate of Pilocarpine $\frac{1}{4}$ grain. To be given by the mouth. Repeat every hour until there is an increased flow of saliva. This is evidence that the child is under the effects.—(2).

Note.—Pilocarpine is preferable to Laudanum, or Opium in any form, in treating children, because it does not produce convulsions, and sometimes Opium, even in small doses, does produce this trouble. It should be remembered that Opium is not a suitable remedy for small children.

F. Mix equal parts of Glycerine and Laudanum, warm, drop 3 or 4 drops into the ear and apply local heat.

If child is very restless and there is much pain, give 5 drops of Paregoric, or $\frac{1}{4}$ of a grain of Codeine.

CATARRH OF THE EAR.—In health the middle ear is filled with air, which is received through the Eustachian tube. Respiration creates a constant change of this air. During an attack of catarrh the mucous membrane lining the Eustachian tube may become so swollen as to completely close the opening. Should this occur, the air in the middle ear is sometimes absorbed, producing the condition known as *Dry Catarrh* of the middle ear. Or, when the tube is closed and swollen, the membrane lining the middle ear may continue to pour out a catarrhal exudate which is sometimes converted into pus. This would constitute an abscess. This may be absorbed or may break through the external membrane and discharge through the external canal. This is the condition present when people tell you that "the ear runs." See treatment "A" under EARACHE.

ABSCESS OF THE MASTOID PROCESS.—Situated just behind the middle ear is a prominent bone, called the *mastoid process*. This is filled with large spaces which open into and communicate with the middle ear, Eustachian tube and throat. Sometimes the catarrhal conditions extend from the middle ear into one or more of the large cavities of this bone and form an abscess. This would call for the assistance of a surgeon, who may find it necessary to make an incision behind the ear, drill through the bone and allow the pus to escape. The danger of an abscess at this point is that the internal bony partition might be destroyed and the inflammation and suppuration penetrate to the brain.

ECZEMA.—(See under SKIN DISEASES).

ENDOCARDITIS.—(See under HEART, DISEASES OF).

ENTERIC FEVER.—*Enteric Fever* means fever caused by diseases of the digestive tract. The term may be applied to any of the inflammatory processes where fever is present. *Typhoid Fever* is sometimes spoken of as *Enteric Fever*.

EPILEPSY.—Epilepsy, often called *Falling Sickness*, is a disease of the nervous system, characterized by attacks of unconsciousness with or without convulsions, usually with.

Cause.—A large per cent of the cases begin in childhood, and many are of hereditary origin. Chronic alcoholism in the parent is believed to be an important factor in producing this disease.

Disorders of digestion, depression of spirits, loss of vigor, a feeling of languor, an unhealthy system and cloudy brain, are common in epileptics, thus giving evidence of a lack of nourishment. Occurring in children and infants, this lack of nourishment may be the result of indigestion from improper feeding; or it may be the result of hereditary taint—the vitality of the child may never have been quite up to the normal. In the latter case digestion and assimilation would be lowered, and the nervous system would be still less able to withstand a faulty diet and the irritating effects of retained waste. Lack of nutrition robs the blood of its natural elements. The higher forms of digestion are carried on in the circulation, and when the blood is improperly nourished, poisons in the form of uric acid, lactic acid, etc., remain in the system and produce irritation.

Especially does this affect the brain as one-fifth of all the blood in the body goes to nourish that organ. Receiving five times as much blood as any other organ of its size, it must follow that any habit or indulgence which impairs digestion and causes unhealthy blood must produce a morbid influence upon the brain and nervous system, hence the enormous production of nervous debility, monomania, hypochondria, insanity, idiocy, and many minor ailments, such as rheumatism, neuralgia, headache, mental stupor, lack of resolution, etc. Indigestion and retained waste irritate the nervous system and produce the different mental, nervous and emotional states known as hysteria, nervousness, melancholia, and other depressions and hallucinations. This is the foundation upon which epilepsy stands. Dynamite may be struck once or a thousand times if the blows are light enough, but sooner or later it will explode: The irritation produced by dyspepsia may be stored up for a time, but sooner or later it too will explode. It will accumulate in the central nervous system, the brain and spinal cord until they are surcharged, and at the first opportunity it will break forth and its power for a time be irresistible, as in an epileptic fit.

Symptoms.—As a rule epileptic fits come on without warning symptoms. In some cases, however, they are preceded, perhaps for a day or two, with a feeling of fullness in the head, giddiness, and specks floating before the eyes; in other cases the attack is preceded by a voracious appetite. There may be no immediate warning, or there may be a sharp cry or an unusual, animal-like sound. The patient falls unconscious and sometimes writhes in convulsions. In some cases the patient is conscious of a tingling sensation, or a feeling like a cold draught, which seems to

start in the fingers or toes and works its way rapidly upward, unconsciousness coming on as it reaches the throat or head. The countenance is livid, swollen and distorted; the tongue is often thrust from the mouth, and not infrequently lacerated with the teeth; respiration is impeded; foam issues from the mouth; the eyelids are partly open, the eyeballs starting out, and the pupil is fixed and insensible to the stimulus of light.

These symptoms, which indicate a severe attack, remit presently, but may be followed with another and perhaps severer fit, or with a succession of fits; or the convulsions and other symptoms may gradually diminish after the first fit, leaving the patient in a state of stupor from which he sinks into a deep sleep, awakening as from ordinary slumber and without consciousness of what has occurred.

There is little probability of a cure if the disease has run for a number of years, or if the patient has been afflicted since birth; but the attempt should be made in all cases.

TREATMENTS.—

A. Take a solution of the following:

Bromide of Potash	2 grains.
Bromide of Ammonia	2 “

Dissolve in a tablespoonful of water and repeat three times a day. Or, take an ounce of each of the above, put into a dish that will hold a quart, pour in warm water and dissolve, and give a tablespoonful three times a day, which will be about two grains of each to the dose.

B. The bromides and other sedatives may be valuable in many cases of epilepsy, and undoubtedly exert a temporary benefit upon all cases, yet it is doubtful if their continued use is helpful. They cover over, but do not remove the cause; their use produces a temporary effect only. Taken habitually, they slowly, but surely, weaken the nervous system, lower vitality, and aid in reducing physical strength.

Those who have studied the question of epilepsy believe that with attention to diet and elimination a cure may be effected. We all know that drug medication is disappointing and that operations are useless. All forms have been tried. If injury should drive a sliver or bone into the skull, or cause other brain pressure, an operation might relieve and effect a cure; but epilepsy is seldom caused by injury.

ERUCTATIONS.—Eructations are the result of gases formed in the stomach and indicate that there is undigested food present, which means dyspepsia. The gas, not being able

to escape along the digestive tract, is expelled by the mouth. Those troubled with eructations should pay close attention to diet and, if needed, some artificial digestant may be taken for a short time. Regarding diet, if the eructations are sour, avoid starchy foods as they produce acids; if there is a greasy taste in the mouth, avoid fats; if there is an odor indicating any article of food eaten or drank, such articles should be avoided.

TREATMENT.—

For the indigestion we recommend the following:

Scale Pepsin (1 to 3000).....	2 drachms.
Hydrochloric (Muriatic) Acid	15 drops.
Glycerine	1 ounce.
Simple Elixir	2 ounces.

Mix, and take one teaspoonful after each meal.

ERYSIPELAS. — Erysipelas is an acute inflammatory disease, usually confined to the skin, but may affect the deeper tissues. When extending to the deeper structures, it is called *phlegmonous*.

Cause.—Due to a specific ferment. See cause of *Small-Pox*. The disease is not contagious.

Symptoms.—The disease usually comes on with a chill, though in many cases the chill is absent. There is moderate fever, full pulse, and there may be headache. The affected part becomes red and swollen. The swelling may be smooth, tense and glistening, or may begin as bright red spots which join as the swelling increases. The swelling is so great and the circulation is interfered with to such an extent that it has a peculiar dark hue. The face is quite a usual seat of the disease, and when occurring there the swelling frequently closes the eyes. The inflamed surface may be covered with a rash; vesicles of quite large size may appear and become filled with a watery fluid; the urine may contain albumen. The disease usually lasts about one week.

TREATMENTS.—

What to Do.—If it is a bad case, send for a doctor. In the meantime, wring cloths out of sour buttermilk, or, what is still better, make a cranberry poultice and bind on. To do this, simply crush the cranberries and bind on with cloths. Paint around the outside of the eruption with Tincture of Iodine.

A. Painting the surface with Tincture of Iodine is said to check the spread of the disease in some cases. Some claim that active cathartics followed by Pilocarpine in $\frac{1}{8}$ grain doses every hour until there is free perspiration, is a specific treatment. The

Pilocarpine should be continued until the symptoms disappear, the dose being lessened as the disease subsides. *Pilocarpine should only be given when the patient is strong and robust.*

B. We believe the best treatment for Erysipelas is the following: First wash the inflamed surface with soap and water, then with Boric Acid and water—25 grains of Boric Acid to the ounce of water. Wipe dry and apply equal parts of Ichthyol and Glycerine, and cover with a light bandage. Dress twice a day, washing the surface clean each time before making the application of Ichthyol. Internally, give 5 drops Fowler's Solution four times a day. The advantage of using the Glycerine and Ichthyol is that both are easily removed before making a new application. Ichthyol and Vaseline, or other excipient, may be used if desired. If there is sleeplessness, Sulfonal in from 5 to 10 grain doses, Phenacetine in from 5 to 10 grain doses, Chloral in from 10 to 20 grain doses, or the Bromides in from 20 to 40 grain doses, may be given. The Chloral or Bromides should be given in plenty of water. If Glycerine or Sugar is added to the water, it will improve the taste. In the strong a low diet is advised. Sometimes erysipelas attacks the weak and emaciated, those suffering from chronic disease. In this case the eruptions are pale, temperature low and vitality depressed. These cases need stimulants and tonics. Give 20 to 30 drops of Tincture of Chloride of Iron after meals. The diet should be nutritious. Ichthyol and Fowler's Solution may be used in all cases.

- C.** Ichthyol Ointment 1 ounce.
Vaseline 1 "

Mix, and apply locally.

Give 10 drops Tincture of Iron internally every two hours. Keep bowels open with Salts.—(46).

- D.** Ichthyol..... 2½ ounces.
Colodion, flexible..... 2 drachms.

Mix, and apply every three or four hours. Be sure to have application extend one inch beyond the inflammation.

- Tincture of Chloride of Iron..... 2 ounces.
Tincture Poison Oak (Rhus Toxicodendron)..... 2 drachms.

Mix, and take 35 drops in water every two hours. Keep bowels regular, and give milk, beef tea and eggs.—(53).

ERYSIPELAS, PHLEGMONOUS.—When erysipelas attacks the deeper structures, the disease assumes altogether a different form; the swelling is much greater and the discoloration is of a deeper and darker hue. This is accompanied with high

fever, rapid pulse, throbbing pain and prostration. There are irregular chills, followed by sweating, the result of poisons absorbed. The swelling may be so great that the circulation may be entirely shut off and gangrene result. By extension through the loose connective tissue just beneath the skin this form of erysipelas may include or cover a large surface, as a whole arm or leg.

TREATMENT.—

Keep the bowels and skin active and healthy. Give 10 grains Salol every three hours and the most nourishing diet. Give from a teaspoonful to a tablespoonful of Bovinine in a glass of milk every four hours. Put two ounces of rice in one pint of water, boil for three hours, adding sufficient water to maintain the original pint, mix two eggs and a half pint of cream and add to the boiled rice, then add all to one pint of hot beef tea, (see *Beef Tea* under MISCELLANEOUS MEDICAL RECEIPTS), and feed to the patient every one, two or three hours, according to the severity of the case. Should there be danger of suppuration or gangrene, incise at once. Cut deep enough to allow free drainage. This will reduce the swelling and relieve the circulation. It may be necessary to make frequent incisions. Wash the wounds with Peroxide of Hydrogen, full strength, Carbolic Acid water, or other antiseptics. Allow free drainage and dress with gauze soaked in antiseptics. Give abundance of fresh air.

EXCORIATION.—(See under CHILDREN'S DISEASES).

THE EYE AND ITS DISEASES.

The eye rests in a bony cavity or socket and is embedded in fat. The fat protects it from jarring, while the surrounding wall of bone protects it from injury.

The eyeball consists of two parts, which may be compared to a large and a small marble—the large one about one inch in diameter and the small one about one-sixth as large. Sinking the small marble about two-thirds of its diameter into the larger would give a general outline of the eyeball. The small marble would represent one-sixth, and is called the *cornea*. It is placed in front. Its size compares to that portion of the eye that gives color—black, blue or gray. The larger part would represent the five-sixths and is placed in the orbital cavity. It is the portion that we can see but partially. It constitutes the white of the eye and meets the cornea at the border of the color line.

The muscles which move the eye are attached by their inner ends to the apex or inner point of the orbital cavity, and the front or outer ends are attached to the outer surface of the eyeball a little back of the cornea and a little behind the circle where the large and small marbles join. The muscles are placed above, below, on either side and obliquely, so that the eye may roll in all directions.

The eyeball is composed of three coats—the inner, middle and outer. The inner coat of the eyeball is called the *retina*, meaning a network. It is formed by the expanded fibers of the optic nerve, or nerve of sight. This nerve has its origin in the brain. It passes out of the skull through a little opening in the apex or orbital cavity, and immediately its fibers divide and radiate in all directions, forming a thin membrane. The fibers are held in position by a delicate connective tissue framework. These fibers terminate at the junction of the cornea with the large part of the eye, as represented by the junction of the large and small marble. The artery which supplies the eye rests within the substance of the optic nerve at its point of entrance into the orbital cavity, and, like the nerve, branches of this artery expand in a radiating manner, forming a close network of vessels which are held together by delicate fibers of connective tissue. This constitutes the middle coat and is called the *choroid*, meaning a membrane of vessels. On the inner surface of this membrane, lying next to the expanded nerve fibers, is a layer of dark cells. These cells absorb the light, which otherwise would be reflected from side to side and cause confusion. This dark layer corresponds to the black lining of the photographer's camera. The outer coat or membrane is called the *sclerotic*, meaning hard. Covering the brain and lying next to the inner surface of the skull is a firm membrane of connective tissue, called the *dura-mater*. When the optic nerve leaves the brain, a sheath of this *dura-mater* goes with it, and when the optic nerve expands and forms the inner membrane of the eyeball, the sheath of *dura-mater* also expands and forms the outer membrane. The outer membrane or coat completely surrounds the eyeball in front and, being hard and fibrous, aids in maintaining the eye in the form of a globe. It is white and glistening and forms the *white of the eye*. In front it is somewhat modified and forms the cornea.

At the junction of the cornea with the larger part of the eyeball, the choroid, or middle coat, somewhat modified, makes a sharp bend inward and forms the *iris*, which is a thin curtain stretched vertically across, near the front of the eye, at the junction of the large and small marbles. Iris means many colors, hence the term. The colors—blue, black, gray, etc.—are caused by the various shades of coloring matter found in the layer of cells which

covers the back part of the iris. With the Albino race there is little or no coloring in this layer of cells, hence the light color of their eyes. The iris contains two sets of muscle fibers: One set radiates from the center to the surface like the spokes in a wagon wheel; the other set is circular. This gives it the power to contract and dilate, thus changing the size of the pupil. The pupil is simply an opening in the center of the iris for the admission of rays of light. When light is very bright, the pupil contracts, shutting out some of the rays; when light is dim, the pupil dilates, allowing more light to enter. The lids also aid in controlling the amount of light that enters the eye.

As stated, the choroid or middle coat makes a sharp bend inward at the point indicated by the junction of the two marbles, and being here supplied with circular and radiating fibers, forms the iris. The iris is flat, the cornea is oval, hence between the cornea and iris is a space, called the *anterior chamber*. Behind the iris and close to the pupil is the *lens*. This is a transparent double-convex body which aids in focusing the rays of light. The lens is about one-third of an inch in diameter from side to side, and one-quarter of an inch in diameter from before backwards. The lens is oval, the iris is flat, hence the iris recedes from the lens towards its circumference, leaving a space. This space is called the *posterior chamber*. The two chambers or spaces communicate through the pupil, or opening in the iris.

Both the front and back chambers are filled with a liquid called *aqueous humor*. This is composed of about five or six drops of water, holding in solution a trace of alkaline salts. Within the walls of the retina or inner membrane, and filling the whole of the space behind the lens, is a jelly-like substance called *vitreous humor*, so named because it resembles melted glass. The vitreous humor aids in focusing the rays of light. Surrounding the vitreous humor is a thin, transparent membrane called the *hyaline membrane*, meaning transparent. In front it encloses the lens, forming a capsule around it. This capsule is attached to the surrounding structures and aids in holding the lens in position.

Light enters the eye through the cornea, aqueous humor, pupil, lens and vitreous humor in the order named, and is focused on the retina or inner membrane of nerve fibers, the impression or picture made on the retina being conveyed by the optic nerve to the brain.

The Lachrymal, or Tear, Apparatus.—The junction of the upper and lower eyelids is called the *canthi*, meaning corners of the eye. The inner canthus is somewhat prolonged inward, forming a triangular space. This space contains what is called the *caruncle*, meaning a fleshy elevation. On the apex or highest point of this elevation is a small opening. This is the com-

mencement of the *lachrymal*, or *tear, duct*. This opening extends inward towards the nose for a short distance and terminates in what is called the *lachrymal sac*. This sac is the dilated upper portion of the lachrymal duct. It is called the nasal duct because it opens into the nose. From the inner canthus or inner angle of the eye, this duct, which is about three-fourths of an inch in length, passes inward, backward and downward and terminates in the nasal cavity. Situated at the inner angle of the eye, and on the margin of the lid, is a slight elevation called the *lachrymal papilla*. The apex or highest point of this papilla is also pierced by a small opening. The glands which furnish the tears are situated just outside the orbital cavity and above the outer canthus or junction of the eyelids. The under surface of the glands rest upon the convexity of the eyeball. Each gland is supplied with from ten to twelve ducts, which convey the tears over the surface of the eye. The tears pass along these ducts, which converge to the single opening in the papilla already described, and next enter the canal which leads to the nose. That is why the latter needs frequent wipings during the act of crying. If the tears flow too fast, they do not all enter or pass through the nasal duct, but overflow and run down the cheek.

Each eyelid contains a thin piece of cartilage about one inch in length. This aids in maintaining form. Between the cartilage and the mucous membrane which lines the lids are a number of small glands, about forty in the upper lid and thirty in the lower lid. They are embedded in grooves on the under surface of the cartilage, and by means of straight tubes or ducts each gland opens upon the margin of the lid. These glands secrete a sebaceous or oily substance which prevents the lids from adhering together. Sometimes the opening of a gland becomes closed, and, the gland continuing to secrete, quite a large tumor may form. It is sometimes necessary to remove this with a knife.

DEFECTS OF VISION.

Hyperopia—Far-Sightedness.—Rays of light should focus exactly on the retina, that is, meet at the same point on the inner membrane that is formed by the expanded fibers of the optic nerve. This is called perfect vision or stigmatism. But the eye is subject to deformities the same as other parts of the body. Sometimes the globe of the eye (eyeball) is too short, so that the rays of light from an object held at an ordinary distance do not focus on the retina, and this results in confusion; if the rays could continue backward, they would meet behind the retina. This is called *hyperopia*, or *far-sightedness*, because it is necessary that the rays of light should come from an object held at some distance. These enter the eye more on a straight

line and do not need so much power to concentrate, hence may focus on the retina or inner membrane. Hyperopia is congenital, that is, exists from birth. Convex glasses correct this trouble because they aid in bringing the rays of light together at the proper point.

Myopia—Near-Sightedness.—Sometimes the globe of the eye is too long, and the rays of light focus in front of the retina. This is called *myopia*, or *near-sightedness*, because it is necessary that the object should be held near the eyes. This causes the rays of light first to diverge, or enter the eye more at an angle, and this brings their point of meeting farther back. The cause of myopia is not known. Concave glasses will correct this trouble because they aid in diverging the rays and bring their point of meeting farther back where they may reach the retina.

Presbyopia—Far-Sightedness of Old Age.—In middle life and old age the lens becomes slightly opaque—less transparent—the density is increased, elasticity is diminished and the power of accommodation is correspondingly lessened. This is called *presbyopia*, or *far-sightedness of old age*. This trouble may be corrected by artificial lenses of sufficient strength to serve as an equivalent or substitute for the loss of the natural lens.

Color Blindness is due to lack of development or paralysis of some of the fibers of the optic nerve. The defect may include one or both eyes.

Strabismus means *cross-eyed*. When the eyes turn in, it is called *convergent*; when they turn out, *divergent*. One or both eyes may be affected. The cause is unequal strength of the muscles controlling the eyes, the stronger overcoming the weaker. By over-exertion the weak muscles may be able to hold the eye in position, yet this constant strain causes headache. This condition is frequently met with in school children and may be wholly corrected by glasses.

TREATMENT.—

A. Defects of vision which are not produced by disease of the eye are remedied by having the eyes fitted with suitable glasses. A competent oculist should be consulted. For those who are unable to pay there are free clinics connected with all medical colleges.—(48).

DISEASES OF THE EYE.

OPHTHALMIA.—This is a term somewhat loosely applied to any and all forms of inflammation of the eye, but more especially to those forms which attack the mucous membrane lining the lids.

TREATMENTS.—

A. Bathe the eye with warm water containing 10 or 15 grains of Boracic Acid to an ounce, protect the eyes from light, if very painful remain indoors for a few days, and drop the following mixture in the eye four or five times a day:

Sulphate of Zinc.....	1 grain.
Morphine	2 “
Camphor Water.....	2 drachms.
Boracic Acid.....	10 grains.
Water sufficient to make.....	1 ounce.

—(81).

B. Put one teaspoonful of clean, whole Flax seed into 1 ounce of water. Stir frequently and allow to stand until a mucilage is formed. To relieve painful inflammation, drop 2 or 3 drops into the eye every twenty to thirty minutes. The pain is relieved by the mechanical protection afforded the inflamed surfaces.

C. Boracic Acid powder, 1 ounce. Dissolve $\frac{1}{2}$ teaspoonful of the powder in a glass of hot water, allow it to cool and bathe the eye several times a day by dipping absorbent cotton into the solution and squeezing solution from it into the eye.—(48).

D. Blue Vitriol.....	1 grain.
White Vitriol.....	1 “
Fine Table Salt.....	1 “
Loaf Sugar.....	1 “
Morphine.....	1 “
Soft or Distilled Water.....	1 ounce.

Mix, and when all is dissolved, strain through fine muslin. Apply three to five times daily, according to the severity of the case.

E. Common table salt, 2 to 5 grains to an ounce of water. This makes a good wash for weak and inflamed eyes.

F. Sulphate of Zinc.....	$\frac{1}{4}$ grain.
Muriate Cocaine	$\frac{1}{8}$ “
Sulphate Morphine	$\frac{1}{8}$ “
Water.....	1 ounce.

Mix. Drop in the eye every two hours more or less often according to pain.—(47).

G. Boracic Acid.....	10 grains.
Muriate Cocaine.....	4 “
Rosewater.....	1 ounce.

Mix. Drop in the eyes every two hours.—(34).

H. Pith of Sassafras.....	1 drachm.
Soft Water	1 ounce.

This is a soothing preparation to inflamed eyes.

I. Hops and Poppy heads thoroughly mashed and boiled in water make a good poultice in inflammation, and the water in which they have been boiled is also useful as a wash for the eyes.

J. White Vitriol	5 grains.
Table Salt	5 “
Morphine	2 “
Lard, unsalted.....	1 ounce.

Mix, and apply by rubbing a little between and upon the lids. Freshly churned and unsalted butter may be used in place of the lard.

INFLAMMATION OF THE LIDS.—CONJUNCTIVITIS.—The mucous membrane which lines the eyelids is reflected over the front of the eyeball as far as the cornea. This membrane is called the *conjunctiva*. Inflammation of the conjunctiva is called *Conjunctivitis*. If there is much watery discharge, it is called *Catarrhal Conjunctivitis*. Sometimes the discharge becomes thick and contains a little pus; this is called *Muco-Purulent Conjunctivitis*. If the inflammation is the result of gonorrhœa! infection, it is called *Purulent Conjunctivitis*. If the inflammation is the result of injury, or of a foreign body, it is called *traumatic*, meaning the result of injury. (See under ACCIDENTS AND EMERGENCIES). Sometimes there is a formation of small hard elevations which cause friction and give the sensation of a foreign body in the eye, the eye becoming bloodshot as the result of the irritation; this is called *Granular Conjunctivitis*, *Trauchoma* or *Granulated Lids*. Sometimes during an attack of diphtheria when the disease affects the nasal cavities, it also extends to the mucous membrane lining the eyelids and a false membrane appears on the lids the same as in the nose and throat. This is called *Diphtheritic Conjunctivitis*. Diphtheria may make its first appearance in the eyes.

It will be noticed that each of the foregoing forms of inflammation is confined to the mucous membrane lining the lids and does not affect the eye proper. Some of these inflammations, if allowed to continue, may by extension invade the eyeball and become more serious, affecting and even destroying the sight. This is particularly true of purulent conjunctivitis.

Conjunctivitis, Simple.—The most common disease of the eye is inflammation of the conjunctiva. Usually it is of a mild nature and soon recovered from.

Catarrhal Conjunctivitis and Muco-Purulent Conjunctivitis are only different manifestations of *Simple Conjunctivitis*. The same treatment is applicable to all.

Causes.—Such inflammation may result from the same conditions which cause rheumatism, *i. e.*, acids and other irritating substances in the blood. It may result from injury or from

foreign bodies in the eye, or from the infection of diphtheria or gonorrhoea. It precedes an attack of measles. It more frequently results from atmospheric changes that produce influenza, colds and catarrh of the nasal passages.

Symptoms.—Usually, the symptoms are not marked. The mucous membrane may be slightly swollen and thickened; the eyes look red, there is a slight catarrhal condition, and the individual may not be able to bear strong light.

TREATMENT.—

See washes and applications under *Ophthalmia*.

Conjunctivitis, Granular—Granulated Lids.—This is inflammation of the conjunctiva in which the membrane becomes studded with small elevations, some of which later join together and become larger and more resistant. The roughened lids produce irritation, the cornea becomes vascular, that is, blood vessels form in that portion of the mucous membrane covering the eyeball, the eye becomes bloodshot, and the cornea loses its luster and becomes more or less opaque, or non-transparent. The disease tends to run a chronic course.

Symptoms.—If the disease comes on in acute form, there is first redness and swelling with profuse discharge of thick secretions. At first the swelling may completely hide the granulations, but later it diminishes and the elevations are visible. Usually the disease comes on more mildly and may be unnoticed until the granulations are quite large. In either case the granulations produce a sensation of a foreign body in the eye, due to irritation. There is fear of light, as in other diseases of the eye.

TREATMENT.—

If the eye is very sensitive, dissolve 2 grains of Cocaine in $\frac{1}{4}$ ounce of water and drop into the eye every three to five minutes until the pain ceases, then take the margin of the lid between the thumb and finger, carefully lift it up and apply a pointed crystal of Sulphate of Copper—Blue Vitriol. Pass the crystal quickly and gently over the granulated surface and immediately wash out with Boric Acid solution—20 grains of Boric Acid to 1 ounce of water. Apply this treatment twice a week, and apply a crystal of Alum in the same manner every second day. If this does not destroy the granulations, apply the Sulphate of Copper crystal every other day for a few days. A convenient piece of either the Sulphate of Copper or Alum may be obtained at any drug store. With a sharp knife shave one end down to a point, and finish by dipping into water and rubbing the surface until perfectly smooth. These crystals can be obtained properly shaped for this purpose and fitted with handles.

Granulated lids may also be successfully treated with electricity.

Any form of treatment will be more successful if the eyes are protected from light. When out of doors, colored glasses should be worn.

Conjunctivitis, Purulent.—This inflammation is much more dangerous, and is also contagious. It usually affects the new-born, though adults sometimes have it. It is met with most frequently in cities. The disease commences from thirty-six to forty-eight hours after infection, runs a long and tedious course, and may affect the cornea (eyeball) and destroy the sight.

Cause.—This disease is caused by a specific poison. It is the result of gonorrhœal infection, and in the new-born is contracted during birth.

Symptoms.—The disease may not be noticed sometimes for two or three days after birth, when the lids will appear red, somewhat swollen and glued together. Examination shows a thick, purulent secretion, which escapes when the lids are raised. There may be but little pain at first, but later the lids become more swollen and the discharge thinner and more abundant. There is loss of appetite, restlessness from increased pain, the cornea or eyeball may become ulcerated, and perforation may follow. In this case the lens escapes, and when the inflammation subsides the eyeball shrinks and the child is blind. If the eyeball remains sound, the eye gradually returns to the normal and sight is restored.

TREATMENT:—

Cleanse the eyes thoroughly with a saturated solution of Boric Acid and water—25 grains of the acid to an ounce of water. If discovered early, keep cold compresses on the eyes, being careful not to press the lids against the eyeball. Keep the eyes as free from the discharge as possible with bits of absorbent cotton wet in the Boric Acid solution. If the disease does not respond to treatment, turn the lids outward, hold them firmly, and brush them with a 4 per cent. solution of Nitrate of Silver—20 grains to the ounce—once a day, and wash off at once with warm Boric Acid solution, or warm solution of salt and water followed with the Boric Acid solution. When using the Silver solution, be careful to apply to the lids only and do not touch the eyeball, and *wash off at once*. Should the eyeball become involved, add 3 grains of Atropine to one ounce of water and drop in the eye three or four times a day, or often enough to keep the pupil well dilated.

Note.—In using Atropine, allow excess of the solution to drain from the outer angle of the eye so as to avoid its passage through the tear duct into the nose and throat.

Conjunctivitis, Diphtheritic.—This is diphtheria of the eyes. The tissue affected is the mucous membrane lining the lids. A false membrane forms and constitutional symptoms are present, the same as in diphtheria of the throat. The disease may be the result of diphtheria in the nasal cavities, having traveled through the tear ducts, or it may make its first appearance in the eyes.

Cause.—The same as that which causes diphtheria in the throat.

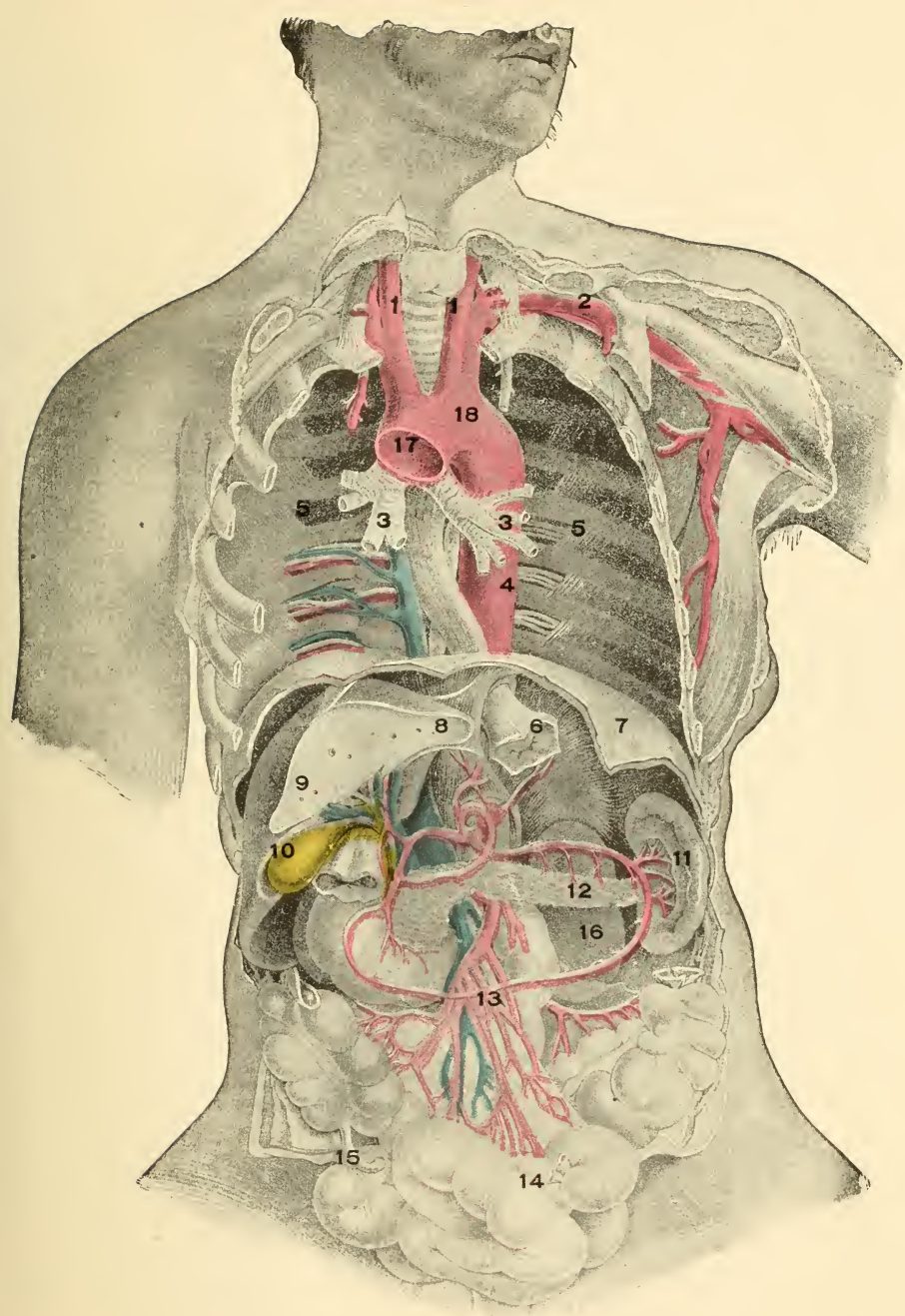
Symptoms.—The mucous membrane of the lids becomes swollen and painful. At first there is an increase in the secretions, or tears, and within twenty-four to thirty-six hours the false membrane makes its appearance. This membrane is the same as that which appears in the throat. The color is the same—dark and leathery—with a well defined border, that is, the junction of the false membrane and mucous membrane is distinct. As the disease progresses the lids become greatly swollen, and may become purplish in color by reason of interference with the circulation. The skin is tense and glistening. The pressure of the swollen lids upon the cornea may cause the latter to lose its luster and become hazy in appearance. Constitutional symptoms are also present.

TREATMENT.—

If seen early, keep cold packs over the eyes. Dissolve 20 grains of Boric Acid in 1 ounce of water. Keep small pieces of cloth or cotton saturated with this constantly applied. If the lids are already greatly swollen, the application should be hot instead of cold. The solution should also be dropped into the eyes several times a day. The constitutional treatment is the same as that given under *Diphtheria*.

INFLAMMATION OF THE MARGIN OF THE LIDS—BLEPHARITIS.—Blepharitis is an inflammation of the border or margin of the eyelid. The disease is due to blocking up of the hair follicles and the small glands connected with them. The inflammation may also extend to the lids.

Symptoms.—The symptoms of blepharitis are irritation and redness along the margin of the lids, and usually the formation of scales or crusts. The natural secretions produced by the hair follicles and associate glands are increased by the irritation. These dry on the margin of the lids and produce the scales mentioned.



No. 5.

1, Large Arteries of the Neck. 2, Large Artery of Side and Arm. 3, Bronchial Tubes (cut off). 4, Descending large Artery. 5, Lung Cavity. 6, Termination of the Gullet (Stomach removed). 7, Diaphragm. 8, 9, Liver. 10, Gall-Bladder. 11, Spleen. 12, Pancreas. 13, Blood Vessels from the Membranous Covering of the Bowels. 14, Large and small Intestines. 15, Appendix. 16, Kidney. 17, Artery cut off at Junction of the Heart. 18, Arch of the Aorta.

TREATMENT.—

Cleanse the lids thoroughly, washing with hot water and Castile soap. If the surface is inflamed, mix Yellow Oxide of Mercury, 3 grains, with 2 drachms of Vaseline, and apply twice a day. Maintain thorough cleanliness and the disease will soon disappear.

INFLAMMATION OF THE IRIS—IRITIS.—There are several causes for Iritis. It may be caused by syphilis, may result from injury, or it may be caused by the same conditions which produce rheumatism, that is, acids and other irritating substances in the blood. It is well to remember that inflammation always depends upon an irritant in some form. This is true of inflammation everywhere. Suppurative iritis is so called when the products of inflammation turn to pus. This form is most apt to occur in those who are poorly nourished.

Symptoms.—Pain, which is usually severe. The iris looks cloudy. The fluid in front of the iris is changed as a result of its contamination with inflammatory products, and this interferes with sight. It will be remembered that the iris is stretched across just in front of the lens; during inflammation it may grow fast to the lens. This would cause unequal dilatation and interfere with light entering the eye. The mucous membrane that is reflected over the front of the eyeball may become congested and more or less inflamed, and surrounding the cornea may be seen dark red lines, the result of distended vessels.

TREATMENT.—

One danger in iritis is that the iris may grow fast to the lens, in which case, even if no other damage results, there will remain unequal dilatation of the pupil and permanent interference of sight. To prevent this, dissolve 4 grains of Atropine in an ounce of water and drop a little in the eye every thirty minutes until the pupil dilates. After that perhaps three times a day will be sufficient. (See note under *Purulent Conjunctivitis* for use of Atropine.) When the pupil is widely dilated, its inner border surrounds the lens and there is no danger of contact or adhesion. The bowels should be kept active, and in those usually healthy a low diet should be maintained. Also take 1 teaspoonful of Syrup of Hydriodic Acid three times a day, *between meals*. The patient should be kept in a dark room, as bright light irritates the iris and increases the trouble. After improvement the patient should wear colored glasses for a time to prevent, if possible, a return of the trouble. It is also good practice to give 2-drop doses of Tincture of Aconite or Fluid Extract of Veratrum every hour for a day or two. This has a tendency to equalize the circulation

and relieve the congested vessels about the eye. Sometimes pain is relieved by keeping hot applications on the eyes. This may consist of small pieces of cotton wet in hot Boric Acid water, 10 or 20 grains of the acid to the ounce, changed every five or ten minutes. Any case of iritis that does not respond readily to treatment should receive the most skilled attention, for if not relieved, serious consequences may follow.

CATARACT.—A cataract is an opacity or non-transparency of the lens of the eye. It frequently occurs as the result of old age, but sometimes occurs in the young, and is also sometimes present even in infants.

Cause.—When not resulting from injury, inflammation or suppuration, cataract results from a lack of nourishment. Usually the cataract includes the whole lens. This is generally true in the form met with in old age. Sometimes, however, and more especially in the young, the opacity is confined to the central part of the lens and the outer surface remains normal. This is called *nuclear cataract*.

Symptoms.—The first symptom of cataract is a gradual dimness of vision. The patient can see better on a dark day or in the twilight. The reason is that the pupil dilates and admits more light. There is no pain or evidence of trouble in any way except the interference with sight. When the patient tries to read, it is found necessary to hold the book very close to the eyes. This causes the rays of light to radiate and enter the eye more on an angle, and by this means they find their way into the eye by passing around the border of the lens. By dilating the pupils with Atropine, the opacity of the lens may be plainly seen. It looks white or very light in color. This is seen by looking through the pupil. It will be remembered that the lens is situated directly behind the pupil, enclosed and supported by a little transparent membrane.

TREATMENT.—

The treatment is removal of the lens and fitting the eyes with artificial glasses. This is an operation of considerable delicacy. For nuclear cataract enlarging of the pupils is advised. In this form the outer border of the lens remains natural, and by enlarging the pupils the light may be readily transmitted. The opaque center does not extend or become larger, but remains stationary throughout life. Soft cataract is so-called because the lens is soft, opaque and non-transparent to light. This form is usually met with in the young—children and infants.

Secondary Cataract is where the capsule in which the lens was enclosed becomes opaque or non-transparent after the removal of the lens.

STY, or HORDEOLUM.—Under the description of the eye it was stated that the lids were supplied with a flat layer of cartilage or dense connective tissue to aid in maintaining their form, and that on the under side of each plate of dense tissue were a number of glands. A duct leads from each gland to the free margin of the lid. Sometimes one of these ducts or openings becomes closed, and as the secretions of the gland continue, a bulging is caused. This is called a *Sty*.

Cause.—Irritation from unhealthy blood; in other words, the cause is constitutional. This is why there are usually a number of these affections. The irritation causes an increase in the secretions of the glands with the result that one of the ducts becomes closed, and as the gland continues to secrete, the part swells, bulges forward, and becomes inflamed and painful.

TREATMENT.—

As a rule these affections are stubborn, the same as eczema and dandruff, and do not respond readily to treatment. This shows that the cause is not local, but constitutional. Usually the inflammation continues three or four days, pus forms, the tumor ruptures, the contents are discharged and the part heals. The treatment consists in trying to prevent pus formation, and also to prevent other tumors and swellings of a like nature. Small hot poultices may be laid over the lids, or a solution of hot Boric Acid may be applied on a soft cloth or small piece of cotton and changed frequently. If there is evidence of pus, the tumor should be opened at once. In place of the poultices or hot applications the following ointment is sometimes used:

- Yellow Oxide of Mercury..... 3 grains.
- Vaseline..... 1 drachm.

Mix thoroughly and apply to the affected lid two or three times a day. If this ointment is found irritating in any case, add more Vaseline.

With the first appearance of a sty, an active cathartic should be given and the patient should be careful about the diet.

PTERYGIUM (Terigium).—This is a thickening of the mucous membrane which commences at the inner angle or junction of the lid and extends over the eyeball. It is a fleshy, wedge-shaped growth. The apex or point is directed toward the pupil, while the base remains at the point of origin, that is, corresponds to the fleshy eminence at the inner angle of the lids. In the description of the eye this eminence is described as the *caruncle*.

Cause.—Long-continued irritation, the result of irritants in the blood. This results first in congestion, second in inflammation, and third in overgrowth of the membrane, the result of increased blood supply.

Symptoms.—A fleshy growth commencing at the inner angle of the eye, the outer end pointed and extending toward the pupil. If allowed to continue, it reaches and may nearly cover the pupil.

TREATMENT.—

Removal with a knife.

FAINTING.—A temporary suspension of the vital functions and mental powers, in some cases occurring suddenly, and in others preceded by a distress about the heart, a swimming of the head and a sense of general helplessness; also sometimes preceded by sickness at the stomach and coldness of the feet and hands.

Causes.—The causes of fainting are many: Pain, injuries, loss of blood, fatigue and weakness, fright, confinement in crowded places where the heat is great and ventilation poor, tight lacing and distressing sights. Organic diseases of the heart may occasion fainting in those who are afflicted with them.

TREATMENTS.—

A. Bathe the temples and around the nostrils with Camphor; sprinkle a little cold water in the face; get the patient into fresh air; give a little sling.

B. Lay the patient on the back on a bed, the floor, or the ground. Compel bystanders to keep away so that fresh air can be obtained. Never raise the patient up to a sitting or standing position.—(8).

C. Assume horizontal position; head a little lower than body.—(54).

D. Horizontal position on back. Cold to the head. Aromatic Spirits of Ammonia to nose for inhalation.—(10).

Faintness.—Give patient plenty of fresh air and also give brandy sling. Rub arms and limbs thoroughly. Wet cloth in Aqua Ammonia and let patient inhale it, being careful not to hold it close enough to strangle.

FATTY DEGENERATION.—(See under HEART, DISEASES OF).

FELON.—An abscess on a finger or thumb is termed a *felon*, but a felon proper is an inflammation of the membrane covering the bone. It occurs usually in the last joint of either a thumb or finger.

Symptoms.—The pain, at first deep and throbbing, soon becomes excruciating in the extreme, and the joint affected presents a swollen and inflamed appearance.

TREATMENTS.—

A. The usual method of relief, and the safest, is to have the finger lanced freely, the incision reaching to the bone. If this is not done, the ulcerating process goes on within the membrane until the bone itself is very likely to be destroyed. If the felon is not lanced, the application of poultices not only affords some degree of relief and comfort, but hastens suppuration.

B. Poultice with bread and milk or Flaxseed. Lance it as soon as possible. After it is lanced use a Slippery Elm poultice.

C. Take a handful each of the roots of Indian Turnip and of Blue Flag, and stew them in hog's lard sufficient to stew well. When done, strain and press out, and add Tar, 4 tablespoonfuls, and Castile soap half as much; simmer together, and apply this until the felon breaks.

D. Venice Turpentine, 1 ounce. Put into $\frac{1}{2}$ teaspoonful of water and stir with a rough stick until the mass looks like candied honey, then spread a good coat on a cloth and wrap around the finger. If the case is only recent, it will remove the pain in a few hours.

E. A Poke Root poultice on a felon cures by absorption, unless matter is already formed; if matter has already formed, it soon brings it to a head and thus saves much pain and suffering.

F. Blue Flag and Hellebore roots, equal parts. Boil in milk and water, then soak the felon in it for twenty minutes, as hot as can be borne, and bind the roots on the parts for one hour. This has cured many felons when commenced in time.

G. Felon Ointment.—Take sweet Oil, $\frac{1}{2}$ pint, and stew a small plug of tobacco in it until the tobacco is crisped; then squeeze it out and add Red Lead, 1 ounce, and boil until black; when a little cool, add pulverized Camphor Gum, 1 ounce.—(79).

H. Felon Salve.—A salve made by burning 1 tablespoonful of Copperas, then pulverizing it and mixing with the yolk of an egg, is said to relieve the pain and cure the felon in twenty-four hours; then heal with cream two parts and soft soap one part. Apply the healing salve daily after soaking the part in warm water.—(79).

FEVERS.

Fever is evidence of a disordered system—evidence of systemic disease. Its chief symptom is elevation of temperature. The cause may be local or general. The name corresponds to the location and conditions which cause it and to the characteristic symptoms, as *typhoid* where there is stupor, *scarlet* meaning a flush, *intermittent*, or fever and ague, etc.

Fever is divided into three stages: first, that of chills or chilliness; second, heat and elevation of temperature; third, the sweating stage. It is also divided into two groups, idiopathic and symptomatic. Where the fever is self-generating, as in small-pox or scarlet fever, it is termed idiopathic; but where it is dependent upon local conditions, as absorption from an infected wound, it is called symptomatic.

Cause.—The arteries are controlled by two sets of nerve fibers, one set tending to dilate and make them larger, and the other set tending to contract and make them smaller. This opposite effect during health keeps the arteries a natural size. Poisons paralyze more or less the nerve fibers which control the arteries and allow them to dilate. The large arteries are affected but little; the small ones may be greatly enlarged. Just beneath the skin is a vast network of vessels which are estimated to be capable of holding one-half the blood in the body. These vessels become dilated, and an unusual amount of blood is brought to the surface. This is why the face is red during a fever. Every chemical change produces a certain amount of heat; this is a universal law. The tissue change, repair and waste, which is constantly taking place in the body, is a chemical change, and the heat thus produced maintains bodily temperature. The change depends upon the circulation; the blood furnishes the repair in the form of nourishment, and carries away the waste. During health the two sets of nerve fibers control the circulation so nicely and the tissue change is so well governed that an even temperature is maintained. When poison is present from any cause, it first paralyzes the nerves which contract the arteries and allows them to dilate; this brings a large amount of blood to the surface and tissue change is increased, hence an increase in temperature, or fever. We can see the wisdom of this when we remember that it causes the patient to sweat, as elimination through the pores of the skin aids materially in giving relief.

This is Nature's plan. This is why the nerves that dilate are allowed to control, and this is why the blood is brought to the surface. Whether the poison is generated in the system, as in scarlet fever, or whether it is absorbed from a poisoned wound, makes no difference; the results are the same. The poison may also be absorbed from bad air, poisonous gases or bad water; or fever may result from nervous conditions, without poison.

Symptoms of General Fever.—After languor, weakness and restlessness for a day or two, or more, as the case may be, the first striking symptom of an approaching fever will be a *chill* of greater or less severity and continuance according to the greater or less disturbance of the system. The chill will to a certain extent indicate the severity of the oncoming disease. If nothing is done to relieve the attack and the chills continue, the skin becomes pale, the features shrunken and haggard, and the patient is led to think that streams of cold water are being poured down his back. As soon as this chilliness begins to subside, the circulation begins to increase; greater or less heat of the surface is produced, the strength is gradually diminished, and considerable thirst is manifested, the pulse also being increased in *frequency* and *hardness*. By a *frequent* pulse is meant one faster than in health, which is from *sixty-five to seventy-five*; and by a *hard* pulse, one that resists the examiner, as though it was bound to pass under the finger no matter how hard the pressure. There may be considerable distress about the stomach and other internal organs, also great aversion to making the least exertion of body or mind. The patient is willing to lie down, and seems to care but little whether anything is done for his relief or not; but it should be remembered that the greater his *indifference*, the greater the necessity for *immediate* attention to the case.

TREATMENTS.—

What to Do. —The treatment should be directed to the removal of the cause, if possible. If an infected wound, first cleanse thoroughly with soap and water, then use antiseptics—shut off the supply of poison from this source, and then the patient has only to get rid of the amount in the system. If from bad air or foul gases, secure a change of surroundings, and in all cases keep the eliminative organs active—a dose of Castor Oil or Salts taken internally, and frequent bathing to keep the skin active. If the surface is dry and hot, sweat the patient. Aconite and other fever remedies may be useful. If the patient is weak, give stimulants. For typhoid fever, give antiseptics internally. A light diet is usually of advantage for the first day or two, but give an abundance of pure water. A thorough action of the bowels will cure many cases of fever. If this does not succeed, and the patient grows worse, send for the doctor.

TYPHOID FEVER.—While this disease may occur at any season of the year, it is most common in the autumn, especially at the close of a hot, dry summer.

Cause.—Typhoid fever is the result of an unhealthy digestive tract which is brought about by a long train of conditions, hence the great number of symptoms. First there is indigestion and lack of elimination from some cause, and this is followed by degenerative changes and the production of many poisons. Some of these poisons are absorbed, and gradually the system is brought under their morbid influence, vitality is lowered and resistance lessened. This accounts for the languor, headache, fever, loss of appetite, etc., which precede the disease. The condition of the bowels causes congestion of the lining mucous membrane, and this congestion extends to all mucous surfaces, hence there may be nosebleed. At the lips the mucous membrane is continuous with the deeper layer of the skin, and there is congestion of this layer also, so that hemorrhage may, and in many cases does occur on the surface of the body. This hemorrhage is more apt to occur over the abdominal cavity, and those seeing it for the first time are, of course, frightened. The various glands situated in the mucous membrane of the bowel are abundantly supplied with blood vessels, hence the congestion, which gradually increases to inflammation, is greatest at these points. The swelling and pressure continue until nutrition is shut off or reduced to such a low ebb that ulceration takes place, the same as in dysentery. The changes in the mucous membrane are: first, congestion; second, inflammation; third, ulceration. If allowed to go on, ulceration will continue until all of the glands have been invaded. That is why the disease used to last from four to eight weeks. To-day there seems no excuse for such duration.

Symptoms.—The disease is developed insidiously. The patient does not feel well, but does not know to what to ascribe his bad feelings. He tires easily, is perhaps dizzy at times, may bleed at the nose, and suffers from headache, particularly pain in the back part of the head. His digestion is disordered, his sleep disturbed, his spirits depressed, his intellect dulled; and while he usually continues about his work, his weakness grows upon him until he is attacked with slight chills or shiverings. As the onset of this disease is so insidious in character, it is difficult to determine the time when fever develops.

During the first five days after the onset of the fever the temperature increases in a characteristic manner, being about two degrees higher in the evening than in the morning, and increasing one degree each day. During this time, in fact, during the whole of the first week, the patient complains of pain in the head and nausea, although the greater portion of the time

he is listless and indifferent, lying with his eyes closed as if asleep. The tongue is heavily coated. Diarrhea is believed by some to be a characteristic symptom of this disease, but in many cases the bowels are constipated. The discharge is at first of a dark color, but during the second week becomes yellowish and more fluid and ill-smelling. The abdomen is somewhat distended, and upon pressure over the right groin gives a gurgling sound. In some cases between the seventh and ninth days an eruption of rose-colored spots occurs in clusters upon the abdomen, chest or back. They disappear on pressure (returning, of course, when the pressure is removed) and last for several days.

During the second week all the symptoms of the first week are exaggerated; the former listlessness of the patient gradually changes to stupor, interrupted by delirium; deafness is developed; also the teeth become coated with an unhealthy accumulation.

Towards the end of the second week, or some time during the third week, in the majority of cases the patient grows worse; his prostration is extreme, and his stupor so great that he is roused with difficulty; the tongue is covered with a dark-colored crust and is dry and cracked. Hemorrhage of the bowels may also occur at this time.

If the patient survives the period just mentioned, during the fourth week the symptoms remit and, greatly emaciated and debilitated, he passes into a slow convalescence.

Variations in Symptoms.—In the strong and robust, morbid conditions of the digestive tract which cause typhoid fever may be held in check until the system is so overwhelmed with poison that the disease breaks forth suddenly and with great force. These cases present none of the symptoms mentioned. We have seen a few cases of this kind.

The reader should remember that in typhoid fever, as in all other diseases, the symptoms vary greatly. Many of the symptoms may be absent, or so modified as to attract but little attention. It is seldom that the symptoms are all present or occur in regular order as usually given by medical writers. Those who care for the sick must exercise a reasonable amount of judgment independent of what are usually called symptoms. An unhealthy condition of the digestive tract may give all the symptoms of typhoid fever, yet the disease may not be present. Fever, headache, loss of appetite, nausea, coated tongue, pains in different parts of the body, dull feeling, loss of vigor extending all the way from slight indisposition to inability to perform manual labor, bloating and soreness along the digestive tract, and many other symptoms and conditions may be present, and yet there may be no typhoid fever. Thorough elimination and internal antiseptics

for a day or two, with a restricted diet, will clear up the great majority of these cases, and the individual feel as well as ever.

An error that is constantly being made is that of confounding typhoid fever with other typhoid (depressing) symptoms. The word *typhoid* means *stupor*, therefore, strictly speaking, any condition of stupor where fever is present may be called *typhoid fever*, and some doctors do apply the term to many low conditions accompanied by fever.

The very nature of typhoid fever renders diagnosis extremely difficult. If a typhoid patient lives until the end of the second week, there will be ulcers along the digestive tract. The evidence of this condition may easily be detected by the stools, as they will contain both mucus and pus. Ulcers may occur without typhoid; in fact, any and all the symptoms of typhoid may and undoubtedly do occur many times when the disease is not present.

Scattered throughout the small bowel are numerous small glands. These are placed in the mucous membrane and have no excretory ducts. Their use is said to be unknown, yet they undoubtedly aid in digestion, as they are the largest, or most developed, during the digestive period. In places these glands are clustered together, forming little groups. These groups are called "Peyer's patches" because first described by Dr. Peyer. There are from twenty to thirty of these groups in the small bowel, varying from one-half an inch in width to three, four or more inches in length. The mucous membrane surrounding them is highly vascular, that is, abundantly supplied with blood vessels. The normal blood supply being greater than in the surrounding mucous membrane, inflammation is more intense, therefore they are a good field for degenerative changes, ulceration, etc., and that is the reason ulceration occurs at these particular points.

Typhoid Fever, To Prevent—Great Value of Lemon Juice.—Lemon juice will destroy typhoid fever germs in water. This important discovery is the result of recent experiments made in bacteriological bureaus in European capitals. One experimenter recently dropped a little lemon juice into a culture tube containing typhoid germs. To his amazement he found the acid shriveled up and killed the germs. This discovery is timely and valuable, especially for localities where typhoid fever is prevalent.

Dr. Asa Ferguson, a practitioner of London, has just published an article in which he gives the results of experiments made by European scientists. Commenting upon the lemon juice test, Dr. Ferguson says: "Typhoid germs must be taken into the stomach in order to cause typhoid fever. If, therefore, people will put a teaspoonful of lemon juice into the water they drink, they will avoid typhoid fever."

TREATMENTS.—

What To Do Till the Doctor Comes.—Give an active cathartic. Put the patient to bed, keep him warm and give him warm drinks. Get him to sweating, if possible. After thorough elimination give 10-grain doses either of Salol or the Sulphocarbolates, as directed under *Internal Antiseptics* following. If no improvement within a day or two, send for a doctor.

How to Help the Doctor.—An important part of the treatment of typhoid fever consists of nourishment and cleanliness, and especially should the latter be applied to the digestive tract. All eliminations, even the sputum, should be deposited in a solution of Carbolic Acid or a solution of lime in water of the consistency of whitewash, and allowed to stand for one or two hours. It should then be emptied at a good distance from the house and well and always in the same place, and occasionally a quantity of lime thrown over this.

The drinking water should be pure.

Good ventilation should be secured at all times; it is necessary to pay particular attention to this feature.

Daily baths should be given, even if the temperature is not high, as they will aid in elimination and give a sense of relief and general improvement.

Typhoid fever patients should be fed every one, two or three hours, depending upon the amount taken. Sleep should not interfere with feeding if the patient is low; this is important.

The food should consist of milk, soft cooked eggs, beef tea made at home, meat broths, rice boiled for three hours, vegetable soups strained and the liquid only given (nearly all patients like soups made in this way), etc. Boil two ounces of rice in one pint of water for three hours, adding water sufficient to maintain the original amount; mix two eggs with one-half pint of cream, add to the rice, and add this to one pint of hot beef tea. No patient should be compelled to take food that is not agreeable. Fruit juices are excellent in all stages of this disease.

If the food is not well digested, artificial digestants should be given, but the doctor will attend to this.

A. Initial dose of Calomel, followed by frequent small doses of same combined with intestinal antiseptics, will greatly modify and cut short the disease.—(31).

Internal Antiseptics for Typhoid Fever.—First, secure thorough elimination by means of Calomel, Castor Oil or Salts. Ten grains of Calomel, followed in six or eight hours by 2 tablespoonfuls of Epsom Salts or of Seidlitz Salts, is best. Enough of the Salts should be taken every morning to cause at least one movement during the day. The Calomel should not be

continued for fear of salivation. Salol or the Sulphocarbolates of Zinc, Lime and Soda combined are the best antiseptics for the digestive tract, and should be given from the first, commencing as soon as the laxatives have operated. The dose of either is from 5 to 10 grains every two hours. When the eliminations improve, the amount should be lessened. Salol and the Sulphocarbolates possess marked advantages over other preparations of this kind because their antiseptic influence extends for a greater distance along the digestive tract.

In some cases diarrhea is troublesome. Where this condition is present, Sulphocarbolate of Zinc alone is the best remedy because of its astringent properties. Otherwise, it does not differ from the others. The Sulphocarbolates may be given in tablet or solution, as desired by the patient. The taste is not pleasant, hence tablets are often preferred. There is no taste to Salol, therefore it may be given in tablet or powder. It will not dissolve in water; the Sulphocarbolates will. If the Sulphocarbolates are dissolved, a little Glycerine may be added. This will help to cover the taste and the Glycerine itself is a good antiseptic. But its influence does not reach far beyond the stomach. If there is much pain with diarrhea, a pill containing one grain of Opium and one grain of Acetate of Lead may be given once or twice a day.

A weak heart, high temperature, stupor, delirium, foul odor, etc., are indications that the patient is being overcome by poisons generated in the digestive tract, and call for more intestinal antiseptics. Internal remedies for fever should be avoided as they weaken the patient. With plenty of pure water, fresh air, thorough elimination and a liberal use of antiseptics there will be little need for severe treatment, such as fever remedies or ice packs, and but little danger of hemorrhage. Atropine is one of the best remedies for dangerous hemorrhage if it does occur. In the event of hemorrhage, if the physician is not at hand and the case seems urgent, any of the following may be given:

Atropine	1-50 grain,
	or,
Tincture of Iron, a small diluted,	teaspoonful, well
	or,
Fluid Extract of Ergot.....	1½ teaspoonfuls,
	or,
Morphine	½ grain,
	or,
Opium	2 grains.

The Morphine and Opium are valuable, but will not act so quickly, and are somewhat dangerous if the patient is very low. Artificial heat is also valuable as it aids in bringing the blood to the surface, and thus relieves the internal organs.

TYPHUS FEVER.—What is called *typhus fever* bears a close resemblance to *typhoid fever*; in fact the two were separated only a few years ago. Some claim that in typhus fever the Peyer's glands do not ulcerate; in typhoid fever they do. This effort at separation is unimportant. Typhus fever is clearly a filth disease, the result of bad surroundings. With our present knowledge of sanitation both typhus fever and typhoid fever are fast disappearing. Typhus used to be prevalent on shipboard, in jails and in army life, and for that reason was often called *Camp Fever* or *Jail Fever*.

TREATMENT.—

The treatment recommended under *Typhoid Fever* will apply with equal force to *Typhus Fever*.

YELLOW FEVER.—This is a disease of low districts, usually near the sea. It does not occur above an elevation of 2500 feet above the sea level, nor in a temperature below 70 degrees.

Cause.—The cause is bad hygiene. Yellow fever is clearly a filth disease. For one hundred and forty years there had been deaths in Havana from yellow fever during the months of June and July; but when the Americans went over and removed some of the heaps of ancient rubbish and emptied the overflowing cess-pools, yellow fever vanished. There were no deaths from this disease during the months of June and July in the year of 1901, and there was comparatively little sickness during the months named, yet the country was filled with American soldiers, not yet acclimated, or accustomed, to the heat of the country.

Symptoms.—First there is sudden onset, with severe pains in the stomach or bowels, back and lower limbs, and severe headache. The vessels about the stomach are gorged with blood; there is a rapid rise in temperature, the face is flushed, the pulse is rapid, and there is loss of appetite, nausea and vomiting. If the patient lives, there is improvement within two or three days; he becomes more comfortable and may recover. If recovery does not follow, the relapse shows all the symptoms exaggerated. The ejections from the stomach become darker, and in some cases almost black, hence the name "black vomit." There is great prostration. The skin becomes yellow. This is said to be due to the destruction of the red blood corpuscles. There are degenerative changes in the liver and kidneys. The temperature is subnormal. These symptoms are followed by collapse and death. Deaths have occurred in 24 to 48 hours.

TREATMENT.—

In severe cases there is not much that can be done with drugs. 5 or 10 grain doses of Calomel may be given, and any of the usual means to prevent vomiting. If the patient is cold, apply artificial heat and give Tincture of Belladonna—20 to 30 drops to a dose. Repeat every hour or two until the surface is warm and the face is flushed. In cases that are less severe, treat as an ordinary case of biliousness. With the thorough sanitation that is now being instituted in yellow fever districts, the disease will soon become rare.

ERUPTIVE FEVERS.

The eruptive fevers, as measles, scarlet fever, etc., have many features in common. All have a period of incubation, that is, a time from exposure to the manifestation of the disease; all are accompanied with a fever of more or less intensity preceding the eruption; each fever has an eruption which is peculiar to itself; and each is contagious and occurs most commonly in childhood, rarely attacking the same person twice.

CHICKEN POX. — This is a mild, contagious, eruptive disease, confined almost exclusively to children, and to which the system is subject but once. It is neither distressing nor dangerous, but is not infrequently confounded with a light case of *small-pox* as the symptoms of the two diseases are similar in some particulars.

Cause. — A contagious poison to which children only are subject.

Symptoms.—Slight indisposition, impaired appetite, constipation and mild febrile symptoms, followed, probably within twenty-four hours, with an eruption on the *body* and *extremities* (rarely on the face) in the form of vesicles (little blisters or sacs). These vesicles are not preceded by pimples, as in *small-pox* (see *small-pox* symptoms), and are not hollow in the centre. They are transparent and vary from the size of a pin-head to a split pea. On the fifth or sixth day they begin to dry, a process which is rapidly accomplished. Scabs then form and fall off as in *small-pox*, but they rarely leave a permanent scar.

TREATMENTS.—

Treatment Without a Doctor.—For chicken-pox all that is necessary to do is to keep the child in the house. Give warm drinks to bring the rash out, and keep him from the air and out of draughts. In all eruptive diseases exclude fatty foods, that is, fat meats, etc. (Butter is not a fat.) Restrict to a diet of broths, beef tea and vegetables as much as possible.

No particular treatment is needed, but until the rash appears there may be quite a little fever, and for this Aconite may be given. Put 6 drops of Aconite into a glass of water and give a teaspoonful every three or four hours. After the rash appears, give three times a day.

A. Dust surface with flour or starch to stop itching, keep bowels open and avoid taking cold. Treat each sore as needed for any small sore. Avoid rubbing or picking about face.—(13).

SMALL-POX, or VARIOLA.—*Variola*, the technical name for this disease, is derived from the Greek word *varus*, meaning a pimple. The disease itself is an acute inflammation of the skin, characterized by febrile symptoms and an eruption in the form of pimples. These pimples first feel like shot under the skin, but later develop, become watery, change to pus, and finally scabs form which drop off, leaving pits in the flesh. The time of incubation is from ten to sixteen days. It is a highly contagious disease.

Small-pox is divided into four varieties: The modified or *varioid*, a very mild form; the *discrete*, where the pocks remain separate; the *confluent*, where the pocks spread and join together; and the malignant. The last form seldom occurs. Such a case is evidence that the system was very unhealthy before the disease began.

Cause.—A specific ferment which sets up fermentation in the system. When digestion, oxidation or elimination are interfered with, there is more or less waste present; this is admitted by all. The specific ferment sets up fermentation in this waste just as the specific ferment, yeast, sets up fermentation in starch in bread making. The severity of the case is governed by the condition of the system. In a healthy man the specific ferment produces no result because there is no waste. That is why some escape the disease while others have it. Some of the products of fermentation are poisonous to the system; some of the products of yeast fermentation are poisonous. In bread making the yeast fermentation produces Carbonic Acid, which is a deadly poison to all animal life. It is the different poisons resulting from different ferments that produce contagious diseases. The various poisons resulting from these ferments produce different effects upon the system, as shown in small-pox, erysipelas, measles, etc., and this accounts for the different infectious diseases.

These principles were taught by the late Prof. W. B. Carpenter, recognized as the world's greatest physiologist.

The varieties of small-pox as here described represent the disease rather as it occurred years ago, when hygiene was neither known nor practiced. To-day small-pox is not considered so

dangerous a disease. These forms are seldom met, and, if we are to judge the future by the past, then we must conclude that with clean and wholesome surroundings, while there may be variations in its severity, it will not again prove so destructive to human life as in those days when its path was marked by suffering, misery and death. The *Plague* once swept over and devastated whole countries; to-day the plague is but a relic of the past. *Leprosy*, once so dreaded, we have learned to look upon only as a filthy disease, hence we do not fear it. *Malaria* is controlled by surroundings, and to-day we hear little of it. *Yellow Fever* had been prevalent in Havana for many years, but, as stated elsewhere, when the Americans went over and emptied the overflowing cess-pools and carried away the ancient rubbish, yellow fever vanished; and we think it but reasonable to believe that with attention to fresh air and cleanliness small-pox will go the way of leprosy, yellow fever and the plague. What applies to these diseases will apply with equal force to other diseases.

All understand that there are many cases of small-pox so mild that they are diagnosed with difficulty. This has always been true in this disease. The symptoms given below are intended to represent well-developed cases, *i. e.*, severe cases.

Discrete Form.—The patient is taken suddenly with a violent chill, followed by high fever, a rapid pulse and intense headache. As the fever comes on he is subject to nausea and vomiting. Vomiting at this time is characteristic of the disease, and another very characteristic symptom is a severe pain in the back, extending also into the lower limbs. Convulsions may occur, especially in children, or the patient may be delirious. About the third day the rash makes its appearance, first about the mouth and on the forehead, or about the roots of the hair, but soon noticeable on the wrists, neck, breast, etc., spreading over the entire body in the course of a few hours, and continuing to come out (the spots increasing in number) for two or three days. *With the appearance of the eruption the fever and all febrile symptoms abate*, and the patient is, for a season, comparatively comfortable, while in a case of the measles the fever *increases* when the eruption appears.

The rash has at first the appearance of coarse red spots, not unlike the eruption in measles, for which it is sometimes mistaken. Soon, however, the center of the spots harden and become slightly prominent, and are distinct to the touch, particularly at the wrists, where they "feel like shots under the skin." The prominence develops into papulæ (pimples), and about the sixth day of the disease these become filled with a clear, watery liquid; they are now termed vesicles. The vesicles attain to about the size of a small pea, but continue separate and distinct, and

become slightly depressed in the center. This depression is an unmistakable sign of small-pox. Another symptom is the following: First let us remember that small-pox vesicles are divided into many chambers, giving them a honeycombed appearance. By taking a needle and carefully opening a vesicle upon one side, it will be found that only a small part of the secretions escape and that the elevation feels as firm and resistant as before. In other words, the vesicle is not emptied, but only the single chamber pierced by the needle. Gradually the liquid contained in the vesicles loses its clear appearance, and by the ninth day they have become pustules (the so-called "pocks"), filled with a yellowish matter from which a very offensive odor is emitted. The pustules, which are encircled by a band of red, become greatly inflamed and swollen, giving a distorted appearance, the features being almost unrecognizable if the eruption is thickly set. This is the most critical stage of the disease. The fever returns and is attended with prominent nervous phenomena, the patient becoming wildly delirious, or perhaps coma resulting. On the eleventh or twelfth day, in favorable cases, the pustules, which by this time are so filled with matter that the central depression is lost and they have become pointed instead, show signs of drying up, or many of them may burst. This stage of the disease is attended with great itching of the skin. Scabs now begin to form, the secondary fever declines and convalescence is established.

Not only is the external skin affected in small-pox, but certain portions of the mucous membrane also, particularly the lining of the mouth and throat. The swelling in the throat presses upon the glands and causes much discomfort. The inflammation extends also to the lining of the nasal passages, is not infrequently communicated to the eye, and may affect other of the mucous membranes.

Confluent Form.—The same general symptoms characterize this variety of small-pox that are exhibited in the discrete form, but all are much severer: The invasion is more violent, the fever runs higher, the patient is more prostrated, the eruption makes its appearance the *second* day instead of the *third*, and the pocks, instead of being single, run together and form great blisters. This is more particularly true on the face than of the eruption elsewhere, the disfigurement of the features thus caused being shocking to witness. The mucous membranes, too, are affected with proportionately greater severity, and dangerous complications are more liable to result. The death rate in the confluent variety is fifty per cent.

Malignant Form.—From this variety none recover. The course of the disease is short and violent; the patient is appar-

ently overwhelmed from the start. Hemorrhages are frequent and livid spots appear on the flesh; but death usually occurs, either by convulsions or coma, before the characteristic eruption appears.

Modified Form, or Varioloid.—In this form all the symptoms are modified. It is a mild form. Its course is shorter, it is not attended with a secondary fever, and it is rarely fatal. In some cases it amounts to an indisposition only rather than an illness.

TREATMENT.—

What to Do.—If the disease is prevalent or a person knows he has been exposed, the usual course is to be vaccinated the first thing, even though he may have been vaccinated before. In case of exposure the house should be quarantined and he should retire to a room by himself. No other members of the family, nor any one else, should hold direct communication with him inside of nine days. The first symptoms are pain in the back and head, and when these symptoms appear the doctor should be called and, if possible, some one who has had the disease engaged to act as nurse.

A. A mild case of small-pox may be treated the same as a case of scarlet fever, *i. e.*: Isolate the patient; secure an abundance of fresh air; if the patient feels hot, maintain a low even temperature and give cool sponge baths, as these produce a feeling of rest and quiet; give light, nourishing diet; for the fever, give Aconite—a 1-drop dose of the Tincture of Aconite every hour while the fever lasts; give an abundance of pure cold water; give some mild antiseptics to keep the bowels healthy, as, 5 grains of Salol every two or three hours, or, 5-grain doses of the Sulphocarbolates of Lime, Soda and Zinc combined; if the patient feels chilly and the surface is cold, increase the temperature of the room, apply artificial heat, and give hot drinks—stimulants.

Where the case is graver, where there is depression of the vital forces from the absorption of pus during the suppurative (pus forming) stage, the conditions will not admit of fever remedies without they are supported by stimulants, which may be given in the form of hot sling, Tincture of Capsicum in hot water, or red pepper tea well diluted with hot water and sweetened with sugar. When there is great prostration, with low muttering delirium, increase the antiseptics, that is, the Salol or Sulphocarbolates; also give Tincture of Belladonna in 10-drop doses every hour until the circulation is improved and the surface is warm. The nasal cavities, mouth and throat should be sprayed two or three times a day with Marschand's Peroxide Hydrogen diluted with an equal amount of water, or, in very severe cases, used full strength.

It is to prevent conditions like the last named that we wish to speak particularly. We believe that primarily small-pox presents no serious morbid changes or difficulties; and that if it could be arrested before the watery fluid in the vesicles changes to pus, the disease would be comparatively mild and harmless and the name small-pox lose its terrors. *To prevent bus formation the following treatments are recommended:*

1. Make a saturated solution of Epsom Salts, for example, one pint, and add to this one-half ounce of Aromatic Sulphuric Acid. About the fifth or sixth day, or before evidence of pus makes its appearance, heat the mixture and sponge the patient thoroughly with it morning and evening. Repeat the bath, or sponging, the next day, or any time thereafter if there is evidence of suppuration.

2. Make a 10 per cent solution of Corrosive Sublimate, or add 6 drachms of the Corrosive Sublimate to one pint of water, heat quite hot, see that the Corrosive Sublimate is thoroughly dissolved, and sponge the patient as above directed. Use this solution only when there is danger of pus formation, and only on such part or parts of the body as the danger appears.

Important.--The Corrosive Sublimate solution is the stronger of the two, and while we recommend this treatment, its application should be under the direction of a physician. The bottle containing the Sublimate should be labeled "*poison.*"

In applying either wash be careful to protect the eyes, that is, not to let any of the fluid get into them.

These and other strong antiseptics will prevent the watery fluid in the vesicles from changing to pus, and render the discharge absolutely harmless. When we remember that it is the formation and absorption of pus that poisons the patient and produces the secondary fever, aggravates all the symptoms and renders the disease so dangerous and fatal, we can readily see that if this change can be intercepted, or prevented, the disease will be rendered mild and harmless.

VACCINATION AND ANTI-VACCINATION.

Vaccination has been established and practiced in many countries for many years—centuries in fact, and those who support this practice claim that those who have been successfully vaccinated need have absolutely no fear of small-pox. They claim that vaccination produces the disease in a mild form and after this the system is immune. The vaccine used to vaccinate people is obtained from cows suffering with a disease called cow-pox. The vaccine is taken from the sores which appear on the cow, and by

scarifying the skin (usually of the arm) the vaccine is applied and enters the circulation. Those who support these principles claim that the cow-pox and small-pox are one and the same disease, and that is why the system is rendered immune after the light attack following vaccination.

Those who oppose vaccination claim that it does not protect from small-pox. They claim that cow-pox and small-pox are not the same; that the poison or vaccine does not produce the same disease and that is why vaccination does not protect. They claim that grease from the horse's hock will produce the same vesicles and the same disease as the vaccine from the cow, and at one time Jenner himself claimed this to be true and used grease from the horse on a large scale; it was in general use in many European hospitals. This part of their claim is a matter of history. Many medical men admit that "vaccination is by no means harmless, but that it is the lesser of two evils." The anti-vaccinationists claim that scrofula, chronic eczema and erysipelas follow vaccination more or less frequently. This is also admitted by many of the medical profession. Ulcers, abscesses, syphilis, loss of sight, and other diseases also follow some cases of vaccination. The many recent fatalities in New Jersey and other states following vaccination has given the practice a hard blow.

We do not wish to be understood as advising for or against vaccination; the reader must judge for himself. Since the practice has existed so long, and there is still so much dispute, we think it but simple justice to briefly mention the claims of both sides.

Note.—It is generally understood that Edward Jenner discovered vaccination, yet vaccination was practiced in very ancient times—2,000 years before our Christian era. The Sanskrit contains a clear description of vaccination, which has been translated by Dr. Michea.

MEASLES.—This disease, which is characterized by catarrhal symptoms and an eruption of the skin, is both contagious and epidemic. As an epidemic it makes its appearance usually in January and lasts until about May, but individual cases may occur at any time of year. As persons are subject to it but once one epidemic is not likely to be followed by another for a number of years, although there are generally a number of cases the next season after an epidemic among those who escaped the preceding year. The disease is, as a rule, contracted in youth, and the young are attacked with less severity than persons of more mature years.

Cause.—A contagion which is particularly communicable to children.

Symptoms.—From ten to fourteen days elapse from the time of contracting the disease before the patient begins to "come down" with it. During the last few days of this period he is

likely to feel more or less indisposed. About the tenth to fourteenth day a feeling of chilliness comes on, and he has the appearance of having contracted a severe cold in the head. There is some fever; the catarrh, which extends to the eyes, continues. They become red and the lids swollen; also a hoarse cough is developed; there is muscular soreness all over the body, and may be headache, or the patient may exhibit drowsiness. On the fourth day the rash appears, first on the forehead and face, in the form of red dots. These dots generally run together and spread all over the body. They are very slightly elevated and rough to the touch, but the skin not covered with the rash is natural in appearance, whereas in scarlet fever it is uniformly red. In scarlet fever, too, the eruption comes on earlier and there is no catarrh. With the appearance of the rash the fever, mild at first, increases, and the catarrh is aggravated. After the second day the eruption begins to grow dull—more brownish—and by the ninth day or earlier, has disappeared altogether, followed, if the attack has been severe, by a peeling off of the skin in minute flakes. The patient's eyes remain weak, and the cough is likely to continue for a time.

One of the most important considerations in a case of measles is the care that should be taken, both during incubation (if the patient knows he has been exposed) and recovery, not to become exposed to draughts, cold, etc., as the catarrhal condition mentioned extends along the bronchial tubes, and the danger is the tendency towards lung diseases, especially in those of scrofulous constitution. Measles may also be followed with inflammation of the eyes, impaired hearing, or chronic catarrh.

TREATMENTS.—

What to Do.—The first symptom in measles is that of a common cold, accompanied with a dry, hacking cough. So if the disease is anywhere around, the parent should be on the lookout for this symptom, and when the child begins coughing, keep him in the house. With the appearance of the rash soak his feet in warm water, as warm as he can bear, put him to bed and give him warm herb drinks—Saffron tea is best. Let him drink of it freely. Get him to sweating and see that he does not cool off too soon. Keep him moist and do not allow cold air to strike him, though in all cases the room should be well ventilated. For the fever that precedes the rash, take Aconite (see *Chicken-Pox*). If the rash comes out nicely, it is not necessary to have a physician unless as a matter of satisfaction to the parent; but the greatest care must be taken to prevent chilling, in which case the rash will in all probability be driven back, and a doctor should then be immediately summoned. The cough is aggravating and

will last for a week or two after the measles have disappeared and the child gets out. An excellent thing for this cough is Hoarhound. Steep it up, sweeten it, make a syrup and give freely. The throat may be quite sore, and, as in other fevers, the patient is very thirsty. Let him have all the cold water or lemonade he wants to drink. The room should be darkened as light is painful to the eyes.

A. Keep the patient well housed and warm in well-ventilated room, and give all the cold water he can drink. This treatment well attended to will be all most patients will need.—(30).

B. For racking cough and restlessness, put $\frac{1}{4}$ grain Morphine in $\frac{1}{4}$ glass of water. Give one teaspoonful after cough—perhaps each hour—to give rest. Don't give it except needed to quiet, and don't give to infants.—(43).

For the Itching That Sometimes Accompanies This Disease.—If the fever is high and there is much irritation and restlessness, give a bath once a day; twice if necessary. If this does not relieve the trouble, apply pure Sweet Oil, or Vaseline containing 5 drops of Carbolic Acid to the ounce.

A uniform temperature should be maintained, not only through the disease, but during convalescence, as this lessens the danger of taking cold, and in many cases the child is more easily managed as the skin is particularly sensitive at this time.

For Measles Cough.—If the cough is troublesome, or lingers after the disease disappears, give the following:

Sulphate of Codeine.....	1 grain.
Tincture of Nux Vomica.....	$\frac{1}{4}$ drachm.
Syrup of Wild Cherry.....	1 ounce.
Water enough to make all.....	2 ounces.

Dose.—Teaspoonful three or four times a day,

or,

Put $1\frac{1}{2}$ ounces of Fellows' Syrup of Hypophosphites into a 4-ounce bottle and fill the bottle with Maltine. Mix by shaking together, and give one teaspoonful at meal time and one at bedtime. Give small doses oftener, if needed.

FALSE MEASLES.—Also called *German Measles*, *Rotheln*, *Roseola*, etc.—This is a trivial affection, resembling measles, but lacking the pronounced catarrhal and other severe symptoms. No complications arise and no ill effects follow it. The patient may feel mildly indisposed for a day or two before the rash appears—perhaps has a sore throat and a mild fever. The eruption appears first on the upper part of the body in red dots. By the time it reaches the limbs it is beginning to fade where it first made its appearance.

TREATMENT.—

Give first a cathartic, and follow with either the Sulpho-carbolates or Saïol in the proper dose four times a day—after meals and at bedtime. A dose of either for a child five years old would be 2 grains. Restrict the diet, give an abundance of pure water, secure good ventilation and *prevent taking cold*.

Note.—There are those who believe *Measles* and *German Measles* are the same disease—that the so-called *German Measles* are but a mild form of *Measles* proper.

SCARLATINA, or, (as commonly called), **SCARLET FEVER**.—This is usually a disease of childhood, although grown people may have it, and even die of it. It is an acute inflammation of the skin and mucous membrane, characterized by a diffused scarlet flush and rash covering more or less of the whole body and extending along the mucous membrane of the mouth, throat, air tubes of the lungs, digestive tract, middle ear, the collecting tubes of the kidneys, etc.

Three varieties of scarlet fever are recognized, and it may be said in this connection that if the child's system is unhealthy before the attack, whether from bad surroundings, improper nourishment, constitutionally or otherwise, the disease is more likely to assume a malignant type.

Scarlatina Simple.—This is a light form with no complications.

Scarlatina Angina.—This name is given to a variety where the symptoms are all increased, especially those of the throat. In this variety the swelling and pressure of the throat structures cause great pain, the patient swallowing with the greatest difficulty. The swelling may be so great as to shut off the circulation and produce local death—gangrene. This is the condition present in the disease called *Black Diphtheria*. This, however, seldom occurs.

Scarlatina Malignant. This is a form in which the condition is still more grave. The eruption is delayed, nervous disturbances are marked, and the pulse is rapid and feeble due to weakness from the poison in the system.

The circulation being feeble, the surface of the body receives but little blood, the skin is pale, and there is little or no rash. The temperature may be below normal, and collapse and death may soon follow. If eruption occurs in this variety, it may be in patches and of a purplish hue, showing that the circulation is sluggish. There is no distinct dividing line between the three forms of scarlatina. They may merge one into another as day passes into night. The malignant form seldom occurs.

Symptoms.—Following are the symptoms of scarlet fever, yet it should be remembered that some of the symptoms may be absent, and some or all may be so modified as to render the case doubtful.

Scarlet fever begins suddenly, sometimes with a chill or chilliness. With children there may be convulsions; these are more liable to occur in weak children. There is frequently nausea and vomiting, though this is not severe. High fever is one of the early symptoms. The glands of the neck are swollen, the throat is red and inflamed and the tongue coated. There is frequently delirium, but this is usually mild and lasts but a short time.

The rash.—In twenty-four to thirty-six hours there is a bright rash, first appearing in the roof of the mouth, on the tongue, face, neck or breast, and spreading rapidly over the body. The rash first appears as a scarlet flush, with pin-point eruptions. These are not perceptibly raised, and the inflammation extends between them, so there is no healthy skin where the rash appears. The rash is intensified by heat. With its appearance the patient may suffer from a burning sensation over the whole or parts of the body. The throat is also more painful; the tongue is heavily coated, the papillæ of the tongue are elevated, and both the papillæ and border of the tongue are of a bright red.

On the fourth or fifth day the fever declines and the eruption fades. If there has been but little rash, the eruption may fade earlier. From the sixth to the eighth day scaling of the outer skin commences; this continues for one week or more. In mild cases scaling is not perceptible.

TREATMENTS.—

What to Do Till the Doctor Comes.—If the disease is prevalent, or the child has been exposed, when he commences to complain or the parent thinks he is coming down with it, begin giving warm drinks so as to bring out the rash as quickly as possible. Some herb tea is the best thing. If the rash is at all delayed, send immediately for the doctor; or if the child is taken violently ill, for instance, has convulsions, it is best to call the doctor at once.

The rash appears first in the roof of the mouth. As soon as it appears on the surface the best thing that can be done is to grease the child all over, from the hair to the soles of the feet and the inside of the hands, with the rind of bacon or other smoked meats. Do this about twice a day, night and morning, and be sure to exclude the air while doing it so that a chill will not result. If no smoked meat is at hand, the rind of salt pork may be used, but it is not so good on account of the creosote contained in the smoked article. The rind should be held by a stove or grate and warmed before applying. The fleshy or greasy side,



No. 6.

1, Arteries. 2, Muscles of Neck. 3, 4, Veins.

of course, is the side to apply. This stops the intense itching and is one of the best remedies that can be used. Or Sweet Oil or Vaseline, which make a more agreeable application, may be used instead.

No other children should be allowed to communicate with the patient. The disease may also be carried in clothing, in the hair of adults or in the hair of a dog with which the child has played, especially when peeling.

How to Help the Doctor.—Frequent bathing with water slightly warm will aid largely in controlling fever and producing a feeling of quiet. Bathing also helps to control burning and itching. Cover lightly in bed, and give abundance of fresh air and pure cold water; or lemonade may be given, and is greatly desired by some children. For the digestive tract, attend to the eliminations and give some mild disinfectant, as Salol, from 1 to 3 grains every two or three hours; or, in mild cases three times a day would be enough. This dose is suitable up to five or six years of age, and may be increased for older children. See if the kidneys are active. If the fever is high, maintain a low, even temperature. If the surface is cold and the skin pale, apply external heat and give stimulants in the form of hot drinks to produce sweating. This will aid in bringing out the rash.

A. Tincture of Aconite, $\frac{1}{2}$ drop. Repeat every half hour until skin becomes moist. Plenty of fresh air and pure water.—(29.)

B. Give child a hot bath and put it to bed, keep it quiet and call the doctor.—(38.)

If fever is high, give a cold sponge bath every one or two hours. Keep bowels open, and give patient all the water he can drink. If throat is sore, use gargle or spray of:

Boracic Acid.....	1½ drachms.
Peroxide of Hydrogen.....	4 ounces.
Rub patient with Olive Oil twice daily.—(61).	

What Scarlet Fever May Be Followed With.—The majority of those having scarlet fever make a rapid and complete recovery. Occasionally, however, the child is left with some chronic affection. Chronic inflammation of the middle ear may follow; or an abscess may form in the middle ear during the progress of the disease. This usually breaks through the outer membrane and discharges externally, though it may in rare instances penetrate to and cause abscess of the brain. Inflammation of the ear without abscess may result in more or less deafness. Chronic sore throat not infrequently follows the fever; or it may be followed with chronic inflammation of the eyelids, or inflammation of the eyeball, causing blindness, or chronic diarrhea, rheumatism, Bright's disease, heart disease and dropsy.

After-Effects, to Guard Against.—Intelligence should be exercised along these lines, even without instructions from the doctor. The mother's care and judgment should be sufficient to meet indications of difficulty as they arise, and relieve all possibility of chronic ailments following upon this disease.

Itching of the Skin in Scarlet Fever.—Under the treatments for measles it is stated that the skin is sensitive for a time. This condition applies more particularly to scarlet fever. The scaling or peeling of the outer skin leaves the deeper layer (true skin) more or less unprotected, and for this reason, as well as to prevent taking cold, the child should be kept in a uniform temperature. If there remains a sense of heat or itching, apply pure Sweet Oil, or Vaseline containing five drops of Carbolic Acid to the ounce. Either is harmless, and will usually overcome the difficulty and render the condition one of quiet and satisfaction.

Chronic Inflammation of the Kidneys.—Care should be exercised for some time in feeding. Any evidence of indigestion should be met with a more careful diet. The bowels should be kept regular. Small doses of antiseptics should be given for ten days or two weeks. For this purpose give 2 or 3 grains of Salol three times a day. This may be given in pill or powder. It is tasteless and a child will take it without difficulty. Give plenty of pure water for some time after the disease, as this aids in flushing the small blood vessels, and is really one of the best means of preventing congestion or inflammation of the kidneys. Evidence of indigestion may often be found in the urine. If it is scanty or high-colored, or if there is "brick dust" sediment, it is evidence that the digestion is interfered with and that the kidneys are called upon to do extra work in eliminating waste material. This excess would have a tendency to precipitate Bright's disease, hence the need of attention at this particular time.

Chronic Inflammation of the Throat.—The throat should be sprayed or gargled with Peroxide of Hydrogen diluted with an equal amount of water.

Indication of Weak Heart.—If the child tires easily and there is shortness of breath, it is an indication that the heart needs strengthening. For this trouble give 2-drop or 3-drop doses of Tincture of Digitalis three times a day.

If the child continues pale, it is evidence that too much blood remains in the internal organs, and this increases the danger of throat and kidney troubles. For this give from 3-drop to 5-drop doses of the Tincture of Belladonna every three hours until the skin is flushed and the color healthy. Repeat this treatment whenever needed. If there is no change after a few doses,

increase the amount or give the same dose oftener. Remember that as long as the circulation is uniform there is no danger of inflammation or chronic after-effects, and there is no remedy better suited to control the circulation than Belladonna. Also remember that the pale face may be due, not so much to a lack of circulation as to a lack of blood to circulate. Especial attention should always be given to nourishment in these cases.

MALARIAL FEVERS.

Malarial Fevers are supposed to be caused by an animal parasite which enters the system and passes its cycle of development, or period of life, in the blood cells. The cycle of development varies from twenty-four to seventy-two hours. The parasites pass through the whole period of their existence in this time, at the end of which the parent, or mature parasite, subdivides into ten to twenty parasites, each one of which attacks a new blood corpuscle to repeat the story of its parent's existence. The period between the paroxysms of chills and fever corresponds to the life period of the parasite in the blood.

The malarial parasite is hidden in countless millions in marshy districts and decaying vegetable matter ready for entrance into the human system. It is believed to be carried into the system by water or by the air we breathe. Of late it has been proven that mosquitoes, etc., frequently carry the parasite. Hot weather, hot climate and low elevation aid the spread of the disease, while cold weather, cold climate and high elevation check it almost entirely.

Under the head of malarial fevers may be classed *Intermittent* (fever and ague), *Remittent*, *Relapsing*, *Typho-Malarial* and *Pernicious*. All of these fevers excepting intermittent fever, however, may be due to bilious conditions as well as to malaria. The evidence of malaria is the regular recurrence of the paroxysms of chills and fever. With this exception there is no distinct dividing line between the fevers mentioned. Fever means poison in the system, and, while primarily poison may be the effect or result of bad air (malaria), it is also the effect and result of retained waste. Unhealthy surroundings may institute the first effect by producing a general morbid condition, thus rendering all the organs sluggish. Tissue change—repair and waste—is

interfered with. There is indigestion, thus increasing the amount of eliminative work, but elimination is checked and gradually the system is overcome.

The evidence of this condition manifests itself differently in different individuals. With some the symptoms may appear early, while with others they may be held in abeyance until the system is so overpowered that they break forth with sudden and overwhelming effect. This is more likely to be the result in the strong and robust because their vitality is stronger.

TREATMENT.—

The treatment is the same: elimination and tonics. Secure thorough elimination by the bowels; keep the kidneys active, or, if there is danger of congestion of these organs, apply hot poultices across the back, changing them often; give plenty of pure water; give frequent baths to insure free elimination by the skin; rub the surface until it is in a bright glow, which will aid in relieving congestion by equalizing the circulation; give nourishing food; give intestinal antiseptics—from 2 to 10 grains of Salol every two to four hours, according to age and condition of the bowels. Offensive odor calls for more antiseptics; if odor is absent, give less.

For internal treatment nothing is better than Quinine and Fowler's Solution—2 grains Quinine and 5 drops of Fowler's Solution before meals and at bedtime. In severe cases this dose may be increased. Fowler's Solution is only a means of giving Arsenic. The solution contains one per cent of that drug. Arsenic is eliminated by the skin, hence in the process of elimination it is brought intimately in contact with all the tissues. Again, Arsenic has the power of protecting seven thousand times its own weight of tissue from degenerative changes; in other words, rendering the tissues healthy. Arsenic is also believed to possess a special nutritive action on the heart. If digestion is interfered with, be more careful about the diet, and, if needed, give artificial digestants.

INTERMITTENT FEVER.—Consists of febrile attacks at regular intervals, between which attacks the patient is free from fever. It is commonly spoken of as "*fever and ague*," or "*chills and fever*."

Cause.—Intermittent fever is supposed to be due to the parasite of malaria, as mentioned in the preceding description of *Malarial Fevers*.

Symptoms.—There is a succession of symptoms, which may be divided into three stages, as follows:

The Cold Stage.—The attack usually comes on with a pain in the head and loins, a desire to yawn and stretch, and a coldness of the extremities. These symptoms are followed by shivering, which generally develops into violent shaking accompanied with a chattering of the teeth.

The Hot Stage.—This stage follows the cold stage, and is characterized by high fever. The change from the one to the other is usually gradual, the chilly sensations being alternated with flashes of heat until a fever is developed. The change, however, may be quite sudden. The skin, which before was pale, now becomes flushed and extremely hot and sensitive. A severe pain in the head and intense thirst are marked symptoms of this stage.

The Sweating Stage.—As the fever passes off the skin becomes moist, and this moisture increases, frequently, to a profuse sweat; the body returns to its normal temperature, the pains and aches disappear, and the patient falls into a refreshing slumber. He awakens free from any symptoms of the disease, but, of course, more or less exhausted from the effects of the paroxysm.

There are variations from these symptoms. In the so-called "*dumb ague*" the chill is slight or unnoticeable, but the other symptoms are apparent. The attack may consist of any one of the three stages—the chill, the fever or the profuse perspiration—or there may be a regular recurrence of pain in some part of the body, one side of the head or some feature of the face. The regular return of such symptoms indicates malarial origin.

Ague Cake.—During the cold stage the blood is driven inward from the surface and particularly oppresses the spleen, which, in cases of long standing, becomes swollen and permanently enlarged. This swelling may be distinctly felt, and is often quite perceptible to the eye.

TREATMENTS.—

A. A person need not be troubled with the ague very long who will take the following remedy:

Quinine.....	1 drachm.
Capsicum.....	15 grains.
Iron (ferri sub carbonus).....	½ drachm.

Have this mixed and put up in doses of 10 grains each, taking every four hours. Or, if it is not put up in regular doses, take of the mixture what you can hold on the point of a case-knife every four hours.

B. Give 15 grains of Quinine five hours before the expected attack. Give Fowler's Solution of Arsenic in 10-drop doses after meals, also give 3 grains of Quinine at the same time.

C. Give 16 to 20 grains of Quinine at one dose five hours before the expected chill, followed by smaller doses, say 3 grains four times a day.—(51).

D. Quinine, three 5-grain doses taken every day till cured. Also put a handful of rusty nails into a gallon jug of hard cider and take a wineglassful after meals till all is taken.—(14).

E. Boneset tea; then Quinine to full effect—buzzing in the head.—(6).

F. Open bowels freely with Compound Cathartic pills. Give 3-grain Quinine capsules every three hours till chills are broken, then give 3 grains two or three times a day for a week. Keep bowels open freely every day.—(13).

G. Quinine Sulphate in 2-grain doses every three hours. In malaria the next best thing to Quinine is a thorough elimination bath every other day.—(42).

H. Adults should be treated with Quinine Sulphate at the rate of one grain for every hour in the 24 for about two days. Best administered by the mouth in 4 to 6 grain doses. After the paroxysms are broken, preventive doses of 1 or 2 grains three times daily should be administered along with Iron tonics to restore the blood.—(31).

I. Take Quinine, 5 grains every four hours, commencing as soon as the sweating stage comes on. Open bowels freely with cathartic—best Compound Cathartic pills, three at a dose. After chills are broken the following pills:

Strychnine Sulphate.....	1 grain.
Arsenous Acid.....	1 "
Quinine Sulphate.....	1 drachm.
Extract of Gentian enough to make pill mass.	
Divide into 30 pills.	

A pill after each meal. Quinine should be stopped after chills are broken, but taken again as above on the 6th, 7th, 13th, 14th, 20th and 21st days.—(35).

REMITTENT or Bilious FEVER.—*Remittent Fever* and *Intermittent Fever* have a succession of paroxysms that are nearly identical, the differentiation being in the third stage of the paroxysm, which in the one is *remittent* and in the other *intermittent*. Remittent fever is the more severe. The bilious fever mentioned here is not to be confounded with the condition known as biliousness.

Cause.—The malarial parasite; or changes from heat to cold, by which the secretions are lessened, or checked; are supposed to be the causes of derangement in the liver and other organs by which a large amount of bile is retained in the system, causing this variety of fever. It is generally quite mild in the North, especially where the general surface of the land is dry and rolling; but in the South, and where the general surface of the land is low and flat, it is severe, and often of a congestive or pernicious character.

Symptoms.—Remittent fever begins with a *chill* and pain or uneasiness in the upper part of the abdomen. The chill is followed by a *hot stage* during which there is persistent vomiting, also pain in the head and limbs. The temperature rises, sometimes to such a degree as to be attended with delirium. The bowels are costive, the evacuations being dark-colored and ill-smelling, and the urine is high-colored and scanty. The skin has a *jaundiced* appearance. The hot stage in the remittent form lasts considerably longer than in the intermittent form, sometimes continuing for twenty-four hours. As in intermittent fever, the hot stage is succeeded by a *sweating stage*, but in the remittent form, as indicated by the name, there is a *remission* of the febrile symptoms only; the fever does not entirely abate and the sweating is very slight. A second chill does not usually occur, but after two to eight or ten hours the hot stage again returns, and is succeeded, as at first, by a remission. The disease usually runs from seven to fourteen days.

TREATMENTS.

What to Do Before Calling a Doctor.—First give an active cathartic, and if there is evidence of undigested food in the stomach, give an emetic to vomit the patient. An excellent remedy to follow with is a tea made of Pleurisy root (see chapter on herbs). Take the roots of this herb and crush them if dry, or break them if green, put them into a dish, pour boiling water on them and let them simmer, and have the patient drink freely of this tea until he is sweating well. Continue to keep the bowels open, and give 10 grains of Salol four times a day; also give 5 drops of Fowler's Solution together with 3 grains of Quinine three times a day. After 24 to 48 hours give plain, nourishing and easily digested food in rather limited amounts for a few days.

If there is no improvement under this treatment, a doctor should be called.

A. Antikamnia and Quinine Tablets, 10 of them.
Give one every three hours.—(20).

TYPHO-MALARIAL FEVER.—It not infrequently happens in a case of remittent fever that the remissions cease and the fever becomes continuous. When this occurs the patient becomes greatly prostrated, either lying in a stupor or being delirious. His condition resembles that of a typhoid patient, hence the name, *typho-malarial*.

TREATMENT.—

We think that no case of remittent fever would, under the treatment recommended under that head, run into a typhoid form. If it did, other treatment than that recommended by a physician who was in personal attendance would hardly be of avail.

RELAPSING FEVER.—This fever, as its name indicates, is characterized by *relapses*. It is also known as *Bilious Typhoid Fever*; also as *Famine Fever*, from the fact that the conditions of poverty, filth and overcrowding are favorable to it, and that it is frequently the accompaniment of famine. During the course of the fever the blood contains organisms of spiral form that keep constantly twisting, a sort of corkscrew movement, from which the disease is also known as *Spirillum Fever*.

Symptoms.—The onset may be abrupt or gradual. There is high fever, the temperature rising progressively until about the sixth day. During this time there is nausea and vomiting, also pain in the head and limbs, particularly in the calf of the leg. The liver and spleen become swollen, giving rise to a feeling of fullness, and jaundice is usually present. On the seventh day, or from the fifth to the seventh day, the fever ends about as abruptly as it began, but *returns again* about the fourteenth day. There may be several such relapses. The patient becomes greatly emaciated and recovery is tedious.

TREATMENTS.—

What to Do Till the Doctor Comes.—Send for a doctor. In the meantime move the bowels with injections, soak the feet in warm water, put to bed and, if possible, get to sweating. If there is any delay in getting the doctor, the following treatment may be resorted to: Count out 10 teaspoonfuls of water, put into a glass, add 30 drops of Tincture of Aconite, and take of the solution a teaspoonful every four hours. Alternate this with Quinine in 3 grain doses, giving the Aconite and Quinine two hours apart.

General Treatment.—Like other lingering fevers, *Relapsing Fever* is largely influenced by surroundings. All fevers of this kind must be treated on general principles. Drug medication is subordinate. First, attend to the surroundings. Remember the

cellar, well, drains, offensive cess-pools, dark and illy ventilated sleeping rooms, quality of food, etc. Give all of these proper attention. Put the patient into a large, well-ventilated room; secure thorough action of the bowels; give a bath every day; give properly cooked, easily digested and nourishing food every two to four hours, according to the strength of the patient; give 10 grains of Salol, or of the Sulphocarbolates, three times a day, or, if odor of eliminations is bad, give every two hours until natural, then three times a day; and give of the following one tablespoonful four times a day:

Fowler's Solution.....	1½ drachms.
Fellows' Syrup of Hypophosphites	4 ounces.
Maltine. or a good extract of milk.	8 “

Mix, by shaking the bottle.

We read and hear much about prophylactic remedies or medicines (meaning medicines to preserve against disease), but as preventive measures there is absolutely no treatment and no remedies equal to the foregoing. Every one can institute preventive measures of this kind, and prevention will relieve the necessity of treatment.

It is stated elsewhere in this work that, lying just beneath the skin and covering the whole outer surface of the body is a dense network of vessels capable of holding one-half the blood in the system; and that the lungs contain six hundred million air cells whose combined surface is more than seven times greater than the whole outer surface of the body. This is indisputable evidence that the Divine Architect designed an abundance of fresh air and free surface circulation. Again, the tissues of the body contain phosphorous. If exposed to the air, phosphorous immediately unites and spontaneous combustion is the result, producing great heat. The brain is estimated to contain one ounce of this element. One-fifth of all the blood goes to nourish the brain, hence one-fifth of all the oxygen absorbed from the air we breathe is carried direct to the brain and unites with the phosphorous contained there in order that our thoughts may breathe and our words may burn. The presence of so large an amount of phosphorous in the brain and the readiness with which it unites with oxygen, is another evidence that Nature has designed that we should exercise freely in the open air, and that our lungs should be capable of full expansion in order that we may inhale an abundance of oxygen. This keeps the fire burning, sends a glow to the cheek, a fire to the eye, and lights up the whole countenance with an expression that medicine does not, cannot give.

A former health officer of Philadelphia stated publicly that *he never met a case of malignant disease where the conditions could*

not be traced to bad hygienic surroundings. We do not wish to dwell too long upon this subject, but if we can impress our readers with the fact that the foregoing is a safeguard against disease, especially *malignant* disease, we shall feel that our effort has not been in vain. *With proper hygiene and physical training, the word "malignant" would soon disappear from our text books.*

PERNICIOUS FEVER—CONGESTIVE FEVER.—

This fever, as its name indicates, is of a malignant character. It is an intense variety of malarial fever, and may be either *remittent* or *intermittent*. A case of either may suddenly develop the malignant form. Pernicious fever is also known as *Congestive Fever*, the chill with which it is ushered in being spoken of as a *congestive chill*. It is due to a high degree of malarial poison.

Symptoms.—As stated in the foregoing, simple remittent or intermittent fever may develop into the malignant, or pernicious, form; and, in the majority of cases, the *first* succession of cold, hot and sweating stages is of the ordinary type.

Pernicious fever is characterized by severe congestion of some internal part, and the symptoms vary according to the location of the congestion. Not infrequently the congestion affects two sets of organs, the symptoms characteristic of each being combined. There are, however, general symptoms characteristic of most cases. For instance, there is great restlessness, a cold, clammy surface with raging internal fever and intense thirst, features shrunken and countenance anxious; pulse weak except in *cerebral* variety (where brain is congested).

If the stomach and bowels are the seat of the congestion, there is nausea, vomiting, straining and purging, the evacuations being thin and mixed with blood.

In the *thoracic* variety (the congestion affecting the organs of the chest) there is difficulty in breathing, the patient gasping for air and troubled with an annoying cough.

If the brain is congested, the patient is wildly delirious, the delirium being succeeded with convulsions and a state of stupor not unlike that of apoplexy, the breathing being slow and stertorous (snoring), the pulse full and the countenance flushed or livid.

There is another variety, beginning with either of the simple forms, in which internal congestion is developed affecting both the organs of the chest and the abdomen. There is nausea, vomiting, quick, short breathing, and pain over the liver and kidneys. These symptoms continue for a few hours, when the skin suddenly turns yellow, followed by the passing of bloody urine. After this there is the abatement of symptoms characteristic of

all malarial fevers. This may be a remission or an intermission according to the nature of the simple form from which it was developed.

In still another variety the surface is intensely cold and covered with a cold sweat, while at the same time the patient, as he expresses it, is "burning up inside" and suffers from intense thirst. The voice is feeble and indistinct and the countenance pinched and deathlike, but the mind remains clear.

It must not be supposed that in the malignant malarial form there is a succession of paroxysms such as characterize the simple form. It is the effort of the physician to prevent a second malignant paroxysm, as the patient, with his reduced vitality, is very likely to succumb to it; and a third malignant paroxysm is almost invariably fatal. Indeed, it is not of infrequent occurrence that death occurs during the *first congestive chill* before febrile reaction has developed. After one malignant paroxysm, however, the disease may be partially controlled so that succeeding paroxysms which occur will be of the simple form.

It will be readily apparent after a study of the causes of malignant malarial, or pernicious, fever, and the gravity of the disease, that even a simple case of *fever and ague*, or *chills and fever*, should not be permitted to go without treatment, as the malignant form may be lurking in the virus of the simplest case if no counteracting agent is employed.

Pernicious, or Malignant, Fever, does not often occur, and when it does it is evidence that bad hygiene has existed for some time. It is also evidence that there has been a lack of intestinal sanitation. It means, in a word, that the individual was loaded with poison before the disease came on. Perfect digestion and elimination will relieve the danger of *Pernicious Fever*.

TREATMENTS.—

What to Do Till the Doctor Comes.—Send for the doctor immediately, and in the meantime do everything possible to get the patient out of the chill. Soak the feet in hot water, into which may be thrown a tablespoonful of soda and a little handful of salt. Bathe to the knees, rub thoroughly, and put to bed. Give warm drinks, and put around the patient bottles of hot water, hot bricks, or stones heated hot; or take ears of corn, boil them up, take them out of the water, roll them up and put around the patient. In a congestive chill the surface is dark colored or purple, and unless the chill can be broken up, death results.

If the Doctor is Delayed.—If for any reason the doctor cannot or does not come, the treatment should be continued after the chill is broken. Elimination, fresh air, and a nourishing diet are the keynotes in conditions of this kind. Keep the bowels active.

Give no article of food that disagrees with the digestion. Rice boiled for three hours, soft cooked eggs, beaten raw eggs in milk, dry toast, oatmeal boiled for three hours and strained, using only the liquid part, meat broths, vegetables boiled and strained, using only the liquid part—any of these are valuable. Give 10 grains of Salol three times a day. If the eliminations give offensive odor, give the Salol every two hours for one day, and at frequent intervals for a longer time if necessary. Give a hot bath every day, and each time sweat the patient profusely. Give a $\frac{1}{100}$ -grain of Sulphate of Atropine one hour before taking the daily bath. Provide good ventilation. An abundance of fresh air is of the utmost importance. Give 3-grain doses of Quinine four times a day. The following mixture should also be given:

Fowler's Solution.....	2 drachms.
Nitro-Muriatic Acid.....	4 “
Glycerine.....	2 ounces.
Water enough to make.....	4 “

Take one teaspoonful after meals.

A. The object is to get up a *reaction*, and all efforts must be directed to this end, and that too with all possible speed.

First.—It is not amiss in any chill to put the patient's feet into *hot* water, as hot as it can be borne; but in a congestive chill it is almost absolutely necessary to place the whole body into *hot water*, keeping it as hot as it can be endured without scalding, for 20 to 30 minutes; but if there is no bathing convenience in the house, have sheets wrung out of hot water and wrapped around the whole body, then hot irons, bricks, or stones, or boiled ears of corn, or small bags of corn, or oats, placed all around the patient, to get up and keep up as much heat as possible until the chill is overcome and reaction established; at the same time give strong tea of Cayenne, Ginger, or even Black Pepper as freely as can be and if there is Quinine in the house, or near, give three or four doses of 4 to 6 grains every half hour. Rubbing one hand and arm, and one foot and leg at a time with Cayenne, or Mustard, if help is at hand, would be of great assistance also in *re-establishing* the circulation.

Second.—After the patient has revived and the difficulty passes off, give at least 3-grain doses of Quinine every three or four hours, to prevent the return of the chill, which is fully as likely to return as in common ague; and also continue a *tonic* and cleansing course of treatment for several days to aid in re-establishing general health, and thereby keep off the disease; but, in case of the continuation, or return of the chill, the treatment will be the same, following closely with mild cathartics, tonics, etc.--(75).

Fever Summary.—Fever given under so many different names or headings are confusing, therefore we wish to remind the reader that, with the exception of malaria, all fevers, regardless of their name or nature, are the result of the same cause—an unhealthy system. They are but different stages or different manifestations of the same diseased condition, and the treatment is the same, with the exception that some require less and others more. As the diseased condition continues, some organ, tissue or part less able to withstand the morbid effects, becomes debilitated and weakened until it presents evidence of a special or separate disease, after which it is given some particular name. It may be typhoid fever or abscess of the liver, enlarged spleen or consumption of the lungs. Fever is present in these and many other diseases, yet all might have been prevented if the directions for *General Treatment* under RELAPSING FEVER had been thoroughly applied. Such treatment does not belong especially to relapsing fever, but belongs to any and all conditions where the general health is interfered with.

FEVER SORE.—A fever sore is an ulceration of bone. For description and treatment see under BONE DISEASES. The following treatment has also been recommended.

Such a sore often breaks out on the shin of children after a fever.

TREATMENT.—

Fresh Butter	1 pound.
Oxide of Zinc	1 ounce.
Iodoform.....	1 scruple.

Work the mixture with a knife, or something of the kind, to get the Zinc and Iodoform mixed thoroughly through the butter. Spread a little on linen and cover the sore.

Compound Stillingia Syrup.....	4 ounces.
Iodide of Potassium.....	1 drachm.

Take from $\frac{1}{2}$ to 1 teaspoonful three times a day, depending upon the age. This will act as an antiseptic to the blood and aid in healing the sore. Unless something is taken for the blood, the sore will not heal.

The treatments recommended under *Fungus Disease* would also be applicable here. See FUNGUS DISEASE.

FISH SKIN DISEASE.—(See under SKIN DISEASES).

FISSURE.—(See under ANUS, DISEASES OF).

FISTULA.—(See under ANUS, DISEASES OF).

FITS.—(See CONVULSIONS).

FLOODING.—(See under WOMEN'S DISEASES).

FRECKLES.—(See under SKIN DISEASES).

FUNGUS DISEASE.—*Fungus* is a spongy, morbid growth or granulation in animal bodies, as the proud flesh of wounds or some forms of cancer growth that break out.

TREATMENT.—

The treatment of fungus growths consists of the local applications of caustics. Under the head of *Caustics* in the MISCELLANEOUS DEPARTMENT will be found a number of such remedies.

The following is also recommended:

A. Sulphuric Acid.....	1 ounce.
Nitric Acid	½ "
Corrosive Sublimate.....	¼ "

Mix, by first putting the Sulphuric Acid into a porcelain dish and then carefully adding the Nitric Acid. When the effervescence ceases and it becomes cold, put into a strong bottle and add the Corrosive Sublimate.

This is a fine thing for destroying proud flesh and for dressing all lacerated or bruised wounds. Cuts and penetrating wounds may be treated by dipping a feather into this solution and drawing into the wound. Of course this treatment would not be needed in the case of a healthy wound, but will be found most excellent for indolent and sloughing wounds or sores that show no tendency to heal.

After a thorough application of the foregoing, the wound should be washed out with pure water. Where sores of this kind exist, it is evidence that constitutional treatment is also needed.

B. Carbolic Acid, full strength, applied daily.—(7).

GALL-STONES.—This is a disease of middle life, and more common in those of corpulent figure.

Cause.—Crystallization of certain properties of the bile, which form the nucleus (beginning) of a gall-stone. Other particles from time to time adhere to this nucleus until finally a stone is formed which sometimes reaches the size of a hickory nut. So long as gall-stones remain in the gall bladder they occasion no inconvenience and their presence remains unsuspected, unless they become so large as to produce ulceration, in which case local peritonitis is likely to occur. Usually, however, they are discharged through the duct which leads from the gall bladder to the intestine.

Symptoms.—The instant a gall-stone passes into the biliary duct, which is small and consequently stretched and drawn by the passage of the stone, the patient is seized with a piercing pain in the region of the gall bladder. The pain spreads over the abdomen, the muscles of which cramp and become sensitive to the touch, and extends to the right side and shoulder. Nausea and vomiting usually occur, and the agony may be so great that the patient faints or is thrown into convulsions. Remissions from the violence of the pain may take place, but the patient does not experience entire relief until the passage of the stone into the intestine is effected; this may be accomplished in from one to several hours, or may take several days. When the stone is discharged into the intestine, which is larger than the biliary duct, the pain ceases and only a soreness and exhaustion remain. Remission of pain may also be experienced by the stone falling back into the gall bladder.

On account of the stoppage of the flow of bile during the passage of a stone, jaundice is caused. Even after the passage of a small stone, which has been effected in an hour or two, the skin will have a slightly yellow appearance, which, however, soon disappears.

In our experience we met one case of gall-stones which had evidently formed in the gall duct, not in the gall bladder. There were five of these stones, and the duct had gradually distended until it had reached enormous proportions and presented itself against the abdominal wall in the form of a large tumor. An operation revealed a duct $1\frac{1}{4}$ inches in diameter and about 6 inches long. Adhesions had drawn the duct forward, tense and firm, hence the appearance of the tumor. The greater part of the duct was removed, the wound closed and the patient recovered. If a stone forms in the gall bladder and is too large for passage through the duct, inflammation may follow and the gall bladder become adherent to the digestive tract, that is, the gall bladder and the bowel grow together. Ulceration may follow, and the stone be discharged into the bowel through the track of the ulcer. This seldom occurs.

TREATMENTS.—

What to Do.—In cases of gall-stones, for immediate relief give Olive Oil—the pure, genuine oil. If one is subject to this distressing complaint, Olive Oil should be kept on hand, and when the trouble comes on, take tablespoonful doses of it every two or three hours until relieved. Consult a doctor for the treatment applicable to the case.

A. Drink a gill of Olive Oil a day for a month.—(14).

C.R.-11

B. To relieve pain:

Chloroform.....	2 drachms
Tincture of Capsicum	½ “
Laudanum	1 “
Spirits Camphor	1 “
Good Wine.....	3 “

Mix, and take 10 drops every hour or two in water.—(53).

C. Take one teaspoonful of Sodium Phosphate in glass of warm water an hour before each meal and at bedtime.—(46).

D. Phosphate of Soda, teaspoonful in glass of hot water two or three times daily, long continued, has been more satisfactory than anything else.—(45).

E. A teaspoonful of Epsom Salts every two hours until the bowel is emptied. Paregoric in teaspoonful doses every half hour until pain is relieved. Operation is indicated when the surroundings are favorable.—(9).

F. Five drops of Chloroform three or four times a day for months; also, best Sweet Oil two teaspoonfuls three times a day. The above to prevent the formation of biliary stones.—(8).

G. This disease, when it occurs, produces such intense pain and suffering that, aside from our own experience, we have consulted those high in authority, and in offering the following remedy we will say that we believe it to be the best treatment that can be administered in these cases:

Valerianate of Strychnine.....	$\frac{1}{67}$ grain.
Glonoin	$\frac{1}{50}$ “
Hyoscyamine	$\frac{1}{50}$ “

The above makes one dose, and the dose should be given, either in capsule or pill form, every thirty minutes until the face flushes.

The Strychnine stimulates muscular contraction and aids in forcing the stone through the duct, or canal, into the bowel. The action of the Hyoscyamine harmonizes with the Strychnine by relaxing the muscular spasms brought on by the pain. The Hyoscyamine also dilates the small arteries all over the body and allows the blood to flow away from the congested gall bladder. This aids in relieving the pressure and pain. The Glonoin aids in dilating the arteries and acts as a powerful heart stimulant, thus strengthening the patient and preventing fainting or collapse, which is liable to occur. With this treatment, if it is still found necessary to use Morphine for the relief of pain, the amount required will be comparatively small.

The foregoing remedies are decidedly tonic in their general effect, and this fact, together with the relief from the trouble and small amount of Morphine used, will result in a rapid and most satisfactory cure.—(62).

GANGRENE, or MORTIFICATION.—Gangrene is the death of a part from lack of nutrition. It is a putrefactive change occurring in a dead limb, or in any dead tissue. Either gangrene or mortification means death. Gangrene is understood to mean death of a part in a live body, while mortification is a term more often applied to a dead body.

Cause.—Gangrene may result from either too high or too low a temperature, as a burn or freezing. It may also result from a strangulated hernia, or any condition where the circulation is shut off. It may result from injury, erysipelas, diabetes or old age. The last two forms depend upon constitutional conditions. The other varieties depend upon local causes.

Constitutional Gangrene depends upon systemic disease, such as diseased arteries, or diabetes.

Senile (or Dry) Gangrene, which is also constitutional, is a drying up or shrinking of a part from poor circulation. This form is usually met with in the aged, and is due to a weak heart. There is but little interference with the venous (return) circulation; the trouble is, there is but little blood sent to the part, and with good drainage the part becomes dry and dies. This form is comparatively harmless.

Moist Gangrene results from external injury, or from inflammation where circulation and nutrition are suddenly checked and the part dies. In this case there is no opportunity for drainage and the moisture remains. This is a very dangerous form. When occurring from injury if the inflammation is extensive, as in a bruised or mangled leg, it may first appear in the foot or lower part of the limb and extend toward the body so rapidly that in a few hours dark spots may cover the surface in many places. If it reaches the body, the case is hopeless. Surgical interference is the only treatment for this form of gangrene.

Embolic Gangrene is due to a sudden plugging of an artery with a blood clot, shutting off the supply of blood and nourishment.

Hospital Gangrene results from bad hygiene and lack of antiseptics. This form is now seldom heard of.

Phlegmonous Gangrene results from erysipelas. Where the disease affects the different structures, death of the tissues results from pressure due to swelling.

Symptoms of Dry Gangrene.—In senile gangrene, or gangrene of old age, there is a weak heart, poor circulation and diseased arteries. The disease usually occurs in the part farthest distant from the heart, as the foot or hand, because the circulation is

more feeble there. The first symptom may be a sensation of coldness or numbness of the part. Any slight accident or injury may cause inflammation which is out of proportion to the injury. Sooner or later a dark spot appears, a blister may form and a little bloody fluid be discharged. In cases of this kind there are no constitutional symptoms other than those that existed before. There may be a sensation of heat and pain for a short time when the disease first begins. When a large area, as an arm or a leg dies, there will be fever, pain, sleeplessness, exhaustion and rapid death.

Symptoms of Moist Gangrene.—When gangrene follows an injury, there may be no symptoms until dark spots appear. These spread rapidly. The part will be greatly swollen, and feels soft and boggy from the contained fluid and formation of gases resulting from decomposition. The odor is horrible. Gangrene may result from tying a large artery in some operation. In this case the symptoms would be as follows: The pulse is absent, the limb becomes greatly swollen, the surface is cold, and blisters containing a bloody fluid may appear. The pain is mostly confined to the part where the artery was tied. In gangrene the adjoining healthy tissue is greatly inflamed. This is the battle line between the living and the dead; it is called the line of demarkation. It is not present in gangrene resulting from accident, as described, but is present in senile gangrene, and may occur in gangrene caused by tying an artery, in which case amputation should be made some distance above this line.

TREATMENT.--

Dry Gangrene.—The treatment consists in keeping the part clean, antiseptic dressing, such as cloths wet with Listerine laid over the affected part, or the part sprinkled with Iodoform; good food and tonics. If the disease shows a tendency to spread, apply heat to the part. Amputations are not recommended in aged people.

Moist Gangrene.—The treatment in moist gangrene following injury is to amputate at once. The patient should receive the most nourishing diet. Stimulants are required, and, later, tonics, good ventilation, etc.

Phlegmonous Gangrene.—For the treatment of gangrene following erysipelas, see ERYSIPELAS, PHLEGMONOUS.

Embolic Gangrene.—Usually occurs in the liver, lungs or brain, hence is not amenable to treatment. Should it occur in an arm or leg, wait for the line of demarkation, and, if extensive, amputate the same as for gangrene resulting from tying an artery.

Hospital Gangrene.—This would require the same treatment as for moist gangrene, or embolic gangrene, or for that form resulting from tying an artery. Hospital gangrene, however, is a form that is nearly extinct and needs no particular mention.

For *Omphalitis*, or *Gangrene of Infants*, also *Cancrum Oris*, or *Gangrene of the Mouth*, see under DISEASES OF CHILDREN.

GIN LIVER.—(See under LIVER, DISEASES OF).

GLANDERS—FARCY.—This is a contagious disease. Primarily it affects the horse, but may be communicated to man. At first the disease is confined to the mucous membrane of the nose and air passages. It is accompanied by a pustular eruption which causes profuse discharges.

Cause.—The cause is a specific ferment which sets up inflammatory changes in the mucous membrane and skin.

Symptoms.—The disease commences with a catarrhal inflammation and nodular (knotty) swelling of the mucous membrane of the nose, and extends along the air passages. Suppuration and ulceration of the nodules soon follow, and thus a purulent nasal discharge is established. When the mucous membrane is affected most, the disease is called *Glanders*; when the skin is affected most, it is called *Farcy*. As the disease continues, however, these two conditions become more or less associated with each other. First, the nodules form. These may be the size of a pea, smaller or larger. They are poorly supplied with blood vessels, hence soon degenerate. The degeneration is followed by more or less suppuration. The odor of the discharge is foul, and the ulcers show no tendency to heal. The glands of the neck and other lymphatic structures are swollen. The poison from the suppurative surfaces enters the blood and the whole system becomes affected. There is inflammation of the skin, mucous membrane of the air passages, stomach and digestive tract. Abscesses form beneath the skin in the joints and in other structures. The condition is one of blood poisoning. Inflammation of the skin may occur in large patches, and the inflamed area be covered with large vesicles which soon turn into pustules, break down and discharge. The disease usually runs a rapid course and is generally fatal. However, there are said to be some cases that are chronic; a chronic case usually recovers.

TREATMENTS.—

A. The treatment consists in rendering the ulcers as healthy as possible, and in freeing the system of poison. The ulcerous patches on the mucous membrane cannot be reached directly. This renders the situation graver because there is constant absorption of poison from these surfaces. The bowels, kidneys and

skin should be kept active in order to eliminate as much of the poison as possible. Large doses of Fowler's Solution—20 to 30 drops—should be taken four times a day, at meal time and on going to bed; and 40-drop doses of Syrup of Iodide of Iron taken between meals and at bedtime—three doses a day. The last dose of each may be taken together. Salicylate of Soda in 20-grain doses every three hours is also valuable; or take internally 3 or 4 drops of Carbolic Acid, well diluted with water, every three hours, and also take $\frac{1}{30}$ grain of Strychnine with each dose.

B. Nasal ulcers may be treated by snuffing up the nose Iodoform and injections of Carbolic Acid or Nitrate of Silver. A general tonic, nutritious diet and abundance of pure air and water are of the greatest importance. Alcoholic stimulants have been used with advantage. Ulcers occurring externally may be treated by the application of Carbolic Acid.

GLEET.—(See under **VENEREAL DISEASES**).

GOITRE, BIG NECK, or BRONCHOCELE.—This is an enlargement of a gland (thyroid) in the front of the neck. It is an endemic disease, that is, peculiar to certain localities. It is much more prevalent in some districts of Europe than anywhere in America, yet there are few parts of the world where it may not be found. It is sometimes cured by removal from a goitre district, and it may be contracted by settling in such a district.

Cause.—It has never been ascertained just why certain localities should be favorable to this affection, but it is believed to occur in persons of a scrofulous tendency.

Symptoms.—The enlargement begins, usually in early life, as a soft tumor, which increases in size, hardens in the course of time, and generally becomes irregular in shape, the enlargement on the right side being larger than that on the left. The growth is unattended with pain, but after the tumor has attained a certain size it begins to press upon the windpipe and gullet, thus interfering with breathing and swallowing and causing headaches and other disagreeable feelings.

TREATMENTS.—

A. Wash externally with a solution of Tincture of Iodine diluted in $\frac{1}{2}$ the amount of Alcohol. Repeat every evening until it disappears.

B. Iodide of Potassium.....	2 drachms.
Iodine	1 “
Water.....	2½ ounces.

Mix, shake a few minutes and pour into two vials, one for internal use and one for external application.

Internal Dose.—5 to 10 drops, between meals, to be taken in a little water. Do not take for two hours after eating.

External Application.—With a feather wet the enlargement night and morning until the swelling disappears.—(69).

C. Paint the neck with Tincture of Iodine every second day.—(7).

GONORRHEA.—(See VENEREAL DISEASES).

GOUT.— This is a disease that exceeds rheumatism in the severity of the pain occasioned, but instead of affecting the large joints, it is confined usually to the smaller ones. The first joint of the great toe is most frequently affected.

Cause.— The tendency to *gout* is generally inherited, but is usually caused directly by high living or over-indulgence in wine and malt liquors. Where the disease has been *acquired* by such indulgences it does not make its appearance until after about thirty-five years of age; if inherited, it may come on early in life. Men more than women are subject to it.

Symptoms.— An acute attack may be preceded for several days by a derangement of the digestive organs, especially a sour stomach, but the gouty pain comes on suddenly, usually soon after midnight. The pain is wrenchingly severe, and the part hot, swollen and sensitive to the touch. The whole limb (if it is the toe joint that is attacked) is affected with swelling and painful muscular contractions, and the veins are congested. The patient has a chill at the beginning of the paroxysm, followed with fever. There is an entire or partial remission of the symptoms about daylight, but they come on again at night, decreasing in severity, however, until after a few days the patient becomes convalescent. After recovery he is in better general health than before the attack.

A second attack may not occur for three or four years, or may occur in one year. After the first attack it is prone to return, but of course much depends upon the manner of living. The time between the second and third attack is less than between the first and second, in fact, the time between each succeeding attack lessens.

The characteristic of this disease is a deposit about the affected joints of a chalky substance, which increases with each attack until the joints present a knobby and deformed appearance.

TREATMENTS.—

A. The patient should restrict himself in the matter of diet. As a remedy, there is nothing better than Wintergreen. If the wintergreens can be obtained, boil them up, make a strong tea,

and drink freely. If not, take the Oil of Wintergreen, a few drops on loaf sugar, three times a day. Or take a tea made of Virginia Snake root and Wintergreen, equal parts. Another excellent remedy is Black Cohosh, taken either in decoction or tincture.

The great value of the Wintergreen Oil is found in the fact that it contains a large percentage of Salicylic Acid, and this acid is one of the most valuable remedies in all forms of gout or rheumatism. It should not be given clear, however, as it is too irritating. Salicylate of Soda is another safe way of administering Salicylic Acid. In either case the acid circulates in the blood as a free agent, and is one of the best of all known remedies to prevent fermentation and degenerative changes, which are always more or less present in rheumatism and gout.

Salicylic Acid is eliminated by the kidneys, hence is a good antiseptic to these organs and also to the bladder.

B. For Chronic Gout.—Take hot vinegar and put into it all the table salt which it will dissolve, and bathe the parts affected with a soft piece of flannel. Rub in with the hand, and dry the part by the fire. Repeat this operation four times in the 24 hours, 15 minutes each time, for four days; then twice a day for the same period; then once, and follow this rule whenever the symptoms show themselves at any future time.

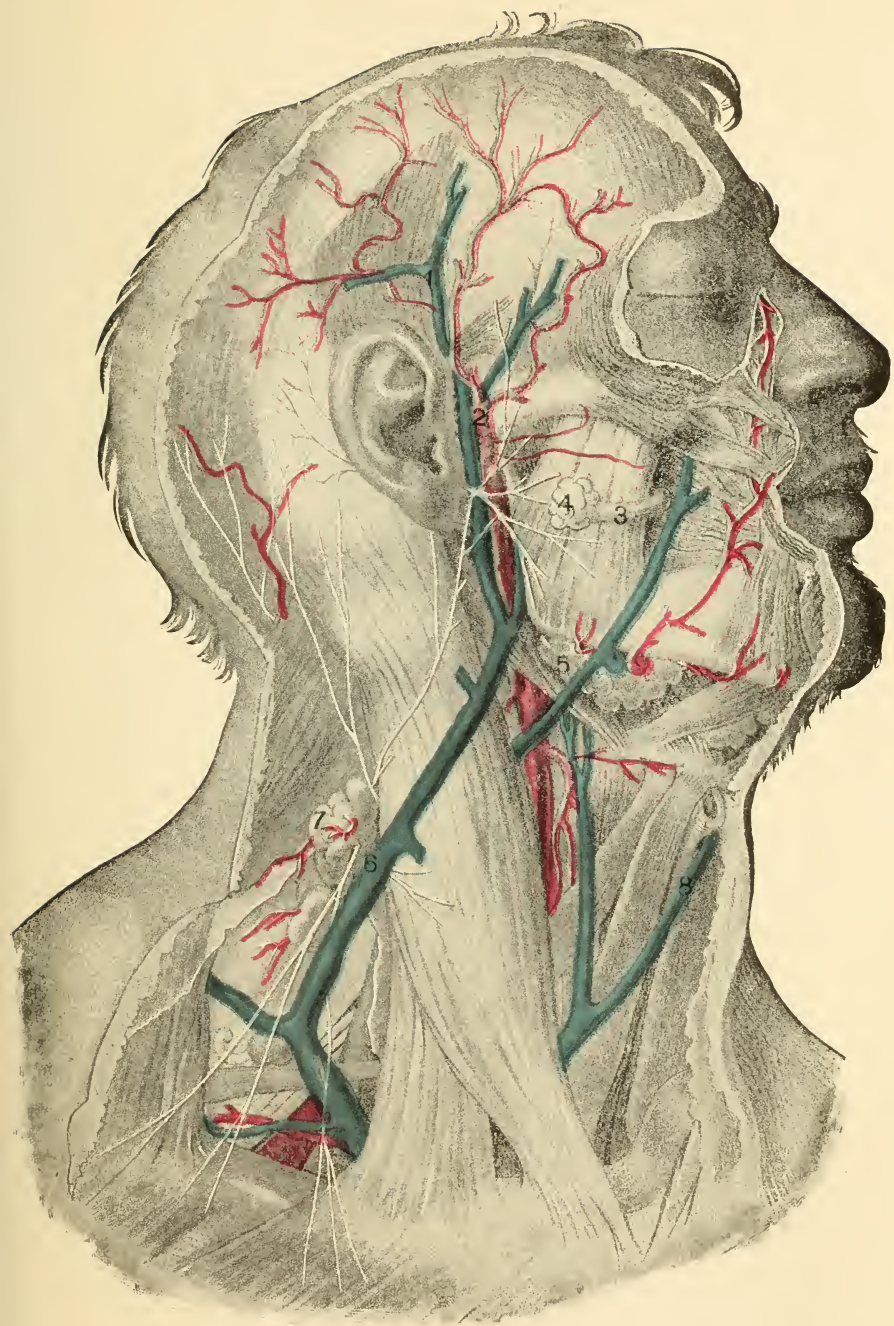
The philosophy of the above formula is as follows: Chronic gout proceeds from the obstruction of the free circulation of the blood (in the parts affected) by the deposit of a chalky substance, which is generally understood to be a carbonate and phosphate of lime. Vinegar and salt dissolve these, and the old chronic compound is broken up. The carbonate of lime, etc., become acetate and muriate, and these, being soluble, are taken up by the circulation and eliminated. This fact will be seen by the gouty joints becoming less and less in bulk until they assume their natural size. During this process the stomach and bowels should be kept regulated by a gentle purgative. Abstinence from alcoholic drinks; exercise in the open air, and especially in the morning; free bathing of the whole surface; eating only the plainest food; and occupying the time by study or useful employment, are very desirable assistants.

C. Gout Tincture.—

Veratrum Viride.....	..	½ ounce.
Opium	¼ "
Wine	½ pint.

Let stand for several days.

Dose.—15 to 30 drops, according to the robustness of the patient, at intervals of two to four hours.



No. 7.

1, Vein. 2, Artery. 3, Salivary Duct. 4, 5, Salivary Glands. 6, Vein.
7, Lymphatic Gland. 8, Vein.

A French officer introduced this remedy in gout some sixty years ago, and it became so celebrated that, incredible as it seems, it sold as high as from five to ten francs a dose. It is considered valuable also in acute rheumatism. In gout it removes the paroxysms, allays pain, *reduces the pulse and abates fever*, and procures rest and sleep.—(68).

GRAVEL, or STONE.—(See under KIDNEY DISEASES).

GREEN SICKNESS.—(See under WOMEN'S DISEASES).

GURGLING OF THE INTESTINES.—This is the peculiar sound caused by gas in the digestive tract. During the fermentive condition of the bowels following constipation, in typhoid fever and inflammation of the bowels, this condition is greatly increased. True it sometimes occurs in those who miss a meal, or who are not seriously troubled with constipation or disease of any kind; yet we are inclined to believe that this condition whenever present is dependent wholly upon the formation of gas, and indicates an unhealthy condition of the digestive tract.

TREATMENT.—

If actual disease is present, see treatment under the various heads. In the absence of any well defined disease, take 10 grains of Salol three times a day. Take the meals regularly, exercise great care regarding the diet and keep the bowels regular.

HAEMOPHILIA—BLEEDER'S DISEASE.—This is an abnormal condition of the blood vessels in which hemorrhage is a frequent symptom. It occurs upon the slightest occasion. Any slight accident or injury may produce troublesome bleeding. The extraction of a tooth or removal of a tonsil is liable to cause dangerous hemorrhage.

Cause.—The cause is not well understood. Evidently it is a lack of normal development of the vessels.

TREATMENT.—

Guard against injury as much as possible and avoid operations of all kinds. When an injury or wound has occurred, cleanse the wound and take absolute rest. If in a favorable locality, pressure on the artery should be employed. The diet should be light and supporting. After a serious attack of bleeding the patient should take Iron and Cod Liver Oil until the health seems restored. The Cod Liver Oil should be taken in tablespoonful doses three times a day before meals, and 10 drops of the Muriate Tincture of Iron in a teaspoonful of simple syrup after meals. When possible, a residence in the South during the

winter is advisable as most cases are aggravated by cold weather, and in any case care must be taken in guarding against cold and wet.

HAY FEVER (*Hay Asthma, Hay Cold, Rose Cold*).—So called because it usually occurs during the haying season. The only difference between asthma and hay fever is that in hay fever there is a slight rise in temperature and a catarrhal condition of the eyes, nasal cavities, throat, and air tubes of the lungs, but mostly in the air passages of the head. At first the mucous membrane may seem dry, but this is followed by an increase in the secretions. In some cases there is a profuse watery discharge. Hay fever may, and sometimes does, assume all the seriousness of asthma. There is no dividing line between them. The catarrh is the most prominent symptom which divides the two.

TREATMENTS.—

A. Change of climate affords the greatest relief, but the remedy is *Lobelia* tea (see chapter on herbs). Drink until the lungs are relaxed.

Remark.—Northern Michigan climate is a positive relief for hay fever sufferers. It is doubtful if a permanent cure can be effected.

B. *Artemesia Vulgaris*, sixth dilution. Take in pill form or 1-drop doses four times a day during the months of freedom from the disease.—(3)—Homœopathic.

HEADACHE.—There is no one ailment to which humanity is so universally subject as headache. It is a symptom of nearly every disease, and no disorder so slight that it does not have its accompanying headache. There is the *nervous headache* to which so many women especially are subject, the *catarrhal headache* and the *neuralgic headache*; there is the warning and unpleasant fullness in the head of those subject to apoplexy or epilepsy; there is the distressing accompaniment to organic disease within the brain; and there is the positive illness called *sick headache*.

SICK HEADACHE.—*Causes.*—There is a variety of causes which may produce sick headache. Usually it is due to disturbances of digestion and is spoken of as *bilious headache*. Exacting mental labor, worry, or insufficient sleep may induce an attack of sick headache by interference with digestion or elimination. Defects of vision not corrected by the use of lenses (glasses), or the wearing of lenses that have not been properly fitted to the eyes, is the cause of much headache, and, in cases of severe eye strain, of sick headache. Irritation of the ovaries or womb is another cause of headache.

Symptoms of Sick Headache.—The pain in the head is very sharp and severe, and is attended with a feeling of nausea that is aggravated by movement, and by periods of faintness and giddiness. If vomiting or an evacuation takes place, the patient is relieved for the time being; but such relief is likely to be only temporary, and is soon succeeded with another paroxysm of pain, nausea, faintness and giddiness. Ordinarily the attack lasts but a few hours. Usually it is impossible to take anything in the way of nourishment during its continuance, and for a little time after the stomach will not bear anything but light foods. The patient is weak for a day or two after such an attack.

TREATMENTS.—

A. Nervous Headache.—Hot pack, dark room, bed and anodyne—something to quiet the nerves.

Sick Headache.—Hot water internally, or emetic.

B. Acetanilid	1 ounce.
Citrate Caffeine.....	15 grains.
Bicarbonate Soda.....	1 drachm.
Sulphate Strychnine.....	$\frac{1}{4}$ grain.
Cocoa, sufficient quantity.	

Mix, and take from 5 to 10 grains every two hours until relieved.—(46).

C. Acetanilid.....	60 grains.
Monobromate of Camphor	30 “
Citrate of Caffeine	30 “

Mix, and divide into 30 powders. Take one powder every half hour until relieved.—(53).

D. A prompt cathartic, and teaspoonful doses of Bicarbonate of Soda every three or four hours.—(7).

E. Bilious Headache.—Give Boneset tea until the patient is sick at the stomach and vomits; or, if there is no Boneset at hand, tepid (warm) water will do. Have him drink just as much as he can, and if that does not produce nausea and vomiting, wait a little while and have him drink again. He should try to drink enough to give the stomach a good rinsing out.

F. Headache from Biliousness.—Take Mandrake and Culver's Root, dry them, powder and sift. Take of the powder, 2 grains Culver Root and 1 grain Mandrake. Mix in water and take every night at bedtime until bowels move thoroughly. After bowels move take $\frac{1}{2}$ ounce inner bark of Willow and steep in $\frac{1}{2}$ pint of water. Take tablespoonful three times a day before meals.

G. Arising from Dyspepsia, or other deranged conditions of the stomach, give a cathartic, put the feet into hot Mustard water, using at least one tablespoonful of Mustard, and give freely of

Pennyroyal or Sage tea, which will produce vomiting and relieve the stomach. Afterwards apply a Mustard plaster to the stomach and back of the neck.—(66).

H. *Arising from a Determination of Blood to the Head*, known by throbbing pain and flushed face, put Mustard plasters to the feet and drink freely of strong Ginger tea as hot as it can be borne, go to bed and cover well. This will usually give immediate relief. From 10 to 15 drops of the Tincture of Gelsemium may be added to the tea, which will aid in quieting the agitation and relieving the pain.—(66).

I. *Periodical Headache*.—There are those who have sick headache coming on at periods of from a few weeks to two or three months, lasting two or three days, accompanied with nausea, and occasionally with vomiting. In these cases after using an emetic to relieve the present attack, take the Cathartic Syrup next following:

Cathartic Syrup.—

Best Senna Leaf.....	1 ounce.
Jalap	½ “
Butternut, the inner bark of the root, dried and bruised	2 “
Peppermint Leaf.....	½ “
Fennel Seed	½ “
Alcohol.....	½ pint.
Water	1 ½ “
Sugar	2 pounds.

Put all into the spirits and water, except the sugar, and let it stand 2 weeks, then strain, pressing out the dregs, add the sugar and dissolve without heat. If it should cause griping in any case, increase the Fennel Seed and Peppermint leaf.

Dose.—One tablespoonful once a day, or less often if the bowels become too loose, up to the next period when the headache might have been expected, and it will not be forthcoming.

This is a mild purgative, and especially pleasant. Most persons, after a trial of it, will adopt it for their general cathartic, and especially for children. Increase or lessen the dose according to the effect desired.

THE HEART AND ITS DISEASES.

The heart is a hollow, muscular organ, conical in shape. It is situated obliquely in the chest cavity, and towards the left side. Its base extends upward and to the right as high as the second rib. The center of the base corresponds to the center of the body, and lies near the surface just below the chest bone. The apex extends downward and to the left to a point between the fifth and sixth rib, three and one-half inches to the left of the median line, or center of the body.

Internally the heart is divided into four cavities, two upper and two lower. A longitudinal partition divides it into a right and a left cavity. The right and left cavities do not communicate. The heart is again divided by a transverse partition into four chambers, two upper and two lower. The upper and lower cavities communicate through small openings which are guarded by valves. The left and right heart are really two organs moulded into one—Nature's means of economizing space and power.

The duty of the heart is to force the blood through the circulatory system. The veins carry the dark venous blood from all parts of the body and empty it into the right side of the heart. From there it is sent through the lungs for oxidation. Many of its impurities are eliminated through the bronchial tubes, the effect of the oxygen being to purify the blood and render it a bright red before it is returned to the left side of the heart and sent out through the general circulation.

Symptoms of Disease of the Heart.—Diseases of the heart are characterized by shortness of breath, frequently amounting to a choked or stifled feeling, palpitation, pale, unhealthy skin, and eventually by dropsy, the swelling usually beginning in the feet and ankles. It is not, however, conclusive evidence that a person has some organic disease of the heart because he may have some of these symptoms. Over-exertion will produce shortness of breath, but if there is a growing tendency in this direction and it is produced by less and less exertion, there is, of course, room for apprehension. Palpitation, which is tumultuous beating and a pain or sense of oppression in the region of the heart, may be due to dyspepsia. It may also result from nervous conditions. Dropsical symptoms also arise from other causes. (See DROPSY).

However, a reliable physician should early be consulted if there are any symptoms to indicate a possible affection of the heart, in order that the nature of the affection may be determined and exciting causes removed or abstained from.

TREATMENTS:—

A. Heart Disease.—Nutritious diet. Bicarbonate of Soda in teaspoonful doses three or four times a day.—(7).

B. Palpitation.—Tincture of Ginger in a half-teaspoonful dose every hour.—(7).

C. Shortness of Breath.—

Iodide of Potash..... 1 drachm.
Seng..... 4 ounces.

Dose.—A teaspoonful in a little water three times a day, between meals.—(28).

D. Heart Failure.—Hypodermic injection of $\frac{1}{50}$ grain Strychnia. Repeat in an hour if necessary.—(45).

E. Heart Failure.—

Tincture Digitalis..... 3 drachms.
Simple Elixir..... 4 ounces.

Dose.—For an adult, a teaspoonful every four hours.

F. Diseases of Circulation.—Drink hot water and employ friction along the limbs. Open the bowels by purgative medicines.—(7).

G. Diseases of Circulation.—Stop coffee, tea and tobacco. Get stomach in good condition. Take careful diet.—(13).

ANGINA PECTORIS.—Also called Neuralgia of the Heart (see NEURALGIA).

Cause.—It may be either of nervous or organic origin.

Symptoms.—This affection, like others of neuralgic character, occurs in paroxysms and comes on suddenly. The patient is attacked with a pain in the region of the heart that is so intense and is attended with a feeling of such fear of death that he holds rigidly to the position he first assumes, breathes slowly, and seems afraid to move. The chest is fixed and the pain extends also into the left shoulder and arm. A sense of coldness is always present in one of these paroxysms, and the patient often breaks out into a cold sweat. Great exhaustion follows such an attack. Death may occur during the paroxysm or from the exhaustion which follows it, or the patient may survive a number of attacks.

TREATMENTS.—

What to Do Till the Doctor Comes.—This is a serious thing and a doctor should be called immediately in case of an attack of severe pain about the heart. In the meantime, give a hot sling—brandy, if you have it—and have hot water on hand when the doctor arrives; he may want it. Put the patient to bed, keep him quiet and get him warm if possible. Repeat the sling as often as he can bear, say every fifteen or twenty minutes.

- A. Tincture Aconite 40 drops.
 Bromide Soda..... 1 ounce.
 Simple Elixir 4 ounces.

Mix, and take one teaspoonful three times a day between the attacks.—(46).

B. Give 2 to 4 tablespoonfuls of whiskey, properly diluted, and 20 or 25 drops of Laudanum, and send for a doctor. Apply Mustard to chest and back.—(14).

C. Tablets of Nitroglycerine $\frac{1}{30}$ grain each. Let one dissolve on the tongue. If not relieved in fifteen minutes, use another one the same way.—(20).

Note.—Sometimes a full dose of Nitroglycerine proves such a sudden and powerful stimulant that the heart, which is diseased, or laboring under difficulties, is unable to respond, and the over-stimulation, instead of supporting the organ, paralyzes it; it grows rapidly weaker, and death soon follows. We have seen a few cases of this kind, where $\frac{1}{30}$ grain of Nitroglycerine was given and the heart immediately responded by giving a few irregular and spasmodic throbs and bounds, then gradually grew weaker and the patient died within a few hours. Remember that over-stimulation produces death.

We recommend from 5 to 10 drop doses of Fowler's Solution between attacks, taken three times a day, say for three weeks, then skip a week and take a week, and so on.

D. Those who are troubled with neuralgia of the heart will not only find the following suggestion convenient, but in case of a sudden and unexpected attack it will prove a great benefit as a means of relief from this most distressing disease.

Secure a drachm vial, which can be carried without inconvenience, and put into it a few tablet triturates of Glonoin, or Nitroglycerine, $\frac{1}{30}$ of a grain each. The triturates are better than pills because they dissolve readily. When an attack comes on, place a tablet on the tongue; it will dissolve immediately. Repeat the dose in ten, twenty or thirty minutes, or as needed.

E. Glonoin, 2d dilution. Take in drop doses or pill form every twenty or thirty minutes until relieved.—(3)—Homeopathic.

Pseudo Angina. There is also a false angina, hysterical in character, afflicting nervous women and children. It is attended with neuralgic pains in the chest and near the heart, and with general hysterical phenomena. It is not dangerous to life.

FATTY DEGENERATION, or FATTY HEART.—In this disease the fibers of the muscles of the heart are gradually replaced by fat, thus causing a degeneration of the muscular tissues and a corresponding inability of the organ to perform its functions properly.

Cause.—In most cases it is the result of some chronic state or disease, as prolonged anæmia, dyspepsia, alcoholism, scrofula, cancer, tuberculosis. Elderly people are sometimes subject to it. It is always the result of impaired nutrition.

Symptoms.—The heart, being enfeebled, the circulation is weak; the pulse is slow and there is a shortness of breath. There is distress of a neuralgic character about the heart, and attacks of *angina pectoris* occur. The various organs of the body are reduced to an anæmic state, one organ being more susceptible in one individual, and another in another. In some the brain is particularly affected, dizziness and swooning being characteristic; in others the lungs are more susceptible, and this is marked with a dry, hacking cough; dyspepsia and constipation are characteristic of anæmia of the gastric system; and derangements of the urine, ending in dropsy, where the kidneys are affected. The foregoing are all symptoms of a weak heart, from whatever cause. A peculiar and characteristic symptom of *Fatty Degeneration* is a constant sighing. *Arcus senilis*, a light ring surrounding or partially surrounding the pupil of the eye, is claimed to indicate fatty heart.

TREATMENTS.—

A. Diet. The food that is eaten should be nutritious, but with a fleshy person where anything of this kind is suspected, all fatty foods should be avoided.

As a remedy, *Strophanthus* may be taken three times a day. *See note below.*

B. Avoid starchy foods and take 3 drops of Fowler's Solution after meals.—(72). *See note below.*

Note.—In *Fatty Heart*, drugs that have a direct action on this organ, as *Digitalis*, or a powerful action, as *Nitroglycerine* (*Glonoin*), must be given with caution, because to increase its work means over-exertion and, if this is carried too far, more harm than good will result.

As a heart tonic, we would recommend any one of the following, given at the beginning in a very small dose, as indicated, *i.e.*:

Strychnine, $\frac{1}{80}$ grain dose three times a day,

or,

Caffeine, 1-grain dose three times a day,

or,

Tincture of Strophanthus, 3-drop dose three times a day.

Fowler's Solution, while not classed as a heart tonic, is still believed to give special support to this organ. More than that, it is one of the best aids to digestion and assimilation, thus increasing nutrition and strengthening the vitality of the patient. While its influence is not so direct, its general effect is of far greater importance.

PERICARDITIS.—Acute Form.—The heart is enclosed in a membranous sac which blends with the outer coats of the great vessels—arteries and veins—a short distance from their junction with the heart. This sac may be considered a dilatation of the outer coats of these vessels, which expand and surround the heart. Below the membrane is attached to the diaphragm and aids in forming what is called the central tendon; in front it is partially covered by the margin of the lungs, and above lies near to the chest bone; behind it are the bronchial tubes, the œsophagus and the thoracic or descending aorta; its sides are surrounded by the pleura, the delicate membrane which encloses the lungs.

As the outer coats of the vessels expand to form this membranous sac, they separate, or divide into two layers. The inner layer, which is more delicate in structure, invests and is adherent to the surface of the heart. The two layers lie in close relation to each other. They are smooth and glistening and furnish a thin fluid which serves to facilitate movement and reduce friction to a minimum. An inflammation of this sac is called Pericarditis.

Cause.—Such an inflammation rarely occurs except as it develops in the course of some other disease, as acute rheumatism, Bright's disease, pneumonia, diphtheria, scarlet fever, etc.

Symptoms.—The general symptoms are distress in the region of the heart, short cough, difficulty of breathing, usually nausea, vomiting and palpitation. (See **ENDOCARDITIS**).

TREATMENT.—

What To Do Till the Doctor Comes.—If nausea occurs, a little weak Camphor sling may be given. For distress about the heart, use hot applications—cloths wrung out of a hot decoction of some bitter herb, as Smartweed, Mayweed, etc., are best. Warm drinks

may also be given. A little hot sling is always admissible in such a case. In the meantime the doctor should be summoned to learn the cause. Have hot water on hand when he arrives.

Those attending the sick in any acute disease should keep calm and avoid any betrayal of anxiety or excitement. To alarm the patient is about the worst thing a nurse can do, and may, where there are heart complications, result fatally.

ENDOCARDITIS.—Acute Form.—The endocardium is a thin, delicate membrane which lines the cavities of the heart. It is composed of a single layer of flat cells joined edge to edge, like a stone pavement. It is continuous with, and is the same in structure as the lining membrane or inner coat of the arteries. As the outer coats of the large vessels leading to the heart expand to form the sac which enclose it, so the inner coat expands and lines the heart cavities. Inflammation of this membrane is called *Endocarditis*.

Cause.—This inflammation is usually developed in the course of some other inflammation. It is difficult, or impossible, to make a distinguishing diagnosis between *Endocarditis* and *Pericarditis*; usually an inflammation of the one communicates itself to the other. An acute inflammation of either may end in chronic inflammation, when will be found the symptoms covered under DISEASES OF THE HEART, *Symptoms of*.

TREATMENT.—See under PERICARDITIS.

HYDROPERICARDIUM.—(See under DROPSY).

HYPERTROPHY, or HYPERPLASIA.—This is an increased growth in the tissue of which the heart is formed; the walls are thicker and the organ is larger and heavier.

Cause.—Any condition which obstructs the outflow of blood or otherwise increases the heart action may cause *Hypertrophy*. It may be caused by alcohol, tobacco, tea or coffee. Each of these, if taken in quantity or continued, acts as a stimulant or irritant and causes an increase in the heart action. The disease may be caused by chronic bronchitis, or by some forms of Bright's disease; the first interferes with the circulation through the lungs, and the second interferes with the circulation in the kidneys and thus forces the blood back toward the heart, thereby increasing its work. Hypertrophy may be caused by a shrinking or other defect of the valve which guards the opening into the aorta, or large artery leading from the heart. This is called *Aortic Stenosis*. Such defect would allow the blood to flow back into the cavity of the heart, and this would call for extra work to pump it out again. The lower left cavity could not entirely

empty itself; this would force the blood back into the upper cavity, and it would become dilated. The upper left cavity is also dilated when the valve guarding the opening between these two cavities is defective; the blood flows back and the result is the same. In either case the lungs become congested, the blood is forced back to the right side of the heart, and the walls of the latter become thickened from overwork. This does not occur until late in the disease. The right side may also become affected from any condition of the lungs which obstructs the flow of blood through them. *Emphysema* might cause it. In emphysema the air cells are distended and this obstructs the circulation. Sometimes the walls of the air cells are broken down and air escapes into the intervening or surrounding tissue. This is called *Vesicular Emphysema*. Emphysema is caused by prolonged and forcible respiration, as blowing wind instruments. Emphysema would increase the pressure and check the circulation still more. In Pericarditis the outer membrane surrounding the heart may become adherent to the inner membrane—the one which is adherent to the heart (see PERICARDITIS). This prevents the gliding action of the membranes and results in increased effort. This would cause hypertrophy of the whole organ. A heart thus enlarged may weigh from ten to twenty and even thirty pounds. The normal weight is ten to twelve ounces, or less than one pound.

Symptoms.—The symptoms are increased heart action. The arteries are distended, the pulse is full and strong, and the arteries at the side of the neck may be seen throbbing. There is headache from blood pressure, ringing in the ears from pressure of over-distended vessels supplying those organs, and the face and eyes are flushed from the over-distended vessels. There is cough and difficult breathing from pressure in the lungs. A full, strong heart beat may be easily detected. The lower point of the heart is below its normal position and farther to the left.

TREATMENT.—

But few remedies are needed for this disease. If caused by alcohol, tobacco, tea or coffee, stop their use. The patient should lie down several hours a day, should not indulge in active exercise, in straining or heavy lifting, and should give particular attention to the diet. The remedies used are those that will slow the heart action—Aconite and Veratrum in 1-drop or 2-drop doses three or four times a day would be best for this purpose. Bromide of Potash in 20-grain doses four times a day would also prove valuable.

DILATATION OF THE HEART.—In this disease the heart cavities are enlarged without any increase in the muscle tissue or thickening of their walls. On the contrary the walls may be thinner than normal.

Cause.—The cause may be any of those which produce *Hypertrophy*. The nerve supply is feeble and the heart is weak. Over-straining causes dilatation without a corresponding increase in growth. This disease occurs in the young and feeble. In this disease the right side of the heart is usually affected first because it is naturally weaker and less able to stand the strain.

Symptoms.—The heart beat is weak, the pulse is feeble, and the veins are enlarged as the force of the heart beat is not sufficient to control the return circulation. There is headache from lack of blood and nourishment, coughing, difficult breathing from distension and pressure of the vessels in the lungs, dyspepsia from a sluggish circulation around the stomach, constipation from a sluggish circulation along the digestive tract, the urine is scanty from a lack of circulation in the kidneys, the mind is dull, and vitality and ambition are lacking. The patient may be troubled with dizziness and fainting from poor circulation in the brain.

TREATMENT.—

Nourishing diet, bitter tonics—usually Iron is needed—moderate exercise, laxatives to keep the kidneys and skin active, and for a weak heart, Digitalis, Caffeine, Strychnine and Strophanthus are valuable.—See note under *Fatty Degeneration*.

STENOSIS AND REGURGITATION.—These conditions have already been referred to. The aorta is a large artery and forms the great trunk of the arterial system, as already stated. The lower left ventricle or cavity of the heart opens into this artery, and in health this opening is guarded by the aortic valve. This valve may become inflamed, the inflammation may cause new tissue growth, and new tissue growth resulting from inflammation always shrinks when it matures. Small blood vessels and nerve fibers are destroyed and also more or less of the natural tissue, and the result is a firm and inelastic growth. As a result of inflammation in the valve mentioned, lime salts may be deposited, the same as in the formation of bone (see **BONE DISEASES**), and this would also render the valve firm and unyielding. In either case the valve cannot be pressed back, but remains constantly in the way of the current and interferes with the amount of blood sent out. This is called *Aortic Stenosis*.

In health the mitral valve guards the opening between the two cavities in the left side of the heart, and the same changes may occur in this valve as those just described in the aortic

valve. These valves are formed of the picked-up folds of the delicate membrane which lines the heart cavities. When there is new connective tissue and the new tissue contracts, the valve becomes shrunken and will not fit the opening. When the valve fails to open and thus interferes with the current, it is called *Stenosis*, or narrowing. When the openings are improperly closed and the blood is allowed to flow back past the shrunken valve, it is called *Regurgitation*. The change described in the mitral valve is one of the most frequent affections or diseases of the heart, and the change in the aortic valve is second.

The valves in the right side of the heart are seldom affected, because the right side of the heart has only to receive the blood from the return circulation and send it out through the lungs, while the left side receives it back from the lungs and must then force it through the whole arterial system; hence there is more strain on the left side and more liability to disease.

While the diagnosis and treatment of *Stenosis* would call for the services of a physician, we make the following suggestions concerning

TREATMENT.—

It will readily be seen that any remedies or conditions that increase the action of the heart are to be avoided; drug medication is unimportant in these conditions. First, the amount of fluids taken should be reduced as far as consistent with health and strength, because this lessens the amount of blood and correspondingly lessens the work of the heart. This is best controlled by a concentrated diet of easily digested foods, drinking very little water, and no tea, coffee or alcohol. Tobacco should not be used. Fowler's Solution is a remedy that has been highly recommended in valvular diseases of the heart, probably because it aids digestion and assimilation. 5-drop doses should be given at meal time. Heart tonics may be used for a time, but should not be relied upon because they cannot permanently increase the strength of the heart; their continued use may be compared to whipping a tired horse. Many of the heart tonics contract the small blood vessels. These would do more harm than good for the reason that they would force the blood back toward the heart and necessarily increase its work. Strophanthus is a remedy of considerable value for these troubles as it produces no effect upon the size of the small vessels. Strophanthin, the active principle, is a convenient form. From $\frac{1}{300}$ to $\frac{1}{200}$ of a grain in pill or tablet form, or, later, Caffeine in 2- or 3-grain doses is recommended.

HEARTBURN.—What is called heartburn is the result of indigestion (see *Indigestion* under STOMACH, DISEASES OF). Especially is this true of indigestion caused by starchy foods, as

these result in the formation of many acids, and these acids produce a burning sensation which extends along the œsophagus into the chest cavity and is felt just behind the chest bone. Heart-burn may be attended with an inclination to vomit.

TREATMENTS.—

A. Nitromuriatic Acid. 5 drops of strong acid in a glass of water after meals.—(54).

B. Teaspoonful doses of Bicarbonate of Soda (common baking soda) every three hours.—(7).

HEMORRHAGE.—The rupture of a blood vessel gives rise to a discharge of blood called *hemorrhage*. Apoplexy is caused by the rupture of a blood vessel in the brain.

A hemorrhage from the lungs is of a bright red color, frothy, and expectorated after coughing. Many cases of supposed hemorrhage from the lungs are not from the lungs at all, but are caused by the rupture of small blood vessels along the upper part of the trachea, or large air tube. They follow a fit of coughing when the mucous membrane is congested and swollen from taking cold, or from some other cause. These cases are apt to occasion a great deal of anxiety and fright, yet they are as harmless as nosebleed. We have also known the sudden rupture of small vessels in the stomach to result from the same cause, and produce the same effect. All these cases require is a little rest and the same treatment that would be given any case of congestion.

Hemorrhage of this kind may be distinguished from hemorrhage of the lungs from the fact that *the blood is not frothy*.

Hemorrhage from the lungs seldom occurs, and the blood is frothy by reason of its containing air. Hemorrhage from the stomach contains no air, and the contents of the stomach are mixed with the hemorrhage. Also, quite large quantities of blood may be coughed up in the morning as a result of nosebleed during the night, in which case the blood is clotted and dark.

Streaks of blood or slight hemorrhage from the bowels during diarrhea or dysentery is no cause for alarm. When hemorrhage follows typhoid fever or cancer of the bowels, its nature and importance will be readily understood. With the free use of intestinal antiseptics and good hygienic surroundings, hemorrhage will not occur in typhoid fever.

Always look at these cases from a common-sense standpoint. Use ordinary home remedies, or the case may need no treatment at all. In many cases the individual is benefited, because the hemorrhage has relieved the congestion. Ulcer of the stomach or tuberculosis will give a history long before hemorrhage occurs.

TREATMENTS.—

The following remedy is equally valuable for any and all forms of hemorrhage, whether from the lungs, stomach, wound or wherever.

Sulphate of Atropine..... $\frac{1}{100}$ grain.

Repeat in thirty minutes if necessary. If this does not control the hemorrhage, send for a doctor.

As a drug store may not be at hand, and this remedy not be obtainable, the following home treatments are recommended in cases of emergency:

Hemorrhage from the Lungs.—

What to Do Till the Doctor Comes.—Keep the patient quiet and raise the shoulders with pillows. The best remedy is Capsicum (red pepper), but salt is good. If hemorrhage occurs and nothing else is at hand, give salty water at frequent intervals. Follow the salt with Capsicum. The Capsicum may be made into a strong tea and drank along at short intervals, or 3-grain capsules may be given every half hour until the hemorrhage is controlled. If the hemorrhage should be a violent one, and especially if the patient is not subject to them, send for a physician. *Always have hot water on hand on the arrival of a physician.* He may not need it, but if he does, no time will be wasted waiting for it to heat.

Spitting of Blood.—Cracked ice, small piece on tongue every few minutes, will help to control it.—(31).

Hemorrhage from the Stomach.—

What to Do Till the Doctor Comes.—Salt is good for this, also Alum water. Take a little pulverized Alum, dissolve it in warm water, and take a teaspoonful of the solution every little while. For an adult, give 15 to 20 drops of Laudanum. If the hemorrhage is a violent one, send for a doctor; or if not violent enough to make this necessary, consult him as to cause. The patient should lie down and keep perfectly quiet.

Intestinal Hemorrhage.—

What to Do Till the Doctor Comes.—Intestinal hemorrhage is a symptom which usually demands prompt attention, no matter how slight it may be. In many cases the enforcement of absolute rest and quiet, with the administration of cold drinks, and of opium in from $\frac{1}{8}$ to $\frac{1}{3}$ grain doses, given once in three or four hours to diminish the activity of the bowels is all that is needed. A good remedy is an injection of a decoction of peach and rasp

berry leaves with 15 or 20 drops of Spirits of Turpentine added, repeated every two hours. If this fails to stop hemorrhage, the doctor should be sent for. *Always have hot water ready on the arrival of a physician.*

Hemorrhage from Injury.—(See "Bleeding from," under ACCIDENTS AND EMERGENCIES, DEPARTMENT III.

HEMORRHOIDS.—(See DISEASES OF ANUS).

HERNIA, or RUPTURE.—By hernia is meant the protrusion of a part of one of the internal organs from its natural position. The term "rupture" refers especially to a displacement of the bowels or membranous covering. This displacement occurs most frequently in the groin, or at the navel.

When hernia occurs it is not because the abdominal wall has been ruptured. The opening through which the hernia passes is a natural one and is always present. In fœtal life the testicles are situated in the abdominal cavity. Before birth they descend into the scrotum, and these natural openings are the tracts through which the testicles passed. An egg is surrounded by a thin film which is quite strong and would retain the egg if the shell were carefully removed. If a small opening were made in the egg shell and the egg then suddenly and forcibly moved in the right direction, the film could be made to bulge through the opening in the shell. The film of the egg may be compared to the peritoneum which lines the abdominal cavity, and the opening in the shell to the unclosed tract through which the testicle passed. As the result of sudden or violent movement the peritoneum may be forced through this opening, and the bowel may also protrude. Either one or both would constitute a hernia. Usually both are present. (See page 451.)

Causes.—Occurring at the navel, it comes on usually soon after birth, being due to weakness at the point where the umbilical cord was attached to the fœtus. Generally, however, hernia occurs in adults as the result of a strain or from some violent exercise.

Forms of Rupture.—There are three varieties of rupture: In the first the bowel or membrane can be forced back into place by pressure, called *reducible hernia*; in the second the displacement cannot be forced back into its normal location, called *irreducible hernia*; and in the third the displacement of the bowel is such that the part displaced is constricted so as to shut off the circulation. This is called *strangulated hernia*. The last named is accompanied with nausea, vomiting, a twisting, burning pain, pain on pressure, and no impulse, or swelling out of the tumor, on coughing. The treatment of a strangulated hernia admits of

no delay, as, unless relieved, mortification sets in in a few hours and death results. An irreducible hernia may become strangulated.

For further description of *internal* and *strangulated hernia*, see under **INTESTINAL OBSTRUCTION**.

TREATMENTS.—

A. A suitable truss, applied early and adjusted by a physician or experienced druggist. If constipated, keep bowels reasonably open with some mild physic, as Cream of Tartar and Salts—a teaspoonful of each taken night and morning.

B. It has been proven beyond any doubt that hernia or rupture can be permanently cured by the Fidelity method—the injection of a fluid into the hernial canal and wearing a well-fitting truss for about three months. From four to eight injections are usually required. This method is nearly painless, and the patient can work every day during treatment if he wishes to do so.—(10).

Note.—The medical profession is divided regarding the injection method. It is upheld and condemned with equal force.

C. Lay patient on back, with head a foot or two lower than heels. Apply cloths wrung out of cold water, and let nobody but a physician attempt reduction by pressure. After reduction, get suitable truss applied and wear it.—(60).

Note.—In strangulated hernia if reduction is impossible, an operation is the only hope.

HERPES.—(See under **SKIN DISEASES**).

HICCOUGH.—Hiccough is a symptom of disease that in most cases is easily recovered from. There are some cases, however, that assume serious and even dangerous proportions.

Causes.—The diaphragm is a thin membrane which divides the chest from the abdominal cavity and aids in respiration, rising and falling with each breath. The stomach is placed just beneath the diaphragm. The diaphragm passes obliquely backward and downward, hence it is not only above but partially behind the stomach. During indigestion the stomach may become very irritable. The constipation which follows causes bloating and pressure, and this increases the trouble. The stomach is forced backward and irritates the diaphragm.

The *solar plexus* is a large collection of nerves situated just behind the stomach. Irritation may communicate through this bundle of nerves, as it receives branches both from the stomach and the diaphragm. Any condition which irritates the diaphragm may result in hiccough, as the irritation causes contraction

of the diaphragm downward. This is so sudden that it causes a vacuum in the chest. The outside air attempts to rush in and fill the lungs, but is prevented by the sudden closure of the glottis—the space between the vocal chords through which the air passes. This produces the peculiar sound known as hiccough. Why does the glottis close at this time more than during ordinary breathing? Because the spasmodic action of the diaphragm against the stomach causes spasm of this organ also. The same nerves which supply the stomach supply the vocal chords, hence every spasm of the diaphragm is first conveyed to the stomach, then flashed over the nerve fibers to the vocal chords, and they contract, closing the space between them as described. Hiccough usually stops without attention, though sometimes the trouble is persistent and is said to cause death. It is not, however, the hiccough, but the septic or unhealthy condition of the digestive tract that causes death. Free elimination will usually relieve the trouble.

Hiccough may be caused by inflammation of the upper part of the spinal cord, as that part of the cord situated in the neck sends out the nerves which pass downward through the chest cavity and supply the diaphragm, and inflammation of this part of the spinal cord might so irritate and excite these nerves as to cause spasmodic action, as described.

Tumor in the lungs may cause pressure upon these nerves and result in irritation and spasms. The same nerves which supply the lungs also supply the stomach and, through the *solar plexus*, communicate with the nerves which supply the diaphragm, hence irritation from a tumor in any part of the lungs may cause spasms and hiccough.

Hiccough may result from a *strangulated hernia*, because the nerves which supply the digestive tract also communicate with the *solar plexus*, and this with the diaphragm.

Peritonitis, or inflammation of the thin membrane which surrounds the bowels, may produce spasms and hiccough in the same way.

TREATMENTS.—

A. As nearly every case of hiccough is caused by indigestion and constipation, it may be successfully treated by giving one or two tablespoonfuls of Castor Oil followed by $\frac{1}{2}$ of a grain of Atropine every half hour until the throat is dry or until the face is flushed. When hiccough results from inflammation of the spinal cord, from a tumor in the lungs, from strangulated hernia or from peritonitis, it will be readily understood that different treatment will be required. If inflammation of the spinal cord, the usual fever remedies may be given; tumor in the lungs would

probably prove fatal; a strangulated hernia demands an operation; the treatment for peritonitis is described under that heading.

We offer our own personal experience in support of the statement that nearly every case of hiccough is caused by indigestion and constipation. Our experience extends over many years and includes a large number of cases, and, barring peritonitis, hernia, inflammation of the spinal cord or tumor growth, hiccough has invariably been relieved by active cathartics and antispasmodics, of which Atropine and Hyoscyamine are among the best. Some cases of hiccough are caused by hysteria, but the hysteria is usually the result of indigestion. A little Croton Oil, followed by a cold bath, a brisk rub, and a few doses of Atropine, has a wonderful effect in disposing of hysteria.

B. Take a little Camphor sling or Peppermint sling. Sometimes Soda water is effective.

C. Lemon juice, mixed with sugar to make it palatable, and taken freely.—(76).

D. Frequent drinks of hot water with Ginger, Mustard or Soda stirred into it.—(7).

E. I have stopped with Belladonna cases that have been given up by many physicians. I use one drop of the tincture every half hour.—(18)—Homeopathic.

Note.—Belladonna contains Atropine. See Treatment "A."

HIVES.—(See under SKIN DISEASES).

HYDROCEPHALUS.—(See under DROPSY.)

HYDROCELE.—(See under DROPSY).

HYDROPHOBIA.—This disease is characterized by great disturbance of the central nervous system, difficulty in swallowing, dread or fear of water, severe muscular contraction, convulsions and death.

Cause.—Hydrophobia is caused by a specific poison which is found in the saliva of rabid animals. It is usually conveyed to the human system by the bite of a dog.

Symptoms.—The symptoms may be slight at first. There is pain at the point of the wound. If the wound has healed, there is swelling at the same place and the scar appears red. The wound may re-open and discharge. There is general uneasiness or restlessness, anxiety, headache, chilliness, and perhaps a feeling of stiffness or lameness. The patient may be low-spirited; the vessels about the neck become congested, and expectoration is increased; the difficulty in swallowing also increases until the sight of water or some sound or sharp noise may startle the patient and bring on convulsions. During these attacks the mind

is usually lost and the patient may rave, or strange hallucinations may be present. There is also moderate fever. Death usually occurs in four or five days.

TREATMENTS.—

A. The first object should be to prevent absorption of the poison. If the bite has been on a limb, a stout cord or handkerchief may be tied around the limb and twisted with a piece of wood until circulation is arrested. Sucking the wound is usually effective in withdrawing the poison, and can convey no additional danger to the person bitten. If the patient cannot reach the wound with his own mouth, another may volunteer to suck it, although this is dangerous; but the danger may be largely obviated by applying a solution of Carbolic Acid to the wound before sucking. The use of caustics should not be delayed. A hot iron in the form of a nail, poker or other available instrument at a white heat, should be brought in contact with all parts of the wound. If the poison has been absorbed, one of the best remedies is what is commonly known as Red Chickweed (see *Chickweed* in Chapter on HERBS). It is prepared by boiling about one ounce of the dried plant in two quarts of strong beer or ale until it is half evaporated. Strain the liquid and add two drachms of Tincture of Opium. For an adult, the medicine should be given in $\frac{1}{2}$ gill doses every morning for three mornings. If the symptoms are fully developed, the whole of the preparation may be taken in one day. The dose for children should be in proportion to their age. Persons bitten should bathe the wound with the same liquid. Those about the person who has been bitten should preserve a calm and cheerful demeanor, and avoid all allusions to the occurrence. He should be protected from all excitement, and should not be allowed to see that he is an object of solicitude.

B. If the wound from a rabid dog is on an extremity, as a finger or toe, and it is possible to sever the member at once by a single blow from a large knife or hatchet, the treatment, while it may seem a little harsh, would be effectual. The next best thing to do, if the remedies are at hand, is to apply a Caustic (See CAUSTICS)—alkalies or acids. A strong alkali, as a stick of Potash, would be better than an acid because its effects go deeper. Other means of arresting the poison are by shutting off the circulation, sucking the wound or application of hot iron, as mentioned elsewhere. According to past teachings, if the poison gains entrance into the system, there is no known remedy that will do more than to relieve the symptoms; in other words, symptomatic treatment is about all that can be applied. For this purpose Chloroform, large doses of Morphine, etc., are recommended.

While we have not had experience with this disease, we wish to suggest a treatment that certainly seems rational, and one that we should speedily adopt if occasion ever required. The remedies we should use would be Atropine and Pilocarpine. Give at once $\frac{1}{3}$ of a grain of Pilocarpine and $\frac{1}{100}$ of a grain of Atropine with a hypodermic needle. This will speedily bring the blood to the surface and cause profuse sweating. In order to aid perspiration, apply artificial heat by any means, and keep the water literally pouring out of every pore of the skin. This is simply a means of elimination, and one of the quickest and most thorough that could be adopted. The object, of course, is to relieve the system of the poison. Give large quantities of pure water. Let the patient drink this by the pint. Not all at once, of course, yet in a few hours a large quantity of pure water can be taken in this way and cause no inconvenience. Atropine aids materially in bringing the blood to the surface, but will not produce sweating. It is also a powerful stimulant; it stimulates the heart, the circulation and the respiration. This is of particular benefit since the Pilocarpine is a depressant; but while $\frac{1}{3}$ of a grain of Pilocarpine has a tendency to weaken the patient, it is one of the quickest remedies to effect elimination. These are desperate cases and need heroic treatment. While this work is going on, and at the very beginning, give a large and active cathartic—something that will cause large, watery evacuations, as 10 grains of Scamony and 10 grains of Jalap. The large amount of water taken will not only aid in keeping up the sweating, but it will dilute the poisons and aid materially in keeping the bowels active. This same treatment applies to any other case of blood poisoning.

Note.—We believe also that Treatment "B" under LOCKJAW would be ideal if the patient was sufficiently manageable to apply it.

Hysterical Hydrophobia.—There are cases of hysteria that are said to simulate hydrophobia so nearly that, judging from the symptoms, no distinction could be made. The hysterical patient may mimic animals, such as the cat or dog; there may be spasmodic and highly emotional periods, where the patient is unable to swallow, has a fear or dread of water, etc. There are also those who claim that there is no such disease as hydrophobia. This claim is supported by some of our best physicians. While hysterical patients may give all of the symptoms of hydrophobia, such a claim would not cover the conditions met in the lower animals. Surely we cannot charge these cases to hysteria, and to our minds this is proof positive that hydrophobia is a distinct and separate disease. Hydrophobia does not occur from the bite of rabid animals nearly so often as many suppose. Less than ten per cent of those bitten by mad dogs have the

disease. This statement is supported by James Howard Thornton, M.D., Fellow of the King's College of London, and by many other eminent physicians.

HYPOCHONDRIA.—This is an affection of the nervous system characterized by the belief that one has some bodily ailment or disease. The patient has spells of moodiness. It is similar to *Melancholia*. *Monomania*, or insanity upon one subject, is another evidence of the same condition. Rheumatism, headache, mental stupor, lack of resolution, hysteria and many other depressions and hallucinations are the result of the same cause; so is insanity.

Cause.—A gradual loss of nerve control resulting from the irritating effects of indigestion and retained waste. A lack of proper nourishment reduces the vitality and physical force below par, and the patient is unable to exercise proper control of himself. The brain becomes clouded and dull, and intelligent guidance is more or less disturbed, *i. e.*, the individual is unable to exercise proper control of his actions. The various conditions mentioned are simply different manifestations of the one cause.

TREATMENT.—

The treatment suggests itself. It consists of attention to diet, digestion and elimination, also an abundance of pure water, fresh air, sunshine and proper exercise. This is the best treatment for conditions of this kind. Drug medication is unimportant, although in severe cases may be required for a short time. Chloral, the Bromides and Asafœtida are probably the best remedies.

HYSTERIA.—As a disorder of the nervous system it is generally confined to women, usually occurring in paroxysms, but in very nervous women approaching a chronic state. A paroxysm may vary from moaning and gesticulation to violent struggling. There may also be slight twitching of the muscles, and in some cases general convulsive movements. Consciousness is never wholly lost, and the paroxysm is believed to be more or less under the control of the patient, who, if instead of giving way to her feelings would endeavor to control them, might possibly escape a paroxysm altogether. Hysteria may, however, be developed during the course of an organic disease, when, owing to a weakened condition, the patient is certainly less accountable for lack of self-control. The severer forms mentioned are not often met.

A. A 5-grain pill of Asafœtida taken three times a day will generally control hysteria. Or a fine thing for nervous disorders of any kind is a tea made of Scullcap, or of English Valerian, or

of American Valerian (common ladyslipper). See chapter on herbs for description and directions. Any treatment to be effective must be long-continued.

B. Tincture of Valerian.....	3 drachms.
Asafoetida.....	30 grains.
Water	4 ounces.

Mix, and take one teaspoonful every two hours.—(46).

INFLAMMATION.—Inflammation is a morbid or diseased process in some part of the living body. There are present heat, pain, redness and swelling. The conditions present in inflammation and in fever are the same, and the cause is the same. However, inflammation is generally understood to be localized, as inflammation of the liver, lungs or kidneys, or inflammation of a joint in rheumatism. Inflammations are spoken of as *adhesive* or *fibrinous*, *plastic* or *corpuscular*, and *aplastic*. Adhesive inflammation is where a wound heals without suppurating—without the formation of pus; in plastic inflammation the wound heals less rapidly; in aplastic inflammation the wound shows a strong tendency to suppurate with no tendency to heal. These conditions are sometimes spoken of as healing by first, second and third intention.

Cause.—The cause is an irritant. The blood may contain irritants as a result of indigestion and result in inflammatory rheumatism. Inflammation may result from an accident or injury, as a sprain, dislocation, cut, or penetrating wound; or it may result from a poisoned wound. Chronic inflammation may result from chronic dyspepsia, the prolonged use of alcohol, syphilis, tuberculosis, etc.

Symptoms.—The symptoms are both local and constitutional. The local symptoms are those already mentioned—heat, pain, redness and swelling. The constitutional symptom is fever. The conditions and changes present in the blood vessels and circulation are the same as those described under fever.

TREATMENT.—

See *Fevers*. If from a poisoned wound, see *Blood Poisoning*. If from inflammatory rheumatism or accident, see treatment under those heads. If resulting from tuberculosis or other chronic disease, see treatment accordingly.

INFLUENZA.—LA GRIPPE.—Through custom we are in the habit of calling any and all kinds of acute catarrhal conditions by this term. Influenza has long been recognized by medical writers. It usually occurs in epidemic form. The

majority of cases resemble an ordinary cold, yet there are some attacks that present a striking contrast, *i. e.*, a sudden onset, followed by debility and prostration which seem to be out of all proportion to any known cause. This is more particularly true with the old and those not physically strong. There are but few deaths resulting directly from this disease, yet other diseases, such as pneumonia, chronic bronchitis, consumption, etc., may follow, and for this reason those who have had a severe attack ought to take every precaution and remain indoors until the danger is past. It is not always necessary to have a doctor, perhaps seldom, yet good judgment and care should be exercised in every case.

Cause.—By some it is believed to be caused by a germ. Perhaps the great majority believe it is caused by atmospheric changes. The reason for this belief is that it occurs in widely separated districts at the same time.

Symptoms.—The onset is sudden with chills or chilliness, followed by fever and a weakness that in some cases amounts almost to prostration. Headache is present, especially frontal headache—over the eyes. The reason is that situated over each eye in the frontal bone is a cavity which is lined with mucous membrane, being continuous through and opening from the nose. The catarrh may close the opening, and the pressure from the swollen membrane and the exudate will cause pain. Catarrhal symptoms are abundant. The mucous membrane of the nasal passages, throat, bronchial tubes, etc., all furnish a profuse secretion, which is at first thin and watery, but later becomes thick and tenacious. The patient feels sore and lame, and in some cases there is a deep, dull pain throughout the body. The appetite is destroyed. In lighter attacks sneezing is frequent, the eyes are watery, the tongue may be coated, and the discharge from the nose keeps the patient busy giving special attention to that organ.

TREATMENTS.—

A. Mild cases may be treated successfully without a doctor, as follows:

For the catarrhal and nasal discharge take the following:

Atropine.....	$\frac{1}{80}$ grain.
Morphine.....	$\frac{1}{2}$ “
Calomel.....	1 “

Mix intimately and divide into 8 powders. Take 1 powder every two hours until the throat is dry or the face is flushed, or until the catarrhal symptoms disappear, then continue every three hours, or three times a day. If the amount of Calomel is not sufficient to move the bowels, take a dose of Seidlitz Salts, Castor Oil, or any other convenient laxative.

Another most excellent remedy is the following:

Acetanilid..... $\frac{1}{2}$ drachm.
Salicylate of Soda..... $\frac{1}{2}$ "

Mix intimately, and divide into 12 powders.
Take one of these every two hours until the ears "sing." After that take one powder every three hours, or three times a day.

The Acetanilid powders have no effect in controlling the nasal catarrh, while the Atropine powders are directed especially to that condition, hence these remedies may be taken alternately. This would bring the doses one hour apart. Take until the face is flushed or the ears "sing." When the face flushes, the Atropine powders should be taken only three times a day, as directed above; when the ears "sing," the Salicylate of Soda powders should be taken only three times a day. It is not our purpose to recommend remedies that are not supported by our personal experience, hence we are confident that the above treatment, applied according to directions, will prove satisfactory in the great majority of cases.

The patient should remain indoors for a few days, and in those cases that are more severe should remain in bed for a day or two. Keep an even temperature and good ventilation. This will undoubtedly hasten favorable termination, and is advised in all cases where circumstances will permit.

In those cases that are *very* severe, where, following a sudden onset, there are chills and debility amounting almost to collapse, put the patient to bed, apply external heat and give hot drinks. If there is vomiting, put a large Mustard plaster over the stomach, put the feet into hot water, and give a cathartic and stimulants. The Salicylate of Soda powders are applicable to these cases, and will prove the very best remedy that can be given.

Following these cases, mild or severe, there is often a troublesome and persistent cough: Malto Yerbine, given in teaspoonful doses six or eight times a day is often a specific for this cough.

Where the severer form attacks old people, supporting treatment in the form of nourishing food and tonics is always needed, and even the same precaution taken by those of younger years will prove of benefit by hastening a more complete and satisfactory cure. For those cases needing a tonic, give the following:

Fellows' Compound Syrup of Hypo-
phosphates..... 3 ounces.
Maltine..... 6 "

Mix together by shaking the bottle, and take in tablespoonful doses before or immediately after meals.

This will prove one of the most nutritive and satisfactory remedies that can be taken. Following a severe case, great care should be exercised to guard against exposure, as the second attack is liable to be more disastrous than the first.

B. If in mild form this seldom requires medical attendance. Keep the patient in the house and, if possible, on the bed or sofa for two or three days. Meat should be avoided and the diet restricted to simple and easily digested food. Moderate quantities of cold drinks should be taken, such as fruit juices, lemonade, raspberry vinegar, etc. Quinine in moderate doses should be taken from the first. The tickling cough calls for steam inhalations, and the air of the room may be kept moist by the evaporation of water kept boiling in a broad, shallow vessel. If the case is severe, a physician should be called.

C. Take for the head and backache 5 to 10 grains Phenacetine. For an adult follow with doses of 1 drop each of Tincture of Aconite and Spirits of Camphor every two hours.—(8).

D. Five grains of Quinine every four hours, with 1 grain of Dover's Powder and 1 grain of Camphor with each dose.—(7).

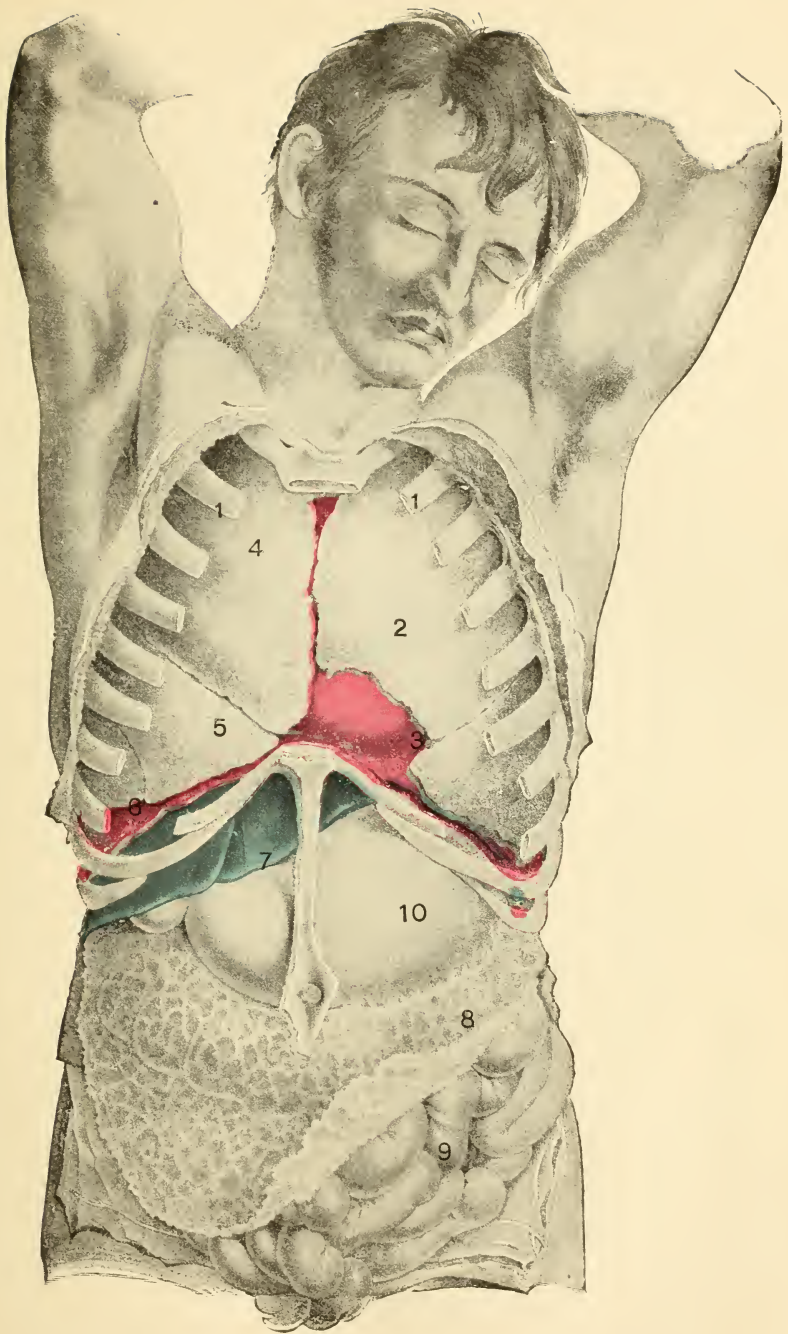
E. Quinine.....	1 drachm.
Dover's Powder.....	½ "
Capsicum.....	30 grains.
Calomel.....	1 "
<i>Mix, divide into 12 powders and take 1</i>	
<i>every two to four hours.—(46).</i>	

F. Soak the feet, put to bed and give warm herb teas to produce sweating. Move the bowels with a mild cathartic, such as Rhubarb Syrup, which for an adult may be given in dessertspoonful doses three or four times a day. Also give from 3- to 5-grain doses of Quinine every four hours. As additional nourishment, if the appetite is poor, give the following:

Milk.....	10 tablespoonfuls.
Good Brandy or Whiskey...	5 "

Add to this the white of an egg, thoroughly beaten, and 2 tablespoonfuls of white sugar. Give a tablespoonful, say every four hours.—(71).

INSANITY.—While some cases are violent, it should be remembered that many cases are mild. Insanity does not necessarily mean a dangerous condition of the mind, and no strictly dividing line can be drawn between sanity and insanity. It is well known that from time to time sane people have been placed in insane asylums. It is also well known that in each case before being removed, the *prisoner* was examined by those supposed to be capable judges. So long as a man's speech and actions conform to the general standard, his right to individual citizenship is



No. 8.

1, First Rib (cut off). 2, Left Lung. 3, Apex of Heart. 4, Right Lung, upper lobe. 5, Right Lung, middle lobe. 6, Right Lung, lower lobe. 7, Liver. 8, Membranous covering of the Bowels. 9, Bowels. 10, Stomach.

unquestioned. His manner may be overbearing, may be pleasing or displeasing, may be mild or energetic; his habits may be cleanly or unhygienic; he may resort to sharp practices, or be easily led by others; his dealings may be questionable or honest; his conduct may be strange, or may be within the limits of good judgment; his temper may be mild or vicious; but so long as he does not pass beyond a certain limit, he will not be molested. His self-control may be the result of far-sighted cunning, or the result of legitimate business and moral principles; that makes no difference regarding the question of sanity so long as the instincts of propriety dominate. So long as this is true, the man is safe from the charge of insanity. By a failure to fully develop our faculties, by perverted instincts through bad company and bad habits, we all contain, perhaps, elements of insanity.

Insanity is caused by indigestion, whether resulting from the prolonged use of alcohol or other cause. This is followed by the morbid influence of unhealthy blood. We all understand that this condition produces disease of the liver, kidneys, heart, lungs, etc.; it also produces disease of the brain. The organs mentioned undergo structural changes. One-fifth of all the blood in the body goes to nourish the brain. For this reason the brain is much more exposed to the morbid influence of septic blood, and it is no wonder that it also undergoes structural changes. If the morbid influence continues, there is a molecular change in the brain substance, *i. e.*, its chemistry is altered. It cannot be otherwise. Unhealthy blood never did and never will produce normal, healthy tissue in the brain or anywhere else. Again, the lack of normal or uniform development of the nervous system, while it may not cause insanity, may cause the individual to commit rash, immoral or illegal acts. Any and all of these conditions are made worse by bad company, which tends to develop low, vicious habits.

The controlling center of the nervous system is the brain and spinal cord. The brain is situated in the skull, and the cord in a canal formed in the spinal column. The nerves escape through little openings called *foramen*. All of the tissues of the body, including the brain, are composed of small particles of matter called cells. The cells vary in composition according to the part or organ in which they are placed, and according to the duties which they perform. In the brain these cells are situated externally, or on the surface. They are gray in color and form a layer about one-quarter of an inch deep. The surface of the brain is marked by deep fissures or grooves, and these are also filled with the gray cells—Nature's method of economizing space. With the fissures or convolutions unfolded, or spread out, the surface of the brain would measure about four square

feet. The gray cells, or the outer surface of the brain, furnish the source from which all human power is supposed to emanate. Internally the brain is composed of nerve fibers. The nerves are lighter in color and, as stated elsewhere, are no more nor less than prolongations or long-drawn-out thread-like processes of the nerve cells. All are held together by a framework of delicate tissue called connective tissue, or neuroglia. In the spinal cord the gray cells are located internally and the fibers externally.

The brain is the center of the nervous system. In health it is the seat of judgment, reason and memory; in a word, the seat of government. Pain, injury or any trouble is at once transmitted to the brain by the nerve fibers, just as a message is sent by means of a telegraph wire. The brain is the central station, understands all messages, and instantly forms a complete conception of the situation or condition, understands the wish, desire, danger or trouble, and sends back the order of action. The outer covering of the brain, or nerve cells, is the seat of reason, judgment, emotion, sensation, pleasure, pain, and all that we see, hear, enjoy or suffer; but with the molecular or elementary change above described, these cells are unable to receive, analyze or transmit thought and action intelligently. Instead the mind becomes clouded, dull, stupid or vicious, and insanity results. The function of the nerve fibers differs from that of the nerve cells, as it is the duty of the fibers to convey such thought, sensation, etc. The nerve fibers are only the material substance through which thought and sensation are expressed, just as wire is the material substance through which a telegraphic message is expressed. In the same way the nerve cells are the material substance through which intelligence is made manifest, just as the steel of a magnet is the material substance through which magnetic influence is made manifest. The nervous system with its five senses is but the marvelous expression of the one great power. The five senses are evidence of the wisdom of the Creator: The sense of touch is more acute in the fingers than on the elbow or the nose, because it is more convenient to feel with the hands; the sense of taste is left to the mouth, because that is where the food must be placed before being eaten; the eyes and ears are placed in the head so that we can see and hear while we are using our hands and feet; the sense of smell is placed in the nasal cavities because the air is constantly passing through them to the lungs, hence we are able to detect the first symptoms of decay, bad air or foul odor.

While the brain is the great center of the nervous system, the spinal cord also contains many subordinate nerve centers. Many nerve fibers extend downward from the brain and join with those of the spinal cord, and the subordinate centers thus formed

may be compared with a switch-board in large telegraph offices where messages are received by one system and transmitted by another. So also in the nervous system: Messages are received by one system and sent to the brain by another, hence the centers in the cord are under the control of the brain. Life, force and intelligence pervade the nervous system everywhere, and it is this unseen influence which conveys impressions and controls our actions.

The nervous system is divided into the *cerebro-spinal* and *sympathetic*. The cerebro-spinal includes those nerves which have their origin in the brain and spinal cord. The sympathetic is so called because it is believed to produce sympathy between the different organs and tissues of the body. The cerebro-spinal nerves are under the control of the will. They supply the voluntary or external muscles—those under our control. The sympathetic nerves are connected with the brain and spinal cord indirectly, and are not under the control of the will. They supply the involuntary or internal muscles—those of the stomach, heart, liver, kidneys, etc. The sympathetic nerve fibers have their origin just in front of the spinal column; they are connected with the cord indirectly, and also continue up into the brain. The sympathetic system forms large ganglions, or bundles, of nerve fibers in different parts of the body. One of the largest is situated just behind the stomach and is called the *solar plexus*. This is why a sharp blow or injury over this point produces such a shock, and why, if severe enough, unconsciousness, collapse, and even death may follow. When we refer to the "pit" of the stomach, it is this bundle of nerve fibers that has been disturbed. Like the centers in the spinal cord, these groups of nerve fibers communicate with and are under the control of the brain.

As stated, a lack of development of the nervous system is often the cause of crime. This is the reason some persons commit crime while others do not. It has also been stated that a lack of development may be the result of bad company, bad habits or low moral surroundings. These influences tend to develop only the baser elements of human nature, while the higher and nobler instincts are allowed to remain dormant. Children and young people otherwise bright may lack development in some particular. This may lead to drink or dishonesty in early life, and be wholly overcome in later years when experience has taught them that which they did not know. A lack of development may render it easy or difficult to be moral. One class scarcely needs the restraining influence of the law; another class becomes criminals in spite of the law. Mental traits and characteristics reside in the subtle force expressed through the nervous system. When there is improper or imperfect development, we should by proper influ-

ence raise the unfortunate, if possible, to honest citizenship, rather than be so fierce in our thirst for their punishment. Man can be led, but he cannot be driven.

INSOMNIA.—Insomnia is a disease of the nervous system in which there is inability to sleep. This may exist alone or be connected with some other affection. It is a sign of disease even if there is no pain or other evidence of suffering. It may be the result of mental overwork.

TREATMENTS.—

A. If an accompaniment of other disease, the treatment should be directed to the disease proper; if due to mental overwork, Chloral or the Bromides are the best remedies. Of the Chloral, 20 grains, well diluted in water, may be given at one dose; of the Bromide of Potash, 40 grains, also well diluted in water, may be given at one dose. Or better, 20 grains of each may be given together. If sleep is not produced in two or three hours, one-half the dose—10 grains of each—may be given. If eight or nine hours' sleep can be secured, it will greatly refresh and strengthen the individual and lessen the danger of a recurrence of the trouble on the succeeding night. He should be released from his daily cares to as great an extent as possible, should take out-of-door exercise, and give special attention to diet, eliminations, etc.

B. A hot bath for twenty to thirty minutes before going to bed.—(45).

C. Trionol..... 1 drachm.
Sulphonol..... 1 "

Mix, divide into 12 powders and take one at bedtime.—(46).

D. A brisk cathartic, followed by 10-grain doses of Bromide of Potassium every three hours.—(7).

INTERMITTENT FEVER.—(See under **MALARIAL FEVERS**).

INTESTINAL OBSTRUCTION.—Intestinal Obstruction is a condition in which natural movement is prevented by mechanical means. It may follow inflammation resulting from injury. The obstruction may be partial or complete, acute (sudden) or chronic. Acute obstruction is due to the sudden narrowing or stoppage of some portion of the bowel; chronic obstruction is due to the gradual narrowing or stoppage of some portion of the bowel. A chronic narrowing may at any time become acute. When the obstruction also includes the shutting off of the circulation, it is

called *strangulation*. Strangulation may follow an internal hernia. The small bowel is driven through some narrow internal opening, which may be the result of inflammation of the peritoneum at some previous time. The peritoneum lines the whole abdominal cavity and also surrounds the stomach and bowels. As a result of inflammation this membrane may have grown fast at different points, thus forming openings between the attached surfaces. Following a mild form of appendicitis, the outer end of the appendix may have grown fast, leaving a narrow slit or space beneath; following inflammation of the tubes or ovaries, there may have been adhesions leaving small openings; inflammatory conditions of tumors may result in adhesion and small clefts or openings. Through any of these a loop of the small intestine may be driven. This would constitute an *Internal Hernia*, and if the pressure was severe enough to shut off the circulation, it would be called *strangulated*. The only difference between an internal and an external hernia is that the external hernia gives positive signs of its presence by the swelling produced, while the presence of an internal hernia is suspected only from the symptoms, and the symptoms may closely resemble other forms of obstruction.

Causes.—Mechanical obstruction of the bowels may be due to any of the following:

Internal Hernia, Volvulus, Intersusception, pressure from *Tumor Growths, Enlarged Spleen, partial Paralysis*, with corresponding loss of peristalsis, *Stone — Enteroliths*, or foreign bodies in.

The most frequent cause of obstruction is constipation, as this causes a gradual absorption of the fluids, leaving the contents of the bowel a dry and hardened mass.

Internal Hernia, Obstruction from. — *Symptoms.* — The attack is sudden and severe, and usually follows some violent exercise. Vomiting begins early and is continuous, and soon becomes stercoracious, that is, some of the contents of the bowel are ejected. There is bloating, soreness comes on in a few hours, the pulse is rapid and feeble and the temperature is subnormal, the patient grows faint and, if relief is not had, collapse and death soon follow.

TREATMENT.—

Tincture of Nux Vomica	1½ drachms.
Tincture of Belladonna.....	2 “
Laudanum.....	2 “
Glycerine enough to make.....	2 ounces.

Give one teaspoonful of this mixture every thirty minutes until the face is flushed. The Nux Vomica will increase peristalsis—the natural movement of the bowels. Belladonna will

relieve the spasmodic condition that is always present at the beginning, and the Laudanum will quiet the pain. This remedy is as good as any, yet it is dangerous to depend upon medicine in cases of this kind. Usually an operation is needed, and the earlier this is performed the better.

Volvulus.—This means a twisting of a section of the bowel, forming a kink. It usually occurs low down in the large bowel, or rectum. Or two intestinal coils of the small bowel may become twisted together; this occurs high up in the small bowel. Either may cause obstruction.

Cause.—The most frequent cause is constipation.

Symptoms. — If the small bowel becomes twisted, the symptoms correspond to internal hernia. When occurring low down in the large bowel, the condition is usually preceded by constipation, and one of the early symptoms is sudden pain. If vomiting occurs, it is late—after several hours or a day—and is not severe, only the contents of the stomach being ejected. There is no fever; the temperature may be subnormal. If not relieved, there is bloating and soreness, commencing in the left side. The pulse is rapid and feeble. Serious symptoms, as collapse, are not likely to occur early.

TREATMENT.—

If due to constipation, which is the most common cause, thorough elimination is the treatment. Give 10 grains of Calomel, or other active cathartic, and give large injections of warm soapy water regularly every hour, elevating the hips of the patient and having the ejections retained as long as possible each time. Gently kneading the bowels while giving the injections is of benefit. The pain may be overcome with a few drops of Laudanum. If the patient is pale, cold and weak, give stimulants—hot drinks, hot pepper tea, whiskey sling, artificial heat—any means of bringing the blood to the surface. If improvement does not soon take place, send for a doctor.

If the small bowel becomes twisted, an operation will probably be necessary. Medicinal treatment would be the same as that for internal hernia, or perhaps in such case 6 ounces of Sweet Oil given internally would be better.

Intersusception.—This is a slipping of one portion of the small bowel into another, like slipping one-half the finger of a glove into the other half.

Cause—The cause is said to be increased peristalsis, or too much activity in the movement of the bowels.

Symptoms.—Tenesmus, or frequent desire to evacuate the bowels. Mucus and blood are passed, there is a little bloating, and usually vomiting, but only of the contents of the stomach. The prolapsed bowel may extend the whole length of the digestive tract and be detected in the rectum.

TREATMENT.—

Keep the patient quiet; give 6-ounce dose of pure Sweet Oil; repeat in two hours, if needed. Control the pain with a few drops of Laudanum, and institute the usual treatment for vomiting. Large hot Mustard plasters over the stomach is one of the best means. If the patient is cold, apply heat and give hot drinks. If there is no improvement, send for the doctor. These cases generally need operation.

Tumor Growths.—Pressure from tumors of the uterus, ovaries, kidneys or other internal viscera may cause mechanical obstruction of the bowel.

Symptoms.—The symptoms from this form of obstruction come on gradually, occasional pains becoming more frequent and severe. There is a history of constipation. There may be occasional vomiting, the appetite is poor, and there is more or less dyspepsia, headache and bloating. If the tumor is inside the bowel, there will be blood and pus in the eliminations.

TREATMENT.—

Operation is the only means of affording permanent relief. See TUMORS.

Enlargement of the Spleen.—An enlarged spleen is evidence of an unhealthy system. The spleen is supplied with blood vessels which are larger in proportion to the size of the organ than those supplying other structures. This increases the danger and results in greater structural changes. The circulation is not carried on through the spleen the same as through other organs, but the blood flows through large channels or sinuses which are formed of the spleen itself. This brings the effects of unhealthy and irritating blood in direct contact with the tissues of the spleen, hence the organ is liable to a chronic form of inflammation and enlargement.

Symptoms.—The symptoms come on gradually and correspond to those described under tumor growth.

TREATMENT.—

The treatment would be general, or systemic. One of the best remedies for enlarged spleen is Hydrochlorate of Berberine in $\frac{1}{4}$ -grain doses, taken four times a day—with meals and at bedtime.

Paralysis.—What is called the ulnar nerve supplies a part of the forearm. At the elbow this nerve occupies an exposed position, and sometimes receives a slight blow which causes a peculiar sensation of numbness to extend along the arm and fingers. This is the sensation when one hits his "crazy bone." This same temporary numbness and partial loss of power may be produced in the bowels by the constant pressure resulting from chronic constipation, but this condition would not properly come under the head of paralysis.

Stone, or Enteroliths.—*Symptoms.*—There will be a history of occasional colicky pains at that point, also difficulty in bowel movement with increased pain at that time. If acute obstruction occurs, there is intense pain, early vomiting and rapid pulse. The patient is pale and the surface cold.

TREATMENT.—

Six ounces of pure Sweet Oil may be given; also warm water injections every hour. If pain is very severe, give from 10 to 20 drops of Laudanum in a little sweetened water. If the patient is pale and the surface cold, give hot drinks, hot whiskey sling, and apply external heat. Any convenient remedies for vomiting may be employed, as, a Mustard plaster over the stomach. If the case does not early respond to treatment, send for a doctor.

Obstructions from Foreign Bodies.—The obstruction from foreign bodies and also from stone in the bowel occurs low down in the small bowel at its junction with the large, because that is the smallest part of the entire bowel. A stone or foreign body might cause ulceration if not removed, which would be its greatest danger. In case of a foreign body there is a history of something being swallowed. However, any article small enough to pass into the stomach is almost sure to pass through the bowel without difficulty.

Symptoms.—There is distress for days before the obstruction occurs. If the obstruction comes on suddenly and is complete, there is pain, sharp and desperate, nausea, vomiting, and weak, rapid pulse. The patient is pale, the temperature may be subnormal, and there is great prostration the same as in internal hernia.

TREATMENT.—

Treatment is the same as for *Stone* or *Intersusception*.

Important.—It should be remembered that following obstruction in any part of the bowel the symptoms are more or less alike. The symptoms of acute obstruction from any cause are much the same, and no one can say positively that it is hernia, volvulus or intersusception. In strangulated hernia, that is, where the

circulation is shut off, the symptoms would probably be more severe, yet even in this case there would still remain some doubt until an operation should reveal the true situation.

IRITIS.—(See under EYE, DISEASES OF).

ITCH.—(See under SKIN DISEASES).

JAUNDICE.—Jaundice is a condition resulting from the obstruction of the bile passages. It is characterized by a yellow discoloration of the skin, preceded or accompanied by languor, and often with nausea. There is also a yellowish tinge to the white of the eye. Constipation is usually present.

Cause.—The cause is congestion of the bile ducts; or the congestion may be confined to that portion of the duct that opens into the bowels. It is a catarrhal condition, and the catarrh is the same as may exist elsewhere. There is congestion, and a greater or less amount of mucous secretions collect in the tubes and obstruct the flow of bile. The catarrh may result from excessive eating followed by indigestion, from using too much alcohol, may be caused by malaria, or may result from taking cold.

Symptoms.—The symptoms are nausea, loss of appetite and slight fever. There may be diarrhea or constipation, usually the latter. There is a yellowish color to the skin, which also shows in the whites of the eyes. There may be more or less pain in the region of the stomach and bowels. The mind becomes dull and the patient is pervaded by a spirit of languor. The urine contains bile.

TREATMENTS.—

A.—An active cathartic should be given at once, such as a single dose of Calomel of 5 to 10 grains. The patient should diet for a few days and secure an abundance of fresh air. After securing thorough action from the Calomel, the patient should take one teaspoonful of Phosphate of Soda dissolved in $\frac{1}{2}$ to $\frac{2}{3}$ of a glass of water. This should be taken one hour before each meal. The dose may be increased or diminished as found necessary. This remedy has a special action on the liver: It will relieve the congestion, dissolve the mucus and leave the bile ducts free. This insures increased activity along the whole digestive tract. Tonics may be needed for a few days. For this purpose give the following:

Tincture of Gentian.....	1 drachm.
Tincture of Columbo.....	1 “
Elixir of Calisaya Bark, enough to make.....	2 ounces.
<i>Mix</i> , and take 1 teaspoonful before meals.	

If the trouble is due to *Malaria*, see treatment under that head.

B. Teaspoonful of Soda Phosphate in hot water before meals. Stop beer, tea, coffee and meats. Live on bread and Olive Oil.—(59).

C. Calomel..... $\frac{1}{10}$ grain
 Soda..... $\frac{1}{2}$ "
 Get in tablet form and take one every two hours.—(46.)

JOINTS AND THEIR DISEASES.

The various bones of which the human skeleton is formed are connected together at different parts or points, and these connections are called joints.

The articular or adjoining ends of bones are covered with a thin membrane. This membrane is slightly elastic, and in places is thickened, which enables it to break the force of concussion, while its smoothness affords freedom of movement. The thickness varies according to the shape of the bone which it covers. If the surface of the bone is convex or rounded, the membrane is thickest in the center where the greatest pressure is received; if the surface is concave or hollow, it is thickest at the border.

Bones forming movable joints are held together by cartilages and ligaments, and are surrounded by what is called a capsular ligament or membrane. They are also supplied by a synovial membrane. The synovial membrane is a short, wide tube attached at either end to the margin of the articular cartilages. It invests the inner surface of the capsular ligament or membrane, and is reflected over the surface of all tendons passing through the cavity. The synovial membrane furnishes a thick fluid which lubricates the opposed surfaces and prevents friction. This fluid resembles the white of an egg, hence the name, synovial.

Joints are subject to inflammation, acute and chronic; to dislocation; to wounds, both penetrating and non-penetrating; to sprains; to a condition known as white swelling; and to ankylosis, or stiff joint. Inflammation, whether acute or chronic, is usually rheumatic. (See under RHEUMATISM). Acute inflammation may, however, follow acute inflammatory diseases. It may also occur in the course of pyæmia (blood poisoning) from any cause. In such cases it is usually confined to one joint, the hip or knee, and the fluid which collects soon turns into pus.

HIP JOINT DISEASE.—This disease is divided into three stages: *The first stage* includes an increased blood supply, or congestion, and the primary inflammation. *In the second stage* the inflammation continues, and there is an increased growth of the part due to the increased blood supply; there is also an effusion of blood serum (at first watery) into the surrounding tissue. *In the third stage* the new tissue and more or less of the surrounding structures degenerate, usually in the form of pus, which on reaching the surface escapes, the same as from any other abscess. The cause of the destruction of tissue is impure blood and pressure due to the swelling and new growth.

Cause.—Hip joint disease is due to an unhealthy system, the result of poor food, poor digestion and poor surroundings. It is most frequent in those of a scrofulous nature, in the anæmic and those poorly nourished. It may follow infectious diseases, such as scarlet fever or typhoid fever, where they are protracted, or syphilis may be the cause. The hip joint is most often affected because it is larger and more exposed, and also because it supports the weight of the body, hence is subject to pressure, strain and irritation.

Symptoms.—The symptoms of the *first stage* are slight and may not be noticed. There may be slight pain and possibly lameness. The pain may refer to the hip, front of the thigh or the knee, because this is the course taken by the nerve that supplies the hip joint.

In the second stage the lameness and pain increase, the child limps, and the symptoms are plainly noticeable. The muscles of the hip become shrunken, yet the hip may be broadened by reason of the effusion into the joint. The hip is drawn upward and forward, and the pelvis (hip bone) is tilted so as to rest the weight on the sound limb. This makes the diseased limb appear longer, yet it is not. The thigh, or leg above the knee, is flexed—drawn up. Lay the child on its back, extend the limb as far as possible, then jar the heel by a sharp blow with the hand and it will cause pain in the hip joint. This is a prominent symptom of hip joint disease. Also an attempt to straighten the limb causes the pelvis (hip bone) to tilt forward. This is due to the fact that the pelvis moves with the limb in order to prevent pain. This causes an increase in the curvature in the small of the back, called *Lordosis*. Sharp pressure inward on the hip, or any active movement of the joint, causes severe pain. If pus forms, it may break externally and form what is called abscess of the hip. If the disease continues, the ligaments about the joint are destroyed, also the membrane covering the head of the bone and that lining the socket are both destroyed. The surfaces of the

bones are thus brought in direct contact, and gradually they are worn away, both by the disease and by the pressure, and the limb is correspondingly shortened.

In the third stage the head of the bone is destroyed, the large muscles about the hip draw the limb upward upon the outer surface of the pelvis, and the shortening is increased. The limb becomes more flexed—drawn up—and at this time any attempt to straighten it causes the pelvis to tilt forward, as stated. This is Nature's method of preventing pain, which otherwise would be severe.

TREATMENT.—

A. First, absolute rest. Lay the child on his back on a firm mattress. Make extension in order to relieve the pressure in the joint. A weight should be hung from the limb over the foot of the bed. This weight should be from three to eight pounds, depending upon the size of the child. Use a weight as heavy as the child can bear. Make the extension in the direction in which the limb has become flexed—bent—and gradually, from time to time, endeavor to straighten the limb and bring it to its natural position. Splints are needed, but this part of the treatment belongs to a physician. If the case is seen early, extension for three or four weeks may be sufficient. When the patient gets up, wear a high-heeled shoe on the sound limb. This will allow the weight of the diseased limb to aid in producing continuous extension, thus relieving the joints.

Internally, give Iodide of Arsenic three times a day, between meals. Give $\frac{1}{100}$ of a grain at one dose, more or less according to the age of the child. It is understood, of course, that these cases require proper hygienic surroundings, abundance of fresh air and sunshine, most nourishing food, attention to the eliminations, etc.

Another excellent remedy is the following:

Fellows' Compound Syrup of Hypo-	
phosphites	3 ounces.
Maltine.....	6 "

Mix together by shaking the bottle, and take in tablespoonful doses before or immediately after meals.

If the case has become chronic and the joint is destroyed, extension would then be of little value; but seen early, the foregoing treatment would be the most intelligent that could be applied, and in many cases would result favorably.

WHITE SWELLING.—This form of inflammation is always chronic, and occurs only in those previously unhealthy. In more recent years white swelling is understood to mean tuberculosis or consumption. Consumption is a degenerative change which usually occurs in the lungs, but may occur in any other tissue or part. Occurring in a joint, it may first affect the bone, the membrane surrounding the joint, or any other structure entering into the joint formation. The low form of inflammation present first results in an overgrowth of connective tissue; later the new tissue and more or less of the joint structure soften and degenerate, the ligaments become relaxed and softened, and there is deformity in proportion. In some cases a large amount of fluid may collect during the earlier stages; in others there may be early degeneration of some part of the membrane surrounding the joint. This results in an opening which may continue to the surface, forming a sinus, from which later there is a more or less constant discharge of pus. In all cases the joint is swollen, and the skin is thickened and firmly adherent to the deeper structures as a result of the low form of inflammation which has existed for some time. There is no redness because the disease is chronic. Nutrition is more or less lacking, circulation is poor, and the color is lighter than normal, hence the term, white swelling. These conditions when affecting other joints are similar to that described under *Hip Joint Disease*. In these cases there is always more or less danger of general tuberculosis.

TREATMENTS.—

A. The treatment is both general and local. For general treatment, see *Consumption*. The local treatment consists first of rest. Plaster casts and other forms of splints are recommended by some and objected to by others. A common seat of the disease is the knee joint, and here extension is valuable the same as in the treatment of *Hip Joint Disease*. If there is no improvement at the end of one month, most surgeons advise injecting into the joint some form of antiseptic solution, usually a 10 per cent solution of Iodoform in Glycerine. Some advise injecting Balsam of Peru. The Iodoform and Balsam combined make a most excellent disinfectant and local stimulant. In those cases where there is a large collection of fluid, it should be removed by an aspirator.

While the above is the local treatment recommended, we must admit that it often fails to cure, and, in some cases, to afford relief. The real treatment consists in improving the system by attention to diet, elimination, fresh air, etc., as described under *Consumption*. There is always more or less stiffening of the joint in which the disease occurs. The stiffening is the result of the overgrowth and contraction of connective

tissue, or the destruction of bone, tendons and ligaments, or of all combined.

B. Make a liniment of the following:

Turpentine.....	1 ounce.
Tincture Spanish Fly.....	1 "
Sweet Oil.....	1 "
Laudanum.....	1 "

Mix, and bathe the affected part night and morning, rubbing the liniment in well.—(83).

STIFF JOINT, or ANKYLOSIS.—A stiff joint is the result of inflammation followed by overgrowth and contraction of new connective tissue, or by overgrowth of the bone itself. The first lessens joint movement; the second renders the joint immovable.

Cause.—This condition may be the result of rheumatism, sprains, fractures into the joint, or any condition that produces inflammation.

TREATMENTS.—

A. Stiff joint may be benefited, but a cure is doubtful. The treatment consists of massage and an attempt to move the joint. This should be practiced daily, or at least every other day, for a long time—perhaps many weeks. Natural movement of the joint should be obtained as far as possible, never carrying the effort to extremes, or far enough to produce pain. The application of some mild liniment may also be of benefit. For this purpose we recommend the following:

Tincture of Iodine.....	2 ounces.
Water of Ammonia.....	2 "

Mix together.

At first this mixture will be dark in color, but in a few hours it will become nearly transparent. The result of the mixture is Iodide of Ammonia. This form of Ammonia is mildly stimulating, while the Iodine is one of the best remedies to liquefy the products of inflammation and render the diseased area free from refuse matter.

It must be remembered, however, that in the majority of these cases the trouble is caused by a deposit of lime salts the same as that of which the bone is formed; in other words, the bones entering into the formation of the joints are more or less solidly united as one bone, hence too much must not be expected. In case of injury to the joint, especially fracture, the condition just described should be anticipated, and passive motion be instituted at the earliest possible moment.

B. Use a liniment made of the following:

Wintergreen Oil.....	1 drachm.
Olive Oil.....	1 ounce.
Aqua Ammonia.....	½ drachm.
Oil of Lobelia.....	20 drops.

Shake until it is mixed thoroughly, and bathe the joint just before retiring, sitting so the heat from the stove will strike the joint. If it is very stiff, at least ten minutes should be spent in rubbing it.

THE KIDNEYS AND THEIR DISEASES.

The kidneys are two small glandular organs or bodies situated in the back part of the abdominal cavity. They are enclosed in a thin membrane of connective tissue, which is attached to the surrounding structure and thus holds the organs in position. They are also supported by the arteries and veins which enter and pass through the opening at the pelvis.

Position.—If a long needle should be driven through the body $2\frac{1}{2}$ inches either side the median line—the center of the body—and one inch above the umbilicus—navel—it would graze the lower end of the kidney. The kidneys extend from this point upward and a little inward for a distance of about $4\frac{1}{2}$ inches. Locating them from behind, they would be found $2\frac{1}{2}$ inches either side the center of the body, and covering the last dorsal and four upper lumbar vertebræ—bones which aid in forming the spinal column. Counting from above downward, this means the nineteenth and twenty-third vertebræ, inclusive. Locating them from the side, they extend from the eleventh rib nearly to the highest point of the hip bone. The one on the right side is a little lower than the one on the left, being crowded down by the liver. In size they are about $4\frac{1}{2}$ inches long, 2 inches wide, and 1 inch thick. The flat surfaces face front and back, while the edges face outward and inward.

At the inner border or edge there is an opening called the pelvis. Leading from the pelvis, small tubes penetrate the organ in all directions. These tubes are lined with specialized cells which collect from the passing blood stream those elements that Nature has designed the kidneys to eliminate. Each tube terminates in a bulbous portion called *glomeruli*. The pelvis opens into the ureters and the ureters into the bladder. Really it is all one tube, varying in size and terminating in many small branches. First, the dilated portion, or bladder; next, the ureters, which are about sixteen inches long; then the small dilatation, or pelvis of the kidney; and last, leading from the pelvis, the many

small collecting tubes and their branches which terminate in a dilated extremity as stated.

The arteries which supply the kidneys are very large in proportion to the size of the organs. The kidneys are but a bundle of blood vessels and collecting tubes, which from their winding course contain a large amount of blood and fluid. The importance of these organs may be better understood when it is remembered that should their action be suspended for twenty-four to forty-eight hours, death would probably result from the retained poisons.

The kidneys are subject to the following diseases:

Abscess,
Amyloid Degeneration,
Bright's Disease, or Inflammation,
Congestion, or Albuminuria,
Floating and Movable,
Stone or Gravel in,
Hydronephrosis, or distension from
retained urine.

ABSCESS OF THE KIDNEY.—*Cause.*—An abscess may result from an injury or from a stone in the kidney, or by blocking of the ureter from any cause. Abscess of the kidney may also be caused by blood poisoning.

Symptoms.—The symptoms of abscess of the kidney are sometimes slight so far as pain is concerned, although usually there is pain which extends to the groin. With the beginning of pus formation there may be chills. In those cases which we have seen the most prominent symptoms were the loss of appetite and the general wasting of flesh. The symptoms resemble consumption, with the exception of the cough. They also resemble cancer.

TREATMENT.—

As stated elsewhere, there is but one rule for abscess; wherever pus forms, free incision should be made and thorough drainage established. This requires the services of a physician. Every attention should be paid to the general health.

AMYLOID DEGENERATION.—(See under LIVER, DISEASES OF).

In 1827 Dr. Bright, an English physician, first gave some description of the changes which occur in kidney disease, and as a result it has been the custom with some to apply the term "*Bright's Disease*" to every variety and all forms of kidney trouble. By others the term is restricted to the chronic form, that is, where the disease has progressed far enough to produce

structural changes. There are still others who do not use the expression at all, claiming that it is meaningless—that it conveys no intelligent idea—that it cannot, because there are so many forms of kidney disease. Personally, we believe that to call a disease after a man's name is a very foolish habit. However, as the term Bright's disease has become so firmly fixed in the public mind, it is used here.

BRIGHT'S DISEASE—INTERSTITIAL NEPHRITIS—CIRRHOSSIS OF THE KIDNEYS.—

This disease is always chronic. Like other structures, the kidneys have a connective tissue framework which penetrates the organ in all directions. The low form of inflammation which is present in *Bright's Disease* produces an overgrowth of this framework, which later contracts and destroys the organ. The shrinkage is most marked on the convex or outer portion because it contains the most connective tissue. The first effects of this form of the disease upon the kidneys is upon the secretive cells which line the collecting tubes, because in their efforts to remove from the circulation the irritants which cause the trouble, these cells become overworked. The blood, which is defective, affords poor nourishment, hence the shrinkage of the collecting tubes and their dilated extremities—the glomeruli—is among the earliest changes. Following close upon these changes is the thickening of the arteries and increase of connective tissue. With such increase the capsule, or thin membrane which envelops the kidneys, becomes thickened and firmly adherent to the surface of the organs. The contraction of the new tissue constricts more or less the collecting tubes. Some may be entirely closed. Their distal or outer end may continue to secrete or collect from the passing blood stream, and, there being no escape for the fluid, the little tubes become dilated and thus small cysts or sacs are formed. These may vary in size from a millet seed to a small marble. The contracting fibers close around the glomeruli, or dilated ends of the collecting tubes: Some are pressed together in groups or bunches; some are converted into a solid mass of connective tissue, the delicate blood vessels which filled them during health having been wholly obliterated; others may show a thickening of the connective tissue capsules which enclose them. The glomeruli may contain clotted plasma from the fluid part of the blood, which now somewhat resembles starch. Some may contain pus. Some of the collecting tubes are destroyed. Others are surrounded or embedded in connective tissue overgrowth. These are irregularly dilated, the contracting fibers which surround them having drawn them outward. Some contain dead and dying cells—the secreting cells which lined them. These, having been destroyed or

dislodged by pressure, are in all stages of degeneration. The whole organ becomes shrunken. The cortex or outer portion is nearly obliterated.

Cause.—It may be produced by alcohol or by syphilis; it may follow repeated attacks of congestion; it may be caused by some of the infectious diseases, especially scarlet fever; it may be caused by irritants resulting from dyspepsia and constipation. Under the description of the kidneys it was stated that their blood supply was larger in proportion to their size than that of most organs, and irritants in the blood continually rasping through these structures will sooner or later set up a mild form of inflammation, at first unnoticed. This is why this form of disease comes on so insidiously. The same is true when it is produced by alcohol.

Symptoms.—There are no early symptoms. Perhaps an increased amount of urine is one of the first. During the disease the circulation through the kidneys is interfered with, and so much blood is forced back toward the stomach and heart that the latter beats more forcibly. This causes distension of the blood vessels and interferes with the circulation, causing dizziness, headache and nosebleed; while the congestion about the stomach may cause dyspepsia and perhaps vomiting. An examination of some of these troubles may reveal the real cause—*Bright's Disease*. All of the symptoms mentioned are the result of congestion or over-distension of the blood vessels. Urea is a poisonous waste product which in health is eliminated by the kidneys, but during Bright's disease, and especially toward the latter stages, the kidneys are unable to discharge this duty. The urea collecting in the system may produce uræmic poisoning, resulting in epileptic attacks; hence death is usually preceded by convulsions and coma, due to uræmic poisoning. Dropsy is not present. The urine may contain a small amount of albumen. During the progress of the disease the arteries may become more or less weakened and, as a result of heavy lifting or sudden bending forward, the powerful heart action may rupture a vessel in the brain, causing apoplexy. With care and proper diet the patient may live for many years.

BRIGHT'S DISEASE.—PARENCHYMATOUS NEPHRITIS.—This is another form of chronic kidney disease. In this form of the disease the kidneys, instead of being lessened in size, are enlarged. The enlargement is mostly confined to the outer portion. Under *Interstitial Nephritis* it was stated that this part contains more connective tissue. This tissue forms a loose meshwork which is capable of great distension, hence the enlargement. The enlargement is caused mostly by the exudation of

inflammatory products which pass from the circulation through the walls of the vessels and into the substance of the organs. The kidneys may become twice their natural size. Their surface is smooth, and the capsule or membrane which encloses them is but loosely attached, thus differing from the interstitial form, where it is firmly adherent. The kidneys are light in color. The collecting tubes which penetrate them in all directions are irregularly dilated and are more or less filled with the specialized cells which lined them during health. These are the cells which normally collect the urine and other waste products eliminated by this course. The tubes also contain various other products of inflammation and *debris*. The change within the tubes is more marked than in the interstitial variety. In this disease the urine is scanty and high colored, hence *there is dropsy from the beginning*. As the disease advances the dropsy increases until the abdominal cavity may become enormously distended. Albumen is present throughout the disease.

Cause.—The same as that given under *Interstitial Nephritis*.

Symptoms.—Many of the symptoms are also the same, such as headache, dizziness, loss of appetite, nausea, vomiting, etc. In the following comparative table the more important symptoms are arranged with a view of making them more easily remembered:

Interstitial Nephritis.

There is an increased amount of urine.

Albumen may be present in small quantities, and at times may be absent.

There is no dropsy.

Nosebleed, and may be other hemorrhage. In the later stages there may be hemorrhage from the brain, causing apoplexy. The reason is that the shrunken condition of the kidneys obstructs the circulation and causes congestion.

The congestion may extend from the brain along the artery that supplies the eyes and cause the latter to look red.

The disease occurs under forty.

Parenchymatous Nephritis.

The amount of urine is lessened.

Albumen is always present, the amount increasing as the disease progresses.

Dropsy from the beginning, increasing as the disease progresses.

There is no hemorrhage because the kidneys remain large and the circulation is less interfered with, hence there is no congestion.

The eyes are not affected.

Disease occurs over forty.

TREATMENT.—INTERSTITIAL NEPHRITIS.—

Avoid all alcoholic stimulants and highly seasoned foods. Food should be taken in moderate amounts, and only that which is most easily digested and most nourishing. Avoid all excitement and active exercise. Take life as easy as the circumstances will allow. It will be readily seen that the main object of treatment in this form of disease is to check the connective tissue overgrowth. Perhaps the Iodides in some form are best for this purpose: Iodide of Arsenic in $\frac{1}{10}$ of a grain dose between meals and at bedtime; or if the patient is anæmic, give Iodide of Iron—the same dose taken at the same time. Strict attention should be paid to digestion and elimination. Any article of food interfering with digestion should be discontinued. There may be times when artificial digestants are needed. Basham's Mixture or Tincture of Iron may be given after meals in the same dose as directed under *Parenchymatous Nephritis*. Basham's Mixture should be freshly made in small quantity. Frequent baths are valuable in this as in other diseases. Secure good ventilation and proper hygienic surroundings. This disease runs a chronic course. At the end of two months any form of medication that proves valuable should be discontinued for a time—perhaps two weeks—and then taken up again.

TREATMENTS.—PARENCHYMATOUS NEPHRITIS.—

What to Do.—This disease creeps on stealthily, and is usually well seated before a doctor is consulted. It would be an excellent idea for any person to have the urine tested every two or three years, in which case, if any morbid condition is present it may be discovered in time to reach it by medical aid.

A. The patient should take life easy, resting as much as possible. He should confine himself to a milk diet—one-half to one glass every four hours, taken hot and drank slowly. If other food is allowed, it should consist of a limited amount of fish, toast, apples baked or stewed, spinach, celery, lettuce, tapioca and macaroni.

Avoid tea, coffee, alcohol in any form, and all other stimulants, as they increase the inflammation and lessen the power of the kidneys to eliminate solids, of which urea is the most important because the most dangerous.

It is best to hold strictly to the milk diet until the albumen disappears, and then add only one extra dish at a time, test the urine frequently, and return to the milk diet if albumen re-appears.

Dropsical conditions are best controlled by keeping the bowels active. Cream of Tartar, Salts, Jalap, Elixerium and

other active cathartics may be given. Hot baths should also be taken. No remedy or food should be given that causes nausea or interferes with digestion.

B. An excellent remedy, and one we have used with much success, is the following:

Epsom Salts	1 ounce.
Aromatic Cascara	1 "
Water, add to make	1 pint.

Dose: A tablespoonful four times a day, more or less often as needed. The dose should be increased, if necessary, to keep the bowels active.

C. Avoid taking cold. Wear heavy flannel or woollen next to the skin, winter and summer. The kidneys have but little reserve force and a cold might precipitate an acute attack, which would be only too apt to end fatally. Keep good ventilation, and improve the surroundings with proper hygienic measures.—(65).

D. Any one who has Bright's disease should have the care of a good physician, so as to meet symptoms as they appear.

I use Alkalithia, one bottle. Take a teaspoonful before each meal in water, drink while effervescing, and take a dessertspoonful after each meal of Basham's Mixture.

E. Avoid taking cold. Wear flannel next the skin, which should be kept clean and moist. Internal medication too serious for any one but a doctor to undertake.—(14).

F. Dress in flannel all the year around. Avoid catching cold or sudden chilling of surface. Drink lots of water and milk. Avoid all alcoholics, especially sour wine. Follow doctor's directions and the disease may be controlled for years.—(13).

G. Hot baths, frequently repeated. Warm flannel clothing. Milk diet, avoiding all stimulants. Tincture of Iron in 20-drop doses, well diluted, after meals and at bedtime.—(7).

CONGESTION, or ALBUMINURIA.—Albumen is an element of nutrition resulting from food products. The best example of albumen, or its purest form, may be found in the white of an egg. Albumen is always present in the blood, but in health the kidneys do not permit its passage into the urine. *Albuminuria* is a term used when there is albumen present in the urine, its presence indicating disease, which may be either mild or serious. A mild form results from taking cold or from injury. This form is called *Congestion* and usually does not last long, the kidneys soon returning to a normal condition. Occurring in a chronic form, albuminuria is known as Bright's disease. See BRIGHT'S DISEASE.

Symptoms.—In mild cases the symptoms may escape notice altogether. In a more acute stage the symptoms are as follows: Pain in the back and region of the kidneys, which may be mild or severe in proportion to the amount of congestion; fever is present, the bowels are more or less constipated, and the urine is high-colored. Occurring with or following the infectious diseases of children, the above symptoms are usually absent, and when the child returns to health the kidneys return to a normal condition.

It is taught that there are exceptional cases where albuminuria is a natural condition, that is, where albumen is constantly present in the urine without disease. The amount in such cases is small.

TREATMENTS.—

A. For a severe case, rest in bed, with hot fomentations to the small of the back and across the abdomen; active cathartics; milk diet from 24 to 48 hours, depending upon the severity of the case; if the fever is high, Aconite or other such remedies. The patient should keep quiet a few days until the pain has ceased, and the fever, soreness and other troubles have disappeared.

B. Take the silk from the ears of corn when they are first silking out, and also peach tree leaves. Put these in an earthen dish and steep as you would tea. Strain and take a tablespoonful 3 to 5 times a day. If it is not the season of the year that you can obtain the above, the following is good: Take the meats of pumpkin seeds, steep same as tea, and drink freely. Also take the inner bark of slippery elm and the inner bark of white pine, cut up into short pieces, put into a bowl, cover with water and let it stand until it is of the thickness of mucilage. Drink freely of this also. Keep the patient quiet. Give an active cathartic, and keep the bowels moving.

MOVABLE and FLOATING KIDNEY.—Some very fine theories are advanced regarding the symptoms between these two conditions. They are of little value because the same evidence is not present in all cases; in fact, in some cases there may be no evidence or symptoms at all. We know this to be true, because in trying to diagnose some of these cases we have witnessed the defeat of some noted surgeons. When the kidney wanders from its normal position and becomes fixed in some other part, it is called *dislocation*.

Cause of Movable and Floating Kidney.—Movable kidney may be caused by injury, may be due to pregnancy, to tight lacing, or may occur during some chronic or wasting disease. In the

last case the tissues surrounding the kidneys may become so shrunken and wasted that the kidney may be easily displaced. Wandering kidney is always congenital.

Symptoms.—The symptoms of wandering kidney may be slight or severe. In some cases, as stated, there may be no symptoms at all. There is generally pain in the region of the kidney. This pain has a dull, dragging sensation. Sometimes, however, it is so sharp that it resembles *Renal Colic*—the pain caused by stone in the kidneys. In sitting or lying down the kidney may regain its normal position, when all of the symptoms will disappear. There may be indigestion and vomiting, also some disturbance of the heart action, as palpitation. In some cases the kidney may feel like a tumor in the abdominal cavity.

We have seen cases where the only evidence was that discovered by the patient. We recall one case of this kind in particular. The patient, a lady, being convinced that something was wrong and evidently knowing that the trouble might be caused by a misplaced kidney, tried at various times to discover the presence of the wandering organ. She continued the effort until she became so accustomed to the manner of manipulation that she was able to locate the kidney, which presented itself in the form of a small tumor in the abdominal cavity. On the strength of her own diagnosis she was advised to have an operation, and consented. Both before and after she was under the influence of Chloroform the surgeons made every effort to locate the kidney, but although she was not large, weighing only about 125 pounds, they were unable to do so. Upon operation, however, the kidney was found some distance from its natural position, was brought back and stitched in place, the patient recovered, and to-day is well.

TREATMENT.—

A tight band with a pad is said to benefit some cases, and should always be recommended before advising an operation. If this and other means fail, and the pain is severe, an operation should be made. The kidney should never be removed unless badly diseased. In this case the other kidney should be examined also, because it too might be diseased, in which case the operation would precipitate rapid death.

GRAVEL, or STONE, IN.—Gravel is a term frequently applied to small particles of solid matter found in the urine. These are uric acid crystals, which are found in the blood as the result of imperfect oxidation and are eliminated by the kidneys; or the uric acid may unite with certain salts held in solution in the blood and form what are called *urates*. The terms "gravel,"

“brick dust” and “sediment” are frequently applied to these deposits. These conditions are the result of excessive accumulations of uric acid in the circulation. Certain food elements produce uric acid. During health this acid unites with oxygen from the air we breathe, is changed into urea and eliminated by the kidneys; but from overeating, indigestion, constipation, lack of exercise, indoor life, bad hygiene or some other cause, this change does not take place, hence the accumulation of uric acid, as stated. This accumulation calls for extra work on the part of the kidneys, and they do what they can to relieve the trouble, hence the appearance of the urates in the urine. Many believe this condition is an indication of kidney disease, but it is not. It is the kind of kidney disease that patent medicine fakirs cure.

Sometimes this uric acid sediment in the urine assumes large proportions, forming a solid mass or stone. The stone gradually increases in size until it becomes dislodged and attempts to pass through the ureter. Stone may form from a lack of acid, or when the urine contains too much alkali. In these cases the stone is formed of phosphates.

Cause.—As above described, *i. e.*, the deposit of uric acid, or of phosphates and other sediment present in the urine.

Symptoms.—When in the form of gravel, the particles are small and readily pass into the bladder, and there may be no symptoms; or the symptoms may be a slight irritation. If a stone forms in the pelvis of the kidney, it may become quite large without producing any serious symptoms; but when a stone becomes dislodged and attempts to enter the ureter, the symptoms begin suddenly. The pain is severe, at times agonizing, and extends into the groin and thigh of the affected side. There is a frequent desire to urinate, and the urine contains more or less blood in proportion to the number of vessels ruptured by the stone. The testicle on the affected side is contracted, nausea is usually present, vomiting may occur, and the patient may collapse or become unconscious. The pain continues until the stone drops into the bladder, when it ceases as suddenly as it began. Or the stone may drop back into the pelvis of the kidney.

TREATMENTS.—

A. In treating stone in the kidney or bladder the general health must be considered. It has already been stated that uric acid is due to imperfect oxidation, or indigestion, hence the need of careful attention to diet, the digestive organs and elimination. Drink large quantities of pure water, secure an abundance of fresh air, sunshine and out-of-door exercise. Bathe frequently, observe regular habits and avoid all forms of excess.

Uric Acid Deposit.—If the urine is highly acid, it is evidence that the stone is formed of uric acid, as described, and the treatment in such cases would be alkalis in some form as these would tend to neutralize the acid and prevent formation. Liquor of Potash in 5-drop doses, well diluted with water, taken before meals and at bedtime, may be given; or 20-grain doses of Acetate of Potash in solution may be given every two or three hours until the urine is but faintly acid, and then smaller doses—perhaps 10 grains—should be continued several times a day.

Note.—All druggists keep small sheets of litmus paper—red and blue. Acid urine will change the blue paper to red, and alkaline urine will change the red paper to blue.

Alkaline Deposit.—If the urine is alkaline (see note above), it may be suspected that the stone is formed of phosphates; in such cases the mineral acids would be of benefit because they would render the urine acid. Two or 3 drops of pure Muriatic Acid, well diluted with water, should be taken after meals; or Benzoic Acid in the form of Benzoate of Soda should be given in 10-grain doses after meals and at bedtime. Enough of either should be given to keep the urine acid.

If a stone has formed and attempts to pass through the ureter, the treatment given above would have no effect on the pain and would be of no benefit at that time. For such attacks the Glonoin, Hyoscyamine and Strychnine treatment under GALL-STONES would be applicable. If this treatment does not relieve the pain, Morphine should be given. If a stone lodges in the ureter and all other means fail, an operation will be called for.

B. The best remedy that can be used for this is Gravel Weed (See chapter on HERBS for description and directions), unless the disease has progressed so far that a surgeon's attention is required.

C. Alkalithia. *Dose:*—Heaping teaspoonful in glass of water before meals and at bedtime.—(10).

D. Drink only soft water, or water which has been boiled.—(8).

E. Fluid Extract of Buchu in teaspoonful doses three or four times a day.—(7).

F. A large enema of hot water, retained as long as possible, gives more relief than Morphine in case of renal calculus—stone in the kidney or bladder.

HYDRONEPHROSIS.—Should a large stone remain in the kidney, it might prevent the passage of urine into the ureters. This would cause *Hydronephrosis*, meaning too much water in the kidney. Following this, abscess might result. It might result from any obstruction to the outflow from the bladder. This in turn would check the outflow from the kidney, and the result would be the same.

TREATMENT.—

Removal of the obstruction, if possible.

KING'S EVIL—SCROFULA.—This is a morbid constitutional condition developing in the glands and forming small, hard tumors. The glands of the neck are the most usual seat of the disease; or it may affect the lungs, as in consumption. At one time it was called *King's Evil*, as it was believed it could be cured by the touch of the king's hand. To-day we call it *Scrofula*.

LA GRIPPE.—(See INFLUENZA).

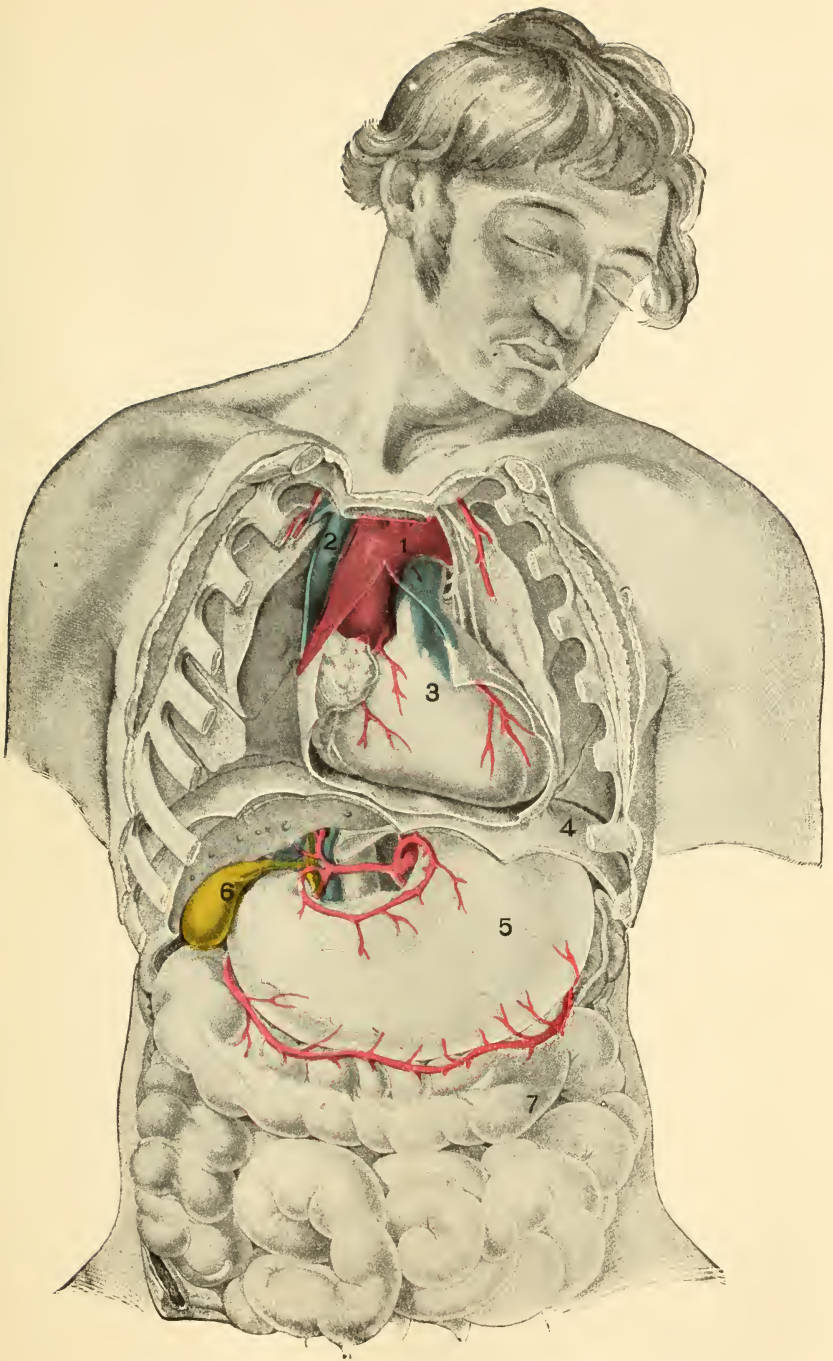
LARYNGITIS.—The Larynx is that part of the throat extending from the base of the tongue to the trachea, or wind-pipe. Laryngitis is understood to mean an acute inflammation of the larynx.

Cause.—The same cause that produces ordinary catarrhal colds, as atmospheric changes, exposure, draughts, wet feet, irritating vapors or dust.

Symptoms.—A slight irritation may be the only symptom, or there may be rawness and soreness. The voice may become hoarse, and there may be fever and headache. If the case is severer, there will be a sharp rise in temperature, coated tongue, dry skin, quick, strong pulse and badly swollen throat.

TREATMENTS.—

A. Give a dose of Castor Oil or other laxative, hot foot-bath, and wet pack about the neck—hot or cold, as desired by the patient. If the fever is very high, give 1-drop doses of Aconite every thirty minutes, or every hour. Small children require less. Keep a uniform temperature in the room—75 to 80 degrees—and at the same time provide good ventilation.



No. 9.

1, Large Artery coming from Heart. 2, Large Vein. 3, Heart (uncovered). 4, Diaphragm 5, Stomach. 6, Gall Bladder. 7, Bowels.

The following mixture is recommended:

Fluid Extract of Ipecac..... 10 drops.
Tincture of Aconite..... 10 “
Water 24 teaspoonfuls.

Mix, and give 1 teaspoonful every fifteen or thirty minutes, or less often, according to age.

or,

Tincture of Aconite..... .. 10 drops.
Acetate of Potash 3 drachms.
Liquor Ammonia Acetatis..... 4 ounces.

Mix, and give 1 teaspoonful to 1 tablespoonful every fifteen or thirty minutes, or less often, according to age. When the surface becomes moist, either of the above may be discontinued.

The patient should diet for a day or two, guard against taking any more cold, and, with attention to the bowels, will usually recover rapidly.

B. For a mild case, slight counter-irritation over the throat is useful, and on going to bed the patient should apply to the throat a towel wrung out of cold water. If the case is more severe, apply a Mustard poultice over the part, followed by a hot fomentation of Hops covered with a dry flannel. For adults, tablespoonful doses of Boneset syrup may be given.

C. Laryngitis or inflammation of the throat should be treated the same as inflammation elsewhere. Counter-irritants and hot fomentations relieve by attracting the blood away from the inflamed part. Aconite and other fever remedies act in the same way, hence they may also be used in laryngitis. A gargle is often of value in this disease. The following prescription may be relied upon:

Salicylate of Soda..... 2 drachms.
Powdered Borax..... ½ “
Carbolic Acid..... 5 drops.
Glycerine 1 drachm.
Water sufficient to make..... 4 ounces.

Mix, and gargle the throat every 2 hours, more or less often as needed.

D. Absolute rest of organs of voice. Inhale the following:

Compound Tincture of Benzoin..... 1 ounce.
Hot Water..... .. 1 pint.

And give a good Calomel purge—for an adult from 5 to 10 grains of Calomel; for a child one year old, 1 grain; the dose, if without results, to be repeated the following morning in connection with Castor Oil—from 1 to 2 teaspoonfuls of the Oil for a child; from 1 to 2 tablespoonfuls for an adult.—(45).

Note.—In giving Castor Oil, if the spoon be first dipped in sweet milk the oil will not adhere to it and is more easily swallowed.

E. Pure Bromine—Put 5 drops into a glass of cold water. Give one teaspoonful every half hour or even fifteen minutes until relieved, and *it will do it*.—(18).—Homeopathic.

Note.—As this remedy can only be obtained at drug stores, and is very volatile and difficult to handle, we suggest that the solution be made at the same time the Bromine is purchased. Ask the druggist to put 5 drops of pure Bromine into a 12-ounce bottle and fill with water.

LARYNX, OEDEMA OF.—The *glottis* is the narrow space between the vocal chords through which the air passes into the lungs. When there is swelling of the tissues immediately surrounding the glottis, it is called *Oedema of the Larynx*. It is a very dangerous disease, and usually fatal. The patient may live for a few days, or a week, or may live only a few hours. It is not a common disease.

Cause.—It is most frequently met in those who are poorly nourished and in poor hygienic surroundings. It may follow inflammation of the throat, inflammation or disease of the tonsils, erysipelas of the face, diphtheria, Bright's disease, whooping cough, tuberculosis of the throat, syphilis, aneurism, or wounds of the neck.

Symptoms.—There is a gradually increasing difficulty in breathing; there is swelling of the epiglottis, or thin layer of cartilage that guards the opening into the trachæa during the act of swallowing; there may be a sensation of a foreign body in the throat; the voice gradually grows weaker, and is finally lost; there is difficulty in swallowing, and as the disease advances there is some cough with but little expectoration; breathing becomes more difficult, the eyes protrude, the face assumes a purplish hue and, if relief is not had at once, death follows, the patient dying from asphyxia—want of air.

TREATMENT.—

The treatment consists in means that will draw the blood from the affected parts, hence an active cathartic, such as 10 grains of Jalop and 10 grains of Scammony, or $\frac{1}{2}$ grain of Elaterium, should be given. If there is a history of constipation and if the bowels seem bloated, give 3 drops of Croton Oil added to a little Glycerine. Place it on the back part of the tongue, or put it into a capsule and let the patient swallow it. Give $\frac{1}{20}$ grain of Atropine every thirty minutes until the face is flushed. Sweating the patient will also aid in relieving the throat. One-third of a grain of Pilocarpine, given with a hypodermic needle, is valuable in relieving the congestion. It is also depressing and, if given, stimulants should also be given to support the patient. If other means fail, perform tracheotomy, that is, make an opening into the windpipe. This disease is always dangerous and requires

the best skill and care. Fresh air is of the greatest importance. The disease just described differs from *spasm of the glottis*, or muscles which control the vocal chords, commonly called *Croup*. Simple spasm may result from nervous conditions—hysteria. Croup and simple spasm may be relieved by any remedies that are relaxing, such as Opium, Chloral or Ipecac. Fresh air is also of importance. Do not give Opium to small children, but Ipecac is perfectly safe.

LEAD POISONING.—This disease is experienced by house painters and those engaged in the manufacture of paints. The lead gains entrance into the system through the lungs and skin. Some people seem to be proof against it and to experience no evil effects after many years of exposure, while others acquire the disease very easily.

1. It is wide-spread among painters and plumbers, and those engaged in smelting lead ores.

2. Those engaged in white lead factories are particularly subject to this disease.

3. It may be accidentally acquired from drinking water from lead pipes or cisterns.

Symptoms.—The appearance of poisoning comes on gradually, the patient suffering from languor, impaired appetite, belching of wind, obstinate costiveness or dysentery and other symptoms for some time before the disease itself becomes manifest. One of the principal characteristics of the disease is a colic, which is essentially the same as the ordinary colic excepting that the pain may be more severe and may not entirely stop as in other forms.

If exposure to the poisoning influence continues, serious nervous phenomena come on—usually a palsy which affects the nerves governing the muscles of the fore-arm, giving rise to the condition known as *wrist-drop*, wherein the hand hangs from the wrist and cannot be raised voluntarily. This paralysis gradually extends to the nerves of other muscles, and while it continues the muscles affected also undergo atrophy—shrinking. This shrinking follows paralysis because nourishment is lacking and in consequence the tissues waste. Another valuable symptom, which, however, is not always present, is the existence of a blue line along the margin of the gums where they meet the teeth. This line about the gums does not usually make its appearance until the poisoning is in an advanced state.

TREATMENTS.—

A. Take 5 grains of Iodide of Potassium, dissolved in one tablespoonful of hot water, three times a day—between meals and at bedtime.

Also take, early in the morning and at bedtime, 10 drops of Dilute or Aromatic Sulphuric Acid in a wine glass half full of water.

Keep the bowels open with Epsom Salts in teaspoonful doses. Dissolve in a wine glass half full of warm water and take from one to three times a day as the case requires.

Take a warm bath every day. For this add one teaspoonful of Sal Ammoniac to warm water, and after the bath dry thoroughly with a crash towel.

B. Live largely on milk, and take the following:

Iodide Potassium	3 drachms.
Water.....	4 ounces.

Dose.—Teaspoonful in glass of water between meals and at bedtime.—(10).

C. Laxative of Epsom Salts. Also Iodide of Potash, 10 grains in water three times daily—between meals and at bedtime.—(11).

D. Painters should drink lemonade daily to which is added 10 drops dilute Sulphuric Acid. This amount of Acid may be taken four times a day. Best taken after meals. When colic occurs, take physic of Salts.—(38).

E. Epsom Salts in doses of 2 tablespoonfuls with 10 drops of Laudanum every three hours. After relief use 5 grains of Iodide of Potash every three hours.—(36).

LEPROSY.—(See under SKIN DISEASES).

LEUCÆMIA.—Sometimes called WHITE BLOOD, or ANÆMIA.—This is a disease in which there is an enormous increase in the white blood corpuscles and a diminution in the red ones. The spleen and other lymphatics are greatly enlarged.

Cause.—Unknown.

Symptoms.—There are no early symptoms. There is first *Anæmia* with enlargement of the abdomen, giving a sense of fullness. There are pains in the left side, due to the enlargement of the spleen which is situated on that side. The other glands throughout the body are also more or less enlarged. The patient grows pale and loses his appetite. There is usually diarrhea, also a gradual loss of strength, palpitation of the heart, difficult breathing and swelling of the ankles. The urine is scanty, and there are deep pains—pains in the bones, which are also sensitive to pressure. The blood becomes so light that it looks almost like milk. The spleen may become so large as to nearly fill the whole abdominal cavity. The spleen enlarges more than the other glands because its blood supply is proportionately larger, also because the blood vessels are not continued through the organ

as through other structures, the circulation being continued through openings that are channeled through the spleen itself. This brings the irritating blood in direct contact with the splenic tissue. The liver is enormously enlarged, one reason being that the veins of the spleen empty into the liver. Pressure from the spleen and liver interferes with the lung space, and thus renders breathing difficult. This also accounts for palpitation of the heart. With the loss of lung and heart power the patient is gradually weakened. Loss of strength is also partially due to a lack of nourishment.

TREATMENTS.—

A. These cases may live from one to two years. There is no known treatment that is of benefit. Make the patient as comfortable as possible in the matter of food, bathing, hygiene, pleasant surroundings, etc.

B. Put 2 drachms of Muriate Tincture of Iron into 6 ounces of Simple Syrup and take a teaspoonful three times a day after meals.

Take a small handful of each of the following:—Wild Cherry Bark, Prickly Ash Bark, Burdock Root, Narrow-leaf Dock. Boil to make a decoction and take a tablespoonful four or five times a day.

LEUCORRHEA.—(See under DISEASES OF WOMEN).

LIVER.

The liver, which is of a dark reddish color, is the largest gland in the body. Its weight is from three to four pounds.

Position.—It is situated high up on the right side close to the diaphragm. The diaphragm is a thin membrane which divides the abdominal from the chest cavity. The lower border of the liver corresponds to the lower border of the ribs in front and on the right side. In size the liver is about 12 inches from side to side and 6 or 7 inches from before backward. Its thickness from above downward is 3 inches in the median line, or center of the body, 4 inches on a vertical line corresponding to the right nipple, 4½ inches in the median line on the right side, and 4 inches behind at a point corresponding to the junction of the ninth rib with the spinal column. The upper surface of the liver is round where it lies in contact with the diaphragm; the under surface is hollow where it lies in contact with the stomach and right kidney. There is a large fissure

in the under surface which divides the liver into two lobes, right and left. The right is much the larger. The left extends for a distance of two or three inches to the left of the center of the body. It should be remembered that the position of the liver changes with the position of the body.

The liver is composed of small lobules held together by a connective tissue framework. The lobules are about as large as a millet seed. The return circulation from the lower extremities and lower half of the body passes through the liver. This circulation enters the liver through a large vein called the *portal vein*. Upon entering the liver this vein divides and subdivides into many minute branches, and these branches terminate in and around the little lobules. The lobules are hollow, with an opening in the bottom of each. Through this opening the return circulation is continued. The cavity in the little lobules is the beginning of what is called the *hepatic vein*. As the blood passes out through the openings the delicate channels unite and re-unite until all are joined, forming the hepatic vein, which leaves the liver and enters the ascending *vena cava*, a large vein which leads directly to the heart. It will be seen that the portal vein terminates in the lobules and the hepatic vein commences in them. The artery which supplies the liver with nourishment also breaks up into many minute branches, and these branches terminate in and around the little lobules, the same as the branches of the veins. The lobules also contain nerve fibers and lymphatics, so that, strictly speaking, each lobule is an independent gland by itself. The bile ducts commence in minute channels between the lobules and also in the clefts or minute spaces between the cells of which the lobules are formed. They join together, forming what is called the hepatic ducts—two in number, one from each lobe. These are about $1\frac{1}{2}$ inches in length.

The *gall bladder* is a pear-shaped membranous sac, about 4 inches in length and 1 inch in breadth, and holds a little over one ounce. It is situated on the right side under the ninth rib near the chest bone. It is a reservoir for the bile. The duct leading from it is about one inch in length and joins the hepatic ducts, or those leading from the liver; together they form the common duct, and this enters the bowel about $3\frac{1}{2}$ inches below the stomach. The liver cells manufacture bile, and convert glucose, or grape sugar, into a substance called *glycogen*. This is stored up by the liver cells and given to the circulation as fast as the system needs it. The glycogen readily unites with the oxygen in the circulation and aids in producing heat. The return circulation brings the blood directly from the digestive organs, hence the liver aids in producing important digestive changes that are carried on in the circulation.

The liver is subject to the following diseases:

Abscess,
Amyloid Degeneration,
Atrophy, Acute Yellow,
Congestion,
Cirrhosis, or Gin-Drinker s Liver.

ABSCESS OF THE LIVER.—*Cause.*—Abscess of the liver is caused by an unhealthy condition of the digestive tract. The veins from this tract—stomach, spleen, bowels, etc.—unite to form the portal vein. This enters the liver and breaks up into many small vessels which penetrate all parts of the organ. As they pass out they unite to form the hepatic vein which enters the ascending vena cava (see description of liver). It will readily be seen that the liver is subject to the morbid effects of indigestion as the poisons developed in the bowels are carried direct to the liver. Inflammation is the result. This lessens the amount of bile, the absence of which interferes with digestion and elimination still more, in turn more poisons are poured into the liver, and thus the abscess grows.

Symptoms.—Disturbance of digestion, poor appetite and fever, followed by vomiting and irritability, and, as the disease advances, by debility and perhaps melancholia. Later there are typhoid symptoms as a result of the unhealthy condition of the bowels. Jaundice, or yellow discoloration of the skin, is slight, as the amount of bile manufactured by the liver is lessened in proportion to the advancement of the abscess. The liver is enlarged and, as the abscess grows, the soreness in the right side increases. If the abscess breaks externally, as it nears the surface the tenderness is increased. Later, swelling and fluctuation can be detected. Abscess of the liver may break into the chest cavity and may penetrate the delicate membrane which surrounds the lungs. In this case it would communicate with the bronchial tubes and be expectorated. It may break into the stomach, into the bowels or into the abdominal cavity. Following any of these last mentioned results the external evidence would be less prominent. The situation may be more readily understood when we remember that the liver is placed in contact with each of the cavities and organs mentioned, and, as a result of inflammatory adhesions to the surfaces of any of these, destruction of tissue might follow with some one of the results mentioned.

TREATMENTS.—

A. There is one rule which has no exception, and that is, wherever pus is located, the abscess should be opened at once. This is as true with abscess of the liver as though it were located anywhere else. The treatment consists mainly in supporting

measures, hygiene, food and attention to the bowels. If the fever is very high, a small dose of Aconite may be given for a limited time, say 1 drop of the tincture every hour. Internally, give 10 grains of Salol three times a day, increasing the amount if the eliminations give offensive odor. If dyspepsia is troublesome, give artificial digestants for a time, as:

Pepsin (1 to 3,000).....	2 drachms.
Fowler's Solution.....	2 "
Muriatic Acid (pure).....	20 drops.
Glycerine	1 ounce.
Water	2 "

Mix all together and take one teaspoonful after meals.

Give one teaspoonful of Bovinine in half a glass of hot milk with each meal. If the patient can take it, increase the amount of Bovinine (which is exceedingly nutritious) to one tablespoonful at each meal. Every attention should be paid to a nourishing diet. Also give $\frac{1}{10}$ of a grain of Iodide of Arsenic between meals.

B. 3-grain doses of Quinine every four hours. In nearly all cases it is necessary to maintain strength by a most nutritious diet. Egg-nog may be taken at meal time, or an equal time between meals so as not to disturb the stomach by too frequent and injudicious feeding. Wine whey is nourishing, and milk and lime water have a most excellent effect on the stomach, maintaining a healthy condition. Stimulants are likely to be needed. If there should be severe pain at any time, a little Morphine may be given, say $\frac{1}{8}$ grain combined with the Quinine.

AMYLOID DEGENERATION.—Amyloid degeneration is a term applied where the tissues of an organ present a starchy or albuminous appearance. Such degeneration usually affects the liver and kidneys, but may affect other organs.

Cause.—Amyloid degeneration is not a primary disease in the organ affected, but is the result of infiltration from without; that is, it is an evidence of chronic disease or suppuration in some other part of the body. It may result from inflammation and suppuration of bone, from syphilis, from tuberculosis, and possibly from cancer. These diseases rob the blood of the normal amount of alkaline salts, and also lessen its amount of fibrine, and amyloid degeneration found in the liver or kidneys is the result of some of these diseases. The absence of the normal amount of salts or fibrine in the blood gives to these organs the starchy or waxy appearance which characterizes the disease. Degeneration of the liver usually occurs first, and degeneration of the kidneys secondarily.

Symptoms.—When occurring in the liver, that organ becomes enlarged, and later the kidneys also become enlarged. There is no pain, but some increase in the amount of urine; the urine contains albumen. There are disorders of digestion and, later, diarrhea from similar degenerative changes in the digestive tract. There is also a general wasting of the flesh. There is but little or no jaundice for the reason that the bile ducts of the liver remain open, and for the still greater reason that there is but little bile manufactured, the amount diminishing as the disease progresses. Amyloid degeneration does not obstruct the portal (return) circulation, hence there is no abdominal dropsy. When the kidneys are involved, abdominal dropsy may be present, because the kidneys, first enlarged, afterwards become shrunken, interfering with the circulation. As the disease progresses the liver also shrinks from the same cause.

TREATMENTS.—

A. If there is a history of syphilis, give anti-syphilitic remedies. If it is the result of suppuration in bone, it calls for an operation. The bone should be thoroughly scraped and all the dead tissue removed. If the result of consumption, see the treatment under that head. In all cases there should be attention to digestion, ventilation, proper exercise, clothing, etc. If due to suppuration in bone or to consumption, early treatment would probably prove successful. If the disease is well developed, there is but little hope.

B. The primary cause should be ascertained and, if possible, relieved. The following alterative treatment is recommended:

Take a small handful each of Wild Cherry bark, Prickly Ash bark, Dandelion root and Culver's root, steep to make a decoction, sweeten with rock candy if desired, and drink freely. Wear warm clothing and apply counter-irritants, such as Mustard plasters, etc., over the liver. Bathe in hot water in which has been put a little salt and Muriate of Ammonia and a tablespoonful of Mustard, mixed well with the water before bathing.

ACUTE YELLOW ATROPHY — MALIGNANT JAUNDICE.—This is a disease of the liver resulting in rapid destruction of that organ. The disease runs a rapid course—the patient is jaundiced. Duration, a week or ten days; termination, death.

Cause.—While there is no cause given for this disease, we believe that it is caused by the retention of poisons in the system. The vitality of the patient may hold out until the system is so thoroughly overcome that collapse and rapid death are the result;

and we think the condition of the patient supports this view. It is not the liver alone that is affected; we believe the primary cause to be in the digestive tract. The return circulation from the digestive organs goes direct to the liver. The large vein which carries the venous blood divides on reaching the liver, and subdivides into minute branches which penetrate all parts of the organ, and thus the poison is brought into direct relation with the whole structure; hence it is not strange that it may be so overcome by the morbid influence of septic blood as to pass through the rapid degenerative changes mentioned. With the increase in the liver trouble, the circulation is checked. This increases the congestion of the stomach and bowels, hence the vomiting of blood which may occur in this disease. In health the return circulation from the spleen passes through the liver. During the progress of the disease the circulation is checked and the poisoned blood is dammed back, hence enlargement of the spleen occurs.

Symptoms.—The first symptom is the catarrhal condition of the stomach and bowels; the tongue is badly coated, there is headache, vomiting and nausea, quick pulse and a little fever. The jaundice rapidly increases, the spleen becomes enlarged, the urine contains bile and albumen, and a lessened amount of urea is eliminated. Nausea is followed by vomiting of blood dark in color, showing the congestion of the stomach; the eliminations from the bowels show the desperate state of disease in the digestive tract; yet the return circulation carries the poisons from both stomach and bowels and empties them into the liver. This supports our belief that disease of the liver is secondary. The liver degenerates rapidly. Its structures break down and it becomes very small.

TREATMENT.—

Medical works contain no treatment of this disease excepting symptomatic, *i. e.*, make the patient as comfortable as possible by treating the symptoms. We wish, however, to recommend the treatment given for *Hydrophobia*. If there is anything that will help in this disease, it is thorough and *early* elimination. Stimulants should be added as the case requires. We would also recommend the addition of $\frac{1}{10}$ of a grain of Calomel every half hour for ten doses, then every hour for ten doses; also the most nourishing food to be given at frequent intervals. For the vomiting, a large Mustard plaster should be placed over the stomach, and equal parts of milk and lime water given frequently in small quantities. Crust or corn coffee is also excellent in case of vomiting, and may be readily prepared.

CONGESTION OF THE LIVER—BILIOUSNESS
—“**LIVER COMPLAINT.**”—In this disease the vessels of the liver contain too much blood and the organ may be slightly enlarged on this account. There is a sense of fullness on the right side, and there may be a feeling of soreness.

Cause.—It may be caused by the liberal use of alcohol. The most frequent cause is indigestion and constipation. It is also supposed to be influenced by taking cold.

Symptoms.—The symptoms depend upon the amount of congestion. If slight, the symptoms are slight; if the congestion reaches the point of inflammation, the symptoms are severer. In a mild case of congestion there may be headache and a dull feeling, there may be fever, the patient may experience slight pains throughout the system, the tongue may be coated and the appetite interfered with; an increase of this trouble would constitute catarrhal jaundice. There is no strictly dividing line between the two. In severer cases, in addition to the symptoms given there would be nausea, vomiting, pain in the right side, and the skin and white of the eye would show a yellowish tinge. There would also be pain in the right shoulder. The last symptom belongs to catarrhal jaundice, and would not be met with in a simple case of *Biliousness*, or *Congestion of the Liver*.

TREATMENTS.—

A. Give an active cathartic. Castor Oil or Salts may be used, but we believe in these cases that 5 to 10 grains of Calomel should be given at night, followed the next morning by a tablespoonful of Castor Oil or Salts. Seidlitz Salts (see *Index*) may be used instead of the Epsom or Rochelle Salts. The patient should diet for two or three days and, if the action of the liver is sluggish and there is a tendency to constipation, should continue the Seidlitz Salts in one or two teaspoonful doses every morning; or take one teaspoonful of Phosphate of Soda in half a glass of water one hour before meals, more or less as needed. Phosphate of Soda is not so pleasant to take as the Seidlitz, and it is not so effectual in its action in the digestive tract, but it is a better liver stimulant. With ordinary care these cases recover in a few days, and usually a doctor is not needed.

B. Apply a Mustard plaster over the region of the liver. Make a syrup of Wild Cherry and Prickly Ash bark and give tablespoonful doses four or five times a day. If the case is persistent—if there is jaundice, digestive disturbances, pain, soreness and enlargement on the right side, keep the bowels active and give proper attention to diet. If there is fever, give 1 or 2-drop doses of Tincture of Aconite or Fluid Extract of Veratrum every

two hours. If the evidence of abscess continues, apply large hot poultices to hasten its formation, and open early.

C. Bilious Tonic.—

Oil of Wintergreen.....	1	teaspoonful.
Oil of Peppermint.....	5	drops.
Oil of Lemon.....	15	"
Alcohol.....	½	pint.
Water.....	½	"
Sulphuric Acid.....	30	drops.

Mix well, and add the following:

Red Peruvian Bark, finely pulverized.....	2	ounces.
Rhubarb Root, finely pul- verized.....	1	ounce.
Simple Syrup, or Molasses, enough to make all together	1	quart.

Those who are acted upon easily by cathartics cannot bear more than half this quantity of Rhubarb. Let such have it made accordingly. The object of its use is to keep the bowels just solvent, not loose like diarrhea.

The oils and acid should be put into the Alcohol first, then the water, and afterwards the bark and Rhubarb. Allow to stand for ten days, shaking the bottle two or three times each day; then strain carefully through muslin, or filter through filtering paper, which may be obtained at any drug store, and add the syrup or molasses.

Dose.—For an adult 1 to 2 teaspoonfuls four times daily, at meals and bedtime; for a child of twelve years, half this dose. If very bilious and costive, take a full cathartic dose of Rhubarb, or such other cathartic medicine as you are in the habit of using, to move the bowels freely.

This will be found a valuable tonic in all cases requiring one. Especially recommended as a spring tonic. Also valuable in agues and remittent fevers. Repeat at intervals of a week, two or three times if needed. In nearly every case a permanent cure will be effected if the medicine is taken three or four days at each repetition.

D. Sulphate of Quinine.....	1	drachm.
Syrup of Rhubarb.....	4	ounces.
Simple Elixir, enough to make....	8	"

Dissolve the Quinine in the Elixir and add the Rhubarb.

This preparation is needed only when there is constipation present.

Dose.—The average dose would be a teaspoonful two or three times a day. Enough must be taken to cause normal evacuation—at least one movement of the bowels every day. It will be

necessary for each one to gauge the dose according to his individual needs.

CIRRHOSIS OF THE LIVER—GIN DRINKER'S LIVER—CHRONIC INFLAMMATION.—As stated in the description of the liver, the organ is formed of many little lobules held together by a framework of connective tissue. This disease consists in an overgrowth of this framework, which later shrinks and destroys the organ. As stated under **ALCOHOL**, connective tissue resulting from inflammation always shrinks. During the early stages there is congestion, and later there is a low form of inflammation. This, with the increased growth of the connective tissue, causes the liver to enlarge. The edges of the organ are rounded, smooth and thickened. The cells of which the organ is formed may also be swollen and contain more or less fat. With the increase in the connective tissue new blood vessels form. These are derived from the artery which supplies the liver. If a cut surface of the liver could be examined at this time, connective tissue overgrowth would be visible to the naked eye. The remaining lobules of which the liver is formed would so contrast with the new tissue as to present a granular appearance. Jaundice is usually slight, as the bile capillaries, or channels through which the bile flows, are interfered with but little. In health these capillaries or channels have their origin between the lobules and between the cells of which the lobules are formed. Gradually these cells are obliterated, and thus the bile channels are made larger. A greater reason for the absence of jaundice is the destruction of the cells which manufacture bile. Such destruction is the result of pressure from the new tissue growth and, later, its contraction. The new tissue fibers enclose within their meshes the little lobules of which the liver is formed, and the contraction of this tissue destroys them. Their more active cells maintain their individuality longest, but finally disappear.

Contraction of the new tissue not only destroys the liver cells, but obliterates the vessels, and the digestive work which in health is carried on by the liver is interfered with. A loss of nutrition results, and gradually the whole system suffers. The organ decreases in size, such decrease being in proportion to the amount of the new tissue and its contraction. This shrinkage is called *Atrophy*. The surface is shrunken irregularly and the edges are nodular (lumpy), the hardening being most marked along the front edge because it is thinner, and more in the right lobe than in the left because it is larger. The shrinkage of the liver prevents more or less the return of the blood that passes through it. The return circulation comes from the stomach, digestive tract and spleen. The blood is forced back to these

organs and congestion and inflammation follow. The patient may vomit blood (seldom). There may be chronic dyspepsia, diarrhea, enlarged spleen, piles or abdominal dropsy, or more than one of these conditions may exist at the same time. This disease is called *Cirrhosis* or *Sclerosis*, meaning a hardening. It is also called *Hob-Nailed Liver*, *Rum Drinker's Liver*, *Whiskey Liver*, etc.

Cause.—The continued and prolonged use of liquor. With the single exception of syphilis, it is claimed this disease can only be produced by alcohol. It is frequently met in habitual drunkards.

Symptoms.—During the early stages of inflammation, liver abscess may form; or death may occur in the earlier stages before the liver has had time to shrink. There are no early symptoms. The first evidence of this disease is dyspepsia and the morning vomiting of drunkards. Later there may be diarrhea, or there may be traces of blood in the ejections from the stomach or in the eliminations from the bowels. As the disease progresses there is abdominal dropsy, the abdomen eventually becoming enormously distended.

TREATMENT.—

There is no treatment that is of benefit. By increasing the activity of the bowels the dropsy may be overcome to some extent. It is necessary to exercise judgment in regard to food—to avoid those things that disturb the stomach, etc. Sooner or later it will be found necessary to tap the abdomen in order to draw off the amount of fluid. This process will need to be repeated from time to time. The disease is fatal.

Alcoholic liquors should be entirely given up, and the use of tea, coffee, and highly seasoned animal foods discontinued. Fats, and foods containing large quantities of sugar, should be avoided. Juicy plants, such as lettuce, celery, cabbage, etc., should be substituted for starchy vegetables. A diet largely composed of skimmed milk is nutritious. A good remedy is equal parts of Mandrake root and Culver root mixed and taken in 3-grain doses from one to three times a day, or sufficiently often to keep the bowels open.

LOCKJAW—TETANUS.—This is a formidable disease, caused by involuntary, persistent, independent and painful contractions or spasms of certain muscles, usually the muscles of the jaw, neck and throat. However, a great number of muscles may be involved, including nearly the whole body.

Cause.—A certain specific poison, which is thought most often to follow penetrating wounds—those made by rusty nails, etc. The poison is also sometimes communicated by vaccination. Its source is not always known.

Symptoms.—First noticed in the muscles of the neck and jaw; the neck becomes stiff and the jaw is moved with difficulty. Swallowing becomes difficult, because the muscles controlling the action become more or less involved. Gradually this feeling of stiffness increases until the muscles become rigid and the jaws are firmly closed. In exceptional cases the muscles of the back may be involved, drawing the head back, the feet are drawn in the same direction, the body forming an arch; or the body may be bent sideways or forwards. Usually this does not occur. The diaphragm may be more or less involved, producing what are called *girdle pains*. These and other pains produced by this disease are sharp and agonizing. Any slight noise, or a sudden draft striking the patient, may produce convulsions. This increases the pain and suffering. There is usually constipation, the amount of urine is diminished and there is moderate fever. Sleeplessness may be a troublesome feature. The mind remains clear. If the muscles of respiration, or those controlling the glottis—the small space between the vocal chords through which the air passes—become involved, the case is serious at once. When death occurs, it usually is within one week.

TREATMENTS.—

A. It is sometimes necessary to extract a tooth and feed the patient through a tube. If there are already any teeth missing, the extraction will not be necessary. Strict attention must be paid to ventilation, avoiding all drafts. Watch the action of the kidneys; if they fail to excrete the normal amount of urine, other means of elimination must be resorted to. Increase the activity of the bowels; give large doses of Jalap and Scammony because they produce copious watery evacuations. These remedies can be given in solution by the same method as that of feeding. To relax the system, Bromide of Potash, Chloral, Morphine, Physostigmine, Opium, Chloroform, Apomorphine, Hyoscyamine, Indian Hemp, Aconite, Tartar Emetic, Curare, Anti-tetanic Serum and other remedies have been recommended; but to relieve the necessity of choosing from this formidable array, we can assure the reader that they are without value. The Atropine and Pilocarpine treatment given for *Hydrophobia* will not only relieve, but will unquestionably cure many of these cases.

B. Another, and we believe a better, treatment is sweating by artificial heat as described under Cerebro-Spinal Meningitis, and for the same reasons. In Lockjaw the pain is due to the great muscular tension. Heat relieves this condition, eases the pain and eliminates the poison. Heat should be applied until sweating

is profuse, and applied often enough and continued long enough to give relief. To dabble with Lockjaw Serum or Antitoxine is a crime against the patient.

C. If there is a wound, wash frequently with Turpentine. Pour Turpentine into the wound, or if it is a hole caused by a nail, inject the Turpentine with small syringe. This is to prevent lockjaw.—(38).

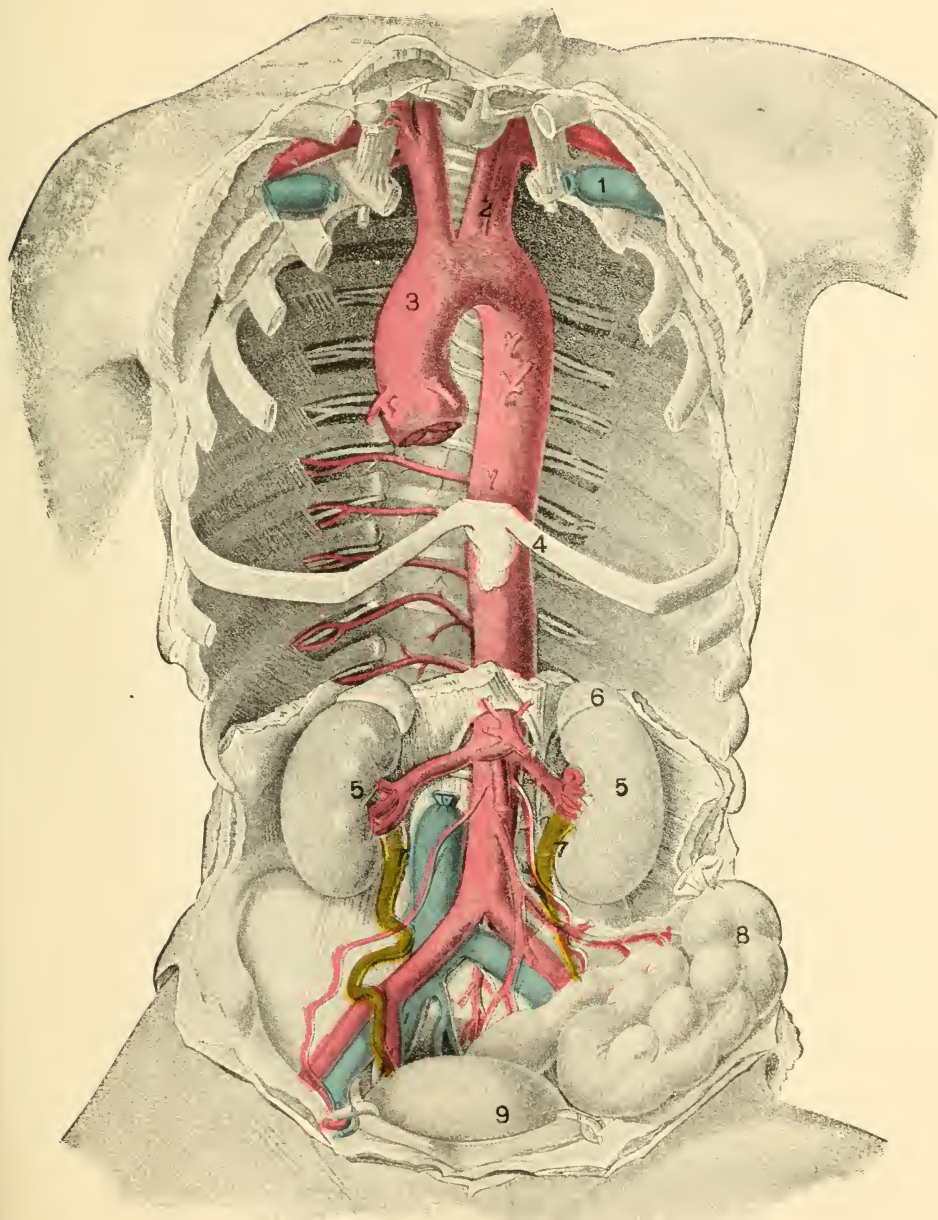
D. Specific Gelsemium, 5 drops every hour until the whole system is relaxed, then gradually reduce the dose. Midway between every dose give full doses of Specific Passiflora. Continue this treatment until the spasms cease.—(30).

E. Gelsemium, fluid extract..... ½ drachm.
 Hyoscyamus, “ “ 3 “
 Lithiated Hydrangea..... 4 ounces.

Mix, and give ½ teaspoonful every three or four hours.—(47).

LOCOMOTOR ATAXIA.—This is a chronic inflammation of the spinal cord. The inflammation is followed by an overgrowth and contraction of the connective tissue framework, and a corresponding degeneration of the natural tissue—nerve cells and nerve fibers. The disease is usually divided into three stages, yet these stages are not altogether separate, but merge one into another; or some of the symptoms under one stage may be present earlier or later than here indicated. In the first stage there are sharp pains in the lower extremities, sometimes spoken of as *lightning* pains. The optic nerve is easily affected. In the second stage there is inco-ordination, that is, inability to control or harmonize the action of certain groups of voluntary muscles in the lower extremities. The third stage is that of paralysis. The disease runs a chronic course, lasting for years. There may be quite long periods of time when it seems to remain stationary, and then it progresses a step further. It may last ten or fifteen years.

The first evidence of the disease is manifested in the lower extremities, because the disease commences in the lower part of the spinal cord and it is in this part that the nerves governing the lower extremities have their origin. As the disease progresses the inflammatory and degenerative changes extend up the cord. When it reaches the cervical portion of the cord, or that portion situated in the neck, the arms and hands experience a condition similar to that first experienced in the lower extremities, because the nerves governing them have their origin in that



No. 10.

1, Vein. 2, Artery. 3, Large Artery from Heart. 4, Diaphragm (cut off). 5, Kidneys. 6, Supra-renal Capsule. 7, Ureter. 8, Large Intestine. 9, Bladder.

part of the cord situated in the neck. The disease ultimately proves fatal.

Cause.—The cause is the same as that given under paralysis.

Symptoms.—Before any of the symptoms present themselves there is evidence of dyspepsia. There is nausea, and may be vomiting; there are also neuralgic pains in the stomach and bowels. This is evidence that the digestive organs are primarily at fault.

First Stage.—The first noticeable symptoms are absence of the knee-jerk, pains extending down the lower limbs, and unequal dilatation of the pupils of the eye. If the reader will place one limb over the opposite knee, and with the edge of the hand strike a light, sharp blow across or just below the knee-cap, there will be a slight convulsive jerk of the suspended foot. The absence of such jerk constitutes the sign or symptom mentioned. This is called Westphal's sign. The first effects of inflammation are those of a stimulus, hence the pain and inco-ordination. The patient is unable to control his movements by reason of the constant presence of the disease. The stimulus first manifests itself in the lower part of the cord and extends higher up. When affecting that part just below and between the shoulder blades, there is pain and a feeling of constriction about the chest, because the nerves supplying the chest muscles have their origin in that part of the cord. These pains are sometimes called *girdle* pains. The inequality of the pupils constitutes what is called the Argyll-Robertson sign.

Second Stage.—Inco-ordination is increased. The patient is unable to stand with the feet together and the eyes closed. This is called Romberg's sign or symptom. Later, he loses control until in attempting to walk the feet fly in all directions. In the beginning of this stage there is a sensory disturbance, *i. e.*, a loss of sensation, which commences in the soles of the feet. First there is a sense of numbness, which gradually extends along the limbs. This condition, or change, continues to increase until paralysis is complete.

With the loss of sensation sores are apt to occur on the affected surface. The joints may become swollen and the swelling be followed with degenerative changes. If the patient lies in bed, bed sores are troublesome. These sores and swellings are not painful, but they cannot be cured; on the contrary, they continue to grow in size and new ones form.

Third Stage.—Paralysis, more or less complete.

The following signs are unmistakable evidence of *Locomotor Ataxia*:

Westphal's sign, or loss of knee-jerk.

Argyll-Robertson sign, or loss of pupil reflex.

Romberg's sign, or inability to stand with the feet together and eyes closed.

TREATMENTS.—

A. There is no specific treatment for this disease. Resting several hours a day is undoubtedly of advantage. The Iodides may be given in some form—1 teaspoonful of the Syrup of Hydriodic Acid three times a day, between meals and at bedtime. Tonics may be given, if needed. The greatest care should be exercised regarding diet and hygiene. If caused by alcohol, its use should be discontinued; if the result of syphilis, see treatment under that head; if there is a history of constipation or rheumatism, it will be evidence that the disease is the result of indigestion and a lack of elimination, as described under *Paralysis*.

B. One of the chief objects is to protect the patient from cold and damp. Keep him in a uniform temperature. A good and wholesome diet is necessary, and the persistent use of Cod Liver Oil is beneficial. Massage is also beneficial. Rest is useful. The patient should lie down for two or three hours each day.—(72).

C. Calabar Bean..... 10 grains.
Ginger, powdered..... 20 "
Make into 20 pills and take 1 three times a day. Exalgine is recommended for relief of the lightning pains.—(28).

D. If due to syphilis, constitutional treatment for syphilis; if due to excessive drink or other dissipation, the proper care in such cases.

Consult the best regular and reputable physician within your means and take his advice as to treatment.—(69).

E. *External Treatment*.—Strong rubbing of the whole spine with strong sedative ointment three times a day.

Note.—See *Ointments Nos 5 and 6*, under MISCELLANEOUS MEDICAL RECEIPTS.

Internal Treatment.—Fellows' Syrup of Hypophosphites—teaspoonful after meals and at bedtime—four doses a day.—(24).

F. The following prescription has been used by the writer in over one hundred cases of *Locomotor Ataxia*. As a curative, nothing is better.

Iodide of Potash..... 5 drachms.
Corrosive Sublimate..... 1 grain.
Water..... 4 ounces.

Dose.—Take one teaspoonful after meals.—(57).

LUMBAGO.—(See under RHEUMATISM).

LUMPJAW — ACTINOMYCOCIS. — This disease is said to be caused by a parasite. It occurs in cattle, usually in the jaw, forming a large lump; hence the name, *Lumpjaw*. The disease also sometimes occurs in man.

Symptoms.—When occurring in man and on the surface of the body, it may resemble tuberculosis of the skin. If in the lungs, there is fever, cough, and wasting of flesh.

TREATMENTS.—

A. Some advise a 50 per cent solution of Carbolic Acid to be injected around the growth, when it can be reached, and repeated in three or four days. Give large doses of Iodide of Potash internally. The best treatment is complete removal of the growth by a surgeon. If the disease occurs in the internal organs, as the lungs or digestive tract, there is no known treatment that will cure.

B. Bathe affected part with Tincture of Iodine. Keep bowels open with Salts and Cream of Tartar.

Syrup *Stillingia* Compound..... 4 ounces.
Iodide of Potassium..... 1 drachm.

Take a teaspoonful three times a day.

THE LUNGS AND THEIR DISEASES.

The two lungs, which are the organs of respiration, are placed in the chest cavity. They are somewhat narrow above, but broader below. The right lung is a little larger than the left because the heart is mostly in the left side, thus occupying a larger portion of that space. The average weight of the left lung is 20 ounces, and of the right, 22 ounces.

Position.—The lungs extend quite high up into the side of the neck, the highest point being from 1 to 1½ inches above the collar bone; below they extend to the sixth rib in the front, eighth rib in the side and tenth rib behind. When taking a full breath they expand and extend downward about two inches farther.

The Air Tubes.—These begin in the throat. There is one large tube, the *trachea*. Its commencement may be indicated by that prominence in the throat often spoken of as "Adam's Apple." This tube, the *trachea*, extends downward for a distance of nine inches, then divides into two branches. These re-

divide, becoming smaller until their minute subdivisions penetrate all parts of the lung substance.

The Air Cells.—At the termination of each tube there are two or three small dilatations, like little hollow beads, or like three currants on the end of a small twig if the currants and twig were hollow. These dilatations are the air cells. Both tubes and cells are lined with mucous membrane, which is continuous from the mouth and throat. The air cells vary in size, the average size being $\frac{1}{150}$ to $\frac{1}{125}$ of an inch in diameter. It is estimated that there are six hundred millions of these air cells in the lungs, and that their combined surface is more than seven times greater than the whole outer surface of the body. The air cells and air tubes are held together by elastic connective tissue, hence the power of the lungs to expand and contract.

Purification of the Blood.—The lungs are supplied by two sets of vessels: One set nourishes the organs, and the other set envelops or surrounds the air cells for the purpose of absorbing the oxygen from the air we breathe. This set is placed just beneath the delicate mucous membrane which lines the cells. Animal membrane has the power of admitting gases (oxygen) and yet remain impervious to fluid (blood). The system of vessels which supplies the lungs with nourishment and the system through which oxygen is absorbed, are entirely separate. The system which supplies nourishment has its origin in the lower left side of the heart, while that carrying the blood for oxidization comes from the right side of the heart. The blood sent for nourishment is bright red, and that sent for oxidization is dark, venous, and contains many impurities. Carbonic acid gas generated in the system is eliminated through the air tubes of the lungs, also many other poisons. It is estimated that from one to one and one-half pints of fluid (water) is eliminated by the lungs every twenty-four hours. This liquid vapor contains many deadly poisons, the nature of which is not well understood. The system of vessels through which the blood is purified, and which lies just beneath the delicate mucous membrane which lines the air cells, gives off carbonic acid gas and other poisons. These poisons escape through this membrane, and in return oxygen is absorbed through it, and by reason of this exchange the dark, venous blood is freed from its impurities and rendered bright red. It then passes on to the left side of the heart and is sent out through the general circulation to nourish the body.

Following digestion, the food elements which are absorbed into the circulation are carried by the veins to the right side of the heart, and from there are sent with the venous blood into the lungs. Meeting the oxygen which has been absorbed, these food elements undergo many important changes, hence the statement

under *Epilepsy* ("C") that the higher forms of digestion are carried on in the circulation.

BRONCHITIS.—The bronchial tube commences at the throat as a single opening. The first part of this opening is called the larynx or organ of voice. It includes the vocal chords and is supported in front by what is called "Adam's Apple." This part of the opening is about 4 inches in length. The next part of the opening is called the trachea, meaning the windpipe. This is about $4\frac{1}{2}$ inches in length and nearly 1 inch in diameter. This divides into two branches. The one on the right side is about 1 inch long, and the one on the left side about $1\frac{3}{4}$ inches long. These enter the lungs and divide and subdivide until they permeate all parts of the lung structure and terminate in small dilatations called air cells. The tubes, large and small, also the air cells, are lined with mucous membrane which is continuous with that lining the mouth and throat. The trachea and air tubes are formed of three membranes or coats: The external coat or covering is a layer of elastic fibrous tissue; next is the muscular coat, and internally is the mucous membrane. The trachea and its larger branches are also supported by rings formed of cartilage. These rings surround the muscular coat and are enveloped by the external elastic or fibrous coat. The rings are not complete on the posterior or back side, but are connected by the fibrous tissue.

Bronchitis means inflammation of the mucous membrane lining the air tubes, but does not include the smaller tubes or air cells. Usually the inflammation affects only the large and medium sized tubes. *Acute Bronchitis* is a disease of quite common occurrence. *Chronic Bronchitis* may follow the acute, or may result from other causes.

Cause.—The cause of *Acute Bronchitis* is atmospheric changes, the same as those which produce other forms of catarrhal colds. Just what those changes are or how they affect the system, no one knows.

Symptoms.—The symptoms of *Acute Bronchitis* are those of a common cold, which it accompanies. The catarrhal conditions of the nasal cavities and the throat extend downward into the air tubes. The voice is altered, and in a day or two expectoration is increased. Headache is often present, there is a feeling of oppression and tightness in the chest, and cough commences as soon as the disease enters the bronchial tubes. At first the cough is dry, and sometimes fierce and ringing. Later, with the increase in the secretions, the cough becomes looser and expectoration more profuse. As the disease continues, the secretions become

thicker, more tenacious and yellowish in color. The cough produces pain beneath the chest bone. It also produces a feeling of soreness and rawness in the same place as the effect of inflammation in the trachea. There is usually some fever, and the pulse is more rapid than normal. Respiration is increased, because the thickening of the mucous membrane, together with the catarrhal secretions which soon follow, lessen the air space, and Nature tries to supply the needs of the system by more rapid breathing.

TREATMENTS.—

What to Do.—An acute attack of bronchitis should be avoided, if possible, by care and proper treatment during the early stages; that is, if one is subject to bronchitis he should give immediate attention to a simple "cold in the head" and try to prevent it from extending to the bronchial passages. However, if an acute attack occurs, he should be given a hot Mustard foot-bath and placed in a room where the air is kept moistened with hot vapor, as steam from a kettle of boiling water. Bathe the throat and chest freely with Camphorated Oil (oil, or even melted lard, in which Camphor Gum has been dissolved) and protect with flannels. A syrup made of Horehound, or of Horehound and Licorice combined, is an excellent remedy to give. The bowels should be regulated, and for a few days the patient should remain in a well ventilated room with a uniform temperature of 70 degrees.

- A. Fluid Extract Digitalis..... 12 drops.
 Fluid Extract Ipecac..... 24 "
 Tincture Aconite..... 12 "
 Simple Elixir add to make..... 2 ounces.

Mix, and take a teaspoonful every one or two hours as needed.

- B. Citrate of Potash..... 6 drachms.
 Liquor Ammonia Acetatis..... 5 ounces.
 Sweet Spirits Nitre..... 1 ounce.
 Fluid Extract Ipecac..... 1 drachm.
 Syrup Wild Cherry, add to..... 8 ounces.

Mix, and take 1 teaspoonful in water every three hours.—(46).

C. Get an ounce of Syrup of Ipecac and take 5 to 6 drops every one to three hours to loosen cough.

An adult may take the following :

- Paregoric..... 1 ounce.
 Syrup Ipecac..... $\frac{1}{4}$ ounce.
 Syrup 3 ounces.

Take a teaspoonful every two to three hours.
 —(13).

- D. Syrup of Ipecac..... ½ ounce.
 Tincture of Bloodroot..... 1 drachm.
 Syrup of Tolu, enough to make..... 4 ounces
Mix, and take 1 teaspoonful every three hours.—(12).

E. Paregoric and Whiskey, one part of the former to two of the latter, well mixed. Dose, 1 teaspoonful every three hours.—(7).

F. Camphor and Ginger jacket, applied to chest.—(6).

CHRONIC BRONCHITIS.—In *Chronic Bronchitis* there are structural changes in all the coats of the air passages. These changes commence in the mucous membrane, and later include the muscular and the external layers. Any inflammation becomes chronic when it continues until there is an overgrowth of connective tissue.

Cause.—Chronic bronchitis may be caused by the prolonged use of alcohol, or by irritating dust, as met with in factories, shops, stone quarries and iron works. It may also be caused by the inhalation of irritating vapors in those who are constantly exposed to them. It may result from Bright's disease where the blood is forced back into the lungs and heart, because this would produce congestion and later result in inflammation. It may result from the same conditions that produce rheumatism, that is, where the blood contains uric acid and other irritants. The constant presence of such irritating matter would produce congestion and, later, inflammation.

Changes Occurring in the Bronchial Tubes in Chronic Bronchitis.—In the chronic form the mucous membrane becomes greatly thickened and swollen. The inflammation reaches the deeper structures, that is, the tissues which unite the mucous membrane to the muscular coat, and there is an overgrowth of tissue. The muscular coat and external fibrous coat also become infiltrated with this overgrowth. This new tissue is a form of connective tissue which later contracts and hardens. The rings mentioned, which normally are composed of cartilage, may become infiltrated with lime salts, and thus become firm and resistant like bone. The tubes lose their elasticity and are more or less widely dilated. The dilatation may be uniform, or some parts may be more widely dilated than others, thus giving them a sacculated appearance. Expectoration is profuse, especially in the morning, the secretions having collected during the night. When the secretions are profuse it is sometimes called *Bronchorrhea*. With the unequal dilatation in the tubes the secretions are difficult to dislodge, hence degenerative processes may take place, giving the breath and expectorated matter a foul odor. This is sometimes called

Fetid Bronchitis. In some cases the secretions and expectoration are diminished. This is called *Dry Bronchitis*.

TREATMENTS.—

A. Acetic Tincture of Bloodroot.....	½ ounce.
Tincture of Black Cohosh.....	½ “
Syrup of Tolu.....	½ “
Wine of Ipecacuanha.....	½ “
Sweet Spirits of Nitre	I “

Mix, and take a teaspoonful in a little water from three to five times daily, according to the amount of irritation present.

B. *Fetid Bronchitis*.—

Fluid Extract Grindelia Robusta...	I ounce.
Oil Eucalyptus.....	I drachm.
Syrup Senega.....	I ounce.
Glycerine	I “
Wine of Tar, add to.....	4 “

Mix, and take 1 teaspoonful four times a day.

If the expectoration is fetid, take 10 drops of Turpentine in capsule with each dose.

C. *Dry Bronchitis*.—In the dry form the secretions may be increased by the following:

Apomorphine.....	½ grain.
Syrup Ipecac	½ ounce.
Tincture White Pine	4 “

Mix, and take one teaspoonful four times a day. If the dose causes nausea, take less; if not, and needed, take more.

In any case of chronic bronchitis take $\frac{1}{30}$ grain of Strychnine three times a day at meal time. Also take a teaspoonful of Syrup of Hydriodic Acid between meals and at bedtime—three doses a day.

CAPILLARY BRONCHITIS.—Capillary bronchitis is a catarrhal inflammation of the small air passages or tubes of the lungs, and follows bronchitis—a catarrhal inflammation of the upper or larger air tubes of the lungs. The disease usually commences above and extends downward, and on reaching the smaller tubes it is called *capillary*, because the little tubes are small and hair-like (from *capillus*, hair). The only difference between bronchitis and capillary bronchitis is the part of the tube affected.

Capillary bronchitis is usually found in children and infants. Old people also occasionally suffer from this disease. The catarrhal inflammation extends from above downward, following the various branches of the air passages or tubes, hence all of both

lungs may be affected. When the disease reaches the small tubes (capillary bronchitis) it is much more dangerous, as the catarrhal discharge may fill the little tubes and completely shut out the air from the air cells, while in the larger tubes the air can pass in and out freely.

Cause.—Dust and other irritating substances enter the bronchial tubes and cause irritation, hence the disease is sometimes met during the summer months. Colds and exposure and sudden changes in temperature from warm to cold, are more frequent causes. Weak children are particularly liable. Typhoid fever and measles always produce a catarrhal condition of the lungs, yet the catarrh produced by these diseases seldom results in capillary bronchitis except in very delicate children. In scarlet fever the rash, and in small-pox the pustules, appear in the mucous membrane lining the air tubes.

Dyspepsia, constipation, or any morbid condition of the digestive tract may aid in producing capillary bronchitis. Such conditions produce a large amount of waste in the system, and as nearly all the blood passes through the lungs once every minute, these organs are irritated, more especially since many of the poisons are eliminated by the air passages or tubes. This irritates the delicate mucous membrane which lines them, and a catarrhal inflammation is the result.

Symptoms.—The symptoms of capillary bronchitis are not always distinct, because the disease comes on gradually. A catarrhal condition has previously existed in the larger tubes. There is a gradual rise in temperature, the previous condition becomes worse, fever slowly rises to 102-3 with difficult breathing, and the respirations become rapid and shallow as the small tubes and air cells become filled. In a nursing baby there is frequent letting go of the nipple and the child worries.

The circulation through the lungs becomes more impeded. In health, with each heart beat a quantity of blood is sent from the right side of the heart through the lungs, where each air cell is surrounded with a minute network of blood vessels; but when there is inflammation of the vessels, and an exudation (discharge) through their walls, or coats, it causes interference in the circulation, and in proportion to such interference the blood is dammed back into the right side of the heart. In health the veins also empty into this side of the heart, but now they can do so but partially, hence there is congestion of the venous system throughout the body. This is why the nails, lips and face may become blue, the surface cold and the mind dull. If this condition is continued, stupor or convulsions may soon occur and the attack end fatally, caused by the failure of the blood to pass through the lungs and exchange the carbonic acid gas and other poisons for oxygen.

The ear can detect catarrhal sounds scattered throughout the lungs. There are also sounds, high or low pitched, caused by the air rushing through the tubes where the opening is partially closed by the swollen mucous membrane. Palpation, that is, placing the palms of the hands over the lungs and on the bare chest, will often locate large accumulations of mucus in the larger tubes. Rales (rattling) in the medium sized tubes, and crepitant (crackling) sounds in the small tubes or capillaries, may be plainly heard by placing the ear against the chest. These sounds are caused by the air being forced through the mucus-like secretions, and the vibration is carried to the hand or ear.

TREATMENTS.—

A. Put the child to bed, arrange for good ventilation, and maintain a uniform temperature of 75 to 80 degrees. Keep the bowels active. The air in the room should be kept moist. If the case is serious, do not let the child lie too long in one position, as the catarrhal accumulations in the air cells and small tubes may obstruct respiration to the extent of producing death. Make a cotton batting jacket large enough to cover the entire body, from the lower border of the ribs to the throat, place it upon the patient and let it remain.

The following medical treatment is valuable:

Fluid Extract Digitalis.....	12 drops.
Fluid Extract Ipecac.....	24 “
Acetate Potash.....	3 drachms.
Syrup Wild Cherry.....	1 ounce.
Water, add to make.....	4 “

Mix, and give $\frac{1}{2}$ teaspoonful every two hours.

or,

Acetate of Potash.....	1 drachm.
Spirits of Nitre.....	$\frac{1}{4}$ “
Fluid Extract Ipecac.....	$\frac{1}{2}$ “
Liquor Ammonia Acetate add to...	4 ounces.

Mix, and give one teaspoonful every hour.

If there is much rattling in the lungs, showing an excess of catarrhal secretions, and breathing is seriously interfered with on that account, it is considered good practice to give an emetic and vomit the child, as active vomiting relieves the lungs more or less by forcing out the catarrhal products. During the act of vomiting the child's head should be held low as this aids materially in giving relief.

B. The foregoing is the form of treatment usually followed in *Capillary Bronchitis*, but we wish to give our experience along another line—a treatment which in the hands of those who have followed it for many years is recommended to meet every require-

ment. Those who adopt this method may do so with every confidence of success. We have seen cases that were otherwise hopeless treated by this method, the child making a rapid and complete recovery. It is a **Home Treatment**, as follows:

Take a piece of cloth and make a loose waist for the child; make it large so that it will cover from the lower border of the ribs to the throat and allow a lap of 4 or 5 inches in front. Take a quantity of onions and chop them fine, add 3 or 4 table-spoonfuls of fresh lard, put in an iron kettle, stir to prevent burning, and heat thoroughly. In the bottom of the crib place a large soapstone, quite hot, and over this place several layers of quilts. Lay the waist in the crib, or on the table, and cover with the hot onions to a depth of $\frac{3}{4}$ of an inch. Remove all the clothing from the child, place the poultice in the crib, lay the child on it, wrap it firmly about the body, and cover with one or more pieces of quilts; also place some hot flat-irons along the sides of the crib. By means of the soapstone and other artificial heat, the poultices will not need changing oftener than once in four hours. How does this benefit the child? The same as explained under *Cerebro-Spinal Meningitis*—by equalizing the circulation bringing the blood to the surface, causing profuse sweating, and in this way relieving the lungs. This treatment may seem a little harsh, but it is not, and of the many cases we have seen treated in this way, we have never yet known or experienced the slightest difficulty in keeping the child perfectly quiet and contented. As with any other line of treatment, the bowels should be kept regular, the child should receive a nourishing diet, given in moderate amounts at reasonably short intervals, and temperature and ventilation maintained as before mentioned.

The above treatment was first suggested by Mrs. Ellen Cronkrite, of Wacousta, Michigan, a nurse whose life has been spent in caring for the sick and who possesses unusual intelligence in all matters pertaining to home treatment. The suggestion seemed to contain so much merit that, under the instructions of Mrs. Cronkrite, its application was immediately secured in a case that seemed hopeless. Such flattering results followed that we feel justified in recommending it in all cases of *Capillary Bronchitis*, and assure those who administer the treatment that they can do so with every confidence.

CIRRHOsis OF THE LUNGS.—(See under TUBERCULOSIS).

CONGESTION, *Hyperemia*, *Oedema of the Lungs* and other terms are used to denote an abnormal fullness of the vessels in those organs. We do not deem it necessary or advisable to treat these conditions separately, as it would be confusing and often

misleading. Engorgement of the vessels in the lungs may follow the use of alcohol. Too much blood is present when the return circulation is checked, as in liver disease, because much of the return circulation passes through the liver. This interferes with the outflow and the blood is dammed back into the lungs. Overfullness is present in Bright's disease for the same reason—interference with the outflow. Over fullness or congestion is also present as described under HEART DISEASE.

HEMORRHAGE OF THE LUNGS.—(See under HEMORRHAGE).

PNEUMONIA.—Pneumonia is an inflammation of a part of one or both lungs. It is seldom that both lungs are involved. The right lung is divided into three lobes and the left into two. An acute localized inflammation of one or more entire lobes is called lobar pneumonia. The diseased area may include a part, a whole lobe, or more than one lobe.

Lobular Pneumonia.—Sometimes the little air cells and small bronchial tubes are affected with a catarrhal condition accompanied by a low form of inflammation. This is called lobular pneumonia. It is also called capillary bronchitis, and is described under that head. This is usually a disease of the old or the very young.

Bronchitis is a catarrhal inflammation of the large or bronchial tubes, the smaller tubes and air cells not being affected. Inflammation of the smaller bronchial tubes is always present more or less in lobar pneumonia.

Croupous Pneumonia is attended with the formation of a membrane in the bronchial tube.

Pleuro-Pneumonia is so called because the pleura, a thin membrane which surrounds the lungs, is included in the inflammatory process. Probably this always occurs to some extent.

Typhoid Pneumonia is a term employed when the disease is accompanied with typhoid symptoms.

Bilious Pneumonia is so called because the disease is complicated with congestion of the liver.

Broncho-Pneumonia affects both tubes and lungs, and is caused by the inhalation of dust and other irritating substances. It is usually found in stone cutters, millers, and those who work in planing mills and factories where dust is plentiful. This is a chronic form, and by extension downward the small tubes and air cells are affected. At first the vessels supplying the mucous membrane of the air passages become congested and contain too much blood. This narrows the opening through the smaller tubes, and also narrows the diameter of the air cells. The

increased blood supply results in an increase of the connective tissue framework in the lungs. As this new tissue growth matures, it contracts as elsewhere. With the contraction of the newly formed tissue many small tubes and air cells and many blood vessels are obliterated. As the disease progresses the lungs become hardened and shrunken, and the powers of respiration are much diminished.

Summer Bronchitis is synonymous with hay fever.

Lobar Pneumonia.—This is the form usually spoken of as pneumonia. In this form the affected portion of the lung becomes solid and firm, no air passing through it. Double pneumonia is usually fatal. The air cells are merely the dilated extremities of the air tubes. From three to five of these dilations are usually found on the end of each tube. Both tubes and cells are lined with mucous membrane. Pneumonia is an inflammation of the air cells, and cannot exist without producing bronchitis, *i. e.*, inflammation of some of the smaller tubes; though bronchitis can and usually does exist without pneumonia, the inflammatory process stopping before it reaches the smaller tubes and cells.

Cause.—The irritation produced by any of the conditions which cause chronic bronchitis may assume an acute form and produce pneumonia. Pneumonia is always the result of an unhealthy system. The blood contains an excess of irritants, and now there is only needed an exciting cause, such as wet feet or a cold, to precipitate acute inflammation of the lungs. Ordinarily the wet feet or cold are easily recovered from, but with the vital forces reduced, acute inflammation may follow. Another important reason or cause for pneumonia is found in the double circulation with which the lungs are supplied, and the further fact that nearly all the blood in the body passes through these organs once every minute. See description of lungs, also CONSUMPTION. In the strong and robust any effects of an unhealthy system may be held in abeyance for a time and, later, improvement may relieve the danger; but should some exciting cause present itself before the improvement takes place, pneumonia may follow. That is why the disease may affect what was supposed to be a healthy man. All understand that the irritating effects of unhealthy blood may and do cause inflammatory rheumatism, inflammation of the pleura, or pleurisy, and may cause inflammation of the peritoneum, or peritonitis, meningitis, etc. Unhealthy blood may also cause inflammation of the lungs, or pneumonia. These and many other diseases are but different manifestations of the same cause. These conditions are governed or controlled according to our different powers to resist. Some organs or structures are

stronger in one individual and others in another, hence the different diseases named above — inflammatory rheumatism, pleurisy, peritonitis, meningitis, pneumonia, etc.

It should be remembered that inflammation is always caused by or is the result of irritation, and what is better calculated to produce irritation than indigestion, constipation, and the absorption of many poisons plus those originating in the circulation as a result of imperfect oxidization? They not only produce irritation, but their increase means a proportionate loss of nutrition, strength and vitality, which may be followed by chronic disease; or the causes enumerated may precipitate an acute attack, as stated above.

Pneumonia occurs most often in the lower right lobe, because the catarrhal exudate which precedes the disease is more difficult to dislodge from the lower lobes—it must be raised from a greater depth. The right lung does not extend quite so low as the left on account of the liver, and for the same reason the lower border is a little broader, hence more of the catarrhal exudate can accumulate at this point. The second most frequent seat of pneumonia is the lower left lobe, for the reasons just given. The third most frequent location is the upper lobe. There is better drainage from the upper lobe, yet the air cells are less developed, less air passes through them, and less oxygen is absorbed by them, and without this vitalizing element they are more liable to disease and to degeneration.

The diseased area may correspond exactly to a single lobe, or may not.

Symptoms.—The disease usually begins with a chill, followed by fever and pain, which is increased by the cough which develops. The pain is also increased by pressure from the inflammation and swelling. The temperature rises rapidly. At first the pulse is full and strong, but may show early signs of embarrassed heart action. Respiration is shallow and rapid, and may increase to forty, fifty, or more per minute, according to the amount of lung structure involved. By rapid breathing Nature tries to compensate for the temporary loss of function in the diseased lung. The rapid breathing causes interrupted speech. The cough is harsh at first, and soon a frothy mucus appears. This later changes to a thick, tenacious form, due to the many new cells in the air passages which the increased blood supply has furnished. The increased blood supply also increases the secretions.

On the second or third day "rusty" sputum appears, the color being due to the rupture of small blood vessels around the air cells. The secretions continue and become yellowish, due to

degenerative changes. There may be headache. Sleeplessness may be difficult to control. There may be delirium. If this occurs early, it is not important; if it occurs late, the condition is graver. Delirium is more frequent when the disease occurs in drunkards. The face is flushed and there may be nosebleed. Gastric disturbance may be more or less marked. The kidneys are less active. Prostration is marked from the first. There is more or less pleurisy, or inflammation of the delicate membrane which encloses the lung. This would be absent at first if the disease were located in the center of the lung, and would remain absent if the disease should not reach the surface of the organ. When occurring in drunkards, the disease may resemble delirium tremens. Pain, cough and expectoration may then be slight.

With children, convulsions may take the place of the chill. The spinal nerves are always liable to spasmodic action unless controlled by reason and judgment, which exist in the brain. The child's brain may not have developed a controlling influence, hence the convulsions.

The disease terminates by crisis, *i. e.*, suddenly and, usually, favorably, from the fifth to the tenth day. Within twenty-four hours convalescence is established, and recovery follows rapidly in most cases.

In the *congestion* which marks the first stage of pneumonia, the lung becomes gorged with blood, which later coagulates and renders the affected portion solid and firm. During the last stage, or from the fifth to the tenth day, the coagulation liquefies and is generally discharged by expectoration, which is increased at this time. Circulation is re-established, and the air cells are rapidly freed and return to their normal condition. This is called *resolution*. In this case the lung structure proper remains undisturbed. Some inflammatory thickening is liable to remain.

When absorption is not complete, one or more abscesses may form. If a number are present, the intervening lung substance may break down and form one large abscess, which may break into the pleural, or chest cavity, into the abdominal cavity, into the digestive tract, or may point externally. If in the lower right lobe, it may extend to the liver. If not too large, it may be absorbed. Abscess formation is described under *Appendicitis*. Abscesses usually break into the bronchial tubes and the pus is expectorated. Abscesses are rare and indicate a bad condition of the system before the attack. The lower lobes are most liable to abscess, for the same reason that they are most liable to the disease.

Gangrene is also rare and indicates an unhealthy system from the first. The unhealthy condition of the blood renders the inflammation, swelling and pressure so intense as to entirely shut

off circulation, and the tissues die. A small amount of dead tissue may be cast off through the bronchial tubes. There is also intense inflammation in gangrene, as this is Nature's means of checking its spread. It marks the battle line between the living and the dead, and if the gangrenous tissue is eliminated through the air tubes, the intense inflammation may cause new tissue growth sufficient to cause pressure and interfere with the circulation a second time, and thus aid in its own destruction. Degeneration of such tissue might result in abscess.

In chronic pneumonia resolution is not complete, the air cells do not clear up, and there remains a low form of inflammation which is continuous and causes a thickening by new cell growth.

If death results, it usually occurs in the second stage, and is caused by heart failure resulting from the poison in the system.

TREATMENTS.—

What to Do Till the Doctor Comes.—Send for the doctor. In the meantime put the feet into water as hot as can be borne, afterwards rub and dry them thoroughly with a crash towel, put the patient to bed, cover warmly and keep perfectly quiet. Give hot herb drinks and apply hot applications to the chest—cloths wrung out of hot water or the hot decoction of some bitter herb, or a hot Flax seed or Mustard poultice. Get the patient to sweating.

A. Commence treatment by giving the patient an active cathartic. A large Mustard plaster may be placed over the affected lung. Some recommend a blister plaster, but we do not, because a large blister is a very uncomfortable reminder, and we think the Mustard plaster sufficient.

Put the patient to bed in a large, well-ventilated room and maintain a temperature of from 75 to 80 degrees, providing at the same time for a free exchange of air. Put an abundance of covering over the patient and give him hot drinks; sweat him profusely. To aid in producing sweating, give the following once an hour:

Fluid Extract of Veratrum Viride.... 2 drops.

Fluid Extract of Ipecac..... 1 drop.

also,

Atropine (pill or tablet) $\frac{1}{10}$ grain.

The object of this treatment is to bring the blood to the surface and equalize the circulation. If this can be done, it will readily be seen that it will relieve the congestion or inflammation of the lungs.

If the patient becomes nauseated, skip a few doses of the Veratrum and Ipecac; if the pupils of the eye become dilated, skip the Atropine. If the inflammation continues, the Veratrum

should be continued in 2-drop doses every two hours (or less often if it occasions nausea) for a few days. Also give $\frac{1}{10}$ of a grain of Strychnine in pill or tablet form four times a day. Strychnine is an active stimulant, while Veratrum tends to relieve the inflamed lungs.

B. Apply Mustard plaster on painful lung. Take hot drinks and bath as hot as can be borne, and go to bed. Get warm and perspire freely.—(38).

C. When first taken, or soon after the chill, put 5 drops of the Tincture of Veratrum Viride in $\frac{1}{2}$ glass of water, and give 1 teaspoonful each half hour. It will quiet the fever and congestion in twenty-four hours. Of course, if the disease has run until consolidation has taken place, Veratrum will do no good; but if given early it is an excellent remedy.—(43).

D. In the beginning—at the time of chill or a few hours after—give 1-drop doses of the Tincture of Veratrum Viride each half hour.

For hard cough put $\frac{1}{4}$ grain of Morphine in $\frac{1}{4}$ glass of water. One teaspoonful given when needed to quiet will be of real service.—(43)—Homeopathic.

E. If the fever is not broken up within forty-eight hours, the patient should receive a bath every day. Baths aid largely in controlling the temperature. This is important, as the prolonged use of fever remedies, such as Veratrum, Aconite, etc., is not recommended, because they lower temperature only at the expense of the vitality and strength of the patient. Keep the bowels active. Secure at least one thorough movement every day. Give 5 grains of Salol every three hours.

If at any time the patient seems weak or losing strength, give any additional stimulants. We do not recommend the use of whiskey in any form in the treatment of these cases because our experience is that it tends to nauseate and destroy appetite, and in cases of pneumonia the most nourishing diet is of the utmost importance. The physical strength or vitality must be maintained in as high a degree as possible. Frequent feeding of the most nourishing food is necessary. Meats or solid foods are not called for at this time, although rice boiled for three hours, soft boiled eggs, milk, toast, etc., are perfectly safe.

When the patient gets up, great care should be taken to avoid exposure, and continued attendance to the bowels and regular habits in eating are necessary.

Carbonate of Ammonia.—We are not unmindful of the reputation that Carbonate of Ammonia has in the treatment of this disease. When exposed to air, Carbonate of Ammonia readily undergoes a change which renders it worthless. To be of any

value it must be hard and glistening—so hard that it cannot be cut with a knife. As usually found it is soft and readily pulverized, or at least readily shaved with a pocket knife. There may be quite a strong odor of Ammonia, yet the strength is largely gone. We have had a good deal of experience with this drug and urge a careful inspection before trusting the patient to its effects. There is so little Carbonate of Ammonia that is of value that it should be excluded from the list of remedies.

PLEURO-PNEUMONIA.—Pleuro-pneumonia means pneumonia plus inflammation of the pleura—the delicate membrane which surrounds the lungs. Probably there is always some affection of the pleura in attacks of pneumonia. If the pleura is involved to any great extent, there is more pain, the pain is much more severe, and recovery is more doubtful. The patient may fully recover from the pneumonia, but the effects may linger in the pleura and tuberculosis result. Besides enclosing the lungs, the pleura is also reflected around the inner surface of the chest cavity; thus there are two membranes. During inflammation of the membrane that encloses the lungs, the two surfaces in various places may become adherent, that is, grow fast, leaving a cavity or pocket of greater or less size. The exudate which follows the inflammation may remain unabsorbed, may contain serum and lymph, there may be some blood, and later it may change into pus, thus rendering the condition serious. If pus forms, complete recovery is doubtful, and frequently these cases proceed to tuberculosis with considerable rapidity.

Cause.—Extension of the pneumonia and involvement of the pleura. It should be remembered that inflammation of the pleura may occur without pneumonia. See PLEURISY.

Symptoms.—The symptoms are increased pain and other exaggeration of the symptoms of pneumonia. The exudate soon overspreads the affected surface of the pleura, and the two layers or membranes may become adherent, as already mentioned. If the exudate is absorbed, the points at which the two layers of the pleura have grown together may, by reason of the constant motion of the lungs, gradually separate, leaving the two surfaces attached by a band or cord of greater or less length. This is comparatively harmless, in fact, may do no harm. A little twinge of pain, or other like evidence, may remind the patient in later years that this condition exists. This condition may also result from inflammation of the pleura without pneumonia.

TREATMENT.—

The treatment is the same as that used in the usual forms of pneumonia. The pain is very severe. The membranes contained

In any enclosed cavity, as the chest cavity or abdominal cavity, are called *serous* membranes. They differ from mucous membranes in being much thinner, and the secretions furnished by them are more of a serous or watery nature, hence the term, serous membranes. These membranes, wherever found, are extremely sensitive, hence in acute inflammation the pain is always severe and usually requires Opium in some form—perhaps Morphine is the oftenest used because it is the most convenient. Morphine may be given in $\frac{1}{8}$ to $\frac{1}{4}$ -grain doses as needed, or Dover's powders in 5-grain doses. Either should be given in sufficient amount to control the pain (see note below). Also attend to the bowels and give the ordinary fever remedies as needed. If the case is protracted, stimulants will also be needed; stimulants are always needed in the aged. After convalescence has been established give a teaspoonful of Syrup of Hydriodic Acid four times a day—between meals and at bedtime.

Note.—We do not recommend the free use of opiates; in fact, we are opposed to their use unless actually needed, because they cover or mask the symptoms and deceive the attendants. Again, their effects always interfere more or less with digestion, elimination and assimilation; but when pain is beyond control by other means, their results are less damaging than the debilitating effects of the pain.

MALARIAL FEVERS.—(See under FEVERS).

MALINGERING—FEIGNED SICKNESS.—Sometimes after accident or injury, or possibly following some diseases or conditions, the patient pretends or feigns sickness which does not exist. In treating these cases a careful examination should always be made. If pain is complained of, make pressure at that point. The patient is very likely to say you hurt him. Make him go through some light exercise—walking, sitting, bending forward, or exercising the arms. Note if there is any muscular wasting. A careful examination always makes a favorable impression on the patient's mind. This is not only pleasing to the patient, but is a great advantage in aiding one to speak favorably of the case. It should be remembered that a careful examination cures many of these cases; but one must first gain the patient's confidence, hence the necessity of such examination. If there should be any muscular wasting, it would indicate disease of the spinal cord. The various pains the patient complains of, if they are real, are probably rheumatic in nature. It is probably advisable in these cases to give some light treatment, and as a rule the case can be discharged at an early date.

RECOMMENDED TREATMENT.—

Hypodermic injection of $\frac{1}{10}$ grain of Apomorphia for persons pretending to have taken poisons, or for hysterical fits. Relaxes the nervous system and produces prompt emesis—vomiting.—(31).

MEASLES.—(See under ERUPTIVE FEVERS).

MENINGITIS.—(See under BRAIN, DISEASES OF).

MENORRHAGIA.—(See under WOMEN'S DISEASES).

METORRHAGIA.—(See under WOMEN'S DISEASES).

MILK SICKNESS.—A number of years ago there was a disease among the cattle in this locality called *Zembles*, which disease was caused by their eating or drinking poisonous food or water. Persons eating the beef or butter or drinking the milk of the diseased cattle were very sick, and we called it "*milk sickness*." I was called in counsel with Dr. John Martin in the case of an old lady who had vomited every few minutes for thirty-six hours and who every moment expected to die. Looking in my medicine bag I found I was out of the acids I wanted, but that I had Sulphuric Acid and Carbonate of Ammonia. I diluted the Acid and added the Ammonia and had her drink it while effervescing. We staid an hour, during which time she did not vomit, and on returning the next day found that she had not vomited and was much better—in fact, she never had another attack of vomiting to the day of her death, which was many years afterward. I have tried the same remedy many times since with the same result. The proper dose is 5 grains of Carbonate of Ammonia to 1 to 2 drops of the Sulphuric Acid, well diluted with water. This dose may be repeated if necessary.—(84).

MORTIFICATION.—(See under GANGRENE).

MOUTH, DISEASES OF.—As nearly all diseases of the mouth are affections of childhood, this subject has been placed under DISEASES OF CHILDREN. For *Syphilitic Sore Mouth*, see under VENEREAL DISEASES.

MUMPS — PAROTIDITIS.—The parotid glands are placed one on each side of the neck just in front of the ear, and at the lower border of the ear they extend back to the mastoid process—the prominent bone just behind the ear. Each of these glands weigh about one ounce. They are formed of many small lobules, held together by connective tissue. Each lobule presents many little openings or miniature glands, and each lobule gives

rise to an excretory duct. These ducts unite and form a single duct, one on each side, about $1\frac{1}{2}$ inches in length. The single ducts pass horizontally through the substance of the cheek, one on each side, and terminate in the mouth opposite the second double molar tooth on the upper jaw. The parotid glands are the principal ones which furnish the saliva (see DIGESTION).

Mumps means inflammation of the Parotid glands. There are other glands situated beneath the jaw which may also become affected. It is an acute, contagious disease, which develops about fourteen days after exposure and lasts about one week. One or both glands may be affected at the same time. Usually one is affected first, the inflammation of the other occurring later.

Cause.—The cause is a specific ferment or poison, the original source of which is unknown.

Symptoms—As usually described, the first symptom may be a sense of chilliness followed by a slight rise of temperature, slight increase in the pulse rate, headache, languor, loss of appetite and pain at the angle of the jaw. The pain is increased on opening the mouth or in attempting to swallow. There is a chain of glands situated on each side of the neck, and the entire chain may become swollen. The swelling may also include the side of the face. If the disease occurs only on one side, the head may be turned toward the affected side as this relieves the tension and pain. In many cases the chills, fever, increase in pulse rate and headache may be entirely absent. The inflammation continues from four to six days and then gradually declines. In rare cases the parotid glands may suppurate, that is, an abscess form. There is a small opening in the mastoid process through which the seventh cranial nerve (see NEURALGIA) passes, then continues forward through the parotid glands and supplies the muscles of the face, giving them the power of motion. It is said that in some cases the pressure of the swollen gland may cause temporary and partial paralysis of this nerve.

TREATMENTS.—

A. The bowels should be kept active and the patient avoid taking cold. A well ventilated room where the temperature is uniform is best suited for cases of this kind. Very little medicine is needed. Salicylate of Soda may be given in 5-grain doses every three hours. If necessary for the fever, give 1-drop doses of Aconite every hour. If there is evidence of pus formation, large hot poultices should be kept over the affected side of the face and neck, and the abscess opened as soon as pus is discovered. Should the patient take cold during the course of the disease, serious complications are likely to follow.

B. Keep patient on a light diet, and correct constipation, if it exists, with small doses of Epsom or Rochelle Salts. If the swollen glands are painful, a poultice of Hops will give relief; or apply Camphorated Oil and hot flannel. If complications arise, call the doctor.

C. Apply small square of Belladonna plaster to jaws. Avoid catching cold.—(38).

D. No particular treatment is necessary, but keep in the house and keep the throat done up in flannel. Warm herb drinks are good. Keep the feet warm, and particularly avoid exposure to dampness, as in case of contracting a cold by this means the swelling may spread to other glands and become a serious matter.

MYELITIS—INFLAMMATION OF THE SPINAL CORD.—It will be remembered that the spinal cord is composed of large nerve cells and nerve fibers, which are held together by delicate connective tissue and surrounded by membranes. The fibers of the cord are situated externally and divided into separate columns or tracts. Each tract is supposed to be endowed with separate functions or duties. Different diseases are sometimes limited to one or more of these tracts. The various forms of inflammation often follow a single tract, hence the various names given to *Myelitis*, or *Inflammation of the Spinal Cord*, as: *Anterior Myelitis*, meaning front part; *Lateral Myelitis*, meaning the sides; *Posterior Myelitis*, meaning behind; *Transverse Myelitis*, meaning clear across, etc.

Cause.—Acute myelitis may be caused by poisons resulting from the infectious diseases. It may follow spinal meningitis, *i. e.*, inflammation of the membrane which surrounds the cord. It may result from accident or injury.

Symptoms.—The acute form comes on suddenly. The vessels of the cord are first congested. This is followed by inflammation with rise in temperature and pain along the back. The spinal column is sensitive to the touch. First there may be pain in the lower limbs, and as the disease continues this is followed by a sense of numbness; later the limbs become more or less paralyzed. The paralysis is governed by the amount of inflammation. There is also a sense of constriction about the body; this is usually accompanied by more or less pain. There may be involuntary discharges from the bowels and bladder. Later there may be bed sores, with wasting of the muscles supplied by the nerves from the affected part of the cord. During the progress of the disease there may be spasmodic action of the muscles of the affected part. The sense of constriction about the body, sometimes called *girdle pains*, the early loss of sensation and paralysis, and the bed sores, are the most prominent symptoms of acute myelitis.

Chronic Myelitis means paralysis. See PARALYSIS.

TREATMENTS.—

What to Do Till the Doctor Comes.—To make the patient comfortable in bed is perhaps the most that can be accomplished. Sweating will aid in affording relief, and in the meantime a hot bath might be given before going to bed, or at least the feet put into hot water; also means to produce sweating after he is in bed, as cans or jugs of hot water placed around him. If the bowels have been constipated, give a cathartic. Insure quiet until the doctor can arrive.

A. Inflammation of the spinal cord is the same as inflammation elsewhere. If any means can be secured to equalize the circulation, relief will follow. First put the patient to bed. By lying on the side or face the cord is said to be somewhat relieved (doubtful). Put the feet in hot water, give hot drinks, produce sweating, give frequent baths followed by brisk rubbing, keep the skin active, give an active cathartic, and, if possible, keep the bowels regular. To aid in producing sweating small doses of Aconite may be given—one drop every thirty minutes until the skin is moist. Atropine is another very good remedy to equalize the circulation and relieve congestion and inflammation. Give $\frac{1}{100}$ of a grain every hour for two or three doses—until the throat is dry or the pupil dilates. Atropine will not produce sweating, but with plenty of hot drinks and artificial heat, sweating may be produced while giving Atropine, and both are of the highest importance in inflammation. Veratrum is another most excellent drug; however, it differs in no way from Aconite. If the inflammation is the result of syphilis, give anti-syphilitic treatment. If the patient is strong, dieting for a few days will be of benefit. Absolute quiet should be maintained. If the disease continues, nourishment and elimination are points to be especially remembered.

NAUSEA—SICKNESS AT THE STOMACH.—RECOMMENDED TREATMENTS.

A. Give the sixth dilution of *Nux Vomica* either in solution or in pill form—1 or 2 drops of the solution or 1 or 2 pills every thirty minutes until relieved.—(56)—Homeopathic.

B. One or two full doses of Paregoric is all-sufficient. For adult, one teaspoonful.—(30).

C. One tablespoonful of very hot water every few minutes.

D. $\frac{1}{2}$ teaspoonful of Bicarbonate of Soda in $\frac{1}{2}$ a glass of water, very hot, and taken in one dose. Repeat every hour if needed.—(41).

E. Subnitrate of Bismuth, $\frac{1}{4}$ of an ounce. Divide into 24 powders and take 1 powder every two hours. Apply a Mustard plaster to the stomach. Drink a cup of hot water every two or three hours.—(42).

F. A Spice plaster over the pit of the stomach. Small pieces of ice in the mouth. Give the following:

Subnitrate of Bismuth..... 3 grains.
Oxalate of Cerium..... 3 “

Divide into 12 powders and take one every fifteen minutes.—(35).

G. Apply Mustard plaster over the stomach. Drink Mint tea, such as Peppermint, Spearmint, etc. Take one tablespoonful of Lime Water and put into a glass half full of sweet milk. Drink three or four times a day. Diet for a few days.

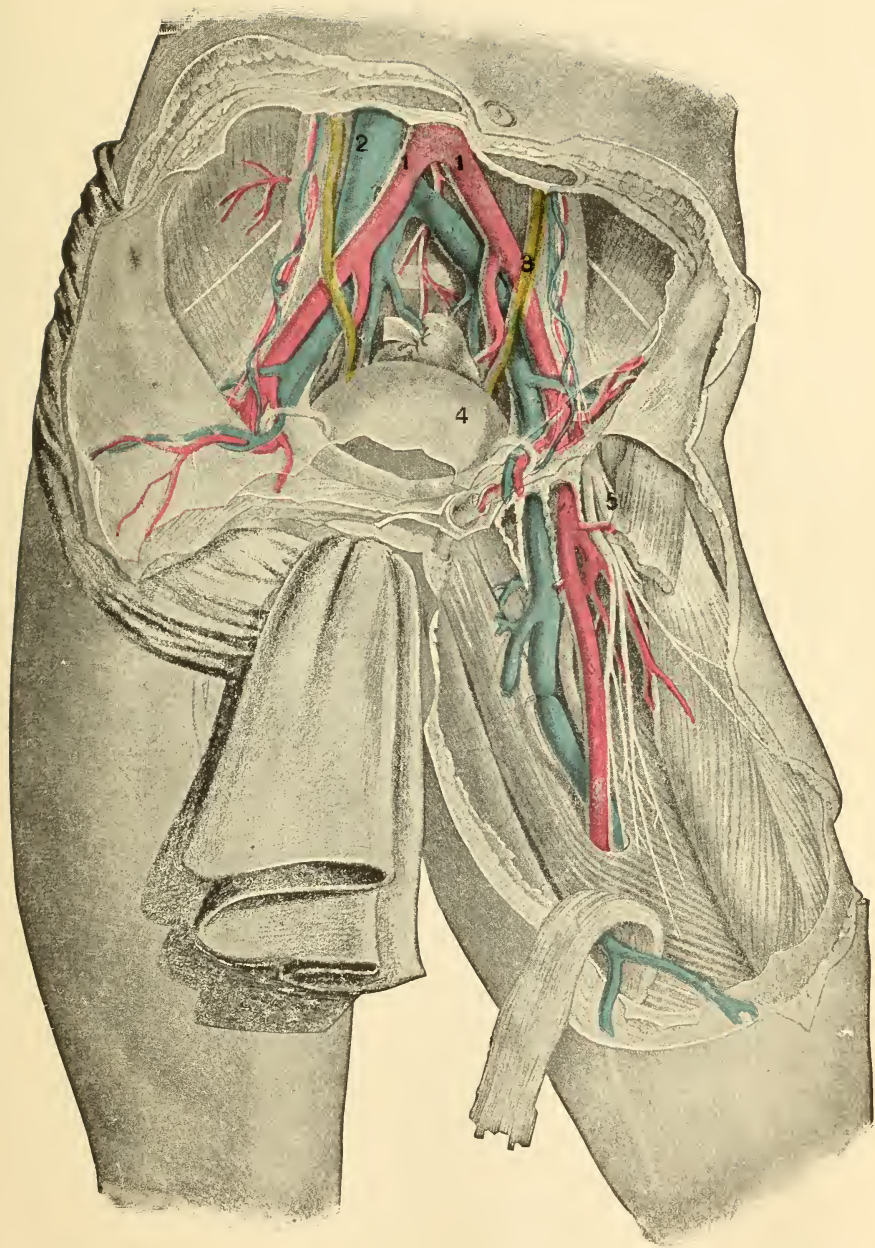
NERVOUSNESS.—This term is applied to a condition of *hyperesthesia*, or unusual sensitiveness to sound and impressions. It is also sometimes called *neurasthenia*, meaning a deficiency in nerve power—nerve exhaustion. These conditions are also called *hysteria*, *fidgets*, etc., and may result in *melancholia* or strange hallucinations.

Cause.—It may be caused by the prolonged use of alcohol, by using too much tobacco, or may be due to the climacteric period—change of life. It is probably oftenest caused by prolonged dyspepsia, where the general system becomes irritated by unhealthy blood and weakened from lack of nutrition.

Symptoms.—The symptoms are unnatural irritability, oversensitiveness, and nervous apprehension or anxiety. There is often constipation, and some disturbance of the appetite, which may be voracious at times and at other times lacking.

TREATMENTS.—

A. It will not do to tell the patient that he or she has hysterics. These cases may or may not need treatment. Unless the patient was born with some defect in the nervous system, the trouble is the result of indigestion from some cause, which has resulted in an unhealthy system. The nerves have become shattered—have lost their “tone,” or vigor. If a physician is handling the case, it is necessary to make a careful examination because this makes a favorable impression upon the patient’s mind. It aids in gaining confidence, and without this confidence all treatment would fail because the patient would neither follow directions nor take the medicine given. True, there may be but little medicine needed. First give attention to the eliminative organs, regulate the diet, give artificial digestants for a short time if needed, and secure proper hygienic surroundings and



No. 11.

1, Large Arteries. 2, Large Vein. 3, Ureter. 4, Bladder.
5, Nerves.

proper exercise. The following mixture is valuable in these cases, as in many others, for the amount of nourishment which it contains; it is not a medicine, but a food. The Maltine contains a ferment similar to the ptyaline found in the saliva, which aids materially in digestion. One part of this ferment is contained in 500 parts of the Maltine, or any good extract of Malt:

Fellows' Syrup of Hypophosphites. 3 ounces
Maltine, or any good extract of Malt 6 "

Mix, by shaking the bottle, and take 1 table-
spoonful three times a day, just before meals
or immediately after. A tablespoonful may
also be taken at bedtime.

B. If the nervous symptoms are slight, give one pill of Aconitine Amorphous, $\frac{1}{134}$ of a grain, also one pill of Anemonine, $\frac{1}{134}$ of a grain, every hour for a few days; then once in two hours during the day. The 2 pills may be given together at the same time.

If the trouble is due to the change of life, the Bromides are more valuable. Bromide of Potash and Bromide of Ammonia, of each 5 grains, may be given two or three times a day. This amount can be increased if necessary.

In case of young girls, give Cyperipedin $\frac{1}{2}$ of a grain, and Scutillarin $\frac{1}{10}$ of a grain, every two hours. When quiet is restored, stop it altogether, until the symptoms re-appear.

When the effect is the result of alcohol, teaspoonful doses of Tincture of Capsicum well diluted, and $\frac{1}{30}$ of a grain of Strychnine may be given every three hours for a few days, then twice a day, more or less, as needed. In case of alcoholics, hot baths and a brisk rub are also advised, at the same time keeping the bowels active.

In all cases strict attention should be given to diet, alimentary sanitation and hygiene.—(72).

C. For nervousness nervines should be given. One of the best nervines is a tea made of Scullcap (see chapter on HERBS), or of English Valerian, or of American Valerian (common Lady Slipper). Or Assafoetida in 5-grain doses may be given. The use of any one of these remedies should be continued for a considerable length of time if one is subject to nervousness.

D. Regulate the diet and bowels. Eat nothing indigestible. Drink only milk and water.—(38).

E. Tincture of Valerianate of Am-
monia 2 ounces.

Dose.— $\frac{1}{2}$ to 1 teaspoonful three times a day.
—(24).

F. Celerina—made by Rio Chemical Co., St. Louis, Mo..... 2 ounces.

Dose.—1 teaspoonful three or four times a day in water.

or,

Peacock's Bromides..... 2 ounces.

Dose.—1 teaspoonful three times a day in water.—(20).

G. Bromide of Potash 1 ounce.
Peppermint Water 4 ounces.

Mix. Take 1 teaspoonful in water three or four times a day, or oftener if needed.

A tepid sponge bath every day is excellent for nervousness.—(42).

H. $\frac{1}{4}$ grain of Atropine in one glass of water. Give 1 teaspoonful each half hour until relieved.—(43).

NETTLE RASH.—(See under SKIN DISEASES).

NEURALGIA.—This is a disease of the nervous system, characterized by paroxysms of pain of a darting, stabbing character. Usually one side only is affected, whether of the body or head, the pain following the course of some sensory nerve.

The divisions given below, as, *Neuralgia of the Fifth Nerve*, etc., simply indicate the nerve affected, and the course taken by the affected nerve or nerves. These nerves have their origin in the brain and spinal cord.

Neuralgia of the Fifth Nerve—of the face.—The nerves that have their origin in the brain are called the cranial nerves. They are often spoken of as the *first*, *second*, *third*, etc., according to their point of origin. The one arising nearest in front is called the *first*, the next, the *second*, the *third*, *fourth*, *fifth*, and so on. The fifth is the great nerve of sensation to the head and face and the motor nerve to the muscles of mastication. The sensory branches are a very common seat of neuralgia, probably by reason of their large distribution. The nerve on the left side is the one usually affected. The pain may extend over the entire side of the face, or be confined to certain branches of the nerve, particularly to the branches that run around the eye—one just over it and one just underneath. In this case, if the pain is of any duration, the eye becomes bloodshot in appearance, "runs water," and is sensitive to the light. Also pressure on the bone just underneath the eyebrow and under the eye next to the nose causes a feeling of tenderness. At these points a fiber of the fifth nerve comes through the bone. *Megrim* and *Hemicrania* are terms frequently applied to neuralgia of the face where but one side is affected.

In severe cases of facial neuralgia there may be a convulsive twitching of the muscles on the affected side, to which the name *Tic-douloureux* has been given. The term *tic-douloureux* is also applied to a spasmodic twitching of the muscles of the face without pain. The muscles of the face are controlled by the seventh cranial nerve, hence in *tic-douloureux* the fifth nerve, the nerve of sensation, is not necessarily involved.

Cervico-Occipital Neuralgia—*of the neck and back of the head.*—The occipital nerve is also subject to neuralgia, the pain running down the back of the head into the neck as far as the collar-bone, thence upward and forward to the cheek. The affected part may become very sensitive to the touch, also an eruption may appear on the skin. In some cases there is a sensation of cracking at the nape of the neck which is very annoying. The pain comes on in paroxysms, and is either sharp and stabbing or deep and gripping in character.

Cervico-Brachial Neuralgia—*of the neck and arm.*—The nerve of the arm (brachial) may be affected with neuralgia. The pain extends from the neck down into the arm, causing a feeling of numbness and weakness in the hand, arm and shoulder, with a feeling of tenderness to the touch of all the parts affected, the tenderness extending also to the breast.

Intercostal Neuralgia—*of the side.*—Another seat of neuralgia is in the side, resulting from a nerve which follows the fifth and sixth ribs, from which it derives the name *intercostal*. This is frequently associated with an eruption known as *shingles*, and is characterized by tenderness at points where the nerve emerges from the bone—at the side of the chest, and in the front near the breast-bone.

Lumbo-Abdominal Neuralgia—*of the loins.*—The pain in this neuralgia differs from the forms described only in affecting a different set of nerves—those extending from the upper part of the hip to the lower part of the abdomen and contiguous parts.

Sciatica—*of the thigh.*—In this the pain follows the sciatic nerve, shooting along the back of the hip into the inner side of the thigh and down into the calf of the leg, ankle and heel. The foot loses the sense of touch, movement of the limb is accomplished with pain and difficulty, and, if the neuralgia is of long duration, a wasting of the limb takes place.

While the foregoing terms are often employed in speaking of *Neuralgia*, they are unimportant except to indicate where the trouble is located. Almost any pain may be called neuralgia. *Neuron* means nerve, plus *algos*, pain.

Cause of Neuralgia.—The conditions present in neuralgia and rheumatism (see RHEUMATISM) are the same, and the pain is Nature's voice forcibly expressed, calling attention to our errors. It is evidence that the patient has overstepped the limit of safety and now must pay principal and interest. It would be as proper to say rheumatism of the face as neuralgia of the face, but through habit we call it the latter. The term *muscular rheumatism* is not correct. If the reader should examine the fibers of the affected muscle under the microscope, such fibers would appear normal. There would be no evidence of inflammation or other trouble, showing clearly that the disease was in the nerve fiber and not the muscle fiber. When the "bones ache," the same conditions are present, but another part is affected. The part is affected first that offers the least resistance. In some resistance is less in one part or organ, and in others, in another part or organ. Pain is controlled according to our several powers to resist, and we all understand that these are not the same in each individual. Any and all of these conditions are evidence that there remains in the system irritating waste material that should be eliminated. As evidence that these statements are true, these cases almost universally give a history of constipation. Again, the urine is highly colored. This color is due to uric acid, which has been rasping through the system and which the kidneys are doing their best to eliminate. Sick headache is also an evidence of indigestion followed by the production of poison that produces local irritation in the stomach. The undigested food also aids or increases the irritation.

If further evidence is needed, let us view the situation from another standpoint. The circulation of the brain is conducted through the carotid arteries. These are situated one on either side of the neck, and lie parallel to the jugular vein. The one on the left side is more direct, hence it is shorter. The result is a more forcible circulation, resulting in greater pressure, and it follows that any irritating substances or material would produce a sharper or more acute effect. This explains the statement already made that neuralgia of the face usually occurs on the left side. The artery that supplies the left eye is a branch of the shorter carotid, and the increased pressure and irritation produce congestion of this artery. This explains why the left eye becomes "bloodshot." The middle coat of the eyeball is made up of radiating fibers of the same artery, hence the congestion causes pressure on the delicate fibers of the optic nerve, which are in contact with the artery and form the inner coat of the eye, and this accounts for the sensitiveness of the eye already mentioned. Apoplexy is caused by the rupture of an artery near the base of the brain. The ruptured artery is usually found

on the left side of the brain. While this is a separate disease from neuralgia, it supports the foregoing statements regarding pressure and irritation. At the junction of the brain and spinal cord the nerve fibers cross, with the result that the right side is usually paralyzed.

There are a few exceptions to these statements, but they are rare. The foregoing conditions will cover or include nearly all cases of rheumatism or neuralgia.

Exciting Cause.—Exposure to cold or damp, anxiety or undue mental exertion, may be the exciting or immediate cause of neuralgia, as any of these tends to interfere with external circulation. This means that more of the irritating blood is retained in the internal organs, the brain and spinal cord receiving their share of the over-supply. Irritation of these structures is thus increased, hence the affection of the various nerves leading from them. The irritation also follows in the small arteries which supply the nerve fibers themselves. This aids in causing congestion, pressure and pain.

TREATMENTS.—

A. Sulphate of Morphine.....	2½ grains.
Sulphate of Strychnine.....	⅓ “
Tincture of Aconite.....	18 drops.
Fowler's Solution.....	1½ drachms.
Glycerine	1 ounce.
Simple Elixir, enough to make	2 “

Mix, and take one teaspoonful. Repeat in one hour, if needed.

B. Camphorated Olive Oil.....	1 ounce.
Chloroform	1 drachm.

Apply externally.

Antikamnia	20 grains.
Sulphate of Quinine	30 “
Camphor, powdered	5 “
Capsicum, powdered	10 “
Tincture of Aconite Root.....	10 drops.

Mix, and make 10 capsules. *Dose.*—Take one every 3 or 4 hours.—(28).

C. Take English Valerian, steep to make a tea and drink freely of it. Take from 20 to 30 drops of Paregoric two or three times a day. Counter-irritants, such as Mustard plasters, etc., placed over the region of pain are beneficial.

D. ¼ grain of Atropine in one glass of water. Give 1 teaspoonful every half hour until relieved.—(43).

E. Antikamnia and Quinine Tablets. One every 3 hours.—(20).

- F. Menthol 45 grains.
 Alcohol 1 ounce.
 Cologne Water, enough to make..... 3 "

Mix, and apply over painful part.—(59).

G. *Megrim.*—

- Antipyrine 1 drachm.
 Spirits Ammonia..... 1 "
 Elixir Bromide Potash..... 3 ounces.

Mix, and take one teaspoonful every 2 or 3 hours until relieved.—(29).

H. *Megrim.*—5 grains of Acetanilid every hour until relieved.—(57).

Important.—It should be remembered that the foregoing remedies produce only a temporary effect, and that the general system must be improved before permanent relief can be expected. Attention to diet, elimination, fresh air, proper exercise, etc., are all of the greatest importance.

NIGHT SWEATS.—Night Sweats are the result of prolonged fevers, tuberculosis, or other conditions where there is general weakness.

TREATMENTS.—

A. Atropine in $\frac{1}{100}$ to $\frac{1}{80}$ grain doses one hour before going to bed, or Agaricin in $\frac{1}{4}$ grain doses, taken at the same time, are most effectual in producing immediate results. It is understood, of course, that the patient's general condition must be improved before permanent benefit can be had. If the sweating is the result of protracted fevers, it is evidence that poisons remain in the system, and first these must be eliminated. Secure thorough elimination of the bowels, and afterwards give 10 grains of the Sulphocarbolate of Soda, or the same amount of Salol, every four hours. If the eliminations give offensive odor, give this dose every two hours until improvement, then four times a day. Also give the patient 1 teaspoonful of the following four times a day—at meal time and bedtime.

- Fowler's Solution..... $\frac{1}{2}$ ounce.
 Hydrochloric (Muriatic) Acid..... 30 drops.
 Lloyd's Hydrastus 3 drachms.
 Glycerine 2 ounces.
 Water, enough to make 4 ounces.

With dose of the above, give 2 grains of Quinine in pill or capsule form. If the weakness is the result of tuberculosis, see treatment under that head. Also give the following:

- Fellows' Syrup of Hypophosphites.. 2 ounces.
 Maltine, or a good Extract of Malt.. 6 "

Mix by shaking the bottle, and take, for an adult, 1 tablespoonful at meal time and bedtime—four doses a day.

B. Take 10 drops of the Tincture of Belladonna at bedtime.—(57).

C. Elixir of Vitriol—Take 20 drops in a glassful of water three times daily.—(32).

D. A teacupful of Sage tea at bedtime.—(41).

NOCTURNAL EMISSIONS—SPERMATORRHEA.

—This is an involuntary emission during sleep. Much speculation has been indulged in, many fears created, and much suffering, remorse and despair have resulted from this condition by reason of the prominence given it by quacks. To our personal knowledge many a young man has been ruined financially, and had his mind filled with horror as he tottered upon the supposed brink of insanity or an early grave. This condition is the result of keeping the patient's mind constantly upon the subject, and is exactly what the quack or advertising doctor desires and endeavors to bring about. The patient becomes so anxious that he is ready to yield up his last dollar to be free from what he supposes to be physical ruin, followed by imbecility or a miserable death. These cases are not dangerous; on the contrary, they are an indication of health, strength and vigor, and those who teach otherwise are actuated by personal greed, for the sake of which they would sacrifice health and manhood and make a foul prostitution of the practice of medicine.

TREATMENTS.—

A. The following treatment will stop the emissions. However, if they only occur occasionally in a healthy young man, no treatment is needed.

Bromide of Potash	1 ounce.
Glycerine	2 “
Simple Elixir, enough to make.....	4 “

Mix, and take 2 teaspoonfuls at bedtime. The dose may be increased to 1 tablespoonful, if necessary. Also take the following:

Tincture of Nux Vomica	½ ounce.
Lloyd's Hydrastus	3 drachms.
Fowler's Solution	2 “
Glycerine	2 ounces.
Water enough to make	4 “

Mix, and take 1 teaspoonful at meal time. The last remedy need not be taken without the first one.

Keep the bowels active and have absolutely no fear of unfavorable results.

B. Fluid Extract of Black Willow—½ teaspoonful three times a day in a glass of water.—(25).

C. Specific Stavesacre—2 drops four or five times a day. Also Specific Passiflora—1 teaspoonful three hours before bedtime and also a teaspoonful on retiring.—(30).

D. Dilute Phosphoric Acid..... 75 drops.
 Fluid Extract Ergot 1 ounce.
 Tincture of Columbo 3 "

Mix, and take 1 teaspoonful at meal time and bedtime—four doses a day.—(23).

OBESITY — CORPULENCE — FAT.—Obesity is an accumulation of fat, usually under the skin, in the abdominal cavity, or both. This occurs to such an extent as to embarrass the activity of the individual. Obesity is an amount of fat not only incompatible with health, but may interfere with the vital powers to such an extent as to be dangerous.

Cause.—Fat meat, butter, oils, starchy food, milk and sugar are all given as the cause of obesity, and while it is true that these have a tendency to produce fat, it is also true that there are many cases of obesity where these foods are not used, or are used very sparingly. The real cause lies in the fact that the food eaten, whatever it may be, results in an over-production of fat. Why this is so has never been satisfactorily determined.

TREATMENTS.—

A. Avoidance of the foods mentioned, daily exercise in the open air, regular habits, bathing, and the avoidance of all drugs to reduce the excess of adipose tissue. Drug medication may do harm by lowering the vitality and rendering the system less capable. Mineral waters, however, are not drugs.

B. Sprudel water, alternating with Kissingen. One glassful every day.—(21).

C. Use artificial Kissingen and Vichy waters, alternately—glassful twenty minutes after meals. Avoid starches and water.—(12).

D. Avoid all food containing fat, sugar and starch, as bread, rice, potatoes, fat meat, cake, candy, pudding, beans, sago, etc. Eat lean meat, eggs, oysters, skimmed milk, turnips, soups, small amount of toast and an occasional potato.

Work enough to keep down the fat and make muscle.—(13).

E. Eat less and exercise more. Drink no water at meals. Avoid starchy diet.—(60).

F. Give Phytolacca Juice, 3 drops in water after meals. Restrict the diet and grow thin.—(18)—Homeopathic.

G. Phytolacca.—(37)—Homeopathic.

OPHTHALMIA.—(See under EYE, DISEASES OF).

OVARIES, INFLAMMATION OF, TUMOR OF, Etc.
—(See under WOMEN'S DISEASES).

PARALYSIS.—Paralysis is a partial or complete loss of the power of motion of one or more of the muscles of the body. By some it is also applied to the loss of sensation. Paralysis may be confined to a single muscle, or may include one or both limbs, or may affect one half of the body. When confined to one half of the body, it is called *Hemiplegia*. This form is the result of apoplexy. When it is confined to the upper or lower extremities, it is called *Paraplegia*. *Writer's Paralysis* is paralysis of the muscles of the wrist and fingers, due to overwork. Paralysis of the foot or one side of the face, or that following diphtheria, is termed *Local Paralysis*. *Paralysis Agitans*, or *Shaking Palsy*, is a term applied to that form where there is a constant trembling. This is a disease of middle or advanced life.

Cause.—Most cases of paralysis are due to disease of the spinal cord, and are the result of an irritant in the blood. The irritant may be the virus of syphilis, or may result from the prolonged use of alcohol or from chronic dyspepsia. Chronic dyspepsia means constipation and an unhealthy digestive tract where many poisons are generated. It seems needless to say that these poisons enter the circulation and act as irritants. A lack of exercise or poor hygienic surroundings aid in producing irritants because they render tissue change unequal. There is an excess of waste over repair. The waste is irritating and vitality is lowered. In all these conditions the blood contains many irritants and poisons which are constantly rasping through the system. The effect is always greatest where resistance is least. If in the spinal cord, it produces a low form of inflammation, followed by paralysis and death.

The spinal cord contains groups of large nerve cells and nerve fibers held together by a connective tissue framework. Long-continued inflammation, wherever it occurs, always produces an overgrowth of the connective tissue; if in the spinal cord, there is a corresponding destruction of the nerve fibers and nerve cells. As stated elsewhere, connective tissue resulting from inflammation always contracts when it matures. This contraction squeezes the nerve structures, gradually lessens circulation, causes pressure, and aids in their destruction. The nerve cells and fibers are found in different stages of degeneration, and the aggregation of the large nerve cells which form semi-independent nerve centers in the cord, degenerate and disappear more or less completely. With the destruction of the natural tissue and the contraction of the new, the spinal cord becomes hard and fibrous. Practically all forms of paralysis are the same. They consist of an increased blood supply, the result

of inflammation, followed by degeneration of the nerves and nerve cells and overgrowth of connective tissue, which contracts and hardens. Sometimes one part of the cord is affected and sometimes another.

A nerve is no more nor less than a long-drawn-out process of a nerve cell. Certain cells in the brain and spinal cord send out these prolongations, and thus the nervous system is formed. The nerves of sensation arise in the back part of the cord, hence inflammation of this part is first indicated by increased sensibility, which may be in the form of pain, or of a tingling sensation; later there is loss of sensation, showing that the destruction is more complete. The nerves of motion arise in the front part of the cord, hence inflammation of this part, acting as a stimulant, is first indicated by increased muscular action. This is followed by a loss of motion and shrinking of the muscles, showing destruction and degeneration of this system. The voluntary muscles of the body and extremities are supplied with nerves from the spinal cord. Many of the nerves rising in the brain extend downward, connect with the spinal nerves and modify or control their action; but during inflammation messages cannot be transmitted through the diseased area in the cord. This leaves that portion below the disease without a break, and the spinal nerves, having escaped the control of the brain, set up a spasmodic action due to the inflammation. At first the inflammation acts as a stimulant and the nerves respond by involuntary movement. The patient cannot control his actions because of the constant excitement kept up in the cord, and because control cannot be sent from the brain. This is the condition present in *Locomotor Ataxia*. In the second stage of that disease the feet and lower limbs escape the control of the patient and fly in all directions. Later, as the disease extends upward, the hands and arms may suffer in the same way. With the destruction of the nerves of motion, paralysis is complete.

Paralysis of the lower limbs indicates invasion of the lower part of the spinal cord because the nerves governing them have their origin there; paralysis of the hands and arms indicates invasion of the cervical portion (that portion situated in the neck), because the nerves governing them arise there. Disease of the cord may begin below and extend upward, or other parts may be affected first. Chronic progressive bulbar paralysis, *i. e.* paralysis of the muscles of the throat, tongue, lips, etc., is caused by connective tissue overgrowth at the base of the brain where the nerves supplying these muscles take their origin. The nerves themselves are first hardened by inflammatory processes, and later degenerate. These changes take place gradually; so do these forms of paralysis. At first only a few cells are affected,

but the number increases until function is lost, when the change takes place more rapidly. A blood clot may plug an artery supplying a group of nerve cells in the cord and cause sudden or acute paralysis. Sometimes chronic inflammation of the spinal cord may follow rheumatism, and produce permanent muscular contractions with great deformity of joints.

These changes in the cord are responsible for most forms of paralysis, and may be caused by irritation produced by alcohol, the effects of indigestion, bad hygiene, constipation, syphilis, etc., as already mentioned. Drinking hard cider may do the same thing. Hard cider not only contains alcohol, but many acids which will produce inflammation and chronic catarrh of the stomach, and this means indigestion and disease.

Volumes have been written upon paralysis and nervous diseases, yet the subject is not so difficult to understand. Long-continued irritation from septic blood in any part of the body will sooner or later produce its evil effects by interfering with the central nervous system—the brain and spinal cord. Headache is characteristic of this condition; so is neuralgia and rheumatism.

TREATMENTS.—

A. Regulate the bowels, keep the skin active, give special attention to nourishing food and to the digestive organs in general, avoid fatigue or overwork, secure an abundance of fresh air and take a reasonable amount of exercise. Internally, take 1 teaspoonful of Syrup of Hydriodic Acid between meals and at bedtime. *Do not take within two hours after a meal.* If the Syrup causes a catarrhal condition of the eyes, take less; if it does not, the dose may be increased a little. Also take 10 grains of Salol after each meal. If paralysis is due to syphilis, give treatment under that disease.

B. Use the battery, one pole being placed along the spine between the shoulders. The foot-plate should also be used. Massage is beneficial and warm clothing should always be worn. Five drops of Nux Vomica should be taken three times a day before meals, or take $\frac{1}{80}$ of a grain of Strychnine in pill form three times a day. Keep the bowels open with 1 teaspoonful of Epsom Salts in a wineglass half full of warm water, taken from one to three times a day. The diet should be nutritious. In severe cases, if the appetite is poor, and especially if the patient is not addicted to the use of stimulants, a little brandy or other liquor may be given at meal time.—(67).

C. Numb Palsy.—If this condition has existed for a great length of time, but little benefit can be expected from any treatment; but if recent, very much good will result from the following treatment faithfully followed:

Paralytic Liniment.—

Sulphuric Ether	6 ounces.
Alcohol.....	2 “
Laudanum	1 “
Oil of Lavender	1 “

Mix, and cork tightly.

In a recent case of paralysis let the whole extent of the numb surface be thoroughly bathed and rubbed with this preparation for several minutes, at least three times daily, and at the same time take internally 20 drops of the same in a little sweetened water. Use a large amount of friction by the hand. It is well in very recent cases to keep the parts covered with flannels. This liniment may also be used in old cases, and in many of them will undoubtedly do much good.—(67).

D. Dilute Phosphoric Acid.....	75 drops.
Fluid Extract of Ergot	1 ounce.
Tincture of Columbo	3 “

Mix. Take 1 teaspoonful at meal time and bedtime—four doses a day.—(23).

E. Gentle friction by application of electricity (Faradic current). 3-grain doses of Iodide Potash four times a day—before breakfast, between meals and at bedtime.—(70).

Electricity in Treating Paralysis.—Electricity is recommended by a great many physicians. Success follows its use in some cases; failure in others. This may be due somewhat to the degree of confidence inspired in the patient. Many look upon electricity with a great deal of confidence, and it is good sense to believe that many times this confidence stimulates the belief in the patient's mind that he is going to get well. This belief gives energy and ambition, and every fiber becomes possessed of greater possibilities. Both digestion and assimilation are thus increased, respiration and circulation are stimulated, and these conditions may aid materially in the absorption of a blood clot, or in checking the inroads in a case of chronic or progressive paralysis.

Electricity and hope will never remove connective tissue overgrowth, but they may aid in preventing its further development and in preventing other degenerative changes: Hope and a contented mind may do this through their influence over digestion and assimilation. Hope stimulates the mind, the mind reacts upon the body, the vital powers are strengthened, physical force is renewed, and there results a determination which yields a powerful influence in checking disease.

All are agreed that these statements are true. As evidence of such agreement every doctor of experience practices these principles in treating the sick. Some doctors strive purposely to

stimulate hope in the mind of their patients; others influence the mind unconsciously, their presence alone producing a confidence which medical appliances cannot give.

PEMPHIGUS.—(See under SKIN DISEASES).

PERICARDITIS.—(See under HEART, DISEASES OF).

PERITONITIS.—The *peritoncum* is a thin membrane which lines the inner wall of the abdominal cavity, is reflected around the whole length of the digestive tract and forms the outer coat of the bowels. Peritonitis is inflammation of the peritoneum. It may be acute or chronic, local or general. In the acute form there is fever, intense pain, vomiting and hiccough.

Causes.—Peritonitis may be caused by hernia, either internal or external, where there is a good deal of pressure. It may be caused by external injury, such as blows over the abdomen, or by perforating wounds into or through the abdominal cavity. There is always local peritonitis accompanying appendicitis, and by extension this may become general. It may result from inflammation of other organs, such as the ovaries, or the uterus in puerperal fever, or blood poisoning following labor. It may result from erysipelas, from ulceration of the bowels, from typhoid fever, from the rupture of an abscess into the abdominal cavity, or may follow operations upon any of the organs contained in the abdominal cavity. Peritonitis is also said to be caused by taking cold, where the blood is unhealthy and irritating and where the internal organs become highly congested. *Tubercular Peritonitis* is a chronic form.

Symptoms.—In the acute form the disease begins suddenly—usually with a chill. There is a quick rise in temperature, and the pulse is rapid—may reach as high as 140 or 150 beats per minute, and even more. The pain is severe, and the surface of the abdomen soon becomes extremely sensitive to the touch. It also becomes greatly enlarged and its muscles become rigid. The patient usually lies with the knees drawn up as this relaxes the muscles and lessens the pain. There is loss of appetite, nausea, perhaps vomiting, and hiccough usually accompanies this disease: In a severe case, the temperature, at first high, reaching perhaps 103 or 104, may soon become subnormal, the surface of the body cold, the pulse rapid and weak, and the features “pinched,” the patient’s face wearing an anxious expression. Where there is great distension of the abdominal cavity, the lungs, liver and heart are crowded upon more or less, and as a result the breathing may become rapid. There may be a slight cough. In peritonitis resulting from the rupture of an abscess into the abdominal cavity, there is usually, but not always,

sudden and terrific pain, weak, rapid pulse, subnormal temperature, great loss of the vital forces, collapse and rapid death. We have witnessed but one case of this kind where there was absolutely no pain; the other symptoms were as given. In peritonitis from the rupture of an abscess the patient usually lives only from 15 to 24 hours, unless relieved by opening the abdominal cavity and thoroughly flushing with sterilized water. Even with this treatment recovery is doubtful.

TREATMENTS.—

What to Do Till the Doctor Comes.—Send for the doctor. In peritonitis constipation is the rule, so while waiting for the doctor, empty the lower bowel with injections. For this purpose a quart of hot water made slippery with soap may be used, or a more effective injection is made as follows: Take the yolks of two eggs and a tablespoonful of turpentine, beat together thoroughly and put into a quart of hot water. After the bowel is emptied it will be well to bathe the feet in hot water, wipe dry, and get the patient to bed. Put hot applications across him, covering the whole abdomen. Give warm drinks, such as Mint tea, tea of Virginia Snakeroot, White Root tea or something of the kind, to get him to sweating freely. If the pain is extremely severe, and especially if the doctor is at some distance, he may be given, if an adult, from 10 to 15 drops of laudanum.

A. Commence treatment by giving active cathartics—Salts in some form are best for this purpose because they attract large quantities of water and thus drain the congested and inflamed vessels. This is the first step towards relieving the inflammation. To aid or hasten the laxative remedies, rectal injections should be given once an hour until the bowels act thoroughly. After this the injections may or may not be necessary. Salts in some form should be given often enough to secure at least one or two movements a day. Seidlitz Salts are equally as valuable as the Rochelle or Epsom Salts, and are free from the disgusting taste produced by the latter; in fact, if a little sugar is added to a dose of Seidlitz Salts in half a glass of water, it tastes as pleasant as lemonade.

Also $\frac{1}{10}$ of a grain of Atropine in pill or tablet form may be given every two hours. This does not aid in elimination, but it aids in bringing the blood to the surface and in relieving the internal organs. It also stimulates both the heart action and respiration, hence is one of the best remedies to prevent exhaustion and collapse, which is liable to follow. The Atropine may be given often enough and long enough to keep the patient's color normal. If the amount recommended does not keep the

face flushed, give every hour or oftener for a few doses; if the pupil of the eye dilates, lessen the dose, giving once in four hours.

To aid in controlling pain, hot cloths should be kept across the abdomen; cloths wet in hot water are best because moist heat can be applied at a higher temperature than dry heat. It will be necessary to change these every few minutes in order to keep the surface *hot*.

If there is vomiting, put a large Mustard plaster over the stomach and give small quantities of milk and lime water, equal parts. Only liquid food should be given, but this should be given often.

Absolute quiet should be maintained, as any excitement, or in severe cases the slightest jar, increases the pain and distress.

If the inflammation is not broken up, but becomes general, the pain will be so great that the treatment described may not control it, and it may be found necessary to give Opium in some form. Both Opium and Morphine are constipating, therefore the use of either will necessitate an increase in the amount of Salts used.

When peritonitis results from a perforating wound, or from the rupture of an abscess, an operation is necessary: If a wound, repair the damage; if an abscess, open and flush out the cavity with a large quantity of pure water.

PERNICIOUS FEVER.—(See under **MALARIAL FEVERS**).

PHTHISIS.—(See **TUBERCULOSIS**).

PILES.—(See under **ANUS, DISEASES OF**).

PIMPLES.—(See under **SKIN DISEASES**).

PLEURISY—PLEURITIS.—Pleurisy is an inflammation of the pleura. The pleura is a very thin and delicate membrane which encloses the lungs. A little above and behind the center of each lung is the point where these organs are connected to the heart. At this point also the trachea, or wind-pipe, with its various branches, enters the lungs. The lungs are connected with the heart by means of the pulmonary artery, which leaves the right side of the heart, and the pulmonary vein, which enters the left side of the heart. When the pulmonary artery enters the lungs, it divides into many minute branches, which surround the air cells. These branches again unite to form the pulmonary vein. The artery is for the purpose of carrying the venous blood into the lungs for oxidization, and the vein returns the blood purified and ready to be sent out into the general

circulation. A collection of nerve fibers which supply the heart—branches of what are called the tenth cranial nerves—is also situated at the point indicated; also the ten or twelve glands into which the lymph vessels of the lungs terminate. All of the structures mentioned are supported by a framework of connective tissue, and together are called the roots of the lungs. The pleura, after enclosing each lung up to and including the “roots,” is reflected over the inner wall or surface of the chest cavity and forms a complete lining; thus there are two layers of the pleura: That enclosing the lungs is called the visceral layer, and that lining the chest cavity is called the parietal layer. The space between these two layers is called the plural cavity. There is no real cavity, however, as the two layers are in close contact. If the lung should become collapsed as a result of disease, a cavity would exist. That part of the pleura which surrounds the right lung, and that which surrounds the left lung, are entirely separate; there is no communication between them. In health the adjoining surfaces of the portion enclosing the lungs and that lining the chest cavity are smooth and glistening, and supplied with a serous fluid which prevents friction. The membrane in closed cavities, like the chest and abdominal cavity, is sometimes called *serous membrane*, hence the term, *serous fluid*. As stated above, pleurisy is inflammation of the pleura. Localized pleurisy often exists with pneumonia, although it may exist without pneumonia. Pleurisy may be acute or chronic.

Changes Occurring in Pleurisy.—During the progress of the disease certain changes take place. These changes cannot be noticed by the observer, hence are not given under symptoms; yet they are of importance in conveying a more thorough and practical understanding of the disease.

First, the vessels supplying the pleura become congested, and this is followed by inflammation and an increased exudate of the serous fluid mentioned. When the exudate is slight, the pleura loses its glossy appearance, and the exudate which collects on the surface resembles a false membrane. This is called *Dry Pleurisy*. Adhesions of the two layers of the pleura, that which surrounds the lungs and that which lines the chest cavity, are apt to take place at one or more points. Sometimes there is a large amount of the fluid exudate. This compresses the lung and leaves a space between it and the chest wall. This space is filled or partially filled with the fluid. When the patient stands or sits upright, the fluid forms at the bottom and extends upward, the height depending upon the amount. The fluid causes a bulging of the chest wall at the point where it occurs. This bulging or fullness is plainly noticeable. When the patient lies down, the fluid extends to a higher point, and causes bulging on

the side in which it may occur. This fluid may be absorbed or partially absorbed, and the diseased area become organized; that is, fibrous bands are sent through the diseased part as a result of new tissue growth. In this case adhesions would form between the membrane which surrounds the lung and that lining the chest cavity. Such adhesions are permanent. Later, however, as a result of constant motion, the result of respiration and other exercise, the two surfaces may be more or less separated, leaving one or more fibrous bands to indicate the point of attachment. Such bands are not apt to cause any inconvenience. In all forms of pleurisy the membrane is apt to remain more or less thickened. Where fluid collects as a result of pleurisy, it is called *Pleurisy with Effusion*. Sometimes the fluid exudate contains pus, or is converted into pus. This is called *Empyema*.

Cause.—Acute pleurisy may result from a broken rib, wounds which penetrate the chest cavity, or from pneumonia. It may follow the infectious diseases, or it may be caused by extension of pericarditis—inflammation of the membrane which enclosed the heart—or may be caused by irritants resulting from unhealthy blood, the same as that which sometimes causes acute inflammatory rheumatism.

Symptoms.—There may or may not be a chill or sense of chilliness. There is sharp pain, usually at or near the nipple of the affected side. There is a short, dry cough, which produces pain, therefore the patient coughs as little as possible. Respiration is rapid and short because breathing also increases the pain. The disease is outside the lung, hence there is no increase in the expectoration. There is moderate fever. The pain is caused by the rasping together of the two roughened surfaces of the pleura. As soon as effusion takes place (see *Changes Occurring in Pleurisy*), the pain ceases because the surfaces are separated. At first the patient lies on the sound side, because this allows the lung to drop away from the chest wall and relieve the pressure on the affected side; after the effusion he lies on the affected side, because the fluid prevents friction and this position gives him a better chance to exercise the sound lung. The disease usually occurs only on one side. If on the left side, the effusion crowds the heart toward the right; if on the right side, it crowds the heart toward the left. In either case the heart action becomes embarrassed as it is more difficult for the organ to expand and contract. With the absorption of the fluid the patient gradually enters the convalescent state. Where absorption takes place, the disease lasts from eight to twelve days; where pus forms, the disease is prolonged. The pus may break into the lungs and be expectorated, may break externally like any abscess, or may remain in the pleural cavity. In health if the ear is placed

against the chest, breathing sounds can be plainly heard, because the lungs, or the pleura which surrounds them, is in direct contact with the chest wall, and with each respiration the pleura moves with a gliding motion over the inner surface of the chest cavity; but where either fluid or pus is present, such sounds cannot be detected over the area of effusion because the fluid or pus causes a separation of the affected portion of the lung.

TREATMENTS.—

What to Do Till the Doctor Comes.—Put the patient to bed and apply external heat. Give hot drinks and produce profuse perspiration. Give a large dose of Castor Oil, or other active cathartic. Place a large Mustard plaster over the affected side to act as a counter-irritant. Aconite and Veratrum are more or less common household remedies, and if at hand, give either the Tincture of Aconite or Fluid Extract of Veratrum in 1- or 2-drop doses every hour to aid in producing sweating. This treatment tends to cause active elimination both by the bowels and skin, and equalizes the circulation, thus relieving the congested and inflamed part.

To relieve the pain, some recommend a broad bandage to be bound tightly around the chest wall, as this lessens the lung action and relieves irritation. We think a better way is to take strips of adhesive plaster, about two inches wide and long enough to go a little more than half way around the body. Commence at the bottom of the lung on the affected side. Have the patient exhale all the air he can, and then quickly apply several strips of the adhesive plaster, each one drawn tightly and overlapping the one below. Repeat this until the side is firmly strapped up to and a little above the affected point. This will better control the action of the affected lung and leave the sound lung free.

In all forms of *Pleurisy* good ventilation should be secured, also good hygienic surroundings and the most nourishing food.

The foregoing treatment thoroughly applied will control many cases of pleurisy. If the case does not respond to treatment, a doctor should be called. While the reader will not be able to apply the treatment given by the physician, such treatment is presented here with a view of giving a clear understanding of the case.

A. Pilocarpine is recommended by some and may be given to the strong and robust. It is one of the most active remedies to eliminate by the skin. One-fourth grain may be given with a hypodermic needle, the dose to be repeated in one hour if free perspiration has not been obtained.

When the fluid causes pressure upon the heart, its action may become weakened. In such case some heart stimulant should be given. One-twentieth of a grain of Strychnine in pill or tablet form may be given every three hours, if needed; or 2 drops of Fluid Extract of Digitalis.

If fluid forms and is not absorbed, it should be removed by an aspirating needle. This is simply a long, hollow needle, which is plunged through the chest walls between the fifth and eighth ribs. To insure more rapid and complete absorption, the Iodides should be given—1 teaspoonful of the Syrup of Hydriodic Acid between meals and at bedtime; or, if the patient is pale and anæmic, give Iodide of Iron— $\frac{1}{50}$ of a grain between meals and at bedtime.

Whenever pus forms it should be removed at once. Where pus is present it is often necessary to make an opening through the chest wall with a knife to allow free evacuation of the pus. If the pus is fetid or foul smelling, the cavity should be washed out with some disinfectant solution. Peroxide of Hydrogen, or a weak solution of Carbolic Acid, or a solution of Boric Acid should be used, and afterwards the cavity washed out with pure water. If pus forms, the discharge is apt to continue for some time, hence free drainage is necessary. If the disease continues long, tonics are needed.

CHRONIC PLEURISY.—*Chronic Pleurisy* may result from tumor growth in the chest cavity, from tuberculosis of the lungs or other part of the body, from Bright's disease, or from the prolonged use of alcohol. If pus forms in *Chronic Pleurisy*, the treatment is the same as that already mentioned.

PLEURO-PNEUMONIA.—(See PNEUMONIA).

PNEUMONIA.—(See under LUNGS, DISEASES OF).

POLYPUS.—A polypus is a small tumor with a narrow base which springs from mucous membrane. There is distension of some part of the membrane, and the distended portion is filled with a soft, gelatinous growth. Polypus is most frequently present in the nose. It is said to occur in the middle and external ear, but its presence there is not often met. Occurring in the nose it is not painful, and unless accidentally discovered the growth will escape notice until its size produces mechanical obstruction.

Cause.—The cause of polypus, when occurring in the nose, is chronic inflammation of the mucous membrane of the nasal cavities—the condition known as catarrh. Undoubtedly the condition is often largely influenced by septic or unhealthy blood.

The exciting cause may be colds or damp air. Following congestion and inflammation, there is first a thickening of the mucous membrane. Frequent and energetic blowing of the nose has a tendency to cause the membrane to bulge forward at some point where it is weakest, and that is why polypus most frequently occurs in the nasal cavities. The mucous membrane becomes separated from the tissues beneath and the space is filled with exudate from the distended vessels. The nourishment from such exudate is poor, and while Nature tries to supply the cavity with new tissue, in most cases it succeeds but partially, and the result is a soft, gelatinous formation. After the membrane becomes separated from its normal position, the distension continues at its distal or outer portion, while the point of original separation remains and forms what is called the pedicle. The shape of a polypus conforms to the shape of the cavity in which it occurs. Occasionally the polypus is of firmer growth—firmer than the variety mentioned here. It may contain considerable connective tissue and blood vessels.

TREATMENT.—

Removal, either with caustics or a knife applied to the base; or, what is usually more convenient is a loop of wire worked up over the growth to the base, or point of attachment. By tightening the loop after it is in position the growth is easily severed.

PRICKLY HEAT.—(See under SKIN DISEASES).

PROLAPSUS ANI.—(See under ANUS, DISEASES OF).

PROLAPSUS UTERI.—(See under WOMEN'S DISEASES).

PROSTATE GLAND, ENLARGEMENT OF.—The prostate is a gland consisting of two large lobes and one small one. At its greatest diameter it is about $1\frac{1}{2}$ inches wide, about 1 inch long and $\frac{3}{4}$ of an inch thick. Its weight is about five drachms. It is situated beneath and partly surrounds the neck of the bladder. It is composed of connective tissue and muscle fibers, and contains numerous small glands with excretory ducts. Its under surface is in connection with the rectum. Its use is not known. In many cases in middle and advanced life this gland becomes very troublesome by reason of its enlargement. The enlargement is called *Hypertrophy of the Prostate*. The trouble is caused by the pressure of the gland upon the neck of the bladder—the commencement of the urethra. As the gland enlarges it presses upward and raises the neck of the bladder, forming a sack of greater or less dimensions and resulting in retention of urine. The pressure causes frequent

desire to urinate, and at the same time the bladder is not entirely emptied. The bladder enlarges in proportion to the amount of urine retained. In some cases the opening may be so firmly closed as to cause great distension and agonizing pain. This can be relieved only by artificial means. The effects of the dilated bladder may travel up the ureter and check the flow of urine from the kidneys, causing great enlargement of these organs also (seldom).

Symptoms.—In eighty per cent of such cases the symptoms are very light and there is no serious enlargement. In the severer forms there is frequent desire to urinate, and with the amount of urine retained in the bladder it may cause inflammation. Acute inflammation does not often occur; however, the walls of the bladder may become very much thickened, and the bladder itself permanently distended. Where inflammation occurs and is severe, the urine will contain blood and thick ropy mucus, giving it a dark and cloudy appearance.

TREATMENTS.—

A. One important feature is to remain quiet. The act of walking is especially irritating to the gland and increases its size, and also irritates the bladder. Avoid extremes of heat and cold. Avoid alcohol. Give particular attention to digestion and to the condition of the bowels. If there is inflammation of the bladder, give Salicylate of Soda—10-grain doses every three hours—or Salol, 10 grains every three hours. If there is much difficulty in urination, it will be necessary to use a catheter. The patient should be taught how to use it, for with this means of security relief can be had at any time he is unable to urinate naturally; otherwise the bladder might become greatly distended before a doctor could be reached, and such distension would be followed by excruciating pain.

B. Saw Palmetto. Take in teaspoonful doses after meals and at bedtime—four doses a day.—(57).

C. Fluid Extract of Saw Palmetto—one teaspoonful three times a day.—(41).

PUERPERAL FEVER.—(See under WOMEN'S DISEASES).

PUERPERAL CONVULSIONS.—(See under WOMEN'S DISEASES).

PUTRID SORE THROAT.—This means *Diphtheria*. (See DIPHTEHERIA).

PUSTULE, MALIGNANT.—This disease affects animals, and is sometimes communicated to man. In cattle it is often called *Black Leg*, because the swelling is so great and the circulation is interfered with to such an extent that the tissues become dark. It is very fatal. In man it resembles *carbuncle*, but is much more severe, and is called *Malignant Pustule*, *Anthrax* or *Wool Sorter's Disease*. The last name is given because those who handle wool, hides, etc., are more liable to take the disease. It is contagious, and the poison which inhabits the hides and wool may be conveyed to those who are engaged in this work. It affects the skin and deeper structures in the form of a gangrenous inflammation. First there appears a small swelling, which rapidly increases in size, turns dark in color and becomes gangrenous. If continued, there soon appears a fetid discharge of blood and pus.

Cause.—The cause is a specific poison or virus.

Symptoms.—The symptoms are swelling, pain, bronchitis and diarrhea, followed rapidly by a diffused gangrene. The tissues which surround the diseased area are greatly swollen, and the gases formed by the rapid decomposition of tissue produce a crackling sound. The tissues immediately joining the pustule contain vesicles filled with a bloody fluid. Constitutional symptoms are present, the same as in blood poisoning. Death usually follows in a few days.

TREATMENTS.—

A. Make as thorough and complete an excision as possible—cut out all the dead and diseased tissue that can be reached—and use antiseptics freely. Keep the bowels and skin active with a view to relieving the system of the poisons. Stimulants are also needed. The general treatment is the same as that required in blood poisoning.

Note.—When the pustule occurs on a limb, amputation is sometimes advised.

B. For local treatment make a free incision and follow with an injection of pure Peroxide of Hydrogen.

For general treatment, the following: Take twice a day—night and morning—2 drops of Carbolic Acid well mixed in a teaspoonful of Simple Syrup. The strength should be sustained by Iron and Wine, or other alcoholic beverage. The diet should be nutritious and easily digested.

C. Free incision, followed by moist or wet dressings of Corrosive Sublimate—4 grains of the Sublimate to 8 ounces of water—frequently changed.—(31).

D. First make a free incision, then introduce the point of a small syringe and inject into the wound Carbolic Acid diluted with three times its amount of water. The wound should then be syringed out with pure water.—(24).

QUINSY.—(See TONSILITIS).

RABIES.—This means Hydrophobia. (See HYDROPHOBIA).

RELAPSING FEVER.—(See under MALARIAL FEVERS).

REMITTENT FEVER.—(See under MALARIAL FEVERS).

RHEUMATISM, MUSCULAR.—Rheumatism is a painful condition of the muscles and joints. The muscles are affected most because they are subjected to greater strain, in fact, it is the muscles that move the joints. When the muscles are affected, it is called *Muscular Rheumatism*. The muscles that are used most are affected most.

Lumbago.—First come the muscles in the “small of the back,” because this part or point acts as a hinge or pivot upon which the body rotates and bends. This is the part from which the body is supported, hence there is greater strain, and this increases the irritation and pain. What is called the loins extend from the lower ribs to the hips along either side of the spinal column. When rheumatism affects these parts it is called *Lumbago*; in other words, lumbago is rheumatism in the small of the back.

The next most frequent location is in those muscles supporting the most active joints, or in any muscles doing the most work.

While it is customary to speak of muscular rheumatism as we have done, it is not correct. The same general condition that produces neuralgia and other pains is the cause of rheumatism. If the reader should examine the fibers of an affected muscle under the microscope, such fibers would appear normal. There would be no evidence of inflammation or other trouble, showing clearly that the disease was in the nerve fibers and not in the muscle fibers. (See NEURALGIA).

Cause.—The first cause of rheumatism is indigestion and constipation, followed by too much acid in the circulation.

It has been stated elsewhere that the higher forms of digestion are carried on in the circulation. Certain food elements produce uric acid, and this acid, meeting the oxygen from the air we breathe, is converted into urea and eliminated by the

kidneys; but as a result of overeating, too much hard work, lack of exercise, or some other cause, the change mentioned does not take place and the uric acid remains an irritating substance. Lactic acid is believed to be the product of muscle tissue. In health this acid is also oxidized and converted into carbonic acid gas and water. The carbonic acid is eliminated by the lungs, and the water by the kidneys, but indigestion lessens oxidation, and the lactic acid also remains and accumulates in the circulation. The delicate nerve fibers and other tissues being constantly bathed with these acids, become irritated, and irritation increases until actual pain exists. As evidence of the truth of this statement, we have but to remember that during an attack of rheumatism, perspiration, which is normally alkaline, is now highly acid. This is the cause of rheumatism, whether it affects the joints or muscles, or whether it is local or general, and this is why the alkaline treatment for rheumatism is so beneficial. It neutralizes the excess of acid, which relieves the irritation, and if there is inflammation present it gradually subsides.

Symptoms.—The symptoms of a mild attack or form of rheumatism are stiffness, soreness and more or less pain. When remaining too long in one position, the individual upon attempting to stand upright or move about actively finds it difficult at first. In a short time, however, the trouble passes away more or less so that free motion is established and maintained as long as the activity is kept up, because such activity tends to equalize the circulation and thus relieve the affected parts. When rheumatism occurs in a severer form, the stiffness and soreness increase to actual pain, and the affected muscles may become so painful that it will be found impossible to exercise them. Those troubled with rheumatism give a history of constipation. In the form of rheumatism here mentioned there is no fever.

Sometimes the pain is sudden, sharp and piercing, and for a few hours or a day the individual is unable to move the affected muscle or muscles. This usually occurs in the side or back, and is called a "stitch."

Rheumatism in the muscles of the neck often causes the head to lean toward the affected side, as this relaxes tension and lessens the pain. This is called *Torticollis*, or *Wry Neck*.

When one has rheumatism as a result of "taking cold," it simply means that the cold lessens peripheral (near the surface) circulation, hence too much blood is retained in the internal organs, in the muscles and around the joints; and this sudden increase of blood so highly charged with these acids, acting as an irritant, results in pain more or less acute.

TREATMENTS.—Muscular Rheumatism—Lumbago.

A. Use Smartweed tea locally.

Internally take a 5-grain tablet of Salicylate of Soda every hour until the ears ring; then the same dose every four hours until relieved.—(57).

B. Eat sparingly of meats. Keep the bowels active. Take one of the kidney cures given in the MISCELLANEOUS MEDICAL RECEIPTS, or take 20 grains of Salicylate of Soda every four hours, either in tablet or solution.

C. Green Tincture of Rhus Toxicodendron— $\frac{1}{4}$ of a drop four times a day.—(37)—Homeopathic.

D. Make 10 capsules, each containing:

Antikamnia	3 grains.
Codeine	$\frac{1}{4}$ “
Salol.....	10 “

Take 1 every six or eight hours.—(47).

E. Continuous heat should be applied, either in dry form by the means of warm flannels, or by soft, warm Linseed poultices. Take a hot bath every night before retiring. Persons who are subject to this disease should wear warm clothing, avoid draughts and guard against strains or heavy lifting. Cases often receive benefit from visits to some of the natural mineral springs.

F. Moderate doses—3 to 7 grains—of Acetanilid every six hours to persons of a sound heart, aided by external applications of heat.

Salicylate of Soda in 20-grain doses three times a day, taken in full glass of water, is often effective.—(31).

G. Baking Soda— $\frac{1}{2}$ teaspoonful every four hours. Rest in the recumbent position. Very light diet.—(35).

H. Oil of Wintergreen..... $\frac{1}{2}$ ounce.
Sweet Spirits of Nitre..... 2 “

Mix, and take 1 teaspoonful every three hours in $\frac{1}{4}$ glass of water.—(25).

I. Heat and counter-irritants.—(33).

J. Five grains of Muriate of Ammonia every two hours, dissolved in a wineglassful of water,

or,

Five drops Fluid Extract of Cimicifuga (Black Cohosh) in a glass of water. One teaspoonful every hour.—(41).

K. Phenacetine 16 grains.
Caffeine 3 “

Give dry on tongue. Put patient to bed. Apply heat, followed for several days with Wyeth's Salicylatis, one teaspoonful every four hours, or Potassium and Lithium tablets, 10 grains every two hours.—(26).

- L.** Iodide of Potash..... 2 drachms.
Elixir Salicylic Compound..... 4 ounces.

Dose.—Teaspoonful between meals and at bedtime.—(28).

- M.** Citrate of Potash, 60 grains (teaspoonful) a day in lemonade,

or,

Baking Soda, 100 grains a day.

Blister plasters shorten the attack.—(24).

- N.** Give, either in solution or pill form, Cimicifuga (Black Cohosh) or Colchicine, the third dilution.—(56)—Homeopathic.

- O.** Take hot baths with 2 or 3 pounds of washing Soda dissolved in each bath.—(32).

P. Salicylate of Soda, 20 grains in capsules No. 8. One every four hours,

or,

Tongaline liquid, 5 ounces. Teaspoonful in hot water three or four times a day.—(20).

- Q.** 20 drops Oil of Wintergreen every four hours,

or

Acetanilid..... 5 grains.
Caffeine Citrate..... 1 “

Dose to be repeated every three hours.—(41).

- R.** Sulphur 1 ounce.
Saltpetre..... $\frac{1}{2}$ “
Gum Guaiac $\frac{1}{2}$ “
Colchicum root (or seed) $\frac{1}{4}$ “
Nutmegs $\frac{1}{4}$ “

Pulverize and mix with 2 ounces of Simple Syrup or molasses.

Dose.—One teaspoonful every two hours until the bowels move rather freely; then three or four times daily.—(73).

Concerning the Remedies Recommended Above.—It will be noticed that nearly all of the foregoing remedies contain *Salicylic Acid*. Both *Salol* and *Oil of Wintergreen* contain a large percentage of Salicylic Acid. *Elixir of Salicylic Compound*, *Tongaline* and *Wyeth's Salicylates* also contain Salicylic Acid, hence there is no difference in these remedies except the variation in the amount of Acid. *Baking Soda*, *Citrate of Potash* and *Muriate of Ammonia* contain no Salicylic Acid, therefore they are less valuable; yet they neutralize the excess of acid in the circulation and in the tissues, and in this way lessen the irritation and aid the patient in recovery. *Colchicine* contains no Salicylic Acid, yet it increases the eliminations of all of the tissues of the body and of the digestive tract, hence is valuable in freeing the system of all irritating material, and is especially recommended for those who are fleshy and those who take but

little exercise. In this class of cases it is a valuable remedy to give in combination with the Salicylates. Acetanilid contains no Salicylic Acid, but it possesses antiseptic properties and also has a tendency to lessen the pain, therefore aids in controlling the disease. *Citrate of Caffeine* is a heart stimulant. In many cases this might be valuable in increasing the force of the circulation and aiding in giving physical power. *Spirits of Nitre* increases the activity of the kidneys, and therefore aids materially in eliminating the waste and irritating matter which cause the disease. *Hot Baths* are valuable because they aid in elimination. *Sulphur* aids in elimination both by the skin and bowels. The action of *Saltpetre* is the same as *Spirits of Nitre*. Salicylic Acid is somewhat irritating, if taken clear, hence the various forms of combination. Salicylic Acid is generally recognized to be more valuable than any other known remedy in the treatment of rheumatism, either acute or chronic, and, speaking from our own personal experience, we can heartily recommend this claim. Whenever the ears sing, take less—perhaps only half the amount.

RHEUMATISM, ACUTE ARTICULAR—INFLAMMATORY RHEUMATISM OF JOINTS.—Rheumatism of the joints differs from muscular rheumatism. It is an acute form and very painful. Every joint is held in position by ligaments, and the joints, including the ligaments, are enclosed in a thin membrane in the form of a short, wide tube. The membrane is attached at either end to the margin of the articular surfaces of the bones forming the joint (see description of JOINTS). In acute rheumatism of a joint the irritation increases the blood supply, and there is swelling and redness in proportion to the increase in the circulation. The more vascular the part, *i. e.*, the more blood vessels it contains, the greater the swelling. The swelling causes pressure and the pressure causes pain. With the increase in blood supply, there is an increase in tissue change, hence the increase in the temperature, because animal heat depends upon tissue change. This gives what are called the four cardinal symptoms of inflammation—swelling, redness, heat and pain.

Cause.—The underlying cause is the same as that which produces muscular rheumatism. The exciting or immediate cause may be too much hard work, may be injury, slight or severe, or may result from atmospheric changes—damp air or rainy weather. In any case the result is the same, *i. e.*, too much blood is directed to the affected part, and blood so highly charged with acids and other irritants causes congestion and inflammation.

Symptoms.—Pain and soreness, which increase rapidly and soon result in inflammation and swelling. The temperature is high, the pulse is rapid, the perspiration is highly acid and its odor is sour; even the saliva is highly acid. The urine is scanty and high-colored, and may contain albumen. The surface over the affected joint is hot, and the normal color of the skin is more or less reddened. As the disease increases, the slightest movement causes excruciating pain.

TREATMENT.—

The inflammation and sensitiveness first occur in the membrane which surrounds the joint, and the inflammatory process extends toward the surface. The joint structures proper are not affected at the beginning of the attack, and it follows that if the disease can be checked, the joint will escape uninjured. Constipation usually exists; whether this is the case or not, give an active cathartic.

The patient should be put to bed and absolute quiet maintained. Place a rubber blanket under the affected joint, allowing it to hang over the side of the bed and into a pail or pan—something large enough to hold considerable water. Now secure a piece of flannel large enough to wrap the whole joint and so that the border will extend for some little distance above and below, and wet this in cold water—the colder the better. Wrap the wet flannel carefully, yet firmly, about the affected surface, and continue the cold by pouring cold water upon the bandage every twenty minutes, day and night. The water will drain into the pail or pan.

As soon as there is thorough action of the bowels, give 10 grains of Salicylate of Soda every two hours until the ears ring, then every four hours. The patient should also diet two or three days—going without all food for twenty-four hours is still better. This treatment, thoroughly applied, will arrest the disease in nearly every case. If the patient is very fleshy, $\frac{1}{16}$ of a grain of Colchicine might with advantage be added to each dose of the Salicylate of Soda.

RHEUMATISM, CHRONIC.—*Chronic Rheumatism* of the joints does not usually follow the acute, but rises insidiously in people who have suffered from exposure, improper food, overwork and other hardships. In chronic inflammation the cartilages covering the articular or adjoining ends of bones may become destroyed and the exposed bones become irregularly thickened; also the capsule or membrane enclosing the joint and the ligaments which support it, may become fibrous and contract.

The prolonged irritation causes a low form of inflammation, and the same change takes place here as elsewhere. There is an increase in the connective tissue framework. Later this contracts, deforms the joints and limits motion. The contracting fibers cause pressure, aiding in the destruction of cartilage, ligament and other normal tissue; and sometimes during these degenerative changes the ligaments which support the joint soften, allowing certain muscles which are attached near the joint to contract, thus causing deformity. Sometimes tendons and ligaments about joints become filled with the lime salts of which bone is formed; this results in a stiff joint. Pus does not form.

In some cases the joint structures are not destroyed. The joint remains slightly swollen, is more or less stiffened, and the muscles which surround it are more or less shrunken and wasted; but there is no fever and no discoloration. If the joint is movable, such movement gives a creaking sound, and the tendons and ligaments of the joint produce crepitation (crackling) in the sheath or membrane which surrounds them.

TREATMENT.—

The best treatment for chronic rheumatism of joints is hot air. A temperature of 300 or 500 degrees may be applied. Hot air dilates the small vessels and brings the blood to the surface where it is applied, and thus relieves the congestion and inflammation beneath. This causes the blood to flow through the part, relieves the pressure and stops the pain. Adhesion and accumulation are also broken down and removed, thus preventing stiff joints. There is an active discharge through the skin, and the removal of waste relieves the irritated nerves. The improvement in the circulation stimulates the natural activity, nutrition is increased, the heart is strengthened and the brain relieved. Massage is also of benefit.

Massage stimulates the circulation with the same results as hot air, although it is much more limited in its effects. Electricity applied by the interrupted, or Faradic, method is only a means of massage. The advantage from the interrupted current comes from the fine, vibratory, massage-like effect; in other words, from the mechanical effect and not from the electricity. The remedies which should be used are laxatives and antiseptics. Digestion must be improved. Hot air or drug medication will be more effectual if administered by one skilled in their application, but what every one and any one can do is to guard against all forms of excess and keep the eliminative organs active, and they will not be troubled with rheumatism.

In the great majority of cases the hot air treatment cannot be applied for want of conveniences. The next best thing is the internal use of Iodides in some form. Syrup of Hydriodic Acid is pleasant to take and is as effective as Iodine in any other form. One teaspoonful may be taken three times a day—between meals and at bedtime. This may be continued for three or four weeks at a time, then skip a week or two and take again. If there is a catarrhal condition of the eyes, it is evidence that the dose is too large; in this case, take half the amount. Also take 10 grains of Salol, or 10 grains of the Sulphocarbolates (see Index), three times a day. Five-drop doses of Fowler's Solution, taken with the meals, is also valuable. At any time that there is evidence of an increase in the trouble, take any of the remedies mentioned under MUSCULAR RHEUMATISM.

RECOMMENDED TREATMENTS FOR STIFF JOINTS.—

A. The best internal remedy is Black Cohosh. Take the root and steep it and drink freely of the decoction; or, if the root is not procurable, the tincture or fluid extract may be purchased at a drug store. The dose of the tincture would be from 10 to 15 drops three times a day; of the fluid extract, from 5 to 10 drops three times a day.

For an external remedy, use the following:

Tincture Iodine..... 4 ounces.
Water of Ammonia..... 4 “

Mix, let stand a few hours and apply, rubbing in thoroughly. The more time spent in making the application, the better.

Any treatment for Rheumatism, to be effective, must be persisted in for a long time.

B. Oil of Wintergreen..... 1 drachm.
Ammonia Liniment..... 2 ounces.

Mix together, rub well into the joint and cover with flannel.

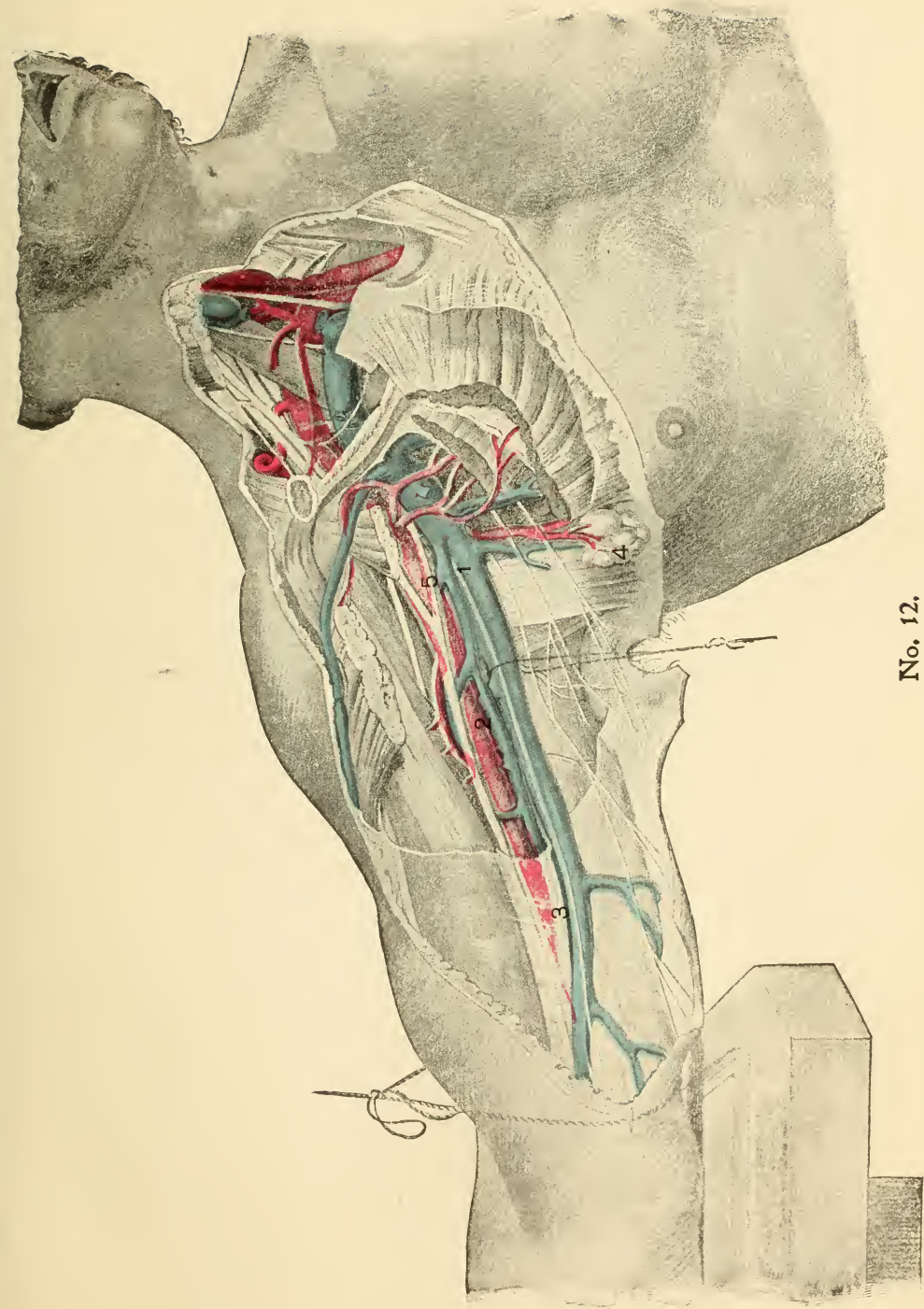
Salol..... 2 drachms,
Divide into 10 powders. Take 1 every three hours.—(59).

C. Ether 1 ounce.
Oil of Cajeput..... 1 “
Benzine..... 4 “

Local application,

or,

External application of Gasoline.—(55).



No. 12.

1, Large Vein. 2, Large Artery. 3, Fascia (membranous covering). 4, Lymphatic Gland. 5, Nerve.

D. John White, Harbor Beach, Michigan, had rheumatism in foot. After two doctors had failed in treating him, he used the following remedy and it cured him:

Spirits of Turpentine.....	1 pint.
Alcohol	1 "
Camphor Gum.....	1 ounce.
Saltpetre	1 "
Beef Brine.....	1 pint.

Heat the beef brine until it comes to a boil and take off scum, then mix all together. Apply three or four times a day, rubbing it in well, or until the flesh is red. In addition take something to keep the bowels open.

E. Ten grains Salicylate of Soda every two hours. Cotton batting and oil silk to joints,—(39).

RHEUMATISM, GONORRHEAL, OF THE JOINTS.—There is another form of joint trouble, called *Gonorrheal Rheumatism*. This is not Rheumatism, however, but is caused by poisons in the blood resulting from *Gonorrhœa*. It is not frequent in the early stages of gonorrhœa, but when occurring is most frequent in the latter stages—in *Chronic Gonorrhœa*.

Cause.—That already given—septic or poisonous material resulting from gonorrhœa, carried by the circulation. The exciting or immediate cause is the same as the exciting or immediate cause for joint rheumatism proper.

Symptoms.—The symptoms are somewhat different from those of gonorrhœa. In order to show the symptoms to better advantage or make them more easily understood, we give them side by side:

Gonorrheal Rheumatism of Joints.

Fever is slight.

Lasts for several weeks or months.

Gonorrheal has a tendency to occur again and again.

The perspiration is normal, that is, alkaline.

Heart complications are unusual.

The joint may suppurate.

There is a history of gonorrhœa.

Inflammatory Rheumatism of Joints.

Fever is high.

Lasts about one week.

Inflammatory has not.

Perspiration is not normal, but highly acid; even the saliva is acid.

Heart complications are frequent.

The joint does not suppurate

There is no history of gonorrhœa.

TREATMENT.—

Until recent years this disease was most difficult to control, in fact, there was no treatment that seemed to produce much effect. More recent developments, however, have shown that the following may be relied upon. By many who have had large experience the following remedies are said to give the most satisfactory results, and we are assured the disease may be controlled by such treatment:

Sulphide of Calcium... $\frac{1}{2}$ grain, pill or tablet.

Take from four to six times a day. Give at the same time 5 drops of Fowler's Solution in a little water. If there is much effusion in the joint, it should be drawn off with an aspirating needle. If pus forms, the abscess should be opened at once, washed out with an antiseptic solution, and proper drainage maintained.

SCIATIC RHEUMATISM—SCIATICA—NEURALGIA OF THE SCIATIC NERVE.—These and perhaps other terms are applied to painful conditions of the sciatic nerve. This nerve is the largest nerve in the body. It is a continuation of nerve fibers having their origin in the lower part of the spinal cord. At its greatest width it measures $\frac{3}{4}$ of an inch, and is said to be capable of sustaining a weight of 175 to 200 pounds. Its great size and length is the reason why affections of this nerve are so painful and persistent.

The sciatic nerve leaves the pelvic cavity through a small opening situated rather low down and toward the back part of the hip. It extends downward along the back of the thigh to a point a little above the knee, where it usually divides into two branches. It supplies the skin over the whole of the lower extremities, supplies the hip joint, the muscles along the back part of the thigh, the knee joint, the muscles of the leg below the knee, and the foot.

Cause.—The same as rheumatism and neuralgia elsewhere. It should be remembered that the nerve fibers are supplied with blood vessels, the same as other tissues of the body, and that irritating blood causes congestion of these vessels the same as elsewhere. The congestion may increase to inflammation. This congestion or inflammation means that the vessels are thickened and swollen. This causes pressure, and the delicate and sensitive nerve fibers give notice in the form of pain more or less pronounced. This is the condition in muscular rheumatism, and this is why we stated that it was the nerve fibers and not the muscle fibers that were affected. Only for the vitalizing influence supplied through the nervous system, the material body would be

dead matter, therefore Nature has designed that any irritation or morbid condition that tends to interfere with normal nerve action or obstruct the vitalizing influence mentioned, shall be made manifest; hence the pain. The pain is mild or severe in proportion to the danger present. The opening through which the sciatic nerve makes its exit from the pelvic cavity is only large enough to admit the passage of the nerve. The congestion and inflammation mentioned may be communicated to the tissues surrounding this opening, and this would crowd upon the nerve at that point and increase the pain. The same congestion and inflammation may extend downward and result in adhesions of the tissues surrounding the nerve in other situations. This would cause pressure and irritation and also aid in increasing the pain. The adhesions are in proportion to the size of the nerve, and this is another reason why the disease is so stubborn and why it fails to yield to the ordinary methods of treatment.

Symptoms.—Pain along the course of the nerve. It may be most severe in the hip, at the knee, at the heel, or may include the whole nerve tract. Where the pain is severe, it usually comes on in spasms, lasting from a few hours to a day or two. In many cases the pain is not severe, but dull and more constant, leaving one point and as suddenly attacking another. Sciatica frequently follows *Lumbago*, or rheumatism in the small of the back, because the spinal cord only extends to the small of the back and the sciatic nerve is a continuation of nerve fibers having their origin at that point; hence when the pain leaves the sciatic nerve it may suddenly appear in the back or elsewhere.

TREATMENTS—Sciatica.—

A. Mustard plasters, blister plasters, and all forms of artificial heat have been used in this disease. Sometimes they give relief and sometimes they do not. Where relief is not obtained and the pain is severe, some give temporary relief with Morphine. It has been stated that the disease is the result of irritation, congestion, and perhaps inflammation, therefore we believe the best remedy is the same as would be given to relieve congestion and inflammation elsewhere, *i. e.*, 1-drop doses of Tincture of Aconite every hour; or, if the patient is strong, the same dose may be given every thirty minutes for two or three hours or more. We also recommend the following:

Salicylate of Soda.....	1	drachm.
Acetanilid	½	“

Mix, divide into 12 powders and give 1 powder every two hours until the ears ring.

These powders and the Aconite may be given together. We have known some very stubborn cases of sciatica—cases that have resisted all other means of treatment—to yield to the continued use of Aconite alone. Add 24 drops of the Tincture of Aconite and 1 ounce of Glycerine to 3 ounces of water. Shake the bottle and take 1 teaspoonful every one or two hours. If the patient is physically strong, he can take 1 teaspoonful every hour. If there is a sense of tingling, or a sense of numbness in the toes, fingers, hands, face or lips, it will be evidence that the patient should take less, say one-half the amount. Aconite is not recommended for those with a weak heart.

Tincture of Aconite, and, in fact, all tinctures, fluid extracts and other herbs used in medicine, owe their effects largely to a certain active ingredient often called the *active principle*. They are also sometimes called *alkaloids*, *glucosoids*, etc., according to their composition. These active principles constitute but a very small percentage of the drug. Aconitine Amorphus represents Aconite more actively than the tincture or fluid extract. This is equally true of all active principles because they are definite in amount. The Aconitine Amorphus may be given in $\frac{1}{150}$ grain doses in place of the tincture. Where it is continued for some time, it is often used, because it is prepared in pill or tablet form, hence is more convenient. We believe the Salicylate of Soda and Acetanilid powders are equally as valuable as the Aconite.

B. Croton Oil given in a full dose (from 1 to 3 drops) is the best and quickest and most permanent relief of any I have ever used.—(30).

C. A large Mustard plaster over the seat of pain along the course of the nerve.—(20).

RICKETS—RACHITIS.—Rickets may occur before birth, but usually not until after. It is a condition where the bones throughout the body become more or less softened, either from the absorption of bone matter or from a lack of deposit of lime salts; the latter is the more common cause. The disease generally occurs during the first or second year, and is usually found in cities.

Cause.—This disease is caused by a lack of nourishment, which may be the result of poor food, or of an insufficient amount of food. Another important factor is bad hygienic surroundings—bad air, lack of sunshine, unhealthy cellars, or small apartments inhabited by too many families.

Symptoms.—It will be noticed that the child is weak and poorly nourished, teething is late, or if teeth are present they may become loose and fall out. Handling the child causes more

or less pain all over the body. This is caused by the condition of the bones. The child is more quiet while lying down, and cries or worries more while being handled.

Where the ribs join the chest bone there is a prominent thickening, which may readily be felt. The ribs are soft and bend easily—even breathing or traction of the diaphragm may cause the chest to become flattened, latterly or on the sides. This would cause the chest bones to bulge forward, giving the chest a narrow, wedge-shaped appearance, hence the term, "*pigeon breast*." All of the bones lack development. The chest cavity is small and interferes with the lung power. The spinal column softens and the weight of the body may cause curvature of the spine. This curve is usually posterior, or backward, and produces the condition known as *humpback*. The bones are so soft that the periosteum, or membrane which surrounds them, can be easily removed. In standing or walking the bones of the lower limbs become bent. The pelvic bones become deformed, and the bones of the head enlarged. If the disease is of long standing, the whole mass of bone structure becomes firm and hard. After the disease is cured, the bones of the head remain large as a result of internal pressure, and the bones of the body small from lack of development. The ribs or bones of the limbs may remain more or less misshapen as the result of muscular contractions when the bones were soft. This muscular contraction and the weight of the body causes pressure on the ends of the bones forming the joints, and they become more or less enlarged, hence the prominence at the wrist joint, elbow, ankle or knee. During the disease fractures usually occur from very slight causes. An examination of the urine will detect an abnormal amount of lime salts.

The duration of the disease is about two years. However, with good care and proper treatment a cure should be effected in less time.

TREATMENTS.—

A. The treatment consists of attention to diet and hygiene. If the child is in an unhealthy location, it should be moved—taken where it will receive an abundance of fresh air and sunshine. Every attention should be paid to a nourishing diet, frequent bathing, attention to the bowels, etc. The remedies to be taken internally are Fowler's Solution, Syrup of Lactophosphate of Lime and Maltine, or a good extract of malt. Fowler's Solution may be taken in from 1- to 3-drop doses, according to age, three times a day. Syrup of Lactophosphate of Lime may be given in 1-teaspoonful doses four times a day.

The deformities should receive mechanical support in the way of splints and bandages. Most cases may be cared for at home, but should be under the attention of a doctor.

B. Pigeon Breast.—When caused by rickets, give Compound Syrup of Hypophosphites with meals. Massage the chest and press the deformed bones back into place.—(40).

C. Scott's Emulsion Cod Liver Oil.—(41).

RINGWORM.—(See under SKIN DISEASES).

ROSE RASH, or ROSEOLA.—(See under SKIN DISEASES).

RUPTURE.—(See HERNIA).

ST. ANTHONY'S FIRE.—This means Erysipelas. (See ERYSIPELAS.)

ST. VITUS DANCE—CHOREA.—This is a disease of childhood, brought about by some disturbance of the nervous system resulting in irregular and spasmodic actions of certain groups of muscles. There is also more or less general weakness, lack of ambition and loss of power. The mind may be dull and the memory somewhat weakened.

Cause.—A lack of development of the nervous system, or a lack of proper nourishment and support of that system. The child becomes weak and irritable. The exciting or immediate cause may be either excitement or fright. Eye strain from too much study is also said to act as an exciting cause. There may be other conditions which bring on the first spasmodic attack. We should remember, however, that the underlying cause was present before. We realize that the foregoing is somewhat indefinite, yet they are the causes usually given for this disease. Personally, we believe the real and only cause is malnutrition, or indigestion and lack of assimilation. This may be the result of poor food, unhygienic surroundings or too close attention to school studies; or if from other causes, the result is the same. This means irritating blood and a lack of nourishment, and gradually the vitality of the child is reduced. The condition may be overlooked until, as a result of some one of the exciting causes given, the disease suddenly develops.

Symptoms.—Spasmodic and irregular movements of the voluntary muscles. The condition is made worse by an attempt to walk or perform any duty. These movements generally cease during sleep. First, there may be a general restlessness which increases until the patient loses more or less the power of co-ordination (see LOCOMOTOR ATAXIA), or the disease may come on suddenly, as stated above.

The disease may begin in the hands and arms, may include the muscles of the face and those of the eyes, and later extend to the lower extremities; it may include the head and body and both upper and lower extremities; or may affect the right arm and the left leg, or vice versa. When the head and body are affected, the patient moves to and fro, bending, bowing and jerking; when the lower limbs are affected, the gait is tottering and unsteady, the patient stumbling in attempting to walk; when the hands and arms are affected, the patient may not be able to feed himself. The muscles of the tongue are usually more or less affected, and this renders speech difficult and stammering. When the muscles of deglutition, or those engaged in the act of swallowing, are involved, swallowing is difficult. Watching the child or making any attempt to correct him only increases the trouble.

TREATMENTS.—

A. The child should avoid all excitement, and should not be sent to school; in fact, nothing exacting should be demanded of him. He should never be watched, harshly criticized, or otherwise severely dealt with. No attention should be paid to his actions, or such conduct as results from the disease. The symptoms should be allowed to pass unnoticed, and he should be encouraged in the belief that he is getting better. The most careful attention should be paid to diet—vegetable diet is the best. Rice boiled for two or three hours, toast, milk, soft boiled eggs, beef tea made at home (see MISCELLANEOUS DEPARTMENT), oatmeal boiled for three hours and strained, using only the liquid part, and vegetables such as used in a boiled dinner, boiled and strained, using only the liquid part, are all valuable, because they are easily digested and nourishing. The following is a valuable internal remedy:

Fowler's Solution.....	½ ounce.
Fellows' Syrup of Hypophosphites	2 ounces.
Maltine, or any good extract of Malt	6 "

Mix by shaking the bottle.

Give 1, 2 or 3 teaspoonfuls four times a day. Give with meals and at bedtime. The dose should correspond to the age of the child. If the appetite is not good, the child should receive more than three meals a day.

B. Fluid Extract Cimicifuga (Black Cohosh), 1 drop three times daily. Also Fowler's Solution, 3 drops three times daily. Cold douche to spine, followed by brisk rubbing.—(41).

C. Rest in bed. Not to compel the patient to lie in bed, but to allow him to rest at pleasure. Also anything to interest him and divert his mind.—(39).

SALT RHEUM.—(See under SKIN DISEASES).

SCARLATINA.—(See under ERUPTIVE FEVERS).

SCIATICA.—(See RHEUMATISM, SCIATIC).

SCROFULA.—(See TUBERCULOSIS OF THE LYMPH GLANDS).

SCURVY—SCORBUTUS.—In this disease there is congestion of all mucous membrane, also of the deeper layer of the skin covering the body; hence slight hemorrhage may occur in various places, giving to the skin a spotted appearance. The gums are apt to be swollen and bleed easily. There is always languor and more or less prostration, and rheumatic pains are scattered throughout the body. What is called "*Button Scurvy*" is a disease caused by poor food and depraved nutrition. Slight growths of papules appear in the skin which are thought to resemble a button, hence the term. In all forms of scurvy there is a morbid condition of blood, always aggravated by lack of cleanliness. In the past scurvy is said to have occurred most often on ship board, although in earlier years it occurred in badly fed armies and in besieged cities.

Cause.—Long continued use of salted meats, or rather, the absence of vegetable foods. This disease is also largely influenced by bad hygiene. Absence of vegetable food and unhealthy surroundings will produce scurvy in a previously healthy man. It may follow protracted fevers. In children it is said to have been caused by some kinds of infant foods. When scurvy first appeared in the United States army, some time ago, the government issued canned fruits and vegetables to the soldiers and sailors with most excellent results. This plan or arrangement, together with better sanitation in camp life, has driven scurvy out of the field. To-day it is practically unknown to any extent.

Symptoms.—There is general weakness, languor, and lack of ambition; the skin becomes rough and pale and presents a muddy appearance; the gums are swollen and bleed easily; there may be small hemorrhagic patches beneath the skin; the eliminations from the digestive tract contain blood; the breath is offensive; the lips are pale; the eyes are sunken and may be encircled with dark lines; the face frequently bloats; the urine is high-colored and its odor is offensive; the heart is weak and fluttering, and there is shortness of breath. Occurring in children, they are anæmic and irritable and remain quiet—dislike to be handled. There is soreness about the joints, and congestion of the mucous membrane in the mouth, increasing to a profuse flow of saliva.

TREATMENTS.—

A. First, free elimination from the digestive tract, followed by antiseptics, such as Salol or the Sulphocarbolates. These cases either require a change of air or improved hygienic surroundings. The food should consist of fruit juices, fresh vegetables, milk, broths from fresh meats that are cooked but little, etc. The treatment for children and adults is the same. Where children are anæmic and very pale, Syrup of Iodide of Iron will improve the condition. This is also true with adults. In most cases but little drug medication is needed.

B. Maltine..... 4 ounces.
Liquid Peptonoids..... 4 “

Mix, and take 1 dessertspoonful after meals.—(47).

SEA SICKNESS.—Sea Sickness is a distressing disease occurring on ship board. It is characterized by dizziness, intense nausea, vomiting and extreme prostration.

Cause.—The primary or first cause is the motion of the vessel—the alternate rising and falling of the bow and stern. The trouble is not so severe on vessels with heavy ballast because there is less motion. The cause is also partially explained by the condition of the system. Indigestion, an abnormal condition of the digestive tract and a lack of free circulation over the surface of the body, weaken the controlling powers of the nervous system until it is less capable of withstanding the unnatural motion of the ship.

TREATMENTS.—

A. For several days before taking passage on ship the individual should pay strict attention to diet and elimination. Keep the bowels regular in their action, eat sparingly of light food, take a bath every day and rub the surface afterward until it assumes a healthy glow.

If following the first indications of the trouble a horizontal position of the body is assumed and maintained, there is less danger; in fact, by this means many cases of sea sickness are prevented. To relieve an attack take $\frac{1}{100}$ of a grain of Atropine, $\frac{1}{80}$ of a grain of Strychnine and $\frac{1}{200}$ of a grain of Glonoin. Take all at a dose, and repeat every hour until the face is flushed; after that, take less often—perhaps once in two or three hours. Whenever relief follows, stop the treatment. We know of no better remedy that can be applied. The object is to bring the blood to the surface and maintain free peripheral circulation. If this is done, the attack will be broken up. There is nothing better for this purpose than the remedy named.

B. Have the liver acted upon thoroughly for three days previous to embarking, then whenever the nausea is felt, touch the tongue to the following:

Strychnine.....	1 grain.
Water	4 ounces.
	—(32).

C. Sea sickness may be prevented by the following before taking the trip. See that the bowels are loose. One day previous to departure take the following:

Bromide of Potash.....	3 drachms.
Simple Elixir.....	2 “
<i>Mix</i> , and take 1 teaspoonful every five hours.—(38).	

SHAKING PALSY.—(See under PARALYSIS).

SHINGLES.—(See under SKIN DISEASES).

SICK HEADACHE.—(See under HEADACHE).

SKIN DISEASES.

The skin forms a covering for the whole body and protects the deeper structures. It is usually divided into two layers: the outer, known as the cuticle epidermis, or scarf skin; and the inner, known as the cutis, corium or true skin. The corium is formed of connective tissue; the epidermis, or outer layer, is merely worn-out cells that are being cast off. The corium is well supplied with blood vessels; the outer layer has none.

The corium is covered with small elevations called papillæ. Each of these papillæ, or points, is supplied with a loop of blood vessels. It is by means of these elevations that the sense of touch is made manifest. The specialized nerve fibers which supply them are most abundant where the sense of touch is most acute, as the tips of the fingers and the soles of the feet. The true skin is continuous at the nose and mouth with the corium, or deeper layer of mucous membrane; in fact, the deeper layer of the skin and mucous membrane are the same. This sheet of membrane encloses the outer surface of the body, is continuous through the nose and mouth, and lines the cavities in the head, mouth, throat, air tubes, lungs, stomach, digestive tract, collecting tubes of the kidney, uterus, bladder and urethra.

The skin contains hair follicles, sweat glands, and sebaceous, or oil, glands.

A hair follicle is a small depression in the skin. At the base is one of the papillæ mentioned, and the loop of blood vessels which supplies each papillæ supplies the hair with nourishment. Hair follicles cover more or less all parts of the body and extremities, excepting the palms of the hands and soles of the feet.

The sebaceous, or oil, glands, commence below the surface of the skin, extend toward the surface and open into the side of the hair follicles. These glands secrete an oily substance which keeps the skin smooth and the hair glossy.

The sweat glands cover all parts of the body and extremities. They are most numerous in the palms of the hands and soles of the feet. The average amount of waste eliminated through the skin is about twenty-four ounces in twenty-four hours. This watery fluid contains from two to four per cent of solid matter.

The hair follicles, oil and sweat glands are lined with a layer of cells which, by reason of their specialized nerve supply, have the power to secrete from the passing blood stream certain materials: the hair follicles, those materials which supply the growth of the hair; the sebaceous or oil glands, those which keep the skin and hair smooth and soft; the sweat glands, those which eliminate waste. Large amounts of waste are eliminated.

In hot weather the perspiration bathes the surface of the body and keeps it cool. This is why animal life can exist in a temperature much higher than its own. When the air is moist, it does not readily take up more moisture from the body. This produces discomfort and depression, as it checks elimination. Such weather is spoken of as muggy, humid, sultry or oppressive. This is the reason the same temperature is more destructive to life in New York City or Chicago than in Minnesota or any section where the air contains less moisture. The dry air readily takes up moisture from the body and thus favors elimination through the skin. Dry clothes do not attract heat from the body; wet ones do, because their temperature is lower. This produces chilliness, and may result in taking cold. Exercise produces more heat, which meets the drain made by wet clothing.

The skin is connected with the deeper structures by a layer of connective tissue in the form of loose meshes. This is capable of great distension, as in some forms of erysipelas and other inflammations.

Birth Marks.—Enveloping the body and lying just beneath the skin, in this loose connective tissue, is a dense network of small blood vessels, estimated to be capable of holding half of the blood in the body. Many people have what are called "birth marks." These are thought to resemble a leaf, strawberry or something of the kind, and are caused by dilatation of the blood vessels in this loose connective tissue.

TREATMENT.—

Birth marks are usually so deep seated that efforts at removal should not be made.

Mole.—Sometimes this is merely a dark discoloration on the surface. In this case it is termed a mole. A mole may be slightly elevated. It is usually harmless.

TREATMENT.—

See treatment for warts. The same caustic applications will destroy moles.

Wart.—A wart is a type of papillæ of the deeper layer of the skin, but it is large. The papillæ is overgrown and contains a framework of connective tissue, blood vessels and lymphatics. Warts are sometimes called *papillomata*, meaning tumors formed by the overgrowth of a papillæ.

TREATMENTS.—

A. Apply Nitric Acid to them, being careful to touch the wart only.—(20).

B. Touch with any strong acid, or with Lunar Caustic, being careful to touch only the wart.—(32).

Note.—Lunar Caustic is Nitrate of Silver. When brought in contact with animal tissue, it decomposes, leaving the Nitric Acid free to act.

Lunar Caustic, or Nitric Acid, will destroy any and all tissue with which it is brought in contact.

C. Specific Thuja applied well every day. Take 5 drops four times a day. This will cure all warts on man or animal. No failures with this treatment.—(30).

D. Apply Thuja Tincture each day for one week.—(43).

 SKIN DISEASES.

What are called skin diseases are not skin diseases at all, with the exception of itch and ringworm. The other troubles are simply evidence of systemic disease. This is true of eczema, liver spots and shingles, the same as of boils, carbuncles, dandruff and other conditions of a like nature, and applies even to leprosy. True, the skin may be more or less changed in appearance and even in structure, yet it is simply the evidence of some constitutional derangement. It is a symptom, the same as pain and fever are symptoms. There may be no structural change in any tissue following the symptoms of pain or fever; while such changes may occur in the skin following systemic disease, yet they all depend upon some constitutional trouble, hence these cases need general

or systemic treatment. Local treatment may relieve temporarily and make the patient more comfortable, but local treatment does not reach the real cause, and this is why it cannot cure.

Eczema is the most frequent so-called skin disease, and the treatment of this affection will be much more satisfactory if strict attention is paid to digestion, elimination, regular habits and the avoidance of all forms of excess.

ACNE.—This affection of the skin is the result of an inflammation of the sebaceous glands. It most frequently appears about the time of puberty. It is usually chronic in character.

Cause.—Authorities state that Acne is accompanied with digestive disturbances and that it is often associated with chronic diseases—anæmia, scrofula and tuberculosis are examples. Acne is an external manifestation of a general disease. It is true that in many cases there may be no actual disease, yet there is some disturbance of digestion which results in a production of irritants in some form, and these irritants affect the terminal or outer ends of the peripheral nerves—those that supply the skin. Some irritating elements generated in the system produce their effect upon the nerve terminals and some do not. The same is true with poisons that are used in medicine. Some of the Bromides, Chloral, the Iodides, Belladonna or Atropine and some other remedies produce this same irritating effect upon the terminal or end nerve fibers which supply the skin, and result in a pronounced rash. Atropine irritates and paralyzes the outer or distal end of the nerves supplying the glands of the throat; they fail to act and the throat becomes dry. It paralyzes the nerves governing the size of the vessels supplying the glands and the vessels dilate; that is why the surface becomes red. At the same time it paralyzes the terminal fibers supplying the sweat glands, and this lessens elimination. It also paralyzes the terminal nerve fibers which supply the iris; that is why the pupil dilates. It is understood, of course, that such effects are only temporary, and pass off in a few hours. The peculiar forms of poisons which produce inflammation of the sebaceous glands and result in acne may depend upon the habits, surroundings, kind of food taken, mental influence, etc., and, as stated, when they occur, being eliminated through the skin they produce their irritating effects upon the nerves supplying it. This acts as a stimulant and results in a mild form of inflammation around the sweat glands, or more especially their ducts or openings. The secretions of the glands are increased, while the inflammation and swelling of the ducts prevent more or less their escape. This causes the ducts to become dilated and their point of opening to bulge forward.

It has been stated that the effects of Atropine are only temporary. The reason is that when such effects are produced, the remedy is discontinued. The reason that the irritants which produce acne are constantly present is because such irritants are constantly being generated in the system.

Symptoms.—The oily secretion of the gland is retained, but the retention is attended with inflammation. Inflamed, ugly-looking pimples are the result. Pustules may occur among the pimples. In the pustular variety of acne pustules are the rule. The face is the part most commonly affected, although the neck, back and shoulders may be subject to this eruption.

Sometimes the color of the secretion which clogs the ducts varies from a white or yellowish to a grey or black, the last two being the result of dirt which becomes mixed with the secretions. This constitutes the condition known as *Blackheads*.

TREATMENTS.—

A. Avoid fatty foods as much as possible. Also take regularly some saline cathartic, as Carlsbad Salt in doses of from 1 to 2 teaspoonfuls in water, daily.—(63).

B. Get a can of Seidlitz Salts from the Abbott Alkaloidal Co., Ravenswood, Station X, Chicago. Take 1 teaspoonful (or a larger amount if necessary) every morning to keep the bowels regular. Bathe the face in a solution of the same Salts, say 2 teaspoonfuls of the Salts to half a glass of water. This treatment will be found most excellent. The Seidlitz Salts are effective, harmless, and pleasant to take.

C. Try the following:

Hard Cider.....	1 pint.
Alum.....	size of a pea.

Keep in a bottle on your dresser and apply night and morning. Use for a long time.—(14).

D. Bathe the face often and thoroughly in good soap and hot water, and at bedtime, after bathing the face, dust on a little White Precipitate and wash it off in the morning. Keep the face protected from wind and cold.—(10).

E. Wash the affected parts two or three times a day in salt water. At night after bathing in hot water, apply the following:

Carbolic Acid.....	10 drops.
White Vaseline.....	1 ounce.

A small towel wrung out of hot water, applied on retiring, is a good remedy. The pimples should not be squeezed or pressed between the finger nails.—(9).

F. Prolonged hot bathing. Massage parts with Tar soap (not carried far enough to cause irritation), and stimulate the circulation locally with Alcohol rubbing. Keep bowels free; also kidneys and skin generally.—(14).

G. Solution Subacetate of Lead..... 20 drops.
Glycerine 1 drachm.
Lanoline..... 4 "

Make into an ointment and rub thoroughly into the skin night and morning.—(20).

H. Keep the bowels open freely every day.—(32).

I. Diet; open bowels; fresh water.—(33).

J. Sulphur, sixth dilution. Take in drop doses or pill form four to six times a day.—(3)—Homeopathic.

Especially applicable to Blackheads.—

K. Sulphuric Ether..... 1 ounce.
Carbonate of Ammonia..... 1 drachm.
Boric Acid..... 20 grains.
Water 2 ounces.

Mix, and apply locally two or three times a day.

The special value of the Ether and Ammonia is in dissolving and carrying away the greasy or oily accumulations which are apt to be present on the face, forehead, or wherever the trouble exists.

BARBER'S ITCH.—(See under RINGWORM).

ECZEMA—TETTER—SALT RHEUM.—This is not a skin disease, but, like dandruff, is a manifestation of a systemic trouble. This is why it shows such a strong tendency to become chronic. The eruption is but a local manifestation of a constitutional disease. Eczema may attack all ages and classes. There is a catarrhal inflammation of the corium, or deeper layer of the skin. First there is congestion of the vessels supplying the affected part, producing redness. In this variety there is a slight exudate from the swollen vessels, and when the moisture dries it forms little scales. The scales are composed of the solid elements from the blood, of the new cells which have grown as a result of the increased blood supply, and of such other matter as may inhabit the skin where the exudate occurs.

There are several forms of *Eczema*, as, where it occurs in papules or points, where the papules contain fluid, or where they contain pus. Sometimes the inflammation and exudate cause the outer layer of the skin to become detached and it is cast off, leaving the inflamed corium, or deeper layer of the skin, exposed. This gives a red appearance, which differs from the other forms as it is a deeper red. If the inflammation is

severe enough, some of the small vessels may be ruptured and blood may form part of the exudate. If the disease has existed for some time, the skin may have become thickened and hardened from increased growth as a result of the increased blood supply.

Cause.—It should be remembered that a skin lesion is merely a symptom of disease, the same as fever is a symptom. Any one having eczema must remember that his system is a little "out of order"—that more thorough elimination is needed, and more attention should be paid to diet. In some cases the use of alcohol may have been the starting point; in others, possibly tobacco. Their effects would be produced by their interference with digestion. Lack of exercise, too much hard work, laziness, or any other condition that tends to disturb the general health may produce eczema.

Symptoms.—There is always itching and burning in *Eczema*. The diseased area presents no distinct outline or border, but the redness fades gradually into the surrounding healthy skin. The papules or vesicles that occur in erysipelas may resemble those of eczema, but erysipelas presents greater swelling, more heat, and the color is a deep red, tense and shiny. The inflammation is deeper seated. If occurring about the face, the swelling may close the eyes. There is fever and frequent pulse. Erysipelas may set in with a chill, there may be nausea, vomiting, an abscess may form, or in some cases delirium may be present. Eczema presents none of these symptoms. The trouble is confined to itching, and sometimes a burning sensation, but the evidence is never severe.

TREATMENTS.—

A. In those cases where vesicles form, or where there is much moisture present, the following prescription will be found most beneficial:

Salicylic Acid.....	10 grains.
Subnitrate of Bismuth	1 drachm.
Powdered Starch.....	1 "
Vaseline enough to make	1 ounce.

Mix thoroughly, and apply two or three times a day.

This ointment will be found satisfactory in the treatment of most cases. Many cases will be controlled so that the disease will never be noticed. The most careful attention should be given to digestion and keeping the bowels regular. Ten grains of Salol should be taken three times a day.

B. Wash the diseased area with a solution of one or two tablespoonfuls of Bicarbonate of Soda in one-half to one wash bowl full of tepid water. Dry gently with a soft piece of lint or linen and apply Carbolated Vaseline—5 drops of Carbolic Acid to 1 ounce of pure Vaseline—or, better still, apply “Resinol” (proprietary) by gentle friction, and put on a piece of linen bandage.

In addition to the above local treatment, give, for an adult, 1 tablespoonful of McDade’s Succus Alterans (proprietary) in a wineglassful of water three times daily.—(16)—Homeopathic.

C. Five grains of Iodide Potassium in glass of water or milk between meals; also, Fowler’s Solution of Arsenic, from 5 to 10 drops in water before meals.—(10).

FISH-SKIN DISEASE.—This is an affection in which discolored crusts form on the skin. These crusts overlap each other like the scales of a fish. It makes its appearance in children at the age of one or two years and continues throughout life.

Cause.—The disease is believed to be born with the individual.

Symptoms.—The crusts do not usually extend over the skin of the entire body, but appear in patches and particularly affect the extremities. It is a rare disease in its full development. A milder form, consisting simply of a dryness and harshness of the whole surface, with a slight scaling, is much more common. This disease is always chronic.

TREATMENT.—

Add 10 drops of Carbolic Acid to 4 ounces of Sweet Oil and apply freely to the surface. This application should be kept up until the scales are all removed and the part becomes soft and pliable, resembling healthy skin. The patient should be sustained with a carefully selected diet, and every attention paid to digestion and elimination. This also includes proper hygienic surroundings.

FRECKLES, LANTIGO.—This affection consists of small, circumscribed, brownish spots the size of a pin-head, and sometimes larger. They usually occur on the face and backs of the hands. Those with light complexions are most often affected.

Cause.—The cause of freckles is the elimination through the skin of certain waste products or elements which undergo chemical changes in coming in contact with light and sunshine, resulting in discoloration. Just what the change consists of is not known, neither is it important.

TREATMENTS.—

A. Corrosive Sublimate	3 grains.
Diluted Muriatic Acid.....	1 drachm.
Alcohol	1 ounce.
Glycerine	½ "
Water enough to make.....	4 "

Mix together and apply at night, or morning and night may be necessary. Label *Poison*, and protect the eyes when applying it. Keep the mixture out of the reach of children.

B. Another good remedy is as follows:

Citric Acid.....	1 drachm.
Glycerine	1 ounce.

Apply with a soft cloth three or four times a day, more or less as needed.

C. Apply Peroxide of Hydrogen three or four times a day.—(7).

D. Rosewater.....	4 ounces.
Alum, pulverized.....	2 drachms.
Lemon Juice.....	2 "

This will permanently improve many cases of freckles.—(75).

E. Tincture of Benzoin.....	1 drachm.
Tincture of Tolu.....	½ "
Oil of Rosemary.....	2 drops.
Rosewater.....	4 ounces.

—(75).

HIVES—NETTLE RASH—WHEELS—URTICARIA.—All of these terms are applied to certain characteristic marks which appear in the skin following indigestion. The trouble is not dangerous. It usually occurs in children.

Cause.—Indigestion, and usually lack of elimination. As a result of indigestion, many irritants are present in the circulation. These irritants cause dilatation in groups of small blood vessels which supply the skin. Such dilatation is the result of the paralyzing effects of the irritants upon the nerve fibers which control the size of the vessels. The dilatation is sudden, hence the rapid appearance of the spots, large or small, the size corresponding to the amount of skin supplied by the affected vessels. The spots are usually light in the center, and a reddish, or sometimes a bright red color, around the border. They may vary from the size of a pea to a walnut, or be even larger.

Symptoms.—The sudden appearance of the spots. They may disappear as suddenly as they came, and re-appear in some other part. With their appearance there is a tingling, itching and burning sensation. Usually the child does not complain much. The spots are accompanied by digestive disturbances.

TREATMENTS.—

A. A large dose of Castor Oil, Laxol (see Index), Salts, or Seidlitz Salts will cure this trouble, providing the child is more careful about its diet.

B. Salicylate Soda..... 3½ drachms.
Aromatic Elixir..... 4 ounces.

Mix.—Dose for child five years old, ⅓ teaspoonful in water every three or four hours; for adult, 1 teaspoonful every three or four hours.—(52).

C. Rochelle Salts—1 teaspoonful in ½ tumbler of water every half hour until bowels are moved.—(35).

ITCH—SCABIOUS.—Itch is caused by an animal parasite which burrows in the skin. These parasites multiply very fast, producing intense itching. The affection generally occurs on the hands between the fingers.

TREATMENTS.—

A. The following application will cure this trouble:

Ammoniated Mercury (also called
White Precipitate)..... 40 grains.
Sulphur..... 3 drachms.
Vaseline, enough to make..... 1 ounce.

Cleanse the hands, dry, and apply the ointment twice a day, or oftener if necessary.

B. Sulphur 2 ounces.
Lard 4 “

Mix, and apply freely at night, washing it off in the morning.—(7).

C. Make a stiff ointment by mixing Sulphur into Lard. Bathe in good strong soapsuds, dry and apply the ointment.—(17).

D. Rub with Sulphur and Lard.—(32).

E. Wash with a weak solution of Corrosive Sublimate, 4 grains to ½ pint of water. Label *Poison* and do not allow the solution to get into the eyes.—(11).

F. Use Resinol Ointment.—(30).

G. Bathe the itching parts with a solution of 1 teaspoonful of strong Carbolic Acid to 1 pint of water. Protect the eyes when using.—(8).

H. Carbolic Acid..... 10 drops.
Water 4 ounces.

Mix, and apply locally.—(46).

LEPROSY.—Leprosy is endemic, *i. e.*, present more or less all the time, in many parts of the world—in the East and West Indies, in China, South America and southern Africa. At

one time it was widely spread throughout Europe and was the most dreaded of all diseases, but to-day we do not fear it. We have learned that it is a filth disease, and modern sanitation practically disposes of it.

It is not contagious, and a case need cause no fear. Regarding the non-contagiousness of the disease, and in support of the statement that it is bred by unhealthy surroundings, we quote from that recognized authority, Green's Pathology, page 376:

"From time immemorial leprosy has been looked upon as a contagious disease, and lepers have been rigorously excluded from social communities. A very superficial examination throws doubt upon this, for in many cases lepers have been found to live in the closest associations with healthy people without communicating the disease. Many observers have maintained that the disease is communicable under certain conditions which are rarely realized. It seems more difficult to prove the contagiousness of leprosy than that of consumption, and it certainly is not so great.

"It may be noted that leprosy flourishes in all climates and upon all soils; that poor diet and salt fish do not appear to be special factors in its etiology or cause as some have thought; and that the disease does not seem to be hereditary, although Hirsch held firmly to the opposite conclusion. Children born of leprosy parents in leprosy places may acquire the disease, but so may outsiders entering such places. Possibly there may be some slight hereditary predisposition analogous to that believed to exist in the case of consumption.

"Observers are agreed that there is constantly present in all the recent primary lesions of leprosy a bacillus (germ) very closely resembling in its characters the tubercle bacillus.

"The bacilli are very difficult to find, both in the neighborhood of ulcerating surfaces and in the lungs. They are said to occur in definite clumps (Hansen), and to be thus distinguishable from tubercle bacilli.

"Attempts to cultivate the organism have so generally failed that the few recorded exceptions are of little value until more fully confirmed. Amid conditions under which the tubercle bacillus will flourish the leprosy bacillus will not even grow at all.

"Nor do inoculation experiments give decisive results. In the case of a criminal the disease followed inoculation—offered as an alternative to execution—but the man had up to this point been in frequent contact with lepers. Whether the infected tissue be introduced into other parts of leprosy patients or into

animals, the results are uniformly unsuccessful, though the bacilli themselves are not destroyed, for they can be found months afterward in the tissues."

The external evidence of this disease is first confined to the skin, but later the deeper structures are involved, including muscle, bone and joints. In this respect it resembles what is called the third stage of syphilis. The first effects in the skin are those of inflammation, and as this continues the skin becomes enormously thickened. Sometimes tubercles form. These vary from the size of a pea to an olive. The face, chest and extremities are affected most.

Cause.—Leprosy is caused by poor food, want of clothing, filthy surroundings and a lack of elimination. Gradually the system is brought under the morbid influence of accumulated waste. The normal amount of waste is greatly increased by reason of the habits and surroundings of the patient.

Symptoms.—The first appearance is a red discoloration of the skin. The red gradually changes to dark brown, and later becomes pale, soft and flabby. The affections appear mostly upon the chest, face, ears, hands, feet, lower limbs, and the external surfaces of the reproductive organs. At first the affected skin is painful; later it becomes insensitive. Sometimes nerve fibers become swollen. These swellings may surround the nerve for some distance, attacking first the branches that supply the skin and later the branches that supply the muscle tissue. Sometimes large eruptions make their appearance on the surface. These may either dry, leaving insensible patches, or may be followed by ulcers. Sooner or later ulcers form, leading to extensive destruction, even the dropping off of fingers, toes, or a portion of the limb. There is an overgrowth of connective tissue. Later this degenerates and breaks down, forming unhealthy matter.

TREATMENT. —

As *Leprosy* is the result of poor food, lack of elimination and bad hygiene, it follows that it is only by correcting these errors that any benefit can be obtained. Regarding internal treatment, one of the best remedies that can be used is Fowler's Solution taken in proper dose.

There is probably no treatment that will cure the disease after it has become established.

LIVER SPOTS—CHLOASMA.—This so-called disease of the skin appears in patches of a brownish color, which may be any size or shape. Liver spots generally occur in those who have wasting diseases, such as consumption, cancer, anæmia or chlorosis.

Cause.—The cause is the same as that given for freckles. Coming in contact with sunlight, a chemical change that results in discoloration is produced in certain abnormal elements eliminated by the skin. In liver spots a greater reason is the abnormal condition of the blood, hence the skin lacks the natural elements and thus aids in the chemical change produced by the sun's rays. This accounts for the change occurring in spots which correspond to the areas supplied by the terminal branches of certain arteries. Spots as large as the hand may occur, and sometimes the whole body becomes discolored.

Symptoms.—The only external symptom is the discoloration. There is no alteration in the structure of the skin, yet, as above stated, many cells lack the normal elements and contain waste, which is being eliminated. Some of this waste, upon reaching the surface and coming in contact with light, undergoes certain chemical changes which result in the discoloration. The spots are only a local manifestation of a systemic or general disease.

TREATMENT.—

The treatment is constitutional. It consists in keeping the bowels regular, in nourishing diet, good digestion, regular hours and habits, the avoidance of all forms of excess, abundance of fresh air, good ventilation in sleeping rooms, etc. The following application may be applied to the spots once a day:

Oxide of Zinc.....	1 drachm.
Carbolic Acid.....	10 drops.
Vaseline.....	1 ounce.

NETTLE RASH.—(See HIVES).

PEMPHIGUS.—This is a disease of the skin of an inflammatory nature which is characterized with a succession of *blebs* (see BLEBS), or water blisters. It is associated with a debilitated condition of the general health, and occasionally results fatally. An acute attack may last for three weeks, or longer, but if the affection becomes chronic, it may run for years.

Cause.—Same as that given for *Acne*, with the exception that in pemphigus the nerves supplying the small blood vessels in the skin (vaso-motor) are affected. This allows the vessels to dilate, hence the exudation and formation of the vesicles, as stated.

Symptoms.—The acute form is attended with constitutional disturbances, the eruption being preceded with a chill and fever. The number of blebs developed vary from half a dozen to a dozen or more, and are filled with a fluid that soon turns yellowish and thickens. They usually dry up in a few days, but only to be succeeded by another crop, the *succession* being characteristic of

the disease. The blisters are attended with a mild burning and itching. In very severe or malignant cases there are a greater number of the blisters, they attain to a larger size, run together, and sometimes burst, exposing a raw surface that has a tendency to ulcerate.

TREATMENTS.—

A. The treatment is constitutional as well as local. Internally, give Fowler's Solution in 5- or 10-drop doses at meal time. Care should be exercised regarding the diet, habits, hygienic surroundings, etc. The vesicles should be opened and drained as soon as formed, and the surface covered with some light dusting powder—Boric Acid or starch are often used. What is better is equal parts of Oxide of Zinc and Lycopodium. Mix intimately by passing several times through a fine sieve.

B. Subnitrate of Bismuth.....	1 drachm.
Powdered Starch	1 “
Salicylic Acid	10 grains.
Vaseline, enough to make.....	1 ounce.

Mix, and apply.

Keep the bowels open and give 5 grains of the Sulphocarbolates 4 times a day—at meal time and bedtime.

PIMPLES.—This term does not apply to any particular disease or condition. Acne or blackheads are sometimes called pimples. The rash appearing in scarlet fever, in eczema, or the vesicles which sometimes occur in erysipelas, may be called pimples. The first appearance of the rash in small-pox may also be called pimples.

TREATMENT.—

See under ACNE.

PRICKLY HEAT—MILIARIA.—This disease receives various names, according to the time of its occurrence and its appearance. It is said to be due to inflammation of the sweat glands, caused by retention of their contents, or by excessive sweating. There are two principal varieties: *Miliaria Papulosa* or prickly heat, in which only the papules appear, is one variety. These papules contain no fluid. The other variety is termed *Miliaria Vesiculosa*. Vesicles appear in this variety. The vesicles differ from the papules as they contain fluid. While this distinction is made, strictly speaking there is no dividing line between these two forms of the disease, for both papules and vesicles may, and usually do, occur in each case. First there is dilatation of the vascular system, that is, the minute vesicles about the glands become somewhat dilated and exudation is

increased. The pressure prevents elimination through the ducts of the glands, and the glands may then become more or less distended. The skin contains oil glands as well as sweat glands. The exudate from the blood vessels is alkaline. It is thought by some that this alkaline exudate dissolves the oil and leaves the skin dry, and is one cause for the intense itching.

Cause.—The cause is probably the same as that which produces *Eczema*. In fact, some of these cases cannot be distinguished from eczema, or if they are, it is a distinction without a difference. Some conditions known as prickly heat may be influenced more by hot weather than an ordinary case of eczema.

Symptoms.—The disease usually comes on suddenly. Bright red papules, about as large as a pin-head, appear; sweating is profuse, and there is a prickling sensation—a sensation of heat and itching. The disease usually occurs during the summer months. It may last only a few days, or may last all summer and return the next summer. It will last until the cause is removed.

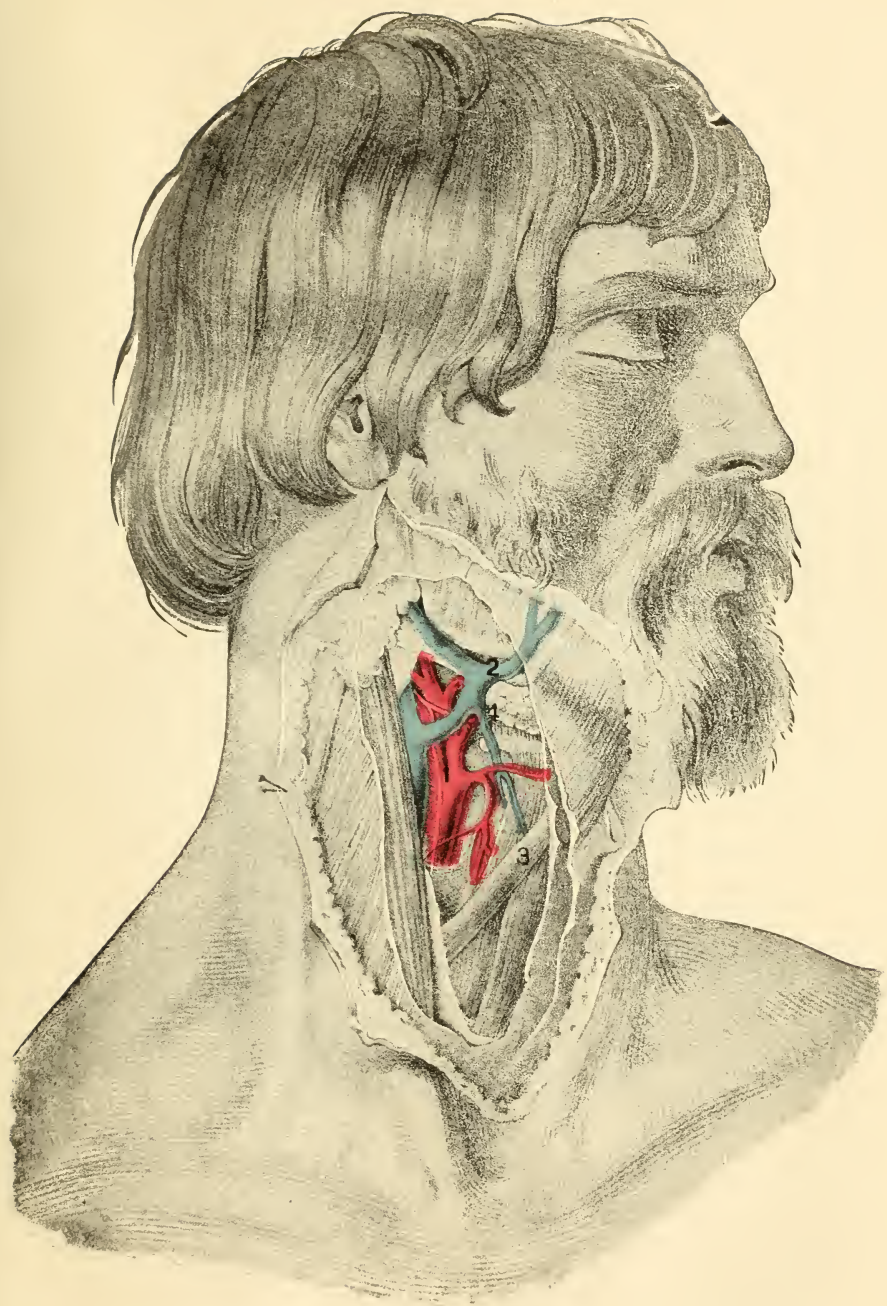
TREATMENTS.—

A. The patient should keep in a cool, well-ventilated room, should diet for a few days, pay strict attention to the eliminations, and drink a large amount of water every day. Bathe the surface with a weak solution of Lead water, say $\frac{1}{2}$ ounce of Sugar of Lead to 1 gallon of water; or bathe with a solution of Carbolic Acid and water. From 2 to 4 drachms of Carbolic Acid may be added to a pint of water and the affected spot bathed with this solution; follow this with clear water. Only a small surface should be treated with the Carbolic Acid solution the first time, so that the patient may learn about how long it is safe to bathe with it in the strength given. Following the bath the surface may be sprinkled with a powder made of equal parts of Oxide of Zinc and Lycopodium. These should be intimately mixed by passing several times through a fine sieve.

B. Sponge gently with Saleratus water, then dust the body with Rice powder.—(32).

C. Bathe parts thoroughly twice a day with Distilled Extract Witch Hazel.—(38).

PSORIASIS.—Psoriasis is a term applied to designate diseases characterized by a slight redness of the skin. There is never any moisture, and the surrounding skin is natural. The small red spots which may first appear are soon covered with light, silver-colored scales. Under these scales the skin is thickened from inflammation. Psoriasis is always chronic.



No. 13.

1, Artery. 2, Vein. 3, Musc'e. 4, Salivary Gland.

Cause.—The disease is both systemic and local, and the low form of inflammation in the affected parts of the skin is due to irritants present in the circulation. As a result of the inflammation there is an excess of blood present. This causes an increase in the tissues of the part in the form of new cells, hence the thickening mentioned above. Later there is an exudation into the diseased area. This exudation may afterward be absorbed, together with many of the inflammatory products, and with proper local treatment the disease may disappear for a time; but it is almost sure to return.

TREATMENT.—

The treatment is both local and general. Internally, give 5 or 10 drops of Fowler's Solution before meals; or, what is more convenient, put 2 drachms of Fowler's Solution into a 4 ounce bottle, add 1 ounce of Glycerine and fill the bottle with water. Mix by shaking together and give 1 teaspoonful before meals. The bowels should be regulated. Also give 5 grains of the Sulphocarbolates (see Index) three times a day. Careful attention should be paid to diet and proper hygienic surroundings, and good ventilation should be provided. The patient should not try to work beyond his strength. On the other hand, where the disease affects those who perform no manual labor, or take no exercise, they should change their habits. They should take physical training, or by some means secure a reasonable amount of active exercise.

Locally, apply the following:

Pyrogalic Acid.....	½ drachm.
Vaseline.....	1 ounce.
<i>Mix</i> intimately.	

RINGWORM.—This is a parasitic affection of the skin, causing inflammation and eruption, and called by various terms according to its location and character. It derives its name from the way in which it is developed: Beginning at a certain point, the parasitic growth spreads rapidly into a circular patch, the peculiarity being that as the patch increases in size it heals at the center, thus leaving the eruption ring-shaped. It is a highly contagious affection.

Cause.—Due to a minute animal parasite. *Tinea* means worm.

Ringworm of the Body—Tinea Circinata.—This variety begins with a spot of pimples, small, reddish and scaly. The eruption may not be circular in form at the outset, but rapidly becomes so. The pimples may remain scaly, or may change into vesicles. If there is more than one patch of the eruption, the

rings as they develop may run into each other, making a patch of rings, the circles being eruptive and the intervening skin normally healthy, looking at a little distance not unlike a piece of colored embroidery work. *Circinata* is confined almost entirely to children, although adults are sometimes afflicted with a chronic and very obstinate form of the disease about the thighs which is complicated with true eczema and is attended with intense itching.

Ringworm of the Scalp—Tinea Tonsurans.—This form of ringworm is also largely confined to children. Patches of pimples come out on the scalp and increase in size, sometimes becoming as large as a silver dollar. These spots have the same characteristics as those developed in *Circinata*, with the addition of a stubbled appearance caused by the hair, which breaks off near the roots. The hair follicles, too, stand out, giving the pimpled appearance seen in a fowl from which the feathers have been plucked. It is always attended with itching, and may become chronic. Proper treatment, however, will destroy the parasites, and, this accomplished, the hair grows again.

Ringworm of the Beard—Barber's Itch—Tinea Sycosis.—This begins with the scaly, reddish pimpled patches characteristic of ringworm, but with it is a tendency of the flesh to become lumpy. These lumps do not give any pain, except upon pressure, and if a cure is effected early, they disappear altogether without leaving any scar. The hair breaks off, as in *Tonsurans*, or drops out, and the skin has a dark, purplish hue. If the disease is allowed to run, pustules form and discharge and are succeeded by thick crusts. Itching and burning are constant. It is particularly obstinate to treatment. It may be communicated by using the razor or shaving apparatus of any one afflicted with it, hence the name, *Barber's Itch*.

There is also another form of *Barber's Itch* of a purulent character. This makes its appearance in pimples of a pale yellowish color which mature at the top, and which are found, upon examination, to be pierced with a hair. The eruption is preceded with a painful sensation of heat and tightness. If not given proper treatment, it may last for months or years.

Honey-combed Ringworm—Tinea Favosa.—This is another variety of ringworm—one that is confined almost entirely to the lower classes. It is not very common in this country. It may attack the skin, the nails, or the hair and hair follicles—usually the latter, and is sometimes called *Scald Head*. It develops in crusts of a pale yellow color. These are small and cup-shaped, and, if affecting the scalp, the common seat of the disease, are each pierced with a hair. In severe or neglected

cases abscesses form under the crusts. The hair loses its luster, becomes brittle, sometimes splits lengthwise, and breaks off or falls out. If the disease is not cured, the follicles will become entirely destroyed and permanent baldness result. When the nails are affected, they thicken and become brittle and are yellowish in color. The disease has a peculiar odor, something like musty straw.

The reader can easily recognize those skin diseases which can be successfully treated without a doctor. They embrace the various forms of ringworm described, and in many respects their appearance is the same. The various forms of ringworm differ only in name and location. All are caused by the same minute form of animal life, and all require the same treatment. They may commence as a small scaly surface, may be papules and later vesicles, or, if not treated, even pustules may form. All forms of ringworm differ from eczema and erysipelas as they lack the inflammatory appearance. When they occur on the scalp or in the beard, the hair is brittle and breaks off, or is easily pulled out. Eczema does not affect the hair.

The most important diagnostic feature is the well defined border presented by ringworm, barber's itch, etc. At the edge the diseased patch meets the healthy skin on a definite line. The patch rapidly grows in size and new patches appear at frequent intervals. Whenever these conditions are met, the reader can rest assured that it is ringworm in some form—which form makes no particular difference.

TREATMENTS.—

A. One application of the following will cure any and all cases: Take a piece of soft cloth and apply Formaldehyde. Be careful to apply only to the diseased surface and rub it in well. Formaldehyde can be secured at any drug store. The following ointment will also cure:

Ammoniated Mercury (also called
White Precipitate).....45 grains.
Sulphur..... 3 drachms.
Vaseline enough to make..... 1 ounce.

Apply twice a day. First thoroughly cleanse the surface, rub the ointment in well and allow the application to extend a little beyond the diseased border.

B. The following simple remedy is warranted to cure any case: Take a good Havana cigar—one that makes white ashes. Smoke the cigar and spread all over the ringworm and around the edges, after first having dampened the surface so that the ashes will stick. Keep the eruption constantly covered in this way.—(70).

- C. Beta Naphthol..... 20 grains.
Vaseline 1 ounce.

Mix, and rub into ringworm night and morning.

D. Bathe the ringworm with warm water and dry, then bathe with Acetic Acid. Repeat next day if necessary.—(32).

Barber's Itch.—

- E. Sulphur 1 drachm.
Iodoform ½ drachm.
Lard..... 2 ounces.

Mix well and apply once a day.—(70).

Note.—Sulphur acts mechanically. It closes the pores of the skin and shuts out the air. The parasites are unable to live without air, hence soon die. Sulphur is harmless, and to insure success a liberal supply should be used—from 2 to 3 drachms to the ounce of lard.

- F. Corrosive Sublimate 5 grains.
Water..... 1 ounce.

Mix. Wet sore night and morning, following in five minutes with:

- Calomel ½ drachm.
Cosmoline 1 ounce.

Note.—A stronger solution of Corrosive Sublimate may have to be used—up to 10 grains to ounce of water. Always label it *Poison*, and in using be careful to protect the eyes, nose and mouth.—(13).

G. Resinol ointment applied three times daily.—(45).

H. Pack the face with gauze saturated with a solution of Corrosive Sublimate—1 part Sublimate to 250 parts water.—(10).

- I. Carbolic Acid, strong solution..... 10 drops.
Mutton Tallow 1 ounce.

Mix, and rub together thoroughly.

Apply lather to face and wash off, then apply ointment. This must be done night and morning till cured.—(14).

J. Paint once daily with Tincture of Iodine until small blisters arise; then keep well anointed with Vaseline.—(4).

ROSE RASH, or ROSEOLA.—Roseola is not a term that can be applied to any particular disease. *Erythema* or *Roseola* means a reddish discoloration. The term can be applied to the rash in scarlet fever, or it can be applied to any condition or redness resulting from mechanical irritation.

SALT RHEUM.—(See ECZEMA).

SHINGLES—HERPES.—Herpes is a name given to a gradual eruption of the skin and the formation of groups of vesicles, said to be situated on an inflamed base. The skin is inflamed and constitutes the base referred to. When the eruption takes a circular course, commencing at or near the median line

(center of the body) in the back and extending around the waist to a point near the median line in front (usually on one side only), it is called *Herpes Zoster*. Herpes means creeping—the eruption comes out gradually; zoster means girdle—the eruption partially encircles the waist.

The eruption follows the course of one or more of the nerves which supply the skin over the chest or waist. These nerves have their origin in the spinal cord, follow the course of the ribs on either side and meet in front. The skin covering the course taken by the nerves is supplied by small branches, frequently given off from them.

Cause.—The cause is the same as that which produces rheumatism and neuralgia. As stated under *Sciatic Rheumatism*, the nerve fibers are supplied with blood vessels. The irritation present in the circulation first causes congestion of these vessels, and this causes pressure and pain. The same condition extends along the branches of fibers of the affected nerves that supply the skin, the vessels become congested, and a watery exudate results; hence the appearance of the vesicles.

Symptoms.—The eruption already mentioned. There is also more or less pain. In some cases the patient is decidedly nervous. The eruption may occur in groups or bunches scattered along the course of the nerve, and is accompanied by a burning, itching sensation. The fever is slight. The vesicles, which are surrounded by an inflamed area, are usually about the size of a pin-head; sometimes they are considerably larger. They may be separated, or may run together, forming irregular patches. The vesicles continue until about the fifth or eighth day, and then gradually dry up. At the end of two weeks or less they have entirely disappeared. Herpes may follow the course of other nerves and may occur in various places during an attack of neuralgia.

TREATMENTS.—

What to Do.—Exclude the air by some simple covering. Abstain from pork and all irritating articles of diet. Keep the bowels open with a teaspoonful each of Epsom Salts and Cream of Tartar, taken night and morning. Keep patient inside the house, and sponge the body with an alkaline wash, such as Soda water—1 tablespoonful to 2 quarts of water, or Muriate of Ammonia—2 teaspoonfuls to 2 quarts of water.

If patient is in great pain, give from 8 to 10 drops of Laudanum. The Laudanum may be repeated in from two to four hours, if necessary in order to keep the patient quiet.

In severe cases it will probably be advisable to have a doctor.

A. Give an active cathartic. The patient should diet for a few days. Give 10 grains of Salol or 10 grains of the Sulpho-carbolates four times a day—at meal time and bedtime. Eat no meat, but restrict to a vegetable diet only; and avoid every article of food that creates any disturbance or causes the slightest symptom of indigestion. Where evidence of digestive disturbances are present, give the following:

Scale Pepsin (1 to 3000)	2 drachms.
Muriatic Acid, pure.....	½ “
Glycerine	1 ounce.
Fowler's Solution	½ “
Aromatic Cascara.....	2 drachms.
Simple Elixir, add to.....	4 ounces.

Mix, and take 1 teaspoonful after meals.

Also give the following:

Acetanilid.....	½ drachm.
Salicylate of Soda.....	1 “

Mix, divide into 12 powders, and give one powder every three hours. Fresh air is also of the greatest importance.

B. Apply to the eruption the following:

Morphine Sulphate.....	4 grains.
Carbolic Acid.....	6 “
Glycerine	1 ounce.

Mix.

Also give 5 grains of Quinine every four hours.
—(35).

C. Corrosive Sublimate..... .. 1 drachm.
Tincture of Chloride of Iron

Mix. Touch the parts very slightly with a little cotton on the end of a match, then put cotton all around the waist and tie on with a bandage. Label bottle *Poison*.—(20).

TETTER.—(See ECZEMA).

SOMNAMBULISM — SLEEP-WALKING.—This is a state wherein the individual is in the habit, more or less frequent, of walking during sleep. The unusual condition of mind, or of brain, inducing such activity, prompts the individual to perform many acts that would be extremely difficult during the waking hours. The acts which are unconsciously performed during sleep, and which belong to the waking state, may include walking, riding, climbing, etc. The movements are precise and

certain. They sometimes lead the individual into positions of difficulty and seeming peril, but, although unconscious, he possesses a knowledge of surrounding objects and adapts himself to the conditions with seeming ease, in fact, his senses are especially acute.

Cause.—This has never been determined, or satisfactorily explained.

TREATMENT.—

Regarding treatment, very little is said along this line by medical writers; however, we recommend the following, which is perfectly harmless and may enable the individual to overcome this unpleasant feature:

Bromide of Soda	½ ounce.
Chloral.....	2 drachms.
Glycerine	1 ounce.
Simple Elixir, add to.....	4 “

Mix, and take a teaspoonful every hour for three hours before going to bed.

SPASMS.—(See CONVULSIONS).

SPERMATORRHEA.—(See NOCTURNAL EMISSIONS).

SPINAL MENINGITIS.—(See *Cerebro-Spinal Meningitis* under BRAIN DISEASES).

SPINE CLEFT.—This is a dilatation, either of the membranes covering the spinal cord, or of the spinal cord and membranes together. It is congenital, *i. e.*, exists from birth, and is usually accompanied with *Hydrocephalus*, or *Water on the Brain* (see under DROPSY). These tumors received different names, according to their size and the part of the cord of which they are formed. Sometimes they become as large as a child's head.

Cause.—Extending from the skull downward through the spinal column is an opening which contains the spinal cord. A defect in one or more of the bones forming the spinal column leaves an opening through which the cord protrudes. The trouble usually occurs in that part of the spinal column situated in the small of the back. The tumor may include only the membranes covering the cord, or may include both cord and membranes. In either case there is more or less fluid present.

Symptoms.—Presence of the tumor. Crying or coughing renders the covering of the tumor tense and firm. It is small at the point where it makes its exit through the spinal opening, its size corresponding to the defect in the bones. The membranes immediately dilate, however, and are filled with fluid the same as that contained in the spinal column. Situated in the center of

the spinal cord, and extending through its entire length, is a small opening. This is called the spinal canal; it is filled with spinal fluid. Sometimes this canal may become dilated. In this case the tumor would be formed both of the cord and its coverings.

TREATMENTS.—

A. When the tumor is small, bandaging is recommended. If there is much fluid present, it should be drawn off with an aspirating needle and the tumor injected with a 10 per cent solution of Iodoform in Glycerine, or with the following:

Iodine Crystals	10 grains.
Iodide of Potash	30 "
Dissolve in a few drops of water, and add Glycerine, 1 ounce.	

The purpose of such treatment is to cause an inflammation within the walls of the tumor, with the result that permanent healing will take place.

This and other treatments are recommended, yet without much hope of effecting a cure. These cases nearly always prove fatal.

B. Take 1 teaspoonful each of Epsom Salts and Cream of Tartar three times a day to keep the bowels active. Get Buchu leaves, steep to get the strength, and strain. Drink of the tea three times a day—morning, noon and night. These remedies will stimulate the action of the bowels and kidneys and aid in draining the system of fluids, thus relieving the tumor inasmuch as it is composed largely of a watery fluid.

SPLEEN, ACUTE INFLAMMATION OR ACUTE ENLARGEMENT OF.—In this disease the spleen enlarges rapidly and becomes more or less sensitive to the touch.

Cause.—Poisons, which may result from cancer, typhoid fever, malignant pustule and other conditions where the blood becomes unhealthy and vicious.

Another reason for enlargement of the spleen, as stated elsewhere, is the large blood supply which this organ receives. The blood vessels supplying it are larger in proportion to its size than those supplying most other organs. Again, circulation is not carried on through the spleen the same as through other organs, but the blood flows through channels, or sinuses, which are formed in the spleen itself. This brings the effects of the irritating blood in direct contact with the splenic tissue.

Symptoms.—Enlargement in the left side, tenderness on pressure, and sometimes the formation of pus. In case of pus formation there would be chills and an elevation of temperature.

As a result of the inflammation, there is an overgrowth of the tissues of which the spleen is constituted. This is called *Splenic Pulp*.

TREATMENTS.—

A. If there is pus, the abscess should be opened and washed out with some disinfectant solution. Peroxide of Hydrogen would be valuable. Proper drainage should be secured and every attention given to diet and hygiene. Hydrochlorate of Berberine is said to be one of the best remedies for enlargement of the spleen. Give $\frac{1}{4}$ grain doses three times a day.

B. Steep up Boneset until it makes a strong tea, strain, and let the patient drink freely each day. Make a strong tea of Senna leaves, strain, and drink a wineglassful every three hours until the bowels move freely. A bath should be taken once a day followed by brisk friction. An irritating plaster, such as a Mustard plaster, should be applied to the side. Moderate exercise in the open air and a nourishing diet are beneficial.

Chronic Enlargement of the Spleen.—This may follow repeated attacks of the acute, and may also be caused by malaria or tuberculosis.

TREATMENT.—

If enlargement results from chronic diseases, see treatment under the proper head.

STAMMERING.—*Stammering* or *Stuttering* is a condition in which the patient in his efforts to talk hesitates, and there is a spasmodic and uncontrollable repetition of the same word or words. There is an earnest effort to speak, but persistence only increases the nervous tension and causes greater delay.

Cause.—Unknown.

TREATMENT.—

The only chance of benefiting this condition rests with the stammerer himself. He should practice speaking slowly, word by word, and cease trying to speak for a few minutes as soon as his speech becomes interrupted. Schools for stammerers have been established.

DISEASES OF THE STOMACH.

DIGESTION.

The process of digestion is one of those organic functions which are directly concerned in maintaining the life of the individual. Digestion prepares or modifies food, and renders it in a condition suitable to be passed into the circulation and appropriated by the various organs and tissues of the body. Digestion is the splitting-up of the food products into simpler forms. It is a process of fermentation which is accomplished by certain principles of the digestive tract called *ferments*.

The Salivary Glands.—These glands are six in number. One is placed on each side of the neck just beneath the jaw; one on each side of the mouth just beneath the mucous membrane; and the *parotid glands*, which are the largest and most important, are situated one on each side just in front of and at the lower border of the ear. The saliva is a product of the salivary glands, and furnishes the first ferment, *ptyalin* (tyalin), which has the power of converting starch into glucose, or grape sugar.

The Stomach.—This organ is a dilatation of the digestive tract. Its size varies in different people. Its average size when empty is about 10 inches in length and 3 inches in width, and its weight is about 4 or 5 ounces. It is capable of great distension. The stomach and whole digestive tract, including the mouth and throat, are lined with mucous membrane. The glands which supply the stomach and which furnish the digestive fluid are placed in this membrane. These glands furnish three ferments: 1, *hydrochloric (muriatic) acid*, which acts first upon the food, converting albumen into a substance called *peptones*; 2, *pepsin*, which converts the peptones into *soluble albumen*; and 3, an *unnamed ferment* which has the power of curdling milk.

The Pancreas.—The pancreas is the next organ concerned in digestion. It is from 6 to 8 inches long, about $1\frac{1}{2}$ inches wide, and weighs from 3 to 6 ounces. It is placed transversely across the back part of the abdominal cavity behind the stomach. The end pointing to the left is in relation with the spleen; the end pointing to the right is in relation with the digestive tract just below the lower end of the stomach. The pancreas furnishes four ferments, which together are called *pancreatin*. Separately,

they are as follows: *amyllopsin*, which converts starch into sugar; *trypsin*, which, like pepsin, converts albumen into peptones or soluble albumen; *steapsin*, which decomposes fats into glycerine and fatty acids; and an *unnamed ferment*, which, like that of the stomach, has the power of curdling milk.

The Liver.—This organ, which is described elsewhere, furnishes *bile*, which aids in emulsifying fats, stimulates the secretions of the small bowel, increases bowel movement and prevents decomposition.

The Small Bowel.—This part of the digestive tract has numerous glands scattered throughout its length, and these glands secrete a fluid which is called *succus entericus*. This fluid also contains digestive ferments.

The First Act of Digestion.—The first process is that of the ptyalin upon starch, the product of which is grape sugar, therefore, thorough mastication of food is of great importance. Whoever fails to thoroughly mix what he eats with saliva and its ptyalin courts dyspepsia by hindering other subsequent acts of digestion. One part of ptyalin, at the temperature of the human body, will convert two thousand times its own weight of cooked starch into grape sugar.

The Second Act of Digestion.—The food carries the saliva and its ptyalin into the stomach, where its action is continued. When food reaches the stomach, it stimulates the glands of that organ and its digestive fluid begins to flow. It appears in little drops and trickles down the mucous membrane which lines the stomach. The saliva is alkaline; the fluids of the stomach are acid. The saliva continues to act upon the food until its alkaline properties are overcome by the acid of the stomach. This is usually about three-quarters of an hour. This time is given up to starch digestion. If the saliva does not get well mixed with the food, as in rapid eating, the starch will be but poorly digested and dyspepsia be likely to follow.

The Third Act of Digestion.—This is begun when the alkali of the saliva has been neutralized by the acid of the stomach. The gastric juice exerts no influence on grape or cane sugar, starch or fat; it acts upon albumen only. When the alkali of the saliva has become neutralized, the hydrochloric acid and pepsin of the gastric fluid commence their action on the different albuminoids and convert them into peptones, which means albumen in a soluble form, that is, so that it may be absorbed into the circulation. The hydrochloric acid first partially changes the albumen into peptones, and this action is immediately followed by the pepsin, which renders the change more or less complete.

The Fourth Act of Digestion.—As fast as the stomach completes its work the resulting products are passed on and the ferments of the pancreas are called into use. These, together with the bile, enter the digestive tract about $3\frac{1}{2}$ inches below the stomach. The amylopsin of the pancreatic fluid supplements the action of the ptyalin of the saliva, and converts any remaining starch into grape sugar, acting much more quickly than ptyalin.

As stated above, the fluids of the stomach convert albumen into peptones, but the change may not be complete. Trypsin, the chief of the pancreatic ferments, completes this change.

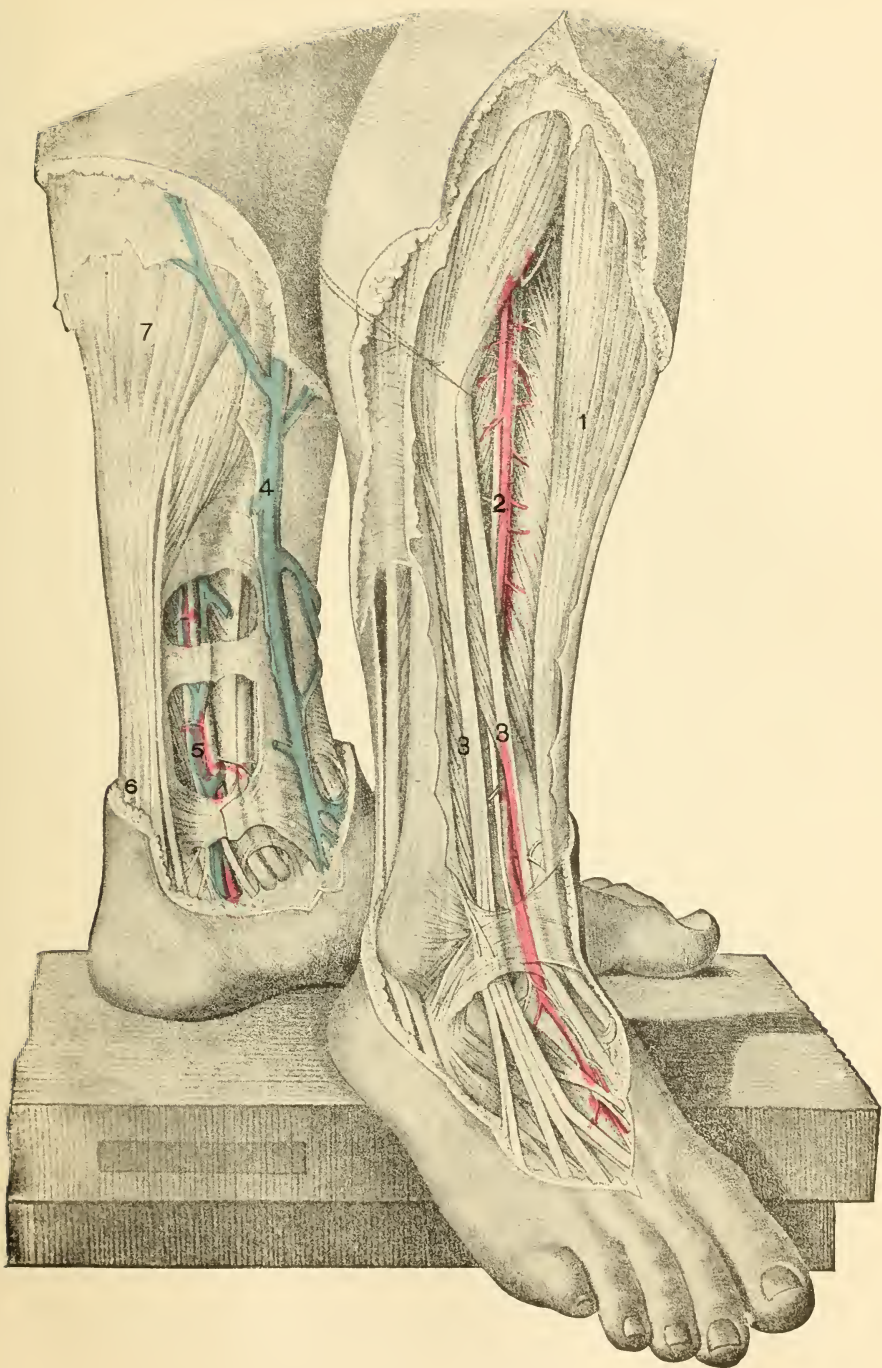
The steapsin of the pancreatic fluid, and the bile, together emulsify fats and separate the different fatty acids and glycerine (fats contain glycerine). The acids, meeting the alkalis—soda, potash, lime, etc.—contained in foods, form soapy solutions. These solutions are absorbed into the lymphatics, a system of vessels which conveys some of the products of digestion to the heart, where they are sent through the lungs for oxidation and then enter the general circulation. The bile is also a powerful aid in preventing putrefaction, and stimulates bowel movement.

The Fifth Act of Digestion.—This is taken up by the secretion, *succus entericus*, of the small bowel, which acts upon starch, fats and albumen, and aids in making digestion still more complete.

The Last Act of Digestion.—A part of the products of digestion are carried direct to the liver, where this organ further elaborates upon the digestive changes. It is aided in this work by a digestive fluid secreted in the spleen and emptied by the veins of the spleen into the liver.

Disposition of the Products.—The process of digestion completed, the resulting products are carried by the liver veins to the ascending vena cava, a large vein which empties into the right side of the heart. The products of digestion carried by the lymphatics, already mentioned, also empty into the right side of the heart, being carried by the thoracic duct, which commences just below the diaphragm and passes up through the chest cavity.

The Higher Forms of Digestion.—From the right side of the heart the venous blood containing the digested food is sent through the lungs for oxidation. This blood receives about five per cent of the oxygen from the air which enters the lungs. It is then returned to the left side of the heart and sent out through the general circulation to supply the needs of the body. The blood contains ferments which induce important digestive changes.



No. 14.

1, Muscles moving Foot. 2, Arteries. 3, Tendons of Muscles.
 4, 5, Veins. Tendon of Heel. 7, Muscles of Calf.

INDIGESTION—DYSPEPSIA.—The great majority of stomach troubles come under the head of *Indigestion* or *Dyspepsia*, meaning some disturbance of that part of the digestion carried on in the stomach. When there is an excess of acid present in the gastric fluid, it is called *Acidity of the Stomach*; when the secretions are abundant and unhealthy, it is called *Catarrhal Indigestion*.

Cause.—These and other conditions are simply the result of certain kinds of food, the excessive use of alcoholic liquors, or any other causes or conditions resulting in indigestion.

Symptoms.—The symptoms of *Dyspepsia* are loss of appetite, flatulency (wind on the stomach) with eructations, bad taste in the mouth, coated tongue, foul breath, sense of fullness, soreness and pain with a feeling of weight in the stomach, pain on pressure, and a raw or burning feeling in the stomach and behind the chest bone. In an acute attack there is nausea, and sometimes vomiting. The ejected matter may contain more or less undigested food. Loss of appetite is more marked during an acute attack; at other times it may be excessive. Constipation is generally present, or may be alternated with diarrhea.

There is drowsiness after meals, headache, and palpitation, or tumultuous heart action. Sometimes the heart is weak and fluttering. Undigested food may lie in the stomach for hours or days, and this may give the stomach control over the mental faculties and result in low spirits and evil forebodings. The sufferer becomes irritable and is unable to sleep, or is troubled with bad dreams.

Where indigestion occurs in the digestive tract, there is pain and soreness two or three hours after eating. If gas forms in the bowels, there is a sense of fullness and bloating. If long continued, the sufferer will become greatly emaciated from lack of nourishment. In some cases congestion extends along the mucous membrane lining the duct leading to the gall bladder. This checks the flow of bile and results in jaundice. If the bile cannot pass off through the natural channel, the bowels, Nature eliminates by some other means. A part is eliminated by the skin, giving the characteristic yellow color, and digestion suffers still more. Congestion or swelling of the mucous membrane lining the duct leading to the gall bladder would also prevent the flow of the pancreatic fluid, because the pancreatic duct empties into or joins the duct leading from the gall bladder just before it reaches the digestive tract; this would also interfere with digestion, and emaciation would be increased. We give below a list of remedies recommended for *Dyspepsia* or *Indigestion*, remedies that have been furnished by many representative physicians, yet

we wish to state that medicinal treatment alone will not cure this trouble. The cure is largely in the hands of the sufferer, and can be expressed in one word,—*diet*.

At present physical training is being encouraged by many physicians for many diseases. Such training is recommended in place of drugs. In many cases patients are advised to abstain from food for one, two or three days, or as long as they are willing to submit, and we believe that in cases of dyspepsia, following such advice and afterward exercising care in matters of food and drink will result in more benefit than any other known method.

We recall one case in particular, where the patient suffered all the pangs and miseries ever produced by this disease, and was permanently cured by the following method: *Abstinence from all food for one week*. The patient drank a considerable quantity of Lime Water every day, which was the only thing taken into the stomach. The Lime Water was made fresh each day. The patient was a strong man, yet the treatment was a severe test of his physical strength. We saw him frequently, and have reason to believe that his claim of abstinence was true. We were also more or less associated with him during the next fifteen months, and during that time there was never the slightest evidence of dyspepsia or any form of stomach trouble.

TREATMENTS.—

A. Usually an active cathartic is of benefit. A restricted diet, and in many cases the avoidance of all food for twenty-four hours, is of great advantage. One glass of milk and Lime Water, equal parts, taken once in four hours for two or three days, will sustain the patient and insure the stomach a much-needed rest. Commence feeding by giving rice which has been boiled for three hours; or boil oatmeal for the same length of time, strain, and use only the liquid part. Also soft cooked eggs, dry toast, etc., may be taken. These should be taken at regular intervals and only in small amounts until there is a marked improvement. After each meal take 1 teaspoonful of the following:

Scale Pepsin (1 to 3000)	2 drachms.
Hydrochloric (Muriatic) Acid,	
pure	½ "
Fowler's Solution.....	2 "
Lloyd's Hydrastus.....	3 "
Glycerine.....	2 ounces.
Simple Elixir.....	4 "

Mix together.

Or, after each meal and at bedtime take 10 grains of Lactopeptin, manufactured by the New York Pharmacal Co., also 10 grains of Subnitrate of Bismuth—four doses a day. These may be taken together.

In all cases of indigestion, restrict the amount of food until the patient thoroughly understands the definition of the word hunger. Avoid fatigue or overwork, secure an abundance of fresh air and proper exercise and keep the bowels regular.

B. In case of weak stomach, with sluggish liver, coated tongue, bad taste in the mouth, especially in the morning, or pain after eating, there is nothing better than the following:

Tincture of Nux Vomica.....	2 drachms.
Nitro Muriatic Acid.....	1 drachm.
Elixir Lactated Pepsin.....	1 ounce.
Fluid Extract of Dandelion.....	2 ounces.
Infusion Columbo, add to make..	4 "

Mix, and take 1 teaspoonful diluted after each meal.

Also when there is gas in the stomach or intestines the following is very beneficial:

Charcoal.....	24 grains.
Pepsin.....	30 "
Bicarbonate of Soda.....	24 "

Mix, make into 12 capsules and take 1 after eating, or whenever needed.

The bowels should be kept free with 10 to 15 drops of Fluid Extract of Cascara before breakfast, as this not only relieves but cures constipation. The dose may be increased or decreased as suits the needs of the individual.

The diet should consist of easily digested mixed foods—vegetables, stewed and roasted meats, soft boiled eggs, etc. Avoid coffee.—(78).

C. Gum Myrrh, powdered.....	1 ounce.
Columbo, ".....	1 "
Gentian, ".....	1 "
Rhubarb Root, ".....	1 "
Cubeb, ".....	1 "
Pepper, ".....	1 "
Peruvian Bark, ".....	1 "
Alcohol.....	24 ounces.
Water.....	8 "

Mix the Alcohol and water and add the powders. Let stand for ten days, shaking the bottle frequently, then strain through a piece of fine muslin. If the muslin is folded in several thicknesses, it will leave the preparation freer from sediment.

Dose.—Teaspoonful in a little water, milk, tea or coffee, twenty minutes before meals.—

FAVORITE MEDICAL RECEIPTS.

- D. Pepsin, Fairchild's Essence 2 ounces.
 Pancreatin, Essence of 1 ounce.
 Tincture Nux Vomica..... 2 drachms.
 Tincture Phosphorous 1 drachm.
 Elixir Calisaya Bark and Iron
 enough to make..... 6 ounces.

Mix, and take 1 teaspoonful after each meal,

or,

- Nitro-Hydrochloric Acid, diluted 3 drachms.
 Nux Vomica, Tincture of..... 2½ "
 Capsicum, Tincture of..... ½ drachm.

Mix, and take ½ teaspoonful in water before and after each meal.—(53).

E. Eat *regularly*, not to exceed three meals a day, and avoid anything that is found to disagree with the stomach. Take regular, systematic exercise—not once, but three times daily, lasting from two to three hours after each meal. To take a cold sponge bath and rub down with a coarse towel two hours after meals is the best substitute for exercise. Very little medication is needed.

- F. Diluted Hydrochloric Acid..... 1 ounce.
 Tincture Nux Vomica..... ¼ "

Mix. Take 20 drops in water just after meals.—(11).

- G. Tincture Nux Vomica..... 4 drachms.
 Hydrochloric Acid..... ½ drachm.
 Peppermint Water..... 2 ounces.
 Simple Elixir 4 "

Mix, and take 1 teaspoonful before each meal; or take Elixir Lactopeptine—teaspoonful before meals and at bedtime.—(46).

Acidity of the Stomach.—Normally, during digestion the fluid of the stomach contains two-tenths of one per cent of hydrochloric acid. In case of acidity of the stomach it may contain many times this amount, and may also contain lactic acid, acetic acid, and perhaps many other acids. It is these acids that produce the burning sensation known as *heartburn*.

TREATMENTS.—

- A. Bicarbonate of Soda..... 2 drachms.
 Tincture Nux Vomica..... 3 "
 Compound Tincture Gentian..... 3 ounces.
 Simple Elixir, enough to make... 6 "

Mix, and take 1 teaspoonful before meals and at bedtime.

B. Baking Soda, ⅓ to 1 teaspoonful dissolved in ½ glass of water. Take all at once.—(45).

- C. Dilute Nitro-Hydrochloric Acid.. 3 drachms.
Tincture of Nux Vomica..... 2 “

Mix, and take 5 drops before meals and 5 drops after meals. Keep the bowels regular.
—(53).

D. One-half to 1 teaspoonful of baking Soda in $\frac{1}{3}$ of a glass of water. Repeat in one hour until there is relief.—(9).

E. Eat slowly. Avoid sweets. Keep the bowels loose. Take Milk of Magnesia (proprietary) in teaspoonful doses every two hours until relieved.—(17).

F. Lime Water in teaspoonful doses every three hours. Teaspoonful doses of Fairchild's Essence of Pepsin after each meal.—(7).

Catarrhal Indigestion.—Where the secretions of the stomach contain a good deal of mucus, showing a catarrhal condition, it is always well to start with a clear field. Give an emetic—1 teaspoonful of Syrup of Ipecac every ten minutes until vomiting takes place. When the patient vomits, have him drink large quantities of water containing a little baking Soda—drink a pint or a quart, if possible. This will have a tendency to wash out the stomach. Next give an active cathartic—1 or 2 tablespoonfuls of Castor Oil, or the same amount of Seidlitz Salts, or any other laxative desired, remembering that the action should be *thorough*. Abstain from all food for twenty-four hours, then give the same treatment as advised under *Indigestion*. Where the stomach contains a large amount of unhealthy exudate in the form of mucus, the patient should drink $\frac{1}{2}$ to 1 pint of *hot* water one hour before meals.

DILATATION OF THE STOMACH—CHRONIC INDIGESTION.—In this disease there is an increase in the size of the organ. The enlargement continues until the muscle walls lose their power to contract, and remain permanently dilated. In this condition the stomach contains more or less fluid and an unhealthy mucous exudate, and chronic dyspepsia is the result.

Cause.—Dilatation of the stomach always results from chronic indigestion from some cause. It follows cancer when the cancer is situated near the opening into the small bowel, as the growth prevents the passage of the food and the unhealthy condition interferes with digestion. Decomposition follows with

the production of many gases, and dilatation results. In any case of chronic indigestion the same decomposition, gas formation and dilatation may follow.

Changes That Occur During Chronic Indigestion.—When resulting from indigestion following the prolonged use of alcohol, there is first congestion of the vessels supplying the stomach, and this results in a low form of inflammation and an overgrowth of the connective tissue. The contraction of this tissue destroys the glands that furnish the digestive fluid. Some may be entirely obliterated, others are closed, and the openings of others are narrowed and their action more or less interfered with. Blood vessels are caught in the contracting fibers, circulation is lessened or shut off, the part supplied by such vessels atrophies—shrinks—and degeneration follows. At first the mucous membrane and deeper structures are thickened and swollen. The secretions are changed in quantity and quality, the natural fluids are lessened, and in places the first layer of cells covering the membrane are piled up in polypoid growths. These appear like little tumors or mounds, giving the surface an uneven appearance. In other places the mucous membrane may be largely replaced by the new connective tissue overgrowth. When these changes are complete, the walls of the stomach are thinned, as much of the natural tissue has been destroyed and the new tissue is shrunken and hardened. When dilatation of the stomach results from indigestion from other causes, the change is not so marked as when resulting from the prolonged use of alcohol. There is not so much destruction of the mucous membrane, but the membrane remains thickened and swollen and a chronic catarrhal condition results; yet in all forms the stomach may be dilated and contain more or less fluid and an unhealthy mucous secretion, also more or less undigested food.

Symptoms.—Loss of appetite, nausea, sometimes vomiting. When resulting from alcohol, there is the well-known morning vomiting of drunkards. The ejected matter is sour and ill-smelling, and often contains particles of undigested food. There is tenderness in the region of the stomach, and more or less thirst and burning at the pit of the stomach and under the chest bone. This latter is the result of the catarrhal inflammation along the œsophagus, or tube leading from the throat to the stomach. Constipation is present, and the urine is highly colored. The color is the result of waste products which these organs attempt to eliminate. Sleeplessness is a troublesome feature. This is more pronounced when occurring in drunkards. The patient may be more or less emaciated, and the physical powers are lessened because the body is not properly nourished. The skin loses its natural color and becomes pale.

TREATMENT.—

Rest and diet. Restrict the amount of starchy foods. Give skimmed milk and Lime Water, equal parts, soft cooked eggs, finely chopped raw beef and a little dry toast. Give from $\frac{1}{2}$ to 1 pint of water as hot as can be taken, containing either a little baking Soda or 1 teaspoonful of Phosphate of Soda, one hour before meals. If this amount cannot be taken all at once, it can be disposed of in the course of twenty minutes without inconvenience.

Scale Pepsin (1 to 3000).....	2	drachms.
Muriatic Acid, pure	$\frac{1}{2}$	"
Fowler's Solution.....	2	"
Fluid Hydrastus	3	"
Strychnine.....	$\frac{1}{2}$	grain.
Glycerine.....	2	ounces.
Simple Elixir	4	"

Mix, and take one teaspoonful after meals.

NEURALGIA OF THE STOMACH—GASTRALGIA.—This is a painful condition of the stomach, the pain often occurring in paroxysms that last for an hour or more.

Cause.—Same as neuralgia elsewhere. In many cases undigested food may act as the exciting cause.

Symptoms.—The severe form usually comes on suddenly. The pain is intense and often occurs in paroxysms. During an attack of pain the heart action is weak, the patient is faint, the countenance is shrunken and the hands and feet are cold. There may be a puffiness or œdematous condition over the surface of the stomach. The pain extends along the lower border of the ribs and into the back—usually into the small of the back. Pain is also present beneath the chest bone. The pain follows the border of the diaphragm, which is attached to the ribs and small of the back. The pain may last for thirty minutes to one hour. Sometimes there is a sudden eructation of gas and the pain ceases.

TREATMENTS.—

A. To relieve an attack of pain, take the following:

Aromatic Spirits of Ammonia.....	$\frac{1}{2}$	ounce.
Chloroform.....	$\frac{1}{4}$	"
Hoffman's Anodyne.....	$\frac{1}{2}$	"
Tincture of Cardamon Compound ...	$\frac{1}{2}$	"
Brandy	$\frac{1}{2}$	"

Take 1 teaspoonful well diluted with water. Repeat in one hour, if necessary. Usually one dose is sufficient.

While the foregoing may check the pain, it will not remove the cause. These cases require careful attention to diet, the same as described under *Dyspepsia*. If neuralgia of the stomach

has existed for some time, the attacks are somewhat persistent and there seems to be a strong tendency towards their recurrence. However, the difficulty may be overcome by regulating the diet, as stated, keeping the bowels regular, avoiding all forms of excess, and, when there are indications of indigestion, taking together 10 grains of Lactopeptin, manufactured by the New York Pharmacal Co., and 10 grains of Bismuth. Take immediately after each meal. If there are eructations of gas, also take 10 or 15 grains of Willow Charcoal. This is best taken in tablet form. The tablets can be obtained at any drug store. The Pepsin and Bismuth mentioned, or any other form of artificial digestants, should be used only when there is evidence of trouble.

B. Aromatic Spirits of Ammonia	½ ounce.
Hoffman's Anodyne	½ "
Paregoric	6 drachms.
Tincture of Lavender Compound....	6 "
Syrup of Rhubarb, enough to make	3 ounces.

Take a tablespoonful every hour until relieved.—(33).

ULCER OF THE STOMACH.—*Cause.*—Ulcer of the stomach is caused by the plugging of an artery, by a blood clot, or by some obstruction in the circulation. The part supplied by such an artery dies and degenerates.

Symptoms.—The first symptoms are those of indigestion. This trouble gradually increases. There are eructations of gas and the breath is ill-smelling. Pain, which is one of the early symptoms, soon becomes constant, and is increased one-half to one hour after eating. This is about the time the digestive fluid of the stomach changes from an alkaline to an acid condition, and it is the acid that increases the pain. There is occasional vomiting. As the disease advances, blood is contained in the ejected matter. Sometimes there is a large amount of bright red blood present. The ejected matter also contains undigested food. If vomiting occurs between meals, there is a large amount of mucus. In some cases there are occasional attacks of neuralgia. In some cases also the patient is greatly debilitated, and in others he is not. The vomiting of a large amount of bright red blood, together with the other symptoms mentioned, is sufficient evidence of ulcer of the stomach.

TREATMENT.—

The stomach should be allowed to remain as quiet as possible. When food is taken into the stomach, and during the period of digestion, the muscular coats of the organ maintain a constant churning movement, and both the food and the mechanical movement irritate the ulcer and prevent its healing. All

water drank should be taken as hot as can be borne, and should contain some alkali—Phosphate of Soda, baking Soda, or Sulphate of Soda. By many Sulphate of Soda is considered the best—1 teaspoonful to a pint of water.

Regarding nourishment, those who have treated the largest number of these cases advise rectal feeding. Also bathe the surface with nutrient oils—Cod Liver Oil is perhaps one of the best. When this fails to maintain the patient and food by the stomach becomes necessary, only that that is most nourishing should be taken, and in liquid form.

CANCER OF THE STOMACH.—*Cause.*—See CANCER.

Symptoms.—During the early stages of cancer of the stomach the symptoms are those of indigestion. The patient loses in weight without any known cause. Digestive disturbances increase until there is more or less pain. The pain may be constant, or may be present only occasionally. The skin gradually changes to a straw color. In some cases the color is quite natural, especially during the first six or eight months. When the cancer is situated at what is called the cardiac end of the stomach, *i. e.*, the end into which the œsophagus opens, there is a gradual narrowing of this tube and swallowing becomes difficult; later there is regurgitation or return of the food. When it is situated at the end of the stomach opening into the small bowel, the food is prevented from passing out of the stomach. This causes the organ to dilate. The patient lives about one year. Vomiting commences at some stage of the disease—sometimes quite early, perhaps from the third to the sixth month. In other cases it does not occur until one or two months before death. Vomiting occurs soon after eating. When the growth is situated near the opening of the stomach into the small bowel and is followed by dilatation of the stomach, food may remain in the organ for from one to two or three days and then be ejected. The food is in various stages of decomposition, and blood is often present. Toward the latter stages of the disease blood is present in larger amounts, and, as a result of remaining in the stomach for some time and being brought in contact with the fluids of the stomach and the undigested food, it is dark in color and clotted. This is often spoken of as "*coffee grounds*" vomiting. Sometime during the disease the cancer may be felt through the abdominal wall. Usually this part of the diagnosis can be made from the sixth to the ninth month. Beginning with the symptoms, or soon after, the stomach is sensitive to touch, and during the progress of the disease this sensitiveness increases until the slightest pressure causes pain. The emaciation also increases until the patient appears like a living

skeleton. Locating the growth by manipulation over the stomach, when accompanied by the symptoms given, is unmistakable evidence of the cancer.

There may be cancer of the pancreas, which is situated just behind the stomach. In this case there is less vomiting, but diarrhea is present and the eliminations contain undigested fat.

There may be cancer of the liver or gall bladder. In this case there would be evidence of digestive disturbances, but these would be less marked.

Cancer may occur in the digestive tract. If occurring at the beginning of the small bowel where it joins the stomach, the symptoms would be similar to those given, but the ejected matter would contain less blood; if occurring in the large bowel, stomach symptoms would be largely absent. The eliminations from the digestive tract would contain mucus and blood, and the odor would be foul. In all cases there is rapid emaciation, and death is the inevitable result.

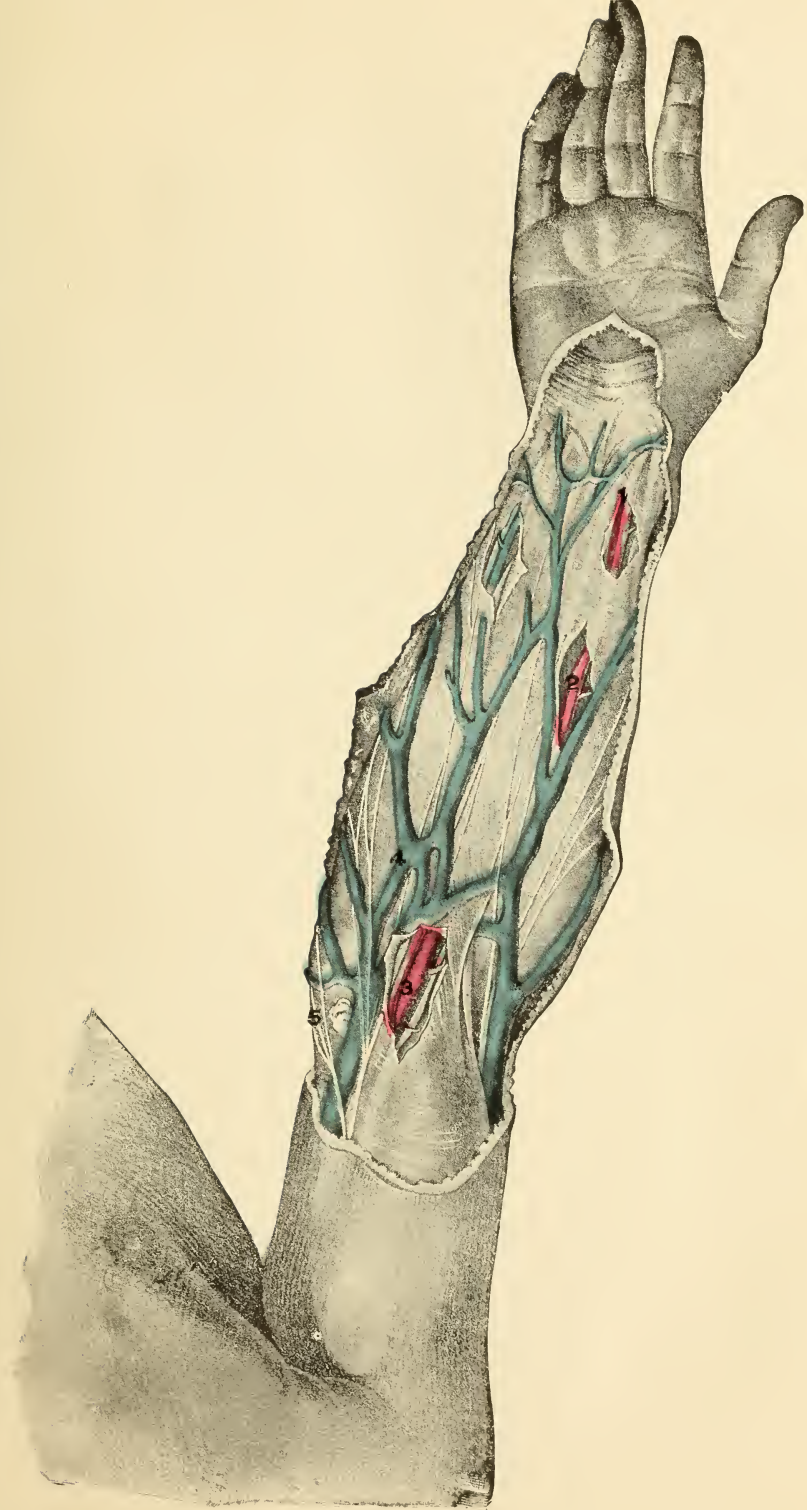
TREATMENTS.—

What to Do.—As the early symptoms are the usual disorders of indigestion, correct the diet and take the ordinary remedies for dyspepsia. If the trouble continues, consult a physician.

A. If the cancer is situated where the œsophagus joins the stomach, the opening should be maintained as long as possible by dilating the part. When this fails and food cannot reach the stomach, it is necessary to insert a tube, forcing it through the constricted part, and give liquid foods. When the cancer is situated at the other end of the stomach, the usual remedies for indigestion may be given. In all cases give 10-drop doses of Fowler's Solution and 10 grains of the Sulphocarbolates at meal time—three doses a day.

Stomach Diseases—Summary.—In giving a description of the diseases of the digestive tract, we stated that those diseases given under so many different headings were confusing, that they were but different manifestations of the same diseased condition, etc. The same is true of the various forms of disease of the stomach mentioned,—*Gastric Fever, Acute Gastric Catarrh, Acidity of the Stomach, Acute Dyspepsia, Acute Indigestion, Gastralgia or Neuralgia of the Stomach.* These, and perhaps other terms, are used to denote an acute attack of *Indigestion.*

It should be remembered that this sudden manifestation of pain and other symptoms of acute trouble is not the result of a single error, but evidence of a long train of conditions, which have gradually led up to the sudden onset. For some time the



No. 15.

1, 2, 3, Arteries. 4, Veins. 5, Nerves.

patient has gone beyond the limit of safety, and the system has withstood the abuse, if we may call it such, of late suppers, late hours, excessive or rapid eating, and, in many cases, excess in drinking—whether of strong coffee, tea, ice water or alcoholic liquors makes no particular difference. Neither is it of importance whether the digestive fluids of the stomach contain a little too much acid, or are slightly alkaline; the result is the same. The small vessels supplying the mucous membrane become congested and inflamed, the digestive fluids become excessive in amount and abnormal in quality, and now Nature suddenly rebels and the patient finds himself the victim of an acute attack. These unpleasant reminders are Nature's voice, forcibly expressed. For every transgression there is now demanded full payment with interest. We should remember that if Nature's laws are broken, there will be a day of reckoning. Whether the wilful errors pertain to matters of diet and hygiene, to loss of sleep, overwork or lack of exercise, is unimportant. It would be as reasonable to expect an apple thrown into the air to remain there, as to expect abuses of the physical body to go unpunished. The only prophylactic or preventive measure against disease is a healthy system, and the only way to avoid disease of the stomach is to exercise care and judgment regarding matters of diet.

Usually when the stomach begins to give trouble, artificial digestants are resorted to. The class of people who take these patent remedies are looking for a specific—a something that will allow them to continue their indulgences and excesses and at the same time pay little or no attention to the demands of Nature. But sooner or later Nature claims her rights. It may be in the form of an acute attack, of gradual and lingering disease, some of the many deformities of rheumatism, spinal diseases, or an early death. Every one should learn that digestion cannot be purchased ready-made, that artificial digestants afford but temporary relief, and that their effects are only palliative, *i. e.*, that they quiet the symptoms without touching the cause, and that, if continued, these remedies will still further weaken the digestive organs. They do this by doing their work for them. It is well known that Nature does not waste any of her forces, nor perform any of her work in vain, and if artificial digestants are employed, the natural digestive fluids or ferments will cease to flow. The muscles of the arm would shrink if the arm were kept in a sling; a joint would refuse to act if it were kept too long in one position. When the arm and joint cease to act, Nature ceases to supply them. The same is true with the digestive fluids. If they are supplied artificially, the digestive organs will atrophy, like the muscles of the arm kept in a sling, or refuse to act, like the joint that has remained too long inactive.

Eructations in which are recognized by taste or smell anything eaten or drank, are evidence that the stomach cannot take care of that particular article, whether of food or drink. They are an indication that fermentation has occurred, the flavor or odor being thrown off with the gases of decomposition. If the eructations are greasy, avoid fats; if they are sour, avoid sugar and starchy foods, as these produce acids. If there is a bitter taste in the mouth, it is bile, and indicates congestion of the bile duct. The stomach does not rebel without a cause, and its warnings should be heeded. When stomachical digestion is perfect, we are unconscious that we have a stomach. Every organ has an individual sign by which it makes known any abnormal conditions, and it is upon the recognition of such signs that diagnosis is made.

The three great physicians of Nature are fresh air, pure water and sunshine, and these combined with healthful exercise are more effective in securing and maintaining health than drug medication. They will cure most cases of dyspepsia. If they could be bottled up and administered in tea or tablespoonful doses while people were in bed, or comfortably seated in rocking chairs, they would be more largely indulged in, and those preparing such treatment could command their millions.

When the stomach is irritable through indigestion, the condition is reflected to the brain and other organs through the connecting nerve fibers, weaving a thread of disorders which may baffle human skill. This condition produces many imaginary ailments—the blues, melancholia, irritability, nervousness, etc. These cases do not need medicine; it would be as absurd to treat such cases with medicine as it would be to give medicine for lameness caused by a sliver driven into the hand. The stomach needs rest and freedom from all irritating substances just as much as the hand needs to have the sliver removed.

It may be of interest to know that a glass of ice water lowers the temperature of the stomach 30 degrees, and this has a powerful effect in checking digestion.

STRANGURY.—This means painful urination. (See *Dysuria* under **BLADDER, DISEASES OF**).

STRICTURE.—Stricture means the closing of the natural lumen, or opening of any passageway, as an artery or any part of the bowel. Stricture may be partial or complete. It may affect any canal or duct, as the urethra, trachea, or wind-pipe, œsophagus, or tube leading from the throat to the stomach, or the eustachian tube, the passage leading from the base of the tongue to the middle ear. These strictures may be uniform or

may be tortuous; they may be partial or complete, rendering the canal passable or impassable. They may also be recurrent, that is, returning from time to time.

Cause.—They may be caused by a foreign body, by tumors, including cancer, or may result from inflammation. The last is the most frequent cause.

TREATMENT.—

These cases require a physician.

Note. Usually stricture is understood to mean a narrowing of the urethra following gonorrhœa. (See GLEET).

STYE.—(See under EYE, DISEASES OF).

SUMMER COMPLAINT.—(See DIARRHEA).

SUNBURN.—In those unaccustomed to outdoor life, the skin over the face, neck and other exposed parts is delicate. The cells forming the outer layer of the skin are not coarse, rough and thick, because the tissues beneath have needed no particular protection. The sudden change allows the sun's rays to penetrate to the deeper structure, or skin proper. It will be remembered that it is in this layer that the blood vessels are situated. The excessive heat causes acute congestion, and, in some instances, inflammation. This accounts for the heat and swelling, and the swelling causes the pressure and pain. This condition usually lasts for a few days, more or less, according to the severity or amount of exposure.

TREATMENT.—

The best treatment is some application that will exclude the air, because it is the oxygen of the air coming in contact with the true skin that produces the sensation of smarting and burning. The application of Vaseline, Sweet Cream, Sweet Oil, or any emollient that will protect the affected area, is all that is needed. If on the hands, arms or neck, the application may be followed with a light bandage. This will insure greater protection and afford greater relief.

SWEAT GLANDS, DISORDER OF — HYPERIDROSIS.—Some persons are afflicted with excessive secretions of the sweat glands. The excess may be general all over the body, or may affect only certain parts, as the hands, arm-pits, soles of the feet, etc. It is usually accompanied with a disagreeable and disgusting odor. This is especially true when it affects the soles of the feet. Excessive sweating of the soles of the feet is not only the most uncomfortable, but the most dangerous, form of this disease. It keeps the feet wet and cold, and in many

cases is the primary step leading to chronic catarrh; or may precipitate an acute cold. The feet are kept in a sweat-bath, as it were, which causes the outer skin to peel off rapidly and leaves them tender and sensitive.

Cause.—Some irritant which excites excessive action of the nerves supplying the sweat glands and results in over-production; or the nerve supply may be unusually or abnormally developed.

TREATMENT.—

The following is one of the best remedies of prevention:

Menthol.....	20 grains.
Tannic Acid.....	40 “
Formaldehyde	20 drops.
Borax, powdered.....	1 ounce.
Soapstone, powdered.....	2 “

Mix, and dust freely inside the stockings. If there is still some sweating, add more Tannic Acid; if there is odor left, add more Formaldehyde.

The same preparation may be applied locally under the arms, or wherever abnormal sweating occurs.

Note.—The above is Allen's Foot-Ease plus Formaldehyde.

SYPHILIS.—(See under VENEREAL DISEASES).

TAPEWORM—TÆNIA SOLIUM.—This is a form of worm which sometimes inhabits the digestive tract and grows to great lengths. The variety mentioned above, *tænia solium*, is the one most commonly met, and varies in length from ten to thirty feet. In appearance it is flat and thin like a ribbon. There are two other varieties which are larger. The largest is said to attain a length of sixty feet. The head of the tapeworm is small and rounded, being about $\frac{1}{30}$ to $\frac{1}{40}$ of an inch in diameter. The body is composed of small segments, or joints, which vary from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in length; the width may exceed the length. The worm is supplied with two rows of suckers, and the *tænia solium* is also supplied with two rows of what are called hooklets. Each worm is supplied with male and female reproductive organs. Its eggs are about $\frac{1}{1800}$ of an inch in diameter. The worm is supposed to inhabit pork, beef and fish, and to find its way into the body first in such food. It inhabits the upper part of the small bowel, and the head is firmly attached to the mucous membrane by means of the hooklets mentioned.

Cause.—The eggs, which are found in the meat mentioned. These eggs, on reaching the digestive tract, hatch and develop into the worm.

Symptoms.—The elimination of detached or disjointed segments may be the first, and is the only positive evidence of the presence of the worm. In other cases there is pain, which may be anywhere in the abdominal cavity. The appetite is more or less affected, and at times there may be nausea and vomiting. There may also be dyspepsia and constipation, and the patient may lose flesh. After eating the symptoms are apt to disappear, and are most prominent when the stomach and bowels are empty. In some cases the patient claims to feel the movement of the worm though this may be imagination.

TREATMENTS.—

A. There are a number of remedies which are used in the treatment of tapeworm. A strong tea made from Pomegranate Root, Turpentine, Pumpkin Seed, *Aspidium*, Male Fern, and perhaps other remedies are used for its destruction. Of these the ethereal resin of *Aspidium* and the oleo resin of Male Fern are perhaps used oftenest, although Pumpkin Seed has the advantage of being cheap, effective and harmless. This is important in the case of small children, because it requires as large a dose of the remedy to destroy the tape worm in the child as in the adult, and enough of the stronger remedies to be effective might be too large a dose for the child.

In case of children, give 1 ounce of the dried Pumpkin Seed, or 4 ounces of the fresh seed. Remove the outer covering or husk, and bruise, together with chocolate or sugar. Give an active cathartic and restrict the diet as much as possible for forty-eight hours. Divide the dried seed into four doses, or the green seed into six doses, and give one hour apart. Follow the last dose with another active cathartic, such as Castor Oil. This is usually effective, and, as stated, is perfectly harmless.

For adults, give an active cathartic in the afternoon, eat a very light supper, if any, and no breakfast, and take about 1 or 2 teaspoonfuls of the oleo resin of Male Fern, or 1 teaspoonful of the ethereal resin of *Aspidium*. In two hours take 2 table-spoonfuls of Castor Oil and 1 drop of Croton Oil. The Tannate of Pelletierine which is the active principle of Pomegranate, is highly recommended, and may be given in from $\frac{1}{2}$ - to 1-grain doses in place of the Male Fern or *Aspidium*.

B. Take 4 ounces of Pumpkin Seed, remove shells and bruise seeds together with two ounces of sugar and 1 pint of warm water. Let patient eat nothing for one day. The next day let him eat the Pumpkin Seed mixture, and after he has finished, give him a good dose of Epsom Salts.—(35).

C. Emulsion consisting of:

Turpentine.....	1 ounce.
Wintergreen Water.....	½ "
Gum Acacia	½ "
Simple Syrup.....	1 "

Mix. To be taken by an adult in one dose.—(31).

TEETH.—The teeth are subject to disease the same as other tissues, organs and structures. There may be abscess, or there may be a gradual or rapid destruction of one or more of the teeth. They are also subject to pain and tumor growths. The tumor consists of an increased amount or overgrowth of the bony tissue.

TREATMENT.—

The treatment should be preventive. This means that the teeth should receive proper care by keeping them clean. Every one should use a brush at least once a day, or, what is better, after each meal. Any evidence of decay should be investigated and cared for by the dentist. Some form of tooth powder that is cleansing and at the same time harmless, should be used occasionally, as the following:

Precipitated Chalk.....	1 ounce.
Orris Root, powdered	2 drachms.
Boric Acid, powdered.....	20 grains.

Mix, and use by applying to the brush.

Note.—Other preparations for use in cleaning the teeth will be found under MISCELLANEOUS MEDICAL RECEIPTS.

TOOTHACHE REMEDIES.—

A. Chloral Hydrate	½ ounce.
Gum Camphor.....	½ "

By gradually rubbing these two ingredients together, a liquid soon forms. This can best be done in a druggist's mortar. Keep the liquid well corked. In using take a small piece of cotton, large enough to fill the cavity in the tooth, roll it up firmly, and with the end of a tooth-pick, or some other convenient method, dip it into the solution and pack it firmly into the tooth.—(64).

Note.—The above is an excellent application.

B. Saturate a piece of cotton the size of the tooth cavity in Ammonia and put into the tooth. It will stop toothache at once.—(20).

C. Chloroform.....	1 drachm.
Oil of Cloves.....	1 "
Carbolic Acid.....	1 "

Mix, and apply a few drops on cotton. Care should be taken not to drop any of the liquid on the lips, tongue or gums.—(36).

D. Alcohol	½ ounce.
Laudanum	½ drachm.
Chloroform, liquid measure	3½ “
Gum Camphor	2 “
Oil of Cloves	2 “
Sulphuric Ether, liquid measure.....	3 “
Oil of Lavender.....	½ “

If there is a nerve exposed, this will quiet it.
Apply with lint. Rub freely upon the gums
and upon the face against the tooth.

E. Alcohol	2 ounces.
Tincture of Arnica.....	2 drachms.
Tincture of Chloroform	2 “
Oil of Cloves	1 “

Mix, and apply to the cavity on a little
cotton.

TETTER.—(See *Eczema* under SKIN DISEASES).

THREAD WORMS.—(See under CHILDREN'S
DISEASES).

THROAT, SORE.—The following treatments have been
recommended. The reader is also referred to the treatments
under LARYNGITIS; also, if the tonsils are affected, to the treat-
ments under TONSILITIS.

TREATMENTS.—

A. Sage Tea, very strong.....	½ pint.
Strained Honey	2 tablespoonfuls.
Common Salt.....	2 “
Strong Vinegar.....	2 “

Mix, strain, and gargle the throat from
four to a dozen times daily, according to the
severity of the case —(64).

B. A pinch of the following on the tongue and swallowed,
without water, every half hour:

Cubebs, powdered.....	1 teaspoonful.
Saltpetre.....	1 “

Mix. Gargle the throat with milk. Little
or nothing to eat for 24 hours.—(35).

C. Chlorate of Potash.....	1 drachm.
Turpentine.....	1 “
Syrup of Gum Arabic.....	1 ounce.
Water	1 “

Mix. Take 1 teaspoonful every two hours.
—(36).

THRUSH.—(See under CHILDREN'S DISEASES).

TOE-NAIL, INGROWING.—This difficulty usually occurs on the great toe. In some cases it is very painful, so much so that the individual is unable to wear a shoe unless it is very large, or unless the part covering the toe is removed with a knife. In every case the condition is extremely unpleasant and there is always more or less soreness and pain.

Cause.—The cause is either an overgrowth along the edge of the nail, or the pressure of the nail irritates the soft tissue and results in its overgrowth. The edge of the nail either grows down into the tissues, or the tissue grows up over the edge of the nail; perhaps both conditions are present.

TREATMENTS.—

A. Very many cases may be benefited and often cured by taking a sharp-pointed knife and, by repeated strokes along the border, gradually cutting through the nail, removing a strip from one-sixteenth to one-eighth of an inch in width, and sometimes more. Where the nail grows down into the tissue it is not attached on either side, and by cutting through, the sliver of nail may be readily removed. This relieves the pressure, and for a time relieves the pain and soreness. If the trouble recurs, repeat the treatment. If successful the first time, it will be successful every time, and eventually the nail will stop growing in that direction.

The directions just given can be carried out by any one suffering with this trouble. Some cases, however, need surgical treatment.

B. Painless Remedy.—Henry Finch, M. D., reports, through the *British Medical Journal*, that neither cutting nor burning operations are at all necessary for the complete and rapid cure of ingrowing toe-nail. If a small, *thin*, flat piece of silver plate be bent at one edge into a slight deep groove and, after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent around the side and front of the toe, being kept in position with a small portion of adhesive plaster passed around the toe, a speedy and almost painless cure will take place; and the patient, after the first day, has the additional advantage of being able to walk. Dr. Finch has followed this method in numerous cases with uniform success.

TONGUE.—Like other tissues and organs, the tongue is subject to many diseases. There may be adhesions, including the condition known as *tongue-tie*. Such adhesions are congenital, *i. e.*, exist from birth. There may be *atrophy*—a shrinking of the organ. This may be caused by syphilis, by some disease of the

brain, or by morbid growths on the tongue itself. There may be *hypertrophy* or overgrowth. This would result from a mild form of inflammation from some cause.

The tongue is also subject to ulcer, erysipelas and cancer. Barring cancer, perhaps the most serious form of disease of the tongue is acute inflammation. This is called *Glossitis*.

Acute Glossitis or Inflammation of the Tongue may result from injury—sometimes results from the sting of a bee.

Symptoms.—Sudden swelling, fever, pain and increased flow of saliva. The voice becomes changed, and speech and swallowing are difficult. The glands about the jaw enlarge and may suppurate. The swelling may be so rapid and reach such proportions as to render breathing not only difficult, but impossible.

TREATMENT.—

The same as treatment for inflammation elsewhere. Relieve the organ of the excessive amount of blood. This can only be done by draining the system of fluids and equalizing the circulation. A large dose of Pilocarpine is valuable. For a child five years old, $\frac{1}{8}$ of a grain given with a hypodermic needle would perhaps be sufficient. This causes active elimination by the skin. Also give 1 drop of Croton Oil, either in a small capsule, or mixed with Glycerine or Sweet Oil and placed on the back of the tongue. If Croton Oil is not at hand, give a large dose of Castor Oil. Wait two hours, and if results are not obtained, give half the amount. In place of the Pilocarpine, Aconite may be given—1 drop of the tincture every hour. Also apply external heat to produce profuse perspiration. Sometimes even the most active treatment fails. In this case incisions may be made—cut deep enough to allow the blood to flow freely. This will aid in relieving the organ. In some cases it is necessary to perform tracheotomy *i. e.*, open the wind-pipe and insert an artificial tube through which the child may breathe. If an abscess forms, it should be opened and washed out the same as abscess elsewhere. These cases are always serious and require the services of a physician.

In chronic inflammation or enlargement of the tongue the disease is secondary, *i. e.*, the result of some other trouble, towards which the treatment should be directed.

TONSILITIS.—The Pharynx (farinks) commences at the back part of the mouth and terminates in the esophagus, or tube leading from the throat to the stomach. The pharynx is about $4\frac{1}{2}$ inches in length. There are seven openings which communicate with it: the two nasal cavities; the two eustachian

tubes, which lead to the middle ears; the trachea, which leads to the lungs; the mouth, which is in front; and the œsophagus, into which the pharynx terminates.

The upper and front part of the mouth has a bony roof covered with mucous membrane, and is called the *hard palate*; the back part is formed or composed of soft tissues only, therefore is called the *soft palate*. Arching from either side of the back part of the mouth are two folds of mucous membrane which meet in the centre; behind these are two more. The four folds contain four small muscles. These arches are called the pillars of the soft palate. They are separated at the sides of the throat, and meet in the center like the letter V. The tonsils are placed between them, thus, Δ , one on either side.

The tonsils are glandular bodies which vary considerably in size. During acute inflammation or chronic enlargement, they may be an inch in diameter; normally, they are very small and cannot be seen. On the surface of each tonsil there are from twelve to fifteen little openings, each extending inward and branching into many little follicles, or glandular sacs. Surrounding each of these sacs are a number of small bodies or glands with no external opening. These glands are similar to Peyer's glands in the small bowel (see TYPHOID FEVER). By means of lymphatics these ductless glands drain into the deep glands of the neck, and thus their secretions reach the general circulation. That is one reason why inflammation of the tonsils may produce such marked systemic effects.

Tonsillitis is inflammation of the tonsils. It is sometimes called *Quinsy*. As stated under *Diphtheria*, quinsy means a choking, and may be applied to any of the throat troubles where there is inflammation, swelling and difficulty in breathing or swallowing.

Cause. — The cause is the same as that which produces ordinary catarrhal colds and sore throat—probably due to atmospheric changes.

Symptoms.—In some cases the disease is ushered in with a chill, but usually it is not. There is a moderate rise of temperature, which may reach as high as 104; the tonsils become swollen, producing pressure and pain; there is a constant desire to clear the throat, and difficulty in swallowing; the tonsils increase in size, and may nearly or altogether close the passage, though the act of breathing through the mouth forces an opening. In appearance at this time the tonsils are large, and deep red, and the surface may be more or less covered with whitish or yellowish points. The mucous membranes of the surrounding throat structures may be more or less swollen and inflamed. The swelling of

the tonsils may be so great that suppuration will take place, in which case almost immediate relief will be afforded. Usually, however, the disease declines gradually, the fever disappearing and the tonsils returning to their normal size; or they may remain somewhat enlarged.

In inflammation and swelling of the throat it is well to remember the symptoms of diphtheria. Diphtheria may give the same early symptoms as tonsilitis, or as any case of sore throat, either mild or severe, but the typical symptom of diphtheria is the formation of a membrane, which usually appears on the tonsils at one or more points. These points spread rapidly and join together, forming a large leather-colored patch.

TONSILITIS COMPARED WITH DIPHTHERIA.

Tonsilitis.

Points first appearing are whitish or light yellow in color.

No membrane, but a white exudate of a downy or woolly appearance.

Exudate can usually be removed with a soft cloth or swab.

Removal of the exudate leaves the surface natural, barring its inflamed appearance.

Exudate stands out like wool on a smooth surface without any definite outline.

Diphtheria.

Points first appearing are of a dark, leathery color.

Smooth membrane of a dark grayish or leathery appearance.

Membrane is firmly adherent to the structures or tissues beneath. Cannot be removed unless torn loose.

If membrane is torn loose, a bleeding surface is left behind.

Membrane has a well-defined border.

TREATMENTS.—

What to Do.—Steep up bitter herbs in a closed vessel—an earthen pot or tea-kettle—and steam the patient's throat. Form a long tube by rolling up a newspaper. Place one end over the spout of the kettle, tie it in place, put the other end in or over the mouth, and have him inhale the steam as hot as can be borne comfortably. Or, add from $\frac{1}{2}$ to 1 teaspoonful of Carbolic Acid to 2 quarts of boiling water, or the same amount of Turpentine, and inhale in the same way. The Carbolic Acid and Turpentine are of advantage because of their antiseptic properties; they insure cleanliness.

Give warm drinks and put to bed. If the case seems severe enough, send for a doctor. An abscess sometimes forms on the affected tonsil, and should this occur, have it opened by a doctor at the earliest moment.

A. At the first symptoms of tonsilitis give the patient an active cathartic, and give 5 grains of Salicylate of Soda every hour until the ears "sing;" after that, give every three hours. For the phlegm that collects in the throat, the following gargle will be found satisfactory:

Borax, powdered.....	2 drachms.
Salicylate of Soda	2 "
Glycerine	4 "
Water, enough to make.....	4 ounces.

Gargle several times a day, or as often as necessary.

If the fever is high, 1-drop doses of Tincture of Aconite may be given every hour, although this is unimportant; the fever is only a symptom, and if the disease is properly cared for, the symptom will disappear—so will the disease.

Another most excellent remedy for internal use is the following:

Tincture of Aconite.....	$\frac{1}{8}$ drop.
Tincture of Belladonna Leaves.....	$\frac{1}{10}$ "
Tincture of Bryonia.....	$\frac{1}{10}$ "
Red Iodide of Mercury.....	$\frac{1}{100}$ grain.
Sulphate of Morphine.....	$\frac{1}{100}$ "
Salicylate of Soda	1 "
Oil of Wintergreen	$\frac{1}{8}$ drop.

This combination is made in tablet form, and each tablet contains the amount given here. These tablets may be bought at any drug store.

The value of the tablet resides mostly in the amount of Salicylate of Soda it contains. Salicylate of Soda is a specific for many cases of tonsilitis. The tablets may be given one every hour, more or less often according to age. We have used these tablets and also the 5-grain doses of Salicylate of Soda in many cases of tonsilitis, and the results have been so uniformly satisfactory that we feel confident if the directions are followed, many cases of this disease can be aborted.

The patient should remain indoors for a day or two, if necessary. If the tonsils become greatly swollen, relief may be had by lancing them, cutting in one or more places. This allows them to bleed freely and relieves the congestion. If suppuration takes place, they should be lanced also. The best treatment for tonsils that are troublesome is to remove them—cut them out. This requires but a moment's time and produces no pain.

Enlarged Tonsils.—Sometimes the tonsils remain permanently enlarged. In this case it is better to have them removed. The operation is neither difficult nor painful. Until this is deemed necessary, either of the following may be used to advantage:

TREATMENTS.—

- A. Chlorate of Potash..... $\frac{1}{2}$ teaspoonful.
Sulphite of Soda $\frac{1}{3}$ “

Put into a glass and fill with warm water.
Gargle the throat thoroughly with a table-
spoonful of this solution from three to five
times a day.

Also paint the tonsils once in two or three days with the Tincture of Iodine, using a small brush. To do this, take a spoon handle, or something of the kind, and press the tongue down so that the tonsils may be treated readily. The Iodine will reduce their size by stimulating the absorption of inflammatory products.

- B. Iodine 2 drachms.
Glycerine..... 6 “

Mix, and apply daily with a brush.—(45).

Note.—The object in adding the Glycerine lies in its power to attract water from the tissues beneath the surface to which it is applied. This drainage aids in reducing the size of the organ.

TOOTHACHE.—(See under **TEETH**).

TRANCE—MORBID SLEEP.—Trance differs from sleep both in time of duration and in the profound insensibility to external objects or impressions. Another peculiarity regarding trance is that it is more apt to follow excitement than fatigue or exhaustion. It is said to have occurred epidemically during periods of great religious excitement mingled with superstition.

A mild case resembles sleep, but there is an abnormal insensibility to external stimulation. The breathing and the pulse are quite natural. This form is called *Trance Sleep*. Or the breathing and heart action may be greatly weakened, yet perceptible. The joints remain movable, and the position of the individual can be easily changed. This condition is sometimes spoken of as *Trance Coma*, meaning deep sleep. In its severest form no heart beat or respiration can be detected. The temperature is subnormal, and the patient takes no nourishment. This form is sometimes spoken of as *Death Trance*.

TREATMENT.—

We have never had occasion to treat any of these cases, and so far as we know there is no satisfactory treatment that has ever been discovered. However, as a means of aid in reviving the patient we would recommend any of the following:

Inhalations of Nitrite of Amyl. Nitrite of Amyl is a liquid and is given by holding the uncorked bottle close to the nose for a few seconds at a time. While the effects last but a few minutes, they might serve to bring the individual to consciousness.

Atropine is another remedy, which does not act so quickly, but is more lasting. Place $\frac{1}{250}$ of a grain in powdered form on the tongue, and repeat this every hour for two or three doses. Under the directions of a doctor perhaps a larger dose could be given.

Glonoin, or Nitro-Glycerine, is another remedy belonging to the same class. The results somewhat resemble Nitrite of Amyl. The effects are produced rapidly and pass away within an hour.

Electricity—the Faradic current—is recommended by some. Its daily application at the same hour is claimed to have revived a patient after all other means had failed.

We wish also to recommend the rectal injection of two pints of water as hot as can be borne.

If the patient cannot be revived, the question of feeding becomes an important one. Liquid food should be given by the mouth, if the patient can swallow. Absorption through the skin is another means of conveying nourishment. Perhaps Cod Liver Oil applied to the surface once or twice a day is as valuable as any remedy that can be administered by this method.

TRICHINA WORM—TRICHINOSIS.—This disease is produced by a small worm called *trichina*. When full grown, it is from $\frac{1}{8}$ to $\frac{1}{2}$ of an inch in length. Sometimes the trichina inhabits the body of the hog, and when such meat is eaten raw or improperly cooked, this minute form of animal life finds its way into the digestive tract of man, where it multiplies very rapidly, penetrates the walls of the tract and enters the veins, or by other means finds its way into muscle tissue, which seems to be its natural place of abode. In the muscles the worms become encysted, that is, surrounded by a little membranous capsule. Later, both the cysts and the worms may become calcified, *i. e.*, lime salts are deposited, and the minute animal life appears as small white specks. They may remain encysted for months or years without undergoing any change. Should the flesh which they inhabit be swallowed by other animals, they would develop and multiply in the digestive tract, penetrate the walls of the bowels and migrate to muscle tissue, as before. They multiply rapidly

in the digestive tract, and it is the young ones that migrate to muscle tissue and become encysted. A temperature of 170 degrees destroys this form of animal life; salting the meat also destroys it.

Rats are the most common carriers of this form of pest. It is not often that they inhabit the body of hogs. According to some authorities they occur only in 1 to 1500 or 2000.

Cause.—Trichina finding their way into the stomach from eating pork when raw or when improperly cooked.

Symptoms—At first there is loss of appetite, nausea, perhaps vomiting, diarrhea and a feeling of languor, and there may be more or less prostration. This condition continues for a week, when the patient becomes sore and stiff and is attacked with pain, more or less severe. When the trichina enter the muscles, the pain is intense, and the slightest effort to move the affected muscle causes great pain. The pain is constant, the patient is unable to sleep, the face becomes swollen, there is fever and rapid pulse, more or less thirst, and profuse perspiration.

TREATMENT.—

Active cathartics might clear the digestive tract of the trouble, but it would have no influence upon the trichina after they became encysted. The treatment consists of food, stimulants and tonics. If only a small number of trichina migrate, the patient might recover; if a large number, the attack would prove fatal. Glycerine destroys trichina when applied to them direct. It does this by absorbing the fluids from the minute animal bodies, when they rapidly dry up and die. This remedy has been recommended in tablespoonful doses once every hour; but as the Glycerine absorbs so much water before it reaches the circulation, and becomes so largely diluted, its effects are doubtful. Alcohol has also been recommended, and its effects on the trichina are the same as the Glycerine; but it too absorbs so much water before and after reaching the circulation that its effects are doubtful.

TUBERCULOSIS—CONSUMPTION.—Consumption is a chronic, constitutional, non-contagious disease. Tuberculosis is a form of consumption in which little nodules or tubercles are formed in the affected tissues. Tubercles are small, nodular masses, about the size of a millet seed, and are produced by a low form of inflammation resulting from self-generated poisons in the system. When occurring in the lungs, the usual seat of the disease, it is called *Pulmonary Tuberculosis*, *Phthisis* or *Consumption*.

Consumption is a slow, wasting disease, and its primary cause is a lack of nourishment. Following, and as a result of such

lack of nourishment, there is first a slight loss of vitality and lack of assimilation. The natural resistance of the tissues are lessened. The blood lacks the normal elements, and contains irritants in the form of waste material due to poor digestion and a lack of elimination. Indigestion is present in every case. The indigestion may be the result of rapid or excessive eating, poor food, unhygienic surroundings, too much hard work, or of the prolonged use of alcohol. Constipation is present more or less. This means that the digestive tract is unhealthy and that many poisons are generated there. It seems hardly necessary to state that these poisons enter the circulation, and, acting as irritants, produce a low form of inflammation. The inflammation and lack of nourishment mean that waste exceeds repair. Each organ and each individual cell of the body struggles to carry on the unequal contest, and the tissues thus become irritated and weakened and fail to appropriate the nourishment brought to them.

Those tissues and organs suffer most that are most liable to the morbid influences present. The lungs are most liable for the following reasons, hence, as stated, consumption of the lungs is the most common form. Nearly all of the blood passes through the lungs once every minute. This is not true of any other organ in the body except the heart. In the heart the blood simply passes from one cavity to another, while in the lungs the unhealthy blood must pass through the intricate network of small vessels called capillaries. This brings the morbid influences of the septic, or unhealthy blood, in direct contact with the lung tissue. Again, the lungs have a double circulation; they are supplied with two sets of blood vessels. One set supplies nourishment, and the other set is for the purification of the blood. These two systems of vessels are entirely separate. The system which supplies nourishment is given off from the lower left cavity of the heart, while that carrying the blood for elimination of the poisonous gases mentioned, and for oxidization, comes from the right side of the heart. The blood which is sent to nourish the lungs is bright red, while that sent for purification is dark, venous, and contains many poisons and impurities.

The system of vessels for the purification of the blood is placed just beneath the delicate membrane which lines the air cells. As stated elsewhere, it is estimated that there are six hundred million air cells in the lungs, and that their combined surface is more than seven times greater than the whole outer surface of the body. This surface is literally covered with small vessels through which the septic blood is constantly pouring. With every heart beat the blood is forced into the lungs, where it attempts to pass through the capillary network of small

vessels; but in a morbid condition it contains many poisons, and these, acting as irritants, produce congestion, which later results in a low form of inflammation, as stated. The set of vessels which surround the air cells is so placed for the purpose of giving off waste and absorbing oxygen from the air we breathe. The mucous membrane which lines the air cells has the power of transmitting carbonic acid gas and other poisonous vapors and admitting oxygen, and yet remain proof against the passage of the fluid blood.

During the morbid conditions mentioned above more poisons are generated and less oxygen is taken into the system, and the oxidation of many products, both in the circulation and in the tissues, is interfered with. This lowers the physical force and increases the morbid effects already present. As this condition increases there is corresponding loss of weight and strength. Now some trivial occurrence, such as wet feet or exposure, may result in a bronchial catarrh, which ordinarily is easily recovered from; but with the lungs previously inflamed and their vitality at such a low ebb, the case may easily run into consumption.

Causes.—Those already mentioned. *Dyspepsia is the mother of consumption.* Every one understands that in every case of consumption the process of digestion and assimilation suffers more or less from the first. It is understood, of course, that heredity may be responsible for some cases. A child of tuberculous parents may be born with weak lungs or a weak stomach. During childhood days the lymphatic system is most liable to suffer, and undoubtedly this accounts for many cases of scrofula (see TUBERCULOSIS OF THE LYMPH GLANDS).

During that form of consumption of the lungs known as tuberculosis, the following changes take place:

Changes Occurring in Tuberculosis.—First, the irritation excites inflammation and new tissue growth. The new growth is a form of connective tissue, as mentioned under *Alcohol* and in many other places in this work. From its granular appearance it is sometimes called embryonic tissue or granulation tissue. This new tissue takes no part in the work carried on by the organs in which it occurs, but crowds out more or less the natural tissue, and the organ or organs are weakened in proportion. A dead or dying cell first becomes the center of a tubercle by exciting inflammation around itself. Dead tissue always excites inflammation; it is Nature's method of localizing disease. The inflammation surrounding the tubercle is the same as would surround a bullet, or any other foreign body that might enter the lungs. The same condition is present in every abscess. The zone of new tissue which surrounds the tubercle or abscess constitutes the battle line; it is the struggle between the living and

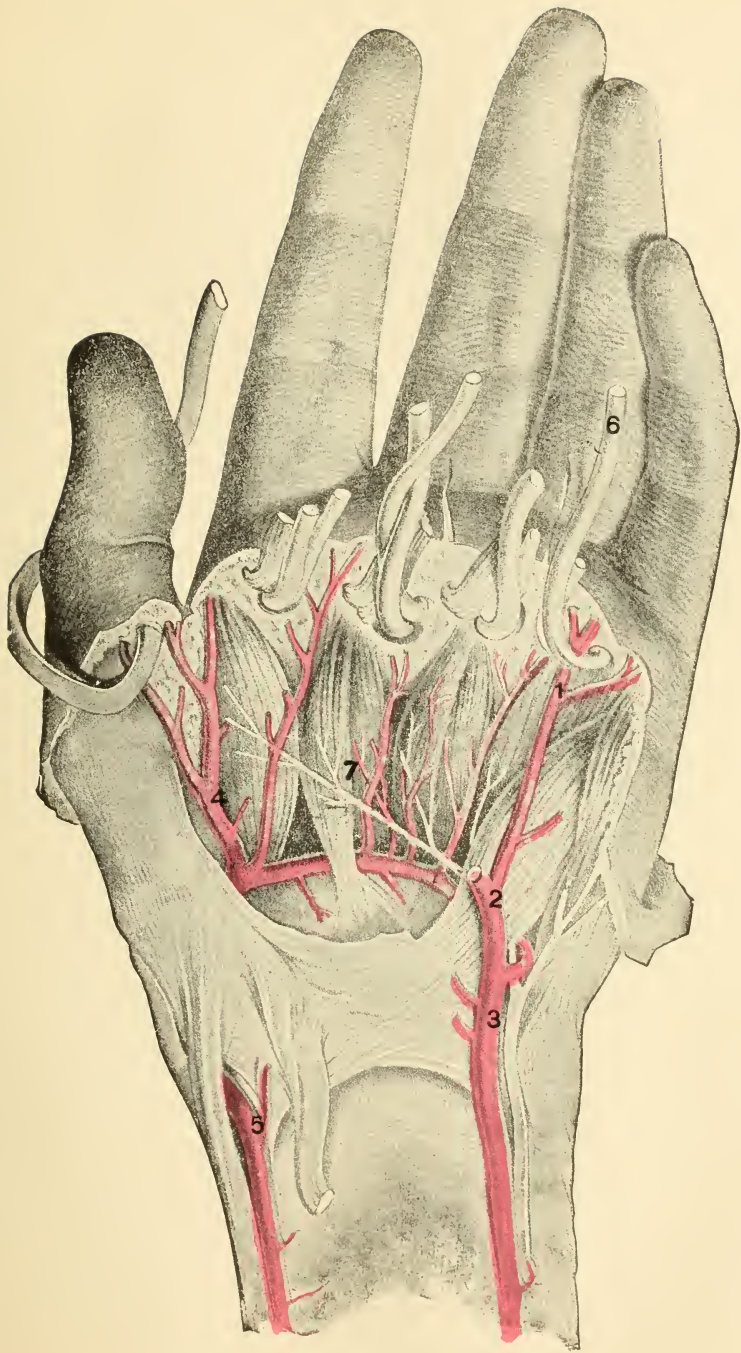
the dead. The same conditions are present, but more prominent, in *Gangrene*. It has been stated that a dead cell forms the center of a tubercle by exciting inflammation around itself. Dust may also aid in producing tuberculosis. When the vitality of the lungs is at a low ebb, as described, a small portion of dust from a mill or factory, or that furnished by the stone cutter or iron worker, may lodge in an air cell and form the nucleus or center of a tubercle.

The tubercles do not contain blood vessels. Their lack of nourishment and failure to organize as healthy tissue leaves them without foundation or support. They are built from septic blood, have but little vitality and no duty in life, hence easily break down. Many of the new cells mentioned may die as a result of pressure upon each other, and also because they do not have time to mature. Many white corpuscles or white blood cells lodge at these points, lose their vitality and die. The blood always contains the elements of fibrine, and these elements, escaping from the swollen vessels, unite in the diseased area with the white corpuscles and other waste products and form the purulent matter which is expectorated.

It is well known that Nature never maintains a structure for nothing. Whether that structure is a whole organ or a single cell, makes no difference. When it ceases to be of use to the body, Nature immediately seeks to eliminate it. It cannot be eliminated whole, hence the various changes through which it passes to reach a liquid state. When Nature's efforts fail to liquefy and eliminate, the part becomes organized, as stated below.

In all forms of consumption of the lungs the walls of the small air tubes, and their dilated extremities, the air cells, are thickened by inflammation, and both are more or less filled with a catarrhal exudate and embryonic, or undeveloped, tissue. These changes and conditions are responsible for the consolidation present in the early stages.

Many cases of consumption are recovered from. Where recovery takes place, the diseased portion of the lung may become calcified, *i. e.*, lime salts carried by the circulation may be gradually deposited in that part. In health the little cells constituting the lung tissue do not absorb or admit lime salts into their structure, but in their diseased and weakened condition their selective power is lessened or destroyed. The diseased area may also become encysted, *i. e.*, surrounded by a thin membrane of the connective tissue already mentioned. Later the connective tissue may send fibrous bands through the diseased part, and it is then said to be organized. Blood vessels are supplied, and the healing is permanent. The natural lung



No. 16.

1, 2, 3, 4, 5, Arteries. 6, Tendons. 7, Nerves.

tissue, however, is never replaced. Or degeneration may cause the tissue to soften and break down—liquefy—and this may be followed by absorption, *i. e.*, be carried away by the circulation; or it may be expectorated, or may be disposed of both by absorption and expectoration, and the cavity be filled with newly organized tissue, as stated. It is by such conditions as these that post-mortem examinations demonstrate that consumption has existed in some part of the lungs at some time.

Arteries last longer than lung tissue, hence they may extend through a cavity where lung tissue is destroyed. As the disease continues, they gradually become weaker until they may rupture during the act of coughing, causing hemorrhage, and sometimes, death. Or the inflammation may allow blood clots to form in the arteries, and they may be obliterated before the advancing disease can reach them. This would lessen nutrition and hasten the disease. An artery may be weakened where it is in close relation with the cavity. This would cause bulging into the cavity and constitute an aneurism (see ANEURISM). As fast as the cavity increases the aneurism may continue and fill it, until rupture occurs, which would result in fatal hemorrhage.

Quick Consumption.—In quick consumption death occurs before many of the changes have time to occur. The cause of quick consumption is, that the system is so overcome with self-generated poisons, as described, that degenerative changes occur in different parts of the body at the same time—the lungs, pleura, digestive tract, peritoneum, kidneys, liver, brain, etc. These cases prove rapidly fatal.

Symptoms.—The development of the disease is insidious and without the patient's knowledge. There may be a gradual loss of flesh and strength without any known cause. There are digestive disturbances, poor appetite, constipation, or, if constipation is not present, the digestive tract is unhealthy. There is a dry cough, a sense of languor, weariness, and sensitiveness to cold. Exertion causes shortness of breath. There is a slight rise in temperature in the afternoon, which may be preceded by a sensation of chilliness during the morning. The fever is higher in the evening and absent in the morning. With the fever there is an increased pulse rate. The patient presents a pallid appearance. There may be pain in that part of the lung first affected. In what is called the second stage, the diseased tissue commences to break down and liquefy. This is indicated by increased cough, and by more or less increased expectoration. There is also an increased loss of strength. As the disease continues and the patient grows weaker, there are night sweats and increased emaciation. In all of these conditions the patient remains hopeful.

TREATMENTS.—

A. We have had a good deal of experience in the treatment of consumption, and wish to state clearly that it is our opinion that drug medication is of but little value. We have been intimately associated with consumptives who have taken medicines for weeks and months. Many high priced remedies were used, some manufactured in this country and some coming from Germany, but the results were always the same—the disease steadily progressed. If the patient desires to take medicine, the following is recommended:

Fowler's Solution.....	3 drachms.
Fellows' Syrup of Hypophosphites..	5 ounces.
Maltine, or some good preparation of Extract of Malt	10 “

Put into a pint bottle, mix by shaking the bottle, and take a tablespoonful just before or immediately after meals.

This aids digestion, and is more in the nature of a food than a medicine.

The most successful element in the treatment of consumption is found in improved hygienic measures, such as occupation, diet, clothing, and abundance of fresh air. Out-of-door exercise should be daily indulged in, but never carried to the point of fatigue. The patient should practice deep breathing in the open air, he should sit or stand erect, the shoulders should be drawn backwards and upwards, and the skin should be kept active by frequent bathing. Large, well-ventilated sleeping rooms should be secured. Diet should be of the most nourishing kind, as eggs, milk, meat, bread and such other food products of this nature as may be desired by the patient. Any article interfering with digestion or nutrition, however, should be promptly set aside. The patient should be strengthened by every known means, and nothing is so well suited for this purpose as pure water, good food, fresh air, sunshine, and absolute freedom of mind and body.

Digestion is always interfered with in consumption, and when food does not digest it ferments and forms many poisons which are absorbed into the system. This lowers the strength and vitality of the patient and renders him less capable of resisting the disease already present. Antiseptics to render the digestive tract free from such fermentative changes are always valuable, and for this purpose perhaps nothing is better than Salol or the Sulphocarbolates (see TYPHOID FEVER). Rendering the digestive tract healthy aids in relieving fever and night sweats. Night sweats are the result of weakness; fever is caused by the poisons in the system (see FEVER); both are a drain

upon the patient. Antiseptics aid in removing this condition and increase the value of food products. This means an increase in strength and vitality.

Disinfectants, such as those mentioned, may be used in the digestive tract with a reasonable degree of certainty; but with medicines it is different. Owing to the numerous changes which medicines undergo after they enter the circulation, their effect upon the lungs is doubtful, and usually without value. It is well known that drug medication produces little, if any, effect upon the disease. Any improvement in the consumptive must be brought about by natural means, as described. The result must come through natural channels. There is no specific. The many high-priced remedies and methods are of no value.

Regarding *climate*, if going away breaks up all former associations and habits, causes business losses that cannot well be borne and renders life a burden, then the patient had much better remain at home. If the favorable influence of a better climate can be obtained in accordance with the patient's former habits and with due regard to his means, occupation, associations and contentment, then the prospects will be more hopeful.

B. Live and sleep out of doors. Get into pine woods, if possible. Never go inside of a building.—(59).

C. I will here give a specific treatment in the first stage and often in the second:

Calomel $\frac{1}{10}$ of a grain four times daily.

Tincture of Iodine—dose, 5 drops in a glass of fresh milk three times a day between meals.

Thorough massage every one or two days and anointing with Coconut or Olive Oil.

Proper diet, etc.

This treatment will work wonders if persevered in for weeks, and months even.—(30).

Note.—The Calomel is of benefit in keeping the liver active, which is very important. The Iodine acts as a disinfectant, hence is also of value. The Coconut and Olive Oils are merely a means of giving nourishment.

D. Change of climate. Fresh air. Liberal diet. Rest during state of fever.—(39).

E. Creosote—8 to 15 drops in one cup of hot water after meals.

The most nourishing diet should accompany this treatment.—(26).

Note.—Like the Iodine recommended above, Creosote is believed to be of value as a disinfectant in the circulation. If unable to take in water, take in milk, in capsule, or by other means. If there is evidence that it disturbs the stomach, its use should be discontinued for a time.

F. Glycerine and best rye whisky, equal parts, to be taken freely.—(41).

CONSUMPTION—CIRRHOISIS OF THE LUNGS.

—There is another recognized form of consumption known as cirrhosis, or hardening, of the lungs. This disease is caused by irritants, such as dust, irritating gases, etc., hence is most frequently met in those who work in shops, factories, mills, stone quarries, iron works, and those who manufacture chemicals where irritating gases are produced. The disease consists of a slow process of inflammation, which begins in the upper or larger bronchial tubes, and, extending downward, enters the various branches of the air passages; hence all of both lungs are more or less affected, and therein lies the danger. The result of this inflammation is overgrowth and subsequent contraction of connective tissue. The lungs become shrunken and hardened, and the process may continue until the organs are only one-half, one third or even one-fourth their natural size.

When in this condition, or during this slow process of irritation and inflammation of the lungs, some trivial occurrence, as wet feet or exposure, may result in bronchial catarrh, which ordinarily is easily recovered from, but with the lungs previously inflamed and their vitality at a low ebb, an acute attack of pneumonia or tuberculosis may be precipitated, and under such conditions usually proves rapidly fatal.

TREATMENT.—

Since the disease depends upon irritating dust or vapors, it follows that those suffering from this trouble must secure a change of atmosphere, in fact, change to an atmosphere that is healthful and free from irritants constitutes the ideal treatment or management of a case of this kind. The capacity of the lungs has been destroyed to some extent, and a man suffering with this trouble would not have normal physical endurance even if the disease was checked; there would still remain a loss of lung power, lack of oxygen and interference with elimination, and there would be greater liability to tuberculosis and other diseases. The suggestions and treatment given under *Tuberculosis* are applicable to *Cirrhosis of the Lungs*.

After a change of atmosphere and occupation, and in order to free the lungs from inflammatory products, some of the Iodides should be taken for a time. Perhaps the Syrup of Hydriodic Acid is as good as any. Take a teaspoonful four times a day—between meals and at bedtime. If there is any evidence of a catarrhal condition of the eyes, lessen the dose, taking about one-half the amount. Any other preparation of Iodine may be taken, if preferred. It should be continued for a month or two.

TUBERCULOSIS OF THE LYMPH GLANDS—SCROFULA.—In order to properly understand this disease, it is necessary first to give a description of the

Lymphatic Vessels and Glands.—All parts of the body are pervaded by a system of vessels called the *lymphatics*. In structure these vessels somewhat resemble the arteries and the veins, although they are much thinner—so thin and transparent that the fluid which circulates through them can be plainly seen. This system of vessels is sometimes called the *absorbents*, because they absorb certain waste material or products in all parts of the body and return them to the heart, or near the heart, where they are emptied into the veins. The veins carry these products into the heart and they are passed on through the lungs, where many of the impurities are eliminated or purified by the oxygen inhaled during respiration.

The lymphatic vessels commence, or have their origin, in certain minute spaces or clefts found in connective tissue between adjoining cells, and as this connective tissue acts as a framework for all the organs and structures in the body, it follows that the lymphatic vessels may also be found in every organ and structure. In the digestive tract the lymphatics are supposed to commence by a system of closed extremities; that is, they do not communicate directly with the digestive tract, but nourishment is taken up by them through the process of absorption.

The circulation of the lymph differs from that of the blood. The blood is sent out through one system of vessels called arteries, and the same blood, containing many impurities, is returned through another system of vessels called veins; but the lymph flows only in one direction, *i. e.*, towards the heart. Beginning as minute and delicate vessels between the little cells of the various organs and membranes mentioned, the lymphatics gradually become larger and join together, forming large trunks, which empty into the veins near the heart, as stated.

What are called the *lacteals* are the lymphatics leading from the small bowel. They are so named because they contain a light-colored fluid resembling milk; *lac* means milk, hence *lacteals*—milk-like. This fluid is also called *chyle*. It is the product of digestion which has been absorbed and is being carried from the digestive tract to the thoracic duct. The thoracic duct is a large duct or channel for all of the lymphatics of the body, except those of the right side of the head, neck, right side of the chest cavity, right side of the heart, right lung and upper portion of the liver. It is 15 to 18 inches in length, and commences close to the spinal column in the abdominal cavity near the small of the back. It passes through the chest cavity, runs parallel with the spinal column and a little below the level of the collar bone,

arches forward, and empties into a large vein on the left side near the heart. The lymphatics of the right side of the head, neck, right lung, right side of the heart, right side of the chest cavity and right arm, unite to form a common duct or channel which empties into a corresponding vein on the right side.

What are called *lymphatic glands* are small oval bodies situated along the lymphatic vessels, so that the lymph passes through them in its course to the heart. Each gland has a small depression on one side where the blood vessels enter, also where the veins leave the glands. What are called glands are simply dilatations in the lymphatic vessels. The two outer coats of the vessels expand and form what is called the capsule, and from the inner surface of the capsule small processes pass from side to side, dividing the gland into many compartments or spaces. These spaces communicate with each other. The blood vessels which supply the gland are supported by the processes which pass through it, dividing it into the various spaces mentioned. Nerve fibers are also said to be found in the glands. When the two outer coats of the vessels expand to form the glands, the inner coat, which consists of a single layer of cells joined edge to edge like a stone pavement, divides into several branches, and these delicate branches are continued through the gland, re-unite at the opposite side, and pass out as a single vessel in company with the arteries and veins. Their passage through the glands is very tortuous, made so by the passage from one apartment to another. This retards the flow of lymph, and allows poisonous and morbid matter of all kinds to collect, hence the swelling of these glands from disease, as they retain many impurities and poisons.

Scrofula.—Some claim that scrofula is tuberculosis of the lymph glands; others claim that it is not. Some claim that it is tuberculosis in a latent form, and remains so until some cause or condition stimulates its active development. Probably in the majority of cases what is called scrofula is a condition rather than a disease—a condition in which the general system is unhealthy and the resisting powers are low; and the glands, by reason of their structure, as already described, are especially liable, as poisons and impurities of all kinds collect in them. Eczema, some forms of inflammation of the eye, such as granulated lids or ulcer of the cornea, chronic catarrhal inflammation of the nasal passages, also a catarrhal condition of the middle ear or outer canal, often accompany the condition known as scrofula. Surely these conditions are not tuberculous, but are rather the result of general ill health, bad air, poor food, etc. It is understood, of course, that scrofulous subjects are more liable to tuberculosis, and also to other diseases.

Scrofula is always a chronic condition. If only the superficial glands are affected, recovery is the rule and the disease is not apt to return; if the deeper glands are invaded, as those of the lungs, bronchial tubes, abdominal cavity, joints, etc., the disease becomes graver. When the joints are attacked, it may result in the condition known as *White Swelling*. It is usually a disease of childhood.

Cause.—The disease may be hereditary. One or both parents may be tuberculous, syphilitic, or for some other reason possess poor health. It may be acquired, that is, brought on by poor food, bad air, exposure and other conditions resulting in improper care of the child. It may result from faulty nutrition, as where a child one or two years of age is fed too much meat and other hearty foods, resulting in indigestion and an unhealthy system. It may result from vaccination, measles, whooping cough, and perhaps from other diseases.

Changes Occurring in Scrofula.—The glands first become swollen and inflamed. If the glands of the lungs or bronchial tubes are affected, adhesions may form and ulceration may penetrate the œsophagus or aorta. The first is the tube which leads to the stomach; the second is the large artery that passes down through the chest cavity. If the glands of the abdominal cavity are involved, adhesions may form and ulcerate into the bowels. These changes do not often occur.

The periosteum, or thin membrane which surrounds the bones, may become involved and inflamed, and the inflammation may result in suppuration, which may break through on the surface and result in a chronic discharge. The bone beneath the affected periosteum would finally be destroyed, and the discharge would become still more chronic. The center of the bone may be attacked first. The unhealthy blood may cause inflammation in the marrow of the bone, and the inflammation extend toward the surface. In this case the invasion of the periosteum would be secondary. The disease is chronic, or of slow growth, and a mild form of inflammation of the periosteum might exist for some time before it was destroyed. All bone receives its nourishment from vessels given off from the periosteum, hence the low form of inflammation would result in an increase of the blood supply and there would be an increase of the bone on the surface. This would cause the bone to become enlarged, that is, its circumference would become greater, while its central part would be more or less destroyed. The bones of the thigh, leg, arm, or those of the spinal column, may become affected. When the spinal column is attacked, the destruction of bone weakens the support and results in curvature of the spine. This is called *Pott's Disease*. When occurring near the ends of the bones and

pus forms, it breaks into the joint, causing the white swelling already mentioned; occurring in the hip joint, it constitutes *Hip Joint Disease*. These affections are described under BONE DISEASES. Occurring in the middle ear, it would result in destruction of the periosteum covering the chain of movable bones, or it might extend to the mastoid process and by destruction of bone reach the brain, resulting in brain abscess.

The more serious forms here described are not often met. Usually it is the more superficial glands that are affected, and of these perhaps those of the neck are oftenest invaded.

Symptoms.—The affected glands become enlarged. At first the glands are movable, but later the inflammation extends to the skin, the skin becomes somewhat reddened and the glands more adherent. In case of suppuration the abscess might break on the surface and result in a chronic discharge, or “running sore.” There is frequently, but not always, some form of skin disease, of which eczema is the most frequent. There may be a catarrhal condition of the nasal cavities. The discharge in such cases is unhealthy, the nose is swollen, and the upper lip may become involved and swollen. When the periosteum or membrane covering the bones of the nose becomes inflamed, the bone beneath dies for want of nourishment. This results in a thin, purulent discharge from the nose, which gives a very offensive odor. The tonsils are often enlarged. Unhealthy sores may occur in the skin. If the middle ear or external canal is involved, there is a chronic discharge, as in other situations. The child at the same time shows a general condition of ill health. The most prominent symptom is enlargement of the glands. Occurring in the neck, the side of the neck becomes swollen.

TREATMENT.—

The treatment should be general. Where there is suppuration, local treatment is also required. The disease is systemic—the whole system is unhealthy, and it can be readily seen that successful or satisfactory results can be obtained only with the most careful attention to diet and hygiene. The treatment required in this respect is the same as that given under tuberculosis. Where the child is pale and anæmic, Syrup of Iodide of Iron in from 5- to 10- or 15-grain doses should be given according to age. Give diluted with a little Glycerine and water between meals and at bedtime. From 2- to 3- or 5-grain doses of Salol, or the Sulphocarbolates (see Index), should also be given at meal time, and the bowels kept regular.

Cod Liver Oil is highly recommended for this and many other diseases, yet the benefit of Cod Liver Oil is simply in the

nourishment that it contains. In many cases it is almost impossible to give it because of its taste. For cases of this kind we especially recommend the preparation of Cod Liver Oil found in the MISCELLANEOUS MEDICAL RECEIPTS (see Index). To be of value it must be given in large doses—from 2 to 4 or more teaspoonfuls at meal time.

Where the spine is affected, where there is suppuration into joints, or where the glands of the neck are involved, surgical treatment is required.

TUMORS.—A tumor is an overgrowth or abnormal development. Inflammatory swellings are sometimes called tumors, but tumors differ both in shape and size from the normal tissue in which they are found. The growth of a tumor is independent, that is, it is continued when the rest of the body is only being maintained in its normal state; or when the tumor is growing the body may be losing in weight. This is especially true of cancer. Those tumors which end fatally are termed *malignant*; those which are not destructive to life are called *benign*.

Tumors are named according to the part in which they are found, thus: *Chondroma* means a tumor springing from cartilage; *osteoma*, one springing from bone; *myoma*, springing from muscle; *neuroma*, a nerve tumor; *myxoma* (mucous), so-called when degenerative changes have produced a gelatinous substance resembling mucus; *lipoma*, a tumor containing much fat. Birth marks are sometimes called *angioma*, meaning a blood tumor, and are caused by the dilatation of blood vessels which lie just beneath the skin.

Benign tumors, or those not destructive to life, are common connective tissue overgrowths. Usually their only danger is their mechanical interference with the surrounding structures. However, they may rotate at the point where they are attached (pedicle), and this may cause pressure and check the return circulation. In this case the veins would become congested, and might rupture and be followed by hemorrhage. Inflammation or suppuration might follow, or inflammatory adhesion might occur, the tumor becoming attached to some of the surrounding tissues or structures. It might grow fast to the bowel and this might cause inflammation and perforation into the digestive tract, and be followed by death (seldom). Pressure might cause inflammation of the kidneys, constipation, spasms or local paralysis, or the pressure might interfere with the circulation, cause enlargement of the heart and be followed by degenerative changes. None of these conditions often occur, yet they should be considered of sufficient importance for the removal of benign tumors.

TREATMENT.—Surgical.

TYPHOID FEVER.—(See under FEVERS).

TYPHOID PNEUMONIA. — (See *Pneumonia* under LUNGS, DISEASES OF).

TYPHUS FEVER.—(See under FEVERS).

URÆMIA.—Uræmia is a condition where the blood is poisoned by the retention of urea and other waste products that are normally eliminated by the kidneys. The trouble is mostly due to the retention of urea.

Cause.—Suppression or decrease in the amount of urine eliminated; hence it may follow *Bright's Disease*, tumors that make pressure on the kidneys, *Tuberculosis*, or any condition or disease that interferes with the action of the kidneys. The more serious forms of this disease are probably the result of pregnancy where the enlarged uterus crowds upon and interferes with the kidney action.

Symptoms.—First there is a decrease in the amount of urine. Where the case is not severe, the symptoms may come on gradually in the form of headache, dizziness, drowsiness, nausea, vomiting, and chills or chilliness. The mind may become dull, stupor may result, and this may increase to profound coma.

The disease is most often encountered in cases of confinement. Here the symptoms are apt to be more sudden and severe. The first symptom may be that of convulsions, which, if not relieved, follow each other in rapid succession. The patient may scarcely regain consciousness between the convulsive attacks. If relief is not had, death soon follows (see PUERPERAL CONVULSIONS).

Some cases of uræmia may resemble apoplexy; for instance, where unconsciousness is present and convulsions are absent, *but in apoplexy there is paralysis, elevation of temperature, and deep, heavy breathing—snoring.* In uræmic coma or sleep the breathing is sharper and more rapid, the temperature is below normal, and the urine contains albumen. It should be remembered that the urine of a person suffering with apoplexy may also contain albumen. Apoplexy usually comes on suddenly; a uræmic attack may do the same. In apoplexy there are no convulsions; in uræmic poisoning convulsions are the rule.

TREATMENT.—

What to Do Till the Doctor Comes.—Uræmic poisoning always requires the services of a physician. On the first indication of such poisoning send for the doctor, and in the meantime make every effort to produce profuse perspiration.

Where there are no convulsions and the symptoms do not indicate immediate danger, give an active cathartic, put the patient to bed, cover with heavy quilts, give hot drinks, and put a large hot poultice across the small of the back over the kidneys. This should be changed frequently. Many families have what are called hot air bath cabinets, in which sweating is produced by means of an alcohol lamp. Where such conveniences are at hand, they may be used in place of the hot drinks and heavy quilts mentioned. Profuse sweating is somewhat debilitating, and especially to a patient suffering with this disease, hence free ventilation or a free exchange of air should be maintained—if not during the process of sweating, it should be provided for immediately afterwards. With plenty of clothing or covering there will be no danger of taking cold. Stimulants should be given, if needed.

After free elimination has been secured both by the skin and bowels, the patient should be put on a milk diet as described under *Bright's Disease*.

When the attack is ushered in with convulsions, see treatment under PUERPERAL CONVULSIONS.

URIC ACID.—Uric acid is a product of digestion resulting principally from animal food, as meat and eggs. It is irritating to the system, and its presence is believed to be one of the causes for many diseases, both acute and chronic. When present, it is carried by the circulation and is continually rasping through the system, producing pain and inflammation.

Symptoms.—Its presence may be suspected when any of the symptoms of neuralgia or muscular rheumatism are present.

TREATMENTS.—

A. An infallible remedy is to live on vegetables, cereals and fruits. Eat no meat, and in three months all uric acid will have vanished. This never fails. If you will show me one who never eats meat of any kind, I will show you one that never has rheumatism, neuralgia or gout; yes, and no malaria.—(30).

B. Small daily doses of alkali, such as Lithium Citrate or Carbonate, together with abstemious and restricted diet.—(31).

C. Large draughts of hot water with steam or sweat baths. Some natural Lithia water is better than pure water.—(32).

D. Potassium Bicarbonate..... 2 drachms.
Citric Acid..... 10 grains.
Water 3 ounces.

Mix. Take tablespoonful in water every four hours.—(34).

Note.—Remedies to neutralize or eliminate uric acid afford but temporary relief. So long as the acid is being continually generated in the system all treatment will fail, or at least prove unsatisfactory. Treatment to be of benefit must consist of preventive measures, and this means a vegetable diet.

URINE, INCONTINENCE OF.—(See under **CHILDREN'S DISEASES.**)

URINE, RETENTION OF.—(See also under **BLADDER, DISEASES OF.**)

RECOMMENDED TREATMENTS.—

A. Hot baths aided by hot drinks to produce sweating are among the simple and very efficient remedies.—(40).

B. Hot applications over bladder. Stand behind patient and pour water from one dish to another to make a sound like that of passing urine.—(41).

C. Water-melon seed tea.—(20).

D. Hot baths to produce sweating. Cream of Tartar—teaspoonful in water every three hours until bowels move.—(39).

E. Let some one in the presence of the patient pour from one vessel to another a small stream of water. Place flannel wrung out of hot water over lower part of abdomen.—(35).

F. Injections of large quantities of very warm water per rectum.—(29).

G. Application of cloths wrung out of hot vinegar.—(55).

URINE, PAINFUL.—(See *Dysuria*, under **BLADDER, DISEASES OF.**)

VARICOSE VEINS.—In this condition the veins are permanently dilated or enlarged. The enlargement is not uniform, being greater in some parts than others. This gives the vein a tortuous course, which is rendered still more tortuous because of the fact that the vein is considerably lengthened.

The bulging or dilatation commences wherever the walls of the veins are weakened, perhaps more often just behind the valves. Nearly all of the veins of the body are supplied with valves, which aid in the return circulation—that carrying the venous blood to the heart. Another point that is apt to be weakened is where the small veins join the larger trunk or channel. As the veins become dilated, the valves do not fit and fail to aid in the onflow of blood. This allows dilatation to increase still more. When the trouble affects the valves of the spermatic vein, it is called *Varicocele*; when affecting those in the lower rectum, it is called *Hemorrhoids* or *Piles*. It may occur in

the leg during or soon after pregnancy when this condition obstructs the return flow to such an extent that dilatation of the vein results.

Cause.—There are several causes which influence this condition. The most important is a weak heart action.

Symptoms.—Dilatation of the veins, tortuous course and discoloration. The veins look darker than usual because the flow of blood is sluggish and contains an abnormal amount of impurities.

TREATMENTS.—

A. Many cases may be benefited by strengthening the heart action and by having the patient lie down several hours during the day, at the same time giving careful attention to diet, good ventilation, etc. In varicocele of the leg, the greatest benefit results from bandaging. A cloth bandage is often used. A rubber bandage about two or three inches wide is better. Best of all in this form of treatment is a silk elastic stocking. These are made to fit any part of the leg. The trouble is usually most severe below the knee. Measurement should be taken in the morning before the patient gets up. Take a tape line, draw it quite snug, and measure accurately the distance around the instep and hollow of the foot, around the heel and over the instep, around the ankle, around the largest part of the calf of the leg, and around the smallest part just below the knee. The silk stocking should be ordered to correspond to such measurement. It can be ordered by any druggist. Many cases are very satisfactorily treated by this method. Both limbs are usually affected.

Surgical treatment consists of making an incision, or usually a number of incisions, down to the vein, tying it at different points and excising or removing the part between the ligatures. In the leg the vein in most cases is easily reached because it is superficial, lying just beneath the skin. This is another reason why such veins are most often affected. They have no muscular support other than that found in the walls of the veins themselves.

In *Varicocele* the bandaging is replaced by a suspensory band. If this fails, the vein is sometimes treated surgically. In case of *Hemorrhoids*, see treatment under that head.

B. In the legs, bandage from the toes up with elastic bandage.—(32).

C. Five drops Extract of Witch Hazel four times a day. Rubber stocking on limbs.—(41).

VENEREAL DISEASES.

SYPHILIS.—Syphilis is a chronic constitutional disease. It is also infectious, and may readily be conveyed from one to another. It may be hereditary or acquired; most cases are acquired. It may be communicated in many ways, as by pipes, drinking cups, or any condition or circumstance that brings the individual in contact with the poison wherever it may exist. The disease is usually communicated, however, by venereal practice, and makes its appearance about the third week after exposure and invasion.

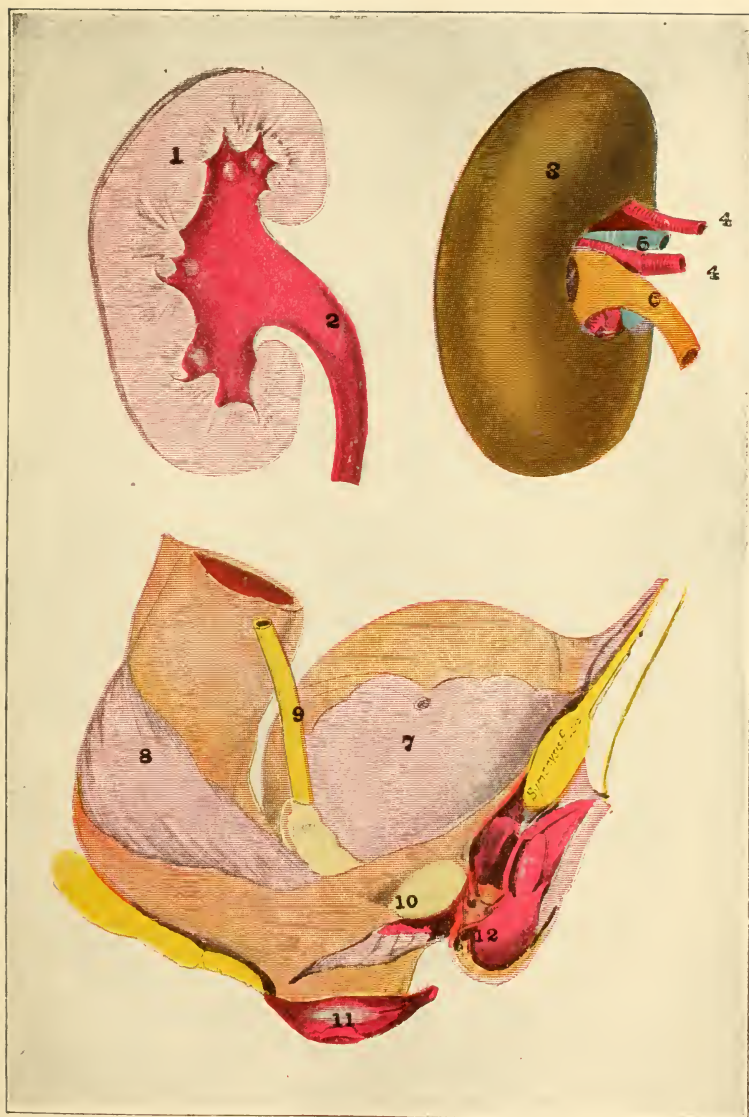
There are said to be three stages of this disease, but the first two only properly belong to syphilis. What is called the third stage is not syphilis. The disease proper is not present. The conditions are simply those of a wrecked and wasted constitution as a result of the chronic inflammation spread throughout the system by this disease. It may be communicated in the first or second stage, but not in the third stage.

First Stage.—The first outward effect of syphilis is limited to the point where the inoculation occurs, and is in the form of a small sore called *chancre*—meaning cancerous—because of its tendency to destroy. This sore may appear any time from ten to ninety-five days after exposure—never earlier or later.

Second Stage.—This stage includes the rash, and usually makes its appearance about six weeks after the appearance of the primary sore. In this stage the disease affects the skin, mucous membrane, and various other structures of the body.

Third Stage.—This stage makes its appearance from two to five years after the beginning of the attack. In those who are physically weak, it might appear earlier. It consists of chronic lumpy or gummy growths, which may ulcerate, and which possess an inherited tendency to destroy tissue. Any or all of the important organs, such as the liver, lungs, kidneys, brain, spinal cord, etc., may be attacked. The disease also attacks and destroys bone as readily as other structures.

Cause.—The cause is a specific virus or poison, which has never been discovered, therefore cannot be described. Syphilis, small-pox, hydrophobia, scarlet fever and other diseases, are caused by a specific poison. This poison produces what is called a zymotic or diseased fermentation in the system, just as yeast cells produce fermentation in bread-making. Yeast is composed



No. 17.

1, Half section of kidney. 2, Ureter leading from kidney to bladder.
 3, Whole kidney. 4, Arteries. 5, Vein. 6, Ureter. 7, Bladder.
 8, Rectum. 9, Ureter. 10, Prostate gland. 11, Sphincter muscle.
 12, Muscle.

of small cells, about $\frac{1}{3000}$ of an inch in diameter. The products of a diseased fermentation in the body resulting from a specific poison or virus produce a morbid effect upon the system, and affect the appetite and the red blood corpuscles. The blood becomes diseased, and the tissues throughout the body are brought under these lowering tendencies.

Symptoms of the First Stage.—The first symptom of syphilis is the appearance of the initial sore or chancre. This occurs at the point where the inoculation took place, and is followed by what is called *buboes*—swelling of the glands in the groin. The disease is constitutional from the beginning; that is, it is not confined to the initial sore. A chancre is but a local manifestation of a systemic disease; in other words, with the first appearance of the sore the man has syphilis. Chancre is a small hard swelling, the result of inflammation. There is no pus from the chancre, though if other sores, such as chancroid, occur with chancre, pus may form. If there are more than one chancre, they all appear at the same time. A chancre disappears with the secondary symptoms, whether it has been treated or not.

Chancroid.—The name chancroid is applied to a sore that resembles chancre. This form may occur with chancre or may follow chancre, occurring at different points at different times. A chancroid appears from three to nine days after exposure, and there are usually more than one.

If more than one true chancre occurs, they occur all at once.

True chancre never appears before ten days after exposure, or later than ninety-five days, —usually three weeks after.

True chancres are hard.

True chancres do not ulcerate, and bleed easily.

In true chancre the glands in the groin always enlarge, but seldom suppurate. Suppuration occurs in about one case in twenty-eight.

Enlargement of the glands in the groin may follow gonorrhoea.

In true chancre the glands are movable.

C.R.-24

Chancroid is a local disease, and each succeeding sore means a new infection from the one before it.

Chancroid, or false chancre, always appears before ten days — usually from three to five days after exposure.

False chancres are soft.

False chancres ulcerate and do not bleed.

In false chancre the glands enlarge on an average in only one-third of the cases, and always suppurate.

In false chancre they are not.

Over true chancre the skin is natural.

With or before the appearance of the secondary stage in syphilis, the glands at the back of the neck and elbow enlarge.

Over false chancre the skin is red and inflamed.

Following false chancre, these glands do not enlarge.

Symptoms of the Second Stage.—The symptoms of secondary syphilis may occur soon after the appearance of the chancre or may be delayed for two years. At the beginning of this stage there is a rash covering the body and upper and lower extremities, and also appearing on the face and hands. Before the appearance of the rash there are usually some constitutional symptoms. The patient does not feel well, and perhaps does not sleep well. There is disturbance of the appetite, there may be slight fever and headache, and in some cases there are chills. These symptoms disappear with the appearance of the rash.

There are several forms of the rash. There may be pimples, vesicles or pustules. If a pimple enlarges and contains fluid, it is called a vesicle; if the fluid in the vesicle changes to pus, it is called a pustule. Sometimes the pimples are bright red at first, and the skin may have a reddish appearance, but the color soon becomes darker. Or there may be tubercles. The tubercles indicate a more serious condition.

Usually the rash comes out in large, coarse spots. These spots have well defined borders, that is, they do not merge gradually into the healthy skin, but the edge remains distinct and is easily recognized. The spot presents a bronze or copper color. In all forms of syphilis there is a copper-colored tinge to the rash. When pimples or vesicles occur, they are surrounded by a copper-colored ring.

Tubercles do not often appear. When they do, they are large, and of a dark, muddy, or bluish-red color. They ulcerate and give a very foul odor. The discharge may dry on the surface, forming crusts or scales, and when these are removed, ulceration will be found going on beneath. As stated, this is evidence of a very serious case.

During the secondary stage the hair may fall out. Usually the hair comes out in patches here and there, but the patient may become entirely bald. The finger nails may become loosened and drop off. The mucous membrane is also affected in this stage. Patches of mucous membrane in the nose, mouth and throat, may become inflamed and ulcerate.

Symptoms of the Third Stage.—What is called the third stage is not syphilis. The man may be shattered, debilitated, devitalized—may be a physical wreck covered with great sores

which are eating their way through his body, but he has not syphilis. Syphilis is a disease that is readily communicated from one to another. It may be communicated by the blood, or by the secretions of the body. In what is called the third stage the disease cannot be transmitted to another. There is no poison or virus present in the system. The man has not the disease. His condition is simply the result of the poisons that have been present. It is simply the evidence of the terrible struggle which has been going on for months, and perhaps years. Nutrition is at a low ebb. The powers of resistance are lacking, hence the large ulcers that appear here and there, meeting with little or no opposition, make rapid and fatal inroads, destroying all structures, whether of bone or soft tissue. At this time any tissue may be attacked—the liver, lungs, brain, spinal cord, the nose, or upper jaw. Syphilis is a common cause of *Locomotor Ataxia*.

During this stage also, large gummy tumors are formed, so-called because they are soft and later break down and may ulcerate. Nutrition is so low and the tissues attacked have been so saturated with poison that the inflamed areas cannot organize, hence the appearance of the condition termed gummy. The morbid effects of these tumors or sores, when once started, easily maintain control over the surrounding tissues, and thus they "eat" their way through all structures.

TREATMENT.—

We admit we have treated but a limited number of these cases, yet we have seen the disease in its worst form, where the patient was devoid of all resemblance to a human being—nose gone, eyelids gone, lips eaten away, holes through the cheek and into the neck and arms, and necrosed patches in the skull bone. It may be said of such, however, that their tortures are but a part of the stupendous machinery of Eternal justice. The only cause for regret is that the innocent must suffer with the guilty, as the disease is perpetuated by hereditary taint. Others may be led innocently into committing a crime.

For the initial sore or chancre very little need be done. Burning or cutting out the part is of no value, and inflicts needless pain. It is of no value because, as stated in the beginning, the disease is already in the system and the primary sore is only local evidence. The spot is usually treated by keeping it clean and dusting it with equal parts of Subnitrate of Bismuth and Calomel. Iodoform is equally as good, but its odor is unpleasant. As stated, the spot disappears sooner or later with or without treatment.

The treatment for the second stage, or the stage where the rash appears, is some form of Mercury, taken internally. Any

of the mercurial salts may be used, but the Bichloride of Mercury, or Corrosive Sublimate, is the one usually given. This may be given in doses of $\frac{1}{20}$ of a grain three times a day at the beginning, and increased until the patient experiences some local effect. This is called the physiological effect. It consists of diarrhea, pain in the stomach and bowels, a metallic taste in the mouth, and a soreness of the gums and teeth. The earliest evidence in the teeth may be experienced by bringing the jaws suddenly together. If any effect is being produced, the teeth will feel sore. If any one or all of these symptoms are present, they indicate that the patient is taking more than he can stand. The treatment should then be discontinued for a few days, and begun again with smaller doses. This treatment is continued for a long time—usually about six months—then the patient is given a rest for three months, and the treatment continued during the next three months.

With those who are unable to take Mercury in sufficient doses by the stomach, it is sometimes given by other means. It may be applied externally in the form of ointment, or $\frac{1}{2}$ ounce of Corrosive Sublimate may be dissolved in water in which the patient takes a bath. Dissolve the Corrosive Sublimate in water enough to cover the patient in a bath tub, then cover with a quilt, allowing only the face to be exposed. Guard the eyes, nose and mouth. With those who can take large doses of Mercury baths are also beneficial, but in these cases it is not necessary to put any Corrosive Sublimate into the bath.

The most nourishing food is required, also proper clothing—wool worn next to the skin is usually advised. An abundance of fresh air should be secured, and every care should be given to the general health. If the hair commences to fall out, some stimulating application should be applied to the scalp. If ulcers form, these should be treated the same as ulcers from any other cause. If there is inflammation of the eye or interference with sight, increase the amount of Corrosive Sublimate. If the mucous membrane in the mouth, throat or nose is affected, use any means to maintain thorough cleanliness. These spots are sometimes touched lightly with pure Nitrate of Silver. Spray the affected surface with Peroxide of Hydrogen. If the teeth become loose, stop the Mercury for a time and for a few days give Atropine— $\frac{1}{20}$ of a grain every hour or two until the throat is dry, the face is red, or until the pupil of the eyes becomes dilated; then for a day or two give the same amount every three hours.

In what is called the third stage of the disease, Iodine is taken internally in some form, usually the Iodide of Potash. This is given in large doses. Some recommend 15 to 20 grains

three times a day, taken two hours after meals. Some give as high as 1 drachm three times a day between meals, and even this amount is exceeded in some cases.

The foregoing is the usual routine treatment, but we wish to give a prescription that, while differing somewhat from that given, has made many a doctor famous for the treatment of this disease. It is as follows:

Corrosive Sublimate	4 grains.
Iodide of Potash.....	4 drachms.
Syrup of Tolu.....	3 ounces.
Simple Elixir	1 "

Mix. Give 1 teaspoonful two hours after meals and at bedtime. If it disturbs the stomach or interferes with digestion, lessen the dose, or take less often. This treatment may be taken up at the beginning of, or any time during the second stage.

For the persistent and determined sores and ulcers that are present in what is called the third stage, use the same antiseptic treatment as in ulcers caused by any other disease. Keep them thoroughly cleansed. Wash them out with Peroxide of Hydrogen, with a solution of Carbohc Acid in water, or by other means render the surface as clean and healthy as possible.

Or, the following treatments for any form of ulcer have been recommended and are equally applicable here:

ULCERS.—

A. Wash with water colored with Blue Stone. Afterwards apply hot mutton tallow.—(32).

Note.—If there is suppuration, do not cover the surface with any form of ointment.

B. One of the best dressings I have ever used for old ulcers is a mixture of Balsam Peru in Castor Oil of a strength of 5% Balsam. Of course the adjuncts of rest and cleanliness are necessary.—(31).

GONORRHEA.—This is a contagious, inflammatory state of the urethra in the male and the vagina in the female, accompanied by a discharge partly mucus and partly pus. It may extend to the bladder in the male, or to the womb and ovaries in the female, and sometimes to the rectum. It may also be transferred to the eye, setting up a most violent and dangerous inflammation. New-born children may be infected during birth, and in such cases the utmost attention is necessary to save the eye-sight. Many cases of blindness are due to this disease.

Cause.—There are two causes for inflammation of the mucous membrane of the urethra. One cause is contagion; the

other is not. The non-contagious variety may be the result of the passing of sounds or instruments into the bladder, or the passage of foreign bodies—an excessive amount of gravel is an example—from urine that is highly acid, as sometimes results from indigestion. It may be caused by eczema extending along the mucous membrane lining the canal, by tuberculosis, or by an enlarged prostate. The contagious variety is caused by a certain specific ferment, which sets up inflammation.

Symptoms.—The disease usually appears in from three to five days after exposure. The first symptom in the male is at the opening or end of the urethra. This part is deep red in color and swollen. Internally, the mucous membrane is swollen, and urination is difficult as the inflammation lessens the size of the canal. There is also a slight discharge of mucus, which later contains pus. The inflammation increases for the first week, then remains stationary for another week. There is considerable pain when urinating. The inflammation then extends backwards, and in a day or so the discharge is thick and yellow. If the inflammation reaches the neck of the bladder, there is a frequent desire to urinate. The glands in the groin may become swollen and may suppurate. In different cases the severity of the symptoms vary greatly. Occasionally an annoying feature of this disease is the condition known as *Chordee*, which means a painful erection and downward curvature of the external reproductive organ in the male.

TREATMENTS.—

What to Do.—Consult a competent physician at the earliest opportunity. In the meantime and throughout the whole course of the disease, the patient must observe certain rules. His diet should be light and cooling. No highly seasoned foods should be eaten. No alcoholic stimulants or tobacco should be used, but plenty of water should be drunk. Frequent bathing of the affected parts is beneficial for their cleansing and cooling. Sexual excitement, violent exercise, dancing, late hours, etc., should be avoided. The most rigid care should be taken to destroy the discharges.

A. Add 4 grains of Permanganate of Potash to 4 ounces of water and inject twice a day, retaining the injection for two or three minutes. This, with a plain diet, the absence of all stimulants, and supporting the parts with a suspensory bandage, will in most cases result in a permanent cure,

or,

Oleo-resin of Cubebbs and Copaiba, 10 drops of each, taken in capsule form three or four times a day,

or,

Ten drops of pure Oil of Sandal Wood in capsule, taken three times a day.

Note.—The injection method is the most satisfactory means of treating this disease as the remedy is thus applied directly to the diseased part. Internal medication is seldom needed, and is more or less uncertain as so many changes take place in the remedies before they reach the affected area. Again, most internal remedies used for this disease give the breath an offensive and suggestive odor.

B. Sulphate of Zinc.....	2 grains.
Fluid Hydrastus.....	5 drops.
Water	1 ounce.

Use as an injection often.—(11).

C. Put patient to bed and use frequent douches of warm Boric Acid solution. Add Permanganate of Potash—1 grain to the ounce of water, and inject every day or two.—(3).

D. *Chordee.*—Keep the bowels active. Low diet, no meat or alcohol. Sleep in cool room. At bedtime take the following, largely diluted in sweetened water:

Chloral	10 grains.
Bromide of Potash	30 “

The dose may be increased if necessary. Do not take this unless trouble is feared. Should it occur, the application of cold water is a simple remedy, and one of the best for immediate relief.

GLEET.—Gleet means a chronic discharge from any mucous surface or membrane, but is generally understood to mean from that lining the urethra, and following gonorrhœa.

Cause.—Following gonorrhœa, if a perfect cure is not obtained, inflammation lingers at some point and results in an overgrowth of connective tissue. The contraction of this tissue lessens the size of the canal at that point, forming what is called a *stricture*. The efforts at urination gradually cause distension of the urethra just behind the stricture, and this sacculated formation always contains urine as the stricture renders urination incomplete. These conditions serve to maintain a chronic form of inflammation, hence the chronic discharge. Or gleet may be caused by irritation from an enlarged prostate gland.

TREATMENT.—

The treatment consists of a gradual distension of the stricture by the use of sounds. Sometimes it is necessary to cut the stricture in order to render dilation more complete. The bladder should be washed out two or three times a week with pure water containing 6 drachms of Boric Acid to the pint, after

which the urethra should be injected with a solution of pure water and Permanganate of Zinc—1 grain of the Zinc to an ounce of water. It will be necessary to continue both the dilation of the stricture and the medication for some time.

VOMITING.—RECOMMENDED TREATMENTS.—

- A. Salicin..... 1 drachm.
Subnitrate of Bismuth..... 2 drachms.

Mix, and put into $\frac{1}{2}$ glass of water, stir, and take 1 teaspoonful every ten to fifteen minutes.

Or,

- White of 1 Fresh Egg
Common Starch..... 1 teaspoonful.
Granulated Sugar..... 1 “

Beat for five or ten minutes. Give patient 1 teaspoonful every ten to fifteen minutes.

Or,

White of 1 fresh egg in $\frac{1}{2}$ glass of water. Stir thoroughly and let the patient drink 1 teaspoonful every few minutes.—(61).

B. Apply Mustard plasters over the stomach. Mint tea, such as Peppermint, Spearmint, etc., may be taken in small quantities, or weak Camphor sling may be given. Crust coffee is also good.

If convenient to a drug store, get Oxalate of Cerium and give 2- or 3-grain doses every twenty or thirty minutes, as needed, until vomiting is controlled.

C. Pour boiling water over parched rice, coffee, corn or bread crust. Let stand for a few minutes, strain or let settle, and take 1 or 2 teaspoonfuls every twenty or thirty minutes. Take clear—no sugar or milk.—(32).

D. Paregoric—dose, $\frac{1}{2}$ to 1 teaspoonful in a small amount of hot water, repeated every half hour, is a specific.—(30).

WARTS.—(See under description of SKIN).

WATER BRASH.—This is an accompaniment of stomach troubles, and means the burning sensation in the stomach followed with sour eructations.

TREATMENT.—

See under ACIDITY OF THE STOMACH.

WATER ON THE BRAIN.—(See *Hydrocephalus* under DROPSY).

WEN, or SEBACEOUS CYST.—This is simply an enlargement of a sebaceous, or oil, gland. It will be remembered that these glands are placed just beneath the skin, and by means of a small duct open into a hair follicle (see description of SKIN). The duct becomes closed, and the gland, continuing to secrete or furnish the usual amount of oily fluid, enlarges. The sac or membrane which forms the gland becomes thickened and tough. In size these cysts vary all the way from a pea to a walnut.

Cause.—The cause is not very clear. The wen usually occurs around joints, therefore lifting or straining may cause injury with the result that a duct becomes closed.

Symptoms.—These growths come on very slowly. There is no pain or inconvenience, except such as is occasioned by their size. They are freely movable, and are filled with a fluid that somewhat resembles the white of an egg.

TREATMENT.—

Complete and thorough removal of the growth with a knife. While this is comparatively easy, it would require the services of a physician. It is not necessary to give an anæsthetic, except such as may be applied locally, and in most cases even that is not needed. The cavity is lined with a membrane which must be destroyed, otherwise the secretions will be reproduced and the trouble will return.

WHITE SWELLING.—(See under JOINTS, DISEASES OF).

WHITLOW.—This means a felon. (See FELON).

WHOOPIING COUGH—PERTUSSIS.—This is a contagious disease, usually of childhood, characterized by violent fits of convulsive coughing, which recur at intervals and end with a whoop and the expectoration of a small amount of mucous secretion. It commences about one week after exposure, and usually lasts from six to eight weeks. It is seldom fatal.

Cause.—Some form of infection or poison which is unknown.

Symptoms.—The first evidence is that of a catarrhal cold. The catarrhal evidence is manifested in the eyes and nasal cavities. There is a little hoarseness, and the temperature is slightly raised in the evening. There may be a sense of tickling in the throat, which results in a short, dry cough. The first week constitutes what is called the catarrhal stage. The coughing increases gradually until it comes on in paroxysms, when the face becomes red, and perhaps dark purple, the eyes project, and the child often seizes the nearest object for support. The coughing continues until the expiratory effort of respiration is exhausted, after which

there is a deep inspiratory effort which produces the peculiar whoop, caused by the air rushing into the lungs; hence the term *Whooping Cough*. These efforts are repeated two or three times, or until they are followed by the expectoration of a little mucous secretion. The disease usually disappears as gradually as it came.

During a spasm of coughing the glottis, or space between the vocal chords through which the air passes, is narrowed, and but little air reaches the lungs. The muscles of the throat are rendered tense, circulation becomes stagnant, and the pulmonary artery is congested. This is the artery through which the venous blood passes from the right side of the heart into the lungs. During congestion of this artery the right side of the heart cannot empty itself, and this dams back the venous blood in all parts of the body. This condition, together with a lack of oxygen, is what causes the child to turn so blue, or to "get black in the face."

TREATMENTS.—

A. The Bromides, Chloral, Belladonna or its active principle, Atropine, and various other remedies used for coughs and colds have been used, and perhaps are still recommended for whooping cough. There is no specific for this disease, however, and in some cases the cough is persistent and severe in spite of treatment. The child should be protected from sudden changes of weather, should receive an abundance of fresh air, have a nourishing diet, and the bowels should be kept regular. Internally, give the following:

Atropine,	$\frac{1}{8}$ grain.
Carbolic Acid	24 drops.
Bromide of Soda	2 drachms.
Glycerine	2 ounces.
Simple Elixir, add to.....	4 "

Mix, and take 1 teaspoonful, more or less, according to age, every two or three hours.

Where the cough remains dry, *i. e.*, where the secretions are scanty or absent, a little Ipecac should be added to each dose—from 1 to 2 drops of the fluid extract. Where there is a good deal of irritability or nervousness present, $\frac{1}{8}$ of a grain of Codeine, for a child five years of age, should be added to each dose.

B. Give Flaxseed tea plentifully, also good care. For medicine, give the following:

Sulphate of Zinc.....	10 grains.
Water	30 teaspoonfuls.

Dose.—A teaspoonful, more or less, according to age, every one or two hours. Also anoint chest well once a day with Olive Oil. Goose Oil will do.—(30).

C. Use Roach's Embrocation according to the directions on the bottle. Burn Cressaline during the paroxysms.—(32).

- D. Tincture Belladonna..... 30 drops.
Chlorate Potash..... 10 grains.
Glycerine 2 ounces.

Mix, and take 20 drops three or four times a day.—(47).

- E. Elixir Terpene Hydrate and Codeine, 6 ounces.

Take $\frac{1}{2}$ teaspoonful every three hours.—(27).

WORMS.—(For Round Worms or Thread Worms, see under CHILDREN'S DISEASES; also see TAPEWORM; also TRI-CHINA WORM).

YELLOW FEVER.—(See under FEVERS).

Department II.

DISEASES OF WOMEN AND CHILDREN.

WHAT GIRLS AND MOTHERS OUGHT TO KNOW.

HELEN F. WARNER, M. D.

In these few chapters I propose to give mothers some hints about the care a very young girl requires in the first crisis of her life, and to give older girls some advice about the care which they should take of their health, and of the reasons why such care should be taken.

I propose to tell the young wife and mother some things that I think it well for her to know about house sanitation, that is, about ventilation, heating, water supply, and disinfection in cases of sickness; also something about the nature of different foods, about the care of her own health, and about the care of babies and very young children.

I propose to say a few words to women approaching the second crisis of their lives, about the care it is necessary they should give themselves, and the very unnecessary alarm and dread with which many look forward to this period of their existence.

Most of this talk comes under the head of what is called *preventative medicine*, and as the old proverb, "An ounce of prevention is worth a pound of cure," is still in force, I hope it may not be without some value.

CARE OF YOUNG GIRLS.

As it is not probable that any very young girl will read these chapters—perhaps it is hardly desirable that she should—I address myself more particularly to the mothers of young and growing families.

Children are young animals in search of information in a world that to them is very new and full of puzzles. One of



HELEN F. WARNER, M. D.

the questions which recurs often and is asked most eagerly is, "Where do the babies come from, Mamma?" To answer the question satisfactorily without giving any information, has long been a problem among mothers. The Germans have a pretty legend that the Storks bring the babies to the happy mothers from their home in Egypt, without explaining if there is a manufactory of babies there. The more prosaic mothers in this country often tell their children that the doctor brings the baby in his satchel, sometimes subjecting him to embarrassing investigation, as I can testify. I belonged to a New England family, where the utmost reticence was practiced toward children, indeed toward all young people, and I was told merely that God sent the babies from heaven, which may be in a sense true, but which is difficult to believe of some infants. I used to wonder vaguely if they dropped through the ceiling, and why they suffered no damage and left no trace of their passage. But I was an observing child, though very reticent, and long before I reached girlhood I formed a theory of my own, from observation of the domestic animals and some women of my acquaintance, that was very near the truth.

Advice to Young Mothers.—My advice to young mothers is, when your little girl begins to notice your rounding figure, when she sees by chance the little garments about which you are busy, do not put her off with what you persuade yourself is a white lie, or tell her that children should not ask questions. If you do, she will very likely find you out in the lie—children are often very shrewd—or some older girl will tell her what she is so eager to know, coarsely, vulgarly, with sly hints and inuendoes, as if it were some unclean thing, and the sweet and holy function of motherhood will be vulgarized and profaned to her for years. *Tell the child yourself.* Explain to her that all life comes from a parent life. Show her how the mother plant ripens the seeds, which sometimes the winds and waters and birds scatter to their places, and sometimes men and women and children plant. Tell her that each seed holds a baby plant, which the warm, moist earth feeds and nourishes till it bursts its shell and the tiny plant begins to grow. Tell her—if she has the happiness to be a country child, you can show her—how the mother hen lays the eggs from her own body, and then, not trusting them to the earth, broods over them herself and keeps them safe and warm till the little chicks, which were only wee specks at first, have time to grow, and become strong enough to break their shells. Then explain to her that higher animals, mothers among the rest, nourish their babies in their own bodies till they are large enough and strong enough to live outside; that there is a new baby coming for whom mamma must make the little clothes ready, but

that, though it is a very happy thing, it is too sacred and solemn to talk about to other people—just a secret which she must keep with mamma. In this way you will give your child a new interest, a new sense of the tie that binds together all created things, and a strong safeguard against evil will thus be thrown about her.

THE FIRST CRISIS.

Later, when you see from the developing figure, from the rounding breasts and from the unusual restlessness and irritability, that the first crisis in your child's life is approaching, tell her what she has to expect, and tell her plainly; tell her the truth so that she may fully understand it. Many young girls have ruined their health, or greatly injured it, in frantic efforts to stop a flow which they did not in the least understand, and which, while it greatly alarmed them, they were too shy to speak of to their mothers. Do not content yourself with telling the young girl what is coming, but keep watch over her and, when the flow actually appears, instruct her in the care she should take of herself and see that she carries out your instructions. Her whole future health hangs on this, and on this point many mothers themselves need instruction. It is of the greatest importance that she (the young, maturing girl) should be kept warm and dry during the flow, that she should avoid all violent exercise, long tramps, heavy lifting, skating, dancing, and horse-back or bicycle riding. In bad weather she should be kept from school unless she can be sent in a covered carriage.

Up to this time there has been little difference in the care which the girl and her brother required, but now the differentiation commences. It is not well to push a girl at school, even one who is sluggish at her studies, during these formative years; one who is quick must often be held back. See that the girl has plenty of out-of-door air and exercise, and that she takes sufficient, wholesome food. Never allow her to go to school in the morning without her breakfast. This is the time when her appetite, which has previously been that of a healthy child, becomes fitful and irregular. Girls sometimes develop strange fancies at this time for most unwholesome things: Salt, which is all very well as a seasoning for food, but should not be taken by the spoonful, starch and chalk, are most frequently taken. If your daughter should show any such morbid appetite, you should check it at once. Talk to her kindly, but seriously, of the injury she is likely to do her health by such indulgence.

Girls in this climate generally mature at from eleven to fourteen years—thirteen is perhaps the average age. It is a

misfortune if a girl menstruates before eleven, but it is no matter at all that she should be later than fourteen. So long as she shows no signs of suffering, you need not disturb yourself if she is fifteen, sixteen, or even seventeen, before the flow appears. It is not often later. The flow is often scanty at first. Do not worry about this; it is a fault on the right side. The young girl needs her blood for growth and development, and Nature does well to economize it. Then, after appearing once, the flow often holds off for months. This seems to give mothers special anxiety, but such anxiety is needless. So long as the girl seems well otherwise, let her alone, and above all do not dose her with Tansy and Pennyroyal teas, or any of the remedies for forcing Nature. You may do serious harm in this way. On the other hand, the flow when it first appears is sometimes too profuse and lasts too long. It should be practically over on the sixth day. This is not a matter to be neglected. Put the girl to bed if the flow is very free. A good household remedy for this is made by pouring a pint of boiling water over a handful of stick cinnamon. Let this steep till it is cold—do not boil it—then strain off the tea and give a wineglassful of it three or four times a day. If this, with rest in bed, fails to check the flow, send for your family physician.

If you observe these precautions, unless there is some malformation or malposition of the organs, against which, of course, you are powerless, your daughter will not suffer at her menstrual periods, and will grow up, at least as far as her sexual organs are concerned, a healthy woman. But until she is twenty she should put aside her wheel or her horse, and abjure dances, long walks or skating parties during the flow. It will often be hard for her, but it is the price of health, and if you are firm, she will form the habit of caution and cease to question the matter. Even after twenty, violent exercise should be indulged in with caution at such periods; but a healthy woman, fully developed, may take much less care than a young girl.

Dress for Young Girls.—A word, in closing this chapter, as to dress. A young girl's dress should be, of course, adapted to the season. In winter she should wear flannel from throat to heels. See that she has plenty of room to expand in. I am not a fanatical opponent of the corset. It is a comfort to many women, almost a necessity to very stout ones, and, when not tightly laced, does no harm; but a corset is an abomination for growing girls. The soft young bones yield even to slight pressure, and internal organs are forced out of place and prevented from developing properly. Let her have a loosely fitting waist, to which her skirts—the bands of which should be loose—are buttoned. The dress should not reach below the tops of her

boots, so that it will not become damp and draggled even in the slopiest weather. In cold weather she should have merino stockings and warm, stout shoes. She should have a rain coat for wet days, and, what is more, be made to wear it; and if she lives in the country, a pair of rubber boots for deep mud and snow would not be amiss.

WHAT A YOUNG WOMAN OUGHT TO KNOW.

MY DEAR GIRL:

You are no longer a child—almost, if not quite, a woman. I want in this chapter to give you a few hints about keeping yourself well, which is much better than curing you when you are ill. I take it for granted that you want not only to be well, but to look as well as possible. To this end you must take some pains.

About Your Hair: Do not content yourself with combing out the snarls and doing it up; spend some time each day brushing it. If you have thick, heavy hair, the brush should be quite stiff, stiff enough to reach the scalp; merely smoothing down the outside hair does little or no good. Each separate hair is set in a little channel in the scalp, with one or more ducts emptying into it from glands that secrete the oil for the hair. The brush removes the dust from the mouth of these channels, presses the oil out and distributes it over the hair. That is why hair that has been well brushed takes on such a fine, silky gloss. The brush also improves the circulation of the blood in the scalp and so promotes the growth of the hair. Hair that is well brushed does not need to be washed very often, which is an advantage, because if you have long, heavy hair, washing it is a serious business. When you do wash your hair, you must be sure that it is thoroughly dry before you put it up; otherwise, you are apt to take cold.

About Your Bath: Take a cool sponge bath and a brisk rub with a coarse towel every morning. The water should be about 70 degrees. If you care to, try it with a thermometer, but it is about the temperature of a comfortably warm room. There is nothing better for the complexion. I will tell you why. The skin is full of little glands that secrete the perspiration. They carry off a great deal of waste and poisonous matter from the system, and they are at work all the time, even when you are not conscious of any perspiration. Now, if the mouths of these little glands become stopped up, or if the circulation in the skin is poor, they cannot work nearly so well. A good deal

of poisonous matter that they ought to take away remains in the system, and the skin loses its clearness and becomes dark and muddy. The cool sponge and brisk rub does for the rest of the skin what the brush does for the scalp—frees the mouths of the glands and promotes the circulation of the blood. You will need only one hot bath a week. This you should take at night, just before going to bed. It is well to take a dash of cold water after it. You should not take a cold bath during the first three days of your monthly illness.

Keep Your Bowels Regular.—You should have one good evacuation of the bowels every day. This is largely a matter of habit. Go to the closet every morning after breakfast. If you are inclined to constipation, it is a good thing to take a cup of hot water just before breakfast, or a glass of cold water when you first get up in the morning. A little massage, which you can practice while dressing, will also help you. The large bowel, which contains the matter that should be evacuated, runs around the abdomen, as shown by figure "7" in cut "No. 9." If you will knead the bowel thoroughly, pressing your fingers down deeply into the abdominal wall, beginning low down on the right side, then across and down on the left, it will be stimulated to contract and empty. Do not think that it is a matter of indifference that you should go two or three days without evacuation of the bowels. The foul matters that should be evacuated are partly absorbed into the system, and you will have headache, feel dull and languid, your skin will grow yellow, and, if the condition is allowed to continue long, will become "pimpley."

As to Diet.—You should eat good, simple food. Avoid rich cake, gravies, rich pastry and preserves. Ices in moderation are wholesome enough. Eat all the fruit you want, provided it is ripe and sound, but do not eat too much candy. It would be better not to eat any, but that is too much to expect of you, for candy is a girl's greatest temptation in the eating line. Hot breads and buckwheat cakes are good to the taste, but trying to the digestion. Use tea and coffee with great moderation; they are nerve stimulants, which you do not in the least need. A cup of weak coffee you can have in the morning, if you want it, but save the tea till you are an older woman. Take plenty of time for your meals, and masticate your food thoroughly.

About Sleep.—You need at least eight hours of sleep in the twenty-four. As a child, you needed more; if you live to be an old woman, you will not need quite so much; but now, at least eight hours are needed to keep you in good condition and keep your cheeks rosy. The best time to sleep is between ten at

night and six in the morning. If you are obliged to rise before six, go to bed earlier. If for any reason you are up late, learn to take a nap in the daytime.

Exercise.—Some time—the more, the better—should be spent every day in the open air. A brisk walk is excellent exercise; there is nothing better, but there are many things which girls count more amusing, such as lawn tennis, golf, bicycle riding, horseback exercise, etc. These are all good in their way, only they should not be carried to excess. Do not play matched games; in eagerness to win you are likely to overtax your strength. Basket-ball is a game with which I am not familiar, but from what I have heard of it, I should think it a very rough game and too severe exercise for most girls. These things, remember, are for exercise and recreation; they are not to take the place of occupation. Gardening is fair exercise; there is something health-giving in working in the soil, and it has the merit of being useful as well. Ordinary housework is also excellent exercise, though it has the disadvantage of being carried on in-doors. But do not make the mistake of considering driving to be exercise. Carriage exercise is only for invalids or old women. If you have been at work most of the day about the house, you may get rest and fresh air from a drive; you have had your exercise in the house.

If you practice in a gymnasium, take the advice of the leader as to what you are able to do. There is one golden rule, "Make haste slowly." Do at first only what you are able to do easily, and then do a little more each day—perhaps only a very little. You remember the story of the Spartan woman who, by lifting a calf each day from the time he was born, was able to lift him when he was full grown. I imagine even the tiniest calf would be too much for one of our girls to lift, but the lesson is just as good. You should never lift, unless in an emergency where the exertion is absolutely necessary, every ounce you possibly can, or carry for any distance a weight which is a great effort for you to lift at all. Such exertion is particularly dangerous to women because the womb and ovaries are hung in the pelvis by rather loose attachments. They easily recover from the slight changes in position produced by ordinary movements, but a sudden and violent pressure may displace some one of them so that it is unable to recover its normal position. This is more apt to happen at the menstrual period, because then the womb is heavier than at other times, and so more easily forced out of place. I shall mention this again in speaking of your dress.

Monthly Illness.—It is not necessary that you should take quite so much care at the time of your monthly illness as when

you were a child, but you should still be careful at such times. Do not ride a wheel up hill, or ride it at all except for short distances; do not ride a horse at all at such a time, or play any of the violent games, as golf, lawn tennis, and especially basketball; croquet, you can play, though I believe that is rather out of fashion now. Do not take long tramps, though you need not be afraid of an ordinary walk. I do not ask you to stay in the house in wet weather, but you should be especially careful to change all damp clothing when you come in. If you go to a dance during your monthly illness, you should not stay late or dance all the time; sit down through at least half the dances, even at the risk of being taken for a wall-flower.

About Your Dress. — You should wear flannel next to the skin in cold weather, but if you intend wearing short-sleeved and low-necked dresses to evening entertainments, your flannel should not have long sleeves and should be cut low at the throat. I do not approve of *decollete* dresses myself, but if you will wear them, I am telling you how to do so with the least risk. Before going out sponge your neck and arms with cold water into which you have poured a little alcohol. Have some light wrap to throw over your shoulders while you are resting from the last dance, and be careful about drafts.

Do not lace your corset tight. It should fasten easily in front, and should be so loose that you can fill your lungs without difficulty. If you will look at a plate showing the internal organs, you will see how compressing the ribs—which is what a tight corset does—pushes the liver and stomach out of place and prevents the free play of the lungs; and, what is worse, but which you will not see by the plate, is that it puts too much pressure on the womb and ovaries, and is very likely to cause those displacements from which even young girls in these days often suffer. For the same reason the bands of your skirts should be loose, and if the skirts are heavy, they should be so arranged that the weight is carried from the shoulders. There is the same reason as when you were a child that you should wear a short skirt, rain coat and thick boots in wet weather, and that you should change all damp clothing at once when you come into the house.

Cosmetics, Powder, Rouge, etc. — Scorn everything of this kind. If you follow the directions that have been given you, you will need nothing of the sort. At best the effect is only temporary, and their use is likely to do your complexion lasting injury.

About Marriage. — Now I am going to speak to you on a delicate and difficult subject. You are thinking of marriage; it

is right that you should. To be married to a good man, sound in body and mind, whom you sincerely love, is the best fortune that can come to you. You are limited in your choice of a husband to the men who have signified their wish to marry you, but it is better that you should die an old maid than marry a man who is "fast," as your friends say, *i. e.*, dissipated. Of course, in marriage there are many considerations besides those of health, but those of health are the only ones on which I undertake to advise you.

There are two forms of dissipation which are to be avoided in a husband on the score of health—habitual use of alcoholic drinks to excess, and the habit of association with immoral women. It is not very common for a young man to be what is called an habitual drunkard, but a man who is frequently intoxicated when young will, in all human probability, be an habitual drunkard before he is forty. If you imagine you can reform such a man, you are greatly mistaken; he will grow worse and not better. He will not injure your health directly, only so far as misery, want and distress are likely to do it; but your children will suffer. They are likely to have all sorts of nervous troubles, hysterics, epilepsy, and sometimes idiocy.

The second form of dissipation is even more dangerous. It is quite common for a young man of that sort to contract diseases as a result of his bad habits, which, if you marry him, would be very likely to be communicated to you or to any children that you might have by him. Do not allow yourself to become interested in such a man, even if he has beautiful eyes and fascinating manners. Choose for your associates sober, steady young men. Do not be afraid to give them a little kindly encouragement if they are shy and awkward. If a warmer interest results from such an association, it will be good, not evil fortune for you.

WHAT A YOUNG WIFE AND MOTHER SHOULD KNOW.

Many books could be filled on the subjects with which a young wife and mother should be familiar. Of late schools and universities have been very sensibly making some effort to teach the girl who hopes some day to be a wife, a few of the things she ought to know, hence the various courses on domestic sciences. Of course, in this chapter I can only give you a few hints about the various subjects on which you should be informed.

House Sanitation.—First, then, you should know something about *House Sanitation*, as it is called; that is, about the proper situation of the house, the drainage, ventilation, heating and water supply. If you are consulted about building a house

in the country, try to have it on moderately high ground, which is dry. Let it face the south or east, if possible, so as to have sunlight in all the rooms. If you have a city house, try to have it on the north side of a street running east and west, or on the west side of a street running north and south, for the sake of the sunlight. In the city you may not be able to have sunshine in all the rooms, but at least there should be no dark rooms in your house. The cellar should be dry, with a good cement floor and stone walls—brick absorbs too much moisture to be used under ground. If the cellar does not extend under all the house, the remaining space should be well drained and ventilated.

Fresh Air.—There should be plenty of fresh air in your house. Air is a mixture of oxygen and nitrogen. The nitrogen serves to dilute the oxygen, which alone would be too stimulating. In breathing, the oxygen is absorbed by the blood and the carbonic acid thrown off. Carbonic acid is a poisonous gas, so you see that a person in breathing gradually poisons the air. An average man gives off a little more than half a cubic foot of carbonic acid gas in an hour when he is asleep, and nearly three times as much when he is hard at work. Women and children give off rather less. It takes very little of this—about two parts in ten thousand—to make the air unwholesome, or, as you would say, *close*. Now you see how necessary ventilation is. In summer it is very easily accomplished, as the open doors and windows give all the fresh air necessary; but in winter it is more difficult. There should be at least 1,000 cubic feet of air for each person, and the ventilation should be enough to change all the air in the room three times an hour. How can you accomplish this? It is done partly by the heating. If your house is heated by a hot-air furnace, there is, or should be, a cold-air box, so that the fresh outside air is heated and forced into the room. The foul warm air escapes through various cracks about the windows and doors if there is no special passage for it. It must escape in some way or the hot air would not come up through the register. If the house is heated by stoves, try to have in your living rooms at least one open fire. A coal grate is rather more trouble to look after than a stove, and makes more dust, but it is an excellent ventilator. If you cannot have a grate or grates, an old-fashioned Franklin stove is not a bad substitute. With hot water or steam heating some outside opening is necessary, as there the heating does not directly assist the ventilation except that warm air is lighter than cold air, and the greater the difference in temperature, the greater the difference in weight. Now, air is a gas, and all gases of different weights have a tendency to mix, so that there is, when it is quite cold, a strong pressure of the outside air to get into the house

and of the warm air inside to escape. This makes the little currents that you feel around the doors and windows. Do not cork up the bedroom windows with cotton batting, or any other windows, for that matter. Move the bed out so that you will not feel the draft. Sleeping with an open window in the room in cold winter weather is largely a matter of habit. I do not advise it in this climate for young children, who are apt to kick off their bed covering at night. Grown people in good health can follow their own inclination.

Do not have your room too warm—from 65° to 70° is warm enough for living rooms, 50° to 55° for sleeping rooms. Try to have the rooms which you occupy warmed with some degree of evenness. If you go from a kitchen where the temperature is between eighty and ninety, through a cold hall to a bedroom just above the freezing point to dress for the afternoon, can you wonder that you have a cold most of the winter?

As to the Water Supply.—If you live in the city, or even in a moderately large town, this is probably provided for by the municipal government or by a corporation more or less under its control. The quality depends perhaps somewhat upon the ease with which good water can be obtained, but much more on the care, intelligence and, sometimes, the integrity of the city fathers. I knew one Northern city where, although they had all Lake Superior to draw from, the water was for years abominably bad, and where the population suffered greatly in consequence. If, however, you live in the open country, the water supply becomes a question for each family to settle for themselves, and is one of very great importance. Cisterns are not very reliable for drinking water. It is difficult even with the greatest care to keep the water sweet, and the supply of water, depending as it does directly upon the rainfall, is apt to run short in dry weather. A well must be dug. The question is, where? The well should be on higher ground than the house, barns and outhouses. It should not be very near them. It should be protected in every possible way from surface drainage. A deep well is better than a shallow one, and it is better when a strata of fairly dense rock is passed before water is reached.

Some years ago, when I was spending my vacation in a small town among the foothills of the Green Mountains in Vermont, I went out with the village doctor one day on his rounds. In the course of the afternoon we came to a house half way up the mountain side, where there was no other house near and the air outside as pure as it is possible for air to be. Two of the family were very ill with typhoid fever, and another member was barely convalescent. The well was in a little depression between the outhouse and the barnyard, in a good position to take the

drainage from both. The doctor cautioned the family, "Don't drink a drop of water from that well without boiling it." I hope they followed his advice and saved the rest of the family; but I think it more than likely that they thought the doctor was a man of fads and new-fangled notions, and the fever a dispensation of Providence, and so went on in the old way. In that small country town—two thousand would have been a large estimate for the population of the entire township—there had been that year, so the doctor told me, over one hundred cases of typhoid fever, all caused by water from infected wells. Turbid water can generally be cleared by passing it through a good stone filter, but to kill any disease germs which it may contain it should be boiled. Boiled water is not so pleasant to drink as unboiled. The carbonic acid gas, which gives it life and sparkle, has been driven out of it, and it has a rather flat taste. If you are so fortunate as to have a deep well in a good situation, this precaution will probably not be necessary.

Disinfection is considered a branch of *House Sanitation*, though it is, except in cases of sickness, a concession to human imperfection. If your cellar is light, dry, and well ventilated, if the plumbing is without a flaw, if your house is faultlessly clean and all refuse promptly removed, there should be little need of disinfection; in sickness it does become necessary.

There is a popular idea that a sick room may be disinfected by hanging up cloths wet with a solution of Carbolic Acid, or by leaving plates filled with Chloride of Lime standing about. This is a mistake. These substances may to a certain extent remove unpleasant odors, but they do nothing more. The disease germs resist the action of poisonous gases much better than we do, so to really disinfect the sick room the air must be filled with poisonous gases far beyond the tolerance of human beings. Those who have had rooms disinfected by burning Sulphur or by Formaldehyde by order of the Board of Health, will appreciate this.

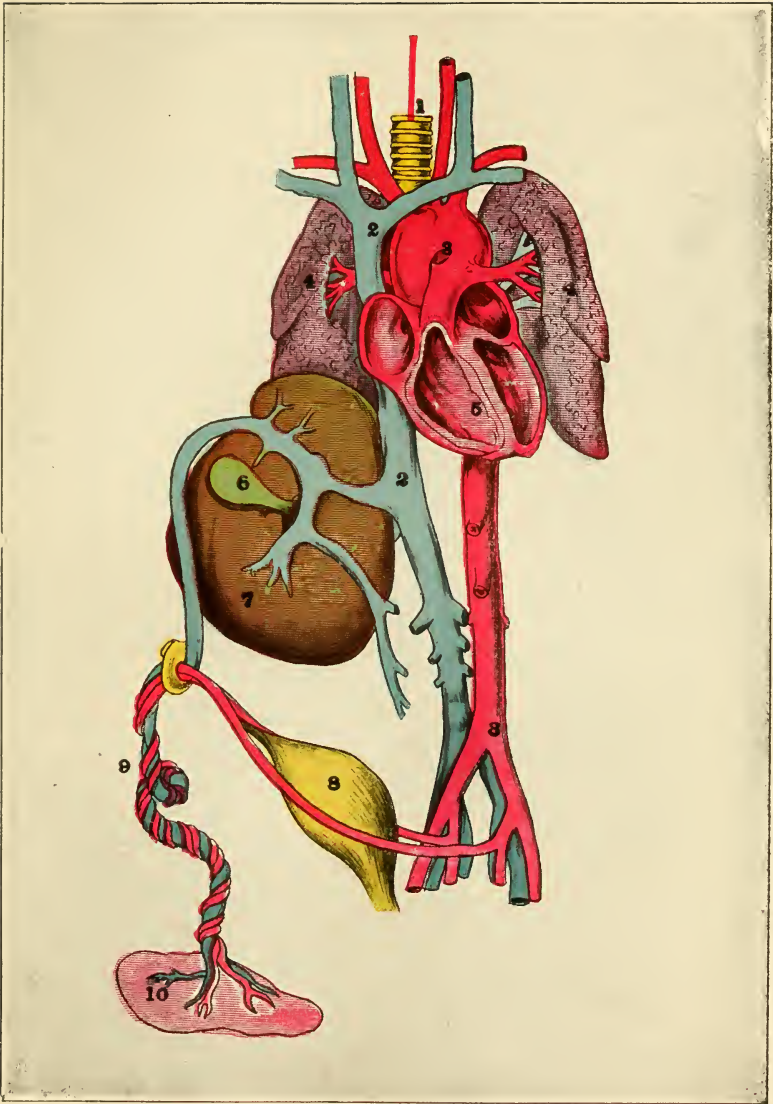
The ideal disinfectant has yet to be discovered. Corrosive Sublimate might be one if it could be deprived of its poisonous and corrosive qualities, but as it is, it is out of the question for domestic use. Platt's Chloride is a very good household disinfectant. It is without color or odor and, used according to directions, is practically harmless, though it would be very unwholesome to drink. A very good solution for washing clothing, sheets or towels used about a case of contagious disease, is made by mixing four ounces of White Vitriol and two ounces of common salt in a gallon of water. For cleansing vessels and receiving discharges, a solution may be used of one and a half pounds of Green Vitriol in a gallon of water. Cop-

peras and Permanganate of Potash are useful disinfectants, and not so poisonous as to be dangerous to handle; but they stain clothing. Chloride of Lime and Quick Lime are useful in damp and musty places; they sweeten and, to a certain extent, dry the air.

Foods.—It is very important to the welfare of your family that you should understand something of food values. I do not mean merely that you should be a good cook, though that is also very desirable and not at all to be underrated.

There are three principal classes of foods: the albuminates, found most largely in animal foods, the fats, and the starches and sugars. It may seem strange to you that starches and sugars, which do not on the surface seem to have very much in common, should be put in the same class; but all the starches are changed to sugar in the process of digestion, so that in their effect on the system they are much the same. No one of these classes will support life alone satisfactorily, and all are needed to perfect nourishment; but the proportion in which they are needed depends very much on the surroundings and circumstances of the individual to be fed. The albuminates, which are to be found in lean meat, milk, eggs, and in smaller quantities in the various cereal grains, build up the structure of the body; the fats and starches supply the heat and energy which is used up in action. Now you can see that a diet of fat pork is not suitable for a person taking but little exercise in hot weather, but is just the thing for men engaged in active out-of-door work in winter. The Esquimaux, who hunt and fish for a livelihood and are exposed most of the year to severe cold, consume great quantities of train oil and seal and walrus blubber, which a man under ordinary conditions of civilization could hardly taste without nausea. This is not owing to any peculiarity of the Esquimaux, but to the conditions under which they live, for Nansen and his lieutenant, Johansen, who were separated from their ship and supplies for nearly a year and forced to live as the Esquimaux do in the extreme North, lived and thrived on a similar diet. On the other hand, natives of very hot climates live mostly on vegetable food, and people from northern climates forced to live in the tropics would do well to follow their example. There is no doubt that Englishmen in India would suffer less from diseases of the liver if they would eat less roast beef and pastry, and live, so far as diet goes, more as the natives do. From all of which it follows that food should be adapted to the climate, the time of year and the amount of exercise taken.

Experiments have been made to ascertain the amount of energy, or working power, produced by different foods. Fats stand very high in the list; butter and fat pork are the leaders.



No. 18.

PLAN OF THE FIELD OF CIRCULATION.

1, Wind-pipe. 2, Vein. 3, Artery. 4, Lung. 5, Heart. 6, Gall bladder.
7, Liver. 8, Bladder. 9, Umbilical cord, arteries and veins. 10, Placenta.

Then come the lean meats and cereals, oatmeal, corn meal and wheat flour. Peas and beans rank high; carrots, cabbage and potatoes, very low. Cheese stands high, though much lower than butter, but milk and eggs are surprisingly low. Poultry is low compared with other meats, and fish still lower.

There is much less waste to meat when it is cooked slowly by very moderate heat. The coarser and tougher parts of the animal may be made tender and palatable by simmering a long time slowly over a low fire. If you are obliged to practice strict economy in feeding your family, a careful study of the value of different foods and different methods of cooking, which I can only indicate here, would be of great use to you. Remember also that your table should have a certain variety and be neatly served. Spotless linen, a vase of flowers or a pretty fern add little or nothing to the expense of a meal, but they add much to its pleasure and aid indirectly both the appetite and the digestion.

There are certain substances which are taken with the food more for pleasure than for nourishment, of which I must say a word. These are tea, coffee, chocolate and various forms of alcoholic drinks. Tea and coffee are nerve stimulants, very pleasant and refreshing, and, if taken in moderation by healthy adults, I think they are practically harmless. Taken in excess, they injure the digestion, and they should under no circumstances be given to children. Chocolate has considerable food value, owing to the fat it contains, but is so rich that it can only be taken steadily by people of strong digestion. The use of alcoholic drinks is entirely unnecessary to healthy people in youth and middle life, and is so fraught with deadly danger, in our climate, at least, that alcoholics as table beverages should be entirely discouraged. Alcohol is an invaluable medicine, but should be given, like other medicines, only on the prescription of a physician.

The Pregnant State.—We come now to more personal matters—to the care of your own health under conditions which are new to you. We presuppose that you have been married a few months when you notice that you have passed the time for your monthly illness without the usual symptoms. Then you have a slight feeling of weight in the pelvis—a “bearing-down,” as it is often expressed. Sometimes, not always, your breasts feel tender and mildly painful, and when you rise in the morning you have a distinct feeling of nausea. All these symptoms point to one thing, and if you do not yourself know what they mean, your mother or some older married friend will easily tell you. If the mother instinct is strong in you, as it is in the majority of women, you will feel that the news is good. Your heart will warm

to the young life you are nurturing, and you will wish to take the best possible care of yourself; not only for your own sake, but for the sake of the baby that is coming, that it may make its start in life with the best possible inheritance—sweet temper, quiet nerves and robust health—that the little body may be perfect and the little soul serene.

What can you do to that end? I will tell you as well as I can. You must make up your mind to forego some pleasures. Dancing, for one thing, must be given up absolutely. It makes no difference that you have known a young woman who danced all through the earlier months of her pregnancy without disaster. It is not wise and it is not safe, even though some one person may have done it with impunity. Try as far as possible to avoid all unpleasant sights and sounds, especially the sight of deformed or disfigured people; but if you should by an unfortunate chance meet any such person, do not let your mind dwell on it with alarm. The probability that it will do any harm is after all very slight, and you can lessen it still further by resolutely refusing to let your mind dwell on the subject. Cultivate the grace of a placid and serene temper. Do not worry about things. Do not let yourself get angry even if the provocation is serious. Do not indulge in gloomy reveries. On the contrary, look on the bright side of things. This is a good receipt for keeping yourself happy; but the object is that the baby shall have a happy disposition, and in this you will find later you have been working not only in your baby's interest, but greatly in your own.

Physical Precautions.—There are also certain physical precautions that you must take at this time. Avoid all violent exercise, but at the same time keep out of doors as much as possible. Plenty of moderate exercise on the other hand is good for you, though you should stop when you find yourself decidedly tired. Do not jump from any elevation, even from a chair or carriage. Leave hanging curtains and pictures to some one else. Lifting any weight above your head is bad for you. Heavy lifting, even on a level, is to be avoided.

The advice given you in books is not by any means all good. For example, I have seen a book which advised pregnant women to eat as little as possible, and particularly to avoid meats of all kinds, because then the baby would be small, its bones soft, and the confinement in consequence easier. Now, this is very delusive. Undoubtedly if a woman is half-starved, the child will be likely to be puny and ill-nourished, though not necessarily small. Nature will nourish the baby at your expense if you try to starve it. She will take the phosphates from your bones, especially from your teeth, to build up the bones of the little one, if the food taken is not sufficient. Do not be afraid to take as much

food as you can easily digest. You need more food than under different circumstances. If the early morning nausea does not persist through the day, your appetite will probably be excellent. If the nausea is troublesome, it is well to have a cup of strong hot coffee brought to your bed in the morning. Take it with a few crackers or a little bread and butter, and wait half an hour or so before you try to get up. This will commonly make a great difference in your comfort during the day. If this is not sufficient, have your druggist make for you a mixture of $\frac{1}{2}$ an ounce of Bromide of Potash in 4 ounces of Tincture of Gentian Root, and take a teaspoonful of it after your meals. I have found this to answer in all but severe cases, which, of course, require the care of a physician. The nausea, even when it is severe, does not usually persist after the third or the beginning of the fourth month, though some unfortunate women suffer from it during the entire term.

Indications of Miscarriage.—If at any time after you have serious reason to think yourself pregnant, you see that you are flowing, go to bed at once and send for a physician. You are threatened with a miscarriage, which would be a serious misfortune to you. A miscarriage is a much greater strain on a woman's health than a natural confinement at term, to say nothing about the loss of your baby, which you would also feel to be a misfortune.

Plain Talk.—Right here I may say that I am well aware that there are women who would not look upon it in that light—gay young wives with the instinct of motherhood imperfectly developed, who dislike giving up the gaities to which they are accustomed, who dread the months of semi-invalidism with the ordeal at the end, and still more perhaps the confinement with and care of young children. Such women not only rejoice at the interruption of their pregnancy, but are sometimes tempted, either themselves or by the help of physicians unworthy of the name, to interrupt it forcibly. If I have any such young women among my readers, and it is very possible that I may have, I wish I could impress upon them not only the wickedness, but the danger of such a course. Would you see any great difference in the guilt of a woman who murdered a baby a month old and one who made a year-old baby her victim? Well, from the first your baby is alive. It is an old wives' fable that the life comes when you first feel it stirring. That only means that the baby has grown so large and strong that you can feel its movements through the bag of water in which it lies. And this baby, *your* baby, you are conspiring with some physician, who should be an outcast in his profession, to *murder*. This is plain talk, but it is true. No reputable physician will even think of doing this thing. He

knows perfectly well what he is doing, if you do not. For a doctor it is the crime of crimes. He takes an oath on his graduation that whatever other evil he may do, he will abstain from this. He renders himself liable to the penitentiary if he is detected. A man or woman who would do this is utterly unworthy of confidence. He does not, of course, wish to kill you, because that would seriously increase his own danger; but he rarely has either the skill or the intelligence desirable, and the secrecy necessary stands in the way of the requisite precautions. The operation is a very grave one at best; and even performed by a council of physicians with every advantage, as it sometimes must be in order to save the life of the mother when it becomes impossible to save both, it is by no means always successful.

If you try experiments upon yourself, you may do yourself serious harm. Many women have killed themselves in that way. And you are very unlikely to accomplish your object. As for drugs, only a few exceptionally sensitive women are affected by them. As a rule you will materially injure your digestion, but that is all you will be likely to accomplish with drugs.

A forcible miscarriage is very much more dangerous than one occurring of itself. It is all the difference between an apple torn from the bough on which it hangs, and one from some reason dropping of its own accord before it is ripe.

This is a digression. I certainly hope the young mother to whom I have been giving advice and counsel will have no such temptation.

The Clothing Worn.—Your clothing should be loose. Do not be tempted to try to improve your appearance by tight clothing. In the first place you defeat your own object since anything that sharply outlines your figure is to your disadvantage; in the second place the pressure of tight clothing interferes with the proper development of the growing womb and may make trouble for you at the time of your confinement. The corset should be discarded after the fourth month.

False Modesty.—From false modesty some women are inclined to shut themselves up after their figure becomes decidedly noticeable. This is a mistake, and I hope you will not fall into it. You need the fresh air and the society of your friends. There is nothing whatever in your condition to be ashamed of; quite the contrary.

Symptoms That Need Attention.—It is quite possible that at about this time you may notice that your feet are somewhat swollen, particularly at night. There is nothing alarming about this if the swelling is moderate. It comes from the pressure which the heavy womb exerts on the large blood vessels. But if the swelling extends above the ankles, or if you notice that your

face is puffy, especially under the eyes, or that your hands are swollen, you should see your doctor at once. These symptoms need immediate attention.

The Last Weeks of Your Term.—You are coming to the time when you feel heavy and unwieldy, when, unless you are a robust woman, it is quite an effort to move about much. Perhaps you are behindhand with the little garments for the new comer and would prefer to sit all day over your sewing. Do not yield to this temptation. You need exercise now as much as ever. It is important that you should be in the best possible physical condition to fit you for the ordeal through which you are to pass. It is at this time that many women of your acquaintance will advise you to put some astringent, as a tea of White Oak bark or a solution of Alum, on the nipples to toughen them, so that they will not become sore and tender in nursing. Do not do it. The astringent makes the tender skin brittle so that it cracks more easily. If the nipples are short or inclined to draw in, pull them out for a few minutes each day, rubbing in a little Vaseline or fresh mutton tallow. If they are very tender, you can use a solution of Tannin in Glycerine—about 5 grains of the Tannin to an ounce of Glycerine. Have the druggist mix it for you. The Glycerine prevents the Tannin from making the skin brittle.

You may also be advised to take sitz baths with a view to making the confinement easier. I never could see that such baths at this time were of any special use, but if they are not hot, only warm, they will do no harm. If the skin over the abdomen feels stretched and uncomfortable, you may get much comfort from rubbing Sweet Oil or Vaseline gently into it every night before you go to bed during the last month. Keep on rubbing gently until the Oil or Vaseline has all disappeared—been absorbed—and you will find that your underclothing will not be soiled. Of course you should only put on a little oil at a time.

Feeling of Dread.—It is natural, as the time draws near, that you should look forward to your coming trial with alarm and dread. I have even known young mothers who quite expected not to live through their first confinement. If you have any such feeling, you greatly exaggerate the danger. I am telling you the truth, not prophesying smooth things, so I cannot deny that there is a possibility of danger. But I am an old woman; I have been engaged in active practice for nearly thirty years and have never seen a woman die in childbirth, though a very few have come unpleasantly near it. I remember talking with an old doctor who had delivered more than three thousand women—a much larger number than I can boast—and he said he never had a woman die in childbirth. There is more or less danger in all

the affairs of life. Those of us who live in large towns run no small risk from electric cars, automobiles and bicycles whenever we go down town, but we do not make ourselves miserable on that account; we have become accustomed to it. If you are a country woman, you take some risk every time you ride after a gay horse, but you like the frisky creature for all that. Perhaps you dread the pain more than the danger. The pain is very real in all first confinements, even if they are perfectly natural, but it is not unbearable. You will have, or certainly should have, some Chloroform at the last, and it is astonishing how soon you will forget it when it is once over.

Preparations for Confinement.—I should perhaps tell you what preparations you should make for your approaching confinement. If your mother can be consulted, or if you have engaged an experienced nurse, you will have all the advice on this point you need; but it is possible that you may have neither of these advantages. You need, then, a rubber sheet large enough to cover the whole mattress except a little space at the head of the bed, about three yards of unbleached muslin for bandages—this amount will make two and is much better than anything you can make—and a paper of large safety pins. You should have ready an old night dress, and, if it is cold weather, an under vest which you do not mind having destroyed; also a better one of each to put on when it is all over. You should have a dozen large toilet napkins, at least four sheets besides those on the bed, and plenty of towels. It is well to have a supply of old cotton rags, which are often useful, and remember that everything provided must be *scrupulously clean*. This is not merely a question of good housekeeping; it is a matter of life and death. You need a roll of absorbent cotton. It is necessary to have a bottle of Vaseline, one of Ammonia, one of good brandy or whiskey, and a small bottle of Carbolic Acid, distinctly labeled "poison;" also a good fountain syringe.

You should have a baby basket in which is placed everything necessary for the baby's first toilet: A very soft linen rag for a wash cloth—an old table napkin if you have it—two very soft old towels, some bland, unirritating soap—*Juvenile* is very good, but white Castile will do—two papers of safety pins, small and medium sizes, a suit of the little clothes, the plainest you have, half a dozen diapers, a box of baby powder with a powder puff, a little absorbent cotton for dressing the cord and some linen bobbin for tying it, and a pair of sharp scissors. Of course, any stout, smooth cord will do for this purpose, but I like the bobbin because it makes a firm knot that is in no danger of slipping. There should also be a baby blanket and a square of old woolen goods—a part of an old flannel skirt will do very well—in which

to receive and wrap the baby when it first arrives. Be sure the nurse, or the woman who is to be with you, knows where to lay her hand on everything, so that there will be no time lost in hunting for necessary articles when the time comes to use them.

The bed should be prepared by covering the mattress with an ordinary cover, over which is placed a sheet carefully and securely tucked in around the mattress. Over this is placed, on the middle of the bed, a sheet which is called a *draw sheet*, folded lengthwise till it is about a yard wide. This should be secured in place by safety pins. Over all this place your rubber sheet, which should also be carefully pinned in place by safety pins. Over this you can place another sheet, which had better be pinned down at the corners. When everything is over, the rubber sheet can be removed and you will have under it a clean bed for your commencing convalescence.

At the commencement of the labor you should have a warm bath and a large enema—at least two quarts of warm water made soapy with white Castile soap. Your hair should be braided and tied securely at the ends, but not put up. If the pains are now quite frequent, say once in ten minutes, you can put on the nightdress and vest you have reserved for your labor, but put on a heavy wrapper and do not go to bed until you are unable to sit up any longer. I cannot tell you how long your labor is to be. Twenty-four hours is not an unreasonable time for a first confinement, but in such cases the pains are at first quite mild and about an hour apart. In such a case, if the labor commenced in the morning, you would probably be about the house through the day, first make the preparations I have spoken of in the evening, and the baby would be born sometime during the night. This is the most common course in first labors, but sometimes the pains come on rapidly and violently from the first and the whole is over in two or three hours. I am speaking, of course, of natural labor where, as the nurses say, "everything is all right."

After Labor Is Over.—If you have had a comparatively easy labor and are yourself robust, you may feel that you are perfectly able to be up and about directly after it. On the other hand, if the labor has been severe or if you are not very strong, you will be completely tired out and find it an effort to open your eyes or answer the simplest question.

When you have had time to rest after having been bathed, have had everything made fresh and clean about you and the baby has been washed and dressed, it should be brought to you for its first meal. Most babies take the nipple eagerly from the first, but some fuss about it a good deal, tiring the mother and making the nurse much trouble. They can be taught, however,

with a little patience. It is true that there is no milk in the breast yet, but the secretion that is there is very good for the baby, and it is better for you to have it drawn off.

How the Baby is Cared for.—I have said nothing as yet as to the care the baby should receive, but though you will not be able at this time to give the matter much attention, it is well that you should understand it. When the doctor has tied and cut the cord, he puts his finger in the baby's mouth to free it from any mucus that it may have taken in during the birth, and then, if it is breathing regularly, hands it to the nurse, who receives it in the square of old flannel you have provided. The baby may then be wrapped up still further and put aside until you are made clean and comfortable; but when it is washed, even in the summer unless it is in the middle of a very hot day, it should be taken to a fire. The little creature has come from a place where the temperature is between 98° and 99°, warmer than it ever is in this climate, except for a few hours perhaps in a very exceptionally hot summer's day. I have often seen babies blue and shivering with cold during the bath, and if this condition continues too long, the baby may take pneumonia, which will end its life before it is hardly begun. The baby should be anointed all over with Sweet Oil or Vaseline to soften the thick matter with which it is smeared. It should then be carefully washed with warm water and soap. It should be washed about the eyes before you put any soap in the water or on the rag, to avoid getting soap into its eyes. Remember that the baby's skin is very delicate and be gentle in all your movements, and only uncover the part of its body on which you are engaged. After the baby is clean the cord should be dressed, which is done by wrapping it in absorbent cotton and putting a small pad of the cotton over it. Then put on the band, pinning it firmly but not too tightly, then the shirt and diaper, and follow with the other clothes in their order. No pins but safety pins should ever be used about the baby, and then if he cries, no time need be spent in hunting for a possible pin which may be scratching him.

Your milk will come freely on the third day, though there may be a little milk in the breasts on the second day. It is very probable that in the first rush the baby will not be able to take it all and that the breasts will become distended and very uncomfortable. They can in that case be bandaged by putting a large towel under the shoulders, bringing it around under the arms and pinning it over the breast quite tightly and firmly. This hinders the flow of milk by pressure, supports the breasts and presses out the superfluous milk. This is also the day on which it is a time-honored custom to give a dose of Castor Oil to move the bowels. If your milk has come in slowly and scantily, this

is the thing to take, as it undoubtedly increases the flow of milk; but if you have, on the contrary, too much milk, a dose of Salts or a Seidlitz Powder is better.

The flow, which was at first quite profuse, lessens as the days go by. At the end of the first week it should be less bloody and more watery than at first, and very much less in quantity. By the end of the second or early in the third week, it has generally disappeared, though some women find it reappearing after any special exertion as late as the sixth week. That is not quite as it should be. The discharge should not be offensive. There may be a faint odor to it as there often is to the menstrual flow, but if the odor is decidedly offensive, there is something wrong and the doctor should be consulted.

Bathing.—You can have and should have, if you have a nurse, a sponge bath every day. You do not need any douches unless the discharge becomes offensive, and then, as I have just said, they should be given according to the direction of your physician.

Diet.—I have said nothing yet about your diet. For the first three days you should have only tea, toast and broth, gruel, or perhaps a soft boiled egg if you are quite hungry. After that you can have any simple and nutritious food. Only remember that you do not need to eat as heartily as when you were able to take plenty of exercise.

Remain in Bed.—Stay in bed ten days at least. Nothing is gained by trying to get up before that, even if you feel able to do so. The womb, which before you became pregnant was about the size of a medium sized pear and not far from that shape, has grown large enough to cover a baby weighing from six to ten pounds, not to mention the after-birth and no small quantity of water. It has become besides a powerful muscular organ with thick walls and capable of exercising great force, as you have felt during your confinement. Immediately after the labor, though it is empty and contracted, you can easily feel it in the abdomen if you are not very fleshy—a large hard ball, as large as a cannon ball or a grown person's head. It grows rapidly smaller, but it is not till the baby is six weeks old that it becomes reduced to its former size. Not till then, even if you are perfectly well, are you in as good condition for hard work as you were before your pregnancy. I do not in the least mean that it will be necessary for you to confine yourself all this time to the bed or sofa. If you are well, you can leave your room at the end of the second week, and by the end of the third can go about the house freely, or out for a short drive; but not till the baby is six weeks old ought you to take up the full round of your duties if they are at all exhausting. A little care at this

time will pay in the long run and save doctors' bills, for if you try to do hard work while the womb is still heavy, you are likely to bring on some displacement which may keep you a semi-invalid for years.

CARE OF THE BABY.

The nurse, if you have one, has been engaged for a varying period of from two to six weeks. Even the longest time is soon over, and the responsibility of the baby's care falls upon you. This is an anxious time for mothers of first babies. Many a young woman has confided to me that she shed tears over the first bath she gave her baby. Few young babies enjoy their bath, and none of them like being dressed after it. The baby also resents the unfamiliar and awkward handling, and cries lustily. You feel that you are hurting your baby and can with difficulty resist the temptation to cry too. It does not really hurt a young baby to cry in moderation. It is his only way of expressing his feelings, and it is not always easy to say what feelings he is trying to express. Sometimes he is hungry, sometimes uncomfortable, as when his diaper is wet or soiled; sometimes he is tired and sleepy, and sometimes, I really think, he becomes tired of his own society and wishes to attract attention; and lastly, he is sometimes in pain. Go on with the bath and dressing and never mind the crying. You have only safety pins and so cannot prick him, as you might otherwise do. When it is over, he will be consoled by his dinner and go to sleep. In bathing him, be sure he is dried thoroughly, and then powder him carefully where folds of the skin rub together, particularly under the diaper. Never let him stay wet or mused, and after taking off the soiled diaper, wipe him, or wash him if it is necessary, and put on fresh powder so that he will be perfectly clean and dry before you put on the clean diaper. Many babies become dreadfully chafed from neglect of this care, and must suffer very much in consequence.

Nursing the Baby.—I hope very much that you will be able to nurse your baby. It will be very much better for him and add greatly to your own comfort if you can. Do not fall into the way of nursing him whenever he cries. A young baby should be nursed every two hours—perhaps not quite so often at night, but at least ten times in twenty-four hours. He takes but little at a time and takes it very slowly. A young baby will often be fifteen or twenty minutes in taking what he wants, and will have several cat-naps in the time. Nursing is hard work for him and he has to stop for rest. When he is three months old, the

time between meals may be lengthened to two hours and a half, with a still longer interval at night; at six months, every three hours, with two nursings at night; at ten months he may still be nursed every three hours, if you have milk enough for him, with but one meal at night. He now takes about eight times as much at a meal as when he was first born.

There are some precautions that you should take while nursing your baby. You may eat any simple and digestible food, but do not eat pickles nor very sour fruits, which are apt to give the baby colic. You should avoid all excitement, and not allow yourself to give way to anger. If by any unfortunate occurrence you should be greatly excited or frightened, do not nurse your baby directly after. Draw off the milk then in the breast and wait for fresh to come in before giving it to the baby. There is something in strong excitement, particularly of terror or grief, which, at least in some women, makes the milk poisonous. I knew a mother once who heard of her father's dangerous illness. She was a very devoted daughter and was greatly distressed; she prepared to go to him at once. In the midst of her preparation she stopped to nurse her baby. The baby was taken almost immediately with convulsions and died in a few hours. Cultivate a quiet mind if you wish your baby to thrive.

If the nipples become sore and tender, they may cause you much suffering. The nursing, which is ordinarily a pleasure, becomes under such circumstances positive torture. The Tannin and Glycerine mixture, of which I have spoken before, is a very good application in such cases. It should be carefully wiped off before the breast is given to the baby. Be careful not to expose the breast to cold, especially to drafts while nursing. Many broken breasts have come from carelessness in this respect.

If the baby is doing well he will increase steadily in weight—from two-thirds of an ounce to an ounce a day for the first four or five months, and about half as much for the rest of the year.

Some Hints.—Teach him to lie quietly in his crib or cradle even when he is awake; too much handling is bad for all young animals. If he is not wet nor soiled, if he is not hungry nor in pain—and you will soon learn to distinguish the cry of pain—he will learn that it is of no use to cry just to be taken up. Turn him over—babies like to change their position and when they are very young cannot do it themselves—and leave him in the cradle. Above all, do not walk with him in your arms. Why babies admire that form of exercise I do not know, but they do admire it. They do not need it, however, and it is very fatiguing to adults.

Do not keep the baby in bed with you at night. While it is still very young there is some danger that, if you are a sound sleeper, you may roll over on it and suffocate it; such things have happened. But apart from that, it is better for the baby and for you that he should have his own cradle or crib by the side of your bed and be put back into it when he has finished nursing.

Fresh Air for the Baby.—The baby should pass part of every pleasant day in the open air, except in very cold weather, beginning from the time he is a month old if he is born in the winter; in the summer he can go out almost from the first, avoiding, of course, the heat of the sun when it is very warm. His eyes should be shaded from the light, indeed that precaution should also be taken in the house; a baby should never be allowed to stare at a bright light. He should wear a veil if it is at all cold, so that the cold of the outside air may be modified before it reaches his lungs. Do not keep him out long enough at a time to become chilled.

Teething.—At about four months the baby will begin to crawl so freely as to need a bib to protect the front of his dress, and will bite eagerly on your fingers or anything that he can put into his mouth. When he is six months old, you may begin to look for his first tooth, although many babies do not get their first teeth till a month or two later. The first tooth is usually a front one on the lower jaw, and the second follows by its side very shortly; then there is a pause for a few weeks or a couple of months, when the two corresponding teeth on the upper jaw appear almost together. The other four front teeth are apt to follow these quite closely, and then there is a long wait. The first molars appear when the baby is from a year to fourteen months old, the upper ones generally cutting through first; then come the eye and stomach teeth when the baby is from sixteen to twenty months old. The last molars may come through any time from the second to the third year.

It used to be the fashion to ascribe all the ills that a child suffered from the sixth to the twenty-fourth month to his teeth. It is now rather the mode to ignore the teeth altogether as a source of baby ills. I think the truth lies between the two extremes. That the teeth do hurt a baby more or less as they are coming through, I think there is no doubt, and he is apt to be cross, peevish and restless at such times. I have seen a few very nervous children show symptoms of convulsions—one who actually had a convulsion—but convulsions from teething are not nearly so common as used to be supposed. The liability of children of that age to diarrhea and other bowel troubles is

owing to changes which are taking place in the baby's digestive apparatus fitting him to digest solid food, not to the cutting of the teeth. Babies fed at the breast are very much less liable to these troubles. It is very unlikely that your baby will have a convulsion, but if he should, put him at once into a hot bath while waiting for the doctor, and keep him in it till the convulsion is over; then take him out, dry him carefully and wrap him up in a blanket till the doctor arrives. Do not dress him as it may be necessary to put him into the hot water again.

Lancing the gums is not of the slightest use to help the teeth in cutting through. It is rather a hindrance, but I do think it quiets the nervous symptoms, probably by lessening the irritation when the gums are hot, tender and swollen.

When Shall You Wean Your Baby?—It depends on many things—your health and his, and the time at which he was born. If you are not pulled down by the nursing, and the baby grows as he should do and seems satisfied and well nourished, you can nurse him for a year; or, if he was born in the summer, through the second summer. Do not wean him in hot weather nor when he is cutting teeth. Generally children weaned at nine months do fairly well. If the baby was born in the spring or early in the summer, and you doubt your ability to nurse him through the second summer, it is better to wean him while it is still cool, even though the year is not up.

Return of Monthly Sickness.—As a rule, women have no return of their monthly illness while nursing. To this rule, however, there are many exceptions, and you may be one of these. Should you on that account wean your baby? If the baby still thrives, I do not think it necessary on his account. It may be that the double strain is too much for you; that depends on how vigorous your health is. In that case you must balance your own interests and the baby's, and decide between them. Usually, if your health seriously deteriorates, the character of your milk will suffer; but this is not always the case. I have seen women greatly exhausted by nursing who had babies the picture of health. All their strength went to milk, as the old women say. There is another possibility which is much more serious; occasionally a nursing woman becomes pregnant. If you find that to be your case, you must wean your baby at once. It is not only best for him, but even if your milk continued good, it is the greatest injustice to the coming child to continue nursing. It is next to impossible that you should fairly nourish both.

Unless because of some such emergency as this, do not wean your baby suddenly. Begin by feeding him once, then twice in the twenty-four hours; then feed him through the day, reserving

your milk for the night. In this way you accustom him gradually to the change of food, and still have your milk for him if he should become suddenly ill. Then if all is well, you can take the breast from him altogether. In this way also you will have less trouble with your breasts. The quantity of milk lessens with the lessening demand, and at the last you will have little trouble. A compress of Camphorated Oil helps to dry the milk. Press or milk out enough milk to prevent caking, and you will have no trouble. It is quite a little art to milk a woman's breast without giving pain or causing any irritation. The rubbing should be done with the tips of the fingers, and always from the edge of the breast toward the nipple. It is not easy to describe, but any experienced nurse or mother will show you how it is done.

What to Feed the Baby.—What will you feed your baby after and during weaning? Principally milk. A baby a year old, or nearly, can drink cow's milk, only it should be slightly warmed. How to obtain good milk is the next question. If you own a cow and can see to it that she has a good pasture, or a clean, well-ventilated stable, that she is in good condition and has wholesome food, you are very fortunate. If not, you must trust to the milkman. If you know something about him and his cows, so much the better; if you have serious doubts about the milk, it must be sterilized. I will describe the process later. Some authorities say that a baby a year old should have a bottle. I do not think so. Most children a year old can easily be taught to drink from a cup, and not only the trouble but the risks of nipples and bottles are saved. He does not need to be fed oftener than once in four hours, and once at night, at which times he should have as much as he wants. You may give him, if you like, particularly if he is inclined to be constipated, strained oatmeal gruel made rather thin; and a little chicken or mutton broth will not hurt him. Now and then he may have a chicken bone to suck, but the main dependence must be milk. If the bowels are too loose, the milk should be boiled.

Avoid Advertised Foods.—Do not be beguiled by the various prepared foods on the market, nor by the advertisements with pictures of most blooming infants fed exclusively on each and every one of them. None of them are to be compared to the fresh milk of a healthy cow, and with the present methods of sterilization milk can be utilized that is not perfect. If you are unfortunately so situated that you cannot procure even passably fresh milk, or the milk at your command hopelessly disagrees with the baby even after sterilization, malted milk is probably the best substitute. It has the disadvantage of being quite expen-

sive. Condensed milk is very much used, but it is deficient in nourishing qualities, and, although babies often grow fat while using it, they are not strong.

When the baby has all his teeth but the last molars—usually when he is from one to two years old—you may begin to give him some solid food: a slice of stale bread and butter, bread and milk, a little mashed white potato, a sandwich made of rare beef scraped fine, a piece of rare beef to suck which you must watch that he does not swallow, a little oatmeal or corn meal mush, or a soft boiled egg. He will now take four meals a day and does not need to be fed at night.

Do not make the mistake of letting him taste food which he cannot have with the idea that a taste will not hurt him. It may not, but it makes him unhappy. Children will not fret for food of which they do not know the taste. It is better not to have him at the family table at this age if it can be avoided. He is too young to be taught good manners, and some of the older members of the family may not be able to resist the temptation of feeding him a little.

Food for Babies Who Cannot be Nursed.—We must now go back and speak of the baby's food in case that you are so unfortunate as to be unable from the first to nurse him. A new-born baby cannot digest cow's milk unmodified. "It is a mistake," some old doctor has said, "to think that cow's milk is the proper food for babies; it is the proper food for calves." This is certainly true of the new-born baby. What are we to do then? We must modify the milk so as to make it resemble the mother's milk as much as possible; for that it should have more fat, more sugar and much less curd. A wise Philadelphia doctor, who devoted much of his attention to children, devised a mixture which is called, after him, *Meigs' Mixture*, from which I have found excellent results; following is the receipt for a pint of it (you should have a measuring glass graduated for ounces, and then it is perfectly easy to make):

Milk	2 ounces.
Cream	3 "
Water	10 "
Milk Sugar	6 $\frac{3}{4}$ teaspoonfuls.

The Milk Sugar you can get at the druggist's.

If your milk and cream comes from a milkman, this mixture should be sterilized before using. You can buy a sterilizer, which consists of half a dozen bottles in a wire frame, and a pan for the hot water, which should be deep enough nearly to cover the bottles; but all you really need at this stage, if you have an ordinary steamer, is a pint bottle. Fill this bottle with the

mixture, put it into the steamer over a kettle of boiling water, first corking it tightly with absorbent cotton, and let it steam twenty minutes; then take it up, before it is quite cool add a teaspoonful of Lime Water, and put it on ice.

The baby will take from an ounce to an ounce and a half at a time. He should be fed ten times in the twenty-four hours, and you should make enough at one time to last that long. The food should always be warmed for him. You will need an alcohol lamp to warm it at night. After he is six weeks old he will take two ounces of food at a time, and need not be fed quite so often at night—eight times in the twenty-four hours will do; at three months he will take four ounces at a time and should not, if he takes all his food at each meal, need more than six meals in the twenty-four hours; at six months he will probably take about six ounces at a time and need to be fed as often; at ten months he will take eight ounces and need only be fed once at night, making five times in the twenty-four hours.

Buy a nursing bottle—one without tubing—that will hold a pint. It is hard enough to keep the nipples perfectly sweet and clean; it is practically impossible to keep fine tubing so. The bottle should be scalded each time that it is used and carefully dried. The nipples should be carefully washed and then placed in a bowl of water to which a little cooking soda has been added. The baby's mouth should be washed out quite frequently with clear water to prevent its becoming sore. It is a good plan to wash it after a meal, unless he has gone to sleep over his bottle, in which case it is a pity to disturb him.

Learning to Walk.—A healthy baby can usually sit up, if he is propped by pillows, when he is six months old; but it is two or three months later before he will sit up of himself. After that he will make decided efforts to get about, often at first by rolling over and over and then pulling himself up by sofas and chairs. Some babies will hitch themselves over the ground with considerable rapidity, and some will make efforts to creep. A baby can usually stand alone before he can creep much.

There is a great difference in the age at which babies make their first attempts at walking. Usually it is at about a year. Very ambitious and forward children will sometimes try at nine months; on the other hand, sluggish and backward children sometimes reach eighteen months without having made any effort to walk. Do not encourage the baby to walk before he is a year old, particularly if he is fat and heavy. Bow-legged children are made in that way. It is much better that he should strengthen his little legs by creeping before he puts his weight on them.

Where He is Kept.—If the baby has a nursery to himself, it should be bright and sunny, evenly warmed and well-ventilated; and this is true of any room he inhabits. On no account should there be anything like soiled or wet diapers left lying about to injure the purity of the air.

His Clothing.—The clothing should be loose and adapted to the season. It should be warm in the winter and not too warm in the summer. The child's bowels should always be protected by flannel summer and winter. In summer the flannel should be soft and light in weight. The clothing should not interfere with the freedom of the child's movements. The long dresses are usually shortened at six months; in summer this may well be done a month earlier, giving the baby a chance to kick and so strengthen his legs.

Medicines.—Give the baby as little medicine as possible, and on no account give him any sort of soothing syrup to make him sleep. This is one of the worst things you can do, making an Opium eater of him while he is still in arms.

Diseases of Children.—I have said nothing about diseases of children because that subject is ably discussed elsewhere, but I might give you a few hints in closing. Babies under a year old should be specially guarded from whooping cough. This is usually a slight ailment for children from five to ten years of age, but it is dangerous for young babies, and the younger the baby the more dangerous it becomes. Diphtheria is a scourge for old and young, but it is particularly dangerous to young children. On that account do not allow strangers to kiss or fondle your baby while it is taking its airing, and quarantine your nursery strictly against any one—man, woman or child—with a sore throat. Of the other children's diseases, scarlet fever is the only one which you need specially dread. Measles sometimes become dangerous if the child takes cold afterward and has pneumonia in consequence.

In closing this chapter, I can only wish both you and the baby long life and the best of health, and hope that following the advice I have given may contribute something to both.

WHAT A WOMAN OF FORTY-FIVE OUGHT TO KNOW.

Women approaching this age often ask questions very difficult to answer. When will the period of irregularity, rather inelegantly called by English authors the "dodging time," begin? How long will it last? When will the flow definitely stop? None of these questions can be answered by positive assurance. There is a very great difference among individual women in this respect. One can only give something approaching a general average. According to my experience, though I do not remember to have seen it stated in books, the early or late closing of the menstrual period, where it is not influenced by any disease or mental or physical shock, is largely a matter of family habit. In some families the married women rarely have any irregularity before fifty, and cease menstruating at from fifty-three to fifty-five years; in others the flow commonly ceases before forty-five. Tait, who is the great authority on this subject, gives forty-five years, eight and one-half months as the average date of closing. The observations were made upon English and French women. According to my observation, that is too early for us. Forty-eight years seems to me much nearer the average. There is a prevailing impression that if the menstruation begins early, it will close early. The exact contrary is the fact; a menstruation which begins late is more apt to finish early. There is a certain lack of vigor in the action of the ovaries, which is shown by the tardy appearance of the flow and which favors its early exhaustion, thus causing an early cessation of menstruation.

Married women who have borne children are, other things being equal, later in stopping than their unmarried sisters. Some women, not a small number, lose their courses abruptly without any period of irregularity whatever. This is sometimes the result of nervous shock or exposure to extreme cold at or about the menstrual period; sometimes without any known reason. One would naturally suppose that such women would suffer more than others, but experience has not shown that they do. The average length of the irregular period is a little over two years, and the time which the various disturbances persist after the flow has finally ceased is about the same, making a period of disturbance of rather over four years. This is, however, subject to great variations. Sometimes it is very much shortened and, on the other hand, it may be lengthened to ten or twelve years.

Feeling of Apprehension.—Most women look forward to this period of their lives with great apprehension, feeling sure that a great body of diseases is waiting to spring upon them at this time. This is largely a misapprehension. It is no doubt a period of strain in which the weak points in the constitution come to the front, but healthy women with well-balanced nervous systems come through the time, in nine cases out of ten, with a very moderate amount of discomfort, often hardly giving the matter a thought. "I was so busy in those days that I hardly thought of it," one woman said to me when I asked her how she had come through the change. She was not by any means robust, but as far as her sexual organs were concerned she was well. The flow, when it does appear after the irregularity begins, is apt to be accompanied by more pain than customary. It is also very irregular in duration and in quantity. I have known a slight flow—only just enough to make it desirable to wear a napkin—to persist for three months when there was no disease whatever. Such a flow, when it is so slight as not to be weakening, need cause no alarm. On the other hand, a profuse flow which tends to persist is caused, almost without exception, by some diseased condition which can be corrected by medical treatment. The most common cause is granulations of the mucous membrane inside the womb, which can be removed by scraping out the womb, or, if they are not very bad, are sometimes made to disappear by astringent applications.

Hot Flashes.—The most universal discomfort of this time which all women notice more or less, but which in some is only a slight inconvenience while in others it amounts to very positive suffering, are the *hot flashes*, so-called. These flashes are very varied in their effects. Sometimes a great wave of heat passes over the whole body, making one feel as if the room were intolerably hot; sometimes a special portion of the body, as a foot, an arm or a hand, feels as if it were on fire. These flashes ordinarily last only two or three minutes, though the time may well seem longer to the person enduring them. They are often preceded or followed by a shivering fit; more frequently followed perhaps by a drenching perspiration. There is sometimes, though I think not often, palpitation of the heart and other nervous disturbances. These flashes occur with most varying frequency—from three or four a day to the same number an hour. Most women pay but little attention to them, but to some, as I have said before, they become nearly intolerable. I know of nothing that will drive them away altogether, but Bromide of Potash, from five to ten grains two or three times a day in plenty of water—about half a tumblerful for each dose—will certainly diminish their severity and frequency.

Both women who are anxious to have children and women who are very unwilling to have them, often suppose themselves to be pregnant at the change of life. The former are much harder than the latter to be persuaded of their error. I remember one woman over fifty who had the year before lost her youngest child, a young girl to whom she was devoted. She was delighted by the prospect of another child, and I had the greatest difficulty in persuading her that she was not pregnant, though she had absolutely no symptoms of it except the disappearance of the menstrual flow. Pregnancy at an age over forty-five is rare, and the rarity increases with each succeeding year; so a woman between forty-five and fifty need not take pregnancy into the account when she notices that the monthly flow has failed to appear. It is true that it is still possible, but it is so very unlikely that it need not be considered.

Diseases Which Are Feared at This Time.—The diseases which most women associate with change of life are tumors, ovarian and uterine, and cancer. Ovarian tumors are much more common in younger women, and, far from being caused by the change of life, are rare at that time. Fibroid tumors of the womb may appear at any time, though they are more common in early middle life. In most cases they are favorably affected by the change, so that I usually advise a woman suffering from one, who is decidedly over forty and not in any present danger, to wait for the change of life before undergoing an operation; for at that time tumors of moderate size often disappear altogether, or at least shrink so as to make no further trouble.

Cancer is a disease of old age, though in some forms it is occasionally seen in young people, or even in children. There is no doubt that it occurs more frequently between the ages of forty and sixty, but it has not on that account any real connection with change of life. With men it also occurs most frequently at that age.

Nervous Disturbances.—The real troubles which are to be directly attributed to the change of life are those of the circulation which I have mentioned and which are all but universal—flooding, which, when it is severe, is almost if not quite always due to some diseased condition which can be removed by surgery; and some nervous disturbances of which I will now speak. Some women have nervous systems extremely sensitive to impressions, especially from the sexual organs. Such women are apt to be depressed and irritable during menstruation, and sometimes perhaps to have hysterical attacks at such times. They are extremely irritable and unreasonable

during pregnancy, particularly towards its close, and such women are apt to suffer from nervous disorders during change of life. They are unreasonable and bad-tempered to such a degree that servants will not stay with them, and the family escape them as much as possible; or they are melancholy, sitting for hours brooding over petty annoyances hardly worth a second thought; or they suffer from a confusion of ideas, find it hard to fix their attention, lose confidence in themselves, and are often tormented by the fear of becoming insane. Very few, comparatively speaking, do become insane, and of those few, unless it is hereditary, the insanity is usually curable. Suicide is not uncommon among this class of patients.

Something may be done for these nervous disturbances by medical treatment. The bowels should be kept freely open, and a long warm bath, where the patient remains for an hour or more in the water, is an excellent sedative. Sleep should be secured at all hazards, even if it becomes necessary to give medicine for this purpose. Often change of air and scene and entire relief from household cares prove beneficial. In its beginning, in many of these cases, much may be done by the patient herself. This sensitiveness of the nervous system to the influence of other organs is a physical, not a mental condition. The impulse to speak the ill-natured word is strong, but is not, at least at first, irresistible. I have known cases of this nervous temperament combined with a strong will and sturdy common sense, where month by month and year by year the impulses were steadily fought down and the expression of them prevented, till at last the battle was permanently won. Unfortunately this combination is rare.

Other Possible Disturbances.—There is another matter to be considered. This is, as I have said, a period of special strain and, when women are not in sound health, the evils lurking in the system are apt to come to the front. A woman with defective heart valves will be apt to suffer from disturbed heart action, palpitations, fainting fits, etc. A woman whose stomach or liver is her weak point, is apt to suffer very much from digestive troubles. There is not often trouble with the lungs, for weak lungs are rather benefited than otherwise by the economy of blood gained by the suppression of the monthly flow, and the lungs do not react easily to nervous disturbances. If the bladder is irritable, it is apt to be troublesome. There will be difficulty in retaining the urine, and sometimes pain in passing it. These troubles are only indirectly owing to the change of life. They are the reaction of weak and sensitive organs to the disturbance of the whole system.

What can be done to pass this critical period with the least possible disturbance? Plenty of gentle exercise should be taken, but also plenty of rest. One should not work to the point of great fatigue, bodily or mentally. The food should be bland and not stimulating—not very much meat, only weak tea and coffee, and that in moderate quantity, and absolutely no wine or beer. The bowels should be kept freely open, and the skin kept in the best possible condition by daily warm, not hot, baths. By this means much of the used-up matter in the system is carried off and the tension relieved. Excitement should be avoided and regular hours kept.

It is very undesirable to marry at this time, particularly for women who have never been married before. The organs, already in a state of more or less disturbance, bear the unaccustomed stimulus of marriage very badly.

Caution.—I have a word of caution to give in closing this subject. It is not safe for every woman above forty to take it for granted that every disturbance of the menses comes from the impending change. In that way diseased conditions, which might at first have been easily remedied, become much more serious by neglect. The increased flow and the dribbling of blood between the periods may be the result of a polypus, which a few twists of the forceps will remove; or of a cancer, for which the only hope is in an early operation; or of some other diseased condition which needs prompt treatment. The change to which the conditions are ascribed may yet be several years distant.

A few months after the flow has definitely ceased the woman's health begins to improve, very slowly at first, and at the same time, in a large number of cases, she begins to put on flesh. The improvement persists until at the end of the second year she has quite commonly better health than she has known for years. The Indian Summer of life has commenced for her, and more often than not long years of usefulness and peace are opening before her.

DISEASES OF WOMEN.

MENSTRUATION.

In order properly to understand this subject, it is necessary first to give a

Description of the Ovaries.—The ovaries are small, somewhat elongated oval bodies about $1\frac{1}{2}$ inches in length, $\frac{3}{4}$ of an inch wide and $\frac{1}{3}$ of an inch thick. They are situated one on each side of and a little distant from the uterus. They are attached to the uterus by ligaments and by the Fallopian tubes. They are a part of the reproductive organs of the female, and furnish the ovum, or egg, which passes through the Fallopian tubes into the uterus. They consist of a large number of small bodies called the Graafian vesicles, named after their discoverer. These small bodies are about $\frac{1}{10}$ of an inch in diameter and are embedded in a framework of tissue. They contain the ovum, or egg, and both the vesicles and ovum are formed as follows:

The ovaries are surrounded or enclosed with certain membranes, and, like all other tissues, these membranes are composed of little cells. After the age of puberty the cells constituting the inner layer are constantly changing. First, they gradually enlarge, then become detached or separated from the membrane, after which they are surrounded by another delicate membrane. The cell and its membrane constitutes a Graafian vesicle. The cell continues to undergo a series of changes until it is transformed into the ovum, or egg. Later, and at regular intervals, some of these eggs rupture the membranes which enclose them and pass through the Fallopian tubes into the uterus.

The tubes which convey the eggs to the uterus are about four inches in length. They are considerably curved in their course; while the ovary is situated at the outer end of the tube, it is only about one inch distant from the uterus. The opening through these tubes is very small—perhaps large enough to admit the passage of a fine bristle. The tubes are composed of three coats. The inner coat is mucous membrane which is continuous with that lining the uterus; the middle is a muscular coat and is continuous from

the muscular walls of the uterus; and the outer coat is formed of peritoneum, the same membrane which lines the abdominal cavity. The tubes join the uterus at the upper or superior angles, one on each side. Really the uterus, tubes and ovaries may be considered as one organ. The different parts are designed to discharge the various duties necessary for the fulfillment of its purpose in life.

The Graafian vesicles and ovum are present in infancy, and even in fetal life. During the early years their blood supply is limited. They remain quiet until near the time of what is called puberty, when their blood supply is increased, and this excites a more active condition. They begin to enlarge, and continue to increase in size until one of them ruptures its membrane or capsule and escapes into the uterus as described. During the time these changes have been going on, the uterus has also received an increased blood supply and the mucous membrane lining its cavity has become highly congested. When the egg drops into the uterus, the vessels of the membrane rupture, there is a flow of blood, and the egg is carried onward and may or may not escape from the body. When this condition becomes established, it occurs at regular intervals and constitutes what is called

Menstruation.—This periodical condition or change naturally occurs once in twenty-eight days. However, from three to six weeks may be normal in exceptional cases. There is an increase in the blood pressure throughout the body, with special tendency toward the uterus and pelvic organs. During pregnancy menstruation is absent, though occasionally it may continue at the regular period for a few months, or in a light form throughout the term. It is also absent during the nursing period.

Cause.—This is Nature's means or method of bringing about certain conditions necessary to the propagation of the human race.

Symptoms. — When occurring normally, the symptoms are few and light. There may be a sense of fullness, heaviness and slight irritability about the pelvic organs. When occurring the first time, in exceptional cases there may be fever, restlessness, nervous phenomena, etc., but these all disappear with the beginning of the flow. When menstruation is painful, when it is excessive or when it is diminished, it is an indication of disease, either local or general.

Menstruation Diminished. — This is a condition where the flow is diminished, but not entirely checked.

Cause.—It may result from exposure, wet feet, insufficient clothing or fright; or a chronic form may result from wasting diseases.

Symptoms.—Occurring in the acute form, fever, constipation, headache, loss of appetite, etc. The symptoms may vary all the way from slight to more serious conditions, and even delirium be present. The symptoms of the chronic form are those of the conditions which produce it.

TREATMENTS.—

What to Do.—In the acute form give Aconite, or such other remedies as are used in fevers, and active cathartics; place the feet in hot water, give hot drinks, and lay hot fomentations across the abdomen. This treatment relieves congestion by equalizing the circulation. If the case becomes serious, a physician should be called.

A. If the patient is healthy, many physicians give no treatment where the flow is diminished or suppressed, but wait until the next regular period. It should be remembered that in some cases there may be considerable irregularity, even in a healthy subject, during the first year or so. Such cases need no special attention.

In the chronic form the treatment should be directed to general improvement.

AMENORRHEA.—Amenorrhœa is absence or suppression of the menses. After the flow has been established it does not take place, or may be retained.

Cause.—There are several conditions which tend to a lowering of the vital forces, and this contributes to amenorrhœa, as: unhealthy surroundings, poor food, indigestion, too much hard work, worry, fright, anæmia, and wasting diseases, especially consumption. By stopping the loss of blood Nature tries to reserve the forces of the patient. Amenorrhœa is present during pregnancy, and after the removal of the uterus or ovaries.

TREATMENTS.—

A. What these cases usually require is that which is best calculated to restore bodily strength and vigor. Improve the hygienic surroundings, give tonics, plain, nourishing food, fresh air and sunshine. It is a mistake in these cases to give remedies merely for the purpose of producing a flow of the menses. *Restore the general system.* This will be the most certain to re-establish the menstrual period.

There is a form of amenorrhœa that is congenital—exists from birth. These cases may be due to the absence or lack of

development of the uterus or ovaries, or to an imperforate hymen—one without opening. If amenorrhea is accompanied by good health and a lively disposition, let the case alone. Such cases occur sometimes, and need no treatment whatever.

B. I use Lloyd's Leontin in 30-drop doses four times a day.—(30).

C. Plethoric (full-blooded) subjects may take the following:

Permanganate of Potash 12 grains.
Petroleum Jelly sufficient to fill 12 No. 2 capsules.

Take one capsule before eating until all are taken, commencing two days before the time for the expected period.—(32).

DYSMENORRHEA.—Dysmenorrhea indicates a difficult or painful menstruation.

Causes.—There are several conditions which produce this trouble or disease, such as congestion, laceration or ulcers; it may be neuralgic or rheumatic in its nature; it may be due to anæmia; or there may be mechanical interference, such as displacement or stenosis. Stenosis in this case means a narrowing of the external opening. It may be membranous, *i. e.*, the lining membrane of the uterus may be cast off in shreds; or, in exceptional cases the membrane may be expelled altogether, giving a complete cast of the uterus. In unmarried women the most frequent cause is stenosis. In this case the pain comes on a few hours or a day or two before the flow, and stops when the flow is established. In married women the most frequent cause is displacement and the inflammation which follows it.

TREATMENTS.—

A. In the case of young girls examination is not justifiable until other means have failed. Give cathartics if needed. If the patient is nervous before the periods give for a day or two 10-grain doses of Bromide of Soda together with 5 grains of Valerianate of Ammonia, every four hours. If there is much fever, give Aconite; if there is a history of rheumatism, give 20 grains of Salicylate of Soda four times a day, and keep the bowels active. If the patient is anæmic, give tonics, out-of-door exercise and nourishing diet. Morphine is seldom required. Any one of the Uterine Tonics given under MISCELLANEOUS MEDICAL RECEIPTS (see Index) will be found a specific in many cases and of great benefit in others, when not due to mechanical interference. Stenosis, prolapses or other forms of displacement, require surgical interference.

B. Put the patient to bed and apply hot water bag or hot poultice to lower part of abdomen. Give foot-bath in hot Mus-

tard water. Evacuate the bowels as early as possible by giving 5 grains of Calomel and by rectal injection of one quart of hot soapy water.

The following combination will control pain and nervousness:

Bromide of Potash.....	4 drachms.
Chloral Hydrate	2½ “
Chloroform Water.....	4 ounces.

Give two teaspoonfuls in a little water every two or three hours.

It is unwise to give Laudanum or other opiates for the relief of this condition, because when they are once inaugurated the patient is very liable to acquire a drug habit—a condition far worse than the original disease. If these attacks are persistent and occur with each menstrual epoch, consult a good physician and allow him to dilate the uterine canal.—(49).

C. Squaw Vine, Fluid Extract.....	½ ounce.
Black Haw, “ “	1 ounce.
Dogwood, “ “	½ “
Hyoscyamus, “ “	½ “
Codeine Sulphate	8 grains.
Simple Elixir, enough to make.....	4 ounces.

Mix, and take 1 teaspoonful three times a day for two or three days before the period commences.—(31).

D. Pulsatilla Tincture... 1 drop every half hour while the pain continues.—(41).

E. Make a tea of Chamomile plant (see chapter on HERBS) and drink three or four times daily for six weeks.—(38).

MENORRHAGIA.—Menorrhagia is a term applied to an excessive menstrual flow.

Cause.—The cause may be inflammation of the uterus, tubes or ovaries; or inflammation of the pelvic organs outside the uterus may cause it. It may be caused by tumors in the uterus or ovaries; or it may be caused by erosion, by subinvolution or by hyperplasia (see DISEASES OF THE WOMB).

TREATMENTS.— /

A. Put the patient to bed and maintain absolute quiet. Give 1 teaspoonful Fluid Extract of Ergot every hour for two or three doses, or 20-drop doses of Tincture of Belladonna, or 10-drop doses of Tincture of Iron. These remedies are valuable in the order given. If the case is urgent, raise the foot of the bed on two chairs and insert small pieces of cotton into the vagina. Excessive flow without any discernible cause may be cured by a long-continued use of Fluid Extract of Hydrastis in ½ teaspoonful doses four times a day.

- B. Fluid Extract Golden Seal..... 1 ounce
 Fluid Extract Ergot..... 1 "

Mix, and take teaspoonful doses every three hours, more or less often, according to the severity of the case.—(31).

- C. Fluid Extract Ergot..... ½ ounce.
 Simple Syrup enough to make..... 4 ounces.

Take 1 teaspoonful every three hours, or oftener if needed. Rest in bed is absolutely necessary if flowing is very excessive.—(42).

METORRHAGIA.—Metorrhagia is usually understood to mean an excessive uterine hemorrhage *between* the menstrual periods.

Cause.—It may be caused by some of the conditions mentioned under *Menorrhagia*, by polypus, cancer, threatened abortion, retained part of the after-birth following labor, or placenta prævia, *i. e.*, where the placenta or after-birth grows directly over the external uterine opening.

TREATMENT.—

The treatment is the same as for *Menorrhagia*. In all cases where the hemorrhage is excessive or where pregnancy is suspected, send for a physician.

GREEN SICKNESS—CHLOROSIS.—This is a term applied to a particular form of anæmia, often distinguished by a greenish-yellow coloration of the skin. It occurs in young persons, chiefly girls about puberty. It is an anæmic (see ANÆMIA) condition of a pronounced type.

Cause.—Disturbances of nutrition beginning with indigestion and constipation.

Symptoms.—The skin assumes a pallid hue, the flesh becomes flabby, and the countenance after the menses, which are either scanty or suppressed, has a greenish-yellow cast. There is no loss of flesh, instead the patient sometimes takes on fat. The feet and legs have a tendency to swell, the patient tires easily, has palpitation on slight exertion, the appetite is usually depraved, the digestion impaired and constipation the rule. *Gastric Ulcer* (see STOMACH, ULCER OF) may occur, and consumption, especially in those predisposed, is a common result.

TREATMENTS.—

The treatment consists in nourishing diet and every attention to the general health. Any of the following remedies may be taken to advantage:

- A. Tincture Chloride of Iron..... ½ ounce.
 Glycerine 2 ounces.
 Simple Elixir, add to..... 4 “
 Give 1 teaspoonful after meals and at bedtime.—(82).
- B. Fellows' Syrup of Hypophosphites 5 ounces.
 Maltine, or any good preparation
 of Extract of Malt..... 10 “
Mix by shaking the bottle, and take a table-
 spoonful after meals and at bedtime—four doses
 a day.
- C. Fowler's Solution..... 2 drachms.
 Fluid Hydrastus..... 4 “
 Glycerine 2 ounces.
 Simple Elixir, add to..... 4 “
Mix. Take teaspoonful four times a day—
 after meals and at bedtime.

D. Blaud's Pills—5 grains each. Take 1 at meal time and at bedtime—four a day.

E. Wyeth's Peptonate of Iron and Manganese. Dose on label on bottle.

Tablespoonful dose of Epsom Salts every morning.—(7).

CONFINEMENT, AND ATTENDANT DANGERS AND DISEASES.

Pregnancy, Signs of.—The following are the signs of pregnancy: Cessation of menstruation; a uniform development of the uterus, the organ beginning to enlarge from the fourth to the sixth week; regular and gradual enlargement of the abdominal cavity, beginning about the third month; morning vomiting, which commences about the fourth or fifth week and lasts for three months, more or less—this is sometimes absent, and sometimes very persistent; gradual enlargement of the breasts, the change occurring about the second or third month—slight soreness may be present, also change of color about the nipples, the skin becoming darker; movement of the child. It should be remembered that any of these symptoms may occur without pregnancy, even imaginary movement of the child; but when occurring together, the case is certainly suspicious and undoubtedly the condition of pregnancy exists. The only positive sign is hearing the fetal heart beat. Usually this can be heard about the fourth month.

To Calculate Time of Confinement.—The usual method is to count nine months from the cessation of the last menstrual period and add one week. This is equivalent to 280 days. The limits are said to be from 250 to 300 days. Some authorities put

it as high as 317 days. There is always a period of uncertainty of one or two weeks because the exact time of conception is seldom known.

ABORTION—MISCARRIAGE.—In law and medicine *Abortion* is generally understood to mean the expulsion of the fetus from the uterus at any time before viability, or before the child is capable of maintaining life. By some abortion is applied to the expulsion of the fetus during the first three months of pregnancy. From the third to about the seventh month is called *Miscarriage*; from the seventh month to maturity or full term is called *Premature Labor*, or *Premature Delivery*. With some the term abortion is associated with the idea of criminality, that is, that abortion is brought on intentionally; hence the term has fallen somewhat into disuse and "miscarriage" has taken its place.

Causes or Conditions that Produce Abortion.—Disease or injury of the fetus; disease or injury of the mother; disease of the placenta, or what is commonly called the after-birth; hemorrhage beneath and separation of the placenta from its attachment to the uterus; syphilis; rupture of the membrane which encloses the fetus, either accidentally or intentionally; high temperature from some forms of fever; any conditions producing congestion and inflammation of the pelvic organs and uterus; and irritation of the uterus from tumor growth. Death of the fetus may or may not result in abortion. Severe mental shock is said to produce abortion in some cases. It is sometimes produced by drugs. Perhaps one of the most common causes of abortion is inflammation of the mucous membrane lining the uterus. This membrane is sometimes called the endometrium. For cause of such inflammation see INFLAMMATION OF THE UTERUS.

Symptoms.—The symptoms are not unlike those of ordinary labor. The difference is governed somewhat by the age of the fetus. There is pain, which may be located in the back, in the front of the abdomen, in the groins, or may be most prominent in the uterus itself. These same variations often occur in regular labor. There is dilatation of the opening into the uterus. Hemorrhage is usually severe, because the placenta or after-birth is firmly attached to the walls of the uterus and is torn loose rather than separated naturally, as in the case of full term.

TREATMENT.—

The treatment in a case of abortion is the same as that following regular labor (see LABOR).

Dangers of Abortion.—During the early stages of pregnancy the membranes which surround the fetus and the placenta are more delicate in structure than the mature growth. The placenta is firmly attached to the walls of the uterus, hence the danger of some parts being torn off and remaining adherent to the walls of the organ. Such remaining tissue would die, decompose, and the poisons from it absorbed into the circulation would produce what is called *Puerperal Fever* or *Septicæmia*; in other words, blood poisoning would occur. Sometimes such remaining tissue is said to become organized, *i. e.*, surrounded and permeated by bands of new connective tissue fibers. Later, blood vessels are supplied, and the growth continues and results in what is called a *Fibroid Tumor*, meaning a tumor of hard tissue. In any case where parts of the after-birth remain, the uterus remains large and contains too much blood. This condition is described under *Subinvolution*. The inflammation resulting from retained parts of the after-birth may extend to the abdominal cavity and produce *Peritonitis*. The greatest danger exists from the third to the sixth month, because the placenta is most firmly adherent at this time.

Another reason why abortion is more dangerous than labor at full term is that it is contrary to nature; and there are many ways, impossible to describe, in which the patient may suffer from some form of weakness or disease as a result of it. This is especially true in cases where abortion occurs more than once.

To Prevent Abortion.—In case of threatened abortion the patient should lie down and remain absolutely quiet. The foot of the bed should be raised and placed on two chairs, and $\frac{1}{4}$ grain of Morphine should be given with a hypodermic needle. Visitors should be kept out of the room, and all excitement avoided. These cases need the services of a physician. If a case has progressed too far, or if the membranes have been ruptured, delivery cannot be prevented. There are other means of treatment recommended, but we have always adopted this plan with a reasonable degree of success.

When Should Abortion, or Premature Labor, Be Produced.—When the pelvis is so deformed that a full grown child cannot be delivered after the seventh month. At seven months the child may live. When the pelvis is deformed, some recommend allowing the case to go to full term, and then open the abdominal cavity and the uterus, remove the child and close up the wound. This is called *Cæsarian section* or *Cæsarian operation*, so-called because it is said Julius Cæsar was thus delivered. Premature labor is also advised by some in case of tumor growths in the abdominal cavity; when the kidneys become diseased and the

urine contains a large amount of albumen; and when there is what is called *placenta prævia*, that is, where the placenta, or after-birth, grows directly over the opening into the uterus, and this condition is followed, after the sixth or seventh month, with frequent profuse and dangerous hemorrhages; also advised in some cases of Puerperal Convulsions occurring before time for normal labor.

PLACENTA PRÆVIA.—*Placenta Prævia* means that the placenta, or after-birth, grows more or less directly over the opening in the lower part of the uterus. Normally, it grows near the top. In *Placenta Prævia* there is usually more or less frequent and profuse hemorrhage after the sixth or seventh month; sometimes it occurs earlier. The later hemorrhage makes its appearance, the more favorable the case. *Placenta Prævia* does not often occur. Some authorities claim that the percentage is one to one thousand. Others claim that the percentage is even less.

Cause.—The placenta, being placed over the lower and smaller part of the uterus, it follows that, as the organ dilates to accommodate the growth of the child, and more especially since the growth of the placenta and enlargement of the uterus are unequal, the placenta is occasionally torn loose at some point; hence the hemorrhage. *Placenta Prævia* is always considered a serious condition, because the uterus dilates with the approach of labor and the placenta is torn loose, as described. Heretofore the uterus has expanded or enlarged gradually, but now it dilates rapidly and the torn vessels are left wide open. As the blood is pouring from these, others are being constantly ruptured, and the condition continues to grow worse until dilatation is complete; and even then the placenta is in the way of the child because it is below and the child is above.

Symptoms.—Hemorrhage, more or less profuse, which may occur at any time, day or night. The hemorrhage differs from that in threatened abortion from the fact that there is no pain present. The pain produced in threatened abortion is due to contractions of the uterus; in hemorrhage from *Placenta Prævia* there is no contraction. The hemorrhage is due to separation of the placenta, as stated above.

While hemorrhage is a symptom of *Placenta Prævia*, it does not necessarily follow that this condition is present, and especially if the hemorrhage occurs at what would have been the time for the regular monthly period. There are cases where the regular monthly flow occurs with more or less regularity during the whole course of pregnancy.

TREATMENT.—

In a case of labor with *Placenta Prævia*, it is usually necessary to deliver the child as rapidly as possible. It is expected that there will be a good deal of hemorrhage, and the hope of a successful termination lies in the rapid delivery followed by contraction of the uterus. The contraction closes the torn vessels and checks the hemorrhage. It is necessary to separate the placenta forcibly and rapidly. This must be done by mechanical means. If the head of the child is presenting, apply the forceps and deliver at once; or a foot may be grasped by the hand and delivered without delay. In these cases dilating the lower part of the uterus is sometimes difficult, because, following the growth of the after-birth at this point, the uterus has become thickened and rigid and dilates with difficulty. It is needless to say that these cases require a doctor from the first. The doctor should be composed and deliberate, and at the same time energetic and thorough. Having his mind made up regarding the dangers of the case, he should proceed with energy and determination. Cases of *Placenta Prævia* are reported where no hemorrhage occurs, not even during labor. If hemorrhage occurs early and is profuse and persistent, an abortion is sometimes recommended.

LABOR.—Labor is the process whereby the child and its placental attachments are expelled from the uterus. What is called the *first stage* of labor consists of dilatation of the opening into the uterus. The *second stage* consists of the expulsion of the child, and the *third stage*, the expulsion of the placenta, or after-birth, and the contraction of the uterus. The first and second stages are largely theoretical. In the great majority of cases perhaps the attending physician does not know when one ceases and the other begins. In any event such division is unimportant and possesses no value whatever.

Symptoms.—The first indications of approaching labor are said to occur about two weeks before it actually begins. At this time the uterus is said to change its position by settling lower down in the pelvic cavity. This is said to afford great relief from previous annoyances, and that walking, breathing, etc., become easier. While the change in position probably occurs, as stated, it is our experience that such change is seldom noticed by the prospective mother.

The pains are caused by the contraction of the uterus. At first the organ is unaided in its efforts, but later the muscles of the abdominal wall are brought into action and undoubtedly aid materially in the delivery. Sometimes light pains, and even those that are quite severe, occur with considerable regularity at times for several days before labor actually begins; sometimes

they do not. Usually light pains are present more or less for perhaps twenty-four hours before actual labor commences. When the time comes that Nature has designed for the uterus to free itself, or for the child to be born, the pains become more regular and severe. At first they may vary from one-half hour to twenty minutes apart, and last perhaps for one-half to one minute. Gradually they become longer, harder and more frequent.

During what is called the *second stage* the "bearing down" pains occur. During this time the patient is conscious of an effort to expel the child from the uterus, and unconsciously summons to her aid all her strength. This is generally satisfying from the belief that she is going to succeed. The pains may be most severe in the back, in front, or may seem to be confined largely to the uterus. Sometimes even during the most severe part of the trial the patient will suddenly ask for a drink or something to eat. Such requests should always be granted.

In most cases, under proper management, severe pains do not continue for more than one or two hours before the child is born. As soon as this event occurs and the child is found to be alive and normal in appearance, the cord should be tied with a strong thread about $2\frac{1}{2}$ inches from the abdomen of the child. It should be tied a second time about 1 inch further distant, and cut between the knots with a pair of sharp scissors. The child should then be wrapped in a warm flannel blanket and placed in another room that has been well warmed and ventilated.

After the event is over the mother experiences a great sense of relief, and sometimes desires to be let alone for a short time. In other cases there is no particular wish or desire. After waiting about twenty minutes, if the after-birth is not expelled and there are no pains indicating that it is going to be expelled, gentle manipulation should be made over the uterus, which can be plainly outlined. One hand, or better, perhaps, both hands, may make gradual and uniform pressure upon the organ. In a short time, usually a few minutes, this will stimulate further contraction with the result that the after-birth will be separated from the inner surface of the uterus and can be easily removed. The cord should not be used as a means of delivering the after-birth, and only slight traction should be made upon it. It is probably always safe to exert a force equal to lifting a one-pound weight. Following the expulsion of the after-birth, the manipulations of the uterus should be continued until it contracts to a reasonable size—perhaps the size of a cocoanut. Such manipulation not only eliminates the placenta, but also aids in eliminating any detached parts, blood clots, etc.

Reducing the size of the uterus not only prevents hemorrhage, but renders the organ natural and places the mother beyond possible danger.

TREATMENT.—

In our experience with labor cases we have never given any particular attention to rules or theories of any kind. In caring for a large number of cases we have, with two exceptions, never spent more than two or three hours with any single case, and usually a much shorter time. We have never used the forceps—never have had occasion to do so. The following is our method of procedure:

First, instruct the nurse to give a rectal injection and secure thorough action of the bowels. Also give a vaginal douche of warm water, containing a little Boric Acid. Next, by careful manipulation gradually dilate the opening into the uterus. This effort stimulates uterine contractions, usually within a few minutes, and the contractions aid in dilation. The child and more or less water are contained in a membrane forming a sac. The water is more freely movable than the child, hence with each contraction of the uterus the water is forced against the opening, rendering the membrane tense at that point. The membrane with its contained water produces pressure from within, which not only aids in dilating the uterus, but, the pressure being uniform, insures equal expansion. As soon as the opening is sufficiently large, rupture the membrane, allowing the water to escape. The way being clear and the contractions strong and active as a result of the foregoing, delivery follows rapidly.

We understand that the claim might be made that such rapid delivery is dangerous because of its liability to rupture the external parts. However, in our experience rupture has occurred only two or three times, and then it was slight. When rupture occurs it should be repaired at once.

There are, of course, cases where, as a result of some deformity, abnormal presentation or other cause, this or any other method of managing a case might prove disastrous.

Note on Ergot.—We are aware that many physicians use Ergot in confinement cases, but we have never had a case where we thought it necessary to use this remedy. True, it may aid in the contraction of the uterus after the child is born, but if the organ has been freed from all parts of the after-birth, it will contract without it; if it has not been so freed, it will not and should not close. Ergot may contract the circular fibers about the *lower end* or neck of the uterus and thus prevent proper drainage of blood clots or any remnants of the after-birth, and prove a most dangerous remedy.

We were early taught to believe that Ergot was not only an important, but in many cases a necessary remedy in labor, but after a careful survey of the field and gathering all the information we could on the subject, we became convinced that it did more harm than good. By a study of its history we have been able to trace many cases of Child-Bed Fever to the use of Ergot; at least we were unable to detect any other cause. Certain it is that this trouble results oftenest in those cases where Ergot is used.

Caution.—Too much cannot be said regarding careful attention to physical exercise following confinement. Several weeks—perhaps two months—are required for the uterus to regain its normal size and function. Perhaps one of the greatest reasons for chronic enlargement of the uterus, accompanied with the many associate symptoms and conditions, is the direct result of getting up too soon, or more especially of resuming active duties before the physical strength is able to meet the demands of such duties. This is more apt to be the case following abortion, because with many abortions are looked upon with less consideration of their importance; in fact, we have known many cases where, following abortion, the patient was up and in the discharge of her routine duties in a few days. This is contrary to all physical law, and those indulging in such practice are sure to bring on derangement and disease.

FLOODING.—By flooding is meant hemorrhage from the uterus.

Causes.—More or less hemorrhage may result from a polypus (see TUMORS). Hemorrhage may result from *Cancer*, especially during the late stages. It more frequently results from *Abortion* (see ABORTION), from *Placenta Prævia* as explained under that head, or from failure of the uterus to contract after delivery of the child, as explained under *Labor*.

TREATMENTS.—

What to Do Till the Doctor Comes.—Place the patient on a bed, laying her on her back. Use no pillows under her head nor anything to raise it. Raise the foot of the bed by placing blocks, or something of the kind, under it. Get the doctor as quickly as possible. Have hot water on hand when he arrives.

A. Following Confinement.—Where there is dangerous hemorrhage following delivery, it may be almost instantly checked by making pressure on the abdominal aorta. It will be remembered that this is the large artery which comes from the heart. It passes down through the chest and abdominal cavities to about three-quarters of an inch below the umbilicus, or navel, and there

divides into two branches. Pressure should be made *just at or a little above* the point of division. In many cases, by maintaining firm pressure at the point indicated for some time, the hemorrhage will not return.

Another means of treating hemorrhage is by giving $\frac{1}{100}$ or $\frac{1}{50}$ of a grain of Atropine with a hypodermic needle. As stated many times before, this dilates the small vessels all over the body and allows the blood to drain away from any congested part. Mechanical pressure may be made, as stated, while the Atropine is being prepared, administered and taking effect. However, all this requires but a short time.

Washing out the uterus with hot vinegar, packing it with ice, crowding tampons against the lower end of it and other methods are advised; but we have always used the first named, and have succeeded so well that we feel safest in recommending that treatment. In all cases it is well to raise the foot of the bed, placing the posts on two chairs.

B. When following confinement, administer one or two ounces of strong vinegar. Knead womb till contraction occurs and send for a doctor, keeping a firm hold on womb in the meantime. Raise foot of bed a foot or two.—(60).

C. Give hot salt water injections (tablespoonful of salt to quart of water) as hot as can be borne by the patient. Use large quantity. Repeat if the hemorrhage returns. Give patient Cinnamon tea to drink. Raise foot of bed to give the body slope towards the head. These means will control nearly every case by the time of arrival of the physician.—(15).

CHILD-BED FEVER—PUERPERAL FEVER—SEPTICÆMIA.—*Cause.*—This is caused by the retention and decomposition of the after-birth, or fragments of it, following labor. The poisons produced by the decomposing remains are absorbed into the circulation, and *Septicæmia*, or *Blood Poisoning*, follows. When it occurs, it usually makes its appearance from two to four days after confinement.

Symptoms.—There is a sense of chilliness or a severe chill, and high temperature, which develops rapidly and may increase to 105 or 106, or even higher. The pulse ranges from 130 to 160. At first the face is flushed. There is no pain and the mind is clear. Among the early symptoms are soreness of the uterus and fetid odor produced by the discharges. Later the discharge is diminished and the secretions of the breasts are lessened.

The uterus is partially covered with the peritoneum that lines the abdominal cavity, hence peritonitis may follow. In this

case the temperature would be slight, and might even be sub-normal, though the pulse would be rapid. The abdomen would be more or less distended. Pain would be slight.

TREATMENT.—

First, clean out the uterus by mechanical means. Be sure that all placental remains and blood clots are removed, then wash out the organ with 2 quarts of warm water. Twenty or 30 drops of Carbolic Acid may be added to the water, or 3 or 4 drachms of Boric Acid. Repeat the douche in five or six hours; after this, perhaps once a day for a few days, although this part of the treatment should be governed by the temperature and by the odor of the eliminations.

The foregoing is the all-important method in treating cases of this kind. Drug medication is absolutely without avail so long as the poisons contained in the uterus are being absorbed into the system. The bowels should be kept active, the most nourishing food should be given, and every attention paid to free ventilation. Stimulants and tonics should be given if needed.

PUERPERAL CONVULSIONS.—This is a form of convulsions that occurs before, during or after labor. In appearance the convulsions sometimes resemble epilepsy. While they are the result of uræmic poisoning, they differ from uræmic convulsions at other times, and especially if occurring during labor, the time they most frequently occur. In uræmic convulsions occurring at other times, the temperature is below normal; occurring during labor, there is fever, and the convulsions may follow each other in rapid succession; or the first one may prove fatal, the patient never regaining consciousness.

Cause.—The cause is the retention in the system of urea and other waste products usually eliminated by the kidneys. Mechanical interference from the enlarged uterus pressing upon the kidneys produces irritation and prevents their normal action with the result that they fail to eliminate the usual amount of waste material, and urea gradually accumulates in the system until convulsions occur.

Symptoms.—If the urine of a suspected patient was examined, albumen would be found present before there was any danger of convulsions. As a rule such examination is not made, and the first symptom of the trouble is the first convulsion or spasm. The body becomes rigid, the face blue, the eyes roll up in the head, there may be spasmodic twitching of the muscles of the face and hands, giving a ghastly appearance, and altogether death seems imminent. Or, the convulsions may come on gradu-

ally. There may be a gradually increasing nervousness, accompanied with spasmodic twitching of individual muscles, until suddenly the whole body is seized in one convulsive grasp.

TREATMENT.—

The only hope in these cases is elimination. The poison must be eliminated rapidly or death may result.

These cases require the services of a physician from the first. Temporary relief should be given by the inhalation of Chloroform. If labor has not terminated, it should be aided by mechanical interference and the child delivered as soon as possible. To control the convulsions any one of the following methods is recommended, and should be applied immediately after delivery, or sooner if the convulsions return.

Give $\frac{1}{2}$ grain of Morphine with a hypodermic needle, and in thirty minutes give $\frac{1}{4}$ grain additional, if needed; or, give $\frac{1}{15}$ grain of Veratrine in the same manner; or, give 40 grains of Chloral by the stomach, largely diluted. The Chloral may be repeated in one hour, if needed, or, if some improvement is noticed, $\frac{1}{2}$ the amount—20 grains additional—may be given.

Some claim to control convulsions best by bleeding. This also aids in eliminating poison. At least one pint of blood should be taken. This treatment is justifiable in the strong and robust, but not in the weak and anæmic. It is understood, of course, that if bleeding is resorted to the Morphine, Veratrine or Chloral will not be given.

As a means of elimination, give $\frac{1}{3}$ grain of Pilocarpine with a hypodermic needle. Pilocarpine will produce profuse sweating, and is one of the most rapid means of elimination. This dose of Pilocarpine is depressing, however, and, if used, stimulants should be added—Digitalis, or hot sling, or other suitable or convenient stimulant. The sling will aid in sweating, the Digitalis will aid in elimination by the kidneys; either will stimulate the heart. Perhaps both may be needed.

As an active cathartic, give 3 drops of Croton Oil in a little Glycerine or water, and place on the back of the tongue; or give from $\frac{1}{8}$ to $\frac{1}{4}$ grain of Elaterium. If these are not at hand, give a large dose of Castor Oil, or 20 grains of compound Jalap powder, or 20 grains of Scammony. Give rectal injections of hot soapy water to hasten the action of the bowels.

MILK LEG.— In this disease the leg becomes swollen and light in color, and the flesh is firm and resistant to the touch.

Cause.—It oftenest follows pregnancy, and is caused by the enlarged uterus pressing upon the veins and checking the return circulation. The trouble usually commences about ten days or two weeks after confinement.

Symptoms. — First, irregular chills, and malaise, meaning general bad feeling. This is followed by pain in the affected leg, and perhaps in the abdomen. The chills become more distinct. The limb begins to swell and there is fever, which is first remittent and later, intermittent. The limb becomes greatly swollen and the skin is hot, white and tense. Later the veins feel like cords beneath the finger, and an abscess may form in the course of a vein. The swelling is confined mostly to the layer of connective tissue just beneath the skin, hence the abscess would be near the surface and would break externally. The swelling may be so severe that gangrene results. This would cause *Septicæmia*, or blood poisoning. Or blood clots may form and be converted into pus. The effects of these clots would be carried away by the circulation, and this would result in *Pyæmia*, meaning pus in the blood. Recovery is slow and tedious, and the affected limb remains weak for some time.

TREATMENT.—

The patient should lie in bed and keep the limb elevated. Keep the bowels active. Apply Mercurial ointment and cover with a light bandage. This application should be repeated every second or third day. Internally, give 1-drop doses of Tincture of Aconite or Fluid Extract of Veratrum every hour until the temperature is lower. Sustain the patient with a nourishing diet. Give stimulants and tonics as needed. After there is improvement, give some form of Iodine—Syrup of Hydriodic Acid, Iodide of Ammonia, Iodide of Arsenic, or some other preparation. This will need to be continued for some time—weeks, and perhaps months—in order to free the system of the products of inflammation. Such a case requires the attention of a doctor. Give Seidlitz Salts freely from the first.

DISEASES OF BREASTS.

INFLAMMATION OF — ABSCESS OF — MILK FEVER—“BROKEN BREASTS.”—The mammary glands for the secretion of milk in the breasts consist of ducts, ten or twelve in number each, called lactiferous, meaning milk-bearing. These ducts terminate externally at the nipple; internally, they branch into minute tubes like the roots of a tree. After delivery the increased nutrition that Nature had previously secreted in the uterus is diverted to the mammary glands for the sustenance of the child.

Cause.—If it happens that there is an excess of secretion in the breasts, the milk tubes become choked and distended with it. This may result in an inflammation of the glands, and

in some cases the patient is subject to a sharp febrile attack, called *Milk Fever*. Inflammation may also result from checking the flow of the milk too early, from exposure, from mental disturbance, as worry, fright or undue excitement; also from external injury or pressure from too tight clothing.

Symptoms.—Severe local pain, increased by pressure, is caused by the inflammation, and upon examination there will usually be discovered a hard swelling. The tendency is towards suppuration, the fever increasing with the formation of the *Abscess*. If the abscess breaks, the condition is spoken of as "*Broken Breast.*"

TREATMENTS.—

A. While hot poultices or heat in some form is most excellent treatment, always safe and the method usually employed, cold is also valuable if applied early. The first *real* evidence of inflammation of the breast is the presence of one or more small hard lumps. If a thin sack of ice is laid over the breast at this time and *kept there*, it will prove very effectual; in fact, applied early, it is the ideal treatment. There need be no fear about taking cold. Of course, the patient may catch an ordinary cold at this particular time, but she will not do so any more readily because of the ice pack over the breast. *A laxative should be given early.*—(82).

Note.—Where there is evidence of inflammation of the breast and poulticing is decided upon, the applications must be thorough. Gradually increase the heat as long as can be borne. The poultices must be changed often, depending upon the size—once in five or ten minutes. This work requires the undivided attention of an intelligent nurse.

If the case is seen early, the application of an ice bag, as recommended, will give most satisfactory results.

B. Sometimes the child does not take all the milk, in which case inflammation may result, and, frequently, an abscess. Use a breast pump. As soon as the milk is drawn, relief follows. If an abscess forms, treat as described under ABSCESSSES.

C. Efficient support by bandage passing over opposite shoulder. Moist heat applied by poultices or by large pancakes with a central hole for the nipple. Free opening and drainage in case of suppuration.—(60).

D. Apply a breast binder that will hold up breasts. Heal sore nipples as rapidly as possible. If they show signs of gathering, apply hot poultices all over the breast, except the nipple. If an abscess forms, open at once.—(13).

NIPPLES.—The nipples during nursing are subject to excoriation, or cracking, making them extremely tender and causing much pain when the infant is nursing. These excoria-

tions are obstinate to heal from the fact that they are constantly irritated, both by the clothing and by the action of the child in nursing. It sometimes occurs that the excoriations become ulcers if great care is not taken to protect the tender part.

TREATMENTS.—

A. Where the “cracks” occur, there is always some swelling or distension, however slight—the cells constituting the outer layer of the skin do not protect the deeper layer or true skin, and it is the exposure of this true skin to the atmosphere that causes burning and smarting. In a word, this constitutes sore nipples. All that is needed is some unirritating substance to cover over until a new layer of cells has time to form. Subnitrate of Bismuth made into a paste with water is one of the best remedies that can be applied to these painful conditions. It is non-irritating, protects the deeper layer or true skin, and gives opportunity for the natural protection to form, *i. e.*, the new layer of cells. The Bismuth is not only harmless to the child, but it is a benefit to the mucous membrane of the mouth, offering the same protection here that it does to the nipples. Another advantage in using Bismuth is that it has no taste.

B. In all cases of sore nipples the child’s mouth should be washed several times a day with pure water, or, what is better, 2 ounces of water containing $\frac{1}{4}$ drachm of Boric Acid. Dust the irritated parts with Subnitrate of Bismuth.—(82).

C. Tablespoon heaping full of Catnip (use leaves and small sprigs only) and sweet cream enough to make paste. Mix and simmer for a day, then strain close and stir till cool. After nursing wash nipples with Castile soap and warm rain water and apply paste.—(14).

D. Wash nipples with Borax water after each nursing, then cover them with Zinc Ointment and protect with soft cotton till next nursing time. If this makes them hard or cracks them, use Cosmoline or fresh mutton tallow every other time. Cleanse before nursing. Let babe nurse only every three hours, and only one breast at a time. If not better soon, get nipple shield for babe to nurse through.—(13).

E. Tannic Acid..... 2 drachms.
Glycerine..... 2 ounces.

Mix, and apply locally every two to four hours.—(46).

BREASTS OF INFANTS, MILK IN.—Shortly after birth a secretion of milk-like fluid sometimes takes place in the breasts of infants of either sex. This occasions some inflammation and swelling, but it is a normal condition and does not require attention.

TREATMENTS.—

A. Let them alone absolutely. Avoid all rubbing, or any kind of application. Above all, do not allow any one to squeeze out the milk. They will give no trouble if let alone.—(13).

B. Let them alone. If swelled, hot or inflamed, apply a snug-fitting bandage of adhesive plaster.—(7).

DISEASES OF THE WOMB.

The uterus is subject to disease the same as other structures. Inflammation, tumor or cancer may attack this organ. Inflammation, which may be due to displacement or to other cause, is the most frequent affection. *The treatment of any of these conditions cannot be successfully applied except by a physician.*

CONDITIONS RESULTING FROM DISPLACEMENT.

Retroflexion.	{ The uterus is flexed or bent at a sharp angle.
Retroversion.	{ The uterus is slightly bent out of its natural position, usually backward.
Prolapse.	{ When the uterus is not maintained in its normal position, but is allowed to sink lower in the pelvic cavity by reason of weak ligaments; or when the organ is enlarged and sinks from its own weight.
Inversion.	{ As the name implies, the uterus is turned wrong side out. The inversion may be partial or complete. Inversion rarely occurs.
Subinvolution.	{ When the organ fails to contract to its natural size after labor, but remains large and contains much blood.

CONDITIONS RESULTING FROM INFLAMMATION.

Erosion.	{ Inflammation and ulceration of the neck of the uterus.
Hypertrophy or Hyperplasia.	{ This is an increase in the size of the uterus.
Atrophy.	{ This is a decrease in the tissue of the uterus.

TUMORS.

(Tumors are named according to their location).

Intramural.	{	Developed within the substance of the uterus.
Polypus.	{	A tumor commencing just beneath the mucous membrane which lines the uterus.
Subserous.	{	Just beneath the outer surface.

DISPLACEMENTS.

The uterus is about 3 inches long, 2 inches wide and 1 inch thick. It is shaped like a pear slightly flattened, with rather prominent rounded corners on either side toward the larger end. It is placed about the center of the pelvic cavity, and its natural position is nearly vertical, with the large end up. The lower or smaller end, called the neck, rests within the vagina, which aids in giving support.

The abdominal cavity is lined with a thin membrane called the peritoneum, which has been mentioned before. The uterus is placed below the peritoneum, yet its upper part is covered by this membrane. Stand a pear on a table with its large end up, cover with a handkerchief and allow the handkerchief to drop around the sides of the pear and its lower borders to extend outward over the surface of the table, and it will represent the peritoneal covering of the uterus. At the sides, front and back, the peritoneum is thrown into folds. These folds include fibers of the surrounding connective tissue, also muscle fibers, which are continuous from the uterus. One end of the folds is attached to the uterus, and the other end to the sides, front and back of the pelvic cavity, and constitute the ligaments which support the uterus. It will be seen that the support is not rigid and that the uterus is subject to considerable free movement. For instance, in lifting or straining the uterus would be pressed downward; when such pressure ceases, it would resume its natural position. It may also be displaced backward by a full bladder. Such displacement is perfectly natural, causes no trouble and does not indicate disease. The displacements that do cause trouble and that indicate disease are *Retroflexion*, *Retroversion*, *Prolapse* and *Inversion*.

RETROFLEXION.—When the upper end of the uterus is bent over backwards and the bend forms an angle at the junction and neck of the uterus, which corresponds to the body and neck of the pear, it is called *Retroflexion*. In this case the uterus is also rotated more or less on its long axis, so that while the upper and larger end is bent backward, the lower end projects forward.

Cause.—In most cases it is the result of a large uterus—one that did not contract properly after labor, or of getting up too early while it was still large—before the uterus had had time to contract. In such cases the ligaments mentioned are not able to give the support needed. Another cause is laceration of the lower end of the uterus during labor. The result is more or less enlargement, and this causes a relaxed condition of the ligaments. It may also be influenced by constipation or by tight lacing. It may be due to a generally relaxed condition where the body is poorly nourished. Sometimes the displacement is sudden, and is brought on by jumping out of a buggy, stepping down out of a chair, or sudden lifting or straining; but, of course, the conditions allowing such displacement existed before.

Symptoms.—When occurring suddenly, there is a sharp pain, which extends to the back. There is an irritable bladder and general bad feeling, and the patient feels that there is something wrong, but does not know what is the matter. When coming on more slowly, and in a chronic form, there is the same general bad feeling and sense of weight, dragging pain, pain in the back, headache and other symptoms given under the head of INFLAMMATION OF THE UTERUS.

TREATMENT.—

First of all, the organ must be replaced and maintained in its natural position. This requires the services of the doctor. The organ must be supported by tampons. If there is much inflammation and pain, this should be treated first and the organ replaced later. Large hot vaginal douches should be used twice a day. Saline laxatives, in the form of Seidlitz Salts or some other remedy of a like nature, should be given. The patient should avoid heavy work, lifting, straining, or anything that tends to bear down on the uterus. These cases generally need nourishing diet and attention to the general health to overcome the relaxed condition of the tissues.

RETROVERSION.—Retroversion differs from Retroflexion only in being a lesser displacement. There is no strictly dividing line between them. The symptoms correspond to the extent of the trouble. Undoubtedly retroversion occurs more frequently than other forms of displacement. It cannot be otherwise, because retroflexion, or any other serious displacement, must necessarily follow a milder condition. There are probably many cases of retroversion, or slight displacement, that pass unnoticed. When the condition becomes more serious, an examination reveals the true state.

PROLAPSE.—When the uterus is not maintained in its normal position, but is allowed to sink lower in the pelvic cavity by reason of weak ligaments, it is called *Prolapse*. The prolapse may be partial or complete. When complete, the uterus is entirely expelled. This condition is called *Procidentia*.

Cause.—The cause of prolapse is a large uterus and weakness of the ligaments. Weak ligaments may be the result of hard work, general debility, being too much on the feet, of disease or injury, or may follow labor where the patient has not made a complete recovery and where the uterus has remained large and heavy. This is called *Subinvolution*. Perhaps this is the most frequent cause. Prolapse may also be due to the increased weight caused by tumors. It is sometimes met in old women, being the result of a general relaxation of the system. *Procidentia* is caused by an exaggeration of the conditions named.

Symptoms.—A sense of weight and pain in the pelvic cavity. Oftentimes the pain produces a dragging sensation, and there is a tired, worn-out feeling, a lack of ambition, pain in the back, headache, and other symptoms given under the various displacements, also those given under the head of *Subinvolution*. The symptoms vary according to the extent of the displacement.

TREATMENT.—

First, the patient should remain in bed. Take a hot douche twice a day while lying on the back, using two or three quarts of hot water each time. Dissolve $\frac{1}{4}$ ounce of Boric Acid in the water each time. Support the uterus with tampons. If the organ is large, give $\frac{1}{2}$ teaspoonful of Fluid Extract of Hydrastis four times a day. The bowels should be kept active, and daily baths should be given, followed by brisk rubbing, which should be continued until the surface is a bright red. Keeping the bowels active and the blood well brought out to the surface aids largely in equalizing the circulation, and thus in relieving the congestion, also inflammation if it is present. Attention should be given to food, ventilation, hygienic surroundings, etc.

INVERSION.—Inversion is the term applied where the uterus is turned wrong side out. This may be partial or complete.

Cause.—The uterus is large, and there is relaxation or a failure to contract at some particular point. The portion first involved is usually at the highest point of the organ. It may be caused by the pulling of the cord in the efforts to remove the after-birth; it may be caused by a short cord, where, following delivery of the child, the body of the uterus would be drawn inward. It may be caused by an adherent placenta or after-

birth. This may remain firmly attached at some point, and the efforts to remove it may cause the infolding of the uterus. As soon as the uterus begins to fold inward, the rest of the organ contracts upon this portion and tries to expel it, the same as it would a polypus, a blood clot, or any other foreign body.

Symptoms.—The first symptom is a sharp, sudden pain, followed by more or less hemorrhage and a dragging sensation. If the infolding is slight, the symptoms will be slight. Later there is a discharge of mucus and pus, or pus and blood. The organ remains large.

TREATMENT.—

The treatment is mechanical. Give hot douches. Support the organ with tampons. The patient should remain in bed. Attention should be given to the bowels, also to the bladder, as spasm of this organ might follow. If inversion is complete, the uterus would appear externally. In this case grasp the organ with the hand, make firm pressure with a view of lessening its size, and try to replace it. If this is impossible, some recommend waiting a month or more and then renewing the attempt; others advocate removing the organ at once. If replacement is impossible, we advise the latter.

SUBINVOLUTION.—This is the condition where the organ fails to contract to its natural size after labor—where it remains large and contains too much blood.

Cause.—It may be caused by retained parts of the after-birth, by a lack of muscular power, or by temporary paralysis due to distension and pressure. The cause may be general weakness or exhaustion, or may be the result of fright where the patient has been left alone during confinement. The last would produce a paralyzing effect upon the nervous system.

Symptoms.—The symptoms may be hemorrhage, more or less frequent and increased at the menstrual period. Examination shows the uterus to be abnormal in size. There is pain in the back, headache, and there may be palpitation of the heart and many other nervous symptoms. Constipation may be present, also more or less bloating of the abdominal cavity. There is a sense of weight in the pelvic cavity, which is made worse by the patient's being on her feet and trying to do active work. Following such efforts the symptoms mentioned will be increased until the patient may develop a seemingly unreasonable nervousness. Should the trouble become chronic, it may lead to *Hypertrophy*, or overgrowth.

TREATMENT.—

In this condition rest is of the first importance. The patient should lie down several hours each day, and should not attempt any active physical exercise or hard work; although light exercise or light work, not carried to the point of fatigue, would occupy the mind and doubtless be of advantage. Vaginal injections of hot water should be administered twice a day—night and morning—using at least 2 quarts of water each time—4 quarts would be still better. Internally take $\frac{1}{2}$ teaspoonful of the Fluid Extract of Ergot, or the same amount of the Fluid Extract of Hydrastis, four times a day. These cases are usually accompanied with a general loss of strength, hence the most nourishing diet should be secured, and some time should be spent in the open air each day.

If due to retained parts of the after-birth, see CHILD-BED FEVER.

INFLAMMATIONS.

INFLAMMATION OF THE UTERUS.—*Cause.*—

Inflammation of the uterus may be caused by displacement, or may follow labor or abortion where some part of the placental membranes or after-birth is allowed to remain. It may result from unhygienic habits and an unhealthy system. This means unhealthy secretions both in the uterus and along the vaginal tract. The secretions in the vaginal tract coming in contact with the cervix or lower part of the uterus may readily extend into the cavity of that organ and increase the inflammation. Inflammation of the lower part of the uterus may follow laceration caused by child-birth. It may also be caused by gonorrhoeal infection.

Inflammation is usually confined to the mucous membrane which lines the cavity and is oftenest caused by displacement. In displacement the uterus is bent at a sharp angle. This causes irritation, congestion and inflammation.

Symptoms.—The symptoms of acute inflammation are slight. There may be fever, headache, slight nausea, and a feeling of weight and soreness about the organ, which is some what enlarged. If at the menstrual period, menstruation is increased, there is pain in the back, the organ looks swollen and its color is a deep red. The extent of these symptoms depends upon the extent of the inflammation.

One of the symptoms of chronic inflammation is painful menstruation. Blood clots are often present, and there is a chronic discharge accompanied with pain in the back, headache, disturbance of appetite and loss of strength and ambition. In such cases abortion follows pregnancy.

TREATMENT—ACUTE INFLAMMATION.—

If due to displacement, the organ should be replaced in its natural position. This, together with rest in bed for a few days, is usually all that is necessary in recent cases.

TREATMENT—CHRONIC INFLAMMATION.—

Mix equal parts of Europhen and Aristol to a creamy consistence with liquid Petroleum. Dissolve $\frac{1}{2}$ ounce of Boric Acid in two or three quarts of water and with a fountain syringe thoroughly cleanse the vagina. Next warm and draw a little of the Europhen and Aristol mixture into a long-nozzled rubber syringe, exclude the air, by means of a bivalve speculum pass the nozzle of the syringe into the womb to the highest point, and inject carefully a few drops until the mixture oozes out below. This treatment should be applied every third day. This remedy cures by reason of its antiseptic properties, keeping the uterus clean and healthy. Hot douches morning and night should also be used. Use from 2 to 4 quarts of water as hot as can be borne. Dissolve $\frac{1}{2}$ ounce of Boric Acid in the amount used for each injection.

If the inflammation is the result of blood poisoning from retained membranes following labor, thoroughly cleanse the uterus and use the same injection of Boric Acid and hot water. Also give the general treatment under CHILD-BED FEVER.

EROSION.—It is stated under the head of *Displacements* that the lower end of the uterus rests within the upper end of the vagina. The erosion occurs at this point, and the disease affects both the outer surface of the part projecting into the vagina and the mucous membrane which lines the lower part of the cavity. There is a gradual destruction and wearing away of tissue, and at the same time the part is enlarged because it is inflamed and swollen. Like all other organs, the uterus is composed of little particles called cells. The cells on the surface are destroyed and cast off so rapidly that the new cells cannot cover it. They are sufficient in number, but do not have time to develop. Also, the mucous membrane lining the uterus, like all other mucous membrane, contains numerous glands. Those occupying the diseased part become swollen and the secretions are greatly increased in quantity; they are also changed and thickened. Sometimes they contain pus, hence are sometimes spoken of as purulent. The mucous membrane becomes so swollen that it may dilate the lower part of the uterus and be exposed, or may roll outward and cover what naturally is a part of the outer surface. An examination reveals the mucous membrane as a red zone, varying in width and surrounding the opening into

the organ. Some of the glands mentioned may become clogged and, being filled with secretions, they dilate, forming cysts which vary in size.

Cause.—It may result from unhealthy discharges from the uterus, from unhealthy secretions of the vagina which may extend into the uterus, may result from examination and the passing of instruments, from operations, or from attempts at abortion. The most frequent cause is laceration or tearing of the uterus during labor.

Symptoms.—An abundant thick, light or yellowish discharge, pain in the uterus and vagina and extending more or less throughout the pelvic cavity, a general bad feeling, a feeling of weight, pains in the back and headache. All of the symptoms are usually made worse by active exercise.

TREATMENT.—

The treatment consists of using a douche of several quarts of hot water twice a day to keep the vaginal tract clean. A little Boric Acid may be dissolved in the water with advantage. The patient should take several hours' rest each day, etc.

The uterus itself must also receive attention, but such treatment can only be applied by a doctor and by means of a speculum. There are several forms of treatment, but the following method has always proven satisfactory in our experience:

Tincture Iodine	2 drachms.
Fluid Extract Belladonna.....	1 “
Glycerine, add to.....	6 ounces.

Mix by shaking the bottle.

First thoroughly clean the lower part of the uterus with dry absorbent cotton wrapped around a small pair of forceps, and afterwards apply the solution by the same means. Pass both the dry cotton swab and that containing the solution up through the neck of the uterus. Afterwards saturate a tampon with the solution, press it up firmly against the uterus, and support it with a dry tampon. This treatment should be repeated every morning, and the tampons removed in the evening. In severe cases the tampons should be applied twice a day.

The Iodine acts as a disinfectant; the Belladonna relieves spasmodic contraction and allays pain; the Glycerine absorbs the watery part of the blood from the inflamed uterus, the drainage relieving the distension and pressure: and the tampon gives support.

Where laceration is present, an operation is needed.

HYPERTROPHY, or HYPERPLASIA.—Enlargement of the uterus where the organ fails to contract after labor is described under *Subinvolution*. In subinvolution the channels, or sinuses, through which the blood flows are dilated, and the organ is swollen and enlarged. *Hypertrophy* consists of an enlargement of the uterus due to an increased growth of the muscle tissue of which it is formed. The lining mucous membrane is also increased in thickness. There is an increase of growth over waste, the same as the muscles of an arm would increase under certain physical exercise.

Cause.—The increased growth is due to an increase in nourishment or blood supply. It may be the result of chronic inflammation, may be influenced by the retention of the menses; or may result from tumor growth in the uterus, or in the pelvic cavity outside the uterus, because the increased blood supply necessary to support a tumor growth so near by would also increase the blood supply to the uterus.

Symptoms.—The symptoms correspond to the conditions which produce the overgrowth.

TREATMENT.—

The treatment should be directed to the disease or conditions which produce it.

ATROPHY.—This is a condition the opposite of *Hypertrophy*, and indicates a shrinking or decrease in the normal size of the uterus.

Symptoms.—Those of the conditions which produce it, unless surrounding structures are involved or adhesions form. The first might be followed by some form of chronic inflammation; and the second by a dragging or pulling sensation, with occasional twinges of pain, which become gradually less sharp and frequent and usually disappear altogether.

Causes.—Wasting diseases, a lack of blood supply or nourishment, injuries during pregnancy or child-birth, or following child-bed fever. Any of these conditions may destroy the mucous membrane lining the uterus and portions of the adjoining uterine walls. Destruction of the mucous membrane by curetting (scraping out the inside of the uterus with a sharp instrument) would produce the same results. The use of the cauter, *i. e.*, a hot iron or strong acids which are sometimes used in the treatment of certain diseases, will produce like results. The use of hot irons and caustics cannot be too strongly condemned. The same may be said regarding many cases of curetting.

TREATMENT.—

See under **HYPERTROPHY** above.

TUMORS.

As stated, among other diseases the uterus is subject to tumors. These are named according to their location. When occurring just beneath the mucous membrane which lines the uterus, they are called *submucous*; when occurring near or on the surface, and just beneath the peritoneum which covers the uterus, they are called *subserous*; occurring in the body of the organ, they are called *intramural*. These tumors are often called *fibromas* or *myomas*. Fibroma means hard and fibrous; myoma means a tumor formed in muscle tissue.

Cause.—The cause has never been given, yet we wish to state what seems to us to be a reasonable cause for these growths. The uterus, like the kidneys and brain, has a blood supply larger in proportion than other organs of the body. The arteries do not continue through the organ as through other structures, but the circulation is carried on through channels or sinuses in the uterine tissue. Whenever there is indigestion, lack of elimination, or disease from any cause, the blood contains irritating waste matter, and it is but reasonable to suppose that the morbid influence of this irritation will produce the greatest effect in those organs receiving the most blood, and more especially when brought into intimate relation with the tissues of the organ, as in the case of the uterus. The irritation is followed by congestion, unnoticed at first, but as the congestion increases to inflammation, the increased blood supply results in over-production of tissue. This is true of inflammation everywhere. It has been stated that tissue growth following inflammation is confined to the connective tissue framework. This is also true in over-growth in the uterus, and is the reason these tumors are so hard and fibrous.

Symptoms.—Increased flow at the menstrual period, and enlargement of the organ. Examination shows a hard, lumpy growth. Many of these growths are small and give no symptoms.

TREATMENT.—

When a tumor is discovered, there should be a lessening of the blood supply of the uterus. For this purpose $\frac{1}{2}$ teaspoonful of Fluid Extract of Ergot may be given four times a day, or the same amount of Fluid Extract of Hydrastis. It will be necessary to continue these remedies for some time. The patient should also keep as quiet as possible, and should lie down two or three hours every day. Tying one or more of the arteries which supply the uterus has been tried, but without satisfactory results. If the treatment fails and the growth continues, it

should be removed. In this case many advise the removal of the whole organ as it lessens the possibility of cancer, which might follow.

POLYPUS.—When a tumor occurs just beneath the mucous membrane which lines the uterus, the growth is not hard, but soft. The reason is that the congestion, occurring so near the surface, causes the mucous membrane to bulge out at the point of least resistance or greatest pressure. This space is immediately filled with blood. There is no overgrowth in this case. Nature tries to supply new tissue, but the effort succeeds but partially for the reason that the mucous membrane continues to bulge forward and the size of the cavity increases so rapidly that normal tissue cannot form fast enough to fill the space; hence it is more or less filled with a soft, gelatinous growth. These growths sometimes become very large, and the uterus enlarges the same as in pregnancy. The growths are called *polypi*. They may completely fill the organ, and the mucous membrane may bulge forward and downward until it protrudes from the uterus into the vagina. The stem or pedicle by which they are attached shows the primary seat of origin.

Symptoms.—The symptom of polypus is hemorrhage, either at or between the periods. As the growth becomes larger, the hemorrhages become more frequent and there is more or less pain. The pains are the result of contractions as the uterus tries to expel its contents. The polypus excites the same contraction in the uterus that a clot of blood or any other foreign body does. In some cases there are no particular symptoms, except an increased flow at the menstrual period, until the polypus becomes large, when the hemorrhage becomes more frequent and there are painful contractions, as stated. Examination shows the condition at once. In some cases the contractions of the uterus are so strong that the growth is squeezed off—separated at the pedicle or point of attachment—and is discharged, either in parts or altogether.

TREATMENT.—

Where these growths are not expelled naturally, they should be removed.

THE VAGINA.

LEUCORRHEA.—The vagina is subject to inflammation, gonorrhoea, tumors, cancer and leucorrhoea. The last mentioned is caused by a relaxed condition of the surrounding tissues and of the mucous membrane, or it may result from inflammation of the uterus or other surrounding tissue.

TREATMENTS.—

A. Leucorrhœa is a catarrhal condition and the treatment consists in cleanliness. This can best be maintained by injections, using a large quantity of water each time—1 gallon of water containing $\frac{1}{2}$ ounce of Boric Acid. Astringents are often recommended for this trouble, such as the following:

Sulphate of Zinc	1 drachm.
Powdered Alum	1 “
Water	1 gallon.

Use all at one injection.

The great object of the local treatment is to render the surface as clean as possible. The injection should be used often enough to maintain this condition—twice a day at least. These cases usually require general treatment in the way of nourishing food. Tonics may also be needed. The following one is recommended:

Fowler's Solution	3 drachms.
Fellows' Syrup of Hypophosphites..	5 ounces.
Maltine, or other good preparation of Extract of Malt.....	10 “

Mix, and give one tablespoonful before or immediately after meals, and one at bedtime.

For a gonorrhœal discharge give the same large injections twice a day, but instead of the Zinc and Alum, add 2 drachms of Permanganate of Potash or 6 drachms of Boric Acid.

If the discharge is due to inflammation of the uterus or other disease, the treatment should be directed to such cause.

B. For almost all forms of disease of the vagina the hot douche is unequalled. Use every day from a quart to a gallon of hot water with a little salt dissolved in it.—(42).

C. Use hot water douches with $\frac{1}{2}$ teaspoonful of Sulphate of Zinc or Sugar of Lead dissolved in four quarts of water, or Tincture of Iodine used in the same way.—(26).

D. Creolin—20 drops in $\frac{1}{2}$ gallon of warm water. Use as an injection into vagina morning and evening.—(23).

E. Free irrigations (injections) with hot solutions of Borax—hot as can be borne. Use 2 drachms of Borax to pint of water once or twice daily.—(60).

F. Wampole's Antiseptic Vaginal Cones. Introduce one at night and use injection of warm water in the morning on rising.—(9).

THE OVARIES.

INFLAMMATION OF.—The ovaries (see description under MENSTRUATION) are subject to inflammation, abscess, atrophy, or shrinking, tumor, displacement and hernia. The last two do not often occur. Inflammation is by far the most common.

Causes.—It may be caused by inflammation or abscess in the abdominal cavity, by appendicitis, blood poisoning, eruptive fevers, injury, or may result from tuberculosis, cancer or abortion. It most often occurs by extension from the uterus, passing along the Fallopian tubes, and perhaps the most frequent cause is gonorrhœal infection.

Symptoms.—The most prominent symptom is pain and soreness in the region of the ovaries. If it is an acute attack, there is fever and a rapid pulse. The pain may extend around the crest of the hip down the limb. It is made worse by exercise and by the approach of the menstrual period, and is made easier by the flow. In the early stages menstruation is increased. If it continues and becomes chronic, menstruation may be lessened, or may cease altogether.

TREATMENT.—

In most cases rest is of first importance. If it is an acute attack and seen early, cold packs may be used over the diseased organ; later, hot poultices. Vaginal injections of Boric Acid solution as hot as can be borne may be used once or twice a day. If there is much fever, give 1-drop doses of Tincture of Aconite every hour, more or less often as needed. Keep the bowels regular. If seen early, give an active cathartic. The patient should remain quiet until the soreness and inflammation have disappeared. Attention should be given to the general health, ventilation, etc. With some there is a strong tendency to resort to the knife whenever there is disturbance of the general health with neuralgic pains in the region of the ovaries, or when accompanied by some nervous phenomena. This practice cannot be too strongly condemned. A great surgeon said recently, "The tendency of the profession to appeal to the knife is the great error of the present century." Inflammation of the ovaries is no different from inflammation elsewhere. Inflammation of the ovaries does not often occur and, as already stated, when it does, it is usually the result of extension from surrounding structures. With some classes it most frequently results from gonorrhœal infection.

TUMORS OF.—Tumors of the ovaries do not often occur. The most usual form is what is called *Ovarian Cysts*. These are caused by the failure of the egg (see description) to rupture. Instead it continues to enlarge and becomes filled with fluid. These tumors sometimes reach enormous proportions. The only treatment is removal. Where an abscess is present, it should be opened and treated the same as abscess elsewhere.

DISEASES OF CHILDREN.

INFANT FEEDING.

The Best Substitute for Mother's Milk.—If the mother is healthy, the best food for an infant is the mother's milk. When this cannot be had, cow's milk has been proved to be the best substitute, but cow's milk must be modified or changed so as to approximate human milk as nearly as possible. Mothers who are unable to nurse their infants should know how to feed them.

Infant Foods.—*The Public Health Journal*, published in New York, says: "Nearly every form of infant food has been used in the New York Infant Asylums. The experience with them as foods—something for infants to thrive upon and gain weight on—has been, without exception, unsatisfactory. Many varieties are positively dangerous. Cow's milk, cream and sugar have been demonstrated to be the only reliable substitutes for mother's milk."

Deficiency of Water.—Many disturbances of digestion are to be explained by deficiency of water—certainly more than are due to an excess of it. Many infants receive water only as they get it in their milk. An infant as well as a grown person can be thirsty without being hungry. Babies who are not given water receive it only in their food, hence they are obliged to eat to satisfy thirst, and they may still suffer thirst because they cannot eat more. This also causes them to eat too much and too often.

Starch and Sugar.—Again, those having the care of babies should know that the infant's power to digest starch or cane (granulated) sugar is very slight at birth. If these are used, there is danger of setting up an acid fermentation, which may cause catarrh of the stomach and digestive tract and produce colicky pains. Cane sugar and starch cannot be digested by children under one year of age, therefore starchy foods, as bread, potatoes, etc., should not be given.

Preparation of Cow's Milk.—To render cow's milk like human milk, the appended tables may prove convenient. They also show the necessary change in the amount of ingredients which will harmonize with the child's age and growth. Very large and robust infants may require more, and weak ones less, than the amount indicated.

Sterilizing Milk.—Some prefer to sterilize milk. This may be done by pouring the milk into a clean bottle or can and placing the same in a kettle or pan of water. The cork or top should be loosened and the water boiled for thirty minutes. The cork should then be replaced and the milk set in a cool place. Before using, the milk should be slightly warmed by placing the nursing bottle in warm water.

Frequency of Nursings.—A healthy infant should not nurse more than fifteen or twenty minutes at one time. Very young infants should be allowed to nurse every two hours during the day, and the number of feedings in twenty-four hours should be ten. After the fourth or fifth week (some authorities put this as late as the third month) the infant should nurse at regular intervals of two and one-half hours during the day, and only once during the seven or eight hours during which the mother ought to sleep. From the beginning of the third month to the end of the nursing period, every three hours is often enough; after six months five to seven nursings are sufficient during the twenty-four hours, and night nursing, that is, between ten o'clock in the evening and six o'clock in the morning, should be given up. If necessary, water may be given during the night.

Disease Caused by.—Cholera infantum, various forms of rash, convulsions, brain fever and many other diseases, are brought on by unhealthy surroundings, unhealthy food and over-feeding. The stomach of the new-born babe holds only from two to three tablespoonfuls. Cow's milk contains less sugar than human milk, and about four times as much caseine, or milk albumen. During extreme hot weather less milk and more water should be given.

Time of Weaning.—Nursing babies should be weaned before they are one year old. It is better to wean them in cold weather, and when they are not cutting teeth. The mother with consumption, or very poor health from other cause, should not nurse a baby.

Hot weather kills babies by spoiling their milk and other food. The heat also lowers their vitality, or power of resistance. About one-half of all deaths in cities are young children, and about two-thirds of this number are infants under one year of age. In nearly every case the primary cause of disease com-

mences in the digestive tract. Over one-third of the children and infants die during the months of July and August. The weather cannot be changed, but proper feeding, cleanliness and fresh air will do much to prolong the lives of children.

Preparation of Bottled Milk.—

From Birth to the Third or Fourth Month.

Milk, fresh.....	8	tablespoonfuls.
Lime Water, fresh (see note below)..	2	“
Water, boiled (see note below).....	30	“
Milk Sugar, pure.....	9	even teaspoonfuls.

From the Fourth to the Ninth Month.

Milk, fresh.....	16	tablespoonfuls.
Lime Water, fresh.....	2	“
Water, boiled.....	22	“
Milk Sugar.....	9	even teaspoonfuls.

Amount to be Given.—Enough of either of these to last for the day should be placed in a clean bottle or fruit can—one that has been thoroughly scalded—the bottle or can placed upright in a vessel containing a few inches of water, and the water heated to the boiling point (see note below). The bottle or can should then be taken from the fire, cooled quickly and kept tightly corked in a cool place. The number of tablespoonfuls of the mixture put into the feeding bottle should be as follows:

For the first week	2	to	3
Second to sixth week	3	“	7
Sixth to twelfth week.....	8	“	9
Third to sixth month	8	“	12
Sixth to ninth month	12	“	18

Note.—See INDEX for *Milk, scalded, Water, boiled* and *Lime Water, to make.*

CAPILLARY BRONCHITIS.—(See under BRONCHITIS in Department I).

CHOLERA INFANTUM.—(See under CHOLERA in Department I).

DEFORMITIES.—Many, in fact all but the more serious deformities, may be successfully treated by putting on light splints and keeping well bandaged. The treatment should commence as soon as the deformity is discovered.

EYES, SORE AT BIRTH.—(See *Purulent Conjunctivitis* under EYE, DISEASES OF, in Department I).

FRACTURES.—Fractures in children differ in no way from fractures in adults, excepting that with children the bones fracture more easily and there is less destruction of the soft tissue and less swelling, hence these cases are more easily cared for.

Causes.—Fractures may occur *in utero*, *i. e.*, during or before birth. Such fractures may be the result of pressure upon some of the pelvic bones during the development of the child, may result from some abnormal position during birth, or from pressure from the forceps. It is understood, of course, that fracture from the forceps is more liable to occur in a narrow pelvis, or in one that is deformed. Fractures occurring after birth are due to external violence or force, as falls, blows, etc.

TREATMENT.—

The treatment differs in no way from the treatment in the adult. In the case of a fractured limb in a child where there is little or no swelling, it is considered good practice for the doctor to put on a plaster paris bandage. This is sometimes called a plaster cast. This is allowed to remain until the fracture heals.

HARELIP.—All cases of harelip should be treated by a surgeon. The operation should be performed during infancy.

HERNIA, INGUINAL.—Under *Hernia* in DEPARTMENT I, it was stated that in foetal life the testicles occupied a position in the abdominal cavity, and that before birth they passed down into the scrotum; also that the openings through which they pass remain and are called the inguinal canals, meaning canals in the groin. We failed to state the purpose of these canals, which is the transmission of arteries, veins and nerves that supply the testicles. The canals also contain what are called the vasa deferentia. These are two small tubes which lead from the testicles up through the inguinal canals, pass into the abdominal cavity behind and below the bladder and terminate in the urethral tract. We also stated that the canals were closed at their upper end by the peritoneum which lines the abdominal cavity, and compared the peritoneum to the film which surrounds an egg and lies beneath the shell. Sometimes in the child the abdominal opening into the canal is not properly closed, and this allows more or less free opportunity for some part of the bowel to communicate with it, the result being an *Inguinal Hernia*.

Cause.—That already given.

Symptoms.—A bulging or prominence in the form of a soft tumor along the course of the inguinal canal, which readily disappears when the child lies on its back, or which may be pressed back easily.

TREATMENT.—

The application of a properly fitting truss. These cases usually make a complete recovery later by the closure of the canal.

HERNIA, UMBILICAL.—This consists of a protrusion of some of the abdominal viscera or contents through the navel ring, which in foetal life gave passage to the umbilical vessels that were contained in the cord.

Cause.—Incomplete closure of the ring. This may be due to crying, straining, or other internal abdominal pressure; or may result from a lack of nourishment where proper healing has not taken place. The outer covering of skin is usually complete.

Symptoms.—A protrusion, giving the form or appearance of a small tumor, which is easily reduced by pressure.

TREATMENT.—

Take a piece of flat cork or button the proper size, cover it with soft cotton cloth, sew it in the center of a bandage, then place the cork or button directly over the tumor and secure the bandage around the body. Both the bandage and the tissues beneath should be kept thoroughly clean. Like all other forms of *Infantile Hernia*, this variety usually results in complete recovery.

INCONTINENCE. — This means an involuntary evacuation of the bowel or bladder, although it is generally understood to mean inability to retain the urine during sleep. This is a disease of childhood and is overcome with age, but may also be relieved by treatment.

Cause.—*Phimosis* (See PHIMOSIS), adhesions of the prepuce, intestinal worms, or over-sensitiveness of the urethral tract. These and other causes are given, although in many cases there can be no cause discovered. When a disease or condition exists that is not well understood, various theories are advanced as being the cause. Sometimes these theories may be correct; sometimes they may not. We think this statement applies to incontinence. Personally we believe that many cases of incontinence are due to a lack of development of the nerve fibers which supply the neck of the bladder, hence the constrictory muscle is not under proper control. Or, another way of looking at it, this nerve supply might be over-sensitive, hence the pressure resulting from a distended bladder would allow or cause an involuntary passage of the urine during sleep.

TREATMENT.—

We have always relied upon Atropine in the treatment of this trouble and have always been successful. It is good practice to give a dose of Santonine for one or two nights. If there are any worms present, it will remove them without trouble; if there are none present, it will do no harm. Again, Santonine is a remedy used by some for this trouble whether due to worms or not, and it is even claimed to be successful in some cases where Atropine fails. If Atropine is used, it should be given in several small doses frequently repeated, commencing two or three hours before the child goes to bed; or one large dose may be given. The small dose seems preferable because by that means there would be no danger of over-dosing. For a child from five to ten years old, give $\frac{1}{800}$ of a grain every hour until the pupil of the eye is well dilated, or until the face is flushed, and give at bedtime 1 grain of Santonine and 1 grain of Calomel. In some cases it is necessary to repeat the Atropine for some days. If the two or three doses of Atropine do not produce the symptoms mentioned, begin the treatment earlier the second day and continue until effect.

Retention of Urine.—In most cases with infants, retention of urine may be overcome by giving liberally of a tea made of pumpkin or watermelon seeds. Sometimes the urethral tract in the new-born male child is not complete, *i. e.*, does not reach the surface. Whenever this condition is present the doctor should make an artificial opening, being careful to have it meet the termination of the natural opening.

Note.—This same defect sometimes occurs in the digestive tract. We are acquainted with one case of this kind where an external opening was made. The opening was continued for some $2\frac{1}{2}$ inches into the bowel. The mucous membrane of the bowel was brought down and stitched to the skin, and the operation was a complete success.

JAUNDICE PERNICIOUS.—This is a malignant and fatal disease of the new-born. It is a pernicious form of jaundice which differs entirely from the ordinary catarrhal variety. This form does not stain the whites of the eyes nor give other characteristic signs of jaundice.

Cause.—It is caused by defective circulation in the liver. Among the primary or earlier causes is unhealthy blood, malformation, syphilis, inflammation of the umbilical cord, imperfect circulation in the lungs, or blood poisoning from any cause. Bad hygiene and improper nourishment before birth lie at the bottom of all. "*Pernicious Jaundice*" is a misnomer because there is no jaundice present.

TREATMENT.—

The treatment is largely symptomatic. Make the child as comfortable as possible. There is no known treatment that is of value. The patient may live for a few days or for a week or two.

MOTHER'S MARK.—(See *Birth Marks* under description of SKIN in Department I).

DISEASES OF THE MOUTH.

Cleanliness.—Babies cannot clear the mouth of food products after eating like grown people do, and after nursing there frequently remain particles of milk in the form of curd, which may be lodged under the tongue, at the sides of the mouth, along the throat, or covering more or less the surface of the mucous membrane lining the mouth. These particles readily decompose and furnish an acid secretion which irritates and inflames the mucous membrane, and is probably the most common cause of sore mouth in infants. If the mouth is kept clean and free from the products of nursing, it will seldom get sore or give trouble.

TREATMENTS.—

A. If the mouth is rinsed out with clear water two or three times a day, or night and morning, it will be all that is needed. This can best be done by using a soft cloth wrapped around the finger.

B. Peroxide of Hydrogen..... 4 drachms.
Distilled Water..... 4 ounces.

Wash the mouth with some of this solution several times a day.—(29).

APHTHÆ—THRUSH—CANKER SORE MOUTH.

—This is a disease of the mouth in which small vesicles appear. These vesicles may ulcerate. If ulceration takes place, it is called *Aphthæ*, or *Thrush*; if ulceration does not take place, it is spoken of as *Canker Sore Mouth*. It is a disease of infancy and may follow a catarrhal condition of the stomach, or may result from a lack of cleanliness of the mouth, as described.

Causes.—Those already given. It may also be caused or influenced by indigestion and an unhealthy condition of the bowels. Also said to be caused by teething.

Symptoms.—The child may refuse to nurse, and small vesicles appear in the mouth—on the tongue, gums, lips and mucous membrane of the cheek. The vesicles are first of a light color.

If ulcers form, they are quite painful. There is no odor. The child may worry a good deal, and in some cases is very troublesome.

TREATMENTS.—

A. Regulate the stomach and bowels, give good ventilation, and wash the mouth with the following mixture:

Borax, powdered.....	1	drachm.
Lloyd's Hydrastus.....	4	drachms.
Glycerine.....	2	"
Water enough to make.....	2	ounces.

Apply this with a soft cloth several times a day. The child's mouth should also be washed with a little warm water after nursing.

To regulate the bowels, give the following mixture:

Carbonate of Soda.....	1	drachm.
Wine of Ipecac.....	1	"
Fluid Hydrastus.....	6	drachms.
Syrup of Rhubarb enough to make	4	ounces.

Dose.—10 drops to $\frac{1}{2}$ teaspoonful twice a day, according to age.

The above is applicable either to the ulcerated or simple form.

B. Borax, powdered.....	$\frac{1}{2}$	teaspoonful
Alum, powdered.....	$\frac{1}{2}$	"
Tannin	$\frac{1}{4}$	"

Mix together and pour on 16 tablespoonfuls of boiling water. Stir until dissolved, add 2 ounces Glycerine and swab the mouth thoroughly three times a day. Regulate the bowels.

C. Bayberry Bark, pulverized	1	teaspoonful.
Golden Seal, pulverized.....	1	"
Red Raspberry leaves.....		small handful.

Put all into a dish, pour on boiling water, steep, sweeten with honey or loaf sugar, and swab the mouth thoroughly with the decoction, using a nice soft swab, three or four times a day. Be sure to brush well between the gums and cheeks and all around thoroughly.

Also splendid for nursing sore mouth.

D. Make a wash of a teaspoonful of Alum to a glass of water. Internally, one teaspoonful of Rochelle Salts every morning, taken in a glass of water before breakfast.—(7).

Note.—For infants, give Castoria (see MISCELLANEOUS MEDICAL RECEIPTS) in place of Rochelle Salts.

E. Add Chlorate of Potash to water until some remains undissolved in the bottom of the glass. Hold in mouth as often and as long as possible. Swallow a teaspoonful occasionally.—(14).

Note.—For an infant, swab the mouth and allow none to be swallowed.

F. "Yellow Root." Either chew the root, or make a strong tea and add equal parts of honey or Glycerine and a little Alum.—(9).

Note.—For an infant, swab the mouth.

G. Gargle with solution of Chlorate of Potash— $\frac{1}{2}$ teaspoonful to a pint of water.—(11).

Note.—For an infant, swab the mouth.

H. Black wash composed of:

Calomel	30 grains.
Lime Water.....	6 ounces.

Has proven very efficacious in some obstinate cases.—(60).

I. Saturate a feather in Kerosene Oil and apply to sore, is a remedy recommended by an old nurse.

J. Iodoform.....	1 drachm.
Ether.....	2 "

Mix. Apply with camel's hair pencil occasionally.

CANCRUM ORIS, or GANGRENE OF THE MOUTH.—This disease usually affects children of about two years of age.

Causes.—It generally follows some severe constitutional disease, such as scarlet fever or typhoid fever, dysentery, or bad surroundings where the child has gradually become enfeebled. The child has become so weak, the blood so unhealthy, the circulation so poor, and nutrition lacking to such an extent that the part dies. Bad hygiene is believed to be the real underlying cause of this disease.

Symptoms.—About the first symptom may be one or more vesicles or blisters, which gradually turn dark. There is great swelling, but very little or no pain because the part is dead. The glands of the neck also become greatly swollen, and the cheek outside turns purplish over the diseased spot within, the skin blistering and peeling off. The gangrene spreads rapidly and affects the gums, teeth and jaw, the odor being very offensive. The disease runs a rapid course and usually ends fatally in from four to eight days. The immediate cause of death is blood poisoning from absorption of the products of the dead tissue. When recovery follows, there is more or less deformity by reason of the great destruction of tissue resulting from inflammation.

TREATMENT.—

What to Do Till the Doctor Comes.—Early and thorough removal of the dead tissue is of the first importance, and this can be accomplished only by a physician. In the meantime place the child in a well-ventilated room where he can have an abundance of fresh air, give an active cathartic, as 2 teaspoonfuls of Castor Oil, or Laxol (see INDEX), and wash the mouth thoroughly with a disinfectant—probably the disinfectant most likely to be at hand would be Carbolic Acid. Put 10 drops of Carbolic Acid into $\frac{1}{2}$ pint of water and wash the mouth thoroughly every thirty minutes, making the solution fresh each time. Formaldehyde is another disinfectant, 1 drachm of which may be used to 8 ounces of water.

A better disinfectant, and one that ought to be used, especially if there is going to be any delay in getting the doctor, is the following:

Chlorate of Potash	1 drachm.
Muriatic Acid, pure	$1\frac{1}{2}$ "

Mix together and add

Tincture of Chloride of Iron	2 drachms.
Water, enough to make.....	4 ounces.

Make a swab out of soft cloth or a small piece of cotton, and apply this directly to the diseased spot every hour.

The value of this antiseptic is found in the large amount of free Chlorine which it contains. It is well known that Chlorine is a most powerful disinfectant.

MUMPS.—(See Department I).

NIGHT TERROR—NIGHTMARE.—*Night Terror* is the name given to a condition which usually affects children, producing bad dreams. The child awakes in a fright with a feeling of distress or suffocation. During sleep he is attended with hideous dreams and often with inability to move, although he may be conscious, or partly so.

Cause.—In most cases the cause is the result of a too hearty supper followed by indigestion.

Symptoms.—The symptoms are restlessness during sleep, and perhaps awaking in a state of fright or with a decided feeling of fear.

TREATMENTS.—

A. These cases can always be controlled by attention to diet—eating light suppers, eating slowly and thoroughly masticating the food—and by keeping the bowels regular.

B. Keep the stomach and liver in good condition and there will never be any trouble of this kind.—(30).

PARALYSIS, INFANTILE.—This form of paralysis usually occurs between the ages of three months and three or four years.

Cause.—This is a disease of the spinal cord. It should be remembered that the spinal cord is composed of large nerve cells and nerve fibers. The fibers are merely drawn-out processes of the cells. The cells are grey in color, while the fibers are light. The fibers are located on the surface, and surrounding all is a membrane which is continuous from that which covers the brain. The grey cells are situated in the center of the cord, and their outer surface is angular in form. If the cord should be cut in two and the reader should look down on the cut end, the grey matter, or cells, would be seen to form a cross somewhat like the letter "X." In *Infantile Paralysis* the anterior projections of the grey cells are the ones first diseased, *i. e.*, the parts of the letter "X" which point forward. First there is congestion, followed by inflammation, circulation and nutrition are lessened and, if the disease continues, the part of the cord mentioned dies and degenerates. Following the destruction of the cells, their prolongations, the nerve fibers, are also destroyed because their source of supply is cut off, just the same as a tree would die if the roots were cut off. It is plainly evident that the cause of this disease is primarily a lack of nutrition. This means dyspepsia and an unhealthy condition of the digestive tract. Following this condition the blood would contain many irritants and, if continued, the irritation would produce inflammation. This is the same condition that causes paralysis in adults. The reason that it occurs so suddenly in the infant or small child is because the child's powers of resistance are comparatively weak.

Why does this condition produce paralysis in one child and tubercular meningitis or some other disease in another? Because of their different powers to resist. The same is true in the adult. In some one organ or tissue is stronger and more resistant, and in others some other organ or tissue is stronger and more resistant.

Symptoms.—First there is some fever, the appetite is poor, and there are all other symptoms that would indicate an unhealthy condition of the digestive tract. In a few days there is some improvement in this respect, and then it is discovered that paralysis exists. Paralysis may affect any one, any two, or all of the extremities. The paralyzed limb feels cold, its color is not natural but somewhat dark, or dark blue, showing poor circulation, and gradually there is a wasting of the muscles, due to the fact that the nerve supply has been destroyed.

TREATMENTS.—

A. First clear the digestive tract with a dose of Castor Oil, or Laxol (see Index). Give from 1 to 3 grains of Salol four times a day, according to age. Give from 3 to 10 drops of Syrup of Hydriodic Acid three times a day between meals. Nourishing food, fresh air, sunshine, free elimination and antiseptics for the digestive tract are points to be remembered in the treatment of this disease.

B. Take a small handful each of Witch Hazel bark, Wild Cherry bark and Skunk Cabbage, put into an iron kettle and cover with a quart of water. Boil until the strength is extracted, strain, and boil down to one pint. Sweeten this decoction and give a teaspoonful dose three to five times a day.

There is Another Form of Paralysis in which there is a shrinkage of some of the muscles and enlargement of others, with partial paralysis of all; or this condition may follow *Infantile Paralysis*.

Cause.—Those already given.

Symptoms.—The child does not begin to walk until quite late, and then with much difficulty. Walking causes pain, the gait is unsteady, and the child cannot lie down nor get up. The muscles of the chest become shrunken, and this interferes with respiration. The unequal size of the muscles gives them a knotted appearance. Later there is an increase in the curvature of the spine. This disease lasts several years and usually ends fatally.

TREATMENT.—

The treatment is the same as for *Infantile Paralysis*. Good food and proper hygienic surroundings constitute the basis. Recovery is doubtful. Paralysis of infants and small children is always a grave condition.

Paralysis of the Face.—This sometimes results from injury done by forceps at the time of delivery. These cases usually recover in a few days. Paralysis of one or more of the individual muscles about the neck and back sometimes occurs. This form is also usually recovered from.

PHIMOSIS.—*Phimosis* is a long prepuce or foreskin, rendering retraction of the skin difficult or impossible. It is usually congenital, that is, exists from birth. It may result from inflammation.

Symptoms.—Phimosis causes retention of the sebaceous matter which is usually produced, and this may cause irritation and inflammation. As the result of inflammation the prepuce may grow fast to the glands. Great irritability of the bladder may be caused, also incontinence or inability to retain the urine,

or in some cases inability to retain the fæces. Disturbance of sight, loss of sleep and great nervousness may result. Nervous symptoms may be so varied that it would be difficult to enumerate all.

TREATMENT.—

Some physicians dilate the foreskin, thoroughly cleanse the surface, and instruct this to be done several times a week, keeping the parts thoroughly clean. The majority, however, advise circumcision.

SPASMS.—Nearly all cases of spasms or convulsions in children are the result of undigested food in the stomach. There is also usually an unhealthy condition of the digestive tract. Following such an experience greater attention should be paid to diet. See also **CONVULSIONS** in **Department I.**

TREATMENTS.—

What to Do.—Give an emetic and place the child in a tub of warm water to which 1 or 2 tablespoonfuls of Mustard have been added. After the emetic operates and the spasm has been relieved, give a dose of Castor Oil or Laxol (see Index), wrap in a small woolen blanket and put to bed. If the child has a high fever, wrap in a wet blanket; if fever is not high, a dry blanket will do.

Note.—If hot water is not at hand, give the emetic, and as soon as it operates, follow with the cathartic. The results will be the same although a little longer time may be required.

A. Immerse the child in a tub of water as hot as can be borne until improvement, then wrap in a blanket and put to bed. An emetic, cathartic or both are usually needed.

The inhalation of Chloroform dropped on a napkin will often stop the spasm, but does not remove the cause.—(20).

B. Strip the child and put into a warm bath, and let it remain in the water about ten minutes.

Also give Belladonna, third dilution—1-drop doses, in liquid or pill form, every thirty minutes till spasm is controlled.—(56).—Homeopathic.

STOMACH AND BOWEL DIFFICULTIES OF CHILDREN.—The following remedy will be found to meet the requirements in more cases of bowel derangement of children than any other preparation:

Carbonate of Soda.....	1	drachm.
Wine of Ipecac.....	1	"
Fluid Hydrastus.....	6	"
Syrup of Rhubarb, add to.....	4	ounces.

Mix. Dose.—From a few drops to 1 teaspoonful, according to age.

TONGUE-TIE.—Where the frenum of the tongue is too short, snip carefully with a pair of scissors, cutting away from the base of the tongue and towards the under jaw. If done by a physician, there is neither pain nor danger.

WORMS, ROUND.—These are the most common worm found in the digestive tract. They vary greatly in size and length. The average diameter is from $\frac{1}{8}$ to $\frac{1}{6}$ of an inch. In length they vary from 2 to 20 inches, but the average is 6 inches. They reproduce rapidly. The female is said to contain several million eggs.

Cause.—Taking the egg or the worm in minute size into the stomach with food or drink. There are a great army of parasites, including worms, which are constantly being taken into the system, but usually they are destroyed by the digestive fluids.

Symptoms.—Often there are no symptoms, even when the worms are present in large numbers. When symptoms are present, they are irritation in the stomach and bowels, occasional pains, and sometimes loss of appetite, nausea and vomiting. There may be diarrhea. Light color about the mouth, red spots on the cheek, picking the nose and disturbance of sleep are thought by many to be positive signs of worms. This is not true, however, because any and all of these symptoms might and often do result from other causes. The only positive symptom is the elimination of worms.

TREATMENTS.—

A. Santonine is the great remedy for worms, and is used more or less in nearly all worm remedies. Allow the child only a light supper, and give 1 or 2 grains of Santonine with an equal amount of Calomel. Next morning give a dose of Castor Oil or Laxol (see Index). If there are no results, repeat the treatment the next night. If no worms are present in the eliminations, it will be satisfactory proof that they do not inhabit the intestines of the child.

B. Santonine—1 to 3 grains—followed by a large dose of Castor Oil—2 teaspoonfuls, more or less according to age.—(29).

C. Santonine..... 1 grain.
Calomel 1 "
Soda Bicarbonate (baking soda)... 20 "

Mix intimately and divide into 10 powders.
Take 1 powder every hour until the 10 are taken, and follow with a dose of Castor Oil.

D. Santonine.....	4½ grains.
Calomel.....	4½ “
Milk Sugar.....	6 “
Oil of Anise.....	1 drop.

Mix, divide into 4 powders, and take 1 at bedtime every third night.—(59).

E. Get five cents worth of Pink root and Senna leaves, steep to make a tea, sweeten with a little sugar or Glycerine, and drink freely during the morning. If the results are not satisfactory, repeat.

F. Tablets of the following:

Santonine.....	½ grain.
Calomel	½ “

Take 1 tablet at bedtime, and follow in the morning with a dose of Senna tea before breakfast. One tablet is not too large a dose for a child of two years, and is sufficient up to ten or twelve years.—(31).

WORMS, THREAD or SEAT.—In appearance these look like small pieces of white thread. They inhabit the lower part of the bowel and lower rectum.

Symptoms.—The symptoms of thread or seat worms are intense itching, and also their presence in the eliminations.

TREATMENT.—

The treatment is the same as for *Round Worms*. Also make a strong solution of Quassia in water and inject into the rectum once or twice a day. Quassia comes in chips. Put a few of these chips, or small pieces, into a tumbler of water and let stand over night. In the morning inject 1 or 2 tablespoonfuls of the solution. The injection does not want to be carried high, but allowed to remain in the lower part of the tract. Follow in thirty minutes with an injection of water only—a sufficient amount to cause the bowels to move, or at least to wash out the lower part of the tract occupied by the previous injection. Or a solution of Quinine may be used. This is prepared by dissolving 5 grains of Quinine in ½ teaspoonful of Alcohol; add 2 tablespoonfuls of water and use as directed for Quassia. Or, add 20 grains of Carbolic Acid to 1 ounce of Vaseline, and apply by introducing into the lower part of the tract.

Department III.

ACCIDENTS AND EMERGENCIES.

The importance of a knowledge as to what to do immediately to prevent serious consequences from accidents and injuries, is now everywhere recognized. Keep cool, try to grasp the situation, and act promptly. Where doubt exists as to the proper thing to do, it is best to do nothing but make the patient as comfortable as possible.

Life often depends upon first treatment. A study of the suggestions given here will enable any intelligent person to determine what to do until the physician arrives.

BANDAGES.

Bandages are usually made from strips of soft cotton. They vary in width, and are rolled lengthwise, hence are sometimes called "roller" bandages. They are used for dressing fractures, wounds, etc. Their principal use is to hold dressings in place on an injured surface, but more especially to retain in position the ends of a fractured bone.

To render their application more convenient and secure, bandages are sometimes split for some distance from each end, making four strips. In the application of this form of bandage the ends may be wrapped in opposite directions around the limb, or part, and fastened; or the end of a roller bandage may be split after it is applied, and the two ends passed in different directions around the limb and secured. This is very convenient when pins or needle and thread are wanting. In applying a bandage to a limb, *always elevate the limb and commence the application at the extremity*, as the hand or foot, and wind toward the body. This will lessen the amount of blood in the part and prevent swelling.

In many cases bandages cannot be successfully applied except by one accustomed to their use. However, in emergency cases any one can apply a bandage to stop the flow of blood, or to prevent the grating of broken ends of bones, and this makes the patient more comfortable until the doctor can arrive.

SPLINTS.

In case of a broken bone, if it is necessary to move the patient some distance, some form of splint should be applied, and

an improvised bandage of some kind used to hold the splint in position. As stated under FRACTURES, splints may be made out of narrow, light strips of boards, pieces of shingles, small sticks, wisps of hay or grass, etc.

ASPHYXIA, or SUFFOCATION FROM GAS.—This condition not infrequently occurs. The results, of course, depend upon the amount of gas inhaled. The victim is often found in an unconscious condition. The heart is weak, the pulse is feeble, respiration is shallow and the surface is cold.

TREATMENT.—

Fresh air is of the greatest importance in all cases of this kind. Stimulants and artificial heat—something to increase the vitality and physical power—are also needed. In some cases there is frequent and persistent vomiting, so that remedies given by the stomach may prove not only unsatisfactory, but very uncertain. Artificial heat, however, may be applied with benefit. Artificial respiration may also be needed, and may be applied the same as directed under DROWNING. A rectal injection of one quart of water as hot as can be borne is of benefit. If the condition of the stomach will tolerate, give hot drinks and stimulants. Remedies can be given with a hypodermic needle, but this part of the treatment falls upon the doctor. However, if a doctor is some distance away, the foregoing suggestions may not only revive the patient, but place him out of danger before the doctor arrives.

BLEEDING FROM INJURY.—Hemorrhage is one of the most serious accidents that can occur. It is always a dangerous and troublesome complication for the doctor, and as the sudden loss of a large amount of blood is liable to cause death, every one should have some knowledge of the most efficient means to prevent it. Hemorrhages may come from arteries, veins, from a cut or torn surface, from the nose, stomach or lungs.

The controlling of hemorrhage may be largely aided by having the patient lie down and remain quiet, allowing the head and shoulders to rest a little lower than the feet and the rest of the body. In hemorrhage from a limb, keep the limb elevated. In all cases of severe accident or hemorrhage *a doctor should be sent for at once.*

Bleeding from an Artery.—Hemorrhage from a large artery is always dangerous, and may be recognized by its bright red color and by its coming in spurts, although the flow does not entirely cease at any time. When arteries are cut or torn, they

retract within the sheath which surrounds them, and this allows greater opportunity for the blood to clot in the surrounding tissues. The inner and middle coats also contract, and this aids in forming a clot within the vessel itself. This contraction and clotting is of little importance when large vessels are wounded. When an artery is cut or torn, immediate pressure should be made with the hands. If occurring *in the arm above the elbow*, pressure should be made a little to the inner side of the front of the arm along the inner border of the biceps muscle. This is the line of the large artery which supplies the arm and hand. If hemorrhage occurs *below the elbow*, pressure may be made along the same line, or directly in front of the arm in the center of the elbow. When hemorrhage occurs *in the leg, if high up*, it may be controlled by making deep pressure in the center of the groin. This will compress the large artery which supplies the leg. The artery extends from that point downward toward the inner side of the knee. Pressure may be made along this line. As it extends down the leg this large artery gradually winds backward, and at the knee joint is directly in the center of the back of the leg. This point, or just above the knee, is the best place for checking hemorrhage that may occur *lower down in the leg or in the foot*, because at the knee joint the artery divides into two large branches. Pressure is most satisfactorily controlled by tying a handkerchief or some cloth about the limb, bringing the knot over the line of the artery and twisting the bandage with a stick. This is the only way in which success may be attained from the groin to the knee, because the layers of muscles are so thick and the artery is placed so deep that ordinary pressure with the hands would be of little or no benefit.

RECOMMENDED TREATMENTS.—

A. Perfect quiet, with constriction of the part by means of a rubber band or cord.—(7).

B. Tie limb between body and injury and twist the ligature until hemorrhage is checked. If about body, apply compress soaked in Turpentine, and bandage firmly until skilled assistance arrives.—(60).

C. Make out of cloth a pad larger than wound, place over wound, tie in place with handkerchief or strap, and with a stick twist till bleeding stops. Where no pad is handy, place knot of handkerchief over wound instead.

Bleeding from the Nose.—Hemorrhage from the nose in the great majority of cases is not dangerous, and quite serious cases may be controlled by plugging the nose with cotton or a soft cloth. In the more serious forms, however, this will not

control the trouble. The very best means to control serious hemorrhage from the nose is by giving $\frac{1}{100}$ of a grain of Atropine. Repeat the dose in thirty minutes, and after that give once an hour. Whenever the face becomes flushed and the skin red, or should the pupil of the eye become widely dilated, this remedy should be stopped. We have treated several cases of severe hemorrhage from the nose and have never failed to control the trouble with Atropine. In some cases we have used Glonoin and Atropine together, giving $\frac{1}{100}$ of a grain of Glonoin with each dose of Atropine.

RECOMMENDED TREATMENTS.—

- A. Peroxide of Hydrogen..... 1 ounce.
Water..... 1 “

Mix. Put in an atomizer and spray the nose, or snuff up the nose from the hand.—(48).

B. From whatever cause this occurs, it may generally be stopped by putting a plug of lint into the nostrils. If this fails, apply a cold bandage to forehead, raise the head and clasp the hands underneath, so that the head will rest on both hands; moisten the plug slightly and again apply. Or you can try the simple remedies of snuffing salt and water or vinegar up the nostrils.

C. Wear a bright silk ribbon $\frac{3}{4}$ inch wide around the neck. The nose will never bleed so long as it is worn there.

I have prescribed this for thirty years, and it has never failed to prevent nosebleed.—(30).

- D. Antipyrin 10 grains.
Water..... 1 ounce.

Make a solution and apply with a piece of cotton to bleeding surface. If case is chronic, use internally Fluid Extract of Ergot in 10-drop doses, diluted in a little water, every 3 hours.—(23).

E. Take a piece of fat hog bacon just the size of the nostril, push it as far back as it can be pushed and let the patient hold a lump of ice in his mouth. The piece of bacon must be salty and three inches long. Have never known it to fail.—(20).

F. Elevate arms over head until hands meet and hold them there. Head must be elevated. Do not stoop over. Cold to bridge of nose and cold to upper part of spine.—(35).

Bleeding from Small Cuts or injuries may be stopped by cold water or ice, or pressure, until clot has had time to form. Or a bandage applied and kept wet with distilled Witch Hazel is excellent.

Bleeding from the Teeth arising from extraction: Cut a piece of clean, dry sponge, cone-shaped; compress tightly and put into cavity left by tooth.

Bleeding from the Lungs.—(See under HEMORRHAGE in Department I).

Bleeding from the Stomach.—(See under HEMORRHAGE in Department I).

Bleeding from the Bowels.—(See under HEMORRHAGE in Department I).

BLOWS over heart or lungs, or any important organ, are serious. Where patient has fainted, administer brandy frequently in small doses; rub spine with liniment.

BONES, BROKEN.—(See FRACTURES).

BRUISE.—An injury to the flesh caused by violent contact with a hard surface, as from a blow.

TREATMENTS.—

A. If a severe bruise, as from the blow of a hammer or a horse stepping on the foot, as soon as possible put the bruised part into cold water, notwithstanding it will cause an increase of pain. Keep it in the water for five or ten minutes, then take it out, dry, and put on freely any mild liniment for the same length of time. After a few minutes place it again in the water and repeat the application of liniment. The same treatment may be repeated three or four times during the first day; afterwards apply the liniment only. If the bruise is large and upon such parts as cannot be put into cold water, let cloths be wrung out of cold water and laid upon it, and from time to time apply freely a mild liniment.

Note.—The object of applying the cold is to contract the small vessels and prevent inflammation.

B. Cold water applied constantly.—(6).

C. Dissolve a teaspoonful of Sugar of Lead in a quart of distilled Witch Hazel and keep the bruised part wet with it.—(4).

Note.—The advantage of applying Sugar of Lead and Witch Hazel lies in the fact that both are astringent, hence tend to contract the small vessels the same as the application of cold water, and perhaps to a greater extent.

D. *If the injury has resulted in breaking the skin and causing an open wound.*—Steep Wormwood, wet cloths with the solution and lay over the bruised part; or apply the following ointment:

Vaseline	1 ounce.
Subnitrate of Bismuth	1 scruple.
Carbolic Acid	10 drops.

Mix well and rub over the bruise twice a day.

BURNS AND SCALDS.—The danger arising from burns will depend much upon the extent of the surface burned and the depth of the injury—if very extensive and deep, the patient may never rally; or if flame to any considerable extent has been drawn into the lungs, the probability is that the person cannot be saved. The teaching is that where a burn covers one-third of the surface, death is almost sure to follow.

The great danger from large burns is blood poisoning. All the tissues destroyed soon commence to decompose and many poisons are produced. These poisons are rapidly absorbed into the circulation, and this produces a condition of blood poisoning that may result fatally.

TREATMENTS.—

What To Do.—In the case of a severe burn or scald, if nothing else is at hand, apply cold water immediately and but little inflammation will follow. In the case of a child being burned at the table by spilling a cup of hot tea or coffee, do not wait to remove his clothing, but dash cold water on at once. This will prevent the hot clothing from burning deeper and protect the skin at the same time. Lift the clothing and pour on more water, then remove the clothing and apply cold water by wetting cloths and laying over the surface. The cloths applied must be kept wet *without removing them*. Cold milk is better than cold water because it is thicker and offers better protection.

To secure benefit from this treatment it must be applied almost immediately—quickly enough to arrest the heat before the skin has been destroyed. Otherwise it will not be so valuable as Lime Water and Linseed Oil, baking Soda and other recommended treatments.

A. For pain following burns and scalds nothing gives greater relief than the application of cold sweet milk. This may be applied on a cloth frequently changed, or, when possible, by immersing the injured surface in a vessel containing the milk. The application should be continued until there is freedom from pain, and followed by dressings of some mild, soothing antiseptic.—(1).

B. If burn is severe, cover surface with dry baking Soda and bind lightly with a soft cloth.

C. Use equal parts of Lime Water and Linseed Oil. Apply by saturating small pieces of cloth and laying over the burn. Keep cloths wet by pouring on the solution. Do not take dressing off every day. If blisters form, open at base so as to let the fluid out. Do not make a large opening. After heat is out dry Boracic Acid makes a good application.—(53).

Note.—We have stated before that the smarting and burning were caused by the destruction of the outer layer of the skin and exposure of the deeper layer. The benefit derived from Lime Water and Linseed Oil is produced as follows: The lime contained in Lime Water has a soothing effect upon the deeper tissues, while the oil acts as a covering and excludes the air.

D. Apply distilled Witch Hazel every few minutes. This will stop all smarting, even in the case of a burn from hot grease.

E. Common washing Soda or cooking Soda, 3 tablespoonfuls to a pint of water. Apply freely.—(7).

F. If clothes stick to the flesh, do not tear them off, but flood the part with Olive Oil; where clothes do not stick, apply cloths saturated with strong solution of baking Soda.

G. Apply white of eggs.

H. Lay on cloths wet in Olive Oil and Laudanum. Cloths wet in Lime Water are also good. To heal burns, apply an ointment made as follows:

Vaseline.....	1 ounce.
Oxide of Zinc.....	1 drachm.

Mix thoroughly with caseknife, spread on linen cloths and place over them.

I. In case of scalds, exclude the air at once with Soda and Flour, covering the parts and keeping them covered.—(33).

CHOKING.—(See FOREIGN BODIES IN LARYNX, also FOREIGN BODIES IN OESOPHAGUS).

COLLAPSE.—Collapse is an extreme and sudden prostration of the vital forces.

Symptoms.—Loss of consciousness, usually sudden, and complete relaxation of the system. Breathing may be deep or shallow. The pulse may be slow, full and strong, or rapid, small and weak. The pupils may be dilated or contracted, and the face may be flushed or pale.

Causes.—These variations are produced by the various effects on the brain, and may result from an excessive use of intoxicating liquors, from opium, concussion, fractures of the skull, apoplexy, uræmic poisoning, etc. If a man is found in an unconscious condition, a distinction should be made if possible. The most frequent causes are severe accidents or following operations.

TREATMENTS.—

What to Do Till the Doctor Comes.—The treatment of these conditions consists of stimulants to overcome the weakened condition of the heart and lowered vitality of the patient. The

sluggish circulation must be aroused. Drugs for this purpose, such as Digitalis, Strychnine, Glonoin, etc., would have to be administered by a physician, but if he is delayed in coming, and especially if he is some distance away, the following suggestions carried out may place the patient out of danger before he arrives.

First place the patient in a comfortable position and give an abundance of fresh air. Apply artificial heat externally. Bottles or jugs filled with boiling water should be placed around him, and an abundance of covering should be used. This aids in bringing the blood to the surface and improves the circulation. Also inject into the rectum a pint of strong coffee as hot as can be borne. The foot of the bed should be raised so that the head and shoulders are lower than the hips. If the patient can swallow, give hot drinks.

If the patient could be placed in a warm bath and the temperature gradually raised until the water was quite hot, it would relieve the necessity of much of the foregoing treatment.

A. In almost all cases of collapse the surface is cold, the circulation is feeble and respiration is weak, and the treatment, almost without exception, is stimulants and artificial heat. In a state of collapse the patient may not always be able to swallow, but artificial heat can be applied with advantage in every case where the surface is cold. In collapse from sunstroke (see *SUNSTROKE*), the treatment is radically different.

B. Apply Ammonia to nostrils on a handkerchief, so it will not be poured into nose by accident. Give a little brandy sling and apply artificial heat. As improvement occurs, give cup of hot beef tea or hot milk.—(14).

C. Keep patient perfectly quiet. Apply warm flannel to extremities. If patient can swallow, give strong coffee.

If due to hemorrhage, keep head low and stop flow of blood.—(13).

Collapse may Occur from Various Causes, a number of which are enumerated below. It should be remembered that the symptoms of the various conditions are similar, and it is often extremely difficult to differentiate. However, in most cases the previous history of the patient will aid materially in clearing up the doubt.

From Injury, or Intoxication.—Examine carefully for any injury. Alcohol is noticeable in the breath, yet a man may be stricken with apoplexy while drunk, or may fracture the skull by falling while under the influence of opium or alcohol. Again, one drink may give the smell of alcohol, but one drink will not produce collapse; so the smell of alcohol is uncertain. If it is alcoholic stupor, steady and firm pressure against the

arched surface just beneath the eyebrows, to the nasal side (towards the nose) of the center, will arouse temporary consciousness.

From Epilepsy, or Uræmia.—In coma following epilepsy, the temperature is normal and the patient can be aroused. In uræmic poisoning, the temperature is below normal at first, and there are usually convulsions, dropsy and albuminaria. Examine the urine if the conveniences are at hand. In uræmic stupor the breathing is sharp and the pupils dilated. See EPILEPSY or URÆMIA.

From Apoplexy.—The breathing is slow and noisy, pulse strong and slow, face flushed, the arteries of the neck are throbbing, the pupils are uninfluenced by light, the paralyzed cheek is drawn to one side, and is usually drawn in and puffed out with each breath, and the temperature, which is at first below normal, rises later on. See treatment for APOPLEXY.

From Opium.—The pupils are contracted to a pin point, breathing is shallow, there is no paralysis, and unconsciousness comes on gradually. If enough opium has been taken to produce unconsciousness, it is an indication of opium poisoning. See treatment under POISONS, ANTIDOTES AND TREATMENTS. It is sometimes impossible to distinguish between opium poisoning and apoplexy.

From Concussion of the Brain.—There is complete muscular relaxation, the skin is pale and cold, the pulse quick and small, breathing is shallow and the temperature is below normal. Concussion sufficient to produce unconsciousness may be looked upon as serious as there is always liable to be more or less laceration of the brain substance. See treatment for CONCUSSION OF THE BRAIN.

From Compression of the Brain, as from a fractured skull, there is unconsciousness. The skin is hot, the breathing slow and noisy, both cheeks may be drawn in and puffed out with each respiration, the pulse is slow and full, and the pupils are dilated and do not respond to light.

What to Do Till the Doctor Comes.—Place the patient in a comfortable position. If it is very hot, place him in the shade; if it is cold, place where warm. Send for a doctor. While waiting, hold Ammonia to the nose occasionally, bathe the face with a little Whiskey or Alcohol in water, and, if he can swallow, give hot drinks—sling, or something of the kind.

From Hemorrhage.—In all cases maintain absolute quiet. If from an extremity, as a leg or arm, keep the limb elevated and proceed as directed under BLEEDING FROM INJURY; if the hemorrhage is from the body, stop the flow of blood by making

pressure with a handkerchief or other soft cloth. If the patient grows weak, give stimulants, as hot Whisky sling; or even hot water will improve the strength and vitality.

If the case is desperate, as following the loss of a large amount of blood, the doctor may give an injection of salt solution in the following manner:

Add $\frac{1}{2}$ teaspoonful of common salt to 1 pint of warm water. Place in a fountain syringe, attach a long hollow needle to the tube of the syringe, lift up the skin from the abdominal cavity, insert the needle and allow the salt solution to penetrate the tissues. The needle may be partially withdrawn occasionally and inserted in another direction. In this way more of the fluid can be used. In female patients the breast is the most successful place to inject the salt solution. This injection increases the blood pressure, and this calls for increased heart action; in a word, it is a heart stimulant. This is especially valuable where there has been much hemorrhage, as the salt solution takes the place of the blood that has been lost. It is well known that following severe hemorrhage the heart action can be temporarily maintained on a normal salt solution. Nature will not maintain her forces without a purpose. If a large amount of blood has been lost, the heart action is correspondingly weakened because there is little work for it to do. If the normal amount of fluid can be replaced, the heart action immediately improves to meet the extra demands made upon it, and for a time the artificial fluid injected is successful in maintaining vitality. More than 1 pint of salt solution can be injected.

CONTUSIONS.—A contusion means a bruise. See BRUISES.

CRUSHED LIMBS.—*What to Do till the Doctor Comes.*—*Fingers and Toes* should be carefully modeled into shape, laid on a small splint, and dressed with soft white cloth soaked in cold or hot water.

Hands and Feet.—Wrap in something soft and warm. Use cold only when bleeding is profuse. Lay the patient down and keep the injured member elevated. This is especially important if there is much bleeding. If there is no hemorrhage, keeping it elevated will tend to prevent swelling.

Arms and Legs.—Treat as for hands or feet. Do not remove clothing except to cut away, and replace by warm covering.

DISLOCATIONS.—Dislocation is abnormal displacement of one bone with another. It may be partial or complete. Dislocations are generally the result of accident, but may result from disease where the ligaments and other structures are relaxed

or destroyed. Where the skin remains unbroken, it is called *Simple Dislocation*; where the tissues are injured and the wound reaches the surface and breaks through the skin, it is called *Compound Dislocation*; when besides the dislocation there is fracture of a bone and rupture of an important artery, it is termed *Complicated Dislocation*. Dislocations are rare in infancy and in old age, because in infancy the bones are very flexible and yield to violence, and in old age they are more brittle and fracture easily. A dislocation may be mistaken for a fracture (see FRACTURES). Dislocations of the ankle or knee may be forward, backward, inward or outward. Dislocations of the hip may be upward and downward, upward and forward or upward and backward. Dislocations of the elbow may include both bones of the fore-arm, or only one bone. The *under jaw* can only be displaced forward.

TREATMENT.—

The treatment for dislocation of the *under jaw* is to place the patient's head against the back of a chair, wrap your thumbs with a clean handkerchief or soft cloth, stand in front of him, place your thumbs on the lower double teeth, press quickly and firmly downward and backward, and at the same time raise his chin. This is usually effectual.

In dislocation of the *thumb or a finger*, make a loop of soft cloth and pass over it. Pull in the same line as the thumb, or finger. The sensation as well as the sound will indicate when the bone has been replaced; also the natural appearance of the joint will indicate that the dislocation has been overcome.

Dislocations of other joints always require the services of a doctor, hence will be spoken of only in a general way. They generally require extension by force until the contraction of the muscles are overcome, when the bone may be replaced in its proper position. While waiting for the doctor, make the patient as comfortable as possible, as directed under FRACTURES.

DROWNING.—TREATMENTS.—

A. Loosen clothing, if any; wipe dry; wedge mouth open and keep open. Empty the body of water by laying it on its stomach and lifting by the middle, so that the head hangs down; also jerk the body a few times, and continue this treatment as long as water flows from the mouth. After water has been got rid of, turn patient on back, placing him on level ground, and keep mouth wedged as before. Now place the left forefinger on tongue to keep it in place, and with right hand press upon the abdomen, making the pressure toward the back and head of patient; press gently at first, but increase the pressure until as much air as possible has been forced out of the chest, and then

withdraw the hand so that the lungs may fill. Repeat these movements, at first making them eight or ten times a minute, then increasing to twelve or fifteen a minute. This is Satterthwaite's method. Where there are several persons to assist, Sylvester's method may be used in addition. The arms should be pressed upon the chest at the same time that the abdomen is pressed upon, and when the hand is withdrawn from the abdomen the arms should be brought up by the side of the head. *Do not give up.* People have been saved after hours of patient effort. When breathing begins, wrap patient warmly, rub limbs and body briskly, and give warm drink, or brandy in small doses at first—teaspoonful at a time.

B. If a barrel, keg or anything of that kind is at hand, lay the person on it, face downward, and roll him forwards and backwards, keeping the head *low* to force out the water. If nothing of that kind is at hand, take him by the heels and hold him up, and give the body several light jerks. After the water is all out of the lungs, place the patient on his back and work the arms up by the side of the body, above the head and down again as if you were working a pump. When the arms are brought down, press the hands firmly against the chest to expel the air; when the arms are raised, the lungs are allowed to fill. Keep the patient in a horizontal position and repeat the movements regularly and slowly—fifteen to eighteen times a minute. After he has rallied and is breathing, give a little hot Brandy sling, if he is able to swallow it. Also apply artificial heat, as this will bring the blood to the surface and aid in improving the circulation.

C. Get patient out of water as soon as possible and turn him on face. Stand astride him with your face towards his head. Put your hands under middle of body and raise it up so his head will be down, so that the water will run out of his lungs. Hold him as long as water runs, then let him down and pick him up again. Shake him till all the water is out of the lungs, then turn him on his back and go to his head. Seize his arms below the elbows, bring them out at right angles with his body and up over his head, and back again, working them back and forth in this way; and every time they are brought down, press *firmly* against the chest. These movements should be slow and regular.—(13).

EAR, THINGS IN.—Seeds or grain, sand, a pea, bead, small button, and many other articles, may become lodged at the inner end of the canal which forms the external ear. In giving a description of this canal (see **EAR AND ITS DISEASES, Department I**) it will be remembered that we stated it is not straight, but somewhat curved, and that the inner part extends downward. By taking hold of the external ear and lifting it upwards and a

little backwards, the canal may be partially straightened and its termination be brought into view. While holding the ear in this position the objects mentioned, or various other articles which may have found their way into the canal, may often be grasped with a pair of tweezers or forceps and removed. Washing out the ear with warm water and a small syringe will often succeed in removing foreign bodies. If these means fail, the end of a match or toothpick may be covered with wax or a little glue, when by carefully pressing against the object it may adhere and be drawn out by this means. Sometimes it is necessary to secure the services of a doctor.

EYEBALL, INJURIES TO.—Serious injury always requires the services of a doctor at once. Place a cold wet cloth over the eye till he comes. There are many slight injuries where the eyeball may become only slightly inflamed and a little sore. In these cases keep the eye from the light; if necessary, keep it bandaged for a few days, or wear colored glasses, and use any of the Eye Waters recommended (see Index). If a foreign body becomes lodged against the eyeball, see **FOREIGN BODIES IN THE EYE**.

BLACK EYE.—A blow over or near the eye is liable to result in discoloration and swelling. For this condition various methods of treatment are used. Years ago it was customary to apply leeches, and perhaps that practice is still followed by some. Others recommend binding on a small piece of raw beefsteak. A good application, and one that can be quickly and easily applied, is to wet a small piece of cotton or a small piece of soft cloth with Listerine and apply over the injured surface, keeping the cloth wet with it.

EYE, THINGS IN.—(See **FOREIGN BODIES IN THE EYE**).

FAINTING—INSENSIBILITY.—Where patient is partially conscious, give stimulants. Ammonia or Cologne Water may be inhaled. Sprinkle cold water in face, loosen clothing, place in recumbent position and introduce fresh air into the room. No violent measures should be used to arouse a patient who may or may not be insensible. In all cases of apparent insensibility the attendants should be careful as to what they say within hearing, for while the patient can neither speak nor move, he may be perfectly conscious of what is passing around him, and the effort to speak may do him great injury; or unfavorable remarks from bystanders would naturally prove detrimental.

See also **FAINTING** in **Department I**.

FALLS.—If one has had a severe fall and is wholly or partially conscious, move as little as possible in case of broken bones. Place in comfortable position, loosen clothes carefully and apply restoratives. If bones are broken, see FRACTURES.

FIRE IN ONE'S CLOTHING.—Don't allow the victim out of doors or in draught. Roll him in carpet, rug, coat, cloak, quilt, or any convenient wrap. Leave only the head out for breathing. Prevent inhaling the flames.

FOREIGN BODIES—Steel, etc., IN THE EYE.—When a small piece of steel, stone or other hard substance strikes the eyeball, it may and usually does become so firmly adherent that it is removed with difficulty.

TREATMENT.—

The best way to manage these cases is to dissolve from 2 to 4 grains of Muriate of Cocaine in a drachm of water. Drop a little into the eye every two or three minutes until sensibility is relieved, and then with a sharp-pointed instrument dislodge the foreign body. It may be necessary to turn the lid upward in order to expose the cause of the trouble. To relieve the inflammation and soreness that is occasioned, mix the following:

Sulphate of Zinc	1 grain.
Morphine	2 “
Boric Acid	20 “
Water	1 ounce.

Drop this into the eye from four to six times a day.

If there is much swelling and inflammation, the patient should remain in the house and keep either hot or cold packs over the eye. Dissolve 2 drachms of Boric Acid in 8 ounces of water. Saturate a small cloth or piece of cotton, place it over the eye and keep it wet with this solution.

Sometimes a small body may become lodged under the lid and it is impossible to discover it. Such cases may often be relieved in the following manner: Add a teaspoonful of whole clean Flaxseed to 1 ounce of water, stir frequently until a mucilage is formed, raise the eyelid and drop in as much as the eye will hold, allowing it to float around under the lid. By reason of its density the mucilage in coming in contact with the foreign body carries it along with it, and eventually the eye is freed from it. Whole Flaxseed is sometimes placed under the lid and the result is the same. The seeds are so smooth and oily that they cause no friction or irritation, and in coming in contact with the foreign body they dislodge it.

As a rule dirt or a cinder may be seen and easily removed with a clean silk handkerchief wrapped around the end of a lead pencil. Or, close the eye for a few minutes, allow tears to accumulate, roll the eyeball inward, and blow the nose on that side. This is sometimes all that is necessary.

FOREIGN BODIES IN THE LARYNX.—Foreign bodies, such as coins, buttons, small nails, pieces of bone or pieces of meat may become lodged in the larynx or windpipe. With children it is more apt to be peas, beans, cherry stones, small corks or carpet tacks. This makes little difference, however, as the result is the same in all cases.

Symptoms.—Violent coughing, strangling, and a feeling of suffocation with cyanosis, that is, the face becoming blue. If the foreign body is large, the struggle is desperate. If not quickly dislodged, the symptoms may become less violent, but the suffering is great, and unless the body is removed death soon results. Sometimes it is possible to locate the body from audible gurgling sounds, which correspond to the respiration. Where the body is not removed, inflammation followed by redness on the surface may point to its exact location. Should the substance be carried into the lungs, pneumonia might follow or an abscess result. If it was confined to the upper part of the air passage, adhesions might form with other surrounding structures; but unless the body is removed, death usually occurs before this has had time to take place.

TREATMENT.—

First give an active emetic. Ipecac—the powder, syrup or fluid extract of—is always safe for this purpose, and especially with children. When the patient vomits, the head should be placed *low*. While the treatment may seem a little severe, if during vomiting the patient was held by his feet with the head down, and given several light jerks, the probabilities of dislodging the foreign body would be greatly increased. Inverting the patient as described and giving the body several jerks should be tried without the emetic, if the latter is not at hand. If these means fail, surgical interference will be called for. An opening should be made into the trachea, and, if possible, the body located and removed, and the wound closed. This operation is called tracheotomy.

FOREIGN BODIES IN THE ŒSOPHAGUS.—Coins, buttons, chicken bones, and other foreign bodies sometimes find their way into this tube, which leads from the throat into the stomach. The smallest part of the tube is at the beginning. The

next smallest diameter is at its junction with the stomach. Foreign bodies which get into the œsophagus usually pass into the stomach without difficulty. Should they lodge, the symptoms would correspond to the size and shape of the article, whatever it might be. If it had sharp angles, there would be stinging pain; if it was large and smooth, there would be dull pain, less acute. If the body was large, it might cause difficulty in breathing, although this symptom would be limited. Besides interfering with swallowing, the danger of a foreign body in the œsophagus would be its liability to set up inflammation. Inflammation might result in adhesion to the surrounding parts, and ulceration might penetrate into the trachea, or windpipe, into the pleural cavity, into the sac which surrounds the heart, or into the aorta, the large blood vessel which passes from the heart through the chest cavity.

TREATMENT.—

If a doctor is not immediately at hand, give an emetic. Vomiting is one of the safest, and in many cases one of the surest means of removing the trouble. A doctor may take a pair of long, smooth, curved forceps and endeavor to grasp the body and bring it out; or, if unable to draw it out, push it into the stomach. If all other means fail and the case becomes serious, the œsophagus must be opened, the body removed and the wound closed up.

FRACTURES.—By fracture is meant the breaking of a bone. This is usually the result of external force. However, it may, and sometimes does result from muscular action. The term fracture is also applied to the breaking of cartilage or tendons. Fractures may be complete, *i. e.*, entirely through the bone, or incomplete. Long bones sometimes split lengthwise for a longer or a shorter distance. A *Complicated Fracture* includes injury to the surrounding tissues. It may extend to a joint, or important arteries or other structures may be included. *Compound Fracture* is so called when the broken ends of the bone project through the skin. *Impacted Fracture* is a term applied to fracture when the broken ends of the bones are driven into each other. This may happen in fracture of one of the bones of the leg from falling heavily and striking on the feet. When the bone is badly shattered or crushed, it is called *comminuted*. Bones may be fractured easily as a result of disease.

Diagnosis.—A fracture may be distinguished from a dislocation by the free and unnatural movement. In dislocation the limb is fixed or rigid. In fracture the ends of the bone may usually be felt grating on each other; in dislocation they cannot.

Try to rotate a fractured bone and only a part of it moves; in dislocation it moves as one piece. In fracture near the ends of the bones the head remains in position; in dislocation the head of the bone is out of the socket and appears in a new position. In many cases of fracture slight movement will cause the broken ends of the bones to produce a chucking sound which may be heard for some distance. There may be shortening from either dislocation or fracture, or fracture and dislocation may occur together. Fracture with impaction, *i. e.*, where the ends of the bone are driven together, is extremely difficult to diagnose. More or less swelling follows fracture, and when this becomes extensive, diagnosis may also be difficult. In a severe bruise the pain is diffused; in fracture it is largely confined to the point where the bone is broken. Many forms of injury may include injury to the nerve supplying the part to such an extent as to cause loss of motion, hence this symptom, *i. e.*, loss of power to move a limb, may be of little value in a case of suspected fracture. The collar bone is the one most frequently broken. Next come those of the arm or leg, the ribs and kneecap.

TREATMENT.—

What to Do Till the Doctor Comes.—At the present day, even out in the country, the services of a doctor can be secured in a very short time—in an hour or two—and any efforts to relieve the patient are but temporary.

Fracture of the Collar Bone.—In fracture of the collar bone the shoulder of the injured side is lower. It is also drawn forward and inward. When the bone is separated, the outer end of the inner fragment is drawn upward and overlaps the outer fragment. When not separated, the finger can detect some irregularity at the point of fracture. The pain is mostly located at the same point. The patient supports the arm of the injured side by the sound arm and hand as this relieves the pain. The head leans toward the injured shoulder as this relaxes the muscular tension and also aids in relieving pain.

If out in the field or in the woods and the collar bone is broken, take whatever is most convenient for a sling. Place it beneath the elbow of the arm on the injured side, draw the shoulder well up and backwards and tie the support over the sound shoulder, allowing the palm of the hand on the injured side to rest upon the breast of the sound side. The patient can walk to the house.

Fracture of the Ribs.—Place the patient in bed or on a couch and have a cuspidor within reach so that the expectorations may be noted by the physician. The object of this is to

detect any blood that may be present in the sputum. Blood would indicate internal injuries. It would indicate that the lung had been perforated, and that blood had followed the wound into the air cells and tubes and was being eliminated by this route. Injury of this kind would, of course, indicate a serious condition.

Fracture of the Arm.—If the arm is broken, secure some light material, such as a thin piece of board, a shingle, or a small stick with the two sides flattened, to use for a splint. In the absence of anything else, tall grass or a handful of hay equally distributed over the inner side of the splint will answer for a temporary dressing, or the hay or grass may be used for a splint. Whatever is used should be bound on reasonably tight. Regarding the bandage, it is only necessary to say that whatever is most convenient should be used for this purpose.

If the *arm is broken below the elbow*, after applying the bandage the arm should be flexed (bent) at the elbow joint and supported by a sling until the patient can reach home.

Fracture of the Leg.—In the case of broken leg the same means should be used for bandaging, but in this case the patient cannot walk, hence some means of conveyance must be provided. The most convenient is a stretcher made by securing a blanket to two sticks and placing the patient thereon. The injured limb should be handled with care and maintained in a uniform position as nearly as possible. In nearly every case of this kind conveyance can be made with a team and wagon, but a stretcher is preferable because there is less jolting and less pain.

In cases of fracture with large swelling, *neither tight bandaging nor cold should be applied for any length of time*, as gangrene might result.

Fracture of the Kneecap.—The kneecap is a small, flattened, triangular bone situated in the front of the knee joint. The outer surface is slightly oval, the inner surface is concave. It is enclosed in an expansion of the tendons of the muscles of the front of the thigh, that is, those extending from the hip to the knee. After enclosing the kneecap, the tendon continues downward and is attached to a small prominence on the tibia, or shin bone. The muscles mentioned are called the extensors because they are the ones called into action in extending the limb.

Fracture of this bone is usually the result of external violence. It is said also to result sometimes from violent muscular action. Sometimes the tissues over the kneecap become swollen and the bursa (See BURSA, ENLARGED) becomes considerably distended by an excess of fluid. This is called *Housemaid's Knee*, so-called because this condition is most frequently met in

women who work on their knees scrubbing floors, etc. The same condition over the bursa situated at the back of the elbow is sometimes called *Miner's Elbow*, and results from pressure of the elbow against the rocks while using the pick and shovel.

Symptoms.—When the kneecap is fractured, the parts are widely separated and may be easily detected by the fingers. The symptoms of housemaid's knee are enlargement and swelling. In case of housemaid's knee an abscess may follow. The symptoms of abscess are those of abscess elsewhere.

TREATMENT.—

Fracture of the kneecap requires the services of a doctor. Where there is swelling and enlargement from pressure, as in the case of *Housemaid's Knee*, it seems needless to state that the patient must keep off her knees. If an abscess forms, it should be opened at once.

Fracture of the Spinal Column.—It will be remembered that the spinal cord is situated in a canal within the spinal column, therefore occupies a protected position and is seldom exposed or injured. The spinal column is composed of many small bones united together. They are arranged in three groups resembling three short columns, the neck, back, and small of the back including the portion between the hips. This renders the whole structure less liable to injury, because it requires greater force to fracture or dislocate a short column than a long one. Again, the layer of cartilage which is placed between the bones forming the spinal column acts as a cushion to aid in preventing jar or injury. If a man should fall some distance and his back should be doubled over some prominence, undoubtedly the spinal column would sustain either fracture or dislocation, although dislocation would be most liable to occur. In dislocation one bone is driven forward on another, and if such displacement was carried far enough, the spinal cord would be compressed between the two.

That part of the spinal column most liable to injury is at or just above the small of the back, because that is nearest the center. The second most frequent point liable to injury would be the lower part of the neck where it joins the more fixed part of the spinal column between the shoulders. The third most frequent point would be at the junction of the neck and head, because the bones forming the spinal column situated in the neck are more freely movable. The upper ones, called the *atlas* and *axis*, are the most liable to injury or displacement from blows applied to the head.

TREATMENT.—

In case of fracture or dislocation of the spinal column we know of no form of treatment that insures satisfactory results. Perhaps the extension method is the best, but even that is liable to fail.

FREEZING.—The part should be restored by rubbing with snow or cold water until the white color has been replaced by the natural color and pain is felt; then apply Olive Oil. For general freezing, rub with cold applications in a cold room that is gradually warmed. When patient is able to swallow, give stimulants and hot drinks, cover warmly and allow to rest.

FROSTBITE.—(See CHILBLAINS in Department I).

HEAT-STROKE.—This is an exhaustion due to excessive heat. A subject of heat exhaustion usually becomes unconscious. This may occur suddenly and be accompanied with tremors or convulsions, but as a usual thing unconsciousness is preceded by dizziness or vertigo. The surface remains cool and the breathing is natural, but the pulse is so feeble as to be almost imperceptible.

SUNSTROKE.—There is usually no warning in a case of sunstroke. The subject of it becomes immediately unconscious, falls in convulsions or is stricken with paralysis. The surface instead of being cool, as in a case of *Heat-stroke*, is hot and flushed, the eyes are bloodshot, and the breathing either rapid and shallow or slow and heavy.

The treatment in sunstroke as indicated by the above symptoms differs greatly from what is proper in a case of *Heat-stroke*.

TREATMENTS.—

Heat-Stroke.—*What to Do Till the Doctor Comes.*—Treatment should be prompt and administered on the spot, if possible; that is, time should not be wasted in carrying the patient any distance. Place him in a recumbent position, with the head low, loosen the clothing and keep bystanders away so that air may circulate freely about him. Give stimulants at once—whiskey or brandy in small doses, say a teaspoonful every fifteen minutes. If he is unable to swallow, inject two or three tablespoonfuls of brandy into the rectum. Bathe the temples in Camphor and apply Hartshorn to the nostrils.

A. If surface is hot and burning, strip and sprinkle freely with cold water. If surface is cold and clammy and pulse weak, give stimulants and an enema of hot salt solution.—(60).

Sunstroke.—*What to Do Till the Doctor Comes.*—Keep wrapped in sheets wet with cold water. Keep head elevated. Get a doctor as quickly as possible.

A. Ice bags to the head, and even an ice pack for the whole body if the case is a very bad one.

For internal treatment:

Bromide of Potash.....	2 drachms.
Fluid Extract Ergot.....	2 “
Water	4 ounces.

Dose.—Teaspoonful in $\frac{1}{2}$ glass of water every three hours.

B. Cold water and ice to the head. Low diet. Perfect quiet in a cool place.—(7).

C. Horizontal position. Cool place. Sponge with cool water.—(17).

NOSE, THINGS IN.—Sometimes small children force buttons, peas, small corks or various other articles into one of the nasal cavities. They may be pressed so high up that their removal is difficult. In our experience in cases of this kind we have always succeeded by the following method: Make a short, sharp bend at the end of a small probe, insert the probe until it touches the foreign body, press the probe to one side and forcibly insert it past the body, then turn the probe so that the hook will be directed toward the center of the cavity, draw down on it, and the object will be brought down with it.

SCALDS.—(See under BURNS).

SHOCK.—When from accident or other cause there is great prostration of the vital forces, the condition is often spoken of as shock.

Cause.—Violent collision with other bodies, or the concussion caused by them. A sudden striking together, or against something firm and resistant, would produce shock. It is well known that a blow over the “pit” of the stomach may cause death without leaving any visible signs of injury. It is claimed that occasionally life is destroyed by sudden and powerful mental emotions, and we know personally that this may be true in those suffering with heart disease. The cause of all forms of shock is the sudden arrest of heart action due to violent disturbance of the nervous system.

Symptoms.—If the shock is a severe one, the symptoms are extreme pallor, a cold, clammy skin, feeble pulse, pinched face, dilated pupils, and bewilderment or loss of the mental faculties. In

the milder forms of shock the patient may only be bewildered and talk incoherently. Nausea and vomiting are frequently associated with shock.

TREATMENTS.—

A. If a severe shock is due to injury, the shock must be treated first and the injury afterward. Artificial heat must be applied at once—to the whole body, if possible. Also the rectal injection of a quart of hot coffee, made stronger than for drinking purposes, is one of the best means of stimulating the vital powers. If the patient can swallow, stimulants should be given in small quantities at short intervals.

B. If it results from loss of blood or from severe injury, place patient in reclining posture with head lower than feet. If in bed, raise the foot a little by placing bricks under bedposts. Inject into the rectum 2 quarts of hot water into which has been thrown 1 tablespoonful of common kitchen salt. Give two teaspoonfuls of Whiskey at intervals of fifteen minutes.—(49).

C. Keep the patient quiet. Give Brandy or Whiskey. Put hot bottles to the feet and limbs.—(20).

D. Give Whiskey—one or two doses of $\frac{1}{2}$ ounce each. Put hot water bottles to feet and limbs.—(41).

Electric Shock.—If insensible, strip off clothes, dash cold water on chest with some force, or proceed with artificial respiration as in drowning.

SNAKE BITES.—According to the researches of the Smithsonian Institute it appears that only ten per cent of rattle-snake bites are fatal, one per cent of copperheads, and no fatal cases from moccasin bites. From this it would seem that snake bites are not so fatal as generally supposed. It is believed the results depend largely upon the condition of the blood of the patient bitten. It is also believed by those who have made observation and studied along this line that many deaths following snake bites are due directly to fright.

Symptoms.—The symptoms of bites from all poisonous reptiles are about the same—rapid swelling and severe pain. The skin of the patient may assume a mottled appearance, and later there may be spasms, stupor or unconsciousness.

TREATMENTS.—

A. The same as that given under **HYDROPHOBIA**. If the bite is on an extremity, as the finger, hand or foot, apply a cord tightly about the limb in order to shut off the circulation. It would seem advisable to make several applications of this kind,

and in removing the constrictions first to remove the one nearest the body, later the next one and so on. If there is prostration of the vital forces, give stimulants. Whether Whiskey or other popular remedies are used in these cases, it should be remembered that active elimination is all-important as this relieves the system of poison; hence the value of active cathartics and free elimination by the skin.

Note.—As stated under BEE STINGS, the small boy's application of black mud is believed by many to be the best treatment in those cases, and from our experience it is also equally valuable in snake bites. The following occurrence would serve to demonstrate its value in wounds of this kind, and also demonstrates the instinct of animals:

At a certain place on the banks of Pine Creek, in Pennsylvania, is a ledge of rocks which contains, or a few years ago contained, an immense number of rattlesnakes. While hunting near this vicinity one day we suddenly heard the yelp of our faithful dog "Tige." This was followed in rapid succession by a number of short, sharp barks. Hurrying to the scene we found the dog surrounded by a number of rattlesnakes which bit him in many places. Suddenly the dog disappeared and we were unable to find him for several hours. We finally discovered him on the bank of the creek nearly buried in soft mud. He suffered no inconvenience and gave no evidence whatever of his late exciting encounter with the rattlers.

B. Echinacea given in full doses every one or two hours is said to be a positive cure for the bite and sting of all poisonous reptiles and insects.—(30).

C. Suck the wound immediately, or cut it out.—(38).

D. Put 5 drops Tincture of Iodine in $\frac{2}{3}$ glass of water. Give a teaspoonful every quarter of an hour for three hours, then at longer intervals as seems necessary.—(43).—Homeopathic.

SPRAINS.—A sprain is a sudden wrench caused by falling, slipping or stepping upon some loose object with the result that a joint is injured or *sprained*. The ligaments which support the joint are stretched and torn, or may be broken. The nerve fibers and muscles are more or less injured. The muscles or tendons may be injured or displaced. A sprain may be the result of a self-reduced dislocation. The ankle, knee and elbow are the joints most often sprained. The free movement of the hip joint and shoulder joint renders them comparatively free from accident. If a joint is badly sprained, it is more liable to injury afterwards; it does not regain its original strength for the reason that the torn and displaced structures cannot be arranged or replaced in their natural position. Ligaments may be torn loose or separated and fail to unite, and the joint will be weakened in proportion.

TREATMENTS.—

A. Sprains require immediate attention. The injured part should be wrapped in flannels wrung out of hot water and covered with a dry bandage. The limb should not be allowed to hang down, but kept elevated to prevent swelling.

B. Sprains of the ankle or wrist, if seen immediately after the injury, can best be treated by a simple bandage to the joint, which is left in place 24 hours. After that the joint is supported by a basket strapping of adhesive plaster.—(40).

C. Bathe parts well in hot water, afterwards bathe thoroughly with the following solution: Salt, 1 or 2 tablespoonfuls, Vinegar, Alcohol and water of each enough to make one pint.—(64).

D. Salt and the white of an egg applied forms a cast.—(37)
—Homeopathic.

E. Put the part at rest and apply hot applications.—(20).

STINGS.—Sometimes the result of bee stings, or the sting of a single bee, is quite serious. However, death seldom follows unless the individual is stung many times.

Symptoms.—In most cases the only symptom is a little swelling, redness and pain. We have known those stung several times to give no symptoms or evidence at all. There are cases, however, where the results are radically different. The symptoms in a well marked case are vomiting, purging, great prostration and unconsciousness. For some distance around the sting the skin becomes spotted. This condition may be present all over the surface of the body and extremities. A bee sting on the tongue may cause rapid and enormous swelling of that organ, and swelling of the glottis to such an extent that in some cases it is said to cause death.

We were once called to treat the case of a little girl twelve years of age, who was stung only once. The bee lit on the little girl's hair and stung her on the top of the head. Either from the result of the hair or from some other cause, the wound appeared to be very slight, yet the child fell to the ground unconscious, there was rapid swelling about the head, face and eyes, also the hands and feet, and the whole surface of the body became as spotted as an adder. We applied the treatment given under "A," and it proved most successful. The spots and swelling disappeared in a few hours.

TREATMENTS.—

A. First remove the sting if it is present. The poison of a bee sting is said to be acid in its reaction, and it necessarily

follows that any alkaline solution will neutralize the acid and destroy the poison, therefore, if necessary, make a slight opening in the skin with a sharp knife and apply Ammonia water or a strong solution of baking Soda in water. Aside from this the treatment would be largely symptomatic, *i. e.*, to treat whatever symptoms appear. An active cathartic might be of benefit in some cases. Stimulants might also be needed.

It is claimed that the small boy's application of black mud for bee stings, *insect* and *spider bites* is the best treatment of all. Just how this acts we are unable to say, neither does it make any particular difference. It is results we are all after rather than quibbling over a scientific diagnosis or the action of remedies applied. See under SNAKE BITES.

B. Apply Aqua Ammonia or strong Saleratus water.—(32).

STRANGULATION.—See FOREIGN BODIES IN LARYNX, also FOREIGN BODIES IN ŒSOPHAGUS).

SUFFOCATION.—(See ASPHYXIA).

SUNSTROKE.—(See under HEAT-STROKE).

THROAT, THINGS IN.—See FOREIGN BODIES IN ŒSOPHAGUS).

WINDPIPE, THINGS IN.—(See FOREIGN BODIES IN LARYNX).

WOUNDS.—Wounds are injuries due to external mechanical force. Wounds are divided as follows:

Open Wounds: Those that are large on the surface.

Subcutaneous Wounds: Those that are larger beneath and small on the surface.

Incised Wounds: Those made with a sharp instrument where the tissues are cut clean and smooth.

Penetrating Wounds: Those resulting from a stab, bullet, nail, etc.

Contused Wounds: Where the parts are crushed, lacerated, or where the tissues are torn.

Poisoned Wounds: Where poison is conveyed into the wound.

Gunshot Wounds: If a bullet should strike some object and become flattened or misshapen and then enter the body, it might produce an open wound, a penetrating, contused or lacerated wound. Fragments of shell would do the same thing.

TREATMENT.—

If there is much hemorrhage, the first duty is to check the flow of blood. This may be done by making firm pressure with the hands or with a bandage or ligature, as described under BLEEDING FROM INJURY. Internal bleeding cannot be controlled without the services of a physician. Internal hemorrhage is always a grave and dangerous condition. To aid in checking the flow of blood the patient should remain perfectly quiet. Sometimes a bullet, nail or other blunt instrument may carry pieces of clothing into the wound. These should always be removed, but this, too, requires the services of a doctor. A bullet is more likely to push an artery aside and to cut it off. The same is sometimes true with tendons and ligaments. A bullet will sometimes glance when striking a bone. The contact may render the surface of the ball uneven or ragged, after which the wound would be much more severe if the ball should continue on its course.

If a bullet becomes lodged in the chest or abdominal cavity and does not interfere with the healing of the wound, nor produce paralysis, showing that it is not in contact with any plexus, or bundle of nerve fibers, it is better to allow it to remain. Continual probing, or an exploratory operation hunting for a ball that is doing no harm may, and often does result disastrously to the patient. A bullet that becomes lodged in the tissues and does not interfere with arteries or nerves soon becomes encysted, *i. e.*, surrounded by a membrane of new tissue. Once encysted, it may remain throughout a lifetime and produce no bad results or inconveniences.

The principal thing in caring for a wound is to *maintain absolute cleanliness*. Where the skin is broken or cut, the edges should be smoothed, if necessary, and then brought evenly together and stitched with clean silk. If about the face or neck, very fine thread or even horse hair may be used. This will prevent a scar. Wounds, especially bullet wounds, often produce great prostration of the vital forces, hence stimulants may be needed.

Department IV.

POISONS—SYMPTOMS, TREATMENTS AND ANTIDOTES.

In this chapter is given a list of all poisons which are likely to be taken, together with the most obvious symptoms, and common antidotes and treatments.

There is one general form of treatment that applies to any and all cases of accidental poisoning. *The antidote should be given first*, if at hand, as this removes the danger at once. Following this the patient should be given an active emetic to relieve the stomach of its contents. It is understood, of course, that if the antidote is not at hand, active vomiting should be instituted without delay.

If a doctor is at hand and can apply treatment immediately, perhaps an antidote would not be needed. A hypodermic injection of Apomorphine will produce vomiting usually in from three to five minutes. In this way the poison is removed before the antidote could be prepared and taken.

It is also necessary to state that if treatment is not instituted until some time after the poison is taken—after it has been absorbed into the circulation, producing its full effect—emetics are not only useless, but will work injury to the patient by aiding in destroying vitality. Rather than to give emetics in such cases, it is better to treat the condition; in other words, to treat the symptoms as they appear. If stupor is present, stimulants may be needed, although these should be given in small quantities at first.

The mineral acids are not so apt to produce dangerous or fatal effects as a result of their being taken into the circulation, but rather from their destruction of the walls of the stomach. Because of their caustic properties they are liable to penetrate the stomach walls; in other words, their effects are local. Strictly speaking, these acids are not poisons. The word "poison" applies only to such substances as produce their effect through the circulation. Carbolic Acid produces the same local effect, but destroys life by paralyzing the nervous system, particularly the heart.

Following corrosive poisons, such as Carbolic Acid, Corrosive Sublimate, or any of the mineral acids, some form of mucilage should be taken in considerable quantities; or the white of eggs or milk could be given with advantage. Mechanical protection is thus afforded the delicate mucous membrane of the mouth, throat and stomach, which has been more or less affected or destroyed by the action of the poison. By reason of such action the patient should receive only liquid food for some time.

The *stomach pump* is sometimes used to wash out the stomach in some cases of poisoning. We wish to state, however, that it should never be used where poisons of a corrosive nature have been taken. This refers especially to strong acids, such as Carbolic Acid, Nitric Acid, Muriatic Acid, etc. Neither should it be used where strong alkalies have been taken, such as Ammonia, Soda or Potash. The reason is that the remedies mentioned are very destructive to the mucous membrane of the stomach, and in such cases forcing a tube into this organ would only increase the damage.

Vegetable Poisons.—The poisonous principles in nearly all vegetable remedies, such as Aconite, Belladonna, Digitalis, etc., are neutralized or destroyed by Tannic Acid. This does not apply to Morphine. In the case of Morphine poisoning, Permanganate of Potash is claimed by some to neutralize the poison and act as a specific; this claim is denied by others. Tannic Acid will also neutralize some forms of chemical poisons, as Antimony, and others for which it is recommended.

Mineral Poisons.—Regarding mineral poisons, many of these may also be neutralized and their effects immediately destroyed by giving the proper antidote. For instance, dialyzed Iron, which is a very common preparation and kept in all drug stores, will immediately neutralize or destroy Arsenic when taken in any form. The dialyzed Iron and Arsenic form an insoluble compound. The white of eggs will immediately neutralize and destroy the effects of Corrosive Sublimate.

Acid Poisons.—When strong acids have been taken into the stomach they may be neutralized and their effects destroyed by alkalies, such as Soda or Potash, dissolved in water and taken in large quantities. The acid and the alkali, Soda or Potash, form a chemical compound. During their union, however, there is kept up a constant boiling process and a good deal of heat is produced. This heat may be so great as to injure the mucous membrane of the stomach and deeper tissues, hence it is believed to be a better plan to fill the stomach with pure water only. Have the patient drink 1, 2, 3 or more pints. This dilutes the acid to such an extent as to destroy its effects or

render it so mild that it will do no harm. If a little ground Mustard is added to the water before the patient drinks it, it will not only dilute the acid, but vomiting will be produced at the same time.

Alkali Poisons.—In the case of poisoning from alkalies, the treatment should be the same. If it is desired to neutralize the alkali, it can readily be done by adding a liberal quantity of vinegar to the water; but the boiling and the heat would be the same as in the case of adding the alkali to the water taken for acid poisoning.

In the case of small children who are unable to drink a quantity of water, perhaps it is better to take the alkali, the Soda or Potash, in the treatment of acid poisoning, and to give vinegar as strong as can be taken for the alkali poisoning.

EMETICS.

An emetic is something taken into the stomach to cause vomiting. Below are given the most common emetics, viz., Mustard, Ipecac, Sulphate of Zinc, Sulphate of Copper and Tartar Emetic, and the proper method of taking them. Warm water is also an emetic, and warm water, water and Mustard are almost always at hand; Ipecac also is more or less frequently kept. The others mentioned probably could not be had unless obtained from a drug store, and even then might possess no advantage over the more common remedies just named. The Sulphates and Tartar Emetic not only fail to possess advantage, but in some cases they might prove a disadvantage to a dangerous degree. Sulphate of Zinc is depressing; Sulphate of Copper is irritating to the stomach; Tartar Emetic is still more depressing than Sulphate of Zinc; hence it follows that if taken in cases where the patient is extremely low, any of the three might aid in producing fatal effects.

Mustard Seed, ground.—Take a tablespoonful in a glass of warm water. If vomiting is not caused in fifteen minutes, repeat the dose.

Ipecac, Syrup or Fluid Extract of.—Take 1 teaspoonful in a little water or molasses. If vomiting is not caused in fifteen minutes, repeat the dose.

Sulphate of Zinc (White Vitriol).—Take $\frac{1}{3}$ of a small teaspoonful of the powder (from 10 to 15 grains) dissolved in a little water. Can be repeated in twenty to thirty minutes if vomiting has not occurred.

Sulphate of Copper (Blue Vitriol).—Take a piece about the size of a common pea (3 to 5 grains) dissolved in a little water. Can be repeated in twenty to thirty minutes if vomiting has not occurred.

Tartar Emetic (Antimony).—Dissolve 6 or 8 grains in 8 tablespoonfuls of water. The dose is a tablespoonful of the mixture every ten or fifteen minutes until vomiting is caused.

MUCILAGES, OR MUCILAGINOUS DRINKS.

(TO FOLLOW CORROSIVE POISONING.)

Flaxseed tea is a common and excellent thing. Or, Gum Arabic, Slippery Elm bark or Comfrey root, soaked in water until mucilage is extracted.

Note.—Under the list of poisons a few articles are referred to others which are similar in their effects.

ACETATE OF COPPER.—(See BLUE VITRIOL).

ACETATE OF LEAD.—(See SUGAR OF LEAD).

ACONITE.—*Monk's Hood.*

Symptoms.—Nausea, vomiting, pain in the stomach; severe pain in the bowels with violent purging; cold sweats; rapid feeble pulse; color pale.

TREATMENT.—

Give $\frac{1}{3}$ teaspoonful Tannin dissolved in water, and produce vomiting (if not already free enough) by drinking warm water, tickling the throat and giving emetics; give mucilages and stimulants, and apply external heat. Keep flat on back.

ALCOHOL.—*Rum, Brandy, Whiskey, Gin, etc.*—In large quantities a powerful narcotic poison.

Symptoms.—Inability to walk or stand, dizziness, highly flushed or pale face, noisy breathing, confusion of thought and unconsciousness.

TREATMENT.—

Cause vomiting by large draughts of warm water and by tickling the throat, or by emetics; pour cold water on the head and back of the neck; keep up motion; irritate the skin by brisk rubbing; give strong coffee. Use stomach pump. Artificial respiration may be needed.

AMMONIA.—*Spirits of Hartshorn.*

Symptoms.—Strong, burning taste in the mouth, heat in the throat and stomach, vomiting, cold clammy skin, small rapid pulse and great prostration. Death may occur in half an hour.

TREATMENT.—

Give vinegar and water, or any dilute vegetable acid; excite vomiting; give cathartics and opiates.

ANTIMONY.—(See TARTAR EMETIC).

AQUA FORTIS.—*Nitric Acid.*

Symptoms.—Strangulation in swallowing; mouth, lips and throat a yellow color; skin, cold and clammy; pulse, quick and small; retching, and vomiting of dark-colored fluids.

TREATMENT.—

Carbonate of Magnesia, calcined Magnesia, chalk or whiting in water; plaster from the wall softened with water; soap and water; wood ashes and water; milk; whites of eggs; oil. Or, as stated under *Acid Poisons* in the foregoing, drink large quantities of warm water containing 1 or more tablespoonfuls of ground Mustard.

ARSENIC.—*Rough on Rats, Paris Green, White Arsenic, Fowler's Solution, Black Oxide* (fly powder). Has little or no taste, and may be taken accidentally.

Symptoms.—Burning pain in the stomach, excessive thirst, vomiting, heat and tightness of the throat, diarrhea, slow and intermittent pulse, faintness, lethargy, palsy, convulsions, etc. Death occurs, on the average, in about twenty-four hours. Four grains have destroyed adult life.

TREATMENTS.—

A. Give 2 to 4 teaspoonfuls of dialyzed Iron; this forms an insoluble compound. Follow with tablespoonful of Syrup of Ipecac; or ground Mustard seed; or 3 to 5 grains of Sulphate of Copper; or 10 to 20 grains of Sulphate of Zinc. Give white of eggs; milk; Flaxseed tea; much warm water; or oil and Lime Water. Use stomach pump.

B. Give a good dose of iron rust, afterwards wash out the stomach and give freely of milk or cream.—(44).

Note.—It might take some time to secure a dose of iron rust and, if a drug store is within reach, a better plan would be to get an ounce of dialyzed Iron and give from 2 to 4 teaspoonfuls immediately, afterwards washing out the stomach, etc.

C. Empty the stomach as quickly as possible by thrusting finger down throat, or by giving warm Mustard water or salt water; then give milk or oil freely—Castor Oil, Linseed Oil or Sweet Oil, $\frac{1}{2}$ glass; or all the milk that can be taken.—(9).

D. Dialyzed Iron in teaspoonful doses every 15 minutes.—(4).

E. Give anything to cause speedy vomiting.—(17).

F. Whites of 3 eggs, followed by copious draughts of warm water to produce free vomiting.—(19).

BELLADONNA.—(See DEADLY NIGHTSHADE).

BISMUTH.—*Oxide of Bismuth, Nitrate of Bismuth* (a white powder sometimes used as a cosmetic). *Subnitrate of Bismuth* is not a poison.

Symptoms.—Metallic taste in the mouth, heat and dryness of the throat and severe burning heat in the stomach and bowels, violent vomiting, diarrhea, pulse small and rapid, skin cold, breathing difficult, fainting and convulsions.

TREATMENT.—

Large quantities of milk; whites of eggs; oil. Cause vomiting by drinking large quantities of warm water containing one tablespoonful ground Mustard, or other emetic. Use stomach pump.

BLISTERING FLIES.—*Spanish Flies, Tincture of Cantharides.*

Symptoms.—Difficulty of swallowing and burning in the throat, violent pain in the stomach and bowels, vomiting, pain in the loins, and passage of bloody water with great pain.

TREATMENT.—

Produce vomiting by large draughts of warm water and tickling the throat with the finger or a feather; give milk or mucilaginous drinks.

BLUE VITRIOL.—*Sulphate of Copper, Blue Stone.*

Symptoms.—Strong metallic taste in the mouth, violent vomiting and purging, griping pains, frothing at the mouth, headache, dizziness, convulsions and insensibility.

TREATMENT.—

Have patient drink large quantities of water to wash out stomach, then give strong coffee, milk, whites of eggs, wheat flour and water, or mucilages.

CAMPHOR.

Symptoms.—Great excitement of nervous system, dizziness, vomiting, anxiety, small pulse, difficult breathing, fainting, cold skin, delirium and convulsions.

TREATMENT.—

Cause vomiting by drinking warm water or ground Mustard in warm water, and give mucilages, wine, and Opium or Laudanum.

CARBOLIC ACID.—This is a very frequent cause of poisoning as it is so easily obtained, and one that is generally fatal.

Symptoms.—The mucous membrane of the lips, tongue and cheeks is white, wrinkled and hardened from the action of the acid. The odor of Carbolic Acid is easily detected in the breath. There is an intense burning pain in the mouth, throat and stomach. The pupils are contracted, the skin is cold and clammy, and the pulse becomes weaker and weaker. Coma precedes death, which is sometimes accompanied by convulsions. Death may occur within an hour.

TREATMENT.—

Oil is the best application to external burns, but should not be used internally. Flaxseed tea in quantity or Mustard water given immediately by the pint or quart to dilute the acid and thus arrest its corrosive action on the tender mucous membrane of the stomach; soapy water is valuable. Stimulants may be given to prevent collapse.

CARBONATE OF LEAD.—(See **WHITE LEAD**).

CARBONIC ACID GAS.—Found in cellars, wells and mines, and given off in burning charcoal and from stoves.

Symptoms.—Face swelled and more or less discolored, feeling of great weight in the head, dizziness, drowsiness, difficulty in breathing, suffocation and insensibility.

TREATMENT.—

Admit fresh air; rub the patient, especially over the lungs; cause artificial breathing (see **DROWNING**). Keep the head and back of the neck wet with cold water; or if the body is cold, give a warm bath, also 15 drops Tincture of Belladonna.

COBALT.—Often used as a fly poison.

Symptoms.—Pain and heat in the stomach and throat, violent retching and vomiting, cold skin, small rapid pulse, breathing rapid and difficult, diarrhea.

TREATMENT.—

Give emetics; also give freely of milk, white of eggs, wheat flour and water, or mucilages.

CORROSIVE SUBLIMATE.—*Bichloride of Mercury.* Sometimes carelessly used as a bed-bug poison.

Symptoms.—Strong metallic or coppery taste in the mouth, burning heat in the throat, severe pain in the stomach and bowels, vomiting and purging, face flushed and swollen or anxious and pale, pulse small, irregular and rapid, skin clammy and cold, tongue white and shriveled, breathing difficult, fainting, convulsions and insensibility.

TREATMENT.—

First give the white of eggs and then cause vomiting as quickly as possible by drinking warm water containing 1 table-spoonful of ground Mustard; tickle the throat with the finger or a feather to aid in inducing vomiting; give wheat flour and water or liquid starch.

CREOSOTE.—(See OIL OF TAR).

DEADLY NIGHTSHADE.—*Belladonna.*

Symptoms.—Dryness of the throat, sickness at the stomach, dizziness, dimness of sight, pupils dilated, laughter, delirium, face red and swollen, also a scarlet eruption is often observed on the skin, convulsions, paralysis and insensibility.

TREATMENT.—

The treatment is the same as for Henbane. See HENBANE.

DIGITALIS.—(See FOXGLOVE).

FISH (poisonous).— All kinds of fish, meats, etc., may become poisonous from disease or decay.

Symptoms.—Great thirst, weight in the stomach, vomiting, dizziness, itching, and sometimes an eruption on the skin, pulse low, hands and feet cold, twitching of the tendons; convulsions.

TREATMENT.—

Cause vomiting by drinking warm water and tickling the throat with the finger; soothing drinks and acids; recumbent position.

FOOL'S PARSLEY.— Taken by mistake for common parsley.

Symptoms.— Burning in throat and thirst, sickness, vomiting and occasional purging, cold moist skin, small frequent pulse, headache, dizziness and delirium.

TREATMENT.—

Emetics, followed by warm water, milk, Flaxseed tea or Chamomile tea; purgatives; warm bath; stimulants and opiates.

FOXGLOVE.—*Digitalis.*

Symptoms.— Irregular pulse, dizziness, indistinct vision, nausea, vomiting, cold sweats, hiccough, delirium and convulsions.

TREATMENT.—

One-third teaspoonful Tannic Acid, followed by emetics. Small doses of Opium or Laudanum (5 to 20 drops of Laudanum)

may be needed to quiet the intense excitement of the nervous system. Strong coffee should also be given. Keep the patient quiet and the head low.

HELLEBORE.—*Indian Poke, Swamp Hellebore.*

Symptoms.—Violent purging and vomiting, bloody stools, great anxiety, dizziness, tremors, fainting, cold sweats, convulsions.

TREATMENT.—

Cause vomiting quickly by large draughts of warm water, molasses and water, or other emetics; also give oil and mucilaginous drinks; oily purgatives; strong coffee, or other stimulant. Opium may be given in small quantities if necessary to quiet extreme nervous sensibility.

Note.—Hellebore is sometimes used in poisonous quantities in dressing sores. In this case treatment by vomiting would be useless.

HEMLOCK (poison).—The roots have sometimes been eaten by mistake for parsnip.

Symptoms.—Dizziness, dimness of sight, delirium, and swelling of the abdomen, with pain, vomiting and purging.

TREATMENT.—

Give $\frac{1}{3}$ teaspoonful Tannin dissolved in water, and follow with an emetic. Give warm water, Flaxseed tea, Chamomile tea, or milk; bathe the head with water and give stimulants. Use stomach pump.

HENBANE.—*Hyoscyamus.*

Symptoms.—Sickness, dilatation of the pupils, dimness of sight, dryness of mouth and throat, delirium, appearance of intoxication and insensibility.

TREATMENT.—

Give $\frac{1}{3}$ teaspoonful of Tannin dissolved in water, and follow with strong Mustard water to produce vomiting; cold to the head; heat to the feet; strong coffee. Give stimulants as needed. Hypodermic injections of Pilocarpine may be given by a doctor.

LAUDANUM.—(See OPIUM).

LAUREL, MOUNTAIN.—Honey made from its flowers is poisonous, also birds that feed upon its buds in winter.

Symptoms.—Violent flushings of heat and cold, dizziness, sickness at the stomach, vomiting and purging, delirium, weak, rapid pulse, sweating, convulsions.

TREATMENT.—

Emetics, as warm water or molasses and water, and tickling the throat with the finger to produce vomiting; purgatives; strong stimulants, such as Ammonia and coffee. Use stomach pump.

LIME.—*Quick Lime.*

Symptoms.— Burning in the throat and stomach, vomiting, violent colic and diarrhea; sometimes constipation.

TREATMENT.—

Drink vinegar, lemon juice or any vegetable acid freely; follow with an emetic; give mucilaginous drinks; opiates if needed, warm baths, etc.

LUNAR CAUSTIC.—*Nitrate of Silver.*

Symptoms.— Burning pain in the stomach, sickness at the stomach, retching and vomiting; sometimes extreme purging; cold skin, quick, irregular pulse, difficult breathing, fainting and convulsions.

TREATMENT.—

Drink freely of common salt in water; also drink large quantities of warm water and tickle the throat to produce vomiting; or give other emetics; also warm bath; purgatives and mucilaginous drinks.

MONK'S HOOD.—(See ACONITE).**MORPHINE.**—(See OPIUM).**MURIATIC ACID.**—*Hydrochloric Acid.*

Symptoms.— Burning and sense of strangulation in the throat, retching, vomiting, swelling of the throat and difficulty in breathing; skin cold with clammy sweat; pulse quick and small.

TREATMENT.—

Give large quantities of water containing Mustard, Carbonate of Magnesia Calcined Magnesia, chalk or whiting, in water; soap and water; wood ashes and water; white of eggs, milk, oil, etc. *Plaster from the wall* may be beaten down to a paste with water and given, or washing soda with barley water; mucilaginous drinks.

MUSHROOMS (poisonous).— Eaten by mistake for the ordinary mushroom.

Symptoms.—Pain and sickness at the stomach, vomiting and purging; great thirst, colicky pains, cramps, dizziness, convulsions and delirium.

TREATMENT.—

Give emetics, purgatives, mucilages, acid drinks, and stimulants such as Whiskey, Brandy, Ammonia, etc.

NITRE.—*Nitrate of Potash, Saltpetre.*

Symptoms.—Great pain in the stomach, nausea, vomiting, purging, severe colic in the lower part of the bowels, difficult breathing, great prostration, fainting and convulsions. One ounce has destroyed life in three hours.

TREATMENT.—

Barley water, Flaxseed tea, warm water or molasses and water, and tickling the throat to produce vomiting; or other emetics; opiates, as 5 to 10 drops of Laudanum; stimulants, such as Brandy, Whiskey, Ether, etc.

NITRATE OF SILVER.—(See LUNAR CAUSTIC).

NITRIC ACID.—(See AQUA FORTIS).

NUX VOMICA.—(See STRYCHNINE).

OIL OF ALMONDS.—(See PRUSSIC ACID).

OIL OF CEDAR.—

Symptoms.—Heat in the stomach, immediately followed by convulsions with frothing at the mouth. Death has occurred in half an hour.

TREATMENT.—

Cause vomiting as quickly as possible by large draughts of warm water and other nauseating drinks, or by a large dose of ground Mustard seed in water. Stimulants as needed.

OIL OF RUE.—

Symptoms.—Dryness of mouth and throat, heat and pain in the stomach and bowels, thirst, headache and delirium.

TREATMENT.—

Excite vomiting as quickly as possible by large drinks of warm water containing ground Mustard seed, or other emetics.

OIL OF SAVIN.—May be taken by young women to induce menstruation—a very dangerous proceeding.

Symptoms.—Headache, delirium, general excitement, sharp pain in the stomach and bowels, nausea, vomiting and purging, convulsions.

TREATMENT.—

Cause vomiting by large drinks of warm water containing Mustard and tickling the throat; or give an emetic of Sulphate of Zinc. Follow with acid drinks and mucilages.

OIL OF TANSY.—May be taken as noted in Oil of Savin.

Symptoms.—Heat in the stomach, immediately followed by convulsions and frothing at the mouth; feeble pulse.

TREATMENT.—

Cause vomiting by large draughts of warm water containing Mustard; give acid drinks and mucilages.

OIL OF TAR.—Containing *Creosote* as its essential principle.

Symptoms.—Speedy insensibility, labored rattling breathing, cold hands and feet, watering eyes, feeble pulse.

TREATMENT.—

Cause vomiting instantly by drinking water containing Mustard, or by other emetics.

OIL OF VITRIOL.—*Sulphuric Acid.*

Symptoms.—Pain and burning in the throat and difficulty in swallowing, vomiting dark-colored fluids and shreds of membrane from the stomach, swelling of the throat, cold skin, and quick, small pulse. The lining membrane of the mouth and throat is partly destroyed and of a dark color.

TREATMENT.—

Carbonate of Magnesia, Calcined Magnesia, chalk or whiting, mixed with large quantities of water; or soap or wood ashes and water; or lime from the plastered wall made into a paste with water. The foregoing are all alkalies, and the object in giving any one of them is to neutralize the acid. Or water by the pint containing Mustard. Follow with white of eggs, milk or oils.

OPIUM.—*Gum Opium, Laudanum, Morphine.*

Symptoms.—Dizziness, stupor, drowsiness, insensibility; pulse quick and irregular at first and breathing hurried; later the breathing is slow and noisy, face flushed, pupils contracted, and the pulse slow and full. In favorable cases there is early nausea and vomiting. **Death occurs in from two to twenty-four hours.**

TREATMENTS.—

A. Cause instant vomiting by copious drinks of warm water containing a large quantity of ground Mustard. Keep cold water on the head and back of the neck; rub the surface with coarse towel, and *keep the person moving*. Give strong stimulants, as Brandy, Whiskey, Ammonia to nostrils, 15 drops Tincture of Belladonna, or strong tea and coffee. Use stomach pump. The stomach pump is particularly valuable in Opium poisoning, as the system may be so paralyzed that vomiting cannot be induced by emetics.

B. Give an emetic of Mustard and warm water. After the stomach is emptied make the patient drink hot strong coffee and watch the breathings.—(20).

C. Warm water by the tumblerful with Mustard in it until the patient vomits, then give strong coffee. If in a stupor, keep patient walking. Call for doctor at once.—(35.)

D. Permanganate of Potash is considered by some a safe and sure antidote for Morphine poisoning. If the case is discovered early, give the remedy by the stomach; if not, inject under the skin with a hypodermic needle.—(51).

OXALIC ACID.—May be taken accidentally from its resemblance to Epsom Salts.

Symptoms:—Hot burning taste in the swallowing and immediate vomiting, the matter thrown up being a greenish or brown color; sometimes severe pain; pulse small and irregular; numbness and spasms.

TREATMENT.—

Carbonate of Magnesia, Calcined Magnesia, chalk or whiting made into a cream with water and given freely; emetics; Lime Water with oil; mucilages.

PARIS GREEN.—(SEE ARSENIC).

PHOSPHORUS.—

Symptoms.—Hot taste of onions or garlic in the mouth, violent pains in the stomach, nausea and vomiting, convulsions.

TREATMENT.—

Fill up the stomach with Magnesia and water; give emetics, warm water, etc., to keep up the vomiting. Copper Sulphate in small doses. No oils should be used, though old Oil of Turpentine is recommended given in emulsion, from 10 drops to 1 teaspoonful.

POTASH, HYDRATE OF.—*Caustic Potash.*

Symptoms.—Burning taste in the mouth, pain in the stomach and vomiting; cold skin, small frequent pulse and great prostration.

TREATMENT.—

Give large amount of water containing ground Mustard, or Vinegar, lemon juice or other vegetable acids; rub the skin; give Oils and mucilaginous drinks.

PRUSSIC ACID.—*Hydrocyanic Acid*, the poisonous principle of the Oil of Bitter Almonds.

Symptoms.—Instant sensation of weight and pain in the head, nausea and quick pulse. In larger doses, instant insensibility, convulsions, loss of pulse and slow breathing, death occurring in from two minutes to half an hour.

TREATMENT.—

Application of strong Ammonia to the nostrils; stimulating liniments to the chest. Apply cold water to the head and spine. Mix 1 part Ammonia with 6 parts water and give freely.

ROUGH ON RATS.—(See ARSENIC).

STRAMONIUM.—(See THORN APPLE).

STRYCHNINE.—*Nux Vomica*.

Symptoms.—Extremely bitter taste in the mouth, muscular spasms, limbs fixed, stretched out and rigid, jaws spasmodically shut. If the symptoms continue, there is nausea, vomiting, and difficulty in breathing. Or, instead of the rigidity described the various groups of voluntary muscles may act spasmodically and the arms and lower limbs fly in all directions.

TREATMENT.—

Give 1 teaspoonful of Tannic Acid in water, if at hand. This will form an insoluble compound with the Strychnine. Then give emetics to produce vomiting; also give freely any fatty matter, such as Sweet Oil, lard, etc., a pint at a time, and have it vomited each time by passing the finger down the throat. To control the spasms, give, for an adult, 30 grains Chloral Hydrate or 60 grains Bromide of Potash, or Morphine or Chloroform. In severe cases larger doses of the Chloral or Potash may be necessary. Or perhaps spasmodic action can be best and most quickly controlled by the hypodermic injection of Apomorpha. These remedies would require the services of a doctor.

SUGAR OF LEAD.—*Acetate of Lead*.

Symptoms.—A burning, prickling feeling in the throat, with dryness and thirst, pain in the stomach, nausea, vomiting, constipation, cold skin, weak irregular pulse, loss of strength, cramps, numbness, dizziness, insensibility.

TREATMENT.—

Sulphuric Acid forms an insoluble compound with lead, and is best given in the form of Sulphate of Magnesia or Epsom Salts. Large amounts should be given. If necessary, Morphine may be added to relieve the spasms and pain. Give emetics, followed by mucilages, milk, white of eggs, or wheat flour with water.

SULPHATE OF COPPER.—(See BLUE VITRIOL).

SULPHATE OF ZINC.—(See WHITE VITRIOL).

SULPHURIC ACID.—(See OIL OF VITRIOL).

TARTAR EMETIC.—*Antimony.*

Symptoms.—Nausea, severe vomiting, hiccough, burning pain in the stomach due to inflammation, colic pains and violent purging, small quick pulse, cramps, dizziness and great prostration.

TREATMENT.—

Tannic Acid forms an insoluble compound with Antimony and should be given in a little water. Afterwards wash out stomach by drinking large quantity of water, and give strong tea, mucilages and warm drinks. Stimulants will be necessary.

THORN APPLE.—*Stramonium.*

Symptoms and treatment are the same as given under HENBANE.

TOBACCO.—

Symptoms.—Severe nausea, headache, vomiting, sudden weakness, cold sweats and convulsions.

TREATMENT.—

Emetics; large draughts of warm water; purgatives; acid drinks; stimulants, such as strong coffee, Brandy, Whiskey, etc., and external heat.

VERDIGRIS.—(See BLUE VITRIOL).

WHITE LEAD.—(See SUGAR OF LEAD).

WHITE VITRIOL.—*Sulphate of Zinc.*

Symptoms.—Bitter taste in the mouth with sensation of choking, severe vomiting, pain in the stomach and bowels, difficult breathing, cold hands and feet and quick, small pulse.

TREATMENT.—

Give strong alkaline drinks, as baking Soda. Follow with white of eggs; wheat flour and water; plenty of milk; emetics if needed, that is, if vomiting has not already taken place; purgatives; opiates and stimulants.

WOLF'S BANE.—(See ACONITE).

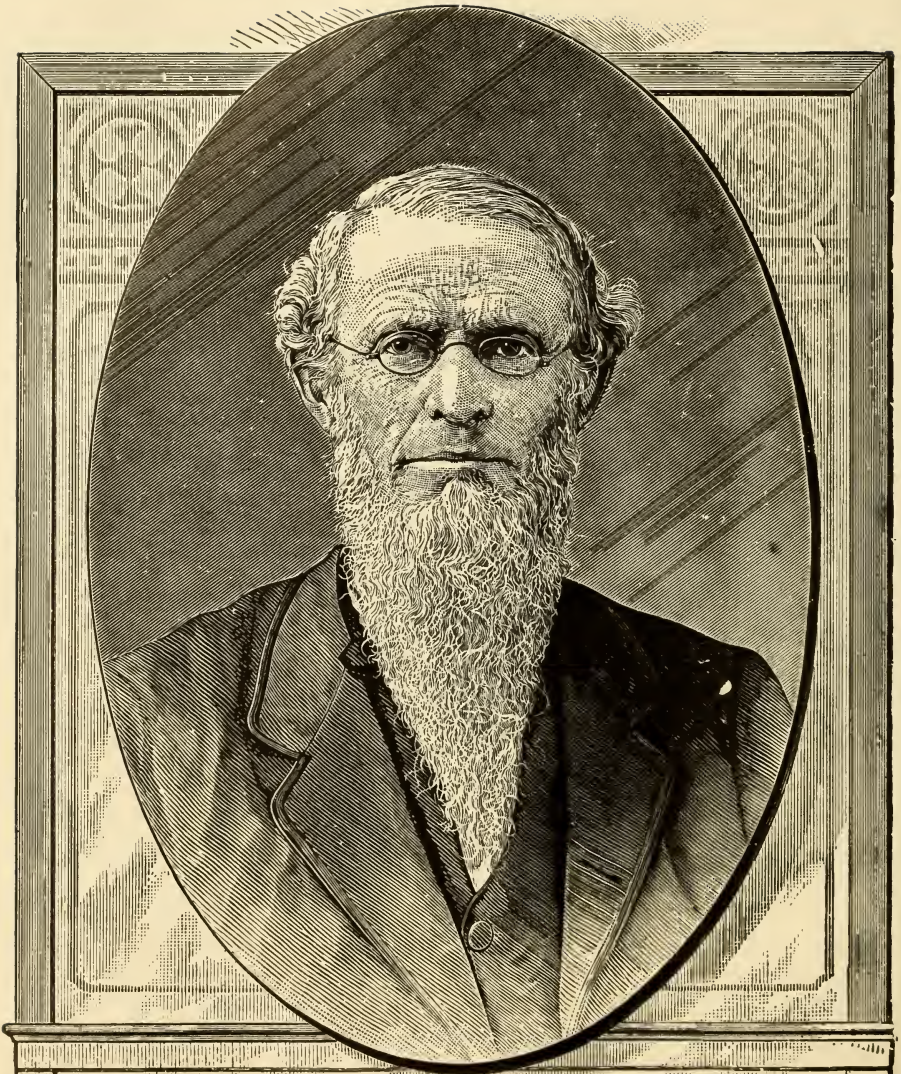
Poison Ivy.—This plant by contact, and upon many without contact, produces a violent erysipelatous inflammation, particularly of the face. The symptoms are itching, redness, burning, swelling, watery blisters and subsequent peeling of the skin. These effects are experienced soon after exposure, and usually begin to decline within a week.

TREATMENT.—

Carbolic Acid....	1	teaspoonful.
Water.....	7	"

Mix, apply thoroughly for a few minutes and wash off with water. One thorough application of this kind will completely eradicate the poison.

Poison Dogwood.—The symptoms and treatment are similar to those of Poison Ivy.



Respectfully
A. W. Chase, etc. (P.)
— — — — —

Memorial Edition

DR. CHASE'S

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and HOUSEHOLD PHYSICIAN
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DETROIT, MICHIGAN

1915

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ONE OR BOTH OF MY FORMER BOOKS, AND TO THEIR CHILDREN
WHO HAVE THUS BECOME FAMILIAR WITH THEM, AND
WOULD, THEREFORE, DESIRE TO BENEFIT
THEMSELVES, AND PERPETUATE THE NAME OF THE "OLD
DOCTOR," BY HANDING THIS, THE CROWNING WORK OF MY LIFE,
TO *THEIR* CHILDREN.

A. W. CHASE, M. D.

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AUTHOR'S PREFACE.

The reason for the publication of this book is, that having given over fifty years of my life to the careful observation and test of Practical Receipts, as given in my first and second books, *i. e.*, "Dr. Chase's Receipts, or Information for Everybody;" and "Dr. Chase's Family Physician, Bee Keeper, and Second Receipt Book," by which it has become very natural for me to make notes of and preserve for future reference, items and receipts discovered by myself and those seen in the discourses of the Scientific, Medical, Agricultural, Mechanical and Household Publications of the day; and observing that as time advanced, every branch of Science and Art, by continued experience, became more and more perfect, practical and positive in its development, I continually selected and preserved the *very choicest* items until enough was accumulated for a THIRD BOOK. And fully believing that it would be appreciated by the people who had purchased over *twelve hundred thousand copies* of my former publications, within the **thirty** years they have been before them, I determined to prepare it before I could willingly and conscientiously lay down my life work. I have, therefore, labored over four years faithfully and diligently in experimenting, compiling and arranging this, my third and last book, as I knew it would do good in every home it entered. I am now willing and shall forever rest from this character of labor, that I may partake, a little at least, of the benefits and pleasures that I have done my best to prepare for others, feeling more than satisfied that if the people will give the time and earnestness in using this book that the author has in preparing it, the benefits and pleasures will not only be mutual, but more lasting than our lives, benefitting even our children's children.

As to the reliability of the information given in this volume, the unprecedentedly large sales of my **two** former works will

testify. It is only necessary to say that the longer one labors in a practice or profession, or in the mechanical arts, the more mature is his mind and judgment and the better qualified he is to carry on his work. This being universally conceded, it need only be said, then, that one who has lived nearly seventy years, doing all the good possible to his fellow creatures, as I have done, if judged by the above evidence, would certainly make his last the crowning effort of his life, and that it shall be so found I feel assured. This work is the result of nearly thirty years practice and experience since the publication of my first book, and is not a "revised edition" of the former ones, but is made up wholly of new matter and new discoveries. I, therefore, believe that it will prove of infinite value to its purchasers, and although they may have both the former ones in their possession, they cannot, if they value my first and second book, afford to be without this, my third and last one. My mature years, numbering nearly three score and ten, will not allow me to ever undertake that great labor which, in this case, covers a period of nearly five years.

A Receipt Book, not being calculated for general reading, can very properly be set in closer type than an ordinary book, and as it is my aim to give the greatest possible amount of information for the money invested, I have instructed the type-setters to use the smallest type that can, with ease, be read; yet the following will serve to illustrate the fact that even a receipt book is, by some, read to a considerable extent. As I was once traveling through Illinois, a gentleman, just before we reached the crossing of the Mississippi at Burlington, approached me, and said, "Isn't this Dr. Chase, the author of Chase's Receipt Book?" (referring to my first) to which I replied, "Yes, sir," when he remarked: "I thought I recognized you from the frontispiece in your book;" and added, "We read it more than the Bible," etc. To which I remonstrated and begged to suggest that he instruct his family from that time forward to read the Bible most, inasmuch as eternity was of infinitely more importance than this life. His name I have forgotten, but I take the liberty of giving the

name and address of a lady in Wisconsin, whose letter I received while preparing this last work, presuming she will take no offense, as I give her name and letter only to prove to the public in what esteem my former books are held by those who have them. The following is from Mrs. O. N. Alden, and dated at Neenah, Wisconsin :

DR. A. W. CHASE,

DEAR SIR:

It is not the author or compiler of every book who himself so permeates the contents that the reader feels in the author a personal acquaintance, but when I am consulting Dr. Chase's Books, it seems as though I was personally consulting him, and that he is a friend, he makes what is therein so individual. But, by so doing, he exposes himself to, perhaps, annoyance, as in this instance, by being personally addressed. * * *

The writer closes by relating her own condition of health, and making inquiry as to the character of goods made by another gentleman. I mention these circumstances among hundreds of others only to illustrate to those having neither of my former books what those who do have them think of them, hoping thus to convince the million that my third and last book shall, at least, be equally valuable. I have, however, done my best to produce a work in every respect superior to my former ones, and with the aid of thirty years' experience since my first book was published, during which time many new theories have come into vogue and many valuable discoveries have been made, I am confident that I have succeeded, and can only hope that my former works have opened the door to this, my Crowning Life Work, and that it will be a welcome visitor at every home, where either or both the first and second books have found their way and prove to be worth many times more than the sum paid for it.

THE AUTHOR.

Just two months after completing this work, and writing the foregoing preface, the "Old Doctor" passed away and his spirit took its flight to God who gave it.

PUBLISHERS.

CONTENTS.

DEDICATION - - - - -	II
AUTHOR'S PREFACE - - - - -	III
"IN MEMORIAM" - - - - -	VII
MEDICAL RECIPES - - - - -	505
MIDWIFERY—NURSING - - - - -	750
FOOD FOR THE SICK - - - - -	774
ADDITIONS AND CORRECTIONS - - - - -	790
DOMESTIC SCIENCE AND COOKING RECIPES - - - - -	793
MISCELLANEOUS DEPARTMENT - - - - -	989

In Memoriam.



DR. ALVIN WOOD CHASE, physician, and author of the celebrated Dr. Chase's Receipt Book, was born in Cayuga County, New York, in 1817. He was a son of Benjamin Chase, a native of the State of Massachusetts. When Alvin was eleven years of age his parents located near Buffalo, N. Y., where he grew to manhood, receiving a very limited education, in a log school-house. His desire for knowledge was so strong, coupled with an ambition peculiar to his naturally energetic disposition, that he far outstripped his more dilatory companions of that humble institute of learning. When seventeen years old he left New York and found employment on the Maumee River, in the meantime devoting his spare moments to study. In 1840 he located at Dresden, Ohio, where in the spring of 1841 he married Martha Shutts, daughter of Henry and Martha Shutts, natives of New York. To this noble and gifted wife, and mother of his children, may be justly attributed much of the success that followed the doctor during his long and eventful career. From the days of his boyhood he entertained a wish to study medicine, and awaited with impatience the time when he might become a member of the fraternity. After many

wanderings he settled in Ann Arbor, Mich., in 1856, where, to his intense delight, he was enabled vigorously to prosecute his studies in what was to be his future life-work.

He attended lectures in the medical department of the State University during 1857 and 1858, and graduated from the Eclectic Institute of Cincinnati, Ohio, in the meantime. Prior to 1869 he traveled over a large part of the United States, acquiring valuable knowledge, only gained by practical experience, which proved a good foundation for the wonderful book which afterward gained such great celebrity. The first edition of the work, like all subsequent ones, proved a great success, and soon placed the author on the high road to fortune. In 1864 he built the first part of that magnificent structure that still bears his name. It stands on the corner of Main Street and Miller Avenue, and is an ornament to our city. The building was completed in 1868. The business had so increased that at this time fifty persons found constant and remunerative employment within the walls of the building; and the hospitality and liberality of the Doctor to the employes of the institution, as well as to the needy ones of the city, were always subjects of admiring comment.

In 1873 he published his second book, of which many thousand copies were sold, and it is safe to say that fully one million and a half have found their way into the homes of this and foreign countries.

A few years only have elapsed since Dr. Chase was considered one of the most prosperous and well-to-do

citizens of Ann Arbor; losses by thousands and tens of thousands dollars greatly reduced his accumulations so honestly acquired. It is seldom the case that so much wealth is secured in so short a time by honest endeavor. He entered into no speculating schemes, but industriously pursued a very useful calling, bringing large profits without detriment to any, but, on the contrary, of great value to all. But, notwithstanding his losses, he did not lose his native energy and manliness of purpose, and stood before the community a conspicuous example of what energy, perseverance, and an indomitable will may accomplish. His liberality was remarkable, considering his income, though large. Many men, whose means were quadruple those of the Doctor, did not give one quarter as much for the advancement of education and benevolent enterprises.

He was once nominated for mayor of the city, but his business compelled him to decline the proffered honor. But the storms of life finally overtook him and swept with almost resistless fury around the now aged physician, and a few of the prejudices that characterize the human family found a resting place in the heart of this noble man; yet, when the last chapter shall have been entered in the book of life, the account will probably be balanced. The last earthly rites have been performed, and the aged veteran laid peacefully away beneath the shadow of the silent tomb. It may truthfully be said that he lived with malice toward none and charity to all. A beautiful monument marks the place where his earthly remains are laid away, but his real

and ever-enduring monument is seen in his life, devotion and usefulness to his fellow man.

L. DAVIS,
*Secretary of the Washtenaw County
Pioneer Society.*

ANN ARBOR, Mich.

MEDICAL RECIPES

SWELLINGS TO REDUCE—Liniment for.—Rum, spirits of camphor and laudanum, each 1 oz.; mix, shake well and keep corked. **DIRECTIONS**—Heat the mixture hot (when using) and bathe the swelling thoroughly, at least 3 times daily, by pouring into the hand and thorough rubbing in. For a pin-scratch, or small pimple, a finger application will be sufficient.

Remark.—This is claimed to reduce the worst swelling in a short time.

RHEUMATISM, SPINAL AFFECTIONS, CANCERS, ETC.

1. Dr. White's Remedy, or Liniment for.—Strongest alcohol and spirits of turpentine, each 1 pt.; camphor gum and saltpeter, each 1 oz.; beef's brine, 2 qts. Dissolve the camphor gum and saltpeter in the alcohol; then add the turpentine. Scald and skim the beef's brine, and when cold, add it. To be shaken when used.

Remarks.—Dr. White, from whom this receipt was obtained, used it extensively, and with success, in weak backs and all other spinal affections, rheumatism, etc., and also claimed to have cured several cancers with it. I have no doubt of its value for general purposes, nor have I a doubt that, if taken or commenced early in the appearance of a cancerous growth, it may scatter it, and with an occasional active cathartic and the continued use of a good alterative, they may be cured. (Note 1, p. 790.)

2. Kerosene, $\frac{1}{2}$ pt., and camphor-gum, 1 oz., cured a friend of mine, with whom I was acquainted for forty years; his fingers and hands were set nearly shut. Bathing his hands 3 or 4 times daily for 3 or 4 days made decided improvements, and finally cured them.

CANCER—SUCCESSFUL REMEDIES.—Persons suffering with cancers may expect to find the following beneficial:

1. Take a qt. bowl and fill half to two-thirds full of green sheep sorrel, then fill with water; let it stand one hour, then mash to get the strength; to be drank daily. Use dry sorrel same as green, only steep in hot water.

For the Sore.—Use a poultice, made by soaking the sorrel in warm water till soft; change often.

To Make the Salve.—Take a porcelain kettle holding a gallon; fill two-thirds full of the sorrel; then fill with water, and boil down to a strong ooze; take out the sorrel (pressing or straining, if necessary), and put in freshly made unsalted butter or lard; then let it simmer over a slow fire—do not burn it—and put in a lump of rosin the size of a hen's egg; when the water is simmered out, drain out the salve. Salve prepared in this way, will cure scrofula as well as cancers. I know whereof I affirm, as I have seen it tried successfully. It takes

perseverance, however, as it is in the blood; better that, than to be eaten up with either cancer or scrofula.

2. Take equal parts of sweet fern and the bark off the north side of a black ash tree; burn both to ashes; leach and boil down thick; put a piece of sheet-lead upon the cancer, with a hole in it as large as the cancer, wet lint in the mixture; put on and place another piece of sheet-lead over that. Let it remain till it ceases to pain, when the cancer will be dead; then make a plaster of the white of an egg and white pine pitch; put on and cover with a warm Indian meal poultice; keep on till it comes out. In the case of the man from whom this receipt was obtained, the cancer came out in nine days. The poultice must be renewed when cold.

Remarks.—The idea of the piece of sheet-lead, with a hole in it the size of cancer, is to protect the sound flesh or skin from contact with the cancer salve. The sorrel water, as in No. 1, or some other good alterative, should be taken a reasonable length of time, in the treatment of any cancer, for the purpose of purifying the blood.

3. **Cancer—A New Remedy which Carbonizes the Cancerous Tumor with but Little or No Pain, and Not Poisonous.**—**DIRECTIONS**—Apply to the surface of the sore the chloride of chromium (a new salt of this rare metal), incorporated into stramonium ointment. This preparation, in a few hours, converts the tumor into perfect carbon, and it crumbles away. Specimens of cancers thus carbonized were inspected by a number of physicians at a recent meeting held at the N. Y. Medical University, where a paper was read on this new method of treating cancer, which had the appearance of charcoal, and were easily pulverized between the fingers. The remedy causes little or no pain, and is not poisonous.

Remarks.—In small places where this chloride-chromium is not obtainable, call in the assistance of a physician, and he will know where to get it; and as nothing is said as to how much of the chloride of chromium should be used, I would use 1 dr. to 1 oz. of the stramonium ointment, unless it was found by inquiry, when obtaining it, to need more or less—watch results. Poulticing, to remove the tumor, after it is carbonized, would be the proper way to do. then use any of the best healing salve.

4. **Cancer—Esmarch's or German Treatment.**—I. Fowler's solution, 1 drop, 3 times daily for three days, then increase the dose 1 drop every three days, till intolerance of the remedy follows. Apply the following locally, *i. e.*, upon the open sore.

II. *Powder to Sprinkle Upon the Open Sore.*—Arsenious acid and muriate of morphia, of each 1 gr.; calomel, 1 dr.; powdered gum arabic, $\frac{1}{2}$ oz.; mix. At first sprinkle only a little powder upon the open sore, gradually increasing the quantity to 1 teaspoonful. This overcomes the odor, and causes a hard eschar, or scab, to form, and healthy granulation takes place. (Note 2, p. 790.)

Remarks.—It will be understood that Fowler's solution contains arsenic, as well as the powder, and as injury might arise by their use, unless the symptoms from poisoning by arsenic are well understood, it would be well, when it is

used, to have it done by or under the care of a physician, so as to prevent any possible injury; although, if properly used, there is everything to encourage the hope of great benefit, rather than injury; but it is best, always, to be on the safe side, hence this caution.

5. Cancer, Relief of Pain in.—Dr. Brandini, of Florence, Italy, has recently discovered that citric acid will assuage (relieve) the violent pain of cancer. He applies to the part pledgets of lint soaked in a solution of citric acid, 4 grs.; dissolved in soft water, 350 grs. (about $\frac{3}{4}$ oz.), with the result of affording instantaneous relief in the most aggravated cases.

6. Cancer, Chromic Acid Found Valuable in.—Prof. John King, in his American Dispensatory, more than a dozen years ago, spoke of chromic acid being found advantageous in cancers, malignant tumors, ulcers, etc.

Remarks.—The word “malignant,” as applied to tumors, is generally understood to refer to those of a cancerous character, “tending,” as Webster puts it, “to produce death, threatening a fatal issue,” etc., and this fact gives me hopes, especially, that the chloride of chromium, No. 3, above, which is only another form of the chromium, will do what is there claimed for it, combined with the stramonium ointment. The acid, however, is being used more, of late, than formerly, as the following will show.

7. Cancer, or Fungous Growth in the Ear—Removed Safely with Chromic Acid.—Dr. Tangeman, Professor in the Medical College of Ohio, at Cincinnati, in Parke, Davis & Co.’s *Therapeutic Gazette*, reports the case of a young man of 18, with a running ear. The meatus, or opening into the ear, at the bottom was full of pus, or matter; the tympanum, or drum, of the ear wholly destroyed, and the inner ear filled with a fungus, or cancerlike growth; the boy wholly deaf on that side, the result of scarlet fever. The ear was packed with powdered boracic acid, which dissolved in 24 hours, and was repacked with the same, and repeated 4 weeks, but the fungus, or lacerous growth, had to be removed by a few applications of chromic acid, and the opening enlarged by it so they could get to the bones of the ear, which were necrosed (destroyed), it being the cause of the discharge. The case was cured.

Nitrate of silver was formerly used in such cases, but Dr. Tangeman thinks its use in ear cases is among the past, and that chromic acid will take its place; but, from its activity, must be used with care. It should not be put on too freely in any case, as to endanger, or extend to other parts.

Yet chromic acid will not continue, like other acids to eat on indefinitely, but as a particle of it destroys a particle of flesh, or fungus, it is itself destroyed. This peculiarity shows its *great value over all other caustics or destroyers known*. See its value for warts, under that head. Best to be used under the care of a competent physician, or one accustomed to its use, especially in cancers where considerable tissue, or fleshy tumors, are to be destroyed.

8. M. Czartoryski, M. D., of Stockton, Cal., says in the *Medical Brief*, of June, 1884, under the head of “Cancer—California Cure”:

“I accidentally discovered the secret process by which an old man living in this vicinity has had remarkable success in removing cancers. He takes

wild parsnip roots (the wild parsnip resembles our table vegetable, but the roots are poisonous), allowing them to simmer on the stove until they assume the consistency of paste; then spread on chamois skin, and apply to the cancer. At the beginning it will cause severe pain, and the cancer will contract and loosen, until it may easily be extracted with its roots. The resulting opening can be healed under any liniment or unguent (ointment)."

The best unguent, he thinks, is balsam of Peru.

Remarks.—The author rejoices in the hope that, wit' one or the other of these receipts, all cancer sufferers shall be materially benefited, if not absolutely cured, adding many years to their lives.

1. **SCIATIC RHEUMATISM.**—Successful Remedies.—I. *Internal and Alterative.* Fl. ex. of poke root, 1 oz.; fl. ex. of gelsemium, 1 dr.; mix. DOSE.—Take 20 drops, morning and evening, in a little water.

II. Fl. ex. of blue flag, 1 oz. DOSE.—Take 15 drops, at noon and bed time, in a little water.

III. Apply externally, along the back part of the thigh, as a liniment, tinct. of iodine and aqua ammonia, each 1 oz.; mix, and rub on thoroughly 3 times daily.

I cured a very bad case, with this treatment, for a fat, fleshy woman, in about a week's time, who could scarcely move when I took the case in hand.

2. **Sciatica Cured with Electricity.**—A very Cheap, Simple Battery.—How to Make and Use.—The following case of this disease—a bad case—was published in the *Physician and Surgeon*, of Ann Arbor, Mich., by Charles Ferhune, M. D., of that city, for Oct., 1880.

"An electric battery was constructed, consisting of a zinc and silver plate about two inches in diameter, connected by a coil of insulated copper wire long enough to allow the silver plate to rest on the front portion of the thigh, the zinc resting over the sciatic nerve, on the back part of the thigh.

"A thin slice of sponge was placed between the plates and the skin, and these were kept wet with a strong solution of salt in water. This apparatus was retained in its position by means of adhesive straps and rubber bandage. It was necessary to change its location every other day on account of the irritation caused by the formation of chloride of zinc and electric current.

"In a week's time the patient was so much better that a battery was placed on the left leg also, and these were kept on constantly, except when it was necessary to replace the zinc as it would become corroded. September 1st the battery was taken off from the right leg, as there was no more pain and felt perfectly natural. The battery is still kept on the left leg, which was always the worst, simply on account of a little numbness of the toes; otherwise this leg also is free from any unnatural sensation.

"Whenever convenient, I applied the following preparation the whole length of nerve.

"Menthol, 12 grs.; alcohol, to dissolve the menthol, 7 minims (drops); oil of cloves, 1 oz.; mix. [Menthol is one of the newer remedies, sometimes also called Japanese camphor. It is made from a species of *mint* growing in Asia, Japan, and I think in China also. It is in the form of crystals, and smells much like peppermint.]

"This mixture I have known to be of almost immediate benefit in neuralgic affections.

"Considering the long standing of the disease, that it was located in both legs, and the patient's habits (addicted to drink), and the great obstinacy and

severity of Sciatica even under the most favorable circumstances, I feel it my duty to report a treatment so simple and easy and which has been of such signal service."

Remarks.—Having inquired into this case, and being well satisfied of the value of this treatment; also well acquainted with Dr. Ferhune, and as he speaks so favorably of the mixture, or liniment, for neuralgia, it would be well to try it for that purpose as well as in sciatica.

When Menthol is not kept by druggists, use one of the liniments given below.

Dr. Chase's Golden Oil (see recipe below), or strong Camphor Liniment, or some other—as preferred. The Golden Oil, however, made with capsicum, is very strong, and causes a glow of heat wherever it is freely applied.

3. The Author has several times cured Sciatica by the use of the simple Faradic current of the common Faradic "Family Battery," applying the *positive* pole along the sciatic nerve in the back part of the thigh, the *negative* pole at the feet, by means of a foot-plate, with very great satisfaction. Never use the current so strong as to cause additional pain, but simply to relieve it. Five to ten minutes to each limb, once or twice daily.

4. **External Remedy, or Liniment for Sciatica, Lumbago, Stiff Joints, Contracted Cords, Rheumatism, Etc.—Very Successful.—For External Use Only.**—Fl. ex. of aconite root (never of the leaf, for these purposes), 12 oz.; oil of hemlock, 3 oz.; sulphate of zinc, 1 oz.; strongest alcohol, 1 qt.; soft or distilled water, 1 qt. **DIRECTIONS.**—Take at least a 3 qt. bottle and put in the alcohol, oil of hemlock, and extract of aconite root together; dissolve the sulphate of zinc in a little water and add lastly the water also, shake, always, before pouring out into a smaller bottle for use, and always shake before pouring out upon the parts, or into the hand for application. I have given it in these large quantities, because it is to be applied freely, at least twice daily, in any case, in very painful cases three times a day, pouring upon the parts and rubbing in several times at each application. Do not get into the eyes, *nor is it ever to be taken internally in any case.*

Remarks.—This is claimed by the person from whom I obtained the recipe to have cured stiff joints, as well as the other diseases named. For stiff joints I have had no opportunity of testing it, but in sciatica and rheumatism I have found it as valuable as he claimed.

3. **Rheumatism—Remedy for External Application.**—Cayenne pepper, 2 teaspoonfuls, steeped in 1 teacup of good vinegar, and the parts affected to be bathed with it, is claimed to be excellent. After steeping (not to boil), strain and bottle for use. It will cause considerable heat of the surface, and would, even, if a pint of vinegar were used. Apply 2 or 3 times daily, and if limb is very painful, wet cloths in the mixture and wrap around it, as long as it can be borne.

4. **Rheumatism—Golden Oil For.**—Linseed oil and spirits of turpentine, of each 8 ozs.; tinct. of iodine and aqua ammonia, of each 4 ozs.; mix, shake, and apply as often and as freely as needed.

5. Inflammatory Rheumatism Remedy.—A mixture of pulverized saltpeter, $\frac{1}{2}$ oz.; and sweet oil, $\frac{1}{2}$ pt., is a certain cure for inflammatory rheumatism. This mixture must be applied externally, to the part affected, and as it can do no harm and costs so little, we advise those afflicted with inflammatory rheumatism to try it.

6. Rheumatic Alterative.—Colchicum seed, anise seed, black cohosh root, poke root, blue flag root, bitter root, gum guaiac, prickly ash bark and juniper berries, of each $\frac{1}{2}$ oz.; mandrake root, 1 dr.; wintergreen leaves, spearmint leaves, of each 1 oz.; iodide of potash, 3 drs.; good gin, 1 pt. DIRECTIONS.—Bruise or grind coarsely all except the iodide, and put into the gin; keep corked, and shake daily for 10 or 12 days, strain and press out, put in the iodide, or if in a hurry, let it stand 3 or 4 days, then have a druggist to percolate it (straining it drop by drop through a sponge pressed into the small end of a funnel-shaped percolator), adding sufficient gin to obtain 1 pt of the fluid. Good whiskey will do, but it is not so good, as gin is more diuretic; add the iodide of potash last, dissolved in a little of the liquor. DOSE.—For a medium sized adult, 1 tea-spoonful 3 or 4 times daily in a little syrup, or molasses, with a small amount of water. While taking the above use a good liniment externally, and the improvement will be more quickly realized.

7. Rheumatism, Successful Alterative For—The Crutches Thrown Away by the Use of Half a Bottle.—Tincts. of sarsaparilla and quassia, of each 3 ozs.; iodide of potash, 1 oz.; quinine, 20 grs.; water, 1 pt. DIRECTIONS.—Put all into a quart bottle, and shake when taken, DOSE—1 table-spoonful just before each meal. (Note 3, p. 790.)

Remarks.—The person communicating this recipe, "W. W.," of Independence, Ohio, says: "I was 3 months on crutches, before I took half of it I threw the crutches away." It is probable that this amount of the iodide of potash may be more than some persons can take, as there are those who can not take it in large doses—this will be known by a stiffness of the nose, throat, etc., as though they had taken a bad cold. In such cases lessen the dose to a teaspoonful, and next time double the amount of tinctures, else use half the amount of the iodide.

8. Rheumatism, an Alterative Tincture For.—Tinct. of black cohosh, 2 parts; and tinct. of colchicum, 1 part (say the cohosh $\frac{1}{2}$ oz.; colchicum, $\frac{1}{4}$ oz.) DOSE—Take 20 to 40 drops three times a day in a little syrup.—Mrs. E. L. Mills, of Romeo, Mich., in *Detroit Tribune*. (Note 4, p. 790.)

Remarks.—Twenty drops for a weak and feeble woman is plenty; 40 for a robust man, or even a tea-spoonful would be safe for him to take for a dose. While using this alterative internally, apply also any good liniment externally.

9. Acute or Inflammatory Rheumatism—A New and Successful Remedy.—After a fair trial of the salicylate of soda, in acute rheumatism, *i. e.*, in a rheumatism with pain and often swelling of joints, etc., from having taken a cold, the profession and doctors have come to a very favorable opinion of its use for rheumatism, as well as in tonsillitis and sick headaches, which see.

Dr. Clouston, in the June number of the *Practitioner*, thinks the action of the salicylate of soda on acute rheumatism is most marked, as in 63 per cent.—63 in 100—the acute stage lasted only three days; the pain being relieved in a few hours, and the remainder of the disease having no serious symptoms; he thinks, however, its use should be commenced early in the disease, if benefit to any extent is to be experienced, and in doses not less than 10 grs. every hour, until the pain and severe symptoms are relieved, then less often, 2, 3, or 4 hours, and finally less amount. Dr. Clouston's recipe is as follows: Salicylic acid, 3 drs.; carbonate of soda, $1\frac{1}{2}$ drs.; syrup of lemon, 1 oz.; cinnamon water to make 8 ozs.; mix. DOSE—A table-spoonful every two hours.—*Medical Digest*.

Remarks.—The *Medical Summary*, of New York, says: "The salicylate of potash has also been used with success: Salicylic acid, 2 drs.; bi-carbonate of potash, 3 drs.; water, 2 ozs.; mix. DOSE—A tea-spoonful every 2 or 3 hours."

10. Confirmatory of the use of salicylic acid; and also of the use of flannels, in inflammatory rheumatism, I will add Dr. Bell, of Canandaigua, N. Y., whom I met while at Eaton Rapids, Mich., in 1883, said, in speaking of inflammatory rheumatism, that his treatment, which had proved successful, was to put on flannel shirts and sheets and give salicylic acid, 120 grs.; acetate of potash, 320 grs.; simple elixir, or simple syrup, and glycerine, each 2 ozs.; well mixed and dissolved. DOSE—Take 1 tea spoonful every 2 hours till relief is manifested, then 3 or 4 hours apart. John K. Owen, M. D., of Harrisville, Ind., confirms the above in the February number of the *Medical Brief* of 1883. but adds $1\frac{1}{4}$ ozs. of sweet spirits of nitre to the mixture, using the same dose.

11. Rheumatism Internal.—Try the following:

I. Salicylic acid, 3 drs.; acetate of potassa, 3 drs.; fl. ex. cimicifuga (black cohosh), 4 drs.; wine of colchicum seed, 4 drs.; elixir of ginger, or simple syrup, to make 4 ozs.; mix. DOSE—Take 1 tea-spoonful in a swallow of water, every 3 hours, until better, then 3 times a day till well.

II. EXTERNAL.—Alcohol, 95 per cent. (the best), 2 ozs.; gum camphor, 2 drs.; mix, and when the gum is dissolved add: oils of organum and cajeput, tinct. of capsicum and tinct. of aconite root, each 2 drs.; mix and apply freely to the affected parts.—B. Frank Humphreys.

Remarks.—Here we have an excellent combination of the latest and best articles for internal use, and one for external, without going to different parts of the book for them. Remember, however, that in inflammatory rheumatism the flannel shirts and sheets are exceedingly valuable, and for wetting the blankets Miss McArthur's liniment next following is cheap and good.

12. Liniment for Inflammatory Rheumatism.—Miss Bell McArthur's recipe is as follows: Spirits of camphor and strong cider vinegar, each $\frac{1}{2}$ pt.; muriate of ammonia, $\frac{1}{2}$ oz.; soft water, 1 pt.; mix. (Note 5, p. 790.)

The gentleman, of whom Miss McArthur got the above receipt, said he had known it to cure one of the worst cases of inflammatory rheumatism he had ever seen, in a few days, the patient being wrapped in sheets kept wet with liniment. (The expense of this liniment is so trifling, it can be used freely.) Miss

McArthur's experience with it came in this way: she burnt her hand by accidentally putting it in a pail of boiling sugar, and it became very painful. She thought of this liniment, and as soon as it was applied the pain ceased. She tried it in many ways, and found it equally successful. It is said to be a perfect preventive of sore breasts. Apply warm. Avoid using too near a flame.

Remarks.—This is undoubtedly an excellent liniment, especially where persons have to be wrapped in sheets wet with it, as it is inexpensive and will not cause smarting like the stronger alcohol liniments.

1. LINIMENT—Mrs. Chase's—For Ladies.—Best alcohol, 1 qt.: camphor gum, chloroform, laudanum, sulphuric ether, tinctures of myrrh and capsicum, and oil of red cedar, each 1 oz.; oil of peppermint, cloves, cajeput, and wormwood, each $\frac{1}{4}$ oz.; mix, and keep corked for use.

Remarks.—Mrs. Chase, during the latter years of her life, had occasion to use a liniment for rheumatism of the shoulder, and not liking the burning heat upon the surface, as experienced when using the stronger liniments containing capsicum, nor liking the oiliness of those known as "volatile," made with sweet oil, hartshorn, etc., asked me to get up something for her especially, avoiding both of these objections. This liniment is the result, and a very satisfactory one it proved, not only to her, but her sister who was visiting us, and who was afflicted in a similar manner. It has also given very great satisfaction in hundreds of cases since its origination. It has been used for all purposes for which liniments are applicable, and found very useful. It is applied night and morning for cold feet and limbs. For the severer cases of rheumatism in men, liniment for stock, etc., see next receipt.

2. Dr. Chase's Golden Oil, or Strong Camphor Liniment.—I. Gum camphor, 2 ozs.; oil of origanum, hemlock, sassafras, and tincture of cayenne, each 1 oz.; oil of cajeput, spirits of turpentine, chloroform, and sulphuric ether, each $\frac{1}{2}$ oz.; best alcohol, 1 pt.; mix, and keep corked—as all liniments should be when not being used.

Remarks.—This I consider the best liniment for general purposes ever made, and it is a very strong one. This, with No. 1 (Mrs. Chase's) for the use of ladies to avoid the warmth or burning sensation of the skin as mentioned, I honestly think would fill the bill in all cases where liniments are needed. Still, I shall give a few others for special purposes, and some because cheaper than these; and I will further say, this liniment (the main features of it) I took from Dr. King's *Am. Dispensatory*, which I will give, as it is made with the capsicum itself in place of the tincture. I have found that for general purposes, on the flesh of persons, this is the best plan. I have also added the chloroform and ether, which materially help to allay pain externally as well as internally. These changes make it the best thing I know of as a "pain-killer" for internal as well as external use.

DOSE—The dose may be from 15 drops to a tea-spoonful, according to the severity of the case, in sugar or in a little sweetened water or milk; to be repeated in 15 to 30 minutes, also according to the severity of pain, griping of bowels, etc.

EXTERNALLY—For rheumatism, severe pains, etc., it should be poured

upon the spot, or into the hand and applied, rubbing in well 3 or 4 times at each application; and, if the place allows it, hold the hand upon it till the heat and smarting subsides. Do this night and morning, and, if a severe case, at noon also. For exceedingly severe cases of painful rheumatism in men and for stock, make it as Dr. King did, by using the capsicum powder as follows:

II. Best alcohol, 1 qt.; camphor gum, 4 ozs.; oil of origanum and hemlock, each 2 ozs.; oils of sassafras and cajeput, each $\frac{1}{2}$ oz.; capsicum in powder, 1 oz.; spirits of turpentine, $\frac{1}{4}$ oz.; mix, and let stand, shaking daily for two weeks, when it is ready for use. Keep it in the stable always, and apply for all bruises, swellings, lameness, etc. I have called this Dr. Chase's Golden Oil, to distinguish it from one or two other golden oils, which are not so strong, and consequently much cheaper.

3. **Liniment—Dr. A. B. Mason's—For Man or Beast.**—Best alcohol and sweet oil, of each 2 ozs.; aqua ammonia, spirits of turpentine, oil of origanum, spike and gum camphor, each 1 oz.; mix and keep corked for use.

Remarks.—Dr. Mason is a cousin of mine, and has used this liniment for 20 years, and knows its value for veterinary and general purposes.

4. **Liniment—Robinson's—For Sick Headache, Rheumatism, Colic, etc.**—Take a 2 quart bottle and put into it oil of origanum, 2 ozs.; chloroform and sulphuric ether, each 1 oz.; oils of sassafras, hemlock, wintergreen, anise, spirits of turpentine, and aqua ammonia, each $\frac{1}{2}$ oz.; then add best alcohol, 1 qt. Keep well corked.

Remarks.—Mr. L. S. Robinson, of Jackson, Mich., formerly of Western New York, where, for many years, he made and sold this liniment, and various other medicines, cured several cases of sick headache with it, in Ann Arbor, Mich. He assured me that the person from whom he obtained the recipe offered to pay \$50 for any case of rheumatism which he could not cure with it in 48 hours. It is also valuable for sore throat, to take a little on sugar, and apply freely upon the throat and holding the hand upon it while still wet with the liniment, till the heat and smarting subsides, or else wetting flannel in it, and laying upon the throat till quite red, and this mode of application should be adapted wherever necessary to use it. It is good for pains and aches of every description. *Dose*—From 15 drops to a teaspoonful, with sugar, according to age and the severity of the colic, or other pain. It has a pleasant flavor, is clear and does not soil the clothing. But bear this in mind, that to be successful with any liniment, it must be used or taken freely to get quick returns. In nervous headaches it must be applied to the back of the head and neck, as well as to the fore part, where the pain is located; snuff the fumes from the bottle also freely. A few drops put upon a pin scratch, small pimple, or slight burn frequently, will do very well. He recommended its use 3 to 5 times daily.

5. **Liniment, Nerve and Bone, Very Strong.**—Oil of spike, 6 ozs.; spirits of camphor, harts-horn, tincts. of anise and capsicum, oil of cedar and origanum, of each 2 ozs.; best alcohol, 8 ozs.; mix. *DIRECTIONS*—Shake well while using. Bathe the parts affected 2 or 3 times daily, and rub briskly with the hand 3 to 5 minutes at each application.

Remarks.—This recipe was obtained from Mr. Colman. It is recommended for deep difficulties, strains, sprains, sweeney, etc., as it is strong and penetrating.

6. Liniment, Mustang.—Crude petroleum, or Seneca oil (so called because first gathered and sold by the Seneca Indians), 1 pt.; olive oil, or lard oil and spirits of hartshorn, each 4 ozs.; oil of origanum, 2 ozs. **DIRECTIONS**—Mix the olive oil with the hartshorn, then add the others.

7. Oriental Balm, or Golden Oil Liniment.—Linseed oil (raw, not boiled), 1 gal.; gum camphor, 4 ozs.; oils of thyme and cajeput, each 1 oz.; oils of wintergreen and anise, each $\frac{1}{2}$ oz. **DOSE AND DIRECTIONS**—For an adult 1 tea-spoonful in 2 or 3 times as much water, and repeat as often as required. Use externally 3 or 4 times daily; put on frequently and as soon as possible after bee-stings.

Remarks.—This has been sold largely in South Western Michigan and Northern Indiana, and is liked very much.

8. Another Golden Oil Liniment.—Linseed oil (raw), 1 gal.; camphor gum, 4 ozs.; oils of sassafras, hemlock, origanum, and cedar, each 2 ozs. **DIRECTIONS, DOSE, ETC.**—Mix all except the linseed oil, and when the gum camphor is dissolved, put in the linseed oil, shake well and bottle; if to be put up in small bottles, keep it well shaken while filling. It will be seen that this is the strongest liniment, as it contains more of the essential oils, still it may be taken in $\frac{1}{2}$ to 1 tea-spoonful doses, with perfect safety. It has been extensively sold in the neighborhood of Marshall and Battle Creek, Mich., sometimes there called "Oil of Gladness." It will be found good, for a cheap liniment.

9. Rheumatic Liniment, and for Pain in the Stomach, etc.—**Donohue's.**—Oils of origanum, sassafras, cloves, and gum camphor, each $\frac{1}{2}$ oz.; chloroform, $\frac{1}{4}$ oz. **DIRECTIONS**—Put all into a 3 oz. vial, and fill with alcohol; rub on the painful parts freely; take, for pain in the stomach, 5 to 20 drops on sugar, repeating in 15 to 30 minutes, if needed. This gentleman is an old friend of mine, living in Coshocton, O., where, he tells me, he has cured, or materially benefited 50 or 60 cases of common rheumatism. He thinks there is nothing equal to it.

10. Liniments, Patent or Proprietary -- Perry Davis' Pain-Killer.—Some analysis recently made in the East, and published in the *Druggists' Circular*, gives the following as the articles composing the medicines named: Spirits of camphor, 2 ozs.; tinct. of capsicum, 1 oz.; gum myrrh, $\frac{1}{4}$ oz.; gum guaiac, $\frac{1}{2}$ oz.; alcohol, 3 ozs.

11. R. R. R. (Radway's Ready Relief).—Soap liniment, $1\frac{1}{2}$ ozs.; tinct. of capsicum $\frac{1}{2}$ oz.; water of ammonia, $\frac{1}{2}$ oz.; alcohol, $\frac{1}{2}$ oz. This for a 50c bottle.

12. Hamlin's Wizard Oil.—Spirits of camphor, $\frac{1}{2}$ oz.; aqua ammonia, $\frac{1}{4}$ oz.; oil of sassafras, $\frac{1}{4}$ oz.; oil of cloves, 1 dr.; chloroform, 2 drs.; spirits of turpentine, 3 drs.; dilute alcohol, 3 drs.

13. Giles' Liniment of Iodide of Ammonia.—Iodine, 15 grs.;

camphor gum, $\frac{1}{4}$ oz.; oils of lavender and rosemary, each 1 dr.; alcohol, $\frac{1}{2}$ pt.; strong aqua ammonia, 1 oz.

Remarks.—Any of these liniments, which have no directions accompanying them, would be used the same as the general run of liniments.

14. Cure-All Liniment.—Gum camphor, gum myrrh, opium, pulverized cayenne, and oil of sassafras, each 1 oz.; oils of hemlock, red cedar, worm wood, spirits of turpentine, and hartshorn, each $\frac{1}{2}$ oz.; best alcohol, 1 qt. **DIRECTIONS**—Cut the opium finely; mix, and shake daily for a week or 10 days; then strain or filter.

Remarks.—It will be found a valuable liniment for all purposes for which liniments are used.

15. Lightning Liniment.—Chloroform and ether, each 1 oz.; laudanum, 2 oz.; spirits of turpentine, 4 ozs.; mix.

Remarks.—Mr. Johnson, of Grand Rapids, Mich., says: “Bathe legs, back, or any part of the body with it, and it will give immediate relief. Good for nervous affections, rheumatism, etc.

16. Opodeldoc Liniment.—Alcohol, $\frac{1}{2}$ pt.; camphor gum, $\frac{1}{2}$ oz.; almond or other good soap, and oil of cajeput, each 1 oz. **DIRECTIONS**—Shave the soap finely, and put it with the camphor gum into the alcohol and dissolve by gentle heat; when cool, add the cajeput oil, shake thoroughly before it sets, and pour into large-mouthed bottles, to allow the finger to reach it for application, else it has to be warmed, to pour into the hand for application.

Remarks.—Some people prefer the Opodeldoc Liniment to others, especially for paralysis, enlarged joints, indolent tumors, rheumatism, lumbago, chilblains, etc., for which this is recommended, both to arouse the absorbents and to stimulate the nerves to action, by which a cure is effected when accomplished at all.

17. Liniment—White’s Nerve and Bone.—Gum camphor, oils of sassafras, cedar, and organum, each 2 ozs.; oil of cajeput, 1 oz.; aqua ammonia; 1 oz.; oil of tar, 2 drs.; sulphuric ether, 4 ozs.; best alcohol, 3 qts.; solution of analine (red), 10 or 15 drops—to improve the color; mix, and keep closely corked.

Remarks.—Mr. White is a druggist in Eaton Rapids, Mich., from whom I obtained this receipt. He kept this liniment on sale for a number of years. This is the liniment I refer to under the head of “Carbuncles.” He speaks of it as a mild liniment, and the boys using it on their hands while playing ball, to prevent blistering, called it “Base Ball Liniment.”

18. Chloroform Liniment, Especially for Strains, Sprains, etc.—Chloroform, 1 fluid oz.; camphor gum, $\frac{3}{4}$ oz.; shake together till dissolved, then add olive oil, 1 oz.; tinct. cantharides, 1 dr.; keep well corked, as chloroform is very evaporative.

Remarks.—A nephew of mine, from whom I received this recipe, found more benefit from it on a strained knee, with which he suffered for two years, than any other liniment. Let it be used freely, when used at all, and it must do good from the known nature of the ingredients.

19. "The Best Liniment," for Strains, Bruises, Pains, Colic, Headache, Backache, and All Other Aches—Externally.—A. Parsons, M. D., of Scottville, Ark., sends the following under the above title, to *Medical Brief*, page 508, of 1882. Chloroform, alcohol, aqua ammonia, spirits of camphor and tinct. of aconite root, each 2 ozs.; spirits of nitric ether, 6 ozs.; mix, keep corked. This is Thompson's chloroform liniment, improved, and is the best stimulating liniment that I ever met with. Any kind of ordinary colic may be relieved by saturating the bowels with it. Its application is very beneficial in all the above aches, and in nearly all cases removes them permanently.

Remarks.—I need only say from the nature of the articles composing it that it will prove an excellent liniment for external use; but do not take it internally, on account of the aconite it contains.

Winter Itch—Certain Remedy.—B. I. A. Cull, M. D., of Gamilla, Ga., page 330 of *Medical Brief* for 1880, under the head of "Eureka" (a Greek word, signifying I have found it), says: "After a fair trial, in several cases, to act as a specific (certain cure), in that disease. Blood root, pulverized and steeped in strong apple vinegar, to make as strong as can be made, applied 3 or 4 times a day, cures the disease."

1. BRONCHOCELE—Goitre, or Swelled Neck, to Cure Without Coloring the Skin or Clothing.—Compound tinct. of iodine, 4 ozs.; pure liquid carbolic acid, $\frac{1}{2}$ dr.; glycerine, $\frac{3}{4}$ oz.; mix. DIRECTIONS—Have these articles put into a quinine bottle, having a good cork; put a small stick into the cork, suitable to tie a cloth swab upon it, with which to apply once or twice daily, as can be borne.

Remarks.—The carbolic acid prevents the iodine from coloring (aqua ammonia does the same thing), glycerine prevents speedy evaporation, and also keeps the skin soft and smooth. Constitutional, or alterative treatment, should also be made use of in connection with this local application. Electro-magnetism has also been found of great value, by hastening the reduction of the tumor. Dr. King, of Cincinnati, O., makes use of the following alterative pill.

2. Bronchocele, or Swelled Neck, Alterative Pill for—also Valuable in All Cases Needing an Alterative.—Oleoresin of blue flag (irisin) 1 scr.; baptisin, 5 grs.; citrate of iron and strychnia, 80 grs.; alcoholic ex. of aletris farinosa, 80 grs. DIRECTIONS—Mix all thoroughly together and divide into 80 pills. DOSE—1 pill 1 hour after breakfast, dinner and at bed-time.

Remarks.—If the treatment is begun soon after the commencement of the swelling, a cure may be expected quickly, but if of long standing and some hardening of the tumors already commenced, it will require a perseverance, perhaps, of several months, to effect a cure. The above tincture will be found valuable to apply to any node, or knotty tumors, from bruises or otherwise, upon man or beast. (Note 6, p. 790.)

3. Goitre, Bronchocele, or Swelled Neck—Dr. Mason's Internal and External Remedy.—I. INTERNAL—Iodide of potash, 1 oz.; fl.

ex. of sarsaparilla, 6 ozs.; fl. ex. of dandelion, 4 ozs.; dissolve the iodide in a tea-cup of soft water, then add to the extracts, in a bottle sufficiently large, 1 pint of simple syrup. **DOSE**—1 tea-spoonful $\frac{1}{2}$ hour before each meal.

Remarks.—If in any case this causes a stuffing up of the nose, as is often said on taking cold, the dose must be lessened about one-half, or else as much more of the extracts and syrup must be added—with some people the iodide of potash causes this condition. Occasionally one cannot take it at all; the extracts, then, must be taken without it, but the cure will not be as rapid.

II. **EXTERNAL**—Take tinct of iodine, 2 ozs.; soft water, $\frac{1}{2}$ oz.; sulphite of soda, sufficient to remove the color of the iodine from the tincture before adding the water, which prevents the coloring of the skin or clothing. With a small brush, or swab, paint this tincture, once daily, upon the swelling, and so continue until cured.

Remarks.—The doctor says: "This remedy needs no recommendation, as it has been used by quite a number, and with good results. It was sent to my wife by a Mrs. P. M. Avery, of Pennsylvania, but the idea of discoloration," he says, "I got from the *Boston Medical and Surgical Journal*."

4. Goitre Alterative Syrup, and for All Purposes Requiring an Alterative.—Fl. exs. of sarsaparilla and gentian, each 1 lb.; iodide of potash, $\frac{1}{2}$ oz.; corrosive sublimate, 5 grs. **DIRECTIONS**—Rub the corrosive sublimate in a mortar, with a little of one of the fluid extracts to dissolve it, then mix all together. Shake occasionally, a day or so, to dissolve, and properly mix the iodide and sublimate. **DOSE**—1 to 2 tea-spoonfuls, according to the age and robustness of the adult, in a little water, sweetened. To be taken 4 times daily, a little before each meal and at bed-time. (Note 7, p. 790.)

Remarks.—This alterative has no superior for any general purpose. Some people, however, object to the corrosive sublimate, because it is a poison; but in the minute division of it into so many doses, it is a very valuable article, as an alterative, notwithstanding the objections. It can be left out if you wish, and still have a splendid alterative; but it will be better if put in. Having used it, and directed it for others, I know whereof I speak.

1. DROPSY—Syrup For.—Butternut bark, dwarf elder (bark of the root), and endives (chicory, also called succory), each 1 lb.; Indian hemp, $\frac{1}{2}$ lb.; black root and dandelion root, juniper berries, yellow dock and burdock roots, each $\frac{1}{4}$ lb.; prickly ash berries, 2 ozs.; loaf sugar, 2 lbs.; pure whiskey, 3 pts. **DIRECTIONS**—The recently dried roots and barks are intended, and should be coarsely ground by the druggist; place all (except sugar and whiskey) in a four gallon jar and pour on sufficient boiling water to well cover the whole. Set the jar on the back part of the stove, cover with a cloth and plate, to keep in the heat, and let it stand 3 or 4 days to sour; it is not to boil. When a little sour strain and simmer to one gallon, when the sugar is to be added, and when cool, the spirits; then bottle for use. **DOSE**—A wine-glass a little before meals.

Remarks.—This recipe was obtained from a Mr. Coleman, who spoke very highly of its success. It is diuretic, tonic and alterative, besides its action upon

the liver by the black root (this is the *leptandra virginica*, from which the leptandrin is made), although it is not specially cathartic in its action, and must be found valuable. An ounce of essence of wintergreen would make it very pleasant to the taste.

2. Dropsy and Anti-fat Medicine.—M. Milton, M. D., of DuBois, Penn., in a report through the *Brief*, page 439, 1883, says:

“He cured a lady patient, having a dropsical tendency, of that difficulty, also reducing her weight from 247 to 198 lbs. in 15 days, by the following treatment: He obtained the juice of poke-berries, and evaporated it by means of sand-bath to the consistency of pill-mass, forming into 4-gr. pills, with a little powdered licorice-root.” (Note 8, p. 790.)

DOSE—Two pills half hour after each meal. In connection with these pills he gave $\frac{1}{8}$ gr. of elaterium in solution at night. (If its action on the bowels should be so severe as to cause distress, skip a night or two.) By the continued use of these pills alone, for a few weeks, her flesh was reduced to 175 pounds, and she remained well up to the time of this report, 3 years after. See also “Fat People—Food to Reduce their Fleshiness.”

1. COLIC, OR OTHER INTERNAL PAIN—German Remedy or Liniment for.—Alcohol, 1 qt.; oil of sassafras and hartshorn, each 2 ozs.; spirits of camphor and laudanum, each 1 oz.; spirits of turpentine, $\frac{1}{2}$ oz.; tinct. of kino, $\frac{1}{4}$ oz.; mix. **DOSE**—For colic, or any severe internal pain, from $\frac{1}{2}$ to 1 tea-spoonful may be taken for a dose; to be repeated in $\frac{1}{2}$ to 1 hr., according to the severity of the case.

Remarks.—This recipe was sent me by Mr. Frank Spurlock (a German), of Sedan, Kan. It certainly makes a good liniment for general use, and I give it a place, to meet the desire of my German readers; for they, like Americans, think their own prescriptions are the best.

2. Colic—Cure by Quinine.—Dr. N. R. Derby, of Bergen Point, N. J., says, in the *Medical Recorder*, that by accident he discovered that a dose of 8 or 10 grs. of sulphate of quinine will speedily put an end to an attack of colic. He had had such attacks from childhood, but cured himself and several others in this way. This dose is for an adult. I should try it if I had occasion to do so.

1. CONSTIPATION OR COSTIVENESS—Valuable Pills for.—I. Solid extracts of nux vomica and hyoscyamus, and pulverized capsicum, each 25 grs.; podophyllin and ext. of belladonna, each 10 grs.; mix thoroughly and make into 100 pills. **DOSE**—If very constipated when you commence taking them, take 2 each night for 1 or 2 nights, or until the bowels become easy; then 1 only at night till cured.

II. *Constipation—Hot Water as a Cure.*—A cup of hot water, a writer says, is a grand tonic and stomach cleanser, and a sure cure for constipation. It should be taken night and morning, just before retiring and after rising.

Remarks.—I have seen hot water recommended for this difficulty before, and think it worthy of trial. It is also recommended for dyspepsia, which

often causes constipation. For the degree of heat and manner of taking, see "Hot Water for Dyspepsia."

2. Constipation or Costiveness—Newer Remedies.—For a few years past the fl. ex. of cascara sagrada has been much extolled, and also found quite satisfactory in relieving the difficulty, and if properly combined with other remedies, has cured very many cases, I have been very successful with the following combination:

I. Fl. ex. cascara sagrada, 1 oz.; tincts. nux vomica and belladonna, each 2 drs.; with syrup of Tolu, or syrup of wild cherry, $2\frac{1}{2}$ ozs.; mix. Dose—A tea-spoonful 3 times a day till the bowels become easy; then only at bed-time, till cured.

Remarks.—I have succeeded with this when other things, by other physicians, have failed.

II. I see that some physicians prefer the following prescription for constipation: Fl. ex. cascara sagrada, fl. ex. berberis aquifolium and simple syrup, each 1 oz.; tinct. nux vomica, 25 drops, and tinct. digitalis, 1 dr. Dose—A tea-spoonful 3 times daily, till the bowels become easy, then drop off morning, then noon dose, and finally all, using only occasionally, for a while, till a healthy daily action is established. This would be the most valuable in female cases, as the berberis is claimed to be a "female regulator," uterine tonic, etc. But supposing there is no constipation, although the liver may be inactive in the secretion of bile, the stools, or passages, being light, or clay-colored, then I would use:

III. Fl. ex. of fringe tree, 1 oz.; fl. ex. of berberis, 1 oz.; adding also, as a stomach tonic, fl. ex. wahoo, $\frac{1}{2}$ oz.; syrup of wild cherry, or Tolu, 1 oz.; and the tincts. of nux vomica and belladonna, each 2 drs., as in No. 1, above. Dose and management the same as in No. 1, till the stools assume their healthy color again.

3. Constipation, More Recent Remedy.—My attention was recently called to the following, and having a case of constipation on hand, and in which the liver did not give the usual amount of bile, giving a tendency to jaundice, I at once tried it with the happiest results—entire relief in both difficulties. The remedy was: Tinct. nux vomica, 1 oz.; podophyllin, 1 gr.; the podophyllin to be rubbed in a little of the tincture, to insure it thorough mixing. Dose—Take 5 drops only, before each meal, till the bowels become easy, then only 3 drops, or even 2, as required to keep them easy, for a few days; after which take occasionally, if needed, by the reappearance of the clay-colored stools.

Remarks.—The tincture of nux vomica, in the small doses above given, is not only safe but a very valuable medicine, still if left where children can get hold of it, and drink the whole bottle, or considerable of it, it is poisonous; and hence I give in the next item the treatment for such a mishap, as follows:

Poisoning by Nux Vomica or Strychnine—Remedy.—Should ever poisoning occur by the careless taking of over-doses of tincture of nux, or

strychnine (which is made from it), twitching of the muscles will be the first sign, then convulsions, no time should be lost in getting down oils of any character, sweet oil is considered best, but lard oil, or melted lard, in doses of from 1 cup to $\frac{1}{2}$ pint for an adult answers very well, and strong coffee, and then producing vomiting in the quickest way, by mustard, or thrusting the finger down the throat after the oils or coffee has been given. A pint of strong coffee saved a dog, after it appeared he was nearly dead; four grains of camphor gum has done the same thing—then they are good for persons. It is better, however, to put such things out of the reach of children. See, also, "Poisons, Quick Emetics, Antidotes, etc."

1. GRAVEL—Remedy.—A strong decoction, made with a handful of smart-weed in $\frac{1}{2}$ pt. of water, taken with a gill of gin, is said to have discharged a table-spoonful of gravel at a time in 12 hours from the time it was taken. Keep on taking it daily as long as any gravel is discharged.

1. HEMORRHAGE OR BLEEDING FROM THE LUNGS, WOMB, RECTUM, ETC.—Witchhazel and Other Specifics, or Positive Remedies for.—Hemorrhage, or bleeding from the uterus (womb) after child-birth, from the lungs and from the rectum, in some cases of piles, are of such frequent occurrence that I deem it of great importance to give the latest and most successful prescriptions for hemorrhage in these cases.

Of late the homeopaths claim that the valuable properties of the witchhazel is a discovery of theirs, and they make ado over it in the form of "Pond's Extract of Hamamelis." If this is used, give it in doses of 10 to 15 drops, repeated every 3 or 4 hours.

Among eclectics, for many years past, the common witchhazel (hamamelis) has been considered a very valuable remedy for hemorrhages or bleeding from the internal organs. Prominent among these are Professors John M. Scudder and A. S. Howe, of the Eclectic Medical Institute of Cincinnati, who consider it a specific (positive cure) in all cases of debility of the nervous system—a weak and flabby condition that allows the blood to ooze through the membrane.

Prof. Howe has used this about 30 years, or long before homeopathy had become at all prominent in the United States.

Prof. John King, of the same institute named above, and also an extensive medical writer, thinks that in hemorrhages immediately following "delivery at full term" hamamelis is not equal to ergot, but in cases arising from debility, he agrees with the remarks above—that witchhazel is vastly superior.

A decoction or tea, made from the bark or from the dried leaves, will be as effectual as "Pond's Extract," which is kept by druggists.

The strength of a decoction will be 1 oz. of dried bark or leaves to 1 pt. of water. **DOSE**—A wine-glassful 3 or 4 times daily

2. Uterine Hemorrhage—Specifics in.—C. J. Pitzer, M. D., of Detroit, Ill., a practitioner of over 16 years experience, in a communication to the *Eclectic Medical Journal*, asks for practical items from the experience of other physicians, and in giving his own, says. "Cinnamon and erigeron are specifics (positive cure) in uterine hemorrhage; I know it by actual

experience. I don't tell you anything new, but recall your attention to the fact and confirm, as far as my evidence goes, what has been said of these articles by others. Let me say, while speaking of these invaluable remedies, that in uterine hemorrhage you can't have too much confidence in them. They are just what you want. Don't resort to ergot. Give oil of erigeron, 10 drops, every hour, and oftener, if needs be; and between each doze give 15 drops tinct. oil of cinnamon, made by adding oil of cinnamon, 1 fl. dr., to best alcohol, 95 % 1 fl. oz. I use both remedies in every case, alternating. Don't know which does the most good; neither do I care much, so I save my patient. Just had a bad case last week, caused by retained membranes. The case had been managed by other physicians, and 4 or 5 days after the delivery, the hemorrhage was very excessive and threatened the life of the patient in a short time. The doctor who sent for me had used ergot, opium, lead and tannin, and had resorted to the tampon. I suggested the above named remedies, and commenced the use of them at once. The hemorrhage ceased almost entirely in 4 hours, and we had no trouble in controlling it afterwards."

Remarks.—It is facts like these which have now well established the belief in the specific, or positive action, of medicines, and I trust that others may have sufficient confidence in them to use them when needed. This is one of the objects in writing this book, that these well established facts may reach the thousands, or hundreds of thousands, of the people, rather than stop with only a few physicians.

3. Hemorrhage from the Womb, With High Pulse and Fever.—Being called to a case where an abortion had been performed, in an early stage of pregnancy (not knowing for some time after, of the cause), finding the wasting, or hemorrhage, considerable, I gave:

I. Fl. ex. of ergot, $\frac{1}{2}$ oz.; gallic acid, 40 grs.; mixed. Dose— $\frac{1}{2}$ tea-spoonful every 2 hours, until pain and contraction of the womb was produced, then once in 4 or 5 hours only, until the wasting ceased.

II. *For the High Pulse*—I gave tinct. veratrum viride, 6 drops, with tinct. aconite, 3 drops, every 2 hours, alternating with the first, giving the second 1 hour after the ergot mixture had been given, dropping each into a tumbler, so as to get this number of drops, of each, in a tea-spoonful of water, when given. For instance, 36 drops of the veratrum and 18 drops of aconite, with 6 tea-spoonfuls of water, gave the right dose each time.

Remarks.—Remember, however, that the veratrum and aconite mixture is only to reduce the pulse, which was about 120; when this comes down to 80, then give this only once in 4 or 6 hours, to keep the pulse at about this grade; if continued too long, it will reduce too much, and also distress and nauseate the stomach, which is not necessary, and should always be avoided if possible. The strength must be helped up with 2 or 3 grain doses of quinine, or "Dextro" quinine, in same doses three times daily. (Note 9, p. 790.)

The urine in such cases may need some attention, and call for acetate, or nitrate, of potash (I like the acetate best, some others prefer the nitrate-niter.

or the sweet spirits of nitre), to correct any disturbance of these organs, for which purpose. See "Diuretics" for directions.

4. Hemorrhage, Slight, of the Lungs, with Cough—Regulator or Allopathic Treatment For.—I. Give fl. ex. of ergot, 15 drops in a little water, putting in a little essence of wintergreen to lessen its bitter taste. (The author would say, in such a case, a few drops of essence of cinnamon, which will cover the bitter taste as well as the wintergreen, is of itself good for the hemorrhage.) Give the above every six hours.

II. Between these doses also give gallic acid, 4 grs., in a little syrup of lemon. This alternation brings the doses only three hours apart. A few doses of each will generally allay any slight hemorrhage. If the cough is pretty persistent, *i. e.*, continuous and irritating, give laudanum, 15 drops, once in 4 or 5 hours, and 25 drops at bed-time, to allay the cough and help in procuring sleep. Give also laxatives, if needed, to prevent costiveness.

Remarks.—I know this treatment to have proved eminently satisfactory when the hemorrhage was not very extensive.

5. Hemorrhage, or Bleeding From Slight Cuts, etc.—Simple Remedy.—To stop the flow of blood bind the cut with cobwebs and brown sugar, pressed on like lint. Wheat flour and salt, in equal parts, bound on with a cloth, for man or beast; mix well, without wetting, the blood will wet them enough.

Treatment for Hemorrhage.—Soon after the above was written we had the value of the cobweb treatment confirmed, by the *Toledo Post*, in a case of a lady of that city, who had a tooth drawn; hemorrhage from the cavity set in and continued, in spite of all common remedies, from Saturday noon until 3 o'clock Sunday morning, when the cobweb was procured and applied and the bleeding stopped by this move, leaving her very weak.

7. Hemorrhage from Wounds—Styptic Colloid, to Prevent and Cure.—The following will instantly coagulate blood, forming a consistent clot, under which wounds will readily heal: Collodion, 100 parts (grs.); carbolic acid, 10 parts; tannic and benzoic acids, of each 5 parts; mix the ingredients in the above order.

Remarks.—If the wound is so large that a slight application does not stop the hemorrhage or bleeding, wet lint with it and bind on if necessary, and leave on until the healing process is accomplished.

1. DIPHTHERIA—Successful Remedies.—My first remedy, although simple and easily obtained, is from a paper presented to the French Academy of Medicine by Dr. Revillout, who asserts from an experience of 18 years, that:

I. Lemon juice is one of the most efficacious medicines that can be applied in Diphtheria, and relates that when he was a dresser in the hospital, his own life was saved by this timely application. He got a quantity of lemons and gargled his throat with the juice, swallowing a little at a time in order to act on the more deep-seated parts. (Note 10, p. 790.)



BITTERSWEET.

(See Description)

This herb is used in Scrofulous and Skin Diseases, in Liver Complaint, and for Tumors and Ulcers.

It is also recommended for any inflammatory or irritable condition of the throat in their commencement.

II. Lemon juice in Diphtheria is endorsed by American physicians, as the following will show. Let it be tried by all means.

Dr. J. R. Page, of Baltimore, in the *New York Medical Record*, invites the attention of the profession to a topical use of fresh lemon juice as a most efficient means for the removal of the membrane from the throat, tonsils, etc., in diphtheria. In his hands (he has heard several of his professional brethren say the same) it has proved by far the best agent he has yet tried for the purpose. He applied the juice of the lemon, by means of a camel's hair probang (a piece of cloth on a stick will do as well), to the affected parts every 2 or 3 hours, and in eighteen cases on which he has used it the effect has been all he could wish. A little remarkable—one has 18 years successful experience, the other 18 cases; either is enough. (Note 10, p. 790.)

2. Diphtheria—Ice a Successful Remedy for.—The French have also been very successful in the use of ice as a remedy in Diphtheria, which was introduced into this country by a Dr. Chapman, reported through the *New York Tribune*, by which means it was brought to the notice of the Oneida community in that state, where the disease was prevailing, and was successful in 60 cases. They aroused the mind of the patients, old enough to understand the necessity, to the greatest possible resistance to the advance of the disease. This determination of resistance is valuable against the advance of any disease. DIRECTIONS—The ice is broken into small pieces and given to the patient every ten minutes, night and day.

3. Diphtheria, Cure For.—A Mrs. R. S. K., of Toledo, Ohio., gives the following cure for diphtheria to the *Blade Household*: I. Syrup of squills, 1 oz.; gum camphor, $\frac{1}{4}$ oz.; laudanum, $\frac{1}{2}$ dr.; cayenne pepper, $\frac{1}{2}$ tea-spoonful; good whiskey, $\frac{1}{2}$ pt. DIRECTIONS—Camphor to be dissolved in as small a quantity of alcohol as possible. Four large onions are to be cut in slices, put into a deep earthen plate (that will stand heat), sprinkle thickly with loaf sugar, cover with another plate, place a heated flat iron on the upper plate, leaving it set on the back of the stove. Heat and pressure will extract all the juices without losing any of its medical properties. All the juices thus extracted are to be mixed with the other ingredients; when all are mixed together and the camphor added, it will curdle; but when it stands awhile, it will become clear. DOSE—For an adult, 1 tea-spoonful every $\frac{1}{2}$ hour; for a child, $\frac{1}{2}$ tea-spoonful every $\frac{1}{2}$ hour; to be diluted for a child, as it is pretty strong. (Note 10, p. 790.)

II. Apply also the following: Salt pork, $\frac{1}{2}$ lb.; and 2 large onions; chop all together finely and put some upon the throat. For an infant place a thin piece of muslin on the poultice next the skin; change every 15 or 20 minutes.

Remarks.—A poultice of mashed onions to the arm-pits, stomach, soles of the feet and palms of the hands, in bad cases of fevers, has worked wonders. Why not good then for diphtheria?

4. Diphtheria, Sulphur Treatment.—Our attention was first called to the use of sulphur, in this disease, by a report from Dr. Fields, in England.

He found an advantage in its use, in some bad cases within ten minutes of its commencement. His manner of using it with those old enough, was in the form of a gargle, a tea-spoonful of the powder, or flour of sulphur, in a wine glass of water, gargling frequently. If the patient was unable to gargle, or too young, blow some of the dry sulphur through a quill upon the diseased parts of the throat, or burn some of the sulphur upon live coals near the patient, so that he will inhale the fumes. The patient should always be kept warm and the bowels open. In extreme cases, when Dr. Field was called, just in the nick of time, when the fungus was so near filling the throat, as not to allow the gargling, he first blew the sulphur through the quill into the throat, and after the fungus had shrunk to allow of it, then the frequent gargling. He never lost a patient from diphtheria under this treatment. He recommends after gargling a couple of times, to cleanse the throat, to swallow some of the sulphur water occasionally, so as to reach the fungus deeper in the throat, which also has a tendency to keep the bowels open, which is recommended a very important point to accomplish. This fungus is believed to be a living parasite, of plant-like growth, and that sulphur is absolutely destructive to them, as has been proved by its use, by applying upon the parasites of the grape vine. It has been proved that sulphur kills every fungus or parasite on man, beast, or plant. One Dr. Langautiers also found that one tea-spoonful doses every hour, of a mixture of sulphur, in 4 ozs. of water, taken every hour, is very beneficial in the treatment of croup. (Note 10, p. 790.)

5. Diphtheria, Specific for—Also Scarlet Fever, and Preventive in Both.—The best physicians of New York city, Brooklyn and Philadelphia are equally in favor of the sulpho-carbolate of soda. (Note 10, p. 790.)

[The sulpho-carbolate of soda is composed of soda combined with sulphur and carbolic acid, either of which alone is good in diphtheria, scarlet fever and any other inflammatory condition of the throat; and the combination is more decidedly beneficial than either would be alone; at least it seems so to me from my knowledge of their properties.]

Dr. May, of New York city, says the sulpho-carbolate of soda is a specific (positive cure) in diphtheria, also in scarlet fever, and claims that this article is a preventive to the development, even after exposure, as well as a cure for both these diseases. The writer of this report is very much impressed in favor of this article. He says:

“The use of sulpho-carbolate of soda in diphtheria has become a settled fact by the best physicians, as above named, to be the only certain specific (positive cure), for that dreaded disease which has taken off so many children in the United States during the past 8 years. He also says it is certain to destroy the parasitic fungus in the throat and glands in two hours.

“Ten grs. dissolved in a tumbler half full of cold water, and take from $\frac{1}{4}$ to 1 tea-spoonful every hour, until the parasite is destroyed; then take 1 tea-spoonful every 2 or 3 hours, according to the circumstances of the case. There is no use in physicians fighting against this remedy, for they will have to use it if they have success in the treatment of scarlet fever and diphtheria. It is a specific in both diseases, as they are both zymotic (acting like a ferment, spreading quickly through the system) in their nature, and are produced by the parasite in the system. It will prevent both diseases, if given before an attack, as well as a remedy. This remedy has been used for scarlet fever and diphtheria

for over 8 years, and if given before gangrene (mortification) sets in, will work wonders in every case. It was discovered by an English physician, and has grown into favor as a specific ever since, particularly with children.

"The trichina parasite of pork, as soon as it enters the stomach, is absorbed by the blood, then into the muscles of the body. It is not so with the diphtheria parasite; it is generated in the stomach, and when it spreads up the œsophagus (comes from Greek words, signifying to bear, to carry and to eat; being the passage way of the food and drink to the stomach, commonly called the gullet), it produces such a high state of inflammation that gangrene sets in, which dissolves the parasite, and carries it all through the blood, which is always fatal. Gangrene always dissolves the parasite, but before that takes place the use of the sulpho-carbolate of soda will save every case. I have written these lines by special request of very many citizens and friends who desire it made public for the benefit of all." (Note 11, p. 790.)

Remarks.—I am only sorry that I have not had an opportunity to test this myself; but, as I have not, I can only say to physicians, and heads of families, try it, by all means. Whenever either of these diseases gives you an opportunity, have it on hand and lose no time in beginning its use.

6. Diphtheria—Chlorine Water a Specific for.—At a recent breaking out of Diphtheria in a considerable number of places, which was also alarming in its fatality, the *Springfield Republican*, in commenting upon the fact, called attention to some remedies which have entirely divested this fearful disease of its terrors, if applied in the early stages. Among these it claimed the most simple and effective to be chlorine water, diluted by adding 2 to 4 times the amount of water. A well known physician of that city, the *Republican* asserts, has used this specific conclusively for fifteen years with complete success, previous to its use having lost about half his cases. He repeatedly, by its use, eradicated the disease in different places, when all other remedies failed. Another medical writer claims that the chlorine water and sulphur treatments, as given above, are the only positive cures. **DOSE**—1 to 2 tea-spoonfuls, largely diluted with water, 2 or 3 times daily; also as a gargle in sore throat, even of a putrid character. (Note 10, p. 790.)

Remarks.—To give confidence to those who are not acquainted with the uses of chlorine water, I will say it is powerfully antiseptic (overcoming putrefaction), quickly destroying all bad odors arising from decay. It has been successfully used internally in chronic inflammation of the liver, typhus fever, malignant sore throat, scarlet fever, etc.

7. Diphtheria—Successful Remedy in Forty Cases—Also Preventive.—Dr. MacLean, of Norwalk, Ct., recommends the following as a preventive of diphtheria, remarking:

"During the past 4 years I have used it, and in 40 well marked cases of diphtheria, where 140 persons were exposed to a contagion, not a single case has been reported to me. I use 1 dr. of Monse's salt in 8 ozs. cold water, adding plenty of sugar to overcome the taste of the iron. **DOSE**—2 to 8 tea-spoonfuls each day, according to the violence of the disease."

Remarks.—The dose would be 1 tea-spoonful, 2, 3 or 4 hours apart, as the case may require.

8. Diphtheria, Sore Throat, Swollen Tonsils, Etc.—Homeopathic Remedy.—Bin-iodide of mercury, 10 grs.; sugar of milk, 100 grs.;

triturate (rub) together 30 minutes in a wedgewood mortar. Then take 10 grs. of this triturated article and 100 grs. more of sugar of milk, and triturate again as before. Dose—Give 1 gr. of this second trituration every hour in ordinary cases; if a bad case, give the same amount every 15 to 30 minutes, until relieved; then every hour or two, as needed. A few doses makes the cure. (Note 12, p. 790.)

Remarks.—Dr. Mason used this a number of years, and very successfully, on some very bad cases. The above is the Homeopathic treatment, except some of them use in addition to this a gargle, every hour, of $\frac{1}{2}$ alcohol and $\frac{1}{2}$ water.

9. Diphtheria, Dr. Scott's Treatment for.—After the foregoing recipes had been prepared I noticed Dr. W. A. Scott, of Sandyville, Iowa, reported through the Chicago *Inter-Ocean* his success with the following treatment:

I. Dissolve 20 grs. of pure permanganate of potassa (permanganate of potassa is a powerful disinfectant, also a great purifier of sick rooms, clothing, etc.) in 1 oz. of water, and apply it to the affected parts with a swab, gently, but thoroughly, every 3 hours, until better; then not so often. (Better get 80 grs. in a 4 oz. vial of water.) After the patient gets better weaken the solution by adding an equal quantity of water. This solution does not give any pain, nor is there any danger in its use, but it has a nasty taste, which is its only objection. (Its staining clothing is another objection.)

Prof. King, in his American Dispensatory, says:

“One dr. of permanganate dissolved in $\frac{1}{2}$ oz. of water, in a saucer, and placed under the table, bed or other convenient place destroys all odors. Another writer in speaking of permanganate of potash to purify the air of sick rooms says: $\frac{1}{2}$ oz. of it, in water, 1 qt., and cloths wet in it and hung up, is a quick and certain disinfectant. For disinfecting or cleansing clothing of diphtheritic, scarlet fever or small pox patients, bedding, etc., 1 oz. of the permanganate to 2 gals. of water is sufficient to soak them in, an hour or two, before the boiling and washing in the regular way.

II. “Apply a good liniment to the throat outside, 3 or 4 times a day. (Dr. Chase's golden oil or liniment, or Mrs. Chase's, will be found good for this purpose.) Keep a cotton cloth, not woolen, around the throat till well. The above is all I use in simple cases, and all that is needed.

III. “If there is much fever I mix 5 drops of fl. ex. of aconite root with 4 ozs. of water, and give to a small child $\frac{1}{4}$ tea-spoonful; a child 5 to 10 years, $\frac{1}{2}$ tea-spoonful; 10 to 15 years, 1 tea-spoonful; over that age, 2 tea-spoonfuls. Give every 1 or 2 hours, as may seem needed, to lessen the fever.

IV. “If there is blood poisoning, which may be known by the bad smelling breath and quick beating of the heart, give: Chloroform, 1 fl. dr.; comp. spts. lav., 1 dr.; alcohol, 1 oz.; mix. Dose—Five to 20 drops, according to the age, mixed in cold water, every $\frac{1}{2}$ to 2 hours, as may seem necessary. This will quickly quiet the heart's tumultuous action and aid it to throw off the poison.

V “Do not give harsh physics. If needed, give castor oil or purgative magnesia. Keep the patient from exposure to chilly air or cold baths. This treatment, which I have published in several medical journals, will rob this disease of its terror and save from the grave many a loved one.”

Remarks.—Let the medicine be obtained where there are families of children, so as to have it in the house as soon as needed, on the approach of the disease into a neighborhood. Then when it begins, lose no time in applying the remedy, and the different aids he recommends, if needed.

10. Diphtheria—Latest Allopathic Treatment For.—In a recent conversation with Dr. Haney, of Toledo, Ohio, he claimed to cure every case of diphtheria, even in small children, by swabbing the throat with calomel; for quite a young child he gets 10 grs. into the throat, by a swab, and a child 5 to 8 years, 20 to 30 grs., so it will be swallowed. He says it stops the change in the blood, by which the fibrinous portions form the membrane in the throat. He follows 3 or 4 hours after with the liquid physic (see "Liquid Physic"), to help carry off the accumulation of the intestines; and then supports the strength with liquid food of a nourishing character. He is a successful physician, and claims not to have lost an average of one child a year for the eleven years, practice there; and I know he has a good share of practice among the children. I have also seen accounts in a recent medical journal, by some allopathic physicians, that they have been using calomel very similar to Dr. Haney, in this disease. Therefore I have not dared to pass it by without mention, as it may save many lives for future usefulness.

11. Diphtheria—Remedy by the French Academy of Medicine.—"The vapor from the burning of a mixture of tar and spirits of turpentine, near the bed, it is said, will dissolve the false membrane which is so often fatal in this dreadful disease. If this simple remedy is complete, as the French Academy of Medicine is said to have declared, it should be widely published." *American Messenger, October, 1884.*

Remarks.—Notwithstanding there are two "is saids" in this, yet, as it is simple, and would not interfere with any other treatment, and obtaining it from a purely religious paper, which seldom touches anything of this kind, I have felt, from the knowledge of love of the effects of these articles, it should have my help on its way to a wider publication. Equal parts should be used, although they do not so state, thoroughly mixed, and pour a few drops from a tea-spoon upon hot coals, to keep up the fumes, is all that is needed.

Blistering in Diphtheria—History of a Case at Black Rock, N. Y., Saved by It.—In the December number, 1884, of the *Therapeutic Gazette*, of Detroit, Mich., F. W. Bartlett, M. D., of Buffalo, reports the case of a man about 45 years old, to whom he was called, and who was very sick at the time, and continued to get worse for four days, when he considered it hopeless from the condition of the throat, and so informed his patient, who took it calmly, but asked to have something done to relieve the suffering of the stomach, for which he directed his wife to dip cloths in hot water, and wring out, then put on a few drops of turpentine, to be applied over the bowels; but in the confusion of such a case, expecting to lose her husband, she heated the turpentine, and saturated flannel with it, and laid it on, which he bore as long as he could, then violently flung it across the room, saying he "would rather die than suffer such agony." And when the wife saw what an inflammation she had caused, covered it with fresh lard, and waited the doctor's morning call; who found a blister (*vesication*, as M. D.'s most call it) a foot square, covered with a diphtheritic exudation, the throat better, and the patient saved. All I have to say further is, let others make similar mistakes

in bad cases, and save their patients too. In other words, draw a blister in the regular way, in time, not to let the throat get beyond control. I would put a blister on both arms, breast and bowels too, if I thought it necessary to save my patient's life.

12. Diphtheria, to Avoid by Diet—Pork Believed to be the Exciting Cause.—With an explanation as to this exciting cause of diphtheria, I will close the subject, having given a large number of the most popularly known remedies, although there are many writers who think that the abundant use of pork in our diet is a very fruitful source of this disease, I shall only quote from one. A recent medical correspondent of the Lancaster *New Era* argues at considerable length: "That eating of pork is an inciting (arousing, stirring up,) cause of this terrible disease." His idea is that an unhealthy appetite is created by the use of so much pork, in the every-day diet of the country, until the specific pork poison is manifested in the exudatious deposits from the blood into the throat, which is the characteristic symptom in this disease. He especially advises parents not to allow their children to diet on pork, nor sausage, but fruit and vegetables in greater abundance. (Note 13, p. 790.)

Remarks.—Although beef, veal, lamb, chicken, etc., may be allowed to children generally, yet it would be well for parents during the prevalence of diphtheria in a neighborhood, to put their children upon a bread and milk and vegetable diet exclusively, lest their loss might be charged home to their neglect, which would not be a pleasant thought for after-consideration.

13. Diphtheria—Closing Remarks Upon.—The author leaves the subject with his readers, believing that he has presented a larger number and more reliable remedies or recipes for the cure and prevention of diphtheria than are to be found in any other publication whatever; he also believes that if these recipes are well studied, and one or more of them adopted by the heads of households containing young children, and the articles obtained and kept on hand ready for use, night or day, nothing like the fatality will hereafter take place from diphtheria, as has heretofore been the case. I feel certain that there can be no drug store where some of the articles mentioned may not be obtained. Then the responsibility rests with each one who shall have this knowledge, and yet neglect to use it. The author has done his duty, which is a great consolation to him. The same will also hold good upon many other subjects in this work. See "Disinfectants," to prevent this disease from spreading.

1. SORE THROAT—The Good Old Grandmother's Gargle for.—Steep 1 medium-sized red pepper in $\frac{1}{2}$ pt. of water, strain, and add $\frac{1}{4}$ pt. of good vinegar, and a heaping tea-spoonful, each, of salt and pulverized alum, and gargle with it as often as needed.

2. Sore Throat, New Gargle for.—In all recent inflammations, or colds, affecting the throat, a gargle made by putting a heaping tea-spoonful of the bi-carbonate of soda (common baking soda) into a glass of water, and gargling with it frequently, will be found exceedingly valuable. A tea-spoonful, or a little more, of it swallowed, will quickly relieve a tickling cough; also neu

tralize the acidity of the stomach often arising after meals, water-brash, etc. But if it should irritate, weaken one-half or more.

3. Sore Throat—Heat Strong Tea as a Gargle for Speedy Relief in.—It is well to know that sore throat can be speedily relieved by using strong, hot tea as a gargle. It is a convenient remedy and rather a pleasant one.

Remarks.—Hot water has proved valuable in many diseases of late, as dyspepsia, consumption, etc., taken internally before meals, which see, for these diseases.

4. Sore Throat and Catarrh—Gargle for.—Comp. spirits of lavender. $\frac{1}{2}$ oz., into a 4 oz. vial; put in also the carbonate of ammonia, 20 grs.; fill with distilled, or rain water.

DIRECTIONS.—Put 1 teaspoonful of this to $\frac{1}{2}$ cup of warm, soft water and gargle with it two or three times daily; and if any catarrh, or nasal inflammation, put into the hand, what it will hold, and snuff into the nostrils at each time. After the gargling and snuffing, a little vaseline, or cosmoline, mutton tallow, or some sweet oil, or sweet almond oil, should be introduced into each nostril with the finger.

Remarks.—Follow this course faithfully, and for a considerable time, in catarrh, if any good is expected to result; also use occasionally some good cathartic to act freely, together with an alterative and tonic course of medicine.

5. Sore Throat, Common Gargle for.—For common case of sore throat, a valuable gargle can generally be made at almost any dinner table.

DIRECTIONS.—Take $\frac{1}{2}$ pt. tumbler, or common goblet, and put into it a small salt cellar of salt (about 2 tea-spoonfuls), $\frac{1}{4}$ tea-spoonful of black pepper, and a little cayenne (3 or 4 little taps on the bottom of the cruet, or pepper-box containing it, will be sufficient; a tea-spoonful or two of pepper-sauce, if on the table, is better than the cayenne powder), then fill the tumbler with cider vinegar and water, equal parts, stir well, a few times, and gargle with it often.

Remarks.—If you have alum and borax in the house, about $\frac{1}{4}$ tea-spoonful of each, pulverized, may be put in, or if only one of them, $\frac{1}{2}$ tea-spoonful will improve the gargle. (Other gargles will be found in connection with the subject of diphtheria.)

6. Sore Throat, Several Simple Remedies for.—The following are some of the most common, or simple, remedies for sore throat, easily obtained and often effectual:

I. Salt and water is used by many as a gargle; but a little alum and honey dissolved in sage tea is better.

II. Others, a few drops of camphor on loaf sugar, which very often affords immediate relief.

III. An application of cloths wrung out of hot water and applied to the neck, changed as often as it begins to cool, has great potency in removing inflammation in recent cases.

IV. Borax the size of a pea in the mouth relieves hoarseness quickly (See also hoarseness, bronchitis, etc., for other remedies.)

SORE NOSE—Akin to Erysipelas—Certain Cure.—I had a case of sore nose, a very bad case, which nothing in the ordinary line of treatment would benefit at all, except for a very short time. The sufferer would cry out: "Cannot something be done to relieve this intolerable suffering," etc. **DIRECTIONS**—I prepared a little stick, 3 or 4 inches in length, and wound it with 3 or 4 thicknesses of cotton cloth, wrapped with thread, and dipped this into the full strength muriated tincture of iron, and held it firmly, for $\frac{1}{2}$ minute, or so, to each spot, and over the inflamed nose, and to the inner edges, where it was sorest. The first moment or two it smarted like fire, but I held it the more firmly and said never mind that, it won't be so bad next time. So night and morning, for 3 or 4 days, then once daily as much longer, made a perfect cure—now over 6 months, without the least return and no sign of soreness remaining. I should continue to apply for a month or more, if necessary, or until cured. I gave him also internally 5 drops of the same tincture 3 times daily in a little water. Of course he had an iron-colored nose, but a piece of lemon rubbed on a few times soon removed that ornamental shade and left him all right again, the same as it will remove recent iron rust spots from clothing.

Sore Fingers of Printers, etc., to Cure and Blood Blisters to Prevent.—I. Generally a compositor's (type-setter's) sore fingers result from lye, low cases, splinters, scratches in handling brass rule, paper cuts, type poison, etc., and often occasion loss of time, expensive doctoring and great pain. For these sores a correspondent writes: "I have never lost an hour from business, nor been put to more than a trifling expense. Plentiful and frequent application of laudanum has been my panacea (cure all). It also cleanses, removes the soreness and rapidly heals old sores."

II. Blood blisters may be prevented from forming by immediately rubbing the bruise briskly with any non-poisonous hard substance.—*London Phonetic Journal*.

Remarks.—The fact here given as to the curative action of laudanum upon sore fingers, and old sores, is that laudanum alone would be valuable upon all ordinary chaps, or cracks upon the hands, lips, etc., no matter from what cause they may have arisen, as the opium relieves the pain, and the alcohol in it stimulates the parts to heal.

CARBUNCLE—Treatment Which Saves Pain and Soreness—Also Applicable to Boils.—Having just passed through a three weeks' siege with a six hole carbuncle, I feel competent to tell others how I saved myself much pain, soreness and suffering, although it is bad enough when all has been done that can be done for relief.

What it might have proved without my mitigating treatment, I do not know; it was the agony that compelled me to adopt some plan of relief; hence I took:

I. A mild liniment, Mrs. Chase's, given in this book (any mild liniment will do), 2 ozs.; chloroform, 1 oz.; laudanum, 1 oz.; mixed. Shaken, when used and applied every hour or two, night and day. There were only short

catches of sleep for about two weeks; after which, an hour or two was occasionally obtained.

After applying the above mixture freely at each time, I then applied the following anodyne, emollient, or softening mixture:

II. Sweet oil, 7 drs.; laudanum, 1 dr.; mix. The application of the foregoing mixtures would relieve very much of the agonizing pain, even before I would be done applying the first; and the second kept the surface soft, as well as to help keep down the pain. (The same thing will be just as effectual for boils, I have not a doubt.) The situation was such that no poulticing could have been done, if desired, to hasten it; and even if it could, I have never known one under the poulticing process to subside in less than 5 or 6 weeks, while by the above process nearly all the pain and soreness subsided in 3 weeks.

At one time I thought it was going to repeat itself: but by the application of the permanganate of potash, 1 dr. to 1 oz. of water, applied by rolling up a strip of cotton cloth, and tying a bit of cord around it in the centre, the size of the roll being just to fill the mouth of the vial, by which means I could wet one end of the roll of cloth without spilling it upon the clothing (permanganate colors the clothes), and apply to the swelling, it was driven back, or scattered, and by taking an active cathartic dose of crab-orchard salts (any active cathartic will do the same) it was carried out of the system.

2. Carbuncle, Specific for.—R. H. Johnson, in the *Medical Review*, says, he has found tannin a specific for carbuncle. He sprinkles the tannin upon the openings as long as it will dissolve; and 24 hours after washes off with castile soap, and sprinkles it again. He claims it to soon heal up with but little pain. It is worthy of trial, as it can do no harm.

BOILS.—Remedy Against their Continuance.—Prof. Scudder, in his work on Specific Medication, speaking of lime, says: Its specific use is in cases of furunculus (boil), and other inflammations of the cellular tissue (the cell-like tissue immediately under the skin) terminating in suppuration. Why it has this specific influence I do not propose to say, but I have proven it in scores of cases. Taken in a case in which boils are continually developed, the use of lime water will effect a radical cure. [The proper strength for lime water to be used in these cases, in fact, in all cases, is: stone lime, 4 ozs.; distilled water, 1 gal., or in these proportions. Slack the lime with a little of the water, then pour the rest of the water over it and stir; cover the bowl and set aside for three hours; then bottle and keep the liquor upon the lime, well corked, and use only the clear liquid as wanted.] See “Milk Diet for Infants and Adults.” **DOSE**—It is given in doses of a wine-glassful, 3 or 4 times a day. If too alkaline use additional water.

This lime water is often very properly used with the milk fed to infants which have to be raised upon the bottle; a tea-spoonful to a bottle of milk, or sufficient to prevent acidity of the stomach; and it is also valuable in *Dyspepsia* in adults when there are acid eructations of gas, or, as commonly called, belching or rifting of wind from the stomach, after eating. **DOSE**—For adults in these *dyspepsia* cases, 3 or 4 table-spoonfuls to a bowl of milk; sufficient only is

needed to keep down the acidity. See "Dyspepsia, Milk and Lime Water, Cure for." Lime water can often be borne by patients who cannot take the salts of soda, or potash. This also proves its value and adaptation to the human system.

2. Boils—To Relieve the Pain of and to Scatter.—The pain of boils, it is said, can be relieved very much by frequently applying castor-oil on the parts.

Painting a boil with tincture of iodine, it is also claimed, scatters them; but I prefer to scatter them by frequently applying a strong liniment. I have recently scattered two from my own neck in this way. I used Dr. Chase's golden oil, or strong camphor liniment; I think I applied it at least fifteen different times in the day, rubbing over the boil hard and long at each application, which scattered it, and is doing so again, at this writing, so that I see they are in the system, and I have therefore made 1 qt. of the lime water (1 oz. stone lime to 1 qt.), and am going to use it, expecting I shall thus cleanse the blood and eradicate them—the boils from the system or blood. It did do it, as I have not had any more, or any indications of them, now over four months, after writing the above.

3. Boils, Alterative Syrup for.—Blue flag and black cohosh root, each 1 oz.; yellow dock root and the bark of the root of bitter-sweet, Peruvian bark, the bark of the root of sassafras and prickly ash berries, each $\frac{1}{2}$ oz.; pyrophosphate of iron, $2\frac{1}{2}$ drs.; whiskey, $\frac{1}{2}$ pt.; glycerine, 6 ozs.; water, 12 ozs. **DIRECTIONS.**—The barks, roots and berries are to be coarsely ground, or bruised, then steeped in water in a covered dish, to leave, when strained, 1 pt.; then add the glycerine, whiskey and pyrophosphate of iron. **DOSE**—A tea-spoonful 4 times daily, at meals and at bed-time.

Remarks.—This is not only a valuable alterative in boils, but to follow the treatment of inflammations, after the acute stages have been overcome by cooling purgatives, such as salts, seidlitz powder or cream of tartar, attention to the skin, etc., especially so if there is a scrofulous tendency, or considerable debility, shown by the loss of strength, flesh, etc.

1. MILK IN DIARRHEA, DYSENTERY, INCIPIENT CHOLERA, TYPHOID FEVER, ETC.—Considerable has lately been said in medical journals concerning the value of milk as a remedial agent in certain diseases. An interesting article upon this subject lately appeared in the *London Milk Journal*, in which it is stated, on the authority of Dr. Benjamin Clark, that in the East Indies warm milk is used to a great extent as a specific for Diarrhea.

I. For Diarrhea.—A pint every 4 hours will check the most violent diarrhea, stomach-ache, incipient cholera and dysentery. The milk should never be boiled, but only heated sufficient to be agreeably warm, not too hot to drink. [The author would say 140° Fah. is as hot as one can take it comfortably with a tea-spoon.] Milk which has been boiled is unfit for use. He continues: It has never failed in curing in from 6 to 12 hours, and I have tried it, I should think, fifty times. I have also given it to a dying man who had been subject

to dysentery 8 months, latterly accompanied by one continual diarrhœa and it acted on him like a charm. In 2 days his diarrhœa was gone, in 3 weeks he became a hale, fat man, and now nothing that may hereafter occur will ever shake his faith in hot milk.

II. *For Typhoid Fever.*—Another writer also communicates to the *Medical Times and Gazette* a statement of the value of milk in 26 cases of typhoid fever, in every one of which its great value was apparent, checking diarrhœa, nourishing and cooling the body.

III. *For Debilitating Diseases.*—People suffering from disease require food quite as much as those in health, and much more so in certain diseases, where there is rapid waste of the system. Frequently all ordinary food, in some diseases, is rejected by the stomach, and even loathed by the patient; but nature, even in all disease, is beneficent, and has furnished a food that is beneficial—in some, directly curative. Such a food is milk. The writer, Dr. Alexander Yale, after giving particular observations upon the points above mentioned, viz.: Its action in checking diarrhœa, its nourishing properties and its action in cooling the body says: “We believe that milk nourishes in fever, promotes sleep, wards off delirium, soothes the intestines, and in fine is the *sine qua non* (an indispensable—just the thing) in typhoid fever.”

IV. *For Scarlet Fever.*—The writer goes on to say he has lately tested the value of milk in scarlet fever, and learns that it is now recommended by the medical faculty in all cases of this often very distressing disease of children. He says:

Give all the milk the patient will take, even during the period of greatest fever; it keeps up the strength of the patient, acts well upon the stomach, and is in every way a blessed thing in this sickness. Parents, remember it, and do not fear to give it if your dear ones are afflicted with this disease.

2. *Milk as a Medicine.*—Under the head of “Milk as a Medicine,” the *American Journal of Medicine*, of St. Louis, says that this article, once looked upon with distrust, has now become a valuable agent in treatment of disease, and is, on all hands, recommended by practitioners of medicine as being a safe and reliable article in the list of curables. Given warm it is declared to be almost a specific (positive cure) in diarrhœa, stomach-ache, incipient cholera and dysentery. It is also pronounced invaluable in typhoid fever.

II. The *Journal* then quotes the sentence of Dr. Yale, given in III above, and closes by saying that he also agrees with the opinion of Dr. Benjamin Clark, in the *London Milk Journal*, given in I.

Remarks.—I understand that the milk is not to be boiled, that it is to be heated only to allow its being drank without scalding the mouth or throat. There can be no doubt of its efficacy with such an amount of testimony from the medical profession in India, England and America. See also “Treatment of Scarlet Fever with Sulphur,” wherein I have recommended the milk to be also used.

3. *Milk Diet, with Lime Water*—For Infants and Adults who have Weak Digestive Powers.—Dr. H. N. Chapman says that

milk and lime water is not only food and medicine at an early period of life, but also later, when, as in the case of infants, the functions of digestion and assimilation have been seriously impaired. A stomach taxed by gluttony, irritated by improper food, inflamed by alcohol, enfeebled by disease, or otherwise unfitted for its duties, as is shown by the various symptoms attendant upon indigestion, dyspepsia, diarrhea, dysentery and fever, will resume its work, and do it energetically, on an exclusive diet of lime water and milk. A goblet of cow's milk to which 4 table-spoonfuls of lime water has been added, will agree with any person, however objectionable the plain article may be, will be friendly to the stomach when other food is apprehensive, and will be digested when all else fails to afford nourishment. Of this statement I have had positive proof in very many cases. The blood being thin, the nerves weak, the nutrition poor, the secretions defective, the excretions insufficient, the physician has at hand a remedy as common as the air, and as common, almost as water. In it all the elements of nutrition are so prepared by nature as to be readily adapted to the infant or the adult stomach, and so freighted with healing virtues as to work a cure where drugs are worse than useless.

Remarks.—It certainly needs no further remarks to show the estimation that milk is now held in. Let it be used accordingly, with the lime water, and you will also be satisfied.

4. Milk an Antidote and Preventive to Lead Poison.—The *Journal de Médecine* states, upon authority, that milk has been found to be an antidote and preventive to lead poisoning by those working in its manufacture. (Why not, then, for painters?)

A quart a day was furnished to each man, after which no colic nor other harm to health occurred.

The remedy is simple, easily obtained, and no doubt effectual. Used as a drink during the day would be the manner of taking it. See also its use in "Accidental Poisoning."

5. Milk as an Aliment or Food.—So much has been said on the use of milk as a medicine in diseased conditions of the system, it is but proper to say it ought to enter into our daily food to a very much greater extent than it does. It is believed to be good for children; but I beg leave to say it is as good for adults as it is for children; and if every family would adopt the old plan of corn-meal mush and milk for supper for everyone in the family, as we used to do in an earlier day, the general health of the people would be better than it is. If it produces costiveness, in any case, put in a little lime water, or a little baking soda; but with the mush there is no danger of this.

6. Milk, Hot, as a Restorative after Fatigue.—A glass of hot milk, when one is fatigued, is so refreshing and strengthening it will astonish the one who takes it. A supper, made with a couple slices of toasted bread in a bowl of hot milk, is very satisfactory in the absence of the mush mentioned above.

1. SCARLET FEVER—Successful Treatment of.—Dr. Henry Pigeon writes to the London *Lancet* as follows:

“The marvellous success which has attended my treatment of scarlet fever by sulphur induces me to let my medical brethren know of my plan, so that they may be able to supply the same remedy without delay. All the cases in which I used it, were very marked, and the epidermis (outer or scarfskin) on the arms, in each case, came away like the skin of a snake. The following was the exact treatment followed in each case:

“The patients were thoroughly anointed twice daily with sulphur ointment [the sulphur ointment used was made by the London Pharmacopœia as follows: sulphur, 4 ozs.; lard, $\frac{1}{2}$ lb.; oil of bergamot, 20 minims (drops); mixed]; giving 5 to 10 grains of sulphur in a little jam, or jelly, 3 times a day, according to the age of the child and severity of the case. Sufficient sulphur was also burned, twice daily (on coals on a shovel), to fill the room with the fumes, and, of course, was thoroughly inhaled by the patient.

“Under this mode of treatment each case improved immediately, and none was over 8 days in making a complete recovery; and I firmly believe in each; it was prevented from spreading by the treatment adopted. Having had a large experience in scarlet fever last year and this, I feel some confidence in my own judgment, and I am of the opinion that the very mildest cases I ever saw do not do half as well as bad cases do by the sulphur treatment, and as far as I can judge sulphur is as near a specific (positive cure) for scarlet fever as possible.”

Remarks.—I can see no reason why the milk, as indicated under the head of milk in diarrhea, dysentery, etc., may not be given with the sulphur treatment; I believe both to be good; and as I see the medical journals speak with such confidence of Dr. Pigeon's sulphur treatment, I place also great confidence in it, and recommend it most heartily.

2. Scarlet Fever, Sulphurous Acid Treatment of.—Dr. L. Waterman, of Indianapolis, Ind., in an epidemic there, in 1876, gives his experience in the use of sulphurous acid. He says:

“I early adopted an anti-zymotic (anti-poisoning) principle, the administration of 10 to 30 drops, every 2, 3, or 4 hours, of sulphurous acid, diluted, in a little water. I treated eleven severe cases. The ten treated after its adoption recovered.”

3. Scarlet Fever, Simple Remedy, or Warm Lemonade for.—An eminent physician says he cures 99 out of every 100 cases of scarlet fever by giving the patient warm lemonade with gum arabic dissolved in it. A cloth wrung out in hot water and laid upon the stomach should be removed as rapidly as it becomes cool.

Remarks. A writer in *Good Health* gives the philosophy of the above treatment, with the warm lemonade, with an addition (which I know to be valuable), the wet hot sheet, or pack, over or around the whole body, guaranteeing that not one in one hundred will die of scarlet fever, if this treatment is properly carried out. He says.

4. Scarlet Fever, Unnecessary for a Child to die with it.—“It is as unnecessary for a child to die of scarlet fever, as it is that it should be blind with cataract. Let us see: At any time before the body has finished its ineffectual struggle we are able to help it, not by wonderful medicines, but by the knowledge of anatomy, and the application of common sense. * * * * Undress the child and place it in bed at the very first sign of sickness. Give it, if it has already fever, sourish warm lemonade, with some gum arabic in it

Then cover its abdomen with some dry flannel. Take a well folded bed sheet and put it in boiling water; wring it out and put this over the whole body and wait. The hot cloth will perhaps require repeated heating; according to the severity of the case and its stage of progress. Perspiration will commence in the child in from 10 minutes to 2 hours. The child then is saved; it soon falls asleep. The hot, wet sheet must be continued, however, till perspiration takes place. Soon after the child awakes it shows slight symptoms of returning inclinations for food; help its bowels, if necessary, with injections of oil, soap and water, and its recovery will be as steady as the growth of a green-house plant, if well treated. Of course if the child is already dying nothing can save it. With this treatment I will guarantee that not one in a hundred children with scarlet fever will die." (Note 14, p. 790.)

Remarks.—I once succeeded in curing scarlet fever in one of my own children, before I had read medicine, by the cold pack, or sheet, but I should not try it again—I know the hot is better—the strain or struggle of the system being much less, and consequently the most safe and satisfactory. There is no doubt of the value of the foregoing treatment, but any of the others may be tried, according to the conveniences to be obtained in different places.

5. Scarlet Fever and Small Pox—Successful Treatment.—Dr. W. Fields, of Wilmington, Delaware, says to one of the medical journals:

"Having had much experience in the cure of scarlet fever and small pox of the most malignant type, I would thank you, for the sake of humanity, to publish a recipe, which, if faithfully carried out, will cure 45 cases out of every 50, without calling on a physician.

I. *Scarlet Fever.*—"For adults give 1 table-spoonful of brewers' yeast in 3 table-spoonfuls of water, 3 times a day; and if the throat is much swollen gargle with the yeast, and apply the yeast to the throat as a poultice; mix with Indian meal. Use plenty of catnip tea to keep the eruption out on the skin for several days.

II. *Small Pox.*—"Use the above doses of yeast 3 times a day, and milk diet throughout the disease. Nearly every case can be cured without leaving a pock mark."

Remarks.—I have had this used, in scarlet fever, with very great satisfaction.

6. Scarlet Fever—Length of Time Dangerous to Others.—In this disease the parent and the school teacher are often concerned to know how long a time must elapse before it is safe to admit those who have had the disease to mingle with other children, or with the family, and go to school.

For a month, at least, the body of a scarlet fever patient is casting off scales, or particles, from the skin. The nose, throat, bowels and kidneys are also throwing off poisonous matter for this length of time, which will communicate the disease to others. The chief danger, however, is from the skin, as this is the main outlet for the blood poison to escape, and every scale or particle of dry dust from the skin carries the infection.

Therefore greasing the patient, by rubbing a bacon rind over them, which, by some, has been recommended as beneficial to the patient, will certainly do this good, *i. e.* it will keep these minute scales from rising into the air, and thus prevent the communication of the disease to others from this source. But a Dr. Chapin, in a communication to the *Brief*, of St. Louis, informs its readers

that he has used the ham fat (as he calls the bacon rind) in every case for 20 years, and has lost but few patients since using it, and must have treated some hundreds, and gives the following as his plan; "As soon as I diagnose (*i. e.*, determine it to be) a case of scarlet fever, I have the patient put on Canton flannel, or better, if in winter, fine all wool underclothing; then cut a piece of rind from a pretty fat, fresh smoked ham, with a half inch of the fat upon it; then warm the hand, also the slice of ham, rub the hand on the fat, and then on the patient, till they are well covered, except the face. (The author cannot see why the fat may not be rubbed directly upon the surface, rather think it is the best plan, then rub it in with the hand.) Do this night and morning as long as the eruptions and fever continue; put them in bed, cover up warm and give as much cold water as they like. (I prefer the warm lemonade if agreeable to the child, as named above in No. 3.) The greasing is very satisfactory, allaying the burning and itching, which are so annoying." (See also the sulphur ointment in No. 1 of scarlet fever; note for making it.)

7. Scarlet Fever—To Prevent its Spread.—Scarlet fever has been so prevalent and so fatal, for several years past, it has become of the utmost importance to prevent its spreading in schools as well as in families, and the above thoughts and statements being so fully corroborated by the following circular, prepared by the Boston Board of Health, and sent to every house in that city, I have deemed it best to give it in full. It says:

I. "Scarlet fever is like small pox in its power to spread rapidly from person to person. It is highly contagious (catching). The disease shows its first signs in about one week after exposure, as a general rule, and persons who escape the illness during a fortnight after exposure may feel themselves safe from attack. Scarlet fever, scarlatina, canker, rash and rash fever, are names of one and the same dangerous disease.

II. "When a case of scarlet fever occurs in any family, the sick person should be placed in a room apart from the other inmates of the house (an upper room is best), and should be nursed as far as possible by one person only. The sick chamber should be well ventilated and well warmed; its furniture should be such as will permit of cleansing without injury, and all extra articles, such as window drapery and woolen carpets, should be removed from the room. The family should not mingle with other people. Visitors to an infected house should be warned of the presence of a dangerous disease therein, and children especially should not be admitted.

III. "On recovery the sick person should not mingle with the well until the roughness of the skin, due to the disease, shall have disappeared. A month is considered an average period during which isolation is needed. The clothing before being worn or used by the patient or the nurse, should be cleansed by boiling for at least one hour, or if that cannot be done, by free and prolonged exposure to out door air and sunlight. The walls of the room should be dry rubbed, and the cloths used for that purpose should be burned without previous shaking. The ceiling should be scraped and whitewashed, the floor should be washed with soap and water, and carbolic acid may be added to the water, 1 pt. to 3 or 4 gals. The infected clothing should be cleansed by itself, and not sent to the laundry. (Note 15, p. 790.)

IV. "In cases of death from scarlet fever, the funeral services should be strictly private, and the corpse should not be exposed to view. Because children are especially liable to take and to spread scarlet fever, and because

schools afford a free opportunity for this, the Board of Health has excluded from school every child from any family in which a case of the disease has occurred, and has decreed that the absence shall continue four weeks from the beginning of the attack, except in cases subject to the discretion of the Board, and that the scholar to be re-admitted to his school-room must have the certificate of a physician that the required time has passed."

Remarks.—I think the above directions are so plainly given that they will be readily understood, and if properly followed out, the spread of this disease will be almost, if not wholly prevented. I will say, however, that the use of the carbolic acid is not as much used as a disinfectant as formerly. See "Coperas Solution of the National Board." This and zinc solution will answer for all purposes, and are not only cheap, but absolutely reliable.

1. TYPHOID FEVER—Treatment in Its More Malignant Character.—The malignant character of this disease not being as prevalent in the North as in the South, I will first give the treatment used by Dr. J. J. Jones, of Conway Station, Ark., reported through the *Medical Brief*, of St. Louis, who has treated this disease in all its grades for over 25 years. When it takes on its malignant character of dysentery or pneumonia, which are inflammatory and dangerous if not properly met or treated in their commencement, he said that after testing various modes of treatment, he adopted the following:

I. First cleanse the alimentary canal with syrup of rhubarb and bi-carbonate of soda.

II. Follow this with spirits of turpentine, 30 drops; oil of sassafras, 6 drops; tinct. opium (laudanum) 25 drops; mix into well beaten whites of two eggs well sweetened with loaf sugar. Dose—Give an adult 1 table-spoonful of this emulsion every 3 hours.

III. If the pulse is full and firm, and over 100 per minute, give the following: Tincture of gelseminum, 1 oz.; fluid extract of aconite (of the root is best), $\frac{1}{2}$ dr.; spirits of niter, $2\frac{1}{2}$ drs.; mix. Dose—Give 10 to 15 drops, for an adult, every 3 hours, until the pulse drops below 100. [The author would say, keep the pulse under 100, giving this alternately with the emulsion—first one, then, $1\frac{1}{2}$ hours after, the other; but these drops must not be continued to reduce the pulse much below 100 at the first. If it does this, lessen the dose, or make it 4 or 5 hours apart.]

IV. To control the temperature (heat of the surface), if it runs very high, which it frequently does, we resort to the wet sheet pack, as it is an important agent in the successful treatment of typhus and typhoid fevers. Use vinegar and spirits of camphor in place of water to wet the sheet, as it is much more sedative (calming, allaying irritation and pain), and less dangerous than water. After the pulse and temperature is brought below 100, we give large doses of tinct. of iron (muriated tinct. of iron is meant, and 15 to 20 drops would be large enough, once in 3 or 4 hours), checking the diarrhoea, which is so common in typhoid fever. Alternate this (the iron tincture) with pure hard cider or lemonade. Diet: dried-beef tea, and milk gruel seasoned with pepper; give egg-nog if there are pneumonic symptoms. (Note 16, p. 791.)

Remarks.—It would be well to say here, see "Use of Milk in Diarrhoea,



INDIAN TURNIP

(See Description)

This herb is used in Coughs, Consumption and Asthma, also in Colic and Pains in the Bowels.

Dysentery, etc." I also say that my own plan has been to sponge the whole surface with bay rum and water (equal parts), sufficiently often to keep down the excessive heat; and if bay rum is too expensive, use whiskey and water—warm, if preferred by the patient; or vinegar and spirits of camphor will be good, if the heat is not too excessive. The bay rum, however, is more agreeable in flavor, especially for use about the face and hands. The patient can do this face sponging as often as the heat demands it, keeping a dish of the mixture and a small sponge near for the purpose. If the sponging, in place of the wet sheet, is resorted to, let it be done as often as the comfort of the patient demands it—doing it under the bed clothes, to avoid any exposure to cold air.

The lemonade recommended by Dr. Jones, or some of the drinks for fever patients in other parts of this work, would be very desirable; but what he calls "pure hard cider," unless reduced with cold water, would generally, I think, be a little too "hard;" however, it can soon be ascertained by trial. Whatever the patient craves in the line of drink or food, I believe in allowing moderately; and never to refuse even cold water right from the well or spring, as old allopathy used to do in the years "auld lang syne," by which, I have not a doubt, thousands of persons, burning up with fever, have lost their lives, where, if water had been allowed, they might just as well have been saved to their friends and usefulness. So well satisfied am I of this, that I cannot but give an incident reported recently by a Dr. Fairchild while lecturing in New York. Touching upon the old plan of the doctors not allowing water to fever patients, he gives the case of his uncle in the South, while slavery was in force, as follows:

"My own uncle, for one, lay, as we supposed, at the point of death.

"A trusty old colored man, his watchman, was called to his bed about midnight. Speaking just above a whisper, he said:

"'Abe, I am going to ask of you just one last request. Will you grant it?'

"'Yes, massa, anything you ask, I do.'

"'Take the old wooden jug; go to the spring back of the barn, fill it with cold water and bring it to me quick.'

"'Oh, massa, massa, anything else you ask, I'll do. Do you know what missus and doctor said?—'no water, no water.'

"'Abe, you go; if you don't and I live, I'll shoot you dead.'

"After deliberating for a moment, he said, 'Massa, I go.'

"It was brought to him. He drank his fill. By morning every drop was gone. The fever broke. He fell into a quiet, peaceful sleep, and was soon restored to health. And not until then, was any one told what cured him.

"Such examples as these finally changed the system of treating fevers. In this specific disease common sense is, at last, master of the situation."

It is to be hoped that such a condition of suffering and final death, as above spoken of, may never be allowed to gain the ascendancy with any class of physicians again.

2. Typhoid Fever, the Value of Coffee in.—Dr. Guillasse, of the French Navy, on typhoid fever, says: "Coffee has given us unhopd for satisfaction; after having dispensed it, we find, to our great surprise, that its action is as prompt as it is decisive. No sooner have our patients taken a few table-spoonfuls of it than their features become relaxed, and they come to their senses. The next day the improvement is such that we are tempted to look upon coffee as a specific (positive cure) for typhoid fever. Under its influence

the stupor is dispelled, and the patient rouses from the state of somnolency in which he has been since the invasion of the disease. Soon all the functions take their natural course, and he enters upon convalescence." Dose—Dr. Guillaume gives to an adult 2 or 3 table-spoonfuls of strong, black coffee every two hours, alternated with 1 or 2 tea-spoonfuls of claret or Burgundy wine. A little lemonade or citrate of magnesia should be taken daily, and after awhile quinine. From the fact that malaria and cerebral fever appear first, *i. e.*, a general prostration, with head, or brain fever, accompanied with stupor, or great tendency to sleep, somnolency, from the Latin *somnus*, to sleep. The doctor regards typhoid fever as a nervous disease, and the coffee acting on the nerves is peculiarly indicated in the early stages before local complications arise.

DISINFECTANTS FOR ALL CONTAGIOUS DISEASES—FOR THE SICK-ROOM, BODY AND BED-CLOTHING, WATER-CLOSETS, SEWERS, ETC.

The following instructions were published in the *Hospital Gazette* by the National Board of Health, which was composed of some of the most prominent men in the medical profession, as will be seen by the names accompanying the instructions.

"Disinfection is the destruction of the poisons of infectious and contagious diseases.

"Deodorizers, or substances which destroy smells, are not necessarily disinfectants, and disinfectants do not necessarily have an odor.

"Disinfection cannot compensate for want of cleanliness, nor of ventilation.

1. Disinfectants to be Employed.—I. "Roll sulphur (brimstone) for fumigation.

II. *Copperas Solution*.—"Sulphate of iron (copperas) dissolved in water in the proportion of $1\frac{1}{2}$ lbs. to 1 gal.; for soil, sewers, etc.

[The author, during the present summer, (in the month of August, 1882,) dissolved 3 lbs. of common copperas in a common wooden pail, holding about $2\frac{1}{2}$ or 3 gals., by pouring on hot water, and with an old dipper threw it all about on the privy used by about 15 persons, which so completely deodorized and disinfected it that it required no more until late in the season.]

III. *Zinc Solution*.—"Sulphate of zinc and common salt, dissolved together in water in the proportions of 4 ozs. sulphate and 2 ozs. of salt to 1 gal.; for clothing, bed linen, etc.

"NOTE.—Carbolic acid is not included in the above list for the following reasons: It is very difficult to determine the quality of the commercial article, and the purchaser can never be certain of securing it of proper strength; it is expensive, when of good quality, and experience has shown that it must be employed in comparatively large quantities to be of any use; besides it is liable, by its strong odor, to give a false sense of security. (Note 17, p. 791.)

2. How to Use Disinfectants.—I. "*In the Sick Room*.—The most valuable agents are fresh air and cleanliness. The clothing, towels, bed linen, etc., should, on removal from the patient, and before they are taken from the room, be placed in a pail or tub of the zinc solution, boiling hot if possible. All discharges should either be received in vessels containing the copperas solution or when this is impracticable, should be immediately covered with the

solution. All vessels used about the patient should be cleansed or rinsed with the same. Unnecessary furniture—especially that which is stuffed—carpets and hangings, should, when possible, be removed from the room at the outset; otherwise they should remain for subsequent fumigation, as next explained.

II. "*Fumigation.*—Fumigation with sulphur is the only practical method for disinfecting the house. For this reason the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with the zinc solution, should be opened and exposed during fumigation, as next directed. Close the rooms tightly as possible, place the sulphur in iron pans supported upon bricks placed in wash-tubs containing a little water, set it on fire by hot coals or with the aid of a spoonful of alcohol, and allow the room to remain closed 24 hours. For a room about 10 feet square at least 2 lbs. of sulphur should be used; for larger rooms, proportionally increased quantities. (Note 18, p. 791.)

III. "*Premises.*—Cellars, yards, stables, gutters, privies, cesspools, water-closets, drains, sewers, etc., should be frequently and liberally treated with the copperas solution, No. 2. The copperas solution is easily prepared by hanging a basket containing about 60 lbs. of copperas, in a barrel of water. [This would be $1\frac{1}{2}$ lbs. to the gallon, or about that. It should all be dissolved.]

IV. "*Body and Bed-Clothing, etc.*—It is best to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows:

"(a.) Cotton, linen, flannels, blankets, etc., should be treated with the boiling hot zinc solution; introduce piece by piece; secure thorough wetting, and boil for at least half an hour.

"(b.) Heavy woolen clothing, silks, furs, stuffed bed-covers, beds, and other articles which cannot be treated with the zinc solution, should be hung in the room during the fumigation, their surfaces thoroughly exposed, and the pockets turned inside out. Afterward they should be hung in the open air, beaten and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten.

V. "*Corpses.*—Corpses should be thoroughly washed with a zinc solution of double strength; should then be wrapped in a sheet wet with zinc solution, and buried at once. Metallic, metal-lined, or air-tight coffins should be used when possible, certainly when the body is to be transported for any considerable distance. The following named gentlemen composed the board: George F. Barker, M. D., University of Pennsylvania, Philadelphia; C. F. Chandler, M. D., College of Physicians and Surgeons, Health Department, New York; Henry Draper, M. D., University of the city of New York; Edward G. Janeway, M. D., Bellevue Medical College, Health Department, New York; Ira Remson, M. D., Johns Hopkins University, Baltimore, Md.; S. O. Vanderpoel, M. D., Albany Medical College, Albany, N. Y.; Health Department, New York, Health Officer of the Port of New York."

Remarks.—Certainly no commendation of mine is needed to give strength to these instructions, as the most implicit confidence should be placed in them, coming, as they do, from the highest authority in the United States upon matters of this kind. I will add, however, that no time should be lost in using them as soon as an occasion calls for them. The copperas solution I have found entirely satisfactory. See also "Note," following Dr. Scott's treatment of diphtheria, upon the permanganate of potash as a disinfectant; also see the "Nitrate of Lead as a Disinfectant in Small-pox," and also the "Use of Yeast and a Milk Diet in Scarlet Fever and Small-pox." It is well to keep all these

valuable things before the mind, to be able to save pain and suffering of our fellow creatures.

1. SMALL-POX—A Certain Cure.—Wm. Grandy, of Detroit, communicated the following item of Mr. Hines' to the *Detroit Tribune*, which he had seen in the *Toronto Weekly Globe*, with these remarks:

"Small-pox being so fatal and so much feared, an unfailing remedy like the following, so simple and so safe, once discovered, ought to be brought to the knowledge of the masses without hesitation or delay."

"I am willing," says Edward Hines, "to risk my reputation as a public man if the worst case of small-pox cannot be cured in three days simply by cream of tartar. This is the sure and never-failing remedy: Cream of tartar, 1 oz., dissolved in boiling water, 1 pt.; to be drunk when cold, at short intervals. It can be taken at any time and is a preventative as well as a curative. It is known to have cured thousands of cases without fail. I have myself restored hundreds by this means. It never leaves a mark, never causes blindness, and always prevents tedious lingering." (Note 19, p. 791.)

Remarks.—Although this seems to be very strong language, yet I have never seen it disputed, nor have I seen by any reports of cases that it has been adopted in this country; but, as it is deemed very important to keep the bowels in a solvent condition in this disease, no better and no safer medicine can be adopted for this purpose. Let it be used, by all means.

2. Small-Pox—A Cure for, or Relief in.—As the prevention or cure of this disease is a question that concerns every person, we take the following from the *New York Journal of Commerce*, one of the most conservative and reliable dailies published in this country:

"A lady, the mother of six children, had often sought relief for a pain in the back by taking saltpeter and brandy. She was exposed to the small-pox and contracted the disease. The premonitory symptoms were violent fever, severe pain in the head and excruciating pain in the region of the kidneys. A physician was called during the night, but in doubt as to the nature of the disease, though suspecting it to be a case of small-pox, he made no prescription, promising to return early next morning. The fever and pain increasing, she begged her husband to prepare for her the old prescription of saltpeter and brandy. The brandy was not to be had, but he crushed a piece of saltpeter as large as a common white bean. This she took in a tea-spoonful of cold water. Feeling better, the dose was once or twice repeated. Pain soon subsided and she slept well during the remainder of the night and awakened feeling perfectly well. She had 60 well defined pustules in her face, but they were but slightly inflamed and not at all painful. The developments of small-pox on her entire person were in number and appearance in keeping with those on her face. In due time all her children and her husband were affected, as she had been, by fever and pain in the head and back. They received the same treatment with the same favorable result. Several families caught the disease, used the same remedy, and in every case the result was favorable."

Remarks.—Not long after preparing the above given, I saw a report that "Mexican doctors were curing small-pox in 3 days, and no marks left," by the use of cream of tartar and water, which would go to strengthen the idea that Mr. Hines' treatment above given is reliable.

3. Small-Pox Pitting, to Prevent.—It is well known that patients in rooms that are well lighted, pit very much more than in darkened rooms. I should, then, have the room as dark as possible for small pox patients; and not

only this, but should cover the face, neck and hands with black cambric, or muslin, cut and made into suitable shape to keep off, or out, all possible rays of light. (The rays that make the chemical changes in photographing are absorbed into the pus, so changing it as to produce the deep pitting.) Certainly, then, no trouble, nor inconvenience, necessary to avoid this should be considered for a moment, to save a life-long annoyance, that none of us would like to have placed upon us by the terrible pitting we often see. Then take all these precautions and avoid it; certainly not overlooking the yeast and milk diet, before named; or pursue the following plan, as practiced in China:

4. Small-Pox, to Prevent Pitting, Practiced in the English Army in China.—It is very simple and easily followed, and if a blister on the arm of a diphtheritic patient will draw off the irritation from the throat, as it has done, why should not this cause the small-pox eruption to come out on such parts? It is done in this way: When the fever, which always precedes the eruption, is at its highest, and before the eruption appears, rub the chest with croton oil and tartar emetic ointment, which causes the whole eruption to appear on that part of the body, to the relief of the face; and as it is claimed also to cause a full eruption to appear, it prevents its attack upon internal organs, which is usually fatal. It is claimed by the *German Reformed Messenger* to be done in the English army in China by general order. It was reported through the *Medical Brief*, 1883, page 550, by J. A. Proctor, M. D., of Union City, Ind. It is worthy of trial.

5. Small-Pox, the Nitrate, or Chloride, of Lead as a Disinfectant in.—The mode of preparing and using the nitrate, or chloride, of lead, as a disinfectant, is from the *Physician and Pharmacist*, as follows: Chloride of lead is said to be the most powerful, safe and economical deodorizer and disinfectant known. To prepare it for use, on a small scale, for ordinary purposes, take nitrate of lead, $\frac{1}{2}$ dr. and dissolve it in hot water, 1 pt.; dissolve also $\frac{1}{2}$ oz. of common salt in water, 2 galls., and mix the two solutions, which makes the chloride of lead, in solution, ready for use. A cloth wet with this and hung up in a room filled with a fetid atmosphere, will sweeten it instantly, and the solution thrown into a water-closet, sink or drain, will produce the same effect. It is not carbonic acid, but the sulphite of hydrogen and ammonium, which are eliminated with the breath and through the pores of the skin of the living body, that makes people who are exposed to such an atmosphere so depressed, and which, when highly concentrated, develops typhus poison, which causes, or at least aids, in developing fevers of a low grade, or typhoid character. Nitrate of lead is in dry crystals, and is sold according to its quality at 18 to 25 cts. per pound, which would make several hundred gallons of solution of chloride of lead. (Note 15, p. 790.)

Remarks.—Then let this, or those of the National Board of Health above, be used as freely as necessity insures the purification of the sick room, in all contagious diseases, cess-pools, water-closets, etc., and thus not only avoid the spreading of contagious, but prevent the development of the disease by the poisonous effluvia arising from these places.

6. Small-Pox, Prevented by Vaccination.—Dr. Woolsey reported the case in the *Pacific Medical and Surgical Journal* as follows: “Small-pox occurred in a Chinese boarding house, at a jute factory, containing seven hundred and ten persons, under the same roof. Seven were sick, one of whom died, when all were vaccinated, and no other case occurred, thus exemplifying the protective power of vaccination, or of some very remarkable coincident.”

Remarks.—Webster says “coincident” is having coincidence (*i. e.*, *some circumstance*), agreeing, corresponding, *consistent*. I have italicised the word consistent merely to show how inconsistent it would be to suppose that any other circumstance could have given such protective power, except the vaccination. Then I think I have said enough when I say there cannot be a reasonable doubt but that vaccination is not only a protection, but that it is also safe; and therefore it ought to be adopted and insisted upon by boards of health, and also by parents and guardians.

7. Small-Pox, the Origin of Vaccination for.—Upon the question of vaccination, I will give an item from *Leonard's Medical Journal*, of Detroit, Mich., Oct., 1882, as to the origin of this practice; which, by this item, it seems must now be given to woman—the milkmaid instead of Dr. Jenner, as heretofore accredited. That is, his mind was capable of grasping or comprehending the philosophy of the fact communicated by the maid, and out of that he Dr. Jenner, worked out the practice of vaccination which has saved millions of lives, no doubt; but it should also teach us, what some physicians have already claimed to be important, the fact that virus from the cow or some young and healthy animal should be used to vaccinate with, and not the virus from the human subject, which, it has been claimed, has communicated the disease to those vaccinated with it. Jenner, no doubt, used the virus from the cow of the “maid.” Let others do the same from other cows. The poetry, it is claimed by the above named journal, is founded upon fact; but if it is not, it shows the greater power of the rhymers' imagination. It is as follows:

“Where are you going, my pretty milkmaid?”
 “To see Doctor Jenner,” the milkmaid said,
 “I have such a cough, and it bothers me so,
 I promised Jack Robin for sure that I'd go
 For a draught from the Doctor to-day.”
 And she nodded her head with so saucy a smile,
 That no one would think, who was looking the while,
 That she needed the Doctor, his pills or his plaster,
 I doubt she could swear that she did, if you asked her;
 That sunny, bright morning in May.

Ah! how little she thought, that unthinking young lass,
 While her little pink feet went atrip o'er the grass,
 If Jack Robin had not been so true to his fancy,
 As to fear the least whisper of harm to his Nancy,
 The great loss 'twould have been to us all.
 But so it has proved such a number of times,
 As I have not the space to recount in rhymes,
 Great events have beginnings so small.

Well! to keep by my milkmaid (as long as I can),
 When she'd courtesied her best to the medical man,
 And had told (heaven bless her) how badly she felt,
 With such pouting red lips, and such ruddy good health,
 As no doctor could hope to improve;
 She sat down to await his compounding her pill,
 And their chat led along to the terrible ill
 That the small-pox was threatening to prove.

Doctor Jenner looked grave when she mentioned the matter,
 He thought it too bad for so careless a chatter;
 But saucy young Nancy had nothing to dread,
 "But few of the milkmaids would get it," she said,
 "For their hands had been sore from the cows,
 And altho' it was horrid to milk when the beast
 Had her bag all broken out, it was certain, at least,
 To keep the small-pox from the house."

I hope Doctor Jenner, that morning in May,
 When he finished her pills and then sent her away,
 Remembered enough of the lass and the stuff
 Not to give her a dose for a cow;
 For his mind went far off
 From the girl and the cough;
 But what does it matter, just now?
 For her few simple words, while she waited,
 Oh! think with how much they were freighted,
 When Jenner's quick mind they awakened, to find
 How science could conquer the foe.
 And gave every nation that blessed VACCINATION
 That takes out the *sting* from the blow."

1. NEURALGIA—German Cure of a Very Bad Case.—A tea and poultice, made from the leaves of our common field-thistle, is reported to have cured a person who had suffered horrible pains from neuralgia. Failing to obtain relief in this country, and hearing of a noted physician in Germany who invariably cured the disease, he crossed the ocean and visited Germany for treatment. He was permanently cured after a short sojourn, and the doctor freely gave him the remedy as above given. **DIRECTIONS AND DOSE**—The leaves are macerated (soaked or steeped in water to become very soft) and used on the parts afflicted, as a poultice, while a small quantity of the leaves are boiled down to the proportion of a quart to a pint, and a small wine-glassful of the decoction drank before each meal.

Remarks.—The gentleman says: "I have never known it to fail of giving relief, while in almost every case it has effected a cure." It is certainly simple, and easy of trial, and no doubt will prove effectual in many cases.

There must be something in this thistle-cure, for a Mr. F. K. Ford, of Shellsburgh, Iowa, who was an agent of the Chase Publishing Co., wrote to the company, desiring to get the same recipe into their Receipt Book. He also sent the onion and tobacco cure for earache, which will be found under that head. As Mr. Ford gives a more definite mode for preparing the thistle tea, I will give it. It is as follows:

I. *For the Tea* — Take the leaves of the large field-thistle (not Canada). [The technical or botanical name of this species of indigenous (native) American thistle is *cirsium lanceolatum*. (Certainly it has many lances, or pricklers, as sharp as a lance.) In western New York, where the author was raised, to distinguish it from the Canada, it was always called the "bull-thistle."] Press a gallon measure full of them; then put in all the water it will hold; boil down to $\frac{1}{2}$ gal.; strain, and let cool (I should say, let cool and strain). DOSE—Of this take a wine-glassful every morning before breakfast; the same before tea.

II. *For the Poultice*.—Take the leaves of the same kind of thistle, put them into a clean cloth and pound to a jelly; put a layer of this on the afflicted part, bind on with cloth, every night. Be sure to get fresh leaves.

2. **Neuralgia, Headache, etc., English Remedy for.**—The intimate mixture of equal parts of chloral hydrate and camphor will produce a clear fluid, which is of the greatest value as a local application in neuralgia. Dr. Lenox Brown states, in one of the English medical journals, he has employed it in his practice, and induced others to do so, and that in every case it has afforded great and, in some instances, instantaneous relief. Its success does not appear to be at all dependent on the nerve affected, it being equally efficacious in neuralgia of the larynx, and in relieving spasmodic cough of a nervous or hysterical character. It is only necessary to paint the mixture lightly over the painful part, and to allow it to dry. It never blisters, though it may occasion a tingling sensation of the skin. For headache it is also found an excellent application. DIRECTIONS—Rub the two together in a mortar, which liquifies them, then bottle, and paint over the parts, lightly, as above. For toothache apply with lint, and rub upon the gums. I called upon one of the principal druggists of Ann Arbor, Mich., where I was then living, to see if they would mix, and also to see if they would make a clear fluid, as mentioned in the recipe; but I found he had mixed them several times for the last two years, and the result had been satisfactory. He had used the mixture personally, by wetting cotton in it and putting it into a decayed tooth, but the tooth was so extensively ulcerated at the roots, although it kept down the pain, yet it had to be extracted some two months after. But for common neuralgic pains the relief was generally instantaneous.

3. **Neuralgia and Sciatica, Simple Home Remedy.**—Dr. Ebrard, of Nines, France, states that he has for many years treated all his cases of neuralgic and sciatic pains with an approved apparatus, consisting merely of a flat-iron and vinegar, two things that will be found in every house. The iron is heated until sufficiently hot to vaporize the vinegar, and is then covered with some woollen fabric, which is moistened with the vinegar, and the apparatus is applied at once to the painful part. The application may be repeated two or three times a day. Dr. Ebrard states that as a rule pain disappears in twenty-four hours, and recovery ensues at once.

4. **Neuralgia, Facial—Quick and Permanent Cure.**—A quick and permanent cure of this disease, says a prominent physician, can be effected by using a spray-shower of sulphuric ether upon it. The intense cold is sup-

posed to act upon the diseased nerves, so as to produce a complete change in their nutrition and action.

Remarks.—I trust it will so prove. To do it properly a spray instrument kept by druggists would have to be used, continuing its use until relieved, and if to be permanent, I should say occasionally for a few days. I know its efficiency in ordinary pain—why not in neuralgia? But I cannot see why applying it as a liniment may not do as well.

5. Neuralgia Pill, Tonic Alterative and Stimulant for.—Quinine, 1 dr.; morphine, $1\frac{1}{2}$ grs.; strychnine, 1 gr.; arsenious acid, $1\frac{1}{2}$ grs.; solid ex. of aconite, 10 grs.; mix very thoroughly and divide into 30 pills. **DOSE**—Take 1 pill only, 2 hours after each meal; never more than 3 daily, and never more than 1 at a time.

Remarks.—This will be found a very valuable pill for neuralgia and all cases requiring tonic, alterative, anodyne or stimulating treatment, and especially so far as females of a weak and feeble habit, or condition generally. Valuable in ague, or chills and fever particularly. Some will say they contain some poisonous articles, so they do, and so does most medicines; but if they are made carefully and taken only as directed they will hurt none, but benefit many. (See also remarks after next recipe; see also tonic elixir, etc.)

6. Neuralgia of the Head, Toothache, etc., Immediate Cure. J. W. M. Czartoryski, M. D., of Stockton, Cal., writes to the *Brief*, page 463, 1883, as follows: Dr. W. C. Frederick, of Lonoke, Ark., desires a remedy for the above diseases. If he will moisten cotton well and introduce it into the previously cleaned ear of the patient, with the following lotion (mixture), he will be surprised with the miraculous effects: Fl. exs. of belladonna, viburnum opulus (high cranberry) and gelsemium sempervirens (yellow jasmine), each equal parts (say $\frac{1}{4}$ oz.); mix. By its local application on dental branches of the quintus trigemine, (fifth pair of nerves). It will relieve, in the same way, even toothache in the worst form in less than five minutes.

Remarks.—Druggists are now keeping all the prominent fluid extracts. If they have them not in any place, try tinctures, which will answer for most purposes. For toothache, wet cotton in the mixture and put into the tooth, if hollow, and rub a little on the gums and in front of the ears. (See also Ely's headache and toothache remedy, and the pain-killer.)

7. Neuralgia—Warning of a Poor State of Health.—I cannot do better, in closing the subject of Neuralgia, than by giving the following sensible statement from the London (Eng.) *Lancet*, to show the importance of toning up the system of those afflicted with this terrible disease. (The Neuralgic Pills mentioned will do it nicely.)

“The great prevalence of neuralgia—or what commonly goes by that name—should be regarded as a warning indicative of a low condition of health, which must necessarily render those who are affected with this painful malady especially susceptible to the invasion of other diseases of an aggressive kind. This is the season (autumn) at which it is particularly desirable to be strong and well furnished with the sort of strength that affords a natural protection against disease. There will presently be need of all the internal heat which the organ

ism can command, and a good store of fat for use as fuel is not to be despised. It is no less essential that the vital forces should be vigorous, and the nerve power, especially, in full development. Neuralgia indicates a low or depressed state of vitality, and nothing so rapidly exhausts the system as pain that prevents sleep and agonizes both body and mind. It is, therefore, of the first moment that attacks of this affection, incidental to and indicative of a poor and weak state, should be promptly placed under treatment, and, as rapidly as may be, controlled. It is worth while to note this fact, because, while the spirit of manliness incites the 'strong minded' to patient endurance of suffering, it is not wise to suffer the distress caused by this malady, as many are now suffering it, without seeking relief, forgetful of the condition it bespeaks, and the constitutional danger of which it is a warning sign."

Remarks.—If the system is to be toned up, the first question is, how? Start out with a brisk cathartic; then follow with an alterative, as for rheumatism (which see), and also a good tonic bitters, or the Neuralgic Pills, as you choose; the pills are both tonic and alterative, and may cover both points with entire satisfaction, and especially so with females in a debilitated condition.

8. Neuralgia—The Ladies' Cure.—A lady writing upon this subject says: "If the lady that has neuralgia will make a strong tea of wild lady-slipper root—also called nerveine (nerve-root is one of its common names, yellow moccasin flower, Noah's Ark, umbel, etc.)—and drink it, it will cure her; at least, it did me."

Remarks.—It is safe to try it, as it is tonic, stimulant, diaphoretic and antispasmodic. It is, in fact, valuable in most nervous and uterine difficulties. Take lady-slipper, with catnip and scullcap, equal quantities of each, powder and evenly mixed, and divided into powders of $1\frac{1}{2}$ ozs.; then 1 pt. of boiling water poured over one of the powders, and steeped 15 or 20 minutes, taking at first 1 oz. or about 2 table-spoonfuls of the warm infusion, after which 1 table-spoonful every $\frac{1}{2}$ hour for 3 or 4 hours, or until relieved, for sick or nervous headache, says Dr. King in his "Dispensatory," and repeating thus for 3 or 4 attacks, has permanently and invariably cured these neuralgic headaches.

9. Neuralgia of the Face.—The latest cure for neuralgia of the face is from a Dr. Nussbaum, which he reported in the Munich *Ärztliche Intelligence*, consisting of salicylic acid, $3\frac{1}{2}$ grs., and salicylate of soda, 32 grs. To be pulverized and mixed for 1 powder, taking 4 to 6 such powders in the 24 hours.

Remarks.—Dr. Nussbaum considers this as a specific, or positive cure. It consist, of what has been recently brought out, as a cure for rheumatism. Neuralgia being, in fact, a species of rheumatism, why should it not cure it?

1. EARACHE—Cure for.—Take a large onion and cut it into slices; put a slice of onion, then a slice (the author would say a piece of leaf the size of the onion) of strong tobacco, then a slice of onion again, then tobacco, till the onion is all laid up, then wrap in a wet cloth and cover in hot embers, till the onion is cooked; press out the juice with heavy pressure, and drop into the ear. It gives instant relief. Solution of morphine will have a good effect also.

Remarks.—I should drop in only 3 or 4 drops of the onion and tobacco juice, at first, lest the influence of the tobacco might be too great, and repeat,

if it was necessary. What is called a solution of sulphate of morphia, or *liquor morphia sulphatis*, kept by druggists, is of the strength of 1 grain of sulphate of morphia to 1 ounce of water only. Each tea-spoonful of it would contain $\frac{1}{8}$ grain and would be a full dose, by mouth, which could be repeated, on an adult, in from 30 minutes to 2 hours, according to the severity of the pain for which it was given. To drop into the ear it might be, probably, twice as strong, without danger of injury. A few drops, say 4 or 5, of laudanum ought to have the same effect. The laudanum may be put with an equal amount of sweet oil, and the amount doubled, which would have a good effect in softening the wax of the ear. The onion cure is from Mr. Ford, of Iowa, who was referred to in the neuralgia (German cure, which see).

2. Earache and Deafness, Valuable Remedy for.—Wine of opium (not laudanum), 1 dr.; oil of anise, 10 drops; put into an ounce bottle, and fill with oil of sweet almonds (sweet oil will do very well). DIRECTIONS—Shake well, and drop from 3 to 5 drops into the ear, or ears, if both are affected. If no relief in 5 or 10 minutes, repeat; and follow along to relieve the sound or roaring in the ears.

Remarks.—“Old” Dr. King thinks this one of the most valuable combinations for earache or deafness which can be tried, having tested it several times. His remark was: “I think it will not fail once in 7000 cases, as it has not failed me in dozens of cases.” He has been in practice fifty years. The one for “Ulceration” below is also from him.

3. Earache, Remedy for.—A writer says: “There is scarcely any ache to which children are subject, so bad to bear and difficult to cure, as the earache. But there is a remedy, never known to fail. Take a bit of cotton batting, put upon it a pinch of black pepper, gather it up and tie it, dip in sweet oil, and insert into the ear. Put a flannel bandage over the head to keep it warm. It will give immediate relief.”

Remarks.—These simple remedies are easily tried, and will often prove successful.

4. Ear, Ulcerations in—Very Certain Remedy.—Pulverized *sanguinaria canadensis* (blood root), 1 dr., in soft water, 1 pt.; steep and strain. DIRECTIONS—Pour into the ear, or, what is better, syringe out the ear 2 or 3 times daily with it—a little warm.

1. TOOTHACHE—Common Cures for.—The following are common things recommended for the cure of toothache, outside of the profession, and are good remedies:

I. Alum, in very fine powder, $\frac{1}{4}$ oz.; spirits of nitrous ether, 7 drs.; mix, and apply with lint if the nerve is exposed, and also around the tooth. This is claimed to never fail, unless it is of a rheumatic character.

II. Equal parts of powdered alum and salt, mixed; then wet a bit of cotton, to make the powder adhere, and apply to the hollow of the tooth.

III. Saltpeter, pulverized and applied by cotton, cures nervous toothache at once.

2. Toothache, to Cure so It Will Never Ache Again.—If the following is the fact, it is the best of all the cures: Dissolve a piece of opium, the size of a small pea, in spirits of turpentine, $\frac{1}{2}$ tea-spoonful. Put in the hollow of the tooth upon cotton. It does not stop the pain at once, says the writer, but, if well applied,—the cotton saturated and frequently changed—will soon cause it to never trouble again.

3. Toothache Drops, Dr. Chase's.—Best alcohol, 2 ozs.; chloroform, 1 oz.; sulphuric ether, $1\frac{1}{2}$ ozs.; laudanum, oil of cloves, and oil of sassafras, of each $\frac{1}{2}$ oz.; oil of lavender, 1 dr.; gum camphor, 1 oz.; mix all, and keep well corked.

Remarks.—I have used this very successfully for a long time; have manufactured and sold it, and have put others into the same business. I put it up in 2 dr. bottles, retailing it at 25 cts., and have yet to find anything better. Apply to the exposed nerve by means of cotton, and put freely around the gums.

4. Toothache from Decaying Teeth—Solidified Creosote for the Pain of.—Creosote has been for a long time used in its fluid state, to wet cotton in, and put into the tooth; but it has been found that 10 drops of collodion added to 15 drops of creosote makes a gelatinous mass that can be put upon the nerve, closing up the orifice and preventing the air from reaching the nerve, and it does not flow out into the mouth to irritate and make it sore.

Remarks.—This will prove a blessing to those preferring the use of creosote.

1. POLYPUS IN THE NOSE—Very Effectual Remedy.—Dr. King is very sanguine in the belief, or knowledge, that it is not necessary to twist off, nor to ligate (tie a cord around) them, but that the powdered blood root, snuffed into the nostril, will destroy and cure every case, unless the nostril is entirely filled with it, in which case it may have to be twisted off, and the powder applied to the base by wetting a piece of cloth tied on the end of a probe, or stick, dipping it in the powder, and touching it upon the base, or neck, from which the polypus was removed, to prevent a return.

Remarks.—The celebrated Dr. Wooster Beach, of New York, uses the powder of blood root and bayberry bark, in equal parts, for the same purpose. He, if the polypus was large, used the powdered poke root, introduced by the stick, or probe, as above, to cause them to slough off, often repeating, either medicine.

2. Polypus of the Nose has been cured by mixing the powdered blood root, 4 grs., with vaseline, 1 oz., and putting this upon cotton and pressing it up against the tumor. One month's application removed it. This was done by Dr. W. W. Carpenter, of Petaluma, Cal., and reported in the *Medical Brief*.

3. Polypus, Another Cure for.—A polypus, so large that it filled the whole nasal cavity, was cured by the use of carbolic acid, 1 part, and glycerine, 4 parts, and injecting 20 drops of this mixture by the hypodermic

syringe (a syringe made to inject under the skin), into the base of the tumor. This, says Dr. Henning, of Redkey, Ind., who reported the case, is all I did. In one month it was gone, and it is still well, five months after the operation.

Remarks.—Certainly one of the plans ought to cure every case without twisting off or tearing out. Of course a physician would have to be called upon if this latter, or hypodermic, plan is adopted.

1. BURNS—From Gunpowder, Prof. Gunn's Treatment.

While Prof. Gunn was in the medical college, in Chicago, he gave the following item, through one of the journals of that city. It seems almost superfluous to add a word of endorsement, for, from several years acquaintance with him, as professor of surgery in the University of Michigan, it is well known that his recommendations could be relied upon. It is only for the benefit of those who are not acquainted with this fact that I have mentioned it. He says: "In burns from gunpowder, where the powder has been deeply imbedded in the skin, a large poultice made of common molasses and wheat flour, applied over the burnt surface, is the very best thing that can be used, as it seems to draw the powder to the surface, and keep the parts so soft that the formation of scars does not occur. It should be removed twice a day, and the part washed with a shaving brush and warm water before applying the fresh poultice. The poultice should be made sufficiently soft to admit of its being readily spread on a piece of cotton. In cases in which the skin and muscles have been completely filled with the burnt powder, we have seen the parts heal perfectly, without leaving the slightest mark to indicate the position or nature of the injury."

2. Burns and Scalds, Instantaneous Relief for.

—The bi-carbonate of soda (the common cooking soda, found in almost every kitchen) has been found an exceedingly valuable remedy in the treatment of burns and scalds, giving almost, if not absolutely, instantaneous relief from pain, as well as a cure for the wound, by continuing its use. **MODE OF APPLICATION.**—The injured part is to be moistened, then the dry soda, finely powdered, is to be sprinkled carefully upon it, to entirely cover the injury, and the whole wrapped with a wet cloth—linen is best. The relief is often instantaneous.

Remarks.—*Harper's Weekly* informs us that a Dr. Waters, of Salem, Mass., in speaking of the new remedy for burns and scalds, before the Massachusetts Dental Society, deliberately dipped a sponge into boiling water and squeezed it over his wrist, producing a severe scald around his arm some two inches wide, and continued the application, despite the suffering, for half a minute. Then he at once sprinkled on the bi-carbonate of soda, and applied the wet cloth, which almost instantly deadened the pain; and on the next day after this single application of the soda, the less injured parts, were practically well, only a slight discoloration being perceptible, the severe portions being healed in a few days, by simply continuing the wet cloth bandage.

Remarks.—When I wrote this out some two or three years ago, I added to the above: I should have wet the cloth in a solution of the soda, for the continued wrappings, in every case. My idea above mentioned of wetting the cloths in a solution of soda, I have since seen, has been practiced by a Dr.

Froizke, of Russia, who reports its use, in this form, upon 25 cases of severe burns, caused by fire, in a conflagration, which shows that it is good for burns from fire, as well as scalds from hot water. In cases where the wounds were deep, and where there was considerable matter, the clothes were carefully removed and the wounds were cleansed to prevent the absorption of the matter into the blood before replacing the wet cloths.

1. DROWNED PERSONS—Rules for Resuscitating—By the Michigan State Board of Health, and the Humane Society of Massachusetts.—The following directions, or rules, for resuscitating, or bringing to life again, the apparently dead from drowning, are made up from a recent circular of the Committee on Accidents of the Michigan State Board of Health, and distributed throughout the State, and also from directions published at the request of the Humane Society of the Commonwealth of Massachusetts.

The general public should be well informed upon this subject; for, if life is to be saved, there must be no loss of time when one is taken from the water, and life apparently gone.

- I. Lose no time. Carry out these directions on the spot:
- II. Remove the froth and mucus from the mouth and nostrils.
- III. Instantly loosen all neckwear, lacings, or waistbands.
- IV. Hold the body, for a few seconds only, so that the water may run out of the lungs and windpipe.
- V. If the ground is sloping, turn the patient upon the face, the head down hill; step astride the hips, your face towards the head, lock your fingers together under the belly, raise the body as high as you can without lifting the forehead from the ground, give the body a smart jerk, to remove the accumulating mucus from the throat, and water from the windpipe; hold the body suspended long enough to slowly count five; then repeat the jerks two or three times.

VI. The patient being still upon the ground, face down, and maintaining all the while your position astride the body, grasp the points of the shoulders by the clothing, or, if the body is naked, thrust your fingers into the armpits, clasping your thumbs over the points of the shoulders, and raise the chest as high as you can without lifting the head quite off the ground, and hold it long enough to slowly count three.

VII. Replace the patient upon the ground, with the forehead upon the flexed (bent) arm, the neck straightened out, and the mouth and nose free. Place your elbows against your knees and your hands upon the sides of his chest over the lower ribs and press downward and inward with increasing force long enough to slowly count two. Then suddenly let go, grasp the shoulders as before and raise the chest; then press upon the ribs, etc. These alternate movements should be repeated 10 to 15 times a minute for an hour at least, unless breathing is restored sooner. Use the same regularity as in natural breathing.

VIII. After breathing has commenced (and not before, unless there is a house very close), get the patient where covering may be obtained, to restore

the animal heat. Wrap in warm blankets, apply bottles of hot water, hot bricks, etc., to aid the restoration of heat. Warm the head nearly as fast as the body, lest convulsions come on. Rubbing the body with warm cloths or the hand, and gently slapping the fleshy parts, may assist to restore warmth and the breathing also.

IX. When the patient can swallow, give hot coffee, tea, milk, or a little hot sling. Give spirits sparingly, lest they produce depression. Place the patient in a warm bed, give him plenty of fresh air, and keep him quiet.

X. Let all the work be done deliberately and patiently, and do not give up too quickly, for success, says the Massachusetts society, "has rewarded the efforts of hours."

Remarks.—These rules cannot be too well understood (where it is possible for such accidents to occur), and no delicacy of mind or circumstances should prevent anyone from taking right hold of any case that may occur, because they have not done it before. No time to await the arrival of a physician—immediate action will insure success.

Let good judgment and great carefulness be exercised by everyone who finds himself called upon to act in any accident of this kind, and let no one hesitate a moment to do the best he can till some one more acquainted with the work, or a physician, may arrive, as life is too precious to allow of anyone neglecting to do what he can to save it.

2. **Drowned Persons—A Case in Hand.**—I will make a condensed statement here of a case reported in the *New York Mail and Express*, in 1882, to show what perseverance did in resuscitating a boy, by one of the officers of one of the life saving stations, who, with the reporter, happened to be passing along one of the wharves of that city, where a number of fishing vessels were tied, upon one of which was a boy who had been under water for 10 minutes, or more, and had lain as much longer upon the deck without an effort to restore him to life, and the bystanders, and even the police present, thought he was really dead; but the life-saving man took a different view of it, and went to work with a will; first opening the boy's mouth and removing the mud from it, he turned him over, on his face, and placed his coat, done up as a pillow, under the boy's stomach, then took hold of the boy's ankles and raised them several feet above the boy's head, and put them into the hands of some of the bystanders, to keep them thus, he pressed gently, but firmly, upon the small of the boy's back, when immediately a stream of water gushed out of his mouth, which had all this time been in the lungs, waiting only for this treatment to help it out. This was continued a minute or two, to get out all the water he could, when he was turned upon his back, and the officer, kneeling over him, put one hand upon the boy's right side, the other on the left, just against the short ribs, he gave them a powerful compression, and then suddenly let go, the ribs springing back to their natural position, and the air rushed into the lungs; this was done a dozen or more times, but still no appearance of life, and the bystanders said to him: "Can't you let a drowned boy alone?" "why," says the

officer, "I haven't begun yet, stand back and give more air here;" then he began slapping one of the boys hands, and put a man to the other, and one to each foot, they continued the slapping vigorously thus, upon each limb, and the reporter taking the officers place at that hand, the officer returned to the rib squeezing process, when after about five minutes of this vigorous work the boy gave a slight gasp for breath, to the great surprise of the bystanders and the delight of the life-saving officer. He then redoubled his efforts at the artificial breathing process, of pressing the ribs, etc., and called for brandy and warm blankets, the boy meanwhile gasping again and began to twitch in the legs, and as the boy began to breathe the brandy was given and the warm blankets were applied, and the boy was saved. (See hot sling in the rules above which, if it can be provided, is better than the raw brandy.) Thus you see what perseverance will sometimes do. Go then, in all such cases, and do likewise, and valuable lives may be saved.

1. THE TRUE WAY TO HEALTH—Simmered Down to a Few Short Rules.—A recent writer, whose name I do not know, has given us the most facts, in the fewest words, of anything I have seen. He says: The only true way to health is that which common sense dictates to man. Live within the bounds of reason; eat moderately; drink temperately; sleep regularly; avoid excess in everything, and preserve a conscience void of offence. Some men eat themselves to death; some drink themselves to death; some wear out their lives by indolence; and some by over-exertion; others are killed by the doctors, while not a few sink into the grave under the effects of vicious and beastly practices. All the medicines in creation are not worth a farthing to a man who is constantly and habitually violating the laws of his own nature.

BANDAGING—In Broken Limbs and Ulcers.—In broken limbs, it is necessary to use the bandage, and it has become quite common also, in the treatment of ulcers. They are more generally made of cotton sheeting, being torn off in strips of 3 to 4 inches in width, and sewed together until the required length is obtained, after which they are to be rolled into solid rollers for the convenience of passing them around the limb, and to enable the one who applies them to draw them evenly at all stages of their application. In applying the bandage one can get a better idea from the illustrations than any other way. All parts should be covered evenly, lapping about one-half of the bandage upon the previous round, and in order to keep it smooth and not run up or down on the limb, it will be necessary to turn the bandage upon itself, as the cross lines in the cut will show, wherever the form of the limb causes the bandage to pass either way upon the limb from the center of the previous round. In this way the pressure is even, leaving no loose, or unbound place for an accumulation of blood, which would cause pain, and finally mortification. And it must not be applied so tight as to stop the circulation, for this would cause the same difficulty; the object is to ~~loosen~~ the circulation, but *not* to stop it entirely.



HOW TO BANDAGE.

Ulcers.—Most ulcers, in their early stage, upon the legs or arms, may be cured by judicious bandaging, and keeping the ulcer and the bandage wet with cold water, or perhaps cold water $\frac{3}{4}$ and whisky $\frac{1}{4}$ as much, merely to stimulate a little. This mixture I have found better than water alone in dressings. Our homeopathic friends are very much in favor of the arnica lotion in place of the cold water. It is certainly a valuable remedy if used in sufficient quantities to have its legitimate, or specific effects, say $1\frac{1}{2}$ drs. of the tincture to a tea-cupful of cold water. A common teaspoon holds about 1 dr. Mix by pouring back and forth from one cup to another, then keep the bandage wet with it. Of this strength it does seem to have a specific effect upon fresh bruises, fresh cuts, etc. Two drs. of the tincture to alcohol, $\frac{1}{2}$ pt., is highly recommended in rheumatism of the joints, pains of the feet or limbs from walking, etc., to be used freely as a liniment.

1. PUNCTURED WOUNDS—New Cures to Avoid Lock-jaw.—Mr. S. W. Hemenway writes to the *Scientific American* that he wishes to publish the following cure for punctured wounds for the benefit of all who may need it: As soon as such a wound is inflicted, get a light stick (a knife or file handle will do) and commence to tap gently on the wound. Do not stop for the hurt, but continue until it bleeds freely and becomes perfectly numb. When this point is reached, you are safe; all that is then necessary is, to protect it from dirt. Do not stop short of the bleeding and the numbness, and do not on any account close the opening with plaster. Nothing more than a little simple cerate on a clean cloth is necessary. I have used, and seen this used, on all kinds of simple punctures for thirty years, and never knew a single instance where a wound becoming inflamed or sore after the treatment as above. Among other cases, a coal rake tooth going entirely through the foot, a rusty darning needle through the foot, a bad bite by a sucking pig, several instances of file shanks through the hand, and numberless cases of rusty nails, etc., but never knew a failure of this treatment.

Remarks.—This being the class of wounds from which lock-jaw arises, let no one fail to adopt it or one of the following plans as soon as a small, deep wound is received. (Note 20, p. 791.)

2. Punctured and Other Wounds and Bruises—To Relieve and Prevent Lock-jaw.—The following remedy, simple as it is, is said to have saved thousands from death by lock-jaw: Smoke the wound or bruise with the smoke of wool. Twenty minutes in the smoke of wool will take the pain out of the worst wound, and repeated once or twice, will allay the worst case of inflammation arising from a wound. (Note 20, p. 791.)

3. Lock-jaw or Tetanus Remedy and Preventive.—A medical authority says: "Let anyone who has an attack of lock jaw take a small quantity of spirits of turpentine; warm it and pour it into the wound—no matter what the wound is, or what its nature is—and relief will follow in less than one minute. Nothing better can be applied to a severe cut or bruise than cold turpentine; it will give certain relief almost instantly." (Note 20, p. 791.)

4. Lock-jaw, or Tetanus, Quickly Relieved.—A Dr. Bigelow reports, in the *Practitioner*, a case of lock-jaw, or tetanus, caused by a rusty

nail penetrating the foot, which was relieved in less than 20 minutes by introducing 1 dr. of the hydrate of chloral into the wound after it had been enlarged by incision. (Note 20, p. 791.)

5. Flesh Wounds and Fresh Cuts—To Prevent Bleeding, Relieve Pain, Etc.—Everybody is liable to be cut or to receive other flesh wounds, away from surgical or veterinary aid; hence, they ought to know how to proceed to save their own, or the life of a friend, or beast, by exercise of common judgment.

I. If there is a flow of blood, close the wound with the hand and hold it firmly together, so as to check the flow, and keep it thus until a bandage can be obtained or stitches can be taken, if necessary, and the final bandaging is applied. Bathing well with cold water, and keeping bandages wet with it, is the latest method of treatment. I have known, however, one-half whiskey to be used for this purpose, and believe it to be the best.

II. If the wound is painful, take a pan of burning coals and sprinkle upon them common brown sugar, and hold the wounded part in the smoke. In a minute or two the pain will be allayed, and the recovery proceed rapidly.

Remarks.—If the burning of wool will relieve pain and prevent lock-jaw from punctured wounds, why should not sugar do the same? Although I cannot understand the why nor the wherefore, yet I still believe that both the smoke of wool and sugar have cured many cases, otherwise these items would never have been reported.

6. Wounds, Hemorrhage or Bleeding from.—It is also claimed that bleeding may be stopped, on man or beast, by binding on a mixture of equal parts of wheat flour and salt; of course they are not to be wet, but evenly mixed, before binding on—the blood does the wetting.

1. NOSE BLEED AND HICCUGHS—Novel, but Certain Remedy.—The *Scientific American* reports the following novel plan for checking bleeding at the nose: The best remedy for bleeding at the nose, as given by Dr. Gleason in one of his lectures, is in the vigorous motion of the jaws as it is in the act of mastication (chewing). In the case of a child a wad of paper should be placed in its mouth, and the child should be instructed to chew it hard. It is the motion of the jaws that stops the flow of blood. This remedy is so very simple that many will feel inclined to laugh at it, but it has never been known to fail in a single instance, even in very severe cases.

Remarks.—About the time of writing upon the subject I received a letter from a Mrs. Harlan, of Hutton, Coles Co., Ill., wherein she confirmed the above as to bleeding from the nose; and by the additional point of pressing the fingers into the ears, with the motion as if chewing, it also cures hiccough. And now I have an endorsement of my own as to its value in hiccough, for I, at that time, had a little granddaughter living in the family who had been often troubled with hiccoughs, and only a day or two after the receipt of Mrs. Harlan's letter the child again had an attack of them, and in two minutes at most, from the time I directed her and showed her how to do it, according to Mrs.

Harlan's plan of putting the fingers into the ears, and then "chew," the child was cured. She has had no further attack as yet, a little over three years, while before they had held her an hour or two, and sometimes longer, and it occurred quite frequently. It seems to have been an absolute cure. Mrs. Harlan included in her letter what she calls a simple cure for nose-bleed, hiccough and palpitation of the heart. I will give them in her own words, as follows:

2. Nose-Bleed, Hiccough, and Palpitation of the Heart—Mrs. Harlan's Cure for.—I. A simple cure for nose-bleed is to crowd the fingers tight into the ears and chew, pressing the teeth well together, as if chewing food.

II. It is said to be a cure also for a persistent hiccough. [This is what I tried with the grandchild.]

III. *Palpitation of the Heart.*—Hold the breath as long as possible and repeatedly, I have found it an almost certain remedy. And when it failed to stop the paroxysm at first it was relieved by it, and, after a time, stopped.

Remarks.—Mrs. Harlan is undoubtedly correct in the matter of relief, or cure, of "Palpitation;" for, in holding the breath, the blood is not invigorated by the absorption of oxygen in the air by its passage through the lungs, and hence the blood does not pass so freely nor quickly to the heart, and, therefore, its excessive action soon diminishes, and is finally quieted altogether. There is certainly philosophy in this. Mrs. H. had used these plans in her own family and among her friends, and sent them to me, as she expressed it, "for the good of the world."

3. Hiccough, French Remedy for Children—Instantaneous Relief.—According to the Lyons (France) *Medicale*, Dr. Grellety says:

"I have observed that hiccoughs in children are immediately stopped by giving them a lump of sugar saturated with table vinegar. The same remedy was tried on adults with similar instantaneous success."

The sugar plan is confirmed by the following from Henry Tucker, M. D., in the *South Medical Record*, under the heading of "A Specific for Singulturs" (the physicians', or the Latin, name for hiccough):

"This very common affection, of infants and children especially, has a specific remedy, at least one which I have never known to fail. Moisten granulated sugar with cider vinegar; give to an infant from a few grains to a teaspoonful. The effect is almost instantaneous, and the dose seldom needs to be repeated. I have used it for all ages, from infants of a few months old to people on the down-hill side of life."

4. Another writer puts it in the following manner: "Take 3 or 4 swallows of sweetened vinegar."

Remarks.—Not much different, except in quantity. I should try this if Dr. Grellety's or Dr. Tucker's lump of sugar did not succeed.

5. Hiccough, a Cure for by Pressure—French.—The latest French discovery as to the cure of hiccoughs is given in *La Scalpel*, as follows: A very easy cure for a continued hiccough, sometimes complicated with spasms of the air-passage to the lungs, is introduced by Rostau, and highly recommended by Deghillaye, of Mons, France. It consists in placing the hand flat

upon the pit of the stomach, immediately below the cartilage forming the end of the breast-bone, and making firm pressure. Should this prove unsuccessful, place a firm roll of muslin on the same place, securing it by a bandage bound tightly around the body. In an hour this may be removed, and it will be found that the hiccough has entirely disappeared.

Remarks.—The cure in this case is by the pressure, preventing the spasmodic action of the diaphragm, which is the cause of hiccoughs.

**BILIOUSNESS, BILIOUS FEVER, FEVER AND AGUE,
CHILLS AND FEVER, INTERMITTENT FEVER,
PERIODIC FEVER, ETC.**

BILIOUSNESS.—The symptoms are too well known to need describing. If your bones ache, and you feel languid, your mouth tastes unpleasant, etc., you are bilious, and if you don't remedy it soon your complexion will be sallow.

Cholagogue or Bilious Tonic.—Quinine, 1 dr.; oil of wintergreen, 1 teaspoonful; oil of peppermint, 5 drops; oil of lemon, 15 drops; alcohol, $\frac{1}{2}$ pt.; water, $\frac{1}{2}$ pt.; sulphuric acid, 30 drops. Mix well, then add red Peruvian bark, finely pulverized, 2 ozs.; rhubarb root, also finely pulverized, 2 ozs.: simple syrup, or molasses, to make all 1 qt. Those who are acted upon easily by cathartics can not bear more than half of this quantity of rhubarb. Let such have it made accordingly—the object of its use is to just keep the bowels solvent, not loose like diarrhœa.

The quinine, oils and acid should be put into the alcohol first, then the water, and afterwards the bark and rhubarb, and then the syrup; or what would be a little more palatable, would be to steep the Peruvian bark and rhubarb root in as little water as will answer, then strain off into the mixture and steep again, to get all the strength, by pressing out the second time; then make up the quart with syrup, as this avoids the sediment of the bark and root in taking off the medicine, as some people object to taking the medicine with the powders in it. It may be taken at once, if well shaken; or, if shaken 2 or 3 times daily for a week, after that it may be taken without shaking, as the strength of the Peruvian bark and rhubarb will by that time be extracted. **DOSE**—For an adult, 1 or 2 teaspoonfuls 4 times daily, at meals and bed-time; for a child of 12 years, half dose. If very bilious take a full cathartic dose of rhubarb or such other cathartic medicine as you are in the habit of using, or prefer, to move the bowels freely.

Remarks.—This will be found a very valuable *tonic* in all cases requiring one, and is absolutely the best known remedy for biliousness. If a person inclined to be bilious will take this every spring and fall, they will not be troubled. It will break up 99-100 of all the agues and remittent fevers in a few days; if not, repeat the cathartic, and continue the Cholagogue until the work is accomplished—never try to “wear out the ague”; it will either wear *you*



FOXGLOVE.

(See Description)

This herb is useful in Dropsy of the Chest, Pleurisy and Inflammatory Affections. (To be used with caution.)

out, or leave you the worse for wear." Repeat at intervals of a week, 2 or 3 times; and in nearly every case a permanent cure will be effected, if the medicine is taken for 3 or 4 days at each repetition.

[NOTE.—This is not an easy remedy to prepare. For a good many it will be cheaper to send \$1.00 to the Chase Medicine Co., Detroit, Mich., and get a bottle already prepared.]

Bilious Remittent Fever—Symptoms.—The attack is generally sudden and well marked. Some writers say it has no premonitory symptoms; others, that it has. The more general understanding is, that for a day or two, or even longer, before the onset, there is a sense of languor and debility, slight headache, lack of appetite, furred tongue, bitter taste in the mouth in the morning, pains in the joints and general uneasiness.

The formal onset is nearly always marked by a distinct chill or rigor,—sometimes slight and brief; at other times severe and prolonged. The chill may begin at the feet, or about the shoulder blades, or in the back, and thence run like small streams of cold water poured in every direction through the whole body. There is generally but one well-marked chill, the returns of the paroxysms of fever being seldom, after the first, preceded by the cold stage.

During the hot stage the pulse is up to one hundred and twenty, or one hundred and thirty. There are pains in the head, back and limbs, of a most distressing kind.

The tongue is generally covered with a yellowish, or dirty white fur; and in bad cases, in the advanced stage, is frequently parched brown or nearly black in the center, and red at the edges. There is no appetite for food, and generally nausea and vomiting; and usually there is pain and tenderness in the epigastrium. The bowels are at first costive, but afterwards become loose, and there are frequent evacuations of dark, offensive matter.

Causes.—This disease is produced by malarial exhalations from the decomposition of vegetable matter. It is most prevalent in hot climates, and in the summer and autumn. (Note 21, p. 791.)

Treatment.—If the fever be in the formative stage, and has not fully developed itself, give an emetic (see page 180), and follow it with a mild cathartic—rochelle salts, 2 drs.; bi-carbonate of soda, 2 scruples; water, $\frac{1}{2}$ pt. Mix. To this mixture add 35 grains of tartaric acid, and take the whole foaming. This is the recipe for Seidlitz powders.

If the disease be already developed, sponge the body all over several times a day with cold or tepid water, according to the feelings of the patient, and give cooling drinks. To moderate the fever give 3 to 10-drop doses of tincture or fluid extract of veratrum viride. The compound powder of ipecac and opium is a valuable preparation for the same purpose. Give cold water as drink, if desired by the patient, or let him eat ice.

When the headache is very severe, let wet cups be applied upon the temples, or behind the ears; and the same remedy to the pit of the stomach, when there is great tenderness, is often desirable; though a mustard plaster will sometimes do better.

During the remissions of the fever, quinine and other tonics are to be given, as in fever and ague.

AGUE.—What is generally called ague is also known by all these names, which mean one and the same thing. Doctors generally say “intermittent fever,” and what will cure it are also known as “anti-periodics.” The two following recipes for ague originated with Dr. B. F. Humphreys, of Tyler, Texas, as substitutes, or to be used instead of quinine. He published them in the *Eclectic Medical Journal*, more especially for the benefit of other physicians; but if they are good for physicians, and I know they are, to use upon their patients and save the expense of quinine, they are as certainly good for the people to have them prepared by druggists for their own use. I have confidence in them, hence I give them. Dr. Humphreys gave the recipe for the “solution” to make 16 pts. (2 gals.), so that physicians could make up enough for a whole neighborhood; but I have reduced it by 16, so that families will make only 1 pt. If desired to make in larger quantities, simply keep the same proportions. The pills I will give for 240, as he gave them; if less are needed, to keep the proportions is all that is necessary. They are as follows:

1. Ague Solution, Pills and Liniment for—Without Quinine.—I. *Solution, or Dr. Humphreys' "Tip-Top Tonic."*—Sulphate of cinchonia, 1 dr.; sulphate of strychnia, 2 grs.; tinct. of stillingia, $\frac{1}{2}$ pt.; tinct. of ononymus (wahoo), 4 ozs.; tincts. of leptandra (Culver's physic) and of podophyllum (mandrake), each 2 ozs.; oil of wintergreen, to flavor, (15 or 20 drops, only, in a little alcohol), and elixir of vitriol (aromatic sulphuric acid), to dissolve the sulphates. **DIRECTIONS.**—Rub the sulphate of strychnia, first, in a mortar; then put in the sulphate of cinchonia, and rub together, and add to them as much aromatic sulphuric acid as necessary to dissolve them; then put into the bottle with the other articles, shake well, and it is ready for use. **DOSE.**—For adults, 1 tea-spoonful 4 or 5 times daily. For a child, 3 times as many drops as it is years old, same number of times daily as for adults.

Remarks—Dr. Humphreys called this his “Calisaya Anti-Periodic: or, Tip-Top Tonic,” and considered it as cheap and efficient as anything that can be got up. “Calisaya” is the name which the Indians of South America applied to what we know as Peruvian bark; hence the Doctor applies it here, as he knew all physicians, for whom he was writing, would know what he meant, *i. e.*, that the sulphate of cinchonia and calisaya was made from the Peruvian bark.

2. Ague, or Chills and Fever—Simple Cure Without Quinine.—H. G. D. Brown, of Copiah Co., Miss., gives the following as a certain and thoroughly tried cure for fever and ague: “Take 1 pt. of cottonseed; 2 pts. of water boiled to 1; strain and take warm 1 hour before the attack. Many persons will doubtless laugh at this simple remedy; but I have tried it effectually, and unhesitatingly say it is better than quinine, and could I obtain the latter article at a dime a bottle, I would infinitely prefer the cottonseed tea. It will not only cure invariably, but permanently, and is not at all unpleasant to the taste.”

3. Ague or "Chills"—Positive Cure, with Quinine.—This receipt is from Dr. Joseph Spaulding, of Lafayette, Ind., in answer to an inquiry from a lady through the *Blade Household*, which explains itself. He says:

"DEAR MADAM:—You say 'don't prescribe *whiskey* nor *quinine*,' but I *will*, and I know whereof I speak, as I was a sufferer with the ague for three years, in the malarial district of Indiana, and this cured me, and I have not had a chill for five years; and I am sure it will do as much for others. The toper who takes his morning bitters out of this, will not want them a second time from the same bottle.

I. "A thorough cathartic. Now, I mean *thorough* when I say it.

II. "Two days after take quinine in 6 gr. doses every 4 to 6 hours, just as you can stand it, till you have missed a chill; then take the following:

III. *Tonic Bitters, to Strengthen and Tone up the System after Ague, or Chills and Fever have been broken, or for General Use.*—"Tinct. capsicum, 1 dr.; citrate of iron and quinine, 1 oz.; comp. tinct. of gentian, 1 oz.; elixir cinchonia, 2 ozs.; whiskey, 5 ozs. DOSE—Take 1 tablespoonful 3 times daily, just after meals."

The elixir of cinchonia is also known as "elixir of calisaya," or "elixir of bark," meaning, of Peruvian bark. It is made as follows: Peruvian bark, 1 oz.; fresh orange peel, $\frac{1}{2}$ oz.; cinnamon bark, coriander seeds and angelica seeds, each 3 drs.; caraway and anise seeds, each 1 dr.; brandy and water, as given below; simple syrup, 10 ozs. Bruise or coarsely grind the bark and aromatics, and treat them with brandy until 10 ozs. are obtained; then continue the percolation with equal parts of brandy and water, until 22 ozs. have been obtained; then add the syrup to make 2 pts. tonic and cordial.

Remarks.—I know that some people object to using quinine, believing that it causes rheumatic or other pains, etc., but I am well satisfied that the pains, or other difficulties supposed to come from the quinine, came from the disease, or the climate, and not from the use of the quinine. It is not only a perfectly safe remedy, but is indeed a valuable *antiperiodic* and strengthening medicine. It can be obtained anywhere, and will cure ague everywhere, with only an occasional exception. The position I have taken above, that it is the disease, or *malaria* in the system, that causes the pain in the bones, etc., and *not* the quinine that does it, I have since seen, is also claimed to be the fact by some of our most eminent physicians.

4. Ague, or Chills and Fever—Certain Cure for.—Quinine, 31 grs.; aromatic sulphuric acid and laudanum, each, 31 drops; water, 3 ozs. DOSE—A teaspoonful 3 times a day, before meals.

Remarks.—This was given me by Mrs. Catharine Baldwin, of Toledo, O., formerly of Put-in-Bay, where she obtained it, and knew of its curing several of the *most obstinate* or long standing chronic cases, which "nothing," as the saying goes, "would cure." I have used it with success, making only this difference with the receipt: Using 40 grs. of the quinine and 40 drops of the oil of vitriol and laudanum, in 4 ozs. of water (to make the quantity a little more); then, for an adult, directing a tablespoonful three hours, two hours and one hour, before the chill should commence—which will break it. After that, 1 tea-spoonful 3 times daily, just after meals, till all is taken, will cure most cases.

5. Ague Pills, Very Cheap and Very Effective, Without Quinine.—Chinoidine, 1 oz.; dovers powders, 3 drs.; piperine, 40 grs.; sub carbonate of iron, $2\frac{1}{2}$ drs.; stiff mucilage of gum arabic sufficient to work into pills, and mix very intimately and make into usual sized pills. [The author would say to make into 440 pills, to be sure to have 1 gr. of chinoidine in each pill.] **DOSE.**—Take 2 pills every 2 hours until 6 or 8 are taken, in the absence of fever. After the first day 2 pills 3 times a day, just before meals, in the absence of chills or fever.

Remarks.—This recipe is decidedly a good one, either as an ague cure or as a general tonic. Chinoidine pills, however, in warm weather get soft and should, therefore, have plenty of powdered liquorice root among them to prevent their sticking together; but from this tendency the following, in liquid form, may be preferable:

6. Chinoidine for Ague—How to Give It.—C. E. Ellis, M. D., of Gooch's Mill, Mo., in answer to an inquiry of Dr. A. Barry, of Dresden, Tex., in *The Brief*, page 505, 1883, for "a convenient mode of administering chinoidine," made the following answer: "The following is a prescription used by my father and myself with no dissatisfaction from any patient, except one colored woman, who complained of nausea after taking: Chinoidine, 2 ozs.; alcohol, 1 pt.; nitric acid, dilute (a formula druggists understand), 1 oz.; aromatic syrup of rhei. (rhubarb), 8 ozs.; water, 8 ozs. Mix. **DOSE.**—When dissolved, take 1 tea-spoonful before meals and bedtime. If Dr. Barry will try this mode of giving the chinoidine he will find it all I recommend it to be. I have used it a great deal, and I hope he may have as good success with it as I have had."

Remarks.—Being so much cheaper than quinine is the main reason for its use. For those who oppose the use of quinine, and all similar ingredients, as cinchonidia or chinoidine, and would like to try a novel, yet a simple, cure, I give the following:

7. Ague and Fever, Novel but Simple Cure.—Take a medium-sized nutmeg and char it by holding it to a flame by sticking a piece of wire inside, permitting it to burn by itself without disturbance; when charred, pulverize it and combine with it an equal quantity of burned alum and divide into three powders. On the commencement of the chill give a powder. If this does not break it, give the second powder on the appearance of the next chill; and if not cured the third powder must be given as the succeeding chill comes on. Usually the first powder effects a cure, and it is seldom that the third powder will be required. The bowels should always be acted upon by a purgative previous to their administration. It is certainly deserving attention, though I do not pretend to account for its action.—*Prof. King.*

Remarks.—Prof. King says he has "known it to have cured several cases of intermittent fever" (fever and ague), and also says he has "been assured of its almost universal success in this disease;" and also adds that "it is recommended for the cure of other forms of fever." I am, like himself, unable to give a reason why or how it should so act; but that it has so acted I have not a doubt.

8. Ague Pills for Obstinate Cases.—Alcoholic ex. of nux vomica, 10 grs.; quinine, 30 grs.; pulverized capsicum, 20 grs. DIRECTIONS—Mix very thoroughly and divide into 30 pills. First give an active cathartic to get a good action upon the bowels; then give 2 of the pills an hour before eating, 3 times daily, until cured, then 1 pill for a dose the same way until all are taken.

Remarks.—This was from an old physician in Tennessee to a Baptist minister who had had ague a long time, not being able to get it cured. This did the work. He gave it to my cousin, Dr. A. B. Moon, of Toledo, O., who says he failed only in a single case for the many years he had used it.

9. Ague, Tonic Elixir for.—Tinct. of capsicum, 1 dr.; citrate of iron and quinine and compound tincture of gentian (the first is in crystals, the latter a fluid), each, 1 oz.; elixir of cinchonia, 7 ozs. Mix. DOSE—From 1 to 2 tea-spoonful 3 times daily, just after meals; for a general tonic, once in 1 to 2 hours; if to break up an ague, 4 doses at least, the last to be taken one hour before the chill returns.

Remarks.—I know this to be a valuable tonic whenever one is needed.

10. Ague, Tonic Pills for.—Sulphate of cinchonia (made from the Peruvian bark), 40 grs.; arsenious acid, 1 gr.; iron reduced (ferri pulvis, or iron in a pulverized state) and solid ex. of geatian, each, 1 dr. Mix thoroughly and make into 40 pills. DOSE—As a general tonic, 1 pill 1 hour after each meal and at bedtime; or, if handier, half an hour before meals and at bedtime; to break up an ague, 2 pills, 4, 3, 2, and 1 hour before the chill should begin; then 4 daily for a few days as above.

11. Ague, Elixir, or German Cure for.—Quinine, 16 grs.; quin idia and cinchonidia, each, 20 grs.; comp. tinct. of Peruvian bark and tinct. of columbo, each, 2 ozs.; tinct. of rhubarb, 1 oz.; aromatic sulphuric acid, to cut the sulphates, and "Simple Elixir," to fill an 8 oz. bottle. [Lest some persons may want to have druggists fill this recipe, in small places where they may not have the simple elixir, I give the formula, it is as follows: Spirits, or essence of orange, $\frac{1}{4}$ oz.; essence of cinnamon, 10 drops; alcohol, 4 ozs.; simple syrup and water, each 6 ozs.; mix.] DOSE—1 teaspoonful every 3 hours, till the ague is broken; then 3 times daily, etc., as with other tonics. (Note 22, p. 791.)

Remarks.—I obtained this recipe of G. M. Nill, a druggist and pharmacist, of Broadway, Toledo, O.; and I had it filled by him several times, finding it very valuable. In one family the lady used it first, for herself, then for a child and finally for her father, successfully in each case, and I have used it in several other cases with equal success. Notice this, in this prescription, it contains three of the best anti-periodic and tonic preparations made from the Peruvian bark, and besides the compound tincture of bark itself, which will account for the great success I have had, and which I believe others will have, with its use, either as a cure for the ague or to prevent its return, and also as a general tonic.

12. Ague, Tonic Febrifuge for—Not Needing a Cathartic Before Commencing its Use.—Quinine, 40 grs.; elixir of taraxacum (dandelion), 2 ozs.; simple syrup to fill an 8 oz. bottle. Shake when taking.

DOSE—For an adult, 1 table-spoonful, or a small swallow, 3 or 4 times daily, for a child of 6 to 12 years, a dessert-spoonful; 3 to 6 years, 1 tea-spoonful; if very young, $\frac{1}{2}$ tea spoonful.

Remarks.—The beauty of this is, the elixir of dandelion acts on the liver and bowels, so you do not have to wait to take cathartics before you begin with the febrifuge. It is best, however, with this, as before remarked in several places, to begin with the doses 4, 3, 2 and 1 hour before the chill would come on. I obtained this from a friend of mine in Toledo—M. O. Waggoner—who has been familiar with its use for several years, and says “there is no equal to it.” I have taken it, and given it to others, with entire satisfaction. It is indeed a febrifuge (opposed to fever) worthy of the name.

13. Fevers in Low, Wet Country—Dr. Buchan's Preventive and Cure.—Best red, unground Peruvian bark, 2 ozs.; Virginia snake root, 2 ozs.; gentian root and orange peel, each 1 oz.; brandy or good whiskey, 1 qt.; or whiskey and good worked cider, each 1 pt., will do nicely. **DIRECTIONS**—Grind coarsely, or bruise, and put into the spirit, and shake daily for 10 or 12 days, before using. **DOSE**—Two table-spoonfuls immediately after each meal, either as a preventive or a cure.

Remarks.—Dr. Buchan, of the Royal College of Physicians of Edinburg, Scotland, in his *Domestic Medicine*, claims this to be the remedy for fluxes, putrid intermittents, and all other fevers in low, wet countries of an unhealthy climate. It is certainly valuable, as the gentian improves the appetite and the snake root benefits the kidneys and skin.

14. Ague and Fever, How to Avoid.—The foregoing remedies will cure ague, or chills and fever; but an important question is, how to avoid or prevent having them. To do this successfully, avoid exposure to the damp air of the early morning, except when exercising; and then do not remain in the open air to cool off. Avoid great fatigue; sleep eight hours of the twenty-four. Be sure that the water used for drinking and cooking is perfectly pure. Wear flannel underclothing at all seasons. Keep the feet dry and warm. And, after being careful in all these particulars, if you get the ague, take your choice in the foregoing list of remedies to cure it, until you can leave the ague district for a more healthy location. (Note 23, p. 791.)

1. CINDERS OR DUST IN THE EYES — To Remove.—A correspondent writes to the *Scientific American* this remedy for cinders in the eye: “A small camel's-hair brush dipped in water and passed over the ball of the eye on raising the lid. The operation requires no skill, takes but a moment, and instantly removes any cinder or particle of dust or dirt without inflaming the eye.”

2. Another writer says: “Persons traveling much by railway are subject to continual annoyance from the flying cinders. On getting into the eyes they are not only painful for the moment, but are often the cause of long suffering that ends in a total loss of sight. A very simple and effective cure is within the reach of every one, and would prevent much suffering and expense were it more generally known. It is simply one or two grains of flax seed. It is said

they may be placed in the eye without injury or pain to that delicate organ, and shortly they begin to swell and dissolve a glutinous substance that covers the ball of the eye, enveloping any foreign substance that may be in it. The irritation or cutting of the membrane is thus prevented, and the annoyance may soon be washed out. A dozen of these grains stowed away in the vest pocket may prove, in an emergency, worth their number in gold dollars."

1. ACCIDENTS, POISONING, ETC.—Short Rules for Management.—Prof. Wilder, of New York, gives the following short rules to govern the action in such cases:

I. For dust in the eyes, avoid rubbing, and dash water into them; remove cinders, etc., with the rounded end of a lead-pencil.

II. Remove insects from the ear by tepid water; never put a hard instrument into the ear.

III. If an artery is cut, compress above the wound; if a vein is cut, compress below.

IV. If choked, get upon all fours and cough.

V. For light burns, dip the part in cold water; if the skin is destroyed, cover with varnish.

VI. Smother a fire with carpets, etc.; water will often spread burning oil, and increase the danger.

VII. Before passing through smoke take a full breath, and then stoop low; but if carbonic acid is suspected, then walk erect.

VIII. Suck poisoned wounds, unless your mouth is sore. Enlarge the wound, or better, cut out the part without delay. Hold the wounded part as long as can be borne to a hot coal or end of a cigar.

IX. In case of poisoning, excite vomiting by tickling the throat, or by warm water, or mustard and water, or salt and water, always warm, if possible.

X. For acid poisons give alkalies.

XI. For opium poisoning give strong coffee and keep moving.

XII. If you fall in water float on the back, with the nose and mouth projecting. (See falling into the river, etc.)

XIII. For apoplexy raise the head and body; for fainting lay the person flat.

2. Quick Emetics for Accidental Poisoning.—Another writer gives the following instructions for the management in accidents, poisoning, etc. He says: "Quickly mix a couple of ounces of powdered chalk or magnesia with a pint of milk and swallow the whole at one draught. Then run the finger down the throat and move it gently from side to side. This will induce vomiting; after which drink freely of warm milk and water and repeat the vomiting. Milk is an antidote for almost all poisons, narcotics excepted, especially if used promptly, and followed by vomiting. In narcotic poisoning, as by laudanum, opium or morphine, promptly give an emetic of mustard and water, followed by copious draughts of warm water and salt, until vomiting is induced. Keep the patient moving, and do not allow him to sleep. Send in haste for your family physician."

3. Poisoning by Accident or Intention, What to do.—Another medical writer on the subject of accidental or intentional poisoning, says: "To neutralize any poisonous mineral or vegetable, taken intentionally or by accident, swallow 2 gills ($\frac{1}{2}$ pt.) of sweet oil; for a strong constitution, more oil."

Remarks.—The sweet oil is good and a bottle of it ought to be kept in every house, to meet, immediately, any emergency of this kind; but lard oil or even melted lard will do. Vomiting is also very important.

4. Poisoning by Poison Ivy—Remedy.—Bromine, 15 grs., rubbed in 1 oz. of olive oil, or glycerine, and apply 3 or 4 times daily; one application at bed-time has been found effectual; a poultice of clay-mud has also cured many cases.

5. Poison Ivy—Poisoning Cured by an Old Fox Hunter.—The following was sent to *Forest and Stream*, which explains itself. The writer says: "I have probably suffered more from poison ivy than any other man. Three times in one summer I have been blind from its effects. I have tried every remedy without success, until last summer. I was out shooting, and, with my usual luck, I got another dose that confined me to the house. I could not walk. An old fox hunter living in the neighborhood, hearing of my condition, came to see me, and brought me a remedy that acted like magic. In 3 days time I was up and enjoying what I love better than anything else in this world, the best of all field sports—fall woodcock shooting. I give you the recipe: Take 1 pt. of the bark of black spotted alder and 1 qt. of water, and boil down to 1 pt. Wash the poisoned parts a dozen times a day, if convenient; it will not injure you."

Remarks.—Perhaps the better plan is to learn that the poison ivy has its leaves in clusters of three, while the non-poisonous has its leaves in clusters of five; knowing this, keep clear of the poisonous.

6. Poisoning by the Poison Oak, Remedy.—J. B. Murfree, M. D., of Murfreesboro, Tenn., says he has found the black wash made of calomel and lime-water (calomel, 1 dr., to lime-water, 1 pt.), an invariable success for several years.—*Medical Brief*. This is supported by the following, also from the *Brief*, by Dr. James A. Douglass, of Poland, O., under the head of:

7. Poisoning by Rhus, wherein he says: "Since the discovery by Professor Maisch, that the toxic (poisoning) quality was due to an acid, which he denominated *toxicodendric* acid, the treatment has been based upon a true scientific basis (*i. e.*, that alkalis neutralize acids, and *vice versa*, that acids neutralize alkalis), I therefore," he continues, "apply alkalis to neutralize the acid. I prefer," he also says, "the liquor calcis (lime-water) applied locally; in severe cases use internally also. I sometimes combine it (the lime-water) with soda bi-carbonate, or hydrate of chloral, 1 oz. to 1 pt." This he closes by saying is as near a specific (positive cure) as any one could wish. (See tumor, poison wound, and wild vine poisoning, earth cure for.)

8. Poisoning by Henbane, Tobacco, or Stramonium, and Bites of Snakes—Remedy.—The oil of sassafras has been found a remedy against the poison of these articles. Given in 15 drop doses, 30 minutes apart,

for six doses, restored consciousness when the flowers of stramonium had been eaten by a boy 4 years old; after which a dose of castor oil was given to work it off by the bowels.

Remarks.—This is from a Dr. A. W. Lyle, of Castleton, Ind., in *Medical Brief*, in which he also gives Dr. Thompson's account of the value of oil of sassafras for henbane and tobacco poisoning, and also says: "It will destroy all insect life, and is an effectual antidote for the bite of venomous copperhead snakes." He recommends all physicians to try it, and, the author thinks, it is equally good for the people. He does not give the dose in these last cases; but if a boy of four years can take 15 drops, an adult may take at least 40. And in the snake-bites, I would rub it on the wounds also, and repeat as he directs.

1. ACCIDENT FROM CHLOROFORM—To Prevent, by Mixing Spirits of Turpentine with it.—"A preventive for those accidents which so frequently occur in the administration of chloroform to produce anæsthesia (insensibility to pain) has been suggested by Dr. Wachsmuth, of Berlin, Germany: the method consisting simply in the addition of one part of the rectified oil of turpentine (spirits of turpentine) to five parts of chloroform. The oil of turpentine in vapor appears to exert a stimulating or life-giving effect on the lungs, and protects those organs from passing into that paralyzed state which seems to be produced by chloroform narcosis (to benumb, or to become unconscious). It appears that Dr. Wachsmuth, while lying on a sick-bed, accidentally breathed the vapor of turpentine, and he experienced from this a strongly refreshing feeling—a fact which induced him to try the plan of adding oil of turpentine to chloroform when using the latter for anæsthetic purposes."

Remarks.—People, even physicians, speak unadvisedly when they say oil of turpentine, meaning the spirits, as it should be called; there is no oil of turpentine proper. The sticky mass, as it runs from the trees, is distilled, when it becomes very limpid, *i. e.*, pure and clear, having scarcely an appearance of oil—clear as water, as the common saying is. The only object of this explanation is, that no one shall suppose that there is an oil, and a spirit, too; they are both one and the same thing. (Note 24, p. 791.)

2. Accident from Chloroform—To Prevent by Management.—It is believed that many of the deaths from the administration of chloroform have arisen by the patient lying upon the back, and the tongue, from loss of muscular power or contractility, has fallen back into the throat and thus suffocated the patient. This should certainly be looked to by everyone who administers it. The tongue can be held with a cloth, if need be.

I see also by a recent statement in the *Ann Arbor Register* that Dr McLean, of the University of Michigan, in his surgical practice of 25 years, prefers chloroform to any other anæsthetic, and has never had a death occur from it, nor seen a death by its use. He has always used it when necessary, and is a strong advocate for its use, and, all things considered, prefers it to ether. With the foregoing cautions as to the breathing, to prevent suffocation from the tongue falling over the glottis while the muscles are all relaxed by the chloroform, there need be no apprehension of danger from it; still, I can see no objection to mixing the turpentine with it.

The London *Lancet* confirms the idea advanced above, about the attention to the tongue, in the following words: "Death from chloroform need never occur, according to the doctrine of Syme, Lister and Hughes (all celebrated surgeons) if this simple rule is observed: Never mind the pulse, never mind the heart, leave the pupil (of the eye) to itself. But keep your eye on the breathing, and if it becomes embarrassed to a grave extent, take an artery forceps and pull the tongue well out. (A piece of cloth in the fingers will hold the tongue with but little difficulty.) Syme never lost a case from chloroform, although he gave it five thousand times."

FALLING INTO DEEP WATER—What to do for Those Who Cannot Swim.—For those who may fall into deep water, and cannot swim, it is thought best that a little fuller instructions ought to be given:

I. When one falls into deep water let it always be remembered that he will rise to the surface at once; and now is the time to remember, also, that he must not raise the arms nor hands above the water, except there be something to take hold of; if he does it will sink the head so low he cannot breathe. But:

II. Any motion of the hands may be made under the water, as you please, without endangering the life, for if the water is quiet, the head being thrown a little back, the face will float above the surface, unless heavy boots or clothing bear one down.

III. And a motion of the legs as if walking up stairs, while it can be borne, keeping the perpendicular as nearly as possible, will greatly aid in keeping one afloat until help arrives; and even good swimmers had better not exhaust themselves, if a boat is coming, only to keep afloat. (See also drowned persons, rules for resuscitation, etc.)

SALVES, PLASTERS, OINTMENTS, POULTICES, ETC.

1. **Salve or Plaster for Chaps, Cracks, etc.**—Rosin, 10 ozs.; mutton tallow, 2 ozs.; beeswax, 1 oz. **DIRECTIONS**—Simmer together and work as shoemakers do their wax, and make it into convenient rolls. Spread on slips of cloth to suit the place, and apply as hot as the flesh will bear it—it will need no tying. If too stiff in very cold weather use a little more tallow and beeswax, or a little less rosin.

2. **Ointment of St. John's Wort and Stramonium, for Tumors, Bruised and Blackened Spots, etc.**—Tops and flowers, recently picked, of St. John's wort (*hypericum perforatum*), fresh stramonium leaves, each $\frac{1}{2}$ lb.; lard, 1 lb. **DIRECTIONS**—Bruise the herbs and put into the lard and gently heat for an hour, then strain. Rub and heat into the swellings, caked breasts, hard tumors and ecchymosed spots (spots which have been bruised and the blood settled under the skin) thoroughly.

Remarks.—Prof. King also says the saturated (as strong as can be made) tincture of the St. John's wort is nearly as valuable as that of arnica, for bruises, and may be substituted for it in many cases. (See also the recipe for coughs, colds, hoarseness, etc., for the further value of St. John's wort.)

3. Salve or Ointment for Cuts, Sores and Cracks made in Husking, Salt-Rheum, Scurvey, Head Boils, etc.—Mutton tallow, 3 lbs.; rosin, $1\frac{1}{2}$ lbs.; sal-ammoniac (crystals), 2 ozs.; sweet oil, 1 pt. **DIRECTIONS**—Melt the rosin and tallow together; dissolve sal-ammoniac in a little water, after having powdered it fine, then stir it into the mixture; put in the oil, or enough of it to reduce to a paste, or ointment, then place in boxes, or a jar that can be covered. To apply, it is best to keep a little of the sal-ammoniac dissolved in a little water, sufficient to give the water rather a sharp taste, and first wet the part to which the ointment is to be applied, with the sal-ammoniac water. The healing will be quick and satisfactory.

Remarks.—I obtained this from a Welsh blacksmith at Moawequa, Ill., who thought it had no equal in the world as a healing ointment, or salve, as he called it. It will be found valuable for cracked fingers in husking, as well as for general purposes.

4. Itch Ointment, or Wash, Preferable to the Old Method.—Quicklime (good stone lime, just slacked), 1 part; sulphur, 2 parts; water, 10 parts; by weight say $\frac{1}{2}$ oz. of the lime, 1 oz. of the sulphur, and 5 ozs. of water, make the right proportions. **DIRECTIONS**—Boil together in a porcelain dish, stirring constantly with a stick, till it is the shade of cinnamon essence. When cool, bottle and keep corked. Apply a small quantity to the parts affected.

Remarks.—This is from Dr. A. B. Mason, who says of it: "It is much nicer to use than the old sulphur ointment; and will effect a cure with fewer applications." It can be relied upon.

5. Ointment and Salve for General Purposes, Norton's.—I. For the ointment, lard, 1 lb.; rosin, 5 ozs.; beeswax and gum camphor, each 2 ozs.; oil of origanum and spirits of turpentine, each 1 oz. **DIRECTIONS**—Melt the lard, rosin and beeswax together; break up the camphor gum as fine as you can, and when you remove the first from the fire, after all are melted, stir in the gum and continue to stir till the camphor gum is melted and all is quite cool; then put in the origanum and turpentine, and keep stirring until it sets, or stiffens; box, or put in a fruit can, and cover to exclude air.

Remarks.—"It is good, very good, for all general purposes," says my sister, Mrs. Norton, from whom I obtained it.

II. *For the Salve.*—Use 5 lbs. of rosin; and in place of the lard use 6 ozs. of mutton tallow; all the other ingredients as for the ointment, and melt; but as soon as the gum camphor is melted, and after having removed it from the fire, put in the oil and turpentine, and stir well for a minute or two; then pour into cold water, and pull and work the same as shoemaker's wax; then roll into sticks, and wrap each stick by itself.

Remarks.—Valuable as a strengthening salve or plaster to apply over all weaknesses, rheumatic and other pains, anywhere on body or limbs.

6. Glycerine Ointment for Chapped Hands, Lips or Face, Chafes, Hemorrhoids, etc.—Oil of sweet almond, 2 ozs.; spermaceti and white wax, each $\frac{1}{2}$ oz.; best glycerine, 1 oz.; oil of rose, a little. **DIRECTIONS**—Melt the spermaceti and wax in the oil of almond by gentle heat; then stir in

the glycerine and oil of rose, and put up in small jars or wide-mouthed bottles. In cold weather it must be warmed to apply. Keep covered or corked.

3½. Balm of Gilead Ointment or Oil.—Take any quantity of Balm of Gilead Buds, place them in a suitable dish for stewing, pour over them sufficient melted lard to cover them—or to make the Balm of Gilead Oil, pour the same quantity of sweet oil—stew thoroughly, then press out all of the oil from the buds, and bottle ready for use.

This will be found to be a very excellent ointment for cuts, bruises, etc., and the oil will also be found to be very healing.

7. Salve, or Balsam, for Wounds, Cracks, or Internal Pains.
—Rosin, 2½ lbs.; spirits of turpentine, 1 qt.; balsam of fir, 4 ozs.; oil of hemlock, 2 ozs. **DIRECTIONS**—Melt the rosin, and remove from the fire; then, when a little cool, stir in the fir, turpentine, and last, the oil of hemlock, continuing to stir until cool enough to remain permanently mixed.

Remarks.—I saw this salve on the hands of a Mr. E. B. Mason, a farmer of Ann Arbor, Mich., upon cracks and a wound of considerable extent. Noticing its white appearance and adhesiveness, I inquired about it; he told me he had used it for several years, and thought it had no equal for wounds, sores, cracks from husking, etc., and also as a “plaster” over any internal pains whatever. He spoke of it so highly that I was induced to obtain it for my Third Book. I know it must be valuable; but I think it will prove too soft for hot weather. Then to use only half of the spirits of turpentine and possibly ½ lb. more rosin is all the modification needed to adapt it as a plaster to be applied to other parts of the body. It would be very valuable to wear over a sore breast, whether from strain or soreness of the lungs. See also the Centennial Recipes from “Poor Will’s” *Almanac*, at the close of this department, for an ointment for these purposes.

8. Salve for Inflamed Wounds, From Taking Cold in Them.
—Lard, 8 ozs., melted 3 or 4 times, and cooled each time in cold water (vaseline or cosmoline is now used without the purification, and will do as well, and possibly better,); then stew in it 2 fair sized onions sliced, and strain. This is an excellent salve for inflamed wounds. Apply twice or thrice daily, as needed. Twice is enough unless excessive ulceration, or running of considerable matter

9. Salve, Carbolic, for Burns, Sores, etc.—Lard, 10 ozs.; white wax, 5 ozs.; balsam of fir and carbolic acid, each 1 oz. **DIRECTIONS**—Melt the lard and wax together, then add the fir, and when it begins to thicken, by cooling, stir in the carbolic acid, and put up in tin boxes, or a suitable jar, covered tightly for use.

Remarks.—The balsam of fir is very soothing and healing, and makes the salve stick better to burns or other open sores, at the same time it hides the disagreeable odor of the carbolic acid. Many persons think there is no salve equal to those made with the carbolic acid. I think vaseline, 10 ozs., would be better than the lard as above given.

10. Salve, or Ointment, Green, for Old Sores, Ulcers, Cancers, etc.—Rosin and beeswax, each 1 oz.; mutton tallow or lard, 4 ozs.; pulverized verdigris, 1 dr. **DIRECTIONS**—Melt the two first together and stir in the verdigris, stirring till cold. Dress the sores, ulcers or wounds, above named, morning and evening, after cleaning them properly with castile soap, if necessary, and apply a mixture of equal parts of tinctures of myrrh, aloes and blood-root. And if any fungus (proud flesh), sprinkle on powdered blood-root or finely pulverized burned alum, then the salve, or more properly, the ointment.

Remarks.—Dr. Gunn thinks this a very valuable treatment, especially for old or long standing ulcers.

11. Salve or Poultice, Robinson's, for Sores, Inflammation, etc.—Scrape plenty of raw potatoes and thicken it with finely pulverized charcoal. Apply freely to the sore, or inflamed part, and renew as often as it becomes dry, or once in 3 or 4 hours.

Remarks.—It cured a boy's leg which had been injured in such a way as to cause a large sore and extensive swelling, becoming so bad the doctors expected amputation would be necessary; but a neighbor recommended this salve, or poultice, which cured and saved the leg. Then it will do it for others too.

II. A flaxseed poultice thickened with pulverized charcoal will prevent the spreading, or extension, of mortification, separating the mortified parts from the healthy, at least it did this once on my own person, when only a boy, where one of my feet, and some of the toes, had been badly crushed by a threshing machine and mortification set in. Fail not to try one or the other, as occasion may demand.

12. Pumpkin Poultice for Painful Inflammations, Swellings, etc.—A correspondent of the New York Farmers' Club, published in the *American Agriculturist*, gives an instance in which a woman's arm was swollen to an enormous size and painfully inflamed. A poultice was made of stewed pumpkins, which was renewed every 15 minutes, and in a short time produced a perfect cure. The fever drawn out by the poultices made them extremely offensive as they were taken off.

Remarks.—In such cases after the inflammation is reduced by the poultices some good, mild liniment, like Mrs. Chase's, should be applied from time to time, for the purpose of strengthening, healing, etc.

13. Salve and Other Treatment—For Quinsy and Gathered Breast.—I. Obtain oil of spike, sweet-oil, British oil and spirits of turpentine, each 1 oz. Put lard, 1 pt., over the fire in a suitable dish, and burn or heat it till it is a brown color, then remove from the fire, and, when cool enough to allow the finger in it, add the oils and mix well.

II. Take oats, 1 gal., and put in a kettle, with vinegar to cover, and boil; then fill two woolen stockings with the boiled oats, and sew up, and keep steaming hot, or as hot as can be borne, upon the neck; now grease the throat thoroughly with the salve, and apply one of the stockings to drive in the salve,

changing every 10 minutes, greasing well each change until the sweating is kept up 2 or 2½ hours; then wash off with soda in warm water, change all damp clothing, and allow a good rest. It may be repeated next day, if needed, but seldom will be. It is equally good for gathered breasts; but in either case be careful not to take cold.

14. Weak Back, Valuable Plaster for.—Burgundy pitch and camphor gum, each 1 oz.; opium, 1 dr. **DIRECTIONS**—Melt the pitch, and having broken up the camphor, and made the opium gum into as fine bits as you can, stir them in and see that they are dissolved and evenly mixed. Spread the plaster very thinly on soft leather; wash the back with vinegar as hot as it can be borne; then rub the parts with dry flannel to make it red, and apply the plaster hot, and wear it as long as needed, renewing, if necessary. Remember this, in applying a plaster to any place, if there is any hair where it is to be applied, always clip it off as close as possible, or shave it off, as thought best. A bandage will have to be worn with this, as it will work out and soil the clothing without it.

Remarks.—I obtained this recipe from Mr. Moross, of this city (Toledo), a grocer, who said he was cured by it, after he had tried all the doctors, been to Saratoga for a season, etc., without benefit. And he also assured me that he had given it to others who were very bad (the doctor claiming disease of the kidneys); one who had tried everything and was going home to die, by using this plaster became a well man. I have tried it personally and find it valuable, and deem it worthy of great confidence. I would suggest, however, that the addition of 1 oz. of rosin to this salve would prevent its running, without injuring its value.

15. Counter-Irritation, Croton Oil for.—In cases of chronic sore throat, lung coughs, asthma, bronchitis, consumption, inflammation of the liver, spleen, etc., as a counter-irritant, the following will be found very satisfactory: Croton oil, 1 dr.; spirits of turpentine, 2 drs.; mix. **DIRECTIONS**—Which be careful to follow: With the finger rub on the mixture thoroughly, covering a space about the size of a silver dollar, or larger, as deemed best, from the amount of cough, or soreness over the part affected, 4 to 6 times; the finger should carry enough for the size of the dollar. In about 12 to 24 hours, the skin becomes red, and slight pimples arise, but if they do not rise in 36 hours rub on again in the same manner, but not quite so freely. These pimples will ripen into pustules, and fill with water, or a thick yellow matter, according to the condition of the system, and must be opened with a needle, and the matter pressed out and carefully wiped off with a soft cloth, then washed with soap suds (castile is best), and this filling and refilling ought to go on for 3 to 6 days. Wash every night and morning, or at least once daily, according to the amount of matter, or itching which may occur. As this crop discontinues to run make another application as near to the first as you can, and continue this as long as needed.

Remarks.—The above mixture makes a mild and bearable sore; while the croton-oil alone, as formerly used, makes ugly sores and causes terrible itching

or sharp burning pain, and so does the old Irritating Plaster, which is not necessary to produce the desired effect. This raises only in pimples, while the old Irritating plaster ulcerates the whole surface, and is very tedious and troublesome to be borne. Dr. Sykes, of Chicago, makes great use of this mixture, wherever and whenever needed, and I have used it with much satisfaction.

16. Spiced Plaster or Poultice, to Remove and Prevent Nausea and Vomiting.—Ginger, cloves, cinnamon, and black pepper, each $\frac{1}{2}$ oz.; cayenne pepper, $\frac{1}{2}$ dr.; all these in fine powder; tinct. of ginger, $\frac{1}{2}$ oz.; sufficient strained honey or molasses to make it to the consistency of a poultice—rather stiff; apply over the stomach.

17. Itch, Valuable Ointment for.—Lard, $\frac{1}{4}$ lb.; sulphur, $\frac{1}{2}$ oz.; white precipitate and benzoic acid, each $\frac{1}{2}$ dr.; sulphuric acid and oil of bergamot, each $\frac{1}{2}$ fl. dr.; saltpeter, 1 dr. DIRECTIONS—Have the saltpeter in powder; melt the lard, remove from the fire, and pour into an earthen dish; then put in the other ingredients, stirring till cold. Anoint well, night and morning, until cured, which it is sure to do, as it kills the itch-mite, which burrows in the skin and causes the itch.

18. Healing Ointment or Black Salve for Inflammations, Wounds, Ulcers, Burns, Etc.—Olive-oil, $1\frac{1}{4}$ lbs.; bees-wax and unsalted butter, each 2 ozs.; white pine pitch, called also white turpentine, 4 ozs., red lead, $\frac{1}{2}$ lb.; honey, 6 ozs.; powdered camphor gum, 4 ozs. DIRECTIONS—Put the olive-oil into a suitable kettie, place on a stove, and bring it to a boiling heat (remembering that it takes nearly 3 times the heat to boil oil that it does to boil water); then, the lead being in fine powder, stir it in, as you would make “mush,” and continue the heat, and stirring till it becomes a shining black or deep brown. Remove from the fire, the bees-wax being shaved finely, stir it in; then the other ingredients, the powdered camphor last. Spread on a cloth and apply.

19. Stimulating Ointment for Cold Feet, caused by Sweating in Consumption and other Exhausting Diseases.—Oil of butter, 1 pt.; oil of bergamot and strong tinct. of capsicum, each 1 oz. DIRECTIONS—To make the oil of butter, take sufficient butter and put into a kettle of water, boil well and stir; then set off till next day, and take the oily butter off the water, put in the tincture of capsicum and simmer, to evaporate what water is in it; when cool stir in the oil of bergamot. Box tightly, or put into a large mouthed bottle, for use. Rub on a tea-spoonful of this, night and morning, and heat into the bottoms of the feet and palms of the hands, which will soften them, remove all hardened skin, etc. By its stimulation it helps to relieve their tendencies to sweating and also of a sense of heat, or burning, which is sometimes very annoying.

20. Magnetic Ointment, for Burns, Cuts, Sores, etc.—Make the same as the above, except by using the oil of organum in place of the tincture of capsicum.

Remarks.—This and the stimulating ointment will be found very reliable

for what they are recommended; this last for all purposes of healing and softening old sores as well as fresh cuts, bruises, burns, etc.

21. Salve or Ointment, for Barber's Itch and Other Sores of a Chronic and Malignant Character.—A Mrs. H. J. Merrill, of Toledo, O., gives me the following, which she had used many years, with great success, on all bad sores of long standing, and of an irritable character: Cleanse the sore well with warm castile soap suds, dry carefully with soft cloths and apply sparingly at first, as it will "bite," to show its power over the disease. Gunpowder, sulphur and alum, each, powdered, 2 table-spoonfuls; unsalted lard, or fresh made unsalted butter, $\frac{1}{2}$ pt. DIRECTIONS—Put into an earthen dish and stew on the back of the stove for 24 hours, strain and box for use.

1. ITCHING (Prurigo), TO CURE—Magical.—Dilute (the medicinal) hydrocyanic acid and sugar of lead, each 2 drs.; alcohol, 3 ozs.; distilled or soft water, 1 pt. DIRECTIONS—Dissolve the lead in the water, then add the acid and shake well, then the alcohol. Wet cloths and lay upon the itching parts, or apply with the finger, as the case will allow, frequently.

Remarks.—The acid is poisonous, hence keep it out of the way of children. It is claimed to be magical in its quick relief of itching of any part, but not upon open sores nor where the skin is broken. It is perfectly safe to use, when so extensively diluted as this is.

2. Itching in Leucorrhœal Cases, etc.—More recently in these cases of prurigo, or itching of the external parts, the following has been used considerably, and, it is claimed, successfully: Bi-sulphide, or bi-sulphite, of soda and soft water, each 2 ozs.; glycerine, 3 ozs.; mix and apply frequently, with cloths, if the patient is confined to bed, to be laid upon the parts.

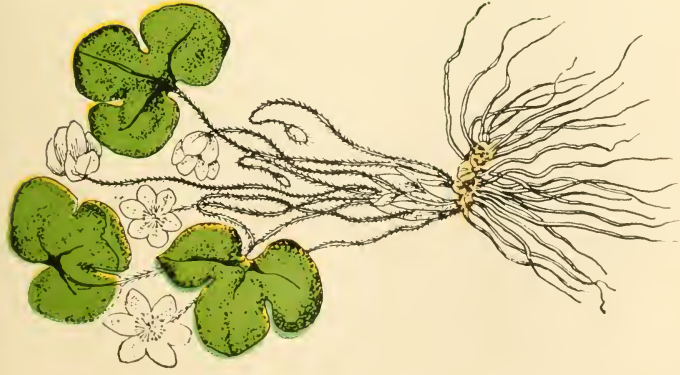
3. Itching, or Prurigo, Ointment for.—My old friend, Dr. T. B. King, of Toledo, O., takes: Oxide of zinc ointment, 1 oz.; camphor gum, 20 grs., grind to a fine powder, with a few drops of alcohol, and mixed in, then 12 to 15 grs. of red precipitate, also rubbed into the zinc ointment. Rub a little upon the parts, and if a fold of the skin or flesh comes together and chafes, a little of the ointment upon a soft cloth and put between, soon relieves.

4. Ointment for Chafing, Itching or Prurigo.—Camphor gum and white wax, each 1 oz.; mutton tallow, 2 ozs.; red precipitate and oxide of zinc, each 3 drs.; tannic acid, 1 dr. DIRECTIONS—Triturate the camphor gum with a little alcohol, melt the tallow and wax by gentle heat, and stir, and rub all together thoroughly till cool. Used as above, or as for regular itch.

Remarks.—When it can be obtained, the oil from 4 ounces of freshly made unsalted butter in place of the mutton tallow is preferable. (To make oil of butter see stimulating ointment, etc.)

1. CHAPPED HANDS, LIPS, CHAFES, ETC.—Cold Cream of Glycerine and Rose for.—A cream, or liquid, for the above purposes is made by using 1 oz. of white melted wax; 4 ozs. of glycerine, with oil of rose or other flavor to suit, 4 or 5 drops, to flavor.

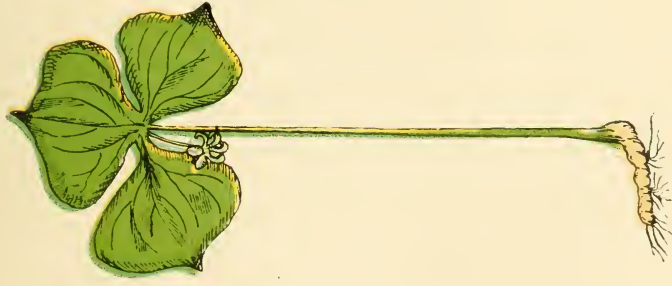
2. Hands, to Soften, Remove Tan, Freckles, etc.—Lemon juice and glycerine, equal parts, say 1 oz. of each, will not only soften the hands,



LIVERWORT.

(See Description)

This herb is useful in Liver Complaints, Indigestion, Hypochondria, etc.



BETHROOT.

(See Description)

Useful in Hemorrhages, Lung Diseases, Asthma, Cough, Leucorrhœa, Ulcers, Carbuncles, Snake Bites, etc.



BLACK COHOSH.

(See Description)

Useful in Confinement, Disorders of Menstruation, Rheumatism and Bowel Complaints.

but will remove tan, or sun-burn, and also freckles, by frequent applications. For freckles, however, I should add $\frac{1}{2}$ to 1 dr. of powdered borax, which will not injure it for the other purposes. (See moles, freckles, pimples, etc.)

3. Face or Toilet Wash, in Place of Powders.—Although this can hardly be called a medicine, yet it seems to me to be the appropriate place for it, in connection with the preparations for chapped lips, hands, etc., so I give it a place here, knowing it to be just what many ladies, who have lost the naturally delicate tint of health by the cares and labors of the household, or by sickness, will be desirous to make use of, as I know there is nothing in it that will in any manner injure the skin. Finest prepared chalk, 1 oz.; cologne and alcohol, each $2\frac{1}{2}$ ozs.; distilled water, $1\frac{1}{2}$ ozs.; glycerine, $\frac{1}{2}$ oz.; ex. of heliotrope, 1 dr. Triturate, or rub the chalk, thoroughly in about 1 oz. of the spirits, then mix all together. DIRECTIONS—Shake the bottle well, then apply with a soft sponge or soft cloth, and allow to dry; then with the cloth remove the chalk from the face, to suit the complexion, or your taste. If too much is left on it will appear deadly white, rather than lively and natural. If properly used, as I have seen it, it is indeed very nice.

1. NERVOUSNESS AND SLEEPLESSNESS.—New and Successful Remedy.—Wm. A. Hammond, M. D., states that he has recently used the bromide of calcium (lime, from the Latin *calx*, lime), in a number of cases in which the bromides were indicated, and is satisfied of its great efficacy. He says:

“The dose is from 15 to 30 grs. or more for an adult. It is especially useful in those cases in which speedy action is desirable, as, owing to its instability, the bromine is readily set free, and its peculiar action on the organism obtained more promptly than when either of the other bromides is administered. Chief among these effects is its hypnotic (sleep producing) influence, and hence the bromide of calcium is particularly beneficial in cases of delirium tremens, or in the insomnia (inability to sleep) resulting from intense mental labor or excitement.

“I gave a single dose of 30 grains of this to a gentleman, who, owing to business anxieties, had not slept for several nights, and who was in a state of great excitement. He soon fell into a sound sleep, which lasted for 7 hours. The next night, as he was wakeful, I gave him a like dose of bromide of potassium, but it was without effect, and he remained awake the whole night. The subsequent night he was as indisposed to sleep as he had ever been, but a dose of 30 grains of bromide of calcium gave him 8 hours sound sleep, and he awoke refreshed with all unpleasant cerebral (head) symptoms—pain, vertigo, and confusion of ideas—entirely gone.

“In a number of other instances a single dose has sufficed to induce sleep—a result which very rarely follows the administration of one dose of any of the other bromides. [Then, of course, it is better than the others, as formerly used.]

“In those exhausted conditions of the nervous system attended with great irritability, such as are frequently met with in hysterical women, and which are indicated by headache, vertigo, insomnia and a mental condition of extreme excitement, bromide of calcium has proved in my hands of decided service. Combined with the syrup of the lacto-phosphate (milky phosphate) of lime, it scarcely leaves anything to be desired. An eligible formula is: Bromide of calcium (lime), 1 oz.; syrup of lacto-phosphate of lime, 4 ozs.; mix. DOSE—A tea-spoonful 3 times a day in a little water.

"In epilepsy I have thus far seen no reason for preferring it to the bromide of potassium or sodium, except in those cases in which the paroxysms are very frequent, or in cases occurring in very young infants; of these latter, several which had previously resisted the bromide of potassium, have yielded to the bromide of calcium. It does not appear to cause acne (a pustular affection of the skin) to anything like the extent of the bromide of potassium or sodium." *New York Medical Journal.*

2. Sleeplessness, Simple Remedy, but Successful With Many.—For those troubled with sleeplessness from literary labor, or other disturbances of the nervous system, a writer of experience says, "Just before retiring eat 2 or 3 small raw onions, with a little bread, lightly spread with fresh butter, which will produce the desired effect, saving the stupefying action of drugs."

Remarks.—This plan of eating raw onions has not only been satisfactorily tried to obtain sleep, but eating them once or twice daily with the meals has also proved valuable to those troubled with dyspepsia.

3. Wooing Morpheus—The God of Sleep or Dreams.—Wet half a towel, apply it to the back of the neck, pressing it upward to the base of the brain, and fasten the dry half of the towel over so as to prevent the too rapid evaporation. The effect is prompt and charming, cooling the brain and inducing calmer, sweeter sleep than any narcotic. Warm water may be used, though most persons prefer cold. To those suffering from over excitement of the brain, whether the result of brain work or pressing anxiety, this simple remedy is an especial boon.

4. Sleep, Amount Needed by Different Persons.—It has been found that tall and corpulent persons require more sleep than those of thin and spare habit of body. In health, generally, from 6 to 8 hours of sleep are required to restore the nervous energy exhausted by the labors of the day. At first, upon retiring, always lie upon the right side, to allow the easier and more ready passage of the food, as digested, from the stomach; and especially eat nothing heavy and hard to digest at supper—a light supper is far preferable and absolutely necessary to enjoy good health. If half sick, or debilitated persons can take 9 hours sleep it will be all the better for them.

5. Sleep as a Medicine.—A physician says: The cry for rest (sleep) has always been louder than the cry for food. Not that it is more important, but that it is often harder to obtain. The best rest comes from sound sleep. Of two men and women, otherwise equal, the one who sleeps the best will be the most moral, healthy, and efficient. Sleep will do much to cure irritability of temper, peevishness and uneasiness. It will restore to vigor an over-worked brain. It will build up and make strong a weary body. It will cure a head ache. It will cure a broken spirit. It will cure sorrow. Indeed, we might make a long list of nervous and other maladies that sleep will cure. The cure of sleeplessness requires a clean, good bed, sufficient exercise to produce weariness, pleasant occupation, good air, and avoidance of stimulants and narcotics. For those who are over worked, haggard, nervous, who pass sleepless nights, we recommend the adoption of such habits as shall secure sleep, otherwise life will be short, and what there is of it sadly imperfect.

Remarks.—It is claimed by many scientific men that it is best to always lie with the head to the north, on account of the fact—a supposed fact, at least,—that there is an electric current passing through the system when one is lying down, whether awake or asleep, and that its influence is best with the head to the north. Invalids, at least, had better do it, if the situation of their room will allow it. Lying with the head a little the highest prevents considerably the flow of blood to the head, and, therefore, induces sleep. A hot foot-bath, with mustard in it, on retiring, draws the blood from the head and aids in getting sleep, and sponging the whole length of the spine with hot water for 15 minutes just before going to bed often ensures a good night's sleep; active exercise in the open air, or a brisk walk, are great helps to this end—procuring a good night's sleep; but opium, chloral, or spirits of any kind, only tend to sleeplessness, rather than sleep, hence should never be resorted to, from the danger of establishing a habit which can not be overcome. It has been generally believed that fish furnished a large amount of brain food, or phosphorus; but this, of late, is considered to be an error, as it is now believed they do not have any excess of phosphorus over other animals. From the length this subject has reached, I trust I may be excused for closing it with an item to amuse rather than for any particular benefit which may be derived from it; yet, in one sense, it may do good to that class of persons who consider fun better than physic, and hence I trust that the subject of “brain tissue,” as put forth by the *Springfield Republican* below, under the head of “Fun better than Physic,” will be read with satisfaction. It says:

- “There is a party, fat and stout
 As any Turk on Bosphorus,
 Who at our dinner table sits,
 And ne'er his babble intermits,
 But prates of mush and wheaten grits,
 And 'mean amount of phosphorus.'”
- “He always airs his favorite theme,
 Nor cares a penny's toss for us,
 But rails at beef with 'Pooh!' and 'Pish!'
 And calls for cod and other fish,
 Hoping to gain—his dearest wish—
 ‘The mean amount of phosphorus.’”
- “Oh! that he'd change his boarding place—
 'Twould surely be no loss for us—
 But there's one consolation yet,
 His star, ascendant, soon will set,
 Some time he'll die, and then he'll get
 ‘His full amount of phosphorus.’”

1. **CROUP.**—**Instantaneous Relief—Internal Remedy.**—It is claimed that alum and sugar will cure croup in one minute, by shaving or grating off 1 tea-spoonful of the alum and mixing it with twice as much sugar, and giving it at once, the relief being almost instantaneous. Half these amounts may be repeated once or twice, $\frac{1}{2}$ hour apart, if the relief is not permanent.

2. Croup, External Remedy.—Saturating (thoroughly wetting) flannel with spirits of turpentine, and placing upon the throat and chest, has the credit of being a sovereign remedy, *i. e.*, effectual in controlling the disease. If considerable distress is manifested when the child wakes up, and after the flannel has been applied a few minutes, 3 to 5 drops of turpentine may be given on a lump of sugar. Every family should keep turpentine in the house.

3. Croup, Emetic for.—If the foregoing fail in any case, an emetic may be given, of fl. ex. of ipecac, 5 or 6 drops, every 5 or 6 minutes, for a child of 4 years, giving warm water after 2 or 3 doses have been given, continuing the fluid extract as at first, until vomiting takes place, which will occur generally by the time 5 or 6 doses have been taken; a little more, or a little less, for older or younger children.

4. Croup, Instantaneous Emetic for.—Two tea-spoonfuls of mustard mixed in 3 or 4 table-spoonfuls of warm water, for a child with croup, relieves at once by causing vomiting. A tea-spoonful of lard warmed and given is also said to be an instantaneous emetic. Either may be repeated if necessary.

5. Croup, Onions a Sure Cure for.—A lady who speaks from experience, says: That probably 9 children out of 10 who die of croup might be saved by the timely application of roasted onions, mashed and laid upon a napkin, and a small quantity of goose oil, sweet oil, or even lard, put on and applied as hot as can be borne comfortably to the throat and upper part of the chest, and to the feet and hands.

Remarks.—The application of the roasted onions, with only a little oil upon them, to the throat and upper part of the breast, will be very good; but, upon the feet and hands I should not apply any oil, as the object there is to draw the blood to these extremities, and hence it will be more drawing without the oil. Use such internal remedies also as the case seems to demand, and as are at hand. See the use of the juice of onions with sugar (making an onion syrup), for internal use in children's colds. I have no doubt of its value for croup, as well as colds and coughs.

6. Croup, Instant Relief for.—Dr. Bachelder, in the *Journal of Chemistry*, says: "Croup is relieved instantly with a solution of hydrochloric (muriatic) acid, about the strength of cider vinegar." This would be about $\frac{1}{4}$ oz. of the muriatic acid, as now more generally called, to 4 ozs. of water. It is often used as a gargle of this strength for elongated palate, sore mouth and sore throat in scarlet fever, etc. The doctor adds: "As far as my experience goes, this acid solution stops all morbid development in the throat as surely as the hoe will stop pig weeds on a hot, sunny day. Apply it to the throat with a brush or sponge, or use as a gargle, if the child is old enough."

7. Croup, Preventive of.—For children who have a tendency to croup, or throat difficulties, get a piece of chamois skin, make it like a little bib, cut out the neck and sew on tapes to tie it on; then melt together some tallow and pine pitch, rub some of this in the chamois, and let the child wear it all the time. Renew this with the mixture occasionally.

Remarks.—This will be found very valuable, as it will prevent the penetra-

tion of wind to the breast, keep the parts warm, and also impart the medical properties of the pitch, by absorption, to the system. About equal parts of tallow and pitch will be proper, or tallow enough to prevent it from sticking to the skin, as common plasters do.

8. Croup, Diphtheria and Sore Throat, to Avert.—The New York *Evening Post* recently made the following sensible remarks upon the necessity of watching the childrens feet. It says:

“A life-long discomfort or a sudden death, often come to children through the inattention or carelessness of the parents. A child should never be allowed to go to sleep with cold feet; the thing to be last attended to is to see that the feet are dry and warm. Neglect of this has often resulted in dangerous attacks of croup, diphtheria or a fatal sore throat. Always on coming from school, on entering the house from a visit or errand in rainy, muddy or thawy weather, the child should remove its shoes, and the mother should herself ascertain whether the stockings are the least damp. If they are, they should be taken off, the feet held before the fire and rubbed with the hands till perfectly dry, and another pair of stockings and another pair of shoes put on. The reserve shoes and stockings should be kept where they are dry, so as to be ready for use on a minute’s notice.”

1. HEADACHE, TO CURE.—Take a quart bottle and nearly fill it with water, then put in spirits of hartshorn and spirits of camphor, each 1 oz., and 1 table-spoonful of salt; shake well to dissolve the salt; then wet cloths with this and apply to the head, and renew as often as they become hot until relieved. If the stomach is sour, causing the headache, taking a little bi-carbonate of soda (baking soda) in water, may help in its cure.

2. Sick Headache, Tea and Coffee Often the Cause.—A distinguished doctor of New York, a man of wide experience, says of sick headache:

“Not a case of this disease has ever occurred within my knowledge, except with the drinkers of narcotic drinks (referring to tea and coffee), and not a case has failed of being cured on the entire renunciation of those drinks. Whatever may be said of the violations of physical law in other respects, tea and coffee may claim sick headache as their highly-favored representative.”

Dr. Alcott, in writing on this subject, says: “We are driven to the conclusion that no person can use the smallest quantity of tea or coffee, or, in fact, of any drink but pure water, without more or less deranging the action of the stomach and liver, and ultimately, through these, the nerves and brain, of the whole system. Nay, we are driven to a position stronger still, which is, that no person can take these poisons at all, without, in a greater or less degree, abridging human happiness and human life.”—*Christian Advocate*.

Remarks.—That the above is the general opinion of our best physicians, and other scientific men, there is not a doubt. For my own part I know that the giving up of tea and coffee, and substituting half milk, and half water, for a few weeks at one time, did me much good. For great lovers of tea and coffee, among my patients, I have insisted that they take them of only half the usual strength, especially with those who have frequent headaches, and I claim it would be better for all; but I do believe that some warm drink, for general use, and taking tea or coffee of half the usual strength, as I now do, may be allowed, if not more than one cup is taken at a meal.

3. Headache and Toothache, Ely's Magic Remedy for.—Alcohol, the best, 8 ozs. : aqua ammonia, 2 ozs. ; English oil of lavender, 1 dr. ; camphor gum, $\frac{1}{2}$ oz. ; chloroform, 1 oz. ; sulphuric ether, $\frac{1}{2}$ oz. ; spirits of turpentine, 1 dr. ; mix. DIRECTIONS—Smell it, changing from nostril to nostril, for a few minutes, and also bathe the head with it. Keep this up a short time, or until relieved, which must be quickly.

For Toothache.—Put cotton wet with it into the tooth, and also apply around the gums and front of ears, where the nerves pass near the surface. It is really magical in its action. Keep the finger over the bottle when not inhaling, as it is quite evaporative.

4. Headache, Heartburn, etc., Remedy.—A tea-spoonful of bicarbonate of soda (baking soda) in 3 or 4 table-spoonfuls of peppermint, or cinnamon water, with $\frac{1}{2}$ tea-spoonful of powdered ginger, or a little essence of Jamaica ginger added, and taken immediately after each meal, will generally remedy this in a few days. A dose of this, and repeated in an hour, will be good in headache arising from acidity of the stomach. If the regularly prepared water (cinnamon or peppermint) are not on hand, put $\frac{1}{2}$ tea-spoonful of either of the essences in water, with the powdered ginger, or essence of ginger and the soda; or plain water will do, only not quite so pleasant.

5. Heart Burn, Remedy for.—Magnesia, $\frac{3}{4}$ oz. ; pulverized Turkish rhubarb, 1 dr. ; cinnamon water, 1 oz. ; distilled, or soft water, 4 ozs. ; spirits of lavender, 1 dr. DOSE—A table-spoonful half an hour after each meal.

Heart, Palpitation of, Fluttering, etc., Remedies.—When persons become weak and feeble, from whatever cause, there is often a palpitation or fluttering of the heart, as many call it, from this weakness. In such cases take any of our good alteratives and tonics to improve the condition of the system, as per directions; and besides this obtain fl. ex. of *cereus bonplandi* (a species of the cactus), $\frac{1}{2}$ oz. DOSE—Take 10 drops, at bed-time only, in a little water, and generally relief will be realized soon and the cure permanent. At least, I have so proved it. Continue to use the tonic remedies as long as needed.

7. Heart Disease, the Value of Buttermilk.—In diseases of the heart the French claim that buttermilk is invaluable; as the lactic acid in it dissolves and prevents ossification (bone-like condition) of the valves, arteries, cartilages, etc. (Note 25, p. 791.)

Remarks.—It is worthy of a trial, and no doubt will prove valuable if continued faithfully for several months.

1. CASTOR OIL—Its Nauseous and Disgusting Taste Overcome.—I. A little glycerine (half the amount of the castor oil) mixed with castor oil, and 5 to 10 drops of any of the aromatic oils, as sassafrass, winter green, etc., put into the dose, the natural taste of the oil will scarcely be perceived; or,

II. Take the juice of a lemon or two, put a few drops of essence of cinnamon into it. Heat the oil and stir into the lemon juice, which forms an emulsion, and almost wholly covers the taste of the oil.

2. Castor Oil Custard.—Prof. King says: “I find it a very pleasant mode of administration, to boil the dose of oil with about a gill of sweet milk for a few minutes, sweeten with loaf sugar, and flavor with essence of cinnamon or other favorite aromatic; it somewhat resembles custard in its taste and appearance, and is readily taken by even the most delicate stomach.”

Remarks.—This is certainly very desirable with children and delicate females, for whom it is often the best cathartic which can be given.

1. CONSUMPTION, TROUBLESOME COUGH IN—Syrup and Tincture as Used in Charity Hospital, New York.—I. Cough syrup: Bromide of potassium, chlorate of potassium, muriate of ammonia, each, $1\frac{1}{4}$ drs.; syrup of tolu, 4 oz.; mix. Dose—One table-spoonful every 2 or 3 hours.

II. Cough Tincture: Paregoric, 1 oz.; tincture belladonna, 1 dr.; tincture of *hyoscyamus*, 2 drs.; compound spirits lavender, 1 dr.; mix. Dose—Ten drops on a lump of loaf sugar every hour until cough is relieved.

Remarks.—For the hacking, or continuous coughing of patients far gone with consumption, either of these will be found satisfactory. But as prevention is better than cure for those who are liable to have consumption, but have not got it fastened upon them yet, I will give the rules of the celebrated Dr. S. S. Fitch, of New York, for its prevention, as they are certainly valuable and ought to be heeded by every one. He claims an absolute preventive in all cases and all persons, but as his rules are so very strict, if they are lived up to, they will certainly do much to prevent the establishment of this disease. They are as follows:

2. Pulmonary Consumption—Absolute Prevention of—Dr. S. S. Fitch's Rules for.—He says: “There is no disease to which we are liable that is so preventable as consumption. It is absolutely preventable in all cases and all persons.

I. “From earliest childhood stand erect, walk erect, sit erect, never stoop, always let the weight of the shoulders fall behind you.

II. “Keep your chest fully expanded by taking constantly, all your life long, full breaths so as to fully expand your chest. Do this at all times. Remember you can not have consumption until your chest shrinks in size, either wholly or partially; so if you keep your chest flexible and constantly expanded you will be safe from consumption. (Note 26, p. 791.)

III. “Never let a cold run on you. Break it at once by taking active physic and cough medicines, and putting your feet at bedtime in hot water; keep them in until you get in a perspiration, and then go to bed and keep up the perspiration with hot drinks (Thompson's old “Composition Tea” is one of the best to use to start perspiration; hot lemonade is good, too); then take a portion of physic, and the next day your cold will be well. By pursuing this course for a length of time you get out of the habit of taking cold, and will rarely take one. Always continue your treatment until your cold is well.

IV. “Avoid all debauching courses that weaken and reduce your constitution, such as soaking with liquor and actual drunkenness and dissipation of all

kinds and gluttony and late night exposures. In fact, lead an honest, orderly life, free from vice and every dissipation, your health will then be equal, regular and constant, and your life a long and happy one.

V. "Keep your bowels always free by habit, diet or purgatives."

Remarks.—If these rules are strictly enforced, by parents, with their children, when small, and by themselves, as soon as they can be made to understand their importance, very much will be done to improve the general health, as well as to prevent consumption. None are too old to take counsel from Rules IV. and V., and I might say also from Rule III.

3. Consumption Cured After Twelve Years' Suffering, Living About Sixty Years After the Cure.—The transactions of the Connecticut State Medical Society contains the following paper from Professor S. G. Hubbard, of New Haven, in relation to the cure of the late Rev. Jeremiah Day, former President of Yale College, of tubercular consumption. He says: "President Day, during early life, gave little promise of long life, and when, in 1789, in his 17th year, he entered Yale College, he was soon compelled to leave by pulmonary difficulty. He rallied, however, and was able to finish the course and graduate in 1795. He was very feeble, however, for many years. He became a clergyman, and in 1801 was elected Professor of Mathematics and Natural History in the college. But he could not undertake the duties. An alarming hemorrhage of the lungs prostrated him, which was treated learnedly by bleedings copious enough to have charmed even Dr. Sangrado. He went to Bermuda, where he was plied with digitalis to such an extent as almost to take what little life he had left. He came back to his native town, Washington, Conn., to die.

"He suffered from continued hemorrhage and repeated venesections (bleedings), which was 'all the go' at that time with the allopaths, for almost every disease. He met Dr. Sheldon, of Litchfield, who had made the treatment with iron a hobby, and who expressed a belief that Mr. Day could be helped. Though the case was regarded as hopeless, the patient was placed under the care of Dr. Sheldon, who treated him with iron and calisaya (Peruvian) bark, feeding him carefully with wholesome food. Under this regimen he soon exhibited symptoms of improvement and finally, in 1803, returned home as one restored from the dead, in sufficient vigor to be inaugurated in the Professorship. He never afterwards exhibited symptoms of pulmonary disease, although he had been affected by it for more than twelve years. He lived till August, 1867, and was 95 years old at the time of his death. The cavity of the thorax was examined to ascertain the traces of his former malady. The lungs were everywhere free from tubercles and were apparently healthy. In the apex (top) of each lung was found a dense corrugated (wrinkled) circular cicatrix (hardened scar) an inch and a half or more in diameter; also a third circular cicatrix (a scar as if remaining from a wound) on the left side of the left lung, a few inches below the apex (top), each involving such a depth of tissue as to indicate that the *vomicæ* (abscess, or hole from ulceration), of which they were the remains, had been large and of long duration. Both lungs were slightly adherent at the apex.

“Here, then,” remarks Prof. Hubbard, “was all that remained to mark the beginning, progress and cure of a case of tubercular consumption, occupying twelve years in its period of activity. A legible record surpassing in interest and importance, to the human race, those of the slabs of Nineveh or the Punic inscriptions.”—*Peninsular Courier* (Ann Arbor, Mich., Oct. 1st, 1885.)

Remarks.—This publication in the *Courier* was within about a year of the death of President Day. The paper having been prepared by Prof. Hubbard soon after the president's death, and published in one of the New Haven papers, from which I obtained it, as I, at that time, published the *Courier*. And in looking over the bound volume of that year, after commencing to write this book, I was so forcibly struck with the “Medical Incident,” as the paper was originally headed, I wrote to Prof. Hubbard to see if I could ascertain anything more definite as to Dr. Sheldon's treatment of the case. The professor answered my letter by saying, so far as he knew, “there was no record of the prescription or any part of the treatment.” But, thinking it possible that there might be some one in Litchfield—Dr. Sheldon's home—who might have some knowledge of it, I wrote to the postmaster there, and found a Mrs. Lucy Beach, a daughter of Dr. Sheldon—the doctor having also passed away,—but there was no further knowledge to be obtained, no record having been made of the treatment. And all I can say further is, if iron and Peruvian bark would and did (of which I have not a doubt) cure President Day, it—the combination, properly made—will cure others. The compound tinct. of Peruvian bark, 1 pt., into which put pyrophosphate of iron, 2 drs., taken in 1 to 2 table-spoonful doses, just before or just after meals and at bed-time, will fill the bill, and I have not a doubt will cure very many cases, especially if the careful feeding with wholesome food is properly attended to, as Dr. Sheldon above indicates he did with President Day, to which I should add plenty of out-door exercise, with every other needed care of the general system. But remember that in President Day's case it took two years to accomplish the cure. So don't get discouraged and give it up for one year, at least. There is now a proprietary, or patent medicine kept by druggists, known as Elixir of Calisaya (which is Peruvian bark) and Iron, that may answer all purposes. It was not made in Dr. Sheldon's time. I have often recommended its use for frail and weakly females, and always with success. Still, I should prefer the compound tinct. of the bark and iron above directed, if the tincture has 2 ozs. of the unground red Peruvian bark used in making each pint. The bark should be coarsely ground or bruised when made. What I mean is that the powdered or ground bark kept by druggists must not be used, as it is generally made of inferior kinds of bark, and is also often adulterated by mixing other cheap things with it, so much so, at least, that it can not be depended upon.

4. **Consumption, New French Remedy for.**—M. J. Guyot informs the profession that the phosphate of lime, in the colliquative (rapidly exhausting) night sweats of consumptives, is not only almost a specific (positive cure), but tends also to improve the general health. **DOSE**—From 30 to 40 grs. in a little sweetened water, at night.

5. Consumption, a New Discovery and Cure, by Crude Petroleum.—Dr. M. M. Griffith, of Bradford, Pa., claims that out of 25 cases of well-marked consumption, treated by small doses of the crude petroleum, 20 are, to all means of diagnosis, cured; the rest have been materially benefited, and none have been under treatment more than 4 months. The nausea attending the use of ordinary crude petroleum led him to adopt the semi-solid oil that forms on the tubing of wells. **METHOD OF USING**—This made into from 3 to 5 gr. pills by incorporating an inert vegetable powder, was administered from 3 to 5 times a day in 1 pill doses. The first effect, he says, is the disappearance of the cough; night sweats are relieved, appetite improves, and weight is rapidly gained. These favorable symptoms continue until the patient is entirely recovered.

Remarks.—If half of what Dr. Griffith claims shall prove true, generally, he has indeed made a valuable discovery. I hope, as the *Scientific American* remarks, that Dr. Griffith has not mistaken some self-limiting phase of throat or bronchial disease for true consumption of the lungs; also, that continued trial of the alleged remedy will justify the high opinion he has formed in regard to its efficacy.

6. Consumption, a Substitute for Cod Liver Oil.—According to the *New York Medical Journal* Dr. Thomas A. Emmet, in his recent work on the "Principles and Practice of Gynecology," (of the nature and diseases of women) recommends the fat of pork, properly prepared, as a substitute for cod liver oil, in consumption. To prepare it, he says: A portion from the rib, free of lean, is to be boiled slowly^b (the water being often changed) until the meat is thoroughly cooked. To be eaten cold, in the form of sandwiches.

Remarks.—He does not inform us whether mustard may be used to give them a relish or not; but certainly a very small amount can do no harm; and for my life, I cannot see why fat pork, so cooked, and thinly sliced, may not be as good, I really believe better, than the nasty, disagreeable, sickening cod liver oil. My substitute is $\frac{1}{3}$ pt. of fresh cream, with 1 table-spoonful of brandy, or good whiskey in it, in place of cod liver oil. I direct this amount just before each meal. Make a part of the meal of the fat pork sandwiches too, if you like, or take the following, as you judge best; as some would not, and others could not eat fat pork.

7. Consumption, a More Recent Substitute for Cod Liver Oil.—It has been long known that whiskey has not only appeared, at least, to have lengthened the life of many consumptive patients, but also to have cured many. Then why is not the following combination an excellent substitute for codliver oil? I think it is a hundred per cent. better. Pure olive oil, 6 ozs.; strained honey, 4 ozs.; good (that is, not poor rot-gut) whiskey, 1 pt.; Shake when taken. **DOSE**—Take 1 to 2 table-spoonfuls just as you sit down to each meal.

Remarks.—I have used this personally in a continuous cough arising from having taken a very bad cold, and have also given it to others, consumptives, with very satisfactory results. It may not be an absolute cure, but with other

proper tonics and supportive treatment, it will surprise those who try it, if not already past the reach of benefit from any medical treatment. (See Chronic Diarrhea, "Muscovite," or Raw-Beef Cure for, to obtain nourishment in very feeble and debilitated cases.)

8. Consumption Cure, by Simple Home Means, if Taken in the Beginning.—Mary Maybee, of Farmington, Conn., says: "Take 1 pt. of vinegar, 1 table-spoonful of tar, boil 15 minutes, Dose—Take 2 table-spoonfuls every time you cough."

Remarks.— "Maybe" it will cure the difficulty. Certainly it will be found good for common coughs; and some of these "simple means" are astonishing in their effects, if persevered with. Our American people change too quickly, hoping for something better. Stick to a good thing as long as there is a perceptible benefit.

9. Consumption—Climatic Changes are Believed to Have Much to do in its Cure.—Dr. Talbot Jones, in a communication to the New York *Medical Journal*, says there are 3,000,000 of persons who die annually of consumption; and also says that the medical resources are baffled by this disease and confesses "that climate is the physician's only dependence for the cure of his consumptive patient." He makes the following statements in relation to the disease:

I. "No zone enjoys entire immunity from pulmonary consumption.

II. "The popular belief that phthisis (consumption) is common in cold climates is fallacious, and the idea, now so prevalent, that phthisis is rare in warm climates is as untrue as dangerous.

III. "The disease causes a large proportion of deaths on the sea-shore, the mortality diminishing with elevation up to a certain point.

IV. "Altitude is inimical (opposed) to the development of consumption, owing chiefly to the greater purity of the atmosphere in elevated situations, its freedom from organic matter, and its richness in ozone. [This agrees with my own opinion, that high and dry situations, especially rolling and, consequently, dry pine lands, are the best places to take up a residence in if one has to change at all.]

V. "Moisture arising from a clay soil, due to evaporation, is one of the most influential factors in its production.

VI. "Dampness of the atmosphere, from whatever cause, or in any altitude, predisposes to the development of the disease, and is hurtful to those already attacked.

VII. "Dryness is a quality of the atmosphere of decided value.

VIII. "The most unfavorable climate possible for a consumptive is one of uniform high temperature and a high dew point (warm and moist).

IX. "The effects, due to change in the atmosphere, are by no means so pernicious as are generally supposed, and on this subject present views require modification."

Remarks.—Dr. Jones commends the climate of Minnesota for those predisposed to consumption, or laboring under its first stages, and thinks "that a residence there would be very likely to cure or materially benefit them," and adds: "Between the pleasant rolling prairie, the wooded lake region, and the dense pine forests of the northern section of the state, they can choose what seems most agreeable and best adapted to them, while the dry, bracing atmos-

phere will enable them to live much of their time out of doors without fear of taking cold." He insists, however, as I have always done, that "'tis no use to send patients thither who are in the advanced stages of the disease." And this I know to be a fact. Some physicians think Colorado or Florida, New Mexico or Texas or Aiken, S. C., or Ashville, N. C., to be preferable places, whether it be consumption or bronchitis, with loss of voice, etc.

The following items by E. R. Ellis, M. D., in the *Detroit News*, in November, 1880, are so sensible and so pertinent to the subject, as to the climate of Michigan or Texas for consumptives, I give it in full. He says:

10. Texas for Invalids or Consumptives.—"The cold and bleak winds of winter, now so fast approaching, impel me to say a few words to a class of invalids now quite numerous in our state, which your paper may reach. The list of deaths from consumption and other debilitating diseases, while not large in Michigan, does every year include a few in every community.

"While there is no way known to remedy all this mortality, yet a large share of it is avoidable. This last consists in a change of climate. For some years I have given this matter considerable attention, and am satisfied that there is no locality in the United States, and perhaps not on the western hemisphere, equal to the highlands of central and southwestern Texas.

"The climate there is dry, mild and salubrious. The elevation takes one above the damps and fog which are so fatal in Florida and on the sea coasts generally. Incidentally I might say that there is nothing more fatal to human life in any country than the near presence of marshes or lowlands, where fog settles, or where dampness collects, as it does in many habitations which are too much shaded with trees and shrubbery. In such houses the physician encounters an odor of mildew, and its intensity determines the activity of his business at that place. I should estimate that there are two or three thousand invalids now in this state who would be cured or greatly benefited by a temporary or permanent residence in Texas. If we have a severe winter and they attempt to remain here, by the end of March next, three-fourths of them will be 'chirping with the angels;' and while they make rich harvest for doctors with their tonics, syrups, elixirs, inhalations, etc., one-fourth of them only will survive, and not many of these fully cured. A removal to Texas will cure or greatly benefit three-fourths, which makes an amazing difference in mortuary results.

"It is lamentable that the pecuniary condition of many will not permit their removal, but many others are blessed with wealth and will gladly do whatever will prolong their life or that of their dear ones. Consider well the matter before it is too late, and act promptly.

"Physicians are usually, and sometimes excusably, reluctant to advise invalids to go away from home and friends, and thus the matter is delayed until a fatal result is inevitable.

"But every consumptive patient of mature years may know this for himself. If, in spite of the favorable weather of summer and autumn, he is declining with increased cough and shortness of breath, and occasional spitting of blood, his condition is alarming. He should change his physician or climate, or both, immediately.

"If, with the above, his pulse is habitually up to or over 100 in a minute, a destructive process is going on, which, in this climate, the most skillful physician can arrest in not more than one case in four.

"In all such cases go south at once, if not too far gone already. The quack here will encourage you to stay and make you brilliant promises up to the time of your death, but it is your own loss and folly if you believe him."

11. Where to go to in Texas.—As to the best place to go to in Texas, A. G. Hayson, M. D., of Minden, La., in *Medical Brief*, '83, page 508, says to the editor:

"If 'F. H. G.' (a man who previously inquired through the *Journal*) will go 80 miles west of San Antonio, Tex., he will find a beautiful valley lying in the gap of the mountains, with an average width of 4 miles by 18 long. This valley, or 'Sabinal Canyon,' as it is called there, has gushing mountain springs and bright, clear running streams that never go dry. I met there, in 1875, two gentlemen who had, previous to going there, pulmonary hemorrhage. Both seemed to be in perfect health, and so expressed themselves.

"This canyon, with its pure-aired atmosphere, its mountain scenery, with beautiful stretches of prairie and timber, and here and there, standing alone in the distance, knots of live oak and pecan, make it one of the most beautiful as well as romantic places I have ever seen. I do not think a better place for consumptives can be found." Another physician, B. F. Rowls, M. D., writes to the same journal, from Union, S. C., and directs attention of physicians to western North Carolina, "known," he says, "as the land of the sky, Ashville being the principal town in the vicinity, which is 2,250 feet above the level of the sea. This climate is one of inestimable value in the disease, consumption. Very dry, and neither the heat of summer nor the cold of winter is at all unbeneficial to the patient." Just such a place is wanted by invalids with any disease; then, persons in the eastern or northeastern States can take this place, Aiken, S. C., or Florida; while those of Michigan and the northwest or western States can take the San Antonio section of Texas, or go on to Los Angeles, or San Antonio, in the southwestern part of California, if they choose, and enter into the culture of oranges, lemons, etc., as a friend of mine did, and regained his health. Let there be no confusion about the two San Antonios spoken of; that in California is in Monterey county, and the other is the county seat of Bexar county, Texas.

12. An Alabama Physician's Idea of the Best Place for Consumptives to go to.—I learn from O. F. Harrell, M. D., also given in the *Brief*, that he considers Healing Springs, Ala., where he now lives, or in that neighborhood, which is a ridge of considerable extent, and heavily timbered with pine, to be the best place for those to go who have a tendency to, or actual consumption. The land, being unsuited to farming is now an almost unbroken turpentine orchard, giving employment to many hundred people engaged in this industry. "Along this elevation," he says, "commencing at Citronville, Ala., and going northward 40 or 50 miles, I believe to be the best location for consumptives, or for persons predisposed thereto, in the United

States." Dr. Harrell then went on and gave a history of his own case and the reason for the faith that was in him, *i. e.*, as to the region of Healing Springs being the best place for consumptives to go, as he was predisposed to it from his mother, who died with this disease. While the doctor was engaged in active practice in 1863 he had to give up, was confined to his room, and all his professional brethren pronounced his case to be a clearly-defined, well-developed case of tuberculosis—consumption. From this on it was a struggle with him for life. In his efforts to find a location—after rallying in 1864—suited to his condition, he says:

"I have been made familiar, I believe, with all the states embraced in the area of New York on the north and east, Missouri on the west and Florida on the south. In the winter of '79 I went to Florida, where, after a stay of two years, I was much worse than when I went there." [The author will state here, what he afterward learned by letter, that he spent these two years on Pensacola bay, which is a low section of the state like St. Johns river, Fla., neither of which sections, nor any other low places along any of the rivers, should any one allow himself to remain in, but get to the highest and driest pine sections he can find, as mentioned further on.] "In the winter of '81-'82, with a distressing and uncontrollable cough, profuse, purulent expectoration and frequent (sometimes daily) hemorrhages from the lungs, I was finally brought to my bed again, upon which I was brought to this country in February, '82. Since I arrived here I have steadily improved in health, and gained in flesh from 125 to 160 pounds.

"I have never had a hemorrhage since I came here, and with almost a complete absence of the cough and expectoration, I think I can claim that the country has restored me; relieved me not only of my lung trouble, but also cured me of an obstinate vesical catarrh (catarrh or chronic inflammation of the bladder), from which I have greatly suffered for more than 20 years. For the relief of the latter disease, however, it is perhaps proper that I should give credit, in part, at least, to the waters, of which I have drank here."

Remarks.—He says there is no malaria there, referring to an inquiry as to a "place that was free from it." In conclusion he says: "I do think that a large majority of persons suffering with this disease (consumption)," or in whom there may be a predisposition to it, would find relief here." So it seems to the author; and possibly some persons who are not very bad, and yet have not large means, might find employment in the turpentine orchards of that section, or start it up for themselves, so as to stay among the pine hills, at all events. Dr. Harrell's town, Healing Springs, has a charm in its name that leads me to hope that every one who may go into this region of country will derive a great advantage from it. I will only add here, let whoever goes into this, or any other section, ramble as much as possible among the pine forests, for they certainly have an advantage over those places where there is no pine, as I fully believe.

13. Places in Florida Where Consumptives May Visit.—Any place in Pensacola bay, or upon the streams emptying into that bay, or any of the towns along the St. Johns river, are but very little above the sea



BLOOD ROOT

(See Description)

This herb is used internally as a Tonic or Emetic, and is applied externally to Ulcers, Ringworm and Ill-conditioned Sores.

level, and, consequently, must be damp and foggy, and not the sections that consumptives should locate in; but there are sections which, although hilly, like some other states, are sufficiently rolling and timbered with pine, which makes them far better to locate in for those seeking health.

I. Such a place is Brockville, the county seat of Hernando county, which I see spoken of by a lady who has been there, and reported through the *Free Press*, of Detroit. She says of this section: "It is said to be a splendid country to cure even bad tempers. Chronic grumblers (referring to those who had complained of Jacksonville and the low country along the St. Johns river) have been here, to succumb under the combined influences of balmy air, moonlight and orange flowers."

How to Reach Brockville.—Take a boat at Jacksonville, up the St. Johns, to Astor, 134 miles. Then the cars through the pine forests, via. Fort Mason, on Lake Eustice.

II. Twin Lakes, Orange county, is also reported to the *Rural New Yorker* by another lady, who was there for her health, to be a very desirable place for consumptives. She first spoke of the fact that the country along the St. Johns and all the other rivers of the State is damp and unhealthy. She says to those who might be coming, "Come up to the hills, where there is no damp." And I would add that those who do may really expect to be greatly benefited if they stay long enough to allow the climatic changes to take place in their systems. For this lady closed by saying: "When we left home every breath seemed to rasp and last, but now 'tis all gone, and with it the weariness and languor." Then, surely, if one stays long enough, the same "balmy air, full of the resinous aroma of the pine forests," as she expresses it, will accomplish a cure. There may be many other places in Florida equally dry and salubrious, with pine forests, making them equally valuable as health resorts, but I leave every one to judge of this fact for himself, relying upon the statements of friends who know, or upon enquiry when they reach there: but do not stay in the low, marshy grounds of any section whatever, if health is to be regained, or even retained, in any country. I will only add one thought further on the subject of going south, or to any point, for a change of climate; do not wait until nothing but a miracle can cure, for I fully believe that God works by the use of means—medicines judiciously administered, change of climate, care of one's health, etc. Where one lives may make a difference as to where they might or should go. Living at Toledo, O., as I do, if I had to go south on account of consumption, I should go to the Healing Springs section of Alabama, as it is about south from here. If I lived in the east, or New England States, I should go to the neighborhoods of Ashville, N. C., Aiken, S. C., or Florida; if in Illinois or the west, I should strike for San Antonio, Texas, or southwestern California, as before mentioned, as circumstances made it appear best.

I will give an item or two more for consumptives, hoping thereby to benefit, if not actually cure, many persons suffering from it. The following I take from a report by Wm. H. Hull, M. D., in the June number of the *Medical Brief* of 1877, upon the use of gallic acid, with which he had been very successful, as you will see in the heading of the recipe, and I shall also mention a case where

another physician has been equally successful with the same remedy in a very bad case. It is as follows:

14. Gallic Acid in Consumption.—Gallic acid, 1 dr.; pulverized Dover's powder, $\frac{1}{2}$ dr.; pulverized cubeb and pulverized gum arabic, each, 1 dr., and pulverized licorice root, $\frac{1}{2}$ oz. Mix thoroughly. Dose—Half a tea-spoonful, dry, every 3 or 4 hours.

Remarks.—Dr. Hull said of this: "Out of 200 cases treated during the past seven months, I found only 2 that this remedy would not relieve." Certainly a very marked proportion of cures. The corroboration I referred to above in the very bad case was reported also in the *Brief* by R. H. Holliday, M. D., of Guntley postoffice, N. C. His patient was a man who had been confined to his bed for 170 days, and upon whom he had exhausted his book knowledge without benefit, the man raising 2 quarts of thick, purulent matter daily that smelled terribly, so that he says "the ferryman was waiting to carry him over, etc., when, upon the appeal of the wife, if I could not do something more for him, I took up the *Brief*, and fell upon Dr. Hull's gallic acid treatment (above given) and saved my patient."

15 Gallic Acid in Liquid Form.—The editor of the *Brief*, in commenting upon the gallic acid in powders, gave the following formula as preferable. He said: Gallic acid, 1 dr.; glycerine, 3 ozs.; listerine, 5 ozs.; mix. Dose—Take 1 or 2 tea-spoonfuls 4 or 5 times a day.

Remarks.—This the editor found a better formula, from its fluid form no doubt, and from its containing the listerine, which is considered a valuable antiseptic, *i. e.*, as against the destructive tendency in cases where the matter raised, smells terribly, as in Dr. Halliday's case above. The listerine is manufactured at St. Louis, Mo., I think, and therefore can be obtained, if not found in the drug stores, by inquiring through the *Medical Brief*, of that city. See the next item, on the use of hot water, to know that the editor of the *Brief* is well qualified to judge of the nature of any article of medicine which he may recommend.

16. Consumption, Hot Water Cure for.—The latest thing claimed to cure consumption was given in the St. Louis, Mo., *Medical Brief*, by the editor, J. J. Lawrence, A. M., M. D., page 561, 1883, and as it is more than probable that it will help very many sufferers, I shall give it, not to be tried as a last resort, but to be tried as early in the disease as any wasting of flesh and debility is manifested; and to be tried faithfully for two or three months, at least, remembering that the diet of tender beef and stale bread, (bread never less than one day old) must be attended to, as well as the hot water. Dr. Lawrence says: A young man who was compelled to resign his position in one of the public schools of New York because he was breaking down with consumption, and who had ever since been battling for life, although with little apparent prospect of recovery, was encountered several days ago in a Broadway restaurant. "I see," he said, "that you seem surprised at my improved appearance. No doubt you wonder what could have caused such a change. Well, it was a very simple remedy, nothing but hot water." Hot water!

“That’s all.” You remember my telling you that I had used the usual remedies. I consulted some of the leading specialists in affections of the lungs, in the city, and paid them large fees. They went through the usual course of experimentation with me, under all resorts to medicine. I went to the Adirondacks (a range of mountains in northern New York) for the summer, and to Florida in winter, but none of these things did me any substantial good. I lost ground steadily, grew to be almost a skeleton, and had all the worst symptoms of a consumptive whose end is near at hand. At that juncture a friend told me that he had heard of a cure effected by drinking hot water. I consulted a physician who had paid special attention to this hot water cure, and was using it with many patients. He said: ‘There is nothing, you know, that is more difficult than to introduce a new remedy into medical practice, particularly if it is a very simple one, and strikes at the root of erroneous views and prejudices that have long been entertained. The old practitioners have tried for years to cure consumption, but they are as far from doing it as ever. Now, the only rational explanation of consumption is that it results from defective nutrition. ‘It is always accompanied by mal-assimilation of food.’ [Mal, means bad and assimilation means, to make food.] ‘In nearly every case the stomach is the seat of a fermentation that necessarily prevents proper digestion. The first thing to do is to remove that fermentation and put the stomach into a condition to receive food and dispose of it properly. This is effected by taking water into the stomach, as hot as it can be borne, an hour before each meal. This leaves the stomach clean and pure, like a boiler that has been washed out. Then put into the stomach, food that is in the highest degree nutritious and the least disposed to fermentation. No food answers this description better than tender beef. A little stale bread may be eaten with it. Drink nothing but pure water, and as little of that at meals as possible. Vegetables, pastry, sweets, coffee and alcoholic liquors should be avoided. Put tender beef alone into a clean and pure stomach, three times a day, and the system will be fortified, and built up until the wasting away, which is the chief feature of consumption, ceases and recuperation sets in.

“‘This reasoning impressed me. I began by taking one cup of hot water an hour before each meal, and gradually increased the dose to three cups, or nearly a pint. At first it was unpleasant to take, but now I drink it with a relish that I never experienced in drinking the choicest wine. I began to pick up immediately after I began the new treatment and gained fourteen pounds within two months.’”

The editor then closes in a way which you will see encourages the use of hot water in dyspepsia. He says:

“Combined with carefully selected foods, and some mild medicine to assist nature in eliminating (carrying out) poisons from the system, it is said by those who have tried it to be very efficient in dyspepsia and all forms of indigestion. If this be true (and of this the author has not a doubt), it will certainly be a blessing, as medicines almost universally fail to effect cures in these diseases. Many prominent New York physicians are abandoning medicines for simple, nutritious foods, and report more than ordinary success in the treatment of

many forms of disease from want of nutrition. A prominent English physician, who has had much experience in India, says, cholera will not attack a person in whose stomach and bowels there is no ferment (gaseous condition from food that does not readily digest); or, if it does, the attack will be light and easily controlled." He regards good nutrition (healthy digestion) as the only real prophylactic (prevention) for disease.

HIVES.—This disease manifests itself in the form of an eruption, or red blotches upon the surface, or skin of children, mostly.

Cause.—Obstruction of the circulation, and the absorption into the blood of some poisonous vapors in the atmosphere, similar to that of the more simple fevers are the undoubted Cause of the disease.

Symptoms.—Large red patches with a somewhat swollen center more white than the rest, with an almost intolerable itching, something like the irritation from nettles, make their appearance, and have also given another name to the disease—"nettle rash." This rash, or blotches may subside after a few hours, then re-appear for a day, or two, causing considerable sickness of the little patient unless properly attended to.

Treatment.—Bathe the whole surface, but more thoroughly the affected parts, with spirits of camphor and soft water, equal parts of each, and give a dose of the cathartic tincture, to operate tolerably free; and also a tea of saffron and spearmint, every hour or two to keep the disease to the surface, and but little danger need be feared. I am partial to the spearmint plant, in preference to the peppermint, because of its greater *diuretic* properties.

CANKER AND NURSING SORE MOUTH.—Remedy.—Take epsom salts, gun-powder, borax, alum, copperas, and sulphur, of each 1 teaspoonful; soft water, 1 quart.

The alum and copperas will be burned, or heated on a shovel, and pulverized; then all mixed and bottled for use. Shake when used. Hold a little of the wash in the mouth, for half a minute, and gargle the throat with it twice daily. And at the same time take a little sulphur and cream of tartar for 3 or four mornings, to correct the blood. It has cured bad cases after a failure of the "regular" Remedies.

SINGERS AND PUBLIC SPEAKERS—Loss of Voice, Hoarseness, etc.—It has been found that borax has proved a most effective remedy in certain forms of colds. In sudden hoarseness or loss of voice from colds by public speakers or singers, relief for an hour or so, as by magic, may be often obtained by slowly dissolving and partially swallowing a lump of borax the size of a garden pea, or about 3 or 4 grains, held in the mouth for 10 minutes before speaking or singing. This produces a profuse secretion of saliva, or watering of the mouth or throat, probably restoring the voice or tone to the dried vocal cords, just as the wetting brings back the missing notes to a flute when it is too dry.

Remarks.—There need be no fear in using 2, 3 or 4 pieces of the size

above named, within the hour before speaking or singing is to commence. Keep it handy, to use, as needed, during the evening.

1. COUGH SYRUP—Effectual Remedy for Coughs, Colds, Hoarseness, etc.—“E. J. R.,” from an inquiry through the *Detroit Tribune*, sends for publication the following sure cure for cough, cold, hoarseness, etc., saying it has been tried repeatedly, and is a most invaluable remedy. It is always kept in our family. It cured a cough of three years standing to my knowledge. Syrup of squills, 2 ozs.; paregoric 1 oz.; fl. ex. of licorice, 1 oz.; fl. ex. of ipecac, $\frac{1}{2}$ oz.; antimonial wine, $\frac{1}{2}$ oz.; ess. of wintergreen, or peppermint, 1 dr. Dose—One tea-spoonful every 2 or 3 hours, but not on an empty stomach.

2. Cough, Hoarseness, Incipient Consumption, etc.—Take of horehound, boneset and lobelia (herbs), each 1 oz.; comfrey root, spikenard, St. John's wort (*hypericum perforatum*), and poppy capsules, each $\frac{1}{2}$ oz.; pour on 3 pts. of boiling water and let it stand covered over for 3 hours. Then strain through a fine cloth, add $\frac{1}{2}$ lb. of loaf sugar, and let it just boil (no more), then add a full wine-glass of Jamaica rum, and cork tightly. Dose—1 to 2 table-spoonfuls 3 or 4 times daily. This will be found invaluable in coughs, hoarseness, incipient consumption, etc.—*Hearth and Home*.

Remarks.—This is an excellent syrup. Dr. Beach, in his *Family Practice*, says of the St. John's Wort: “A syrup of this with sage is a specific (sure cure) for coughs.” [The St. John's wort grows abundantly in this country and Europe, to the great annoyance of many persons, flowering from June to August. The stem is two-edged, and grows about 2 feet high, the flowers of a bright yellow color, the leaves being marked with clear transparent spots of a greenish shade, the whole herb being a dark green; the petals, or leaves of the flowers, are streaked and dotted with black or dark purple, and if bruised with the finger give a purple stain. This, I think, will enable any one to distinguish it from any other plant.] But this article, so far as I know, is but little known and little used. Its flowers are a bright yellow, although King says if they are infused in sweet-oil or bears-oil by means of exposure to the sun, they make a fine red balsamic ointment for wounds, ulcers, swellings, tumors, etc. See also “Ointment of St. John's Wort and Stramonium.”

3. Best Cough Syrup—To Break Up Bad Colds.—I. *The Syrup.*—Horehound leaves and blossoms, spikenard root, comfrey root, elecampane root, and sun-flower seeds, each 1 oz.; water sufficient. DIRECTIONS.—Boil 1 hour, having 1 qt. when done; strain, add sugar, 1 lb.; dissolve by heat, and add a little brandy ($\frac{1}{2}$ pt. of spirits will be enough to prevent souring). Dose.—One table-spoonful 3 times daily. Tested.—*Home Cook Book*.

Remarks.—This will be found good, as it contains most of the roots used in “lang syne” for coughs, when there were far less deaths from consumption than now, in proportion to the attacks.

II. *To Break Up Bad Colds.*—The same book recommends glycerine, 1 tea-spoonful with spirits, 1 or 2 table-spoonfuls to a pint bowl of hot lemonade, to break up bad colds at bed-time. This is also good if taken as hot as it can

be drank after getting into bed; but don't take additional cold next day after the free perspiration which it produces.

III. *How to Cure Recent Colds.*—A writer gives the following sensible plan for quickly curing a recent cold. He says: "When you get chilly all over and begin to snuffle and almost struggle for breath, just begin at once and your tribulation need not last very long. Get some powdered borax (it should be kept in every house), and snuff it freely up the nostrils frequently. Smell freely and frequently also from the camphor bottle (which also ought to be kept in every house), and pour a little of the camphor upon the handkerchief to wipe the nose with as often as is needful, which will be quite often as the cold begins to break. The nose will not become sore with this treatment, and if begun quickly and followed faithfully at intervals, by bed-time you will wonder what has become of your cold, and your sleep will seldom be disturbed."—*Experience.*

Remarks.—If a cold is not broken up within two or three days at most, it will run about two weeks in spite of all known remedies. Take note, then, of the very first symptoms, and besides the snuffing of the powdered borax, and the hot lemonade on getting into bed, heat the feet by the fire, or put them for 15 or 20 minutes into hot water, before getting into bed, and then take the hot lemonade and put a bottle of hot water or a hot flat-iron to the feet, cover up with an extra amount of clothing, and your chances are as good to break up the cold as it is possible to make them. Avoid exposure again for a day or two, if possible, and you will be safe; at any rate, nothing better can be advised.

4. **Coughs, Indian Vegetable Syrup for.**—Soft water, 2 qts.; boneset, 2 ozs.; cinnamon bark, ginseng root, spikenard and comfrey roots, each, 1 oz.; blood root, $\frac{1}{4}$ oz.; loaf sugar, 1 lb.; gin, 6 ozs.; water sufficient. **DIRECTIONS.**—Bruise the roots and bark, and steep (not boil) to 1 qt.; strain and add the sugar, and when cool add the gin and bottle. **DOSE.**—One table-spoonful half an hour before meals and at bed-time.

Remarks.—This has proved valuable in coughs and in incipient consumption, *i. e.*, in the commencement of the disease. It was obtained of an Indian, at an early day, by an uncle of mine, in whose family it was held in high estimation for the good it had done them.

5. **Colds with Cough, Simple and Easily Taken Remedy.**—Roast a lemon, avoiding to burn it; when thoroughly roasted, cut into halves and squeeze the juice upon 3 table-spoonfuls of powdered sugar. Mix, and take a tea-spoonful whenever the cough or tickling of the throat troubles you. It is good as well as pleasant, even for children.

6. **Irritable, Dry or Hacking Coughs, Flaxseed Lemonade for.**—Put 2 or 3 table-spoonfuls of flaxseed and the juice of 2 good sized lemons and 2 or 3 table-spoonfuls of sugar into a dish which can be covered, and pour on boiling water, 1 qt.; cover and let steep until the mucilage has been drawn out of the seed. **DOSE.**—A table-spoonful of it may be taken every hour or two to relieve the hacking, but sipping a little often is better than larger doses at longer intervals.

7. "Winter Cough," or Chronic Bronchitis, Remedy for.—Dr. Fletcher, of Washington, strongly recommends the employment of the spray of chloral in the treatment of the form of chronic bronchitis known as "winter cough," which often offers a very obstinate resistance to remedies. He says: "A solution of 10 grs. of chloral to an ounce of water may be inhaled through a steam atomizer morning and evening."

8. Bronchitis, Valuable Remedy for.—A simple, but oftentimes efficacious, remedy for bronchitis in its early stages, is: Syrup of tolu, 1 oz.; syrup of squills, $\frac{1}{2}$ oz.; wine of ipecac, 2 drs.; paregoric, 3 drs.; mucilage of gum arabic, $1\frac{1}{2}$ ozs. DOSE.—A tea-spoonful 3 to 5 times daily, as needed.

9. Indian Cough Syrup.—Elecampane root and Indian turnip (known also as wake-robin, Jack-in-the-pulpit, etc.), bruised, each, 1 oz.; honey, 1 pt. Steep thoroughly and strain. DOSE.—A tea-spoonful to a table-spoonful as often as the cough or tickling requires it, at least 3 or 4 times daily.—*Reliable.*

10. Recent Colds, Simple, but Sensible, Remedy.—A medical writer says: "Hot lemonade is one of the best remedies in the world for a cold." DIRECTIONS.—Roll a good sized lemon, squeeze out the juice, cut the rind in slices, put in 2 or 3 table-spoonsfuls of sugar, and pour on $\frac{3}{4}$ of a pt. of boiling water, stir well and cover up while the patient is getting into bed; then drink it all, cover up warm, and the result will be almost magical.

11. Chills or Ague, to Ward off.—It is said, also, that the same thing, only doubled in quantity, and taking half of it as hot as can be drank, an hour before the chill would set in, (being covered warm in bed) and the balance in 15 or 20 minutes after, also hot, will ward off "the chills," as ague is often called. Certainly it is a pleasant remedy to take.

12. Colds—General Washington's Cure.—The *Baltimore American* informs us that Gen. George Washington gave the following recipe for a cold, to an old lady now living in Newport, when she was a very young girl, 1781—103 years before this writing. He was lodged in her father's house, the old Vernon mansion. As she was being sent to bed early with a very bad cold he remarked to Mrs. Vernon, the mother of this lady: "My own remedy, my dear madam, is always to eat, just before I step into bed, a hot roasted onion if I have a cold."

Remarks.—It may be taken for granted that this simple remedy will be found very efficacious, and, if the cold is of recent taking, with the help of either toasting the feet before the fire or stove through the evening, otherwise soaking them in hot water for 15 to 20 minutes before going to bed, it will be the more likely to succeed. If necessary, however, to effect a complete cure, repeat it for one or two evenings. And if a hot roasted onion was eaten two or three times during the day it would also help the cure.

13. Colds and Inflammation—Health Rules for Winter.—I. "Never lean with the back upon anything that is cold.

II. "Never begin a journey until the breakfast has been eaten.

III. "Never take warm drinks and then immediately go out in the cold air.

IV. "Keep the back, especially between the shoulders, well covered; also the chest well protected.

V. "In sleeping in a cold room, establish the habit of breathing through the nose, and never with the mouth open.

VI. "Never go to bed with cold or damp feet; always toast them by a fire 10 or 15 minutes before going to bed.

VII. "Never omit weekly bathing, for, unless the skin is in active condition, the cold will close the pores and favor congestion or other diseases.

VIII. "After exercise of any kind, never ride in an open carriage or near the window of a car for a moment; it is dangerous to health and even to life.

IX. "When hoarse, speak as little as possible until it is recovered from, else the voice may be permanently lost or difficulties of the throat be produced.

X. "Warm the back by a fire, and never continue keeping the back exposed to heat after it has become comfortably warm; to do otherwise is debilitating.

XI. "When going from a warm atmosphere into a colder one, keep the mouth closed so that the air may be warmed by its passage through the nose ere it reaches the lungs.

XII. "Never stand still in cold weather, especially after having taken a slight degree of exercise; and always avoid standing on ice or snow, or where the person is exposed to cold wind; in short, keep your feet warm, your head cool, and your mouth shut and you will seldom 'catch cold.'"—*Common Sense*.

XIII. To the foregoing rules from "Common Sense" allow the Old Doctor to make a "baker's dozen" of them, by saying that the most fruitful seed from which colds, and often consumption arise, is the pernicious habit of young people loitering at the gate. Never do it.

14. Deep-Seated, or Heavy Cold that Has Settled in the Breast.—"J. P. S.," of Holmdel, N. J., writes to the *Toledo Blade* on this subject and says:

"For a heavy cold that has settled in the breast, take 4 table-spoonfuls of molasses, 3 of paragoric, 2 of castor-oil, and 1 of turpentine. Mix it well together. Take a tea-spoonful before each meal. It is considered one of the best remedies known in the New England states, and I know no equal."

15. Colds of Young Children—Onion Syrup for—Very Valuable.—Slice up thinly a few mild onions and sprinkle sugar over them, set in the oven in a suitable dish to simmer until the juice may be all squeezed out, then thoroughly mix with the sugar, forming a very nice thick syrup, or sugar, according to the amount of each used. **DOSE**—A tea-spoonful, or less, according to the age of the child, 4 or 5 times daily, as needed. It is perfectly safe and reliable for the smallest child; also valuable for adults.

Remarks.—This might claim to be a half-brother to General Washington's cure for colds.

16. Coughs, Colds, etc., Recent Remedy for—Very Satisfactory.—I have recently tried the following with a good deal of satisfaction. I obtained it of a Dr. A. Galloway, formerly of Rochester, N. Y.: Solid extract of licorice, $\frac{1}{2}$ dr., rubbed with muriate of ammonia, 3 drs, and added to syrup

of senega and ipecac, each, $\frac{1}{2}$ oz.; syrup of tolu, 2 ozs; syrup of wild cherry, 6 ozs; tincture of lobelia, $\frac{1}{4}$ oz. Mix. Dose—Shaken when used; 1 tea-spoonful 3 or 4 times daily for adults. I have sipped it oftener than this without sickening at the stomach. That is all that needs guarding against. Children 5 to 20 drops, according to age. I believe I would sooner risk it than Ayer's, which follows:

17. Ayer's Cherry Pectoral, for Coughs, Colds, Consumption, etc.—Tinct. of blood root, 2 ozs.; antimonial wine and wine of ipecac, of each 3 drs.; syrup of wild cherry, 2 ozs.; acetate of morphia, 4 grs.; mix. Dose—Take 1 tea-spoonful 3 or 4 times daily; or sip a little, as the cough is troublesome; and if nausea is felt take less, or stop until the nausea passes off. —*Druggist Circular.*

Remarks.—And now allow me to say, with all the recipes here given, there need be but little suffering with coughs, colds and consumption in its commencement, as compared with what it must have continued to be without this knowledge. I will close this subject with a cough syrup given by Dr. Hildreth, of Zanesville, Ohio, as follows:

18. Cough Syrup, Very Valuable in Recent Colds.—Paregoric, $1\frac{1}{2}$ ozs.; tinct. of capsicum, 1 dr.; tinct. of tolu, 3 ozs. Dose—A tea-spoonful every 3 hours, in a little water.

Remarks.—Dr. Hildreth has had a long experience in the practice of medicine, and this was his dependence in recent colds. I once heard a man say: "Paregoric is the best cough medicine I ever used," which showed his opinion, at least, of the value of one of the articles in this syrup. The combination will be found indeed valuable.

1. WHOOPING COUGH—Remedy for.—A paper recently read before the New York Academy of Science, by Dr. H. A. Mott, holds that much of the mortality among children from whooping cough is attributable to the prevalent faulty belief that it will be much worse for the child if the disease is broken up. He says: The disease is now known to be caused by a fungoid growth (in plants, growing quickly like mushrooms, coming up in a night; but in animal bodies being slower in growth and being much of the character of proud flesh, but below he calls them spores, which indicates them to be more of the nature of an animal parasite), which begins under the tongue, and spreads backward to the throat and lungs, the spores requiring from 9 to 15 days to develop. When the fungus enters the bronchial tubes, most alarming complications arise. It is, then, best to kill the fungus in its earliest stage; there would then seldom be any trouble from bronchitis, cholera infantum, or cerebral (head) difficulties. Quinine, just after a coughing spell, and before retiring for the night, is the best remedy. (Note 27, p. 791.)

Remarks.—I have had no opportunity to try this remedy, yet I do not doubt its value, for some physicians claim that even chills and fever are developed by spores. Then as quinine does cure ague may it not be by killing the spores? most likely. Then, by all means try the quinine immediately after it is known that a child, or anyone, has been exposed; and if it does not entirely

abate it, I believe it will give it a mildness not otherwise attained. Probably as good a way, or the best way, to take the quinine for this purpose, is to dissolve it in one of the following ways:

I. *Quinine, to Dissolve, or Solution of Quinine.*—Put 20 grs. of sulphate of quinine into a 2 oz. vial, and add 1 dr. of aromatic sulphuric acid, then fill the vial with water. DOSE—For an adult, 20 drops once an hour, in a table-spoonful of water. The proper dose for a child will be 1 drop to each year of its age, in 1 tea-spoonful, only, of the water, or if it is a nursing child, in the mother's milk. And, in all cases, (if the spore theory is correct, which I have no reason to doubt) the longer the quinine solution is held in the mouth, the more certain it will be to kill them.

II. Rub 20 grs. each of quinine and tartaric acid together, put into the same sized vial and fill with water, as in the first case. Dose and manner of using, the same.

The following are a few of the more common remedies for this disease; the chestnut leaves, however, I believe are not, as yet, very common; but I can not see why they may not be as efficient as claimed to be.

2. **Whooping Cough, Efficient Remedy for.**—Somebody's friend gave a correspondent of one of the Detroit papers the following as a certain cure for whooping cough, by simply "boiling chestnut leaves and sweetening with brown sugar," adding: "Whooping cough generally remains eighteen weeks, while by the use of this tea it can be cured in a few days."

Remarks.—I should gather the leaves before the nuts fall off.

3. **Whooping Cough Tincture.**—Tinct. of blood root, 1 oz.; syrup of garlic, 1 oz.; solid ex. of belladonna, 3 grs. Mix, and be sure the extract is dissolved. DOSE.—Ten to 20 drops, according to age of the child, 3 times daily

Remarks.—This is the favorite prescription of Dr. T. B. King, of this city—Toledo, O.,—an old English physician who practiced in the army of India a number of years, and then in the United States, with very great success. This is his dependence in bad cases.

4. **Whooping Cough Syrup.**—Make a syrup of prickly-pear (*Opuntia vulgaris*, a species of cactus,) and drink freely. Take about three moderate sized leaves of the prickly pear to a quart of cold water, cut up in pieces and boil slowly about half an hour, strain out all the prickles through close muslin or linen, sweeten with white sugar and boil, a little longer. A safe and sure cure, and so pleasant to the taste that infants will take it with a relish. It is also good for a cold that settles in the throat or lungs. This species of cactus grows in rocky and sandy places, and is grown in gardens.

Remarks.—There is nothing said by this writer as to a dose, but I should say from a tea-spoonful to a table-spoonful for a child, as needed, according to age. An adult 1 to 2 table-spoonfuls.

5. **Whooping Cough, Help for.**—I. Cut in small pieces a large red onion, put it in a bottle with a piece of asafoetida half the size of a nutmeg, cover with good whiskey, shake well, and it is ready for use; weaken, sweeten and give according to age, three or four times a day.

II. Also mix Radway's Relief with a little sweet-oil; bathe the chest, stomach, sides, and along the back-bone before going to bed, and take a drop or two inwardly, in a little syrup or honey.

Remarks.—This will be found valuable, but it would be better to allow it to stand 3 or 4 days before using.

1. **CHOLERA—Drops and Powder for, also Valuable for Colic, Diarrhea, etc.**—Alcohol, $\frac{1}{2}$ pt.; gum myrrh, 1 oz.; gum guaiac, $\frac{1}{4}$ oz.; gum camphor, capsicum, and opium, each, 1 dr. **DIRECTIONS.**—Mix, and keep in a well-stoppered bottle, shaking often for 10 or 12 days, when it will be ready for use. **DOSE.**—A tea-spoonful in well sweetened water; or, what is better, use sugar alone, just enough to absorb all the drops, and not use any water.

II. *For the Powder.*—By omitting the alcohol in the above, and pulverizing each article, the medicine can be used as a powder, 10 grs. being a dose; or the same may be made into pills of 4 grs., 3 pills for a dose.

Remarks.—Dr. A. B. Mason, of Toledo, O., of whom I obtained this recipe, says: The above has twice saved my life when attacked by cholera. I have never known it to fail in giving almost immediate relief in all cases of colic, diarrhea, dysentery, cholera-morbus and cholera. In the summer of '77 I cured a lady of the regular dysentery, who had been doctored for four weeks by one of the best doctors in a city of 20,000 inhabitants, and then lived along for four weeks more without a doctor, every one saying she could not live long. The night I gave her this medicine was the first good night's rest she had had for weeks. In two days all discharges were stopped, and I gave a small dose of podophyllin, and in eight days she was well, and was soon in better health than for years before. In this case I used the medicine in the form of a powder. In severe cases, he says, repeat the dose often, and even give two times the above dose. If vomited up as soon as taken, repeat the dose. The utmost confidence may be put in this treatment.

2. **Cholera, Infallible Cure for.**—Gen. Jordan, of the *Mining Record*, makes the following statement in relation to the infallible cure of cholera by the use of chloroform only. It is somewhat strange that such facts as here stated should not become generally known quicker than they do; still I can not doubt their being facts, and as I know that a dozen drops of chloroform, in a little water, will at once correct a gaseous condition of a dyspeptic stomach (which see), why should it not correct a much more disturbed condition, by using larger quantities? I would certainly "go for it," on the "double quick" if occasion called for it. He says:

"A $\frac{1}{2}$ tea-spoonful of chloroform in about eight times as much water is an infallible cure for cholera. A doctor who had lived in Mobile, Ala., and had great success in curing people during a cholera epidemic there, told me about it. When, in the Cuban revolution, I went to Cuba to help organize the insurgent army, I had a chance to try the remedy, for a cholera epidemic broke out among the troops. My first experiment was on a negro who was in the last stages. It cured him and hundreds after him. When we marched, the officers carried bottles of chloroform, and if a man fell out, sick with cholera, the remedy was given and he was able to resume his place. I have seen men lying

by the roadside in a state of collapse, almost dead. An officer would ride up, dismount and give the remedy, and before the column had passed the man would be in the ranks again."

3. Chronic Diarrhea, Muscovite, or Raw Beef Cure for.—About the year 1852 Dr. Weisse, director of the Hospital for Foundlings at St. Petersburg, Russia, called the attention of the medical world to the use of raw beef in the treatment of chronic diarrhea. His method, to which was applied the title of the "Muscovite method," was adopted in England, Germany, Italy and France. In the last named country Drs. Trousseau and Bouchut were the first to test it, and reported it to have good results in cases of children severely afflicted. A little later, Dr. Labadie, of Bordeaux, communicated to the profession some facts in regard to three children afflicted with tubercles, whom he had treated and cured by the Russian "Muscovite" method. We give below Dr. Trousseau's formula for preparing the meat: Take 100 grammes (1 gramme is about $15\frac{1}{2}$ grs., and 100 are equal to about $3\frac{1}{2}$ ozs.) of fillet of beef, from which the gristle and fat should be carefully removed; mince it fine and bray (pound) it in a wooden mortar; 20 grammes ($\frac{3}{4}$ oz.) of powdered sugar, $1\frac{1}{2}$ grammes of chloride of sodium (common salt, 23 grs.); $\frac{1}{2}$ gramme chloride of potassium ($7\frac{1}{2}$ grs.); $1\frac{1}{2}$ grammes (23 grs.) powdered black pepper. Take by the table-spoonful during the day.

Remarks.—As but few would understand these French technicalities, I have put their "grammes" into grains, to be easily understood. I have used the above with satisfaction in consumption, although there is no doubt that Dr. Labadie, by "tubercles," refers to a tuberculous deposit in the mesenteric glands of the bowels, as children are frequently troubled with them, and they are very wasting in their effect upon their tender constitution. It is undoubtedly a valuable diet in either of these exhaustive diseases, whether of children or adults, and may be used in any disease of a debilitating character, where some physicians have recently adopted the plan of giving what they call "powdered beef," that is grated, or pounded fine, then dried. I should prefer this "Muscovite" plan of using it. It will prove exceedingly valuable in consumption.

4. Chronic Diarrhea, a Well Tried Remedy.—Powdered opium and tannin, each 10 grs.; mix thoroughly and divide into 20 powders. *Dose*—Take 1 powder in a little syrup every 4 hours, till improved, then 1 or 2 powders daily, as occasion requires, until the cure is complete.

Remarks.—It is not best to check too suddenly, lest fever or other disturbance of the system arise. Watch carefully, with this, and it will generally be found effectual.

1. PAIN KILLER, INTERNAL—For Cholera, Diarrhea, etc.—Oil of cloves, cinnamon, anise and peppermint, each 45 drops; laudanum and ether, each 1 oz.; alcohol, 3 ozs. *Dose*—A tea-spoonful in 2 table-spoonfuls of sweetened water, and for an adult it may be repeated in from 5 minutes to $\frac{1}{2}$ an hour, or 1 hour, according to the severity of the pain, or the frequency of the discharge. Children proportionately less, according to age. Δ teaspoon is considered to hold 60 drops; then at 14 years, $\frac{1}{2}$; at 7 years, $\frac{1}{8}$; at

4 years, 1-5; at 3 years, 1-6; at 2 years, $\frac{1}{8}$; decreasing in like proportion for infants; at 21 years the full dose is to be given, up to 60 years, then diminish, in like proportion on each 5 to 10 years.

Remarks.—This prescription is from "Old" Dr. T. B. King, who used it in India with great success, curing internal aches and pains, diarrhea and bloody dysentery as well as cholera. I would now suggest the addition of half as much chloroform as ether, and also one-fourth as much tincture of cayenne. In the "Old" Doctor's day in India chloroform was not as much in use as since then, and the cayenne has, of late years, also been found a very valuable aid in curing internal pains, as well as the free discharges from the bowels. It is one of our best and purest stimulants. And with these additions it would be a valuable embrocation, or liniment, to use externally on the stomach and bowels in these painful diseases.

2. Pain Killer, Truly Magical, for All Purpose and Places of Pain.—Morphine, 10 grs.; chloral hydrate and camphor gum, each, $\frac{1}{2}$ oz.; chloroform, 1 oz.; nitrite of amyl, 2 drs.; oils of cloves and cinnamon, each, $\frac{1}{4}$ oz.; alcohol (best), to fill a 4 oz. bottle. DIRECTIONS—Dissolve the morphine in a little of the alcohol; rub the chloral hydrate and the camphor gum together, which forms a liquid, and add the dissolved morphine and the others, the nitrite of amyl to be the last, as it is very evaporative; then add 3 or 4 drops of strong sulphuric acid, which keeps the morphine in solution. DOSE—It may be taken on sugar in doses of 5 to 20 drops, and repeated in 30 minutes to an hour, according to the severity of any internal pain. For headache inhale from the bottle, from nostril to nostril, and apply also over the pain.

Remarks.—This will stop any kind of pain almost immediately, and does seem, at least, to be magical by its quick action upon the nerves, relieving pain at once. I have applied it upon the eyeball (not in the eye, but with the eye closed) holding the finger wet with it for a minute or two, which causes a counter, or external, irritation, and would soon cause a blister, which proves its value as well as its strength and adaptation to the relief of pain in all situations. I cannot speak of it too highly, for slight pains or neuralgia of the eye. I shall use it upon painful teeth, neuralgic, and, in fact, in all pains anywhere, internally and externally. It will be hard, very hard, to excel. The only objection against it, is its cost (about 25 cents an ounce), when made in small quantities. It would still be valuable as a liniment if an equal amount of alcohol was added, which would make it cheaper, but to retain its magical power it must be kept full strength.

3. Pain Killer, or Rubefacient, in Place of Mustard Plaster, Immediate in its Action.—When there is internal pain, as in pleurisy, inflammation of the lungs, etc., wherein it would be thought advisable to put on a mustard plaster, for quick relief take the following: Chloroform, spirits of camphor and sweet oil, equal parts, say 1 oz. each. Mix. DIRECTIONS—Fold a piece of muslin 3 or 4 thicknesses, shake the bottle and wet the cloth thoroughly with the mixture and apply, covering with a folded towel to pre-

vent evaporation. Dr. T. B. King, of this city (Toledo), claims it will remove ordinary or rheumatic pain in one minute, and that it will blister in three minutes. So be careful when you do not desire to blister. If the pain moves to any other part, follow it up in the same manner.

BLEEDING—A Styptic Which Will Stop Bleeding of the Largest Vessels.—Brandy, or common whisky, 2 ozs.; castile soap, 2 drs.; carbonate of potash, 1 dr. **DIRECTIONS**—Scrape the soap fine and dissolve it in the spirits; then add the potash; mix well and keep corked. Warm it and wet pledgets of lint in it and apply to the wound. It immediately congeals the blood and coagulates it some distance within the vessel. It may need repeating for deep wounds and when limbs are cut off.

Remarks.—I am sorry I cannot give the name of the writer, or the paper in which this was published, having had it in my scrap-book for some time; but I am satisfied that it is reliable.

ST. VITUS' DANCE, or Shaking Palsy, Cure for.—Tincture of black cohosh, 6 ozs.; bromide of potassium, 1½ ozs.; mix. **DOSE**—For an adult, 1 tea-spoonful 3 times daily, an hour after meals.

Remarks.—W. W. Stimson, M. D., of Connersville, Miss., reports in the *Medical Brief*, the cure of a young lady of 15 years, who had had this annoying trouble so bad that she would not go into company for over a year, her speech even being affected. Two weeks cured this case. But in older persons and of longer standing it may require months. There is no danger in its use; but after taking the above amount I would wait a week before beginning on a new prescription of same amount. Look after general health in all cases. Younger persons will take less according to age.

1. FELON—Remedy for.—A small piece of calf's rennet soaked in milk and tied around the finger, renewing occasionally, will cure any case of felon.

Remarks.—I do not know who tried this, to make the assertion, nor have I had a chance to test it; yet I have no doubt of its value. But as the rennet may not always be at hand, I will give the following, the ingredients of which may always be obtained:

2. Felon Salve—Successful Treatment.—A salve made of soap and spirits of turpentine, a very small proportion of the latter, just enough to moisten the soap, which has been shaved from a bar. "I have known it," says "H. S. P.," of Byron, Wis., to one of the papers, "to cure the worst felons, and I never knew it to fail when applied." To which the editor added: "The above is a well-known remedy in the editor's family, and has always been considered infallible, if applied in the earlier stages."

3. Felon—Warranted Cure for.—F. F. Lewis, of Whitewater, Wis., says: "Wind a cloth loosely about the finger, leaving the end free. Pour in common gunpowder till the afflicted part is entirely covered; then keep the whole constantly wet with strong spirits of camphor. Warranted to remove all pain in two hours. Have seen it tried many times, and never without absolute cure and without pain or injury to the hand."

1. HYDROPHOBIA; or, Mad Dog Bites—Hot Vapor Baths for.—The following item comes from G. F. J. Colburn, of Washington, D. C., who says: "For God's sake, give the remedy a trial, should a case present itself." The report was first published in the *Salut Public*, of Lyons, France, as follows:

"Dr. Buifson claims to have discovered a remedy for this terrible disease. In attending a female patient in the last stages of canine madness, the doctor imprudently wiped his hand with a handkerchief impregnated with her saliva. There happened to be a slight abrasion on the index finger of the left hand; but, confident of his own curative system, the doctor merely washed the parts with water. He was fully aware of the imprudence he had committed, and says: 'Believing that the malady would not declare itself until the fortieth day, and having various patients to visit, I put off from day to day the application of my remedy—that is to say, vapor baths. The ninth day, being in my cabinet, I felt all at once a pain in my eyes. My body felt so light that I felt as if I could jump a prodigious height, or, if thrown out of a window, I could sustain myself in the air. My hair was so sensitive that I appeared to be able to count it separately without looking at it. Saliva kept constantly forming in my mouth. Any movement in the air caused great pain to me and I was obliged to avoid the sight of brilliant objects. I had a continued desire to run and bite—not human beings, but animals, and all that was near me. I drank with difficulty, and I remarked that the sight of water distressed me more than the pain in my throat. I believe that by shutting the eyes, any one suffering from hydrophobia can always drink. The fits come on every five minutes, and I then felt the pain start from the index finger and run up the nerves to the shoulder. In this state, thinking that my course was preservative, not curative, I took a vapor bath, not with the intention of cure, but of suffocating myself. When the bath was at 52 centigrade (93 3-5 Fahrenheit), all the symptoms disappeared as if by magic, and since then I have never felt anything more of them. I have attended more than 80 persons bitten by mad animals, and I have not lost a single one. When a person is bitten by a mad dog he must for 7 successive days take a vapor bath, *à la Russe*, of 57 to 63 degrees. This is the preventive remedy. A vapor bath may be quickly made by putting two or three red-hot bricks in a bucket for 15 or 20 minutes. The person to be covered with a blanket. When the disease is declared, it only requires one vapor bath, rapidly increasing to 37 centigrade, then slowly to 53, and the patient must strictly confine himself to his chamber until the cure is complete." (Note 28, p. 791.)

2. Hydrophobia, Portuguese Physician's Cure.—A Portuguese physician claims to have cured several cases of hydrophobia by simply rubbing garlic into the wound, and giving the patient a decoction of garlic to drink for several days. This is the old Greek treatment, which, it is claimed, was practiced by them with success:—*Medical Brief*. (Note 28, p. 791.)

1. SUN-STROKE AND APOPLEXY, How to Cure.—Sun-stroke and apoplexy, can be cured almost surely if taken in any kind of time. Dr. E. B. Babbitt says:

I. "Rub powerfully on the back of the head and neck, making horizontal and downward movements. This draws the blood away from the front of the brain and vitalizes the involuntary nerves.

II. "While rubbing call for cold water immediately, which apply to the face and to the hair on the top and the side of the head.

III. "Call for a bucket of water as hot as can be borne, and pour it by dipperfuls on the back of the head and neck for several minutes. The effect will be wonderful, for vitalizing the *medulla oblongata* (that part of the spinal column

within the head); it vitalizes the whole body, and the patient will generally start up into full conscious life in a very short time.

"Last summer I was called in to see a man on Fourth avenue. I found him in a state of coma, and his wife greatly alarmed, supposing him to be dead. He had lain thus for about 3 hours. I had him brought out where he could get the air, jerked off his clothes, rubbed his back, head and neck powerfully, slapped his back, legs and feet briskly, and called for iced water, which I applied to his front and upper head. I then had a bucket of hot water brought, which I poured on his back, head and neck. Before doing this I had noticed some signs of life while applying the cold water in front, but after applying the hot water on the back of the head and neck a few minutes, he started up, vomited, and exclaimed "All right!" I occupied about 20 minutes in thus resuscitating him. He rose up, put on his clothes with a little help, and did not lose an hour more from his business. Persons of large and active brains and weak bodies are more liable to sun-stroke and should wear light-colored, cool hats in summer, wet the hair occasionally, and if they feel a brain pressure coming on, should rub briskly on the back of the neck and put cold water on the top and front of the head. These remarks, if heeded, will prevent great danger and great suffering. I have never known this method to fail."

Remarks.—Heretofore it has been customary to use only cold water upon the head in sun-stroke or apoplexy, but it seems by the above treatment of Dr. Babbitt, with the hot water upon the back of the head and neck, that consciousness is restored much more quickly, as well as more certainly, for without it, on the old plan of the cold water only, many have never been restored at all; hence the hot water should be provided as quickly as possible, and applied freely with a dipper, while the cold water, by wet cloths, may be kept on the front and top of the head. Small things, when you get the right thing, are often "wonderful," as the doctor puts it above. The colder the water on the front and top of the head, the better, and the hotter it can be borne on the back of the head and neck, the better, also. It would seem to me preferable, to dip cloths into the hot water and apply as hot as they can be borne, re-wetting often, than to pour it. For those who have a tendency to head troubles let them dampen a flat piece of sponge and put it in the hat before going out into a very hot sun. It may be well to know that what is good for sun-stroke is also good for apoplexy.

When one is stricken down in the sun, he should be placed in the shade as quick as possible, and cold water applied to his face, and the limbs kept warm by rubbing, etc., until he can be removed to the house, where the above plan can be carried out fully.

1. MOLES, FRECKLES, PIMPLES, ETC.—To Remove.—W. H. Riddle, of Crystal Lake, Cal., says to "Mary," of Zenia, Ind., through the *Blade Household* :

"Do not use nitric acid on your face. I would advise you to use the acid nitrate of mercury, in removing moles from the face. The acid should be applied with a splinter of wood, and gently rubbed in the part (with the splinter) for several seconds, according to the thickness of the growth. Great care should be taken to prevent the acid from reaching the surrounding skin. There is absolutely no pain attending the application, and the growth gradually shriv-

els away, and the slough falls off in about a week. I know a lady who had a very large mole removed in this way from the chin, leaving scarcely any depression in the skin. It is now some five years since the operation was performed, with no return of the growth."

Remarks.—It will be safe to use it for this purpose. Have it labeled, and keep it out of the way of children.

After writing the above, having a mole on one of my wrists, I tried it, and removed it successfully. At the first application it only took off about half the thickness of the mole; I then applied it again, using the end of a match-splint; I put on so much and rubbed it in so thoroughly that it killed the mole entirely, making a deep sore, although no larger than the mole; but putting on a liniment, followed with a little vaseline, 5 or 6 times daily, removed all soreness and healed it up in a few days, leaving the skin perfectly smooth and soft. I have since cured 3 or 4 others with the same, 2 of which were cancerous (open sore), and consequently, know the value of the acid nitrate of mercury for such cases.

2. Pimples or Skin Diseases, Valuable Remedy for.—Glycerine (English or Price's), 100 grs.; corrosive sublimate, 5 grs. DIRECTIONS—Rub the corrosive sublimate in a little of the glycerine; then mix all, and apply morning and evening. (Note 29, p. 791.)

Remarks.—M. Pierre Vigier, a French professor, finds, from experiments upon himself and upon his pupils, that substances incorporated with glycerine are not absorbed by the skin, therefore he advises this as a substitute for blue ointment, which stains the linen and is absorbed, while with a glycerine prepared as above, in spite of the causticity of the bichloride (corrosive sublimate is the bichloride of mercury), the skin is not irritated by this mixture, and after extensive applications to the skin, no mercury is found in the urine.

The fact that by this form of mixing the corrosive sublimate prevents its absorption into the system, it should be so prepared; as it thus cures these and other skin diseases, it becomes valuable for these purposes. It will also cure itch, as well as pimples, blotches, black-heads (worms in the skin of the face). See "Pimples, Tetter, etc.," where corrosive sublimate is also used.

3. Freckles, Remedy for.—The following remedy is said to have been found efficacious in Europe: Finely powdered sulpho-phenate of zinc (one of the newer remedies), 1 part; oil of lemon, 1 part; pure alcohol, 5 parts; collodion, 45 parts; drops, grs. or drs.—as you please—may be used. DIRECTIONS—Mix well; then apply to the freckles, twice daily, until the change is affected.

4. To Remove Freckles.—Rub them twice, daily, with a piece of saltpeter, moistened by touching it in water.

5. Sunburn, to Remove.—Water, 1 pt.; pulverized borax, 1 oz. DIRECTIONS—Put in a bottle and shake before using. Wet the parts, blackened by exposure to the sun, twice daily.

6. Pimple, Tetter or Bad Skin Diseases, Remedy.—Put corrosive sublimate, 30 grs., into a 4 oz. vial, with $\frac{1}{2}$ oz. of oil of sassafras (these to be rubbed together), and fill the bottle with alcohol.

Remarks.—Upon pimples of an ulcerative character, or on eruptions, like tetter or salt-rheum, apply this corrosive mixture, once a day only, until some inflammation manifests itself, then discontinue, and apply simple glycerine, vaseline or some mild ointment, until healed. If in any case the pimples or eruptions show again, do the same for 2 or 3 times, which will generally cure them, especially if a proper cathartic is first given, then an alterative course of medicine is given. But should the above fail in any case, double the amount of corrosive sublimate and try it again. It has been used as strong as here recommended, but if of less strength will do, so much the better. Of course it will be understood that this is a poison, and children should not have access to it; although it is safe and valuable to use as above directed.

7. Tetter, Simple Cure for.—It is claimed also that to wet gun-powder and smear on the tetter twice a day, for 2 or 3 days, will effect a permanent cure. It would undoubtedly be rather severe. I should rub it up in water, or spirits of camphor, to use it, and make the strength bearable, as it is no use to kill it dead the first pop, but use it milder, and longer, will do as well. If the gun-powder was rubbed fine, then rubbed into an ointment with lard, or vaseline, I think it would do just as well. A tea-spoonful of the powder to 1 oz. will be strong enough. But do not forget a laxative treatment with sulphur and cream of tartar, salts or magnesia, as may be preferred.

8. Face Worms, to Remove.—To remove worms in the face, place over the black spot the hollow end of a watch-key, and press firmly. This forces the foreign substance out, so that it may be brushed off, and is a cure. A lady writer gives us the following, also:

9. Face Worms, Pimples, etc.—Wash your face night and morning in strong cologne water and rub dry with a coarse towel. Also take a thimbleful of sulphur in a glass of milk 2 or 3 times a week, before breakfast. Continue the practice a couple of weeks.

Remarks.—It is a well known fact that sulphur is a valuable thing to take internally, from its alterative effect in all diseases of the skin; and one of the handiest ways to take it, is to mix it up quite thick, with a little syrup, or molasses; and when thus mixed, in place of stopping to measure out the lady's thimbleful, as above, take what you can in a tea-spoon, three mornings, and skip three, till nine doses are taken. Some prefer to make it half-and-half, with cream of tartar, and to take it in the same way; but the cream of tartar is not as necessary in skin difficulties, as it is in more general inflammations, such as boils, swellings, etc.

10. Pimples, Bad and of Long Standing.—Prof. Scudder, of Cincinnati, Ohio, reports through the *Eclectic Medical Journal*, the case of a girl who had been troubled for years with pimples, which left large scars, cured in 10 days, by the simple use of bi-carbonate of soda (common baking soda). He claimed, because of a broad, pallid or pale tongue, the soda was needed to neutralize an acid condition of the system. The cure proved him correct. **Dose**—For a girl of 15 years, the age of the one cured, $\frac{1}{2}$ tea-spoonful in a little water, 2 or 3 table-spoonfuls only, after each meal.

Remarks.—It will prove valuable in many cases, and in all cases with acidity of the stomach, “belching” wind, or passing large amounts of gas per rectum. In these cases, “belching” of the wind, or gas distending the stomach and bowels, mix ivory black (which is an animal charcoal), with equal parts of sugar and half a tea-spoonful of the mixture, taken before meals, by placing on the tongue dry, then taking a sip of water to swallow it. These two will soon correct this condition which arises from dyspepsia.

1. PILLS, Compound Cathartic and Liver.—Comp. ext. of colocynth, ext. of jalap and calomel, each, 100 grs.; gamboge and ext. of hyoscyamus, each, 25 grs.; castile soap in powder (in fact, all in powder except the extract of hyoscyamus, which is gummy). Mix and make into 100 pills. **DOSE**—As an active cathartic, 2 or 3 pills, to act on the liver 1 pill at bedtime each night until the action is sufficient.

Remarks.—I have prescribed them and found them to have the desired effect with those persons who prefer calomel to podophyllin. But if there are those who think they would like this pill best if it was not for the calomel, they can leave it out, or put in only 25 grs. of it, so as to have one-fourth of a grain only in each pill. Either way it will be found efficient and satisfactory. I prefer it with only $\frac{1}{4}$ gr. of calomel to each pill. The old plan of giving large doses of calomel, I feel thankful, is among the things of the past.

2. Butternut Pills.—A very valuable cathartic is made by taking the inner bark of the butternut tree and roots (not old trees), strip it into strips and put in a clean boiler, with plenty of water, and keep moderately hot for 48 hours, then boil for a few hours longer, after which pour out and strain; then boil down to a consistency of thick molasses, adding at this point as much molasses as there is of the extract, and continue to boil down carefully until quite thick; then preserve in covered jars. **DOSE**—A piece the size of a small hickory nut, or less, as may be found to be necessary to produce proper cathartic action. During the Revolution there was but little other physic used. This, however, was very satisfactory; and still in places where the tree abounds, it may be adopted with a like satisfaction. In case that it gripes or gives pain in its action, a little powdered ginger, or capsicum may be incorporated with the gummy mixture to overcome this tenesmus, as doctors call it. One-fourth as much bulk of the ginger or one-eighth of capsicum will be sufficient.

3. Liver Regulator, or Liver Complaint, Dyspepsia, etc., Liquid Remedy for.—Fluid exts. of dandelion, blue flag-root and rhubarb, each, 1 oz.; fl. ext. leptandra (Culver's physic) and simple syrup, each, 2 ozs. **Mix.** **DOSE**—One-half tea-spoonful every 6 hours.

4. Liver Syrup, or Liver Regulator, in Place of Pills for an Inactive Liver, Constipation, etc.—The fl. exts. of wahoo, butternut and cascara sagrada, each $\frac{1}{2}$ oz.; fl. exts. of fringe tree and white ash, each, $\frac{1}{4}$ oz.; fl. exts. of berberis aquafolium, prickly ash and bitter root (Culver's physic), each, 1 dr. Mix and add simple syrup to fill a 4 oz. bottle; shake when used. **DOSE**—Take $\frac{1}{2}$ tea-spoonful at bedtime only, and if it does not start the action of the liver in 3 or 4 days at most increase the dose to $\frac{3}{4}$, or even 1 tea-spoon-

ful; then drop back to the $\frac{1}{2}$, or it may be to 15 or 20 drops, to keep a little action on the liver until it will continue its secretion of bile, producing natural colored stools.

Remarks.—As there are persons who cannot take pills, and others also who prefer laxative medicines in liquid form, as well as many whose livers need a mild medicine so it can be continued for some time to overcome the inactivity of the liver, etc., such persons will find this recipe to “fill the bill” in all these cases. Hence, this will be found a very valuable substitute for pills. A little oil of wintergreen may be put in as a flavor and to hide the bitter taste, if desired.

5. Liquid Physic for Constipated and Weakly Women and Children.—Fl. ext. of butternut, 2 ozs.; tinct. of aloes, 5 drs.; comp. tinct. of cardamon, 1 oz.; simple syrup, 4 oz. Mix. Dose—According to age of children, from 1 to 3 tea-spoonfuls in the morning is the best time to give to children, and repeat next morning, if no operation before. For weak constipated women, the physician whom I first knew to use this preparation was in the habit of triturating calomel, 10 grs., with 100 grs. of the sugar of milk, and dividing into 10 powders; then giving 1 powder at 10 in the evening, and at 2 in the morning, followed by 1 or 2 tea-spoonfuls of this liquid physic, which carries off all otherwise ill effects of the calomel, arouses the action of the liver and overcomes the tendency to constipation. Those in favor of using calomel will undoubtedly be satisfied to use it in this manner; the trituration, or thoroughly rubbing the calomel, or any other medicine, with sugar of milk, divides it into more minute particles and then it takes less to have the desired effect. Of course, this liquid physic can be taken without the calomel by doubling the dose. See the remarks closing the subject of “Jaundice,” for the author’s experience and opinion of calomel in small doses. Since writing this I have given the twentieth of a grain calomel pill with entire satisfaction, arousing the action of the liver.

6. Pills for Constipation—Very Successful.—Pulverized aloes, 40 grs.; solid ext. of nux vomica, 20 grs.; solid ext. belladonna, 15 grs. Mix thoroughly and divide into 50 pills. Dose—One pill only; never more than 1 pill for a dose, at bedtime every night until cured or all taken.—*Dr. T. B. King.*

Remarks.—The doctor says this is the best thing he knows, and pretty sure to cure the difficulty. I have used it with success in one case of long standing constipation. It was a lady who was pretty well run down in strength, but with this pill at night, and a 2 gr. pill of quinine 3 times daily, for a month, she has enjoyed an excellent condition of health now for several months. If they fail to touch the spot, $\frac{1}{4}$ gr. of podophyllin, or calomel, as one prefers, may be added to each pill; neither will be required unless it may be for an occasional case of constipation which has withstood all other remedies.

GOUT—Cured by Garlic—The London *Truth* makes the following remarks upon the garlic as a specific (sure cure) for gout. It is amusing, and is, no doubt, valuable: “Many people would be overjoyed to pay large sums for a specific for gout. I will give them for nothing a sure but simple cure. A

friend of mine had chalkstones on his fingers so bad that he might have marked half the trees in Windsor Park with them. After consulting almost all the specialists in Europe he was advised by an old woman (some old women know more than half of us doctors) to try a clove of garlic (a clove of garlic means one small bulb from a cluster) night and morning. He did so, and the chalkstones totally disappeared. No doubt such a cure involves the social duty of retiring to the summit of an exceedingly high mountain, or going to sea, alone, in a yacht; but it is worth even the penalty of absolute seclusion to get rid of chalkstones." (See next recipe.)

1. PURIFYING THE BLOOD—Safest Way by the Use of Onions.—Sherley Dare, in answering correspondents through the *Blade Household*, says to "A. E. W.," of Waterloo: "The safest and quickest prescription for clearing the blood is to eat a raw onion, finely minced, at breakfast; the whole of a common sized onion is enough, and a dose of charcoal or ground coffee, and brushing the teeth, will deodorize the breath. The onion can be taken with salt and vinegar as a salad. Consumptives find this of benefit."

Remarks.—I have much more faith in the onion as an alterative, than I have in the idea that the charcoal or powdered coffee, even with the brushing of the teeth, will remove the odor of onions from the breath; but what of that? let the "bref" smell of garlic; if onions will do what they are here credited with, they are certainly more valuable than is generally set down to their credit; but I remember of once being told by a gentleman that a moderate sized onion minced and eaten at each meal, with the salt and vinegar, as above mentioned, would cure dyspepsia. I have no doubt of their utility, both as an alterative upon the blood and as a tonic to the stomach; not one is eaten when ten ought to be.

2. Roasted Onions—As a Poultice to Boils, Inflammation of the Bowels, etc.—A poultice of roasted onions applied to boils, tumors, etc., hastens suppuration, and are often applied as "drafts" to the feet, and I have heard, from the old women, of their being applied in excessive fevers, by mashing or pounding onions and placing them under the arms and upon the bowels or other parts swollen from extensive inflammation (to be changed often), and they are very valuable indeed.

3. Onions, Their Value as Food.—Onions contain 25 to 30% (*i. e.*, 25 to 30 parts in 100) of solid substance, when dried; while potatoes, even, do not average 25%; but from some peculiarity of the onion its nourishing properties more than double those of the potato, and in some cases nearly treble it; hence its value as food may now be the better understood, and without regard to its peculiar flavor, the onion should be much more eaten than it is. If health is desirable, eat onions.

1. STOMACH BITTERS, OR ALTERATIVE.—Culver's physic, root, and wahoo, bark of the root, each, $1\frac{1}{2}$ ozs.; prickly ash bark and poke root, each, $\frac{1}{2}$ oz.; Peruvian bark, the best red unground, wild cherry bark and anise seed, each, 1 oz.; blue-flag, yellow-dock, dandelion and pleurisy roots, known also as white root (*asclepias tuberosa*), with our home yellow parilla

and Honduras sarsaparilla and golden seal roots, each, 1 oz.; water, 1 gal. alcohol, 1 pt., or good whiskey (if there is good (?) whiskey), 1 qt. DIRECTIONS—Have all the roots and barks ground coarsely if you buy the dry articles of the druggist, and if you use the green ones, gathered yourself, use half as much more, and even twice as much will do no harm; bruise them with a mallet or hammer, and steep all in the water 3 or 4 hours, covered; then strain and press out all the virtue, and when cool, strain again to get rid of the fine sediment; add the alcohol, or whiskey, and if it lacks any of 1 gal. make it up with wine-worked cider, or whiskey. Bottle and keep in a cool place. DOSE—According to the size and robustness of the person, take from 1 to 2 table-spoonfuls a short time before each meal. If costive, or considerable dyspeptic disturbances of the stomach, see remarks and further directions below.

II. *Remarks and Further Directions if at all Costive.*—In such cases take a quart of this bitters and add $\frac{1}{2}$ dr. of the alcoholic ex. of mandrake, dissolved nicely in the bitters by rubbing in a cup with a tea-spoon; pour off into the bottle and put on more, as it is slow to dissolve. DOSE—This can only be taken in doses of from 1 to 2 tea-spoonfuls 3 times daily, more or less, to keep the bowels easy. The mandrake is very gentle in its cathartic and laxative properties, but it is very certain.

III. If dyspeptic, take a pint bottle and pour into it fl. exs. of leptandra and blue-flag, each, 1 dr.; and fl. ex. of balmony, $\frac{1}{2}$ oz., and also iodide of potash, 25 grs., and fill the bottle with the No. 1 Bitters, which has no mandrake in it. DOSE—Then take 1 table-spoonful for a dose, just before meals and at bed-time; and if the urine is scanty or high-colored, 2 drs. each of fl. exs. of buchu and uva ursi may also be put in. DOSE—The same, as with the above bitters as a base, almost any condition can be met.

1. **DIARRHEA COMPOUND.**—Compound spirits of lavender and tinct. of rhubarb, each, 1 oz.; laudanum, 3 drs.; oil of cinnamon, 10 drops; mix. DOSE—One tea-spoonful every hour or two, for an adult, as needed, until relieved; then 2 or 3 times a day only, for a day or two.

2. **Loose Bowels, Simple Remedy for.**—For loose bowels, not of long standing nor very severe, the following powder will prove effectual and satisfactory. I have used it many times. Powdered opium and tannin, each, 5 grs. Mix thoroughly and divide into 10 powders. DOSE—For an adult, 1 powder every 4 hours, or 3, or even every 2 hours, if needed to control the condition; children of 8 to 12 years, half a powder only, and of a less age—above 2 years—one-fourth only of a powder. (Note 30, p. 791.)

3. **For Infantile Diarrhea.**—That is, for children at the breast or less than 2 years old: Powdered rhubarb, 10 grs.; calomel, 1 gr.; morphine, $\frac{1}{2}$ gr., and divide into 10 powders, 1 powder for a dose. No danger of salivating a child at the breast. (Note 31, p. 791.)

4. **Diarrhea of an Exhaustive Character, Dr. T. B. King's Remedy for.**—Blue mass and pulverized ipecac, of each 3 grs.; prepared chalk and pulverized rhubarb, each 10 grs.; pulverized opium, 3 to 10 grs. Mix and make into 10 pills. DIRECTIONS, DOSE, ETC.—For adults, bad cases,



CHAMOMILE

(See Description)

This herb is useful in Pulmonary Consumption, Hysteria, Colics, Gout, Vomiting in Confinement, etc.

use the 10 grs. of the opium and give 1 pill every 3 hours, for children and slight cases, only 3 to 5 grs. of opium should be used; small children, only half a pill cut up and dissolved in molasses will be sufficient for a dose, to be repeated in 3 or 4 hours, as needed. (Note 30, p. 791.)

5. Diarrhea, Simple Home Remedy for.—The journals of late have said considerable about the use of pure cider vinegar in diarrhea. It was started, so far as I know, by T. E. Stellwagen, in an edition of Coleman's "Dental Surgery." DOSE—For an adult about 2 ozs., or 4 tablespoonfuls, without water; for a child of 1 year, a tablespoonful with a little water.

Remarks.—Its effect is said to be to check the colicky pains at once, to relieve the chills and cramps, if any present, and to give a feeling of warmth and comfort over the surface. I trust it will prove as reliable as reported. It is claimed to have been satisfactory even in long standing cases.

1. DYSENTERY — Successful Remedy for.—Laudanum and ipecac. DIRECTIONS, DOSE, ETC.—For an adult first give laudanum, 20 drops, to prepare the stomach so it shall retain the ipecac, which is to be given half an hour after, in 20 gr. doses, repeated every 6 hours until cured. The first dose may be vomited, or partially so, as this article is well understood to possess this property—of vomiting—but it is also known that the stomach can be trained to tolerate (bear) it. It also acts as a mild laxative, tonic, and stimulant, to the coats of the stomach and intestines, producing slight sweating, moist and pliable skin, and thereby reducing the fever, controlling also the tenesmus (pain and griping) of the rectum at the time of the passage, almost if not wholly relieving this difficulty soon after its use is incurred.

2. Dysentery, Diarrhea and Incipient Cholera—Milk a Specific for.—It is reported through the *Milk Journal*, of London, Eng., that in the East Indies, 1 pt. of warm milk every 4 hours, will check the most violent of the above complaints. The milk must not be boiled, but just hot enough to drink comfortably. Boiled milk, contrary to our American custom, is not to be used.

NERVOUS HEADACHE—Such as People Used to be Bled for.—Iodide of potash, 2 drs.; tinct of gelsemium, 2 drs.; pure water, 2 ozs.; mix. DOSE—1 tea-spoonful once in 2 to 4 hours until relieved.

Remarks.—This is a prescription of a physician of Grand Rapids Mich., for a lady who called upon him to be bled for the difficulty, according to what she had been accustomed to. But he made this prescription for her and it relieved her. The next season she called upon myself for the same purpose, at the same time showing me the prescription, which I changed to bromide of potassium, in the same quantity for the iodide, which she took with the same success. I prefer the bromide, as I think its action upon the nerves more satisfactory.

2. Nervous Headache, New Remedy for.—Salicylate of soda, 10 grs., every 3 hours for an adult, followed next day in 5 to 8 gr. doses. If of long standing, continue 1 or 2 doses daily for a few days longer. Taken by dissolving in water.

Remarks.—This was given in the *Scientific American* by a celebrated phys-

cian who gave a case of a boy of 16 years, who had had nervous headache several days each week from the time he was 6 years old, entirely cured by this remedy, and at the time of the report he had been free from the disease several months. See next item also for other uses of this new remedy.

TONSILLITIS — Salicylate of Soda for — Also as a Gargle in Ulcerated Cases.—Given in 10 gr. doses, every 2 to 4 hours, internally, and is also used as a gargle in ulcerated cases. Strength of gargle is not given; but I should say, 5 to 10 grs. to the oz. of water, according to the degree of ulceration.

Remarks.—I certainly expect much from its use upon a fair trial, and say to all who need it, try it.

ULCERATING TEETH OR SORE GUMS — Dr. Mason's Remedy.—Take what the homeopaths call the "third decimal trituration of mercurius" (quick-silver). [Quicksilver was named mercurius after the god Mercury; it is also known as hydrargyrum, from another god or deity, worshipped by the ancients. These deities were held in higher estimation by them, as compared with other deities, from the fact that mercury or quicksilver was held, long ago, to be a very important article or medicine in the treatment of diseases, as compared with other remedies. But my school of medicine (eclectic) generally claims and believes that it has been proven not only of little value but to have been one of the greatest curses to humanity that ever found a place in the annals or history of medicine. Of late, however, I am led to believe the harm to have arisen from its over-doses and abuse in giving it for everything rather than in the article itself. See my remarks following "Jaundice, Liver Complaint, etc."] **DOSE**—The size of a wheat kernel, every half hour or hour, until cured, which will be in 2 or 3 days.

Remarks.—Dr. Mason, in writing to me, said: "Doctor you know that I am not a homeopath, but I know, after having used the above in my practice as a dentist for over fifteen years for ulcerating teeth, that it is a good remedy. In the winter of 1878-79 I extracted some teeth for my wife; and, in common parlance, she took cold in the jaw. Although it was nearly 2 days after it commenced aching before I prepared the remedy, the pain entirely ceased in less than 2 days from the time she began its use. But let no one put it off, as I did, through pressure of business—'a stitch in time,' etc."

In case no homeopath or druggist is near, who keeps this triturated preparation, see "Diphtheria, Sore Throat, etc.," (Dr. Mason's, or homeopathic remedy), for the manner of trituration, use the quicksilver instead of the biniodide of mercury, as given in that case.

1. VOMITING — Ejects a Dime from the Trachea.—Lorenzo Hubbard, M. D., reports a case to the *Pacific Med. and Surg. Journal* as follows:

"Carpenter Simes, a private in Company A, First U. S. Cavalry, while playing with a dime, by tossing it into his mouth, accidentally threw it far back into the pharynx, where, coming in contact with the posterior nasal orifices, it excited a strong disposition to sneeze. The spasmodic inspiration which followed drew the piece through the glottis (the opening into the windpipe) into the trachea (windpipe), and subsequent inspirations lodged it at the point of the

bifurcation of the right bronchus. By inflating the lungs, and then making a strong effort at expiration, the 'piece' would rise into the trachea, but when it reached the glottis suffocation was so imminent he was forced to allow it to descend. When he first made his situation known to me, three hours after the occurrence of the accident, he said he could feel the 'bit' resting directly under the right nipple, and that the parts at this point had become quite sore.

"While the piece was yet movable, and had not yet found a lodgement, I determined to try the experiment of vomiting, with the hope that in the spasmodic effort of retching and coughing it might be ejected. In this I was not disappointed, for in the very first effort it was thrown out to the distance of several feet, with considerable force. I also send you the 'bit' with which this strange experiment was made, supposing that possibly the case might interest our society."

Remarks.—I have given this to show not only the danger of thus throwing pieces of money into the mouth, which I have often seen done, but also to say it is dangerous to allow small children to have small pieces of money to play with, for the mouth is about the first place they put it; but if a piece lodges in the throat, no time should be lost in trying one of the quick emetics found in "Accidental Poisoning."

2. Vomiting and Watery Discharges, to Check in Cholera.

—Black pepper, in powder, fine table salt, each 1 teaspoonful; vinegar, 5 teaspoonfuls; hot water, $\frac{1}{2}$ tumbler. Dose—A table-spoonful every 5, 10 or 15 minutes, as circumstances required, speedily checked vomiting, abated the watery discharges and removed the cramps. It succeeded in many cases where every other means had failed.

Remarks.—This was during the Cincinnati cholera in 1849-50-51, when the eclectics saved hundreds of their patients in this disease, while other branches of the profession lost most of theirs. This is no fancy statement, simply for effect, but is susceptible of proof, and it was by simple common sense remedies, like this, that it was done.

1. SCROFULA, PILES AND RHEUMATISM.—Cure for.—

Sulphur, cream of tartar, nitre (saltpeter), and licorice root, equal parts of each, all finely pulverized, and put into just honey enough to mix like mush. Dose—One tea-spoonful $\frac{1}{2}$ hour before eating, 3 times a day, for 3 days; then cease 3 days, continuing until a cure is effected. But after the first 3 days, $\frac{1}{2}$ tea-spoonful doses will be as much as can be taken without making the bowels too loose. It may be made into pill form by using only honey enough to dampen. Dose—In this way 3 good sized pills, before each meal, as the other.

Remarks.—This was communicated to me by a sister, at that time living in Mt. Pleasant, Iowa, from the fact that a young girl, a Miss Conner, had been cured by it, who had been under the doctors care for over a year, without benefit. Her breast and throat were covered with ulcers, deep and penetrating, so when pressed up on one side of the neck, matter would ooze out of the other side. Under these circumstances, the girl's mother (the wife of a barber) paid \$10 for this recipe, which cured the girl in a few weeks. At the time my sister sent me this recipe, six years after the cure, the girl had had no returning symptoms of the disease. But the scars, my sister said, she would always carry. A child had also been cured by the use of the same, whose head was a solid scab

at the time the treatment was commenced. My sister had obtained the recipe for the purpose of curing bleeding piles upon herself, which had reduced her strength very greatly by the loss of blood. And it was as successful with the piles as in the other cures. I have had no opportunity of using it except for rheumatism, which I have cured with it. I believe much good will be derived by its use whenever needed, as an alterative, for the value of sulphur and cream of tartar have been long known as alteratives in rheumatism. Why should not the combination prove valuable in scrofula? I have no doubt it has, and that it will continue to do so, most effectually. The licorice I look upon as merely to improve the taste.

2. Scrofula, White Swelling, etc., Salve for.—Scrape sweet elder (inner bark), bitter-sweet (roots and twigs are used), and mullein leaves, each, a good handful; boil these, (the roots and twigs, being bruised,) in a little water; then put in half as much golden seal root, and stew all in two table-spoonfuls of freshly churned and unsalted butter, not level spoonfuls, but as you would take them up heaping, from rather soft butter, and an equal quantity of mutton tallow. Stew till the water is all out, and the mass crisped, or dry, but not burned; then strain, and put back into the skillet, and add half as much beeswax, as of tallow and half as much pine pitch as of the beeswax. **DIRECTIONS**—For white swelling spread on a cloth, and apply; for scrofulous sores put on cotton, and put into the sores, or openings, if any, otherwise the same as for white swellings.

Remarks.—I should apply this salve while taking No. 1, internally, as I think it will hasten recovery. It will be found valuable for all purposes, as an ointment, rather than a salve, if not made too stiff with the beeswax. As an ointment, use but very little beeswax.

PLIABLE COLLODION—Or Artificial Skin—For Abrasions, Burns, Sores, etc.—A French journal gives us the following plan of making collodion pliable, for all purposes where water may come in contact with the spot, as upon the face, hands, lips, etc.: Collodion, 30 grammes; castor-oil and soft turpentine (Venice turpentine or pine pitch), each 50 centigrammes, mix.

Remarks.—As a gramme is so nearly $15\frac{1}{2}$ grains (being actually 15 and $\frac{334}{1000}$ of 1,000 parts of a grain, we call it $15\frac{1}{2}$ grains,) and as a centigramme is the 1-100th of a gramme, in the 50 centigrammes we get nearly 8 grains, hence we say: Collodion, 1 oz.; and castor-oil and soft turpentine, each 8 grs. And thus we have the recipe Americanized, so that it can be filled understandingly by anyone, or druggist. Apply with a brush. It will be found quite satisfactory to apply upon any injured parts, scratch, bruise, etc., as by putting on two or three times, as the first coat dries, it forms an artificial skin over the sore.

1. CHILBLAINS, FROST BITES, ETC.—Valuable Remedy for.—Spirits of turpentine and sulphuric acid, each $\frac{1}{4}$ oz.; olive oil, $1\frac{1}{4}$ oz.; mix; shake and apply frequently.

2. Spirits of Turpentine, 1 oz.; ammonia, $\frac{1}{2}$ oz., with as much camphor gum as this will dissolve, used as a liniment, will cure these hateful things.

3. **To Relieve** the intense itching; 2 or 3 bathings of the parts, warming in before the fire, or strong alum water, gives relief.

4. **An Ointment** made by rubbing as much tincture of cantharides into any simple "cerate," as it will take up (any druggist will prepare a small box of it, for about 15 cts.). Bathe the feet in warm water, wipe and rub this on at bed-time. I cured a bad case of 6 years standing, in 2 or 3 applications, and afterwards cured several other cases.

5. **Frost Bites, Remedies for.**—The Lansing (Mich.,) *Republican* recently gave the following, as to the management and cure of frost bites. It says: "Extract the frost by the application of ice-water till the part is pliable, but let no artificial heat touch it; then apply a salve made of equal parts of hog's lard and gunpowder, rubbed together until it forms a paste, and in less than 24 hours the frozen parts will be well."

6. **Chilblains, Warranted Cure for.**—Olive oil, spirits of turpentine, aqua ammonia, and oil of peppermint, each, $\frac{1}{4}$ oz. Mix, and anoint night and morning. Is warranted to cure every case. This was given me on "experience," also.

WORMS—REMEDIES, VERMIFUGES.

There are seldom found but three varieties of worms in the human intestines.

I. The principal, or most common one, is the long, round worm, found in the small intestines.

II. The second variety is the small, round, or pin-worm, so called because scarcely ever longer or larger than a pin. These are chiefly found in the rectum, and known to be there from an intolerable itching.

III. The last, or third variety, is the tape-worm, called by physicians *tænia solium* (from *tænia*, tape, and *solus*, alone); for, as a general thing, there is only one of them found to annoy the patient. The remedies for them, I shall give in the order in which I have mentioned them. First:

1. **The Long, Round Worm.**—Pink and senna were the old "stand-by," for the common long worm, followed by a cathartic; but the following combination is better, as it has the cathartic in combination, and as the good old saying is, "kills two birds with one stone."

Pink root and senna, each $\frac{1}{2}$ oz.; cream of tartar, 1 dr. (1 tea-spoonful); pulverized jalap, $\frac{1}{2}$ dr.; cardamon seeds, 1 dr.; and ext. of licorice, or powdered licorice-root, $\frac{1}{4}$ oz. Mix, and pour on $\frac{1}{2}$ pt. of boiling water and steep $\frac{1}{2}$ to 1 hour; and, according to the age of the child, give 1 to 2 table-spoonfuls every hour until the worms are expelled, or a brisk action of the bowels is obtained. Repeat every day or two, until you are satisfied there are no more worms present, or see that they have been expelled, as it does not always, but generally, expels them on the first trial.

2. **The Eclectic Vermifuge—The Latest and Least Distasteful.**—Santonin, 30 grs.; white sugar, 50 grs. DIRECTIONS—Rub together

evenly, and divide into 10 powders. Dose—Give 1 powder an hour before supper and 1 at bed-time; next day 1 powder before each meal and at bed-time, and the following day the same, which uses up all the powders. Next morning take an active cathartic, to carry off the worms.

Remarks.—I recently took this remedy in just this way, realizing that I, at nearly 68 years of age, had them. For the cathartic I took 2 blue papers of seidlitz powders and 1 white paper, to be sure and get quick and thorough action. It did act quickly, and brought them away. I have enjoyed better health since.

3. Worms, Allopathic Vermifuge for.—Santonin and white sugar (or sugar of milk), each 10 grs.; calomel and ipecac, each 1 gr. DIRECTIONS—Rub the two first well together; then rub in the two last, and divide into 10 powders. Dose—For child, 1 powder, night and morning, till all are taken; then an active cathartic, unless the worms pass off freely by this time. I should give a cathartic of cream of tartar, or some mild one, at any rate. This is the favorite, of an old friend of mine, of the allopathic school. (Note 32, p. 791.)

4. Vermifuge or Vermicide—Extraordinary.—Dr. A. S. Sweet, of Southhold, L. I., informs the readers of the *Brief* that he gave Mrs. C. the following mixture as a vermifuge: Santonia, 16 grs.; fl. ex. of pink, 160 drops; simple syrup, 2 ozs.; mix. Dose—A tea-spoonful morning and night. She gave it about equally between 4 children of her own and 1 of a neighbor's. The result was the expulsion of 67 worms. As having a possible bearing upon the question whether worms cause any special symptoms by their presence in the intestines, Dr. Sweet says that the child for which the vermifuge was particularly desired had, previous to taking it, several attacks of convulsions. They ceased with the expulsion of the worms. (Note 33, p. 792.)

Remarks.—Any person of common sense would say the worms caused the convulsions, else their removal would not have stopped them. Dr. Sweet says nothing about giving any cathartic; but as the *Brief* is taken only by physicians, he leaves it to their judgment to direct it. I would say, give an active cathartic on the third or fourth day, whether any worms have passed or not. In all cases, after expulsion of worms, give a tonic to build up and strengthen the general system, which will also strengthen the bowels, and thereby make it less liable for another "crop" of worms. For, as a general thing, it is only the weakly children who are troubled with worms, although sometimes adults have them, as in my own case.

5. Pin Worms, Remedy.—A "Mrs. C." made inquiry in the Toledo, O., *Blade*, for a remedy for pin-worms, receiving the following answers: A Mrs. "A. P. A." (a pity that so many writers are ashamed of their names), says: If "Mrs. C." will give the child a tea made of common spearmint, both using it as a drink and as an injection, I am confident it will suffer no more from pin-worms, as I have known a very bad case, of long standing to be cured by this remedy, when many others had been tried without success. If one trial does not cure, repeat, as the remedy is harmless.

Remarks.—The spearmint is safe, and quite a diuretic, with its other valuable properties.

6. A "Subscriber, of Rochester, O., gave the following answer: Tell "Mrs. C." to use the following, which I have used, in a great many cases, without failure: Carolina pink root, senna, American worm seed and manna, each $\frac{1}{2}$ oz.; steep for 1 hour in water, $1\frac{1}{2}$ pts. **DOSE**—1 gill (about 8 tablespoonfuls), once a day, in one-half as much new milk, well sweetened. There is no "ifs" or "buts" about this, it will cure. I cured myself after having convulsions for over three years, and being given up by doctors; and since then it has cured many of my neighbors.

Remarks.—This writer says nothing about injecting it; but there would be no impropriety or danger in doing so, as it is for pin-worms, which mostly infest the rectum, and for which injections are the most effectual. The injection should be kept in place as long as it can be borne, by holding a wad of cloth to prevent its voluntary escape, or discharge. This preparation, however, is very appropriate for the long round worm, and the author is of the opinion that it was for that, and not pin-worm, that this writer gave it.

7. **Pin-Worms.**—A solution made by soaking rasped quassia, $\frac{1}{2}$ oz., in cold water, 1 pt., for 12 hours, then straining, for the purpose of injection, is very effectual to remove pin-worms. A solution of aloes, $\frac{1}{2}$ oz., with carbonate of potash, 15 grs., in $\frac{1}{2}$ pt. of decoction, or tea, of barley, dissolved by rubbing together, for an injection; or an injection of simple sweet oil, says Dr. Warren, of Boston, are very effectual in removing pin-worms. Lime water (which see how to make) is also frequently used as an injection for the removal of pin-worms.

8. **Tape Worm, Dr. Turnbull's Successful Remedy.**—Dr. R. J. Turnbull, of Duncansley, Miss., in a recent issue of the *Medical and Surgical Reporter*, says: I notice a request for a recipe for tape worm. The following prescription proved most efficacious with me in the treatment of a patient who suffered for more than 3 years with tape worm. Bark of the pomegranate root, $\frac{1}{2}$ oz.; peeled pumpkin seed, $\frac{1}{2}$ dr.; ethereal ex. of male-fern (an extract made with ether), 1 dr.; powdered ergot, $\frac{1}{2}$ dr.; powdered gum arabic, 2 drs.; croton oil, 2 drops. **DIRECTIONS**—The pomegranate root and pumpkin seed must be thoroughly bruised, and, with the ergot, boiled in 8 ozs. of water, for 15 minutes (the author would say not less than 30 minutes), then strain through coarse cloth. The croton oil must be rubbed up with the gum arabic and extract of male-fern, and then formed into an emulsion (by rubbing or thoroughly stirring), with the decoction. This is the prescription of Dr. A. J. Schafish, of Washington, D. C., who employs no preliminary provision, except forbidding the patient to take only breakfast the day on which it is intended to remove the worm, and give a large dose of Rochelle salts the night before. No unpleasant effects follow this remedy.—*Brief*

Remarks.—The author would say, if the croton oil does not cause a passage in 2 hours at most after taking the mixture, give 2 blue and 1 white paper of seidlitz powder to get thorough action from the bowels.

9. Dr. Currie, of Lebanon, N. H., gives an account in the *Brief* of removing a tape-worm from a girl 16 years old, by the simple articles of pump-

kin seed, 1 oz.; white sugar, $\frac{1}{2}$ oz.; the seed pounded fine, and mixed with the sugar. **DOSE**—A tea-spoonful of the mixture every 2 hours, till all was taken: following the last dose with castor oil and spirits of turpentine. The next morning I was presented with the worm entire, 7 meters long.

Remarks.—A meter is a little less than $39\frac{1}{4}$ inches, or a total length of worm equal to 23 feet, at least. They have been expelled from 60 to 100 feet in length. The proper dose of castor oil for a girl of 16 would be 1 table-spoonful, with the spirits of turpentine, 1 tea-spoonful, mixed; and to avoid nausea or its disagreeable taste, add a few drops of oil of cinnamon. Repeat the dose in 2 or 3 hours, unless a free passage is obtained before this time. Unless the worm put in an appearance, I would repeat the whole on the third day, at farthest; the second, unless the stomach was considerably disturbed, would be better. More or less, according to the age and robustness of the person, may be given.

10. Other Remedies.—Dr. Bennett says: "Of all the vermifuge remedies proposed for the expulsion of tape-worms, I have found ethereal ex. of male-fern the most effectnal." (See Dr. Turnbull's remedy above.)

Dr. Caldwell, Baltimore, Md., claims that the Dundas, Dick & Co.'s capsules of male-fern and kamala, produced with a patient of his, the happy result of expelling a monster of some 31 feet in length, after taking 6 capsules according to printed directions accompanying them; also relieving a cough, vomiting, and all other unpleasant symptoms attending its presence.

11. Tape-Worm—The Latest, Most Easily Taken, and Most Successful Remedy for.—There has been quite a stir made recently by two or three traveling physicians with the French chemist Tauret's "pellétierine," in removing tape-worms. I have seen several that have been removed here within a few months. I had known that one physician was using it here with success before, but not being of the talkative kind, very little was said about it. With this introduction, I will say: Tauret's "pellétierine" is put up in bottles containing *one dose* only, and retails at about \$3 per bottle. Its action is to numb the worm, causing more or less giddiness, according to the nervousness of the patient. This soon passes off by the patient laying down and keeping quiet. It is perfectly safe, and but slight preparation is necessary to take it. **DOZE**—One bottle being a full doze for a man, delicate females and youths of about 15 years would take only two-thirds; children of 10 or 12, one-half, and of 4 to 8 years, only one-third of a bottle. **DIRECTIONS**—The day before it is to be taken, take a laxative or gentle cathartic, or a copious injection; and, for supper, eat only a milk diet. In the morning take half a glass of water on an empty stomach; then, five minutes after, take the pellétierine, and, immediately after, half a glass more of water, slightly sweetened. Three-fourths of an hour after take a dose of comp. tinct. of jalap; or infusion of senna (made by steeping $\frac{1}{2}$ oz.), sweetened with syrup of orange-peel. If in a few hours there are no stools, take a purgative injection or repeat the purgative medicine. The giddiness will come on in about 15 minutes after taking the pellétierine, and the worms ought to be expelled in 2 to 4 hours. I have seen one passed in $1\frac{1}{2}$ hrs. from the taking of the remedy. It is important to remember, say the instructions sent out, that the purgative must act rapidly. Don't stay in bed any

longer than the giddiness lasts; then move about, to help the action of the medicines. I have taken these instructions from a pamphlet sent out by E. Fougere & Co., 30 North William st., New York, who supply the article if your druggist has not got it. This is not an advertisement for them, but to help any one to obtain it who needs it. They do not know that I have mentioned them even; but, knowing its value, I have given it, to save those needing it from paying \$10 to \$50, as these tramping doctors charge for their removal. The pellétierine is made from pomegranate bark, which has been the main dependence for removing tape worms; but as it had to be made in the form of an infusion and taken in large doses of a $\frac{1}{2}$ pt. or more, often causing sickness of the stomach, this new preparation is as great a boon as quinine was over having to take the Peruvian bark in powder, as formerly; and as the pellétierine has proved very successful, it will, undoubtedly be but a short time till our druggists will keep it, and it will enter into general use. Speaking of its success, I will mention a few cases, only to show the estimation it is held in.

Professor Lahoulbène gives 19 successes in 19 trials. Dujardin-Beametz, member of the Academy of Medicine, France, succeeded 37 times in 39 trials. Dr. Ed. Mount, of Montreal, had 4 successes out of 4 trials; one of the cases had been troubled with tape worm for 26 years. Dr. H. Wilfert, of the Cincinnati Academy succeeded also in every case.

I will mention only one case more, the worm I spoke of being removed in one hour and a half, in the foregoing. The medicine was administered to a boy of less than 20 years, who had been with a doctor for a short time only, and learned what was used. The man was a butcher, and was well pleased to be rid of his tormentor.

Remarks.—Certainly, with the foregoing list of remedies to select from, no one should long be permitted to suffer the presence of either variety of worms, unless it should be thought worth while to keep "His Majesty" (the tape worm) in a bottle of alcohol, as a trophy of success in his removal.

1. DYSPEPTICS—Bad Cases Put Upon the Right Tack.—

A writer in the *Medical Journal*, discoursing upon dyspepsia, says: "We have seen dyspeptics who suffered untold torments with almost every kind of food. Bread became a burning acid. Meat and milk were solid and liquid fires. We have seen these same sufferers trying to avoid food and drink, and even going to the enema (syringe) for sustenance. And we have seen the torments pass away and their hunger relieved by living upon the white of eggs, which have been boiled in bubbling water for thirty minutes. At the end of a week, we have given the hard yolk of the egg with the white, and upon this diet alone, without fluid of any kind, we have seen them begin to gain flesh and strength, and refreshing sleep. After weeks of this treatment they have been able, with great care, to begin upon other food; and all this, the writer adds, without taking medicine. He says that hard boiled eggs are not half so bad as half boiled ones, and ten times as easy to digest as raw eggs, even in egg-nog."

2. Voltaire's Food for Indigestion, or Dyspepsia.—

In the memoirs of Count de Segur (Vol. 1, page 168) there is the following anecdote: My mother (the Countess de Segur) being asked by Voltaire respecting her

health, told him that the most painful feeling she had arose from the decay of her stomach, and the difficulty of finding any kind of aliment (food) that it could bear. Voltaire, by way of conversation, assured her that he was once nearly a year in the same state, and believed to be incurable; but that, nevertheless, a very simple remedy had restored him. It consisted in taking no other nourishment than the yolks of eggs, beaten up with flour of potatoes and water. Though this circumstance took place as far back as about 48 years ago, and respecting so extraordinary a personage as Voltaire, it is astonishing how little it is known, and how rarely the remedy is practiced. Its efficacy, however, in cases of debility, cannot be questioned; and the following is the mode of preparing this valuable article of food, as recommended by Sir John Sinclair. **RECIPE**—Beat up an egg in a bowl, and then add 6 table-spoonfuls of cold water, mixing the whole well together; then add 2 table-spoonfuls of the farina (flour of) potatoes, or mashed potatoes (I have used the mashed potatoes), mixing it with the liquor in the bowl; then pour in as much boiling water as will convert the whole into a jelly (like starch), and mix it well. [The author thinks it best to boil it a little, after pouring on the water.] It may be taken either alone, or with the addition of a little milk sweetened with sugar, not only for breakfast, but in cases of great debility of the stomach, or in consumptive disorders, at other meals. This dish, or food, is light, easily digested, and extremely wholesome and nourishing. Bread or biscuit should be taken with it, as the stomach gets stronger.—*Beach's Family Practice*.

Remarks.—I have recommended this food for several weak patients, with entire satisfaction; but I would say no bread, nor biscuit, should ever be eaten by a dyspeptic, or any person in a weak or debilitated condition of the system, from sickness, or naturally of feeble digestive powers, until at least the next day after the baking. I will only add, that in extremely weak patients, this, if relished, may constitute the entire nourishment taken for days, or weeks, according to the necessity of the case. But when one tires of this, some of the beef teas, essences, soups, porridges, as given under these heads in this work, or the oatmeal gruel for invalids, or delicate children, may be used to vary the food for the sick.

The two following dishes are given by Dr. Beach, in connection with the above food, as valuable for dyspepsia:

3. Dyspepsia, Liquid Food for.—Take fresh, lean beef, cut thin. 1 lb. Put it into a large-mouthed bottle or jar: add a little salt; place the bottle in a kettle of boiling water, and let it boil 1 hour; then strain through a woollen cloth. (It seems to the author that a stout piece of muslin is just as good.) There will be about 1 gill (4 ozs.) of clear, nutritious liquid. Begin by taking 1 tea-spoonful, and increase the quantity as the stomach will bear. This has been retained on the stomach when nothing else could. It cured an old captain when nearly gone with dyspepsia.

4. Dyspeptics, Excellent Food for.—Take a piece of stale wheat bread and a little white sugar, and cover with boiling water; then cover with a

plate for a short time; add cream or good milk. This dish rests easy on the stomach, and is very pleasant.

Remarks.—This, of course, is not understood to be toasted, but in its simple state—to toast bread makes it much the nature of freshly baked, which is not good for the healthy, and especially bad for dyspeptics or the debilitated from any disease or cause whatever.

5. Dyspepsia and Weak Stomach, The Value of Milk and Lime-Water for.—Milk and lime-water are now frequently prescribed by physicians in cases of dyspepsia and weakness of the stomach, and in some cases are said to prove very beneficial. Many persons who think good bread and milk a luxury, frequently hesitate to eat it, for the reason that the milk will not digest readily; sourness of the stomach will often follow. But experience proves that lime-water and milk are not only food and medicine, at an early period of life, but also at a later, when, as in the case of infants, the functions of digestion and assimilation have been seriously impaired. A stomach taxed by gluttony, irritated by improper food, inflamed by alcohol, enfeebled by disease, or otherwise unfitted for its duties—as is shown by various symptoms attendant upon indigestion, dyspepsia, diarrhea, dysentery and fever—will resume its work, and do it energetically, on an exclusive diet of bread and milk and lime-water. A goblet of cow's milk may have 3 to, 4 table-spoonfuls of lime-water added to it with good effect.

These ideas are fully endorsed by Dr. E. N. Chapman, who presented the following valuable notes on the use of milk and lime-water for invalids, to the Medical Society of the State of New York. He says: "I have used milk and lime-water for years as a diet with my patients with great success, particularly in cases involving nerve centres, that are acknowledged to be little under the command of the accepted modes of treatment, such, for instance, as marasmus (a wasting of flesh), anemia (debility from poor blood), paralysis, indigestion, neuralgia, cholera, dementia (insanity), and alcoholism. Also in cases where the nutritive functions are at fault, milk with a pinch of salt, being rendered very acceptable to the stomach by the lime, is the most digestible and nourishing food that can be given. It allays gastric (stomach) and intestinal irritability, offers a duly prepared chyle to the absorbents, supplies the blood with all the elements of nutrition, institutes healthy tissue changes, stimulates the secreting and excreting glands, and, in a word, provides nature with the material to sustain herself in her contest with disease. * * * Milk, acted on with lime-water, has a range of application almost as extensive as disease itself, whatever its character and whoever the patient."

Remarks.—I trust that enough has now been said to satisfy everybody of the value of milk in disease, and I will add that I know it to be equally valuable as a regular family diet.

6. Dyspeptic Invalids or Weakly Children, Oatmeal Gruel for.—A Mrs. "H. K.", of Evanston, Wyoming Territory, in writing to the *Blade*, upon what Mrs. Jane F. Hollingsworth said of strained oatmeal gruel for invalids, gives her own experience with it for children. She says:

"Nothing is better for either invalids or young children. Let me give my experience. Our baby was delicate; cow's milk did not agree with her while nursing; I began feeding her corn starch and oatmeal gruel, and now a heartier, happier and fatter baby than ours you will seldom see, and oatmeal gruel is her daily food.

"I take 2 table-spoonsful of oatmeal and pour on a pint, or a little more, of boiling water; let boil until thick enough for jelly, then I strain it through a little sieve, add 1 tea-spoonful of sugar and 2 of cream to a coffee cup of gruel, and it is a dish fit for a king.

"For very young children or very weak invalids of a dyspeptic character, make thinner with water while boiling, or with cold milk, after done boiling."

7. Food for Dyspeptic, or Weakly Babes.—Boil slowly, for $2\frac{1}{2}$ hours, $\frac{1}{2}$ cup of oatmeal, in 1 qt. of water, with a very little salt, the dish being covered to prevent evaporation; then strain. A double, or rice kettle (which see) is just the thing to avoid burning. When cold, to $\frac{1}{2}$ pt. of this gruel, or food, add an equal quantity of thin cream, and 2 tea-spoonfuls of white sugar; then, to this mixture, add 1 pt. of boiling water, and when cool enough it is ready for use, and will set easy on the stomach, when milk and all other food cannot be digested by a feeble or weak babe, unless aided by the use of lime-water, as above.

8. Drinks for Small Children Having Dyspeptic or Diarrheal Tendency.—Rice-water, barley-water, oatmeal-water, made by boiling a single handful of either of these to 1 qt. of water, with lemon and sugar, should be ready in every house where there are children. These drinks are surely better than cold tea, which is often given. However, milk is considered better than anything, when it is sweet and pure, and given in only small quantities at any one time, with lime-water.

9. Dyspeptics, Healthy Food for.—It is a well known fact that meats are much more needed in winter than in the heat of summer, and the following, written by a well known physician (Dr. Hunt, of New Jersey), explains the whole matter so fully, I will give it a place. Dr. Hunt, the editor of the Newark (N. J.) *Advertiser*, wholly regardless of the loss of his fellow-practitioners, by "a fearful state of healthfulness" in that vicinity, and honest as he is skillful in his professional work, gives this advice for the summer season:

"Fruits and vegetables, with an abundance of good milk and bread, should be the main substantials and not the mere side dishes of the table. There are too many who simply add what the summer brings to their usual bill of fare. They still indulge in heavy meats and stimulating condiments, adding some badly cooked vegetables, and finishing with the usual flatulent pastry, or mayhap a few berries; but this is an injustice both to the system and to the Providence whose blessings are showered upon us in such prodigal profusion. Meat should now become the side dish; gravies, stews and condiments should be utterly abandoned; and the system should be toned and purified by the tonic of the field and garden. Milk is better than medicine, and the entire pharmacopœia contains nothing equal to what now comes to us from the true laboratory—comes to us not only with healing wing, but with a flavor for the palate which all the French cooks in Paris could not imitate. And the offerings arrive

with such glorious progressiveness! First comes the strawberry, like a blush on the cheek of Mother Earth; then the berries and vegetables of more vigorous growth; then the stately, luscious melon, the charm and glory of the breakfast-table; then corn, which is meat in nutrition; with the juicy apple, the pride of prince and peasant. Then we come to the pear and to the orchard—

Where peaches grow with sunny dyes,
Like maiden's cheeks when blushes rise,
Where huge figs the branches bend,
Where clusters from the vine distend.

There is the feast which nature spreads. Let every man say grace in his heart, and partake of it thankfully."

10. Gaseous Dyspepsia, Simple but Effectual Remedy.—

Where gas distends the stomach, or bloats the bowels, taking 15 to 20 drops of chloroform in a little syrup, after eating, will expel the gas, and stop the fermentation in a few minutes.

Remarks.—Chloroform is well known to be a very diffusive stimulant, and hence this action of it might be expected. It is easily tried and may prove as effectual as it is claimed to be. (See the closing remarks on pimples, bad and of long standing, etc., for the use of animal charcoal, with sugar, before meals, also of soda after meals, for this gaseous condition of the stomach.)

11. Dyspepsia, or Indigestion, Very Valuable Treatment of.

—I am now using a very valuable medicine, or combination, on a case where the indigestion was very bad, so much so, it might be considered real dyspepsia; but the treatment allayed the distress so promptly, and helped, or enabled the food to digest, so effectually that I will give the recipe. First I used the following fluid preparation:

I. *Solution for Dyspepsia.*—Pepsin in crystals, 30 grs.; glycerine, 1 oz.; concentrated lactic acid, $\frac{1}{2}$ oz.; distilled, or soft water, 4 ozs.; mix. DOSE—A tea-spoonful in 3 or 4 tea-spoonfuls of water, immediately after each meal.

Remarks.—After a week or two, as the case may improve, less, and still less, may be used, say $\frac{1}{2}$ tea-spoonful only, till finally cured. And in case there is a diarrheal tendency, or any inflammatory condition of any part of the system, in which the lactic acid is not good, take the following powder, in place of the solution, as above:

12. Powder for Dyspepsia, Diarrhea, etc.

—Sub-carbonate of bismuth, 200 grs.; Scheffer's, or other good pepsin, 100 grs. Mix thoroughly, and make into 20 powders. DOSE—Take 1 powder in a little molasses and water, half-and-half, immediately after each meal, the same as the solution; and after some time, or suitable improvement has been made, divide a powder for 2 doses, as long as needed.

Remarks.—This will meet very bad cases of either disease, and prove, generally, all that can be desired. See the use of bismuth with Dover's powders, in looseness of the bowels, from teething—where it is effectual, although the cause, in the case of teething is continued for several months, or as long as the teething continues. It holds the fort, however, notwithstanding this con-

tinuance of the cause, so it will with the pepsin here as well as in the other case. But whether the solution or the powder is being used, if there is heat and an uneasy or distressed condition of the stomach, it is an evidence that the hot water, given next below, is called for, and will prove valuable.

13. Hot Water for Dyspepsia.—The following item is from the *Hartford Courant*, which I have since proven to be very valuable. By using the hot water an hour before each meal, instead of only at breakfast. The *Courant* says: "A gentleman who is in business in this city has cured himself of a chronic and ugly form of dyspepsia in a very simple way. He was given up to die; but he finally abandoned alike the doctors and the drugs, and resorted to a method of treatment which most doctors and most persons would laugh at as an 'old woman's remedy.' It was simply swallowing a tea-cupful of hot water before breakfast every morning. He took the water from the cook's tea-kettle, and so hot that he could only take it by the spoonful. For about three weeks this morning dose was repeated, the dyspepsia decreasing all the while. At the end of that time he could eat, he says, any breakfast or dinner that any well person could eat—had gained in weight, and has ever since been hearty and well. His weight is now between 30 and 40 pounds greater than it was during the dyspepsia sufferings; and for several years he has had no trouble with his stomach—unless it was some temporary inconvenience due to a late supper or dining out, and in such a case a single trial of his ante-break fast remedy was sure to set all things right. He obtained his idea from a German doctor, and in turn recommended it to others—and in every case, according to this gentleman's account, a cure was effected."

Remarks.—After seeing the above item in the *Courant* I have had occasion to use the hot water personally, and to direct it for others; and I have found it satisfactory, if taken faithfully before each meal, instead of only at breakfast. I also find that heating it in summer to about 140 degrees and in winter to 145 degrees F., is about the right degree of heat. I heat it over a small coal-oil stove, in a pint tin cup, about $\frac{3}{4}$ full, which I find about the right amount to be taken at one time. It can be heated in a tea-kettle and poured into a cup or bowl; but it is well to have a thermometer to know just what the heat is. A tea-spoonful of sugar makes it pleasant for me, but a bit of lemon juice might suit some better. It must be followed for several months, in long standing cases, to prove of lasting benefit, eating only easily digested food, and nothing that disagrees with the stomach. The sipping of the hot water has this advantage also, it allays the great thirst of dyspeptic patients, as well as the heat and distress in the stomach, better than anything else I know of, contracting the lax and flabby condition of the muscular coating of the stomach, giving tone and strength to this organ, which immediately diffuses itself to the whole system. Take the hot water before each meal and at bed-time as long as you have any considerable thirst. Be careful, also, not to eat too much, and only at meal times, and a cure must be the result. (See also Hot Water Cure for Consumption.)

APPETITE—To Increase or Restore.—Obtain valerian root, $\frac{1}{4}$ or $\frac{1}{2}$ lb. Have it ground coarsely, or well bruised. Make a tea of it by steep-

ing a rounding table-spoonful of the powder in water 1 pt. Dose—One to 2 table-spoonfuls just before meals, and half to a wine-glassful at bed-time.

Remarks.—This plant is known as the American Greek-valerian, abscess root, blue bells (from its blue flowers), sweat root, Jacob's ladder, etc. The Latin, or technical, name is *polemonium reptans*. It grows in the northern states, and was a great favorite with the Indians, the tea being given freely in fevers, pleurisy, and to produce copious perspiration. It is claimed also to cleanse the blood, and to have cured many cases of consumption.

PECKHAM'S GENUINE BALSAM—For Coughs, Sore Throat, Sore Chest, Kidney Difficulties, Wounds, etc.—Rosin, 10 lbs.; spirits of turpentine, 1 gal.; or, rosin, 2½ ozs.; turpentine, 2 ozs., is the same proportion. DIRECTIONS—Melt the rosin in a suitable kettle, or pan, over a stove, in the day time, so that it shall not be necessary to have a lamp, or candle, near; and when not too hot put in the turpentine, gradually. It must not be made over an open fire, as the gas arising from it as the turpentine is put in takes fire very readily, and would quickly fill a whole room with its blaze, and perhaps fire the house; hence I have given these necessary precautions. Bottle while moderately hot, else it will run too slowly. Dose—For a grown person, take from 5 to 10 drops on sugar; children, 1 or 2, to 5 drops, night and morning.

Remarks.—I obtained this recipe of L. S. Robinson, of Jackson, Mich., who says he has made and sold thousands of dollars worth of it, claiming that it is the original Peckham's balsam, and that all additional articles put in and claimed to be an improvement, should not be used. With this balsam Mr. Robinson claims he has made some remarkable cures in the diseases mentioned, both internal and external, and mentions the following cases.

I. A mare of his own, being in a strange pasture with some cows, was badly hooked one night. The wound was long, deep and jagged, upon the side; but he put some of this balsam into every part of the wound, then sewed it up, except a little opening at the lowest point of the wound, to allow the matter in healing to drain off. Then drove home, 30 miles, the same day, and the wound made a very rapid healing.

II. A remarkable case, that of a lady who had had several miscarriages, and feared another, there being an inflammation of the parts, and also of the neck of the bladder; but 5 to 8 drop doses, night and morning, of this balsam, cured both difficulties; the lady, upon a subsequent trip he was making over that route, showing him the babe, healthy and well, and herself the same, telling him, "There, doctor, that is your child, you saved it; nothing else was used."

III. A gentleman who had recently buried a wife from consumption, and who considered himself past help, with the same disease, when Mr. Robinson first made his acquaintance. But with this balsam internally, and Cook's electro-magnetic liniment, externally, he was entirely cured, and is still alive, at this writing, hale and hearty, living with a second wife, some 30 years after the cure.

BRIGHT'S DISEASE OF THE KIDNEYS.—A Novel Cure for.—A correspondent of the New York *Evening Post* gives the following novel item to that journal. He says:

"About 20 years ago, a daughter of mine—then about 6 years old—was given up to die by the family physician, who said that she had Bright's Disease of the Kidneys, and that it was incurable, and never known to be cured either in Europe or America. The physician, on giving the case up, told my wife to give the child anything that she wanted, and to make her as comfortable as possible while she lived. The child constantly called for beans; so my wife cooked some as quickly as possible, not stopping to parboil them, as is usually done, but boiled beans, pork and potatoes together, in the first water, and when well cooked she gave them to the child to eat. The child then went to sleep and from that time began to improve. She is now the mother of two children. She is not troubled with the disease unless she takes a severe cold, and when that happens she at once uses her old remedy, and it is always effectual.

Remarks. There is nothing said here about continuing to eat the beans; but I take it for granted that this was, and should be done in all cases; and tell me, pray! why beans should not have this power as well as any drug? And it is admitted, as this writer says, that it is seldom, or never known to be cured. Let this remedy, therefore, have more than a fair trial by a long continued use. Beans are certainly a healthy and agreeable food for a general diet. But if used especially for kidney difficulties keep all their virtues by not changing the water. Beans over a year old are liable to become musty as well as doubly hard, and unfit for this, or any other use.

2. Bright's Disease—Sixteen out of Nineteen Cases in a London Hospital Cured.—Notwithstanding the statement in the item above, that Bright's disease was never to be cured in Europe or America, still some years ago a Loudon (Eng.) physician reported in the *London Lancet*, the cure of 16 out of 19 cases, in the Hospital, by the use of 15 gr. doses of powdered valerian, 3 or four times a day, with supporting diet. Now the fl. ex. would be used, in $\frac{1}{2}$ to 1 teaspoon doses, with the same effect; but I am not aware of its having been used by others. But if one has the difficulty it had better be tried, and may, with the beans, as above, cure more than without them.

QUINSY.—A New and Successful Remedy for.—A Dr. Gine, Professor of Clinical Surgery, at Madrid, Spain, reports through the *La Presse Med. Belge*, July 17, 1881, the bicarbonate of soda (the common baking soda, the best, however is the English bicarbonate, kept by druggists) applied to the tonsils in fine powder in Quinsy, repeating frequently, is of inestimable efficacy, he having cured dozens of cases—in no case without benefit, and, usually a cure in 24 hours; and in no case when he had used it had he found it necessary to remove the tonsils.

DIRECTIONS FOR APPLICATION. It may be applied by rolling a bit of paper of suitable length into cylindrical form, then putting the end into a fine powder of the soda, to get a suitable amount into the hollow, the size of an ordinary goose quill and blowing it upon the tonsils; or applying it by wetting the finger, then putting the finger into the powder, then upon the tonsils.

Remarks. I have had no opportunity for trying it for this purpose, but I

have proved its value as a gargle in "Sore Throat,—which see. See also its value in "Burns, Scalds, etc." See, also, "Inflammation of the Tonsils following Sick Headache," where the latter remedy—the salicylate of soda—is used as a satisfactory cure in both these diseases, as inflammation of the tonsils is only another name for quinsy.

1. EYE-WATERS.—Sulphate of zinc, and fine table salt, each 4 grs.; sugar of lead, 2 grs.; morphine, 5 grs.; loaf sugar, 10 grs.; distilled or rain water, 4 ozs.; mix and keep corked. DIRECTIONS—Drop 1 or 2 drops in the eye morning and evening, else apply with the finger between the lids which is the most common way. Best done when laying down. It can be done very well by holding the head back.

Remarks.—This will be found a very valuable eye-water in all cases of weakness, or slight inflammation of the eye. It may be applied three or four times a day, if needed so often. It is well to shake it two or three times a day at first, for a week or ten days, then allow to settle, and strain. If this causes too much smarting in bad cases, reduce some of it with more rain water, so it shall not smart more than five minutes at most.

2. Eye-Water for very Sore Eyes or Catarrhal Ophthalmia.—Tincts. of aconite, and veratrum viride, each 10 drops; acetate of lead, 5 grs.; morphine, 3 grs.; water, as in No. 1, 4 ozs. DIRECTIONS—Open the lids and put in freely.

Remarks.—I. It is claimed by physicians that this has cured very bad cases. These very bad cases are generally the result of an acute inflammation of the eyes which, instead of having been cured, have degenerated into a chronic or long standing condition, with considerable watering of the eyes, and also, especially in the mornings, a thick matter is found in them, all for the want of proper treatment, else a scrofulous condition of the system. In all these cases, bathing the feet in hot water evenings, and taking cream of tartar, 1 oz., dissolved in 1 pt. of boiling water, and drank of freely, when cold, to produce gentle cathartic action, will be found a valuable help in curing them; or, the old plan, taking cream of tartar and sulphur, equal parts, or of late, 2 ozs. of cream of tartar to 1 oz. of sulphur, mixed and stirred into syrup, and take 3 mornings and skip 3, until 9 doses are taken, was a good way, if enough is taken to act pretty freely on the bowels by the 3d day. Being also careful to avoid a greasy diet, and using only plain and nutritious food, avoiding also stimulating drinks, if a cure is hoped for or desired.

II. *If the Urine* is high colored or deficient in quantity, take acetate of potash, $\frac{1}{2}$ oz., in water, 8 ozs. Dose—1 to 2 tea-spoonfuls 3 or 4 times daily until free and clear, will aid much in bringing about a healthy condition of the system in most cases.

III. *Case in Hand.* Prof. Scudder, in the *Eclectic Medical Journal*, gives the case of a child 11 months old having this catarrhal ophthalmia, with the matter sticking the lids together in the mornings, cured by him with the above treatment after other physicians had failed to give any relief; with the addition only of the tinct. of *rhys toxicodendron* (poison oak) 4 drops in 4 ozs. of water.

Dose—One tea-spoonful 4 times daily. His cure was effected in 5 weeks, and very satisfactory.

3. Weak Eyes, Mild Remedy for.—Put 1 dr., or a tea-spoonful, each of spirits of camphor and laudanum into a 4 oz. vial and fill with rose-water. Shake and apply as often as needed. Rain water will do. Shaken when used, works very satisfactory.

4. Another Mild Eye-Water — For Children.—Take 1 oz. of elder flowers and steep in $\frac{1}{2}$ pt. of soft water (steep in an earthen dish); strain, and add $\frac{1}{2}$ tea-spoonful of laudanum. Keep in a cool place, and use as needed.

Remarks.—If the eyes are painful, wet soft cloths with this, and bind on at night. If of long standing or chronic, make a tea of the elder flowers and drink, or give to children in these cases, to cleanse the blood.

5. Weak Eyes, Wash for.—Some writer for weak eyes says: “Bathe your eyes night and morning in a tolerably strong solution of common table salt and water. We have known some remarkable cures effected by this simple remedy. After bathing the eyes daily for about a week, intermit a day or two; then resume the daily bathing, and so on till your eyes get strong again.”

6. Eyes, Acute Inflammation of—Valuable Remedy.—For an acute inflammation of the eyes I know of nothing better than to take the white of an egg, in a tin cup, and beat into it thoroughly about $\frac{1}{2}$ a teaspoon of powdered alum; set on the stove to heat, and stir constantly till it curdles; then strain off the whey, breaking up the curd and putting it upon a cloth, and lay upon the eye; and as it becomes dry, take it off and fold the cloth around it to keep the curd together; re-wet it, by putting it into the whey, drain off the surplus whey, and re-apply. This may be done 2 or 3 times; then make more, if needed, and use the same way, until the inflammation subsides; after which any of the eye waters, reduced with water to be very mild, may be used to strengthen the eyes. I have used this in just this way, upon my own eye, with entire success. If the inflammation should continue long, take some salts or cream of tartar, or the sulphur mixture as in No. 2 for “Catarrhal Ophthalmia.” I see this alum cure is recommended, in about the same way, for sprains. I have not used it upon them; yet, as a sprain produces an inflammation, I think it will prove valuable there also.

7. Eyes, to Remove Iron and Steel from.—Iodine, 2 grs.; iodide of potash, 12 grs.; soft water, 3 ozs.

Remarks.—Accidents are often occurring to millers, while picking the mill-stones, by a small bit of steel from the pick penetrating into the coating of the eye. Dr. T. B. King, of Toledo, an old English physician, referred to several times in this work, informs me that he has cured several cases with this preparation. I have had no opportunity to test it since I obtained it, but had one just before, which I was relating to the “Old Doctor,” when he gave me this. He says, by putting one or two drops of it into the eye a few times, the steel or iron will be loosened in 24 hours. Then let no one fail to try it, as soon as needed. (Note 34. p. 792.)



CROWFOOT.

(See Description)

This herb is a Stomach and Bowel tonic, useful in Dysentery, Diarrhea and Cholera Infantum; also used externally as a wash for Wounds, Ulcers, etc.

8. Eyes, Granulation of.—For granulations (small grain-like elevations inside of the lids) of the eye, Dr. King puts corrosive sublimate, $\frac{1}{2}$ gr., into the reddish codliver oil, 1 oz., dissolves and applies 2 or 3 times daily, with great success.

9. Films of the Eye—One Case of Five and One of Nineteen Years Blindness Cured.—I. Dr. M. P. Greensword, of Poughkeepsie, N. Y., reporting through the *Medical Summary*, in Dec. No. for 1882, says: "I took a patient that had been blind five years from opacity (thickening of the cornea membrane covering the front of the eye, which prevents seeing through it) and gave him the nitrate of silver in doses as follows: Nitrate of silver, 5 grs.; tannin, 2 grs.; rain water, 6 ozs. DOSE—A tea-spoonful 15 minutes before each meal. In 10 days he began to receive sight, and in one year his sight was nearly perfect.

"After this I took a man aged 82, and blind nineteen years from opacity of the cornea: I gave him the same remedy, in the same way, and in 6 months his sight was restored nearly perfect. I have since cured a great many cases from opacity by the the same remedy. It is far superior to mercury in any shape. Another advantage in using this remedy is that the patient continues to grow better for a year after discontinuing its use, if he lets all other medicines alone during that time."

Remarks.—The Doctor admits having failed to cure some cases of females, who were troubled with leucorrhœa, until he cured that difficulty by applying a sponge to the parts wet with a strong solution of cadmium, for 24 hours; then alternate with a sponge pessary, saturated with pure glycerine, for the same length of time. The words, "a strong solution," may do very well for a physician, but for the people it is not as well as to say how many grs. to 1 oz. of water—from $\frac{1}{2}$ to 4 grs to the oz. are used as an eye-water, and double this strength is used in ulcerations of the ear; then 5 or 6 grs. to 1 oz of soft water would be as strong as I would recommend. It is much like the sulphate of zinc in its action. I trust the nitrate of silver, as above, will continue to give satisfaction in blindness.

If nitrate of silver is taken very long in any case, I should fear it might give a dark color to the skin and whites of the eyes, that could never be removed. Look out for that, by consulting with your physician, and stop its use if these conditions show at all, but even this is better than blindness.

II. The old plan of removing films from the eyes, by rubbing a piece of "blue stone" (blue vitrol—sulphate of copper), made very smooth, over them, once daily, which has been done also for granulations, is a quicker way, and no danger of discoloring the skin. But this would have to be done by a physician or some one a little skilled in turning up the lids out of the way, then simply passing it carefully over the film or granulations, as the case may be. It is pretty severe but effectual, if properly done. The eye-lid should be held open 2 or 3 minutes before allowing it to close.

III. Films are also removed with corrosive sublimate, $\frac{1}{2}$ gr. dissolved in $\frac{1}{2}$ oz. of sub. acetate of lead water, then $\frac{1}{2}$ oz. of white cod liver oil, added

and shaken until thoroughly mixed, and shaken when used. Put on a little with a brush once daily. Of course, in all cases, correct the blood and general health.

10. Stye upon the Eye—Lid Remedy.—Put a teaspoonful of black tea in a small bag; pour on it enough boiling water to moisten it; then put it on the eye pretty warm. Keep it on all night and in the morning the stye will most likely be gone; if not, a second application is certain to remove it.”

Remarks.—The infusion or weak tea, made from black tea, has been for some time considered good as an eye-water, then why not the grounds good as a poultice? I believe it may be worthy of trial.

As a beverage the black tea is preferable for invalids and for nervous people—a weak infusion. Should the above poultice of tea fail, try the following, which I know must be good in any kind of swelling, as styes, boils, etc., if followed up properly. It is from the *Cricket on the Hearth*, a valuable paper. It is headed:

11. A Stye, to Remove from the Eyelid.—“The stye is strictly only a little boil, which projects from the edge of the eye-lid. It usually disappears of itself after a little time, especially if some purgative medicine be taken. If the stye should be very painful and inflamed, a small warm poultice of linseed meal and bread or milk must be laid over it, (a poultice of powdered slippery elm is also good for any inflammation), and renewed every 5 or 6 hours, and the bowls freely acted upon by a purgative draught, such as the following:

I. *Purgative Draught for Stye, or Other Purposes.*—“Take Epsom salts, $\frac{1}{2}$ oz.; best manna, $\frac{1}{4}$ oz.; infusion of senna, $\frac{3}{4}$ oz.; tinct. senna, $\frac{1}{4}$ oz.; spearmint water, 1 oz.; distilled or soft water, 2 ozs. Mix and take 3, 4 or 5 table-spoonfuls. When the stye appears ripe, an opening should be made into it with the point of a large needle, and afterward a little of the following ointment may be smeared over it once or twice a day.

II. *Ointment for Stye, Chaps, etc.*—Take spermaceti, $\frac{3}{4}$ oz.; white wax, $1\frac{1}{4}$ ozs.; olive oil, 3 ozs. Mix them together over a slow fire, and stir them constantly until cold.

Remarks.—Box the ointment for use, as above indicated. A faithful use of these will soon tell.

1. CORNS—Hard and Soft, Warts, Bunions, etc.—I. *Corns.*—Probably but few subjects of more universal interest could be found than the very humble one of corns. A writer in the *Christian Weekly* says: “They are of two kinds—soft and hard—the result of pressure which stimulates the skin so that an increased flow of blood to the excited part is caused, and the cells of the cuticle (from the Latin *cutis*, skin,) are more rapidly produced than is natural. Soft corns occur between the toes, because of the pressure of the joints of the smaller toes on the opposite skin, and the corn is constantly moist with perspiration. The first thing in the cure of corns is to remove the cause—wear soft, broad-toed shoes and boots, and thus remove the irritating pressure.

1. *Hard Corns.*—Soak hard corns in warm water, shave down, touch them with a little acetic acid occasionally, and put a thin plaster over the corn to prevent chafing after the application of the acid.

II. *Soft Corns*.—In the case of soft corns great cleanliness must be observed, the suffering toes must be kept separate by a bit of cotton, and the dead skin, after touching lightly with the acid, must be removed as fast as its tenderness will allow. But no cure can be accomplished while an ill-fitting shoe is still doing its mischievous work. Too tight a shoe, especially one too narrow-toed, is an ill-fitting shoe.

Remarks.—I wish to say as confirming the idea above advanced, that if any one will not give up their “tight fits” they may rest assured that they will always have a crop of corn(s) on hand, or rather on foot. So suit yourself as to keeping a full supply.

2. Bunions, Corns, Warts, etc.—Brister’s Spanish Destroyer.
—Concentrated ether, 1 lb.; gun cotton, 1 oz.; best alcohol, 8 ozs.; glycerine, 1 oz.; a trifle of red aniline to color.

I. *Directions to Make*.—Put the gun cotton on a plate and wet it with a little alcohol, and then put all into the ether. If a less amount is desired keep the same proportions. Keep corked. To color, if to put up for sale, put 5 cts. worth of aniline red into 1 oz. of alcohol, and 1 tea-spoonful of it will color all a nice red, more or less as you choose.

II. *Directions for Use*.—Soak the feet in warm water from 5 to 10 minutes; scrape the outside of the corns, or bunions, with a knife. Apply the destroyer to the afflicted parts with a brush, as thin as possible, about three times a week, 4 or 5 applications being sufficient to cure the affected parts. Should the corns be between the toes (soft corns), place a little piece of cotton between them, to keep them apart, and to keep the medicine from being rubbed off.

For warts keep covered with the remedy, or destroyer, till they are removed. Keep the vial corked tightly.

The destroyer, when applied to the afflicted parts, forms a thin plaster (artificial skin) over the same. Discontinue the use of the destroyer until the plaster disappears. When my wife used it upon her bunions she put some washing fluid (made of sal-soda and lime, which she always kept for washing purposes), into the water in which she soaked the bunions, then scraped off all the dead matter and softened skin, and applied the remedy. It did not take but a few days to reduce her bunions more than one-half in size, and to remove all soreness. This is really a valuable thing for bunions.

But sal-soda put in the water to soak the corn, or bunion in, making it pretty strong, will do as well as the washing fluid, referred to above; it softens the hard scaly surface, which is to be scraped off; then apply as above directed, with a brush.

Remarks.—I obtained this recipe of Wm. H. Brister, of Springfield, Ill., at the depot where he was selling the “Destroyer,” as he calls it. He had a circular, calling himself “The Great Western Corn Doctor,” and told me he had traveled 8 years in its sale, and had cleared his living for himself and family and built a house in Springfield worth \$8,000 made out of the business. This remedy must certainly have been very valuable, or he could not have continued its sale for so many years; for he showed me certificates from prominent men.

governors, senators, lawyers, doctors, etc., all over the country whom he had cured. I have made it and cured many bad bunions, and hence I know its value. It forms an artificial skin over the parts and hence it is good in slight bruises or abrasions, to put on for this purpose, to protect them from water, etc.

3. Corns, Simple Remedy for.—Having removed the friction and pressure causing corns, by the substitution of well constructed shoes and boots, the thickened cuticle may be removed by applying equal parts of carbonate of soda and common brown bar soap. Rub these substances together, with a spoon handle or knife blade on the surface of a plate, forming a strong alkaline ointment. **DIRECTIONS**—Spread a little of this on a piece of buck-skin or wash-leather and apply it to the surface of the corns at bed-time, after soaking them for 5 or 10 minutes in hot water, allowing it to remain until morning. When the soap plaster is removed in the morning, the corn to which it has been applied, will be found white and soft, and by scraping a little around its base with your finger nail, or a dull knife, it may be easily raised up and removed. Then apply the colodion or artificial skin, or a bit of court plaster, till it heals. This is all that is needed, except to wear easy shoes and boots.

4. Corns, A Sure Cure for.—Bathe in a strong solution of sal soda; pare off close, and touch the corn with carbonated iodine; repeat the application of iodine next day, and a cure will speedily follow.

Remarks.—A druggist will prepare this mixture, if desired, and either of the plans here given, with proper care not to wear tight boots or shoes, will cure corns.

5. Corn Salve, Effectual.—Pine pitch, or pine tar, as some call it, brown sugar and saltpeter, each, 1 tea-spoonful. Simmer together. Pare the corn as close as you can. Spread some of the salve on an old kid glove or other thin, soft leather, the size of the corn; bind it on for 2 or 3 days; when taken off the corn comes off with it. A lady who had used it gave me this.

6. Warts, Simple Cure for.—Cut a piece of wild turnip, from the woods, and rub several times upon the wart or warts. A writer says: "I removed nearly a hundred from hands, leaving no scar at all."

Remarks.—This is simple, and is, no doubt, as good as represented.

7. It is also claimed that our simple potato, cut and rubbed on, the same as the wild turnip, in the receipt above, 3 times a day for a few days, removed 20 warts from the writer's hands.

8. Another writer says: "Chromic acid, a drop or two to each wart at bed-time, I will warrant to cure in 3 days."

Remarks.—Be careful not to get it on the hands or clothing, nor leave it where children can get it. Carbolic acid, full strength, will do the same thing. The best way to apply any acids is to take the end of a match-stick and mash one end between the teeth, to make a broom-like end, to hold only a drop or two, and just touch the head of the wart, or corn with the acid 2 or 3 times. Remember this—if you get too much acid on, so it runs down into the flesh, soda will neutralize it. The chromic acid is considered the safest of the acids.

(See Cancer, Chromic Acid in, etc.) Don't use enough to spread upon other parts.

9. Warts, Simple and Easy Cure.—Rubbing warts night and morning with a moistened piece of muriate of ammonia (sal ammoniac), will cause their disappearance without pain or scar.

10. Warts on Cows' Teats; or, The Hand's Remedy.—E. Walcott asks the readers of the *Detroit Tribune* for a remedy for warts upon cows' teats, and "J. L.," of Maple, Mich., makes him the following answer: "Take a handful of green bean leaves and rub them in the hands until the hands are thoroughly wet with the juice; then proceed to milk. As often as the hands get dry while milking, moisten again with the bean leaf juice. Do this twice or three times a week, and in a few weeks there will be no warts on the cow's teats or the hands of the milker."

1. SEASICKNESS, CURE FOR.—Dr. Landener, of Athens, Greece, claims to have discovered that 10 to 12 drops of chloroform cures seasickness. One dose cured 18 out of 20; the second dose cured the others.

Remarks.—It is simple, easily obtained and not unpleasant to take in a little water. And a lady who has had considerable experience in crossing parts of Lake Erie informs me that the smelling of chloroform a few times has relieved much of the nausea attending seasickness. So, also, my judgment is that the taking and inhaling a little of it from the bottle will do great good.

2. English Remedy.—The bromide of sodium, for long voyages, has been found very effectual in doses of 10 grs., 3 times a day, in treating 200 cases of ocean seasickness.—*Dr. Kendall in British Medical Journal.*

Remarks.—The bromide of sodium was first used by the late Dr. Beard. The indiscriminate use of oranges, lemons, brandy and champagne, Dr. Kendall condemns, as making the case worse than without them.

CALOMEL, a Substitute for, in Jaundice, Hepatic Dropsy, Hypochondriosis, Hemorrhoids, Throat and Bronchial Inflammations, etc.—A medical writer says: "Sulphate of manganese is now being introduced as a substitute for mercury in various bilious troubles. In jaundice, hepatic dropsy (dropsy arising from liver difficulties, and most generally affecting the abdomen), hypochondriasis (a condition of melancholy, or low spirits) it is stated to have produced most remarkable results; and in hemorrhoids (piles) and in congestion (inflammation, or an unnatural accumulation of blood) of the throat and bronchial tubes it has proved no less efficacious. Anæmic patients (persons of a pale or bloodless appearance), who cannot take any of the preparations of iron, are enabled to take iron with benefit if combined with 2 to 5 grs. of sulphate of manganese. It is generally found preferable to administer the manganese in 10 to 20 grs. dose, in a glass of water, adding a little citrate of magnesia to cause effervescence. By these doses large bilious dejections (passages) are produced. Half a drachm (30 grs.) is said to be the utmost dose ever necessary, 10 grains being usually quite sufficient."

Remarks.—Prof. King, in his “American Dispensary,” says: “It acts like a powerful *cholagogue*, (a Greek word signifying “to carry off bile”), causing a profuse secretion of bile, and has been used with efficacy in scrofula, chlorosis (whites), jaundice, torpid liver, diseases of the spleen and cachexia (*i. e.*, any depraved or bad condition of the system, as from cancer, syphilis, etc.). *DOSE*—The dose is from 5 to 20 grs., 3 times a day. A dr. or two (60 to 120 grs.) dissolved in a $\frac{1}{2}$ pt. or 1 pt. of water will act as a prompt purgative, with scarcely any depression of the system. “But,” he continues, “large doses, or its long continued use in small doses, injures the tone of the stomach. One dr. of the sulphate of manganese mixed in 1 oz. of lard has been used externally as an ointment in buboes, chancres, indolent ulcers and some diseases of the skin.” And the author thinks this ointment might prove valuable to rub in thoroughly over the liver. So it will be seen that this preparation of manganese, is a valuable article, and if it is made to take the place of calomel, it will be a grand thing for the people. Almost any cathartic, if very long continued, will depress and injure, more or less, the condition of the stomach; so this is not alone in thus injuring “the tone of the stomach,” if long continued.

ALTERATIVES, OR BLOOD PURIFIERS—By Food, Beers, etc.—An inquiry through the *Blade* for a plan to improve the complexion by removing pimples, etc., was made in the following words: “My complexion is sallow and bad, my skin pimply all over. I am run down, and want to feel alive again. What is the matter, and what is to be done?” To this inquiry the editor of the “Household Department” made such a common-sense reply that I give it a place, hoping that every one needing such an alterative effect will adopt her suggestions, and save the necessity of taking something which is more of a medicinal character. She says:

I. The matter is that the blood is thoroughly vitiated, and improving it must be a matter of time. Spring diet should do the work of medicine, largely. And first in importance, are salads of all sorts. Every family should have its beds and boxes, its borders and hot-beds full of fresh sprouts, from the pepper-grass and the water-cress to the tender turnip, mustard, cabbage and beet shoots, the first leaves of dandelion and sorrel, cheril, mint and parsely, all good to mix for some of the most inviting salads.

II. But the vegetable which combines the most beneficial qualities, which ranks as a medicine and purifier of the finest sort, is one, which, though its stigma is now removed among gourmands and in polite society, is under the ban in ordinary circles. The virtues of the onion render it a pharmacopœia in itself. Eaten raw, with or without vinegar, it is the most effective purifier of the blood known. It has been known to leave consumptives plump and rosy. It cures dyspepsia, and is a thorough worm-medicine for children. As a toilet prescription, it will do as much to refine the complexion, renew the hair and remove spots as any one article known. More people like its piquant flavor, indispensable in all high-class cookery, than care to own a preference they suppose ungentle. But there need be no hesitation in eating onions freely, since the use of a tooth-brush and a dose of charcoal, always good in itself, or the chewing of some roasted coffee or corn, will remove the odor. **The only care to be**

observed is, that as onions absorb impurities very quickly, they should be kept in a dry place where there is pure air, not in musty cellars or closets, with decaying provisions and sour milk. To get their full benefit, raw onions and their young shoots should be eaten at breakfast, as a salad, with bread and butter. They banish worm complaints of the most aggravated type, and prevent throat and blood disease in a large degree, absorbing and removing impurities in the blood. * * * * I am going to give one or two old-fashioned recipes for spring bitters which, home-made, of fresh roots and simples, are better than expensive medicines, and the two following have especial virtues for the complexion.

III. *Alterative Bitters, Cheap and Good.*—Put 1 oz. of yellow dock root and a cup of grated horse-radish in 1 quart of hard cider, cold. It will be ready the next day and should be taken, a wine-glass full before each meal. This made by the gallon and taken through the season will affect the growth of the hair and improve the appearance in every way, provided the strength is kept up by well selected food.

IV. *Alterative Beer of Our Grandmother's Make.*—The next is a strictly temperance beer of the sort of our grandmothers used to administer in powerful doses. Take of best Jamaica ginger root, sassafras bark, from the root, and wild cherry bark, each 2 ozs.; burdock root and dandelion root, each 4 ozs.; bruise all, and add cream of tartar, 1 oz., and water, 2 gals. Boil 10 minutes, strain, and add white sugar, $1\frac{1}{2}$ lbs.; the rind of a lemon in bits; heat, stir until the sugar dissolves, and pour into a stone jar with 3 ozs. of tartaric acid. When lukewarm, put in a tea-cupful of hop yeast, stirring well. In a few days it will be in high perfection and a very pleasant beer, with valuable alterative properties.

Remarks.—The author thinks that 1 oz. of tartaric acid will be plenty, because, with the above amount, 3 ozs., it will become hard and sour too quickly.

Ring-Worm Remedies.—The form that this eruption takes gives its name, as it is generally in a circle, itching considerably when the body is heated by exercise, or in hot weather; and also if rubbed or scratched. A saturated solution (all that will dissolve) of blue vitriol in water, touching the parts several times daily, will cure them.

SPRAINS—Capital Remedy for.—The white of an egg, into which a piece of alum about the size of a hickory-nut has been stirred, stirring constantly until it forms a jelly or curd, is a capital remedy for sprains. It should be laid over the sprain upon a piece of lint, and be changed or re-wet in the whey as often as it becomes dry.

Remarks.—I think it best to lay on a cloth, rather than lint, for convenience of re-wetting, as in for Inflammation of the Eye; full directions there how to make and use it. It allays inflammation and soreness quickly.

1. **CUTS AND BURNS Shorn of Their Terrors.**—A writer in the Stratford (Ont.) *Weekly Herald* gives the following remedy for slight cuts and small burns, which she claims to be so effectual as to remove the usual terror arising in a family upon such occasions. She says: "Our own remedy

for cuts and burns is glue or mucilage. This closes up a cut nicely, and one will experience no inconvenience thereafter. Cuts and burns are shorn of their terrors when the glue or mucilage is handy and ready for use. Let our lady readers bear this in mind. The good right-hand which penned these lines was caught under a stick while replenishing the fire in the kitchen stove, and pressed closely against the hot iron plate so that one finger was quite roasted. We released it and almost fainted before we could reach the cool, thick mucilage on our writing-desk, when, lo! all pain, and smart, and annoyance were gone, and the hand was ready for duty just as soon as the transparent covering could dry. How many useful things there are, the value of which we know almost nothing of."

Remarks.—I was aware that carriage varnish was good for slight cuts, burns and bruises, when the skin is more or less abraded, or scraped (from the Latin *abradere*, to scrape off), and I have no doubt a good liquid glue or the common mucilage, made with gum arabic, 5 ozs., to water, $\frac{1}{2}$ pt., will do just as well. I should prefer the mucilage in place of the glue.

2. Cuts, An Excellent Remedy for.—"It is not generally known," says a writer, "that the leaves of the common geranium are an excellent remedy for cuts, or where the skin is rubbed off, and other wounds of that kind. One or 2 leaves, bruised and applied to the parts, and the wounds will be cicatrized (healed) in a short time." (See Burns, Scalds, etc., for the use of the new remedy—bi-carbonate of soda.)

3. Cuts, Wounds, Felons and Other Inflammations, Hot Water Poultice for.—A paper called the *Home Health* says that a hot water poultice is the most healing application for cuts, bruises, wounds, sores, felons and other inflammations, that can be used. The poultice is made by dipping cotton in hot water and applying, changing often. A convenient way is, in case of felons or other painful abscess, to hold the hand for hours in water as hot as can be comfortably borne.

Remarks.—This is undoubtedly valuable. I have for some time past used hot applications to an inflamed eye, while most physicians apply cold. It is good for internal use, as seen by the use of the hot water cures for dyspepsia, consumption, etc., in this book, which see; why not good for external applications? I believe it will be found so, if a wound or other sore manifests the least tendency to inflame and become tedious in healing.

1. CATARRH, NASAL—Common-Sense Treatment for.—Notwithstanding Dr. Dio Lewis has sometimes appeared, at least, to run the "diet" question into the ground, as we often hear said, yet his remarks upon it in connection with nasal catarrh are perfectly sound. He says:

"For nasal catarrh, eat only a piece of beefsteak (broiled is best) half as large as your hand, one baked potato and one slice of bread for your breakfast; a piece of roast beef as large as your hand, with one boiled potato and one slice of bread, for dinner; take nothing for supper, and go to bed at 8:30 o'clock. Sleep, if possible, half an hour before dinner. Drink nothing with your meals, nor within two hours after. Drink as much cold water on rising

and going to bed as you can. Live 4 to 6 hours daily in the open air, riding or walking. Bathe frequently, and every night on going to bed rub the skin all over with a hair glove. [There are two kinds of hair gloves, the English and American, usually kept by druggists. The English are the best, being more durable.] In less than a week you will get along with one handkerchief daily. To cure even bad cases you have only to make your stomach digest well—only to make yourself healthier—and your nose will quickly find it out and adapt itself to the better manners of its companions.”

Remarks.—Dr. Lewis claims, and the above treatment indicates, this disease to be constitutional, and, therefore, he works upon the constitution alteratively through the digestion, which, not directly but impliedly, forbids tea, coffee and all pastry; but while he leaves the substantials, we may well allow him to cut off, as he does, all hurtful superfluities. It has only to be tried faithfully to satisfy the most incredulous of its value. It will prove equally valuable in consumption, salt-rheum, discharges from the ears, fever-sores, etc., etc., as he claims them all to be constitutional rather than simply local, as has been generally believed. Certainly this common-sense plan of eating and care of the person will do great good in these and all chronic diseases; and it would be wise for everybody to use much less of the superfluities and confine themselves to the simple necessaries in the line of food, if health and consequent long life is worthy of consideration. It will not be possible for those living in the country to always have fresh steak or roast beef, but they must confine themselves to the substantials, and let cake, pie and puddings alone, if they hope to get rid of long-standing disease. And I will only add here that in any chronic, *i. e.*, long-standing, disease, the salt-water washings (which see) should be resorted to, with the dry rubbings, as there directed.

2. Catarrh Snuff.—Pulverized borax, 1 oz.; loaf-sugar, pulverized, $\frac{1}{2}$ dr. Mix thoroughly, and take 6 to 10 pinches daily.

Remarks.—It may be used in connection with any other treatment, and will be found especially valuable in all recent cases, and has cured many chronic, or long-standing cases, without other aids. Still it is always best to use general treatment in connection with it. If the throat is at all sore at the same time you take a pinch of the snuff, it will be found valuable to take another pinch and drop it into the fauces, or back part of the throat. It helps the cure materially.

3. Catarrh, Ointment for.—Pure tar, $\frac{1}{4}$ oz.; freshly made, unsalted butter, 1 oz., or 1 oz. to 4 if it is thought that much will be needed. Simmer together and apply inside the nostrils from 3 to 6 times a day, as the case seems to require. This is claimed to be very valuable, keeping the membrane moist as well as being curative in itself.

EPILEPSY—Of Long Standing—German Cure for.—According to Kunze, we possess in Curare a remedy by which cases of epilepsy of very long standing can be cured. He uses a solution of $\frac{1}{4}$ grs. of Curare in 1 dr. and 15 minims of water, to which 2 drops of hydrochloric acid have been added. At intervals of about a week he injects 8 drops of this solution sub-

spontaneously (under the skin), and he has found that in some cases where convulsions had occurred for some years, a complete cure was effected after about 8 to 10 injections.—*Deutsche Zeitsch. f. prakt. Med.* 1877, No. 9.

Remarks.—The Curare is one of the newer remedies, and may not be generally kept by druggists; but as this would have to be done by a physician, having a suitable instrument to inject with, he can obtain the remedy without trouble to the patient. It will be a grand thing if we have a cure, at last, for this terrible disease. The following, however, which came to me in the *Medical Summary*, of Landsdale, Pa., for December, 1882, long after the above was written, seems to hold out great hopes, with much less trouble, than the foregoing. It was first communicated to the *Medical and Surgical Reporter* by Edward Vanderpool, M. D., who says:

“When I commenced practice, in 1833, nitrate of silver was the grand remedy for this complaint. After repeated failures, however, with it, I was told by Dr. Boyd, an octogenarian (one of 80 years, who might have seen 50 or 60 years of practice), of our city, that he had no trouble in its cure. He had treated a man successfully who had not earned a dollar in 20 years, and who afterwards supported his family by his labor. I gladly adopted his practice, and have been successful ever since. The remedy, oxide of zinc. DIRECTIONS—Begin $\frac{1}{2}$ gr. dose, 3 times a day, for 24 doses (8 days). Then 1 gr. for 24 doses. Then $1\frac{1}{2}$ grs. 3 times a day, rubbing the spine with stramonium ointment, morning and evening, and stimulating embrocations (liniments), which I have seen used. Since then I have been successful; never going beyond 5 gr. doses, except in one case of a hard drinker and opium eater who, at the time I commenced with him, had been treated for a year with bromide of potash; impairing his memory badly, which was restored with the use of the zinc.”

Remarks.—I have great confidence in this treatment, from the age of the originator and the length of time Dr. Vanderpool had used it, he being in practice for 50 years. (See also “Chorea, or St. Vitus Dance,” which is a species of nervous disease, much like epilepsy.)

FAT PEOPLE—Food to Reduce Their Fleshiness.—The *Medical Journal*, speaking of the plan to reduce fat people, to a reasonably stout and healthy condition, says: “If any reader is growing too fat for comfort, he may, possibly, find the following suggestions valuable: There are three classes of food, the oils, sweets and starches, the special office of which is to support the animal heat and produce fat, having little or no influence in promoting strength of muscle or endurance. If fat people, therefore, would use less fat and more of lean meats, fish and fowl, less of fine flour and more of the whole products of the grains—except the hulls—less of the sweets, particularly in warm weather, and more of the fruit acids, in a mild form, as in the apple, sleep less, be less indolent, and labor more in the open air, the fat would disappear, to a certain extent at least, with no loss of real health. In food we have almost a perfect control of this matter, far better than we can have in the use of drugs. If we have too much fat and too little muscle, we have simply to use less of the fat forming elements and more of the muscle food, such as lean

meats, fish and fowl, and the darker portions of the grains, etc., with peas and beans."

Remarks.—The above principles are facts; then, if any person desires to be less fat, let them be governed by them, and they will obtain their desire; indolence and self-indulgence are the mothers of fatness. (See also "Dropsy and Anti-fat Medicine in One.")

1. **LIQUOR—A Cure for the Love of it.**—At a festival at a reformatory institution recently, a gentleman said, of the cure of the use of intoxicating liquors: "I overcame the appetite by a recipe given to me by old Dr. Hatfield, one of those good old physicians who do not have a percentage from a neighboring druggist. The prescription is simply an orange every morning a half hour before breakfast. 'Take that,' said the doctor, 'and you will neither want liquor nor medicine.' I have done so regularly, and find that liquor has become repulsive. The taste of the orange is in the saliva of my tongue, and it would be as well to mix water and oil, as rum, with my taste."

Remarks.—I will add to this, keep away from where it is sold, taking the orange as directed, and you will be safe. If you go into saloons, no matter how much you may try to avoid drinking while there, there will be pretended friends—real enemies—who will urge you to drink, and even attempt to pull you up to the bar, and try to force it into your mouth. I speak from knowledge. I once had two young men—I was then young myself—get a cup of brandy, and one of them behind me and the other in front, tried to force me to drink it; but I got a chance to get a foot against a bureau and pushed back enough to get room for a kick, and that cup and brandy went, as the saying is, "higher'n a kite,"—it went to the ceiling,—and then I said, "Boys, if you don't let me alone, I will kick you, too, but drink I will not." But I should have had to fight, if the boss for whom we all worked, had not stepped forward at this juncture, and said "Boys, you ought to be ashamed of yourselves. You know Chase told us this morning that he did not drink, and, hence, went and borrowed a rifle, and has spent all day to get a deer for us to eat; now, let him alone." At this they gave it up. The occasion being when a saw mill, in which we worked, had been sold—this was in 1834 or '35—and the giving possession had to be done with whiskey and a high day. The difficulty is, people—men or boys—do not say *no* with sufficient vim. When enticed to evil, let the *no* have a ring as though you meant just what you said; then, unless the enticers are drunk, as they were in the above case, you will generally have no trouble, especially if you do not put in your presence at their haunts of vice. In the above case, it was a boarding-house for the mill, and I had nowhere else to go. I will only add, if a man does not want to drink, he need not; if he wants to drink, nothing can save him. He is bound to destruction. He is, like Ephraim, "joined to his idols,"—you may just as well—"let him alone."

2. **Liquor—The Use of It Leaves a Permanent Injury.**—An American physician, who has given attention to the study of alcoholism, said in the course of an address recently delivered before a learned society: "There are constantly crowding into our insane asylums persons, 50 to 80 years of age, who in early life were addicted to the use of alcoholic liquors, but who had

reformed, and for 10, 20, or 30 years had never touched a drop. The injury which the liquor did to their bodies seemed to have all disappeared, being triumphed over by the full vigor of their manhood; but when their natural force began to decrease, then the concealed mischief showed itself in insanity, clearly demonstrating that the injury to their brain was of a permanent character."

Remarks.—Then is there not a double reason for not using it? The loss of time and money, and often the abuse of wife and children, or other friends, while using it, and the probability of the loss of one's reason in old age. It is greatly to be hoped that a word to the wise may be sufficient.

1. LIFE LENGTHENED—Sensible Rules for.—Dr. Hall, in his excellent *Journal of Health*, gives the following sensible and suggestive rules under the above heading:

I. Cultivate an equable temper; many have fallen dead in a fit of passion.
 II. Eat regularly, not over thrice a day, and nothing between meals.
 III. Go to bed at regular hours. Get up as soon as you wake of yourself, and do not sleep in the day-time—at least, not longer than ten minutes before dinner.

IV. Work in moderation, and not as though you were doing it by the job.
 V. Stop working before you are very much tired—before you are "fagged out."

VI. Cultivate a generous and accommodating temper.
 VII. Never cross a bridge before you come to it; this will save you half the troubles of life. (In other words, "don't borrow trouble.")

VIII. Never eat when you are not hungry, nor drink when you are not thirsty.

IX. Let your appetite always come uninvited.

X. Cool off in a place greatly warmer than the one in which you have been exercising. This simple rule would prevent incalculable sickness and save thousands of lives every year.

XI. Never resist a call of nature, for a single moment.

XII. Never allow yourself to be chilled through and through; it is this which destroys so many every year, in a few days' sickness, from pneumonia—called by some, lung fever—or inflammation of the lungs.

XIII. Whoever drinks no liquids at meals will add years of pleasurable existence to his life. Of cold or warm drinks, the cold ones are the most pernicious. Drinking at meals induces persons to eat more than they otherwise would, as any one can verify by experiment; and it is excess in eating which devastates the land with sickness, suffering and death.

XIV. After fifty years of age, if not a day laborer, and sedentary persons at forty, should eat but twice a day—in the morning, and about four in the afternoon; for every organ without adequate rest will "give out" prematurely.

XV. Begin early to live under the benign influence of Christian religion, for it "has the promise of the life that now is and of that which is to come."

Remarks.—These rules need no extended commendation—they are certainly sensible.

2. **How Long Have We to Live, as Shown by the Life Assurance Tables.**—The following is one of the authenticated tables in use among insurance companies, showing the average length of life at the various ages. In the first column, we have persons of average health, and in the second column we are enabled to peep, as it were, behind the scenes, and gather from their table the number of years they will give us to live. This table is the result of careful calculation, and seldom proves misleading. Of course, sudden and premature deaths—from accidents, unusual severity of disease, etc.—as well as lives unusually extended, occasionally occur; but this is the average expectancy of life of an ordinary man, who lives prudently and avoids all undue exposures, etc. In the earlier years of life, the female, from less exposure, has from 1 to 2 years more of life in expectation than the male; but as life advances, this over-average comes down gradually to nearly the same; but still there is a trifle, or small part of a year, always in favor of the woman. I will say, at the start, that the average life of all born into the world is, for males, about $39\frac{90}{100}$ years, and for females, $41\frac{85}{100}$ years. I shall only give the figures for every 10 years, up to 20 and after 60; so far as business is concerned, before 20 and after 60, it will not be of much account, yet interesting as a matter of curiosity. The table is given in years and hundredths of a year, by Dr. William Fair.

Age	More Years to	Age	More Years to
Those who reach	live.	Those who reach	live.
0	39.90	45	22.76
1	46.65	50	19.54
10	47.05	55	16.45
20	39.48	60	13.53
25	36.12	70	8.45
30	32.76	80	4.93
35	29.40	90	2.84
40	26.06	100	1.68

Remarks.—With this table before us, taking the present age of any person in ordinary good health, we see at a glance how much longer they may be expected to live. By considering these things, we can tell whether or not it would be best to enter into new business enterprises, marriage relations, etc. And, with the table on “The Pulse in Health,” we can tell pretty nearly whether we are in an average condition of health or not, as these figures do not lie; if they do not hold good in any particular case, it is from a want of average health.

Supposing the ladies will desire to know their chances or probabilities of marriage, I will append a table showing what their prospects are, between thirteen and forty, as follows:

3. **Chances of Women for Marriage.**—The following statement is drawn from the registered cases of 876 married women in France. It is the first ever constructed to show ladies their chances of marriage at various ages. Of the above number there were married:

3 at 13	45 at 17	86 at 21	36 at 25	17 at 29	7 at 33	2 at 37
11 at 14	77 at 18	85 at 22	24 at 26	9 at 30	5 at 34	0 at 38
16 at 15	115 at 19	59 at 23	28 at 27	7 at 31	3 at 35	1 at 39
43 at 16	118 at 20	53 at 24	22 at 28	5 at 32	0 at 36	0 at 40

4. The Pulse in Health—Average Beats per Minute—From Physiologist Carpenter:

New-born infants,	From 140 down to 130
During 1st year,	“ 130 “ 115
“ 2d year,	“ 115 “ 100
“ 3d year,	“ 105 “ 95
From 7th to 14th year,	“ 90 “ 80
“ 14th to 21st year,	“ 85 “ 75
“ 21st to 60th year,	“ 75 “ 70
In old age,	“ 80 “ 75

In inflammatory or acute diseases the pulse may rise to 120, or even to 160, in the adult, and becoming so frequent in the child that it cannot be counted. Muscular exertion, mental excitement, digestion, alcoholic drink, and elevation above the sea level, accelerate the pulse, and as a rule it is more frequent in the morning than in the evening. It is slower in sleep, and from the effects of rest, diet, cold, or blood-letting. The pulse of a grown woman exceeds that of a man of the same age, as much as 10 to 14 beats a minute, and, according to some authorities, is less frequent in the tall than in the short person, the variations being about 4 beats for each 6 inches of height.

Remarks.—With this tabulation, any person of average ability (we are now talking of averages) can form a fair opinion of how much disturbance there may be in one's system, to cause any variation from the general average, and hence, tell how sick a person may be and the probability of returning health, under favorable circumstances; also the general average of the length of life and probability of marriages, etc. But it may not be amiss here, to state that while standing, a healthy man's pulse beats about 74 times in a minute; when sitting, only about 70; and when he lies down, only about 64. Thus the heart takes its rest at night; and as the heart passes in its beats about 6 ozs. of blood, it is saved the lifting of about 30,000 ozs. of blood in 8 hours' sleep. But now suppose he is a drinking man, and takes his wine or liquor day and night, the heart must not only get no rest, but is increased by at least 15,000 beats in this 8 hours and he rises more tired than when he retired, and wholly unfit for the day's work, and so strikes out again for the “ruddy bumper,” as some call it, to “settle his nerves,” and thus in a few years he settles, also, into a drunkard's grave, mourned for only by those who ought to have been helped by him yet, for many years, if he would have cast away his “cups.” O, why will men so far forget the object of their being?

1. THE TONGUE—WHAT IT TELLS.—I am very sorry that I do not know who wrote the following soliloquy upon the tongue, as it is both sensible and sound in its teachings; hence, I say, let it be read with care and its teachings heeded. He says:

“A man can never be happy if his stomach is out of order; and dyspepsia and hysteria imitate the symptoms of innumerable disorders. But how, the reader may ask, can I tell the illness, from which I think I am suffering, to be real or imaginary? At any rate, I should answer, look to your stomach first, and, pray, just take a glance at your tongue. If ever I was so far left to myself as to meditate some rash act, I should, before going into the matter, have a look

at my tongue. If it was not perfectly clean and moist I should not consider myself perfectly healthy, nor perfectly sane, and would postpone my proceedings in the hope that my worldly prospects would get brighter. What does a physician discover by looking at the tongue? Many things. The tongue sympathizes with every trifling ailment of body or mind, and more especially with the state of the stomach. That thin, whitish layer (fur) all over the surface, indicates indigestion. A patchy tongue (*i. e.*, the fur in patches) shows that the stomach is very much out of order indeed. A yellow tongue points to biliousness. A creamy, shivering, thick, indented tongue, tells of previous excesses; and I do not like my friends to wear such tongues, for I sincerely believe that real comfort can not be secured in this world by any one who does not keep his feet warm, his head cool, and his tongue clean."

Remarks.—That we may know what further the tongue may teach us we will give the "Synopsis of a Paper read before the Eclectic Medical Association of Ohio, by Prof. John M. Scudder, of the Eclectic Medical Institute of Cincinnati," and published by him in the *Eclectic Medical Journal*, of which he is the editor and proprietor. The paper was prepared to explain, and does fairly explain, the leading point, or basis upon which "Specific Medication" is established or founded, and that is, the indication for treatment as shown by the condition of the tongue, or "What the Tongue Tells Us," as shown in our first heading above. And although it is quite lengthy, yet as it contains so much valuable information for those who may desire to take care of themselves and their families, I think it best to give the full synopsis as he gave it in the *Journal*, Vol. XXXI., pages 425-8, under the head of "Specific Medication," but as it relates largely to what the tongue teaches or shows us, I will head it accordingly.

2. The Tongue, the Condition of the System Shown by it, and the Remedy their Conditions Call for.—After the preliminary business of the association was completed, he addressed them as follows:

GENTLEMEN:—At the last meeting of the State Society I was requested to prepare a paper on Specific Medication, which should serve as a basis for a discussion in this new departure (as it has been called) in medicine.

I do not propose, in doing this, to occupy much of your time in details, but rather to present the principles upon which specific or direct medication rests.

It will be well for us, first, to think for a moment (if it is possible for us to realize it) what an un-specific or indirect medication is. It means that we never oppose remedies directly to processes of disease, but, on the contrary, influence diseased action in a roundabout, indirect, and uncertain manner.

As examples—We violently excite the intestinal canal with cathartics to arrest disease of the brain, the lungs, the kidneys, or other distant parts. Or it is possible that we confine our ministration first to the gastric sac (stomach), then follow with potent cathartics. In order, we excite the skin and the kidneys in the same manner. This not sufficing, we counter-irritate with rubefacients, blisters, etc., and so far as possible keep up an influence counter to the disease, by unpleasant, nauseating and irritant medicines.

Whatever may be said in favor of such a practice, and how fine-so-ever the theories in reference to it may be spun, it is based upon the idea that two diseases can not exist in the body at the same time, and if the medicines are sufficiently potent their action will surely be the strongest—and the disease will stop—leaving the patient to recover slowly from the influence of the medicines.

Did you ever know the patient to stop instead of the disease? I have, many a time, and have in this way, myself, been a wonderful dispensation of Providence. In the olden time men would not believe that the doctors aided large numbers of people out of the world. Oh no! The doctors, God bless them, pulled the sick through; they would all have died if it had not been for the faculty.

It is wonderful how statistics take the conceit out of some people and some things. When we find hundreds of cases of severe diseases tabulated—such as typhoid fever and pneumonia—with a mortality of but one to three per cent., with only good nursing and food, no medicine; and active, potent medication gives a mortality of five to fifty per cent.

Do Eclectic physicians kill people too? This brings the matter home, and one doesn't like to confess his own sins, as a rule. But in this matter I am like Artemus Ward in the last war—I am willing to shed the blood of all my relations—and I answer in the affirmative—they do kill—not so many as the old practice, it is true, but yet enough to cause us to look at home and rid ourselves of the evil.

Now, I am glad to know that you, and Eclectics as a rule, have a very much better practice than theory. Whilst they occasionally wander off after these phantasms, it is the exception and not the rule.

As a body of physicians, we recognize the fact that disease in all its forms is an impairment of life. And we recognize the necessity of conserving this life, and of employing such means as will increase it, and enable it to resist and throw off disease, and restore normal structure and function.

We recognize the importance of the functions of circulation, innervation (healthy action of the nerves giving strength), excretion, etc., and the necessity of obtaining as nearly a normal (healthy) performance of them as possible. And all experience shows that just in proportion as we get this normal performance disease is arrested.

From its inception (commencement) Eclecticism has been, to a very considerable extent, Specific Medication. The earliest writings point us to *Dioscorea* (wild yam or colic-root) as a remedy for bilious colic, *Hydrastis* (golden seal) for enfeebled mucous membranes, *Aralia* (dwarf elder) and *Apocynum* (Indian hemp) for dropsy, *Baptisia* (wild indigo) for putrid sore throat, and similar conditions of mucous membranes, *Hamamelis* (witch-hazel) for hemorrhoids, *Macrotys* (black cohosh) for rheumatism, etc.

In our *Materia Medica* remedies were classed as emetics, cathartics, diaphoretics, tonics, alteratives, etc., but in reading the description of medical properties, some special use or curative action would be pointed out, and for this it would be commonly used.

In all acute, and most chronic diseases, our examination of the patient and our therapeutics will take this order: 1. With reference to the condition of the stomach and intestinal canal—bringing them to as nearly a normal condition as possible, that remedies may be kindly received and appropriated, and that sufficient food may be taken and digested. 2. With reference to the circulation of the blood and the temperature—obtaining a normal circulation as regards frequency and freedom, and a temperature as near 98° as possible. 3. With reference to the presence of a *zymotic* poison, or other cause of disease, which may be neutralized, antagonized or removed. 4. With reference to the condition of the nervous system—giving good innervation. 5. With reference to the processes of waste and excretion—that the worn-out or enfeebled material may be broken down and speedily removed from the body. 6. With reference to blood-making and repair—that proper material be furnished for the building of tissues, and that the processes of nutrition are normally conducted.

We may illustrate this further by calling attention to the tongue as a means of diagnosing (determining) the conditions of the stomach and intestinal canal, and of the blood.



YELLOW GENTIAN.

(See Description.)

This herb is a valuable tonic, useful in Dyspepsia, Gout, Jaundice, Weakness of the Digestive Organs and Debility attendant upon Chronic Diseases.

You will bear in mind that diagnosis—or determining the real condition of disease is the most important part of specific medication. And that it is not that rough diagnosis which will enable us to guess off a name for the associated symptoms, at which name we will fire our *Materia Medica* promiscuously. Hence when we question the tongue, it is not with reference to a remittent or typhoid fever, an inflammation of lungs or rheumatism, but it is—I want you to tell me the condition of the stomach and intestinal canal, and especially the condition of the blood.

Now let us briefly see what it will tell us, with regard to the condition of the *primæ viæ* (first passages—stomach, intestines, and kidneys).

If the tongue is heavily coated with a yellowish-white fur, we know that there are morbid accumulations in the stomach; and we have to determine between the speedy removal by emesis (vomiting), and the slower removal by the alkaline sulphites (sulphite of soda is generally used), or the indirect removal by catharsis (cathartics).

If the tongue is uniformly coated, from base to tip, with a yellowish fur, rather full and moist, we have the history of atony (weakness) of the small intestine, and we give podophylin, leptandrin, and this class of remedies, with considerable certainty.

If the tongue is elongated and pointed, reddened at the tip and edges, papillæ elongated and red, we have evidence of irritation of the stomach with determination of blood. The therapeutics (application of the proper medicine) is plain: get rid of the irritation *first*, and be careful not to renew it by the application of harsh medication.

Again, we have a tongue that might be designated as “slick.” It is variously colored, but it looks as if a fly should light upon it he would slip up. It is an evidence of a want of functional power, (general weakness), not only in the stomach and bowels, but of all parts supplied by sympathetic nerves. We treat such a case very carefully, avoid all irritants, and use means to restore innervation (strength) through the vegetative system of nerves.

The tongue tells us of the acidity and alkalinity of the blood, and in language so plain, that it can not be mistaken.

The pallid tongue (pale, or without color), with white fur, is the index of acidity, and we employ an alkali—usually a salt of soda—with a certainty that the patient will be benefited. Indeed, one who has never had his attention directed in this way, would be surprised at the improvement, in grave forms of disease, from one day’s administration of simple bi-carbonate of soda.

The deep-red tongue indicates alkalinity, and we prescribe an acid with the positive assurance that it will prove beneficial. Grave cases of typhoid fever and other zymotic (epidemic or contagious) diseases, presenting this symptom, have been treated with acids alone, and with a success not obtained by other means. But it makes no difference what the disease is, whether a recent diarrhea, or a grave typhoid dysentery, if there is the deep-red tongue, we give muriatic acid with the same assurance of success.

Impairment of the blood—sepsis (blood-poisoning)—is indicated by dirty coating, and by dark-colored fur—brownish to black. When we have either the one or the other we employ those remedies which antagonize the septic (poisoning) process.

The bitter tonics are indicated by fullness of tissue, with evident relaxation, impairment of circulation and muscular movement. The same condition will be an indication of iron. We give tincture of chloride of iron, if the tongue is red, iron by hydrogen if the tongue is pale.

The pale, trembling tongue, is a very good indication for the hypophosphites.

The pale blueish tongue, expressionless, is the indication for the administration of copper.

The dusky, swollen tongue demands baptisia (wild indigo).

You will notice that we have made this unruly member tell us a good deal,

yet it might tell us more—it will tell us more when we thoroughly study it. My object, is not to point out all that we might learn from it, but to show that it is possible to arrive at positive conclusions, from symptoms that are always definite in their meaning.

In making our diagnosis, we question every function in the same way. We make the pulse tell us the condition of the circulation, and to some extent the nervous system that it supplies. We question the nervous system, the secretory organs—in fact every part.

One might suppose that diagnosis in this way would be a matter of great difficulty, as would the therapeutics based upon it, from the large number of remedies needed to meet these varying conditions of the several functions. But this is not so. On the contrary, the method is not only direct and certain, but it is easy.

We have but one life, though its manifestations are so varied. The control of this life is centered in a common nervous system—the ganglionic, and through this the various parts and functions are united. Disease is an aberration of this life—life in a wrong direction. Though it manifests itself in various ways, and though we study in detail, as I have named, it is to grasp it at last, as a unit, and oppose to it one or more remedies.

In some cases we have a first preparatory treatment, to fit the patient for the reception of remedies which directly oppose disease. As when we gave an emetic to remove morbid accumulations, or means to relieve irritation of the stomach, or give an acid or an alkali, or use veratrum and aconite to reduce frequency of pulse and temperature, to obtain the kindly action of quinine in intermittent or remittent fever.

In other cases there are certain prominent symptoms indicating pathological conditions which may be taken as the key notes of the treatment. As, when we have the full, open pulse, indicating veratrum; the hypochondriac fullness, umbilical pains, and sallowness of skin, indicating nux vomica; the bright eye, contracted pupil, and flushed face, calling for gelsemium; or the dull eye, immobile pupil, tendency to drowsiness, which calls for belladonna.

In some cases the indication for a special remedy, like one of these, is so marked, that we give it alone, and it quickly cures most severe and obstinate diseases.

I would like to continue this subject further, for it is one in which I am greatly interested, and I know it is one in which you are interested, but the shortness of our session will not permit further remarks. But when we come together another year, with another year's experience, we may discuss it again.

Remarks.—If the foregoing is studied well, “it will pay,” by helping to understand the diseased conditions to which all are liable, as shown by the tongue; and, besides this, there are quite a number of things explained, which, if studied and heeded, will also prove of great value to those who are sick, or who have the care of the sick.

LEMONS—Their Value in Sickness and in Health.—One of the journals, speaking of the use of lemons, says: “For all people, either in sickness or in health, lemonade is a safe drink. It corrects biliousness. It is a specific (positive cure) against worms and skin complaints. Lemon juice is the best antiscorbutic remedy known. It not only cures the disease but prevents it. Sailors make a daily use of it for this purpose. A physician suggests rubbing of the gums daily with lemon juice, to keep them in health. The hands and the nails are also kept clean, white and soft by the daily use of lemon instead of soap. It also prevents chilblains. Lemon used in intermittent fever is mixed with strong, hot, black tea, or coffee, without sugar. Neuralgia may be

cured by rubbing the part affected with a lemon. It is valuable, also, to cure warts and destroy dandruff on the head, by rubbing the roots of the hair with it. In fact, its uses are manifold, and the more we use of them the better we shall find ourselves."

Remarks.—See also their value for freckles, and the use of hot lemonade to cure colds, and also lemon juice a cure for small-pox, etc.

Food as Medicine.—Dr. Hall relates the case of a man who was cured of his biliousness by going without his supper, and drinking freely of lemonade. Every morning, says the doctor, this patient arose with a wonderful sense of rest and refreshment, and a feeling as though the blood had been literally washed, cleansed and cooled by the lemonade and the fast. His theory is, that food will be used as a remedy, for many diseases, successfully. For example he cures cases of spitting blood by the use of salt; epilepsy and yellow fever, by water-melons; kidney affections, by celery (water-melons are very valuable also for the kidneys); poison, olive or sweet oil; erysipelas, pounded cranberries applied to the parts affected; hydrophobia, onions, etc. So the way to keep in good health is really to *know what to eat*—not to know what *medicines* to take.

Remarks.—These are all good for what he recommends them; then use them freely, in their season.

1. ERYSIPELAS—New and Successful Remedy.—Dr. T. B. King of this city (Toledo, O.), an old physician, of the "Old School,"—Allopathic—tells me he has cured erysipelas upon a woman's leg (by the way do women have "legs"—I believe not so understood, but "limbs"), after ulcerated and swollen so bad that other doctors said it must be amputated. But by simply dusting upon it, freely, the per sulphate of iron (Monsel's salt), cleaning off twice daily, with warm suds, and re-applying, without other treatment, effectually cured her.

Remarks.—This salt, or preparation of iron, is a great favorite with Dr. King. He applies it, through a speculum (from the Latin *specere*, to look), to ulcers at the mouth of the womb, or upper part of the vagina, he says, with equal success. I have also used it, with success, in several of these ulcerations, so I have confidence in it, in erysipelas also. To avoid staining the clothing, in these cases, wear a suitable bandage to absorb any escaping fluid, as the iron in this leaves an iron-rust appearance upon the clothing.

2. Erysipelas of the Face (Facial Erysipelas).—Dr. J. B. Johnson communicated the following to the *Medical and Surgical Reporter*, which he has always found to arrest the disease at once and allay the heat and burning promptly. He says: "As the tongue is always more or less coated, I usually introduce my treatment by a dose of pills composed of blue mass, 10 grs.; calomel, 5 grs.; mix and make into 3 pills; to be taken at one dose; and to be followed in 3 hours by a dose of sulphate of magnesia (epsom salts, dose, ordinarily, a heaping table-spoonful); and without waiting for the action of the pills and salts, I immediately commence with iodide of potassium, 1 dr.; tinct. of hyoscyamus, 2 drs.; tinct. aconite leaves (tincture of aconite root is seldom given internally), 12 drops; distilled water (clear soft water will do) 8 ozs.; **mix.** **DOSE**—A table-spoonful every hour, day and night, when awake; and I have

the face bathed every 2 or 3 hours, and constantly covered with a linen cloth saturated (all it will hold) with the following solution:

"Hyposulphite of soda, 1 oz.; carbolic acid No. 1, 1 oz.; distilled water (soft water will do), 8 ozs. Mix. (Note 35, p. 792.)

"This allays, most promptly, the burning and itching of the skin and face, and is in no wise disagreeable.

"This treatment, I have always found, to arrest the erysipelas almost at once, and my patient to be about his room in 4 or 5 days. My cases have not only escaped complications of congestion and inflammation of the brain, but of the throat also, and without the use of either iron, quinine or wine; 5 gr. doses of iodide potassium (as above) every hour, has never disappointed me in their action; and long experience has enabled me to declare, in my opinion, the internal use of iodide of potassium, to be a specific (positive cure) for facial erysipelas."

Remarks.—This will please all who prefer calomel to the other treatment, and the author has confidence in this plan of treatment, as he is not afraid of a small dose of calomel, nor blue mass, if worked off directly as was done in this case.

3. Facial Erysipelas, The Author's Treatment of.—Having been recently called to a case of this kind, I will give my treatment of it, as it may help others. It was a young lady of about 18 years of age, in which there was an hereditary tendency to this disease, her grandmother having died of it. I found the left side of the face swollen and inflamed, and just below the eye the flesh was quite hard and very tender. I had it painted, or wet, at once, with muriated tincture of iron, full strength, and covered with a soft cloth, to protect it from the air. This was in the forenoon, and in the evening I instructed the same application, and then a poultice of stewed cranberries to be applied, always wetting with the tincture before applying the poultice. I gave her a seidlitz powder at once, to open the bowels, the next morning to be followed with a rounding table-spoonful of epsom salts, and after that, every other day a seidlitz powder and salts, alternately. I gave her 5 drop doses of the tincture of the iron 3 times a day from the first, by dropping it into a spoon and adding water, and telling her to put the spoon past the teeth, so the iron should not stain them, which it does without this precaution. After the first 24 hours, as the inflammation began to go down and the hardened spot below the eye to become more soft and natural, I weakened the tincture to be applied with one-third water, keeping up the cranberry poultice nights, until the inflammation was cured, reducing the strength of the tincture for application as the case improved, until it was only one-third tincture and two thirds water; and thus, in one week, she was again able to resume her labors in a candy manufactory where she was engaged, no ulceration or open sore having occurred; the scarf-skin only peeled off from the effect of the iron, poulticing, etc. Let each one, then, afflicted with this disease, suit himself as to which plan he will adopt, as circumstances seem to demand.

1. DIABETES—Valuable Diet for, and Diet to be Avoided. —Experience has shown that the only way to cure diabetes is to change from the ordinary to the following plan of diet:

I. *Food and Drinks which may be Used.*—The quickest way is to confine the patient to beef and bread made of gluten flour, which has all the starchy parts of the wheat removed from it in its manufacture; but mutton, tripe, tongue, ham, bacon, sausage, poultry, game, oysters, clams and eggs may be occasionally used for variety's sake (but liver never); so also salads, made with cabbage or lettuce; cucumbers, water-cress, cauliflower, spinach and string beans in their season; so also peaches and strawberries with cream, but never with sugar; in fact, all tart fruit may be used, especially nice sour apples, peeled, quartered and cored, dipped in beaten eggs and rolled in fine or powdered crumbs of the gluten bread, then fried in very hot fat and drained while hot, make the best substitute there is for potatoes, which you will see below, must not be eaten. Milk in moderate quantities, cream, nice butter, buttermilk, and all freshly made cheese and Neuchatel (Swiss) cheese may be eaten. Nuts in moderation may be allowed, and eggs freely, cooked to suit the patient. Coffee or cocoa, in moderation, with cream, but never with sugar. If tea must be used, let it be weak, and only taken in small quantities. Sour wines, as claret, Burgundy, Rhine, etc., for those who will use them, may be taken in moderation at dinner time. For variety's sake, instead of being absolutely confined to the bread made of the gluten flour, it may be made into rolls, pancakes, fritters, mush, and baked puddings, but never with sugar or molasses, nor may these ever be used, even in pudding sauces. Eat slowly, *i. e.*, masticate (chew) very finely, and what drinks are used let them be taken at the close of the meal—as little as possible between meals, of such as have been named above.

II. *Food and Drinks which Should Never be Used.*—Potatoes, turnips, beets, carrots, parsnips, peas, beans (only string-beans above named), rice, celery, asparagus, or tomatoes; nor soups in which common flour has been put, as vermicelli, noodles, nor any of the vegetables above prohibited. No cake nor pastry of any kind, except it be made from the gluten flour; and nothing that contains sugar or starch in any form; and no spirits, malt beers, nor any of the sweet wines can ever be allowed. Take tepid or warm baths, according to the season, as often as necessary, followed with friction and exercise, as needed to bring a glow of warmth and heat to the surface. [I can not see why the Salt Water Washings, (which see) should not be used with the friction or rubbings, as there given; certainly diabetes is a chronic disease.] Also stick to the above directions as to diet, the year round, to avoid a relapse.

Remarks.—This plan was, I think, adopted by some eminent physician in Europe—I do not remember his name.—then by American physicians, by which it has been fairly tested, and found to be about the best thing that can be done; and it has heretofore been considered to be about all that could be done; but later, as shown below, a few remedies have been found also valuable, and the closer the confinement to the beef and gluten flour bread, for a few months, the better will it be for the patient, using the allowables only, as it may be absolutely necessary for variety's sake.

2. **Diabetes, Ammonia-Saline Treatment for.**—It has been found recently, by analysis of diabetic blood, that there is a great deficiency

of certain alkaline salts. These salts are absolutely necessary in order that the sugar which is formed in this disease, just as in health, should be burnt off at the lungs. M. Mialhe, who discovered the above fact, considers this deficiency the primary (first) cause of diabetes. Whether this is so or not, there is no doubt that such deficiency must re-act upon the disease. Accordingly, treatment directed to supply this deficiency is likely to prove of service, and in actual practice such is found to be the fact. The best saline mixture is composed of carbonate of ammonia, phosphate of ammonia, and carbonate of soda, each, 10 grs.; tinct. of ginger, a few drops; 3 times a day in an oz. (2 or 3 table-spoonfuls) of water.

This mixture is very gratifying to the patient, relieves thirst, and mitigates (lessens or relieves) the morbid (unhealthy or craving) appetite. The tongue generally becomes moist, the urine diminishes in quantity, and contains less sugar. In one case, which may be taken as an average one, the amount of sugar was reduced from 30 grs. to the oz. of urine, to 6 grs., and the amount of urine daily from 14 pts. to 4 pts.—*Dr. W. R. Basham.*

Remarks.—I have taken this from the *Eclectic Medical Journal* of 1872 age 327, and therefore, I have confidence in it, although I have had no opportunity to try it, as I did not see it until the writing of this department was nearly completed, and especially not till the subject of diabetes had been written; still, I shall try it at once if a case comes under my care.

3. Ergot in Diabetes Insipidus.—*Dr. Saunders—St. Louis Courier of Medicine*—reports a case of diabetes insipidus successfully treated, with dram (small tea-spoon) doses three times a day of fl. ex. of ergot. The use of ergot was suggested by an article from *Dr. Do Costa.*

Remarks.—These French physicians, are generally pretty certain of their facts, before they report their cases.

4. Diabetes—Incontinence and Dribbling of Urine, Successful Remedy for.—After the foregoing matter upon diabetes had all been prepared, I saw a report of the very remarkable success of *J. T. McClanahan, M.D.*, of Brownville, Mo., in the “*Newer Materia Medica*” of *Parke, Davis & Co.*, Detroit, Mich., especially upon diabetes, and incidentally upon the others above named, having been successful in both kinds of diabetes—*mellitus*, from *mel*, honey or sweet,—the kind that has sugar in the urine; and also in what is called *insipidus, i. e.*, no sugar in the urine, and hence insipid or tasteless. This latter kind, however, has been, heretofore, much more readily cured than that with the sugar in the urine, but *Dr. McClanahan*, even in a case of this almost incurable kind—*diabetes mellitus*—reports the following successful cure. He says

I. “My case was that of a woman aged 37, mother of children, who was completely run down by large discharges of urine, general lassitude or weakness, (so that she had to give up housework,) pain in the back, considerable thirst, appetite variable, sometimes ravenous, and sometimes deficient, skin sallow and doughy, temperature $101\frac{1}{2}$, slight cough, and occasional night sweats, loss of flesh, pulse little affected except when diarrhea was present for a few days, it would then present the usual febleness and rapidity. I found the urine contained sugar; specific gravity, 1.032. I gave the saturated tinct. of rhus

aromatica, in $\frac{1}{2}$ tea-spoonful doses every 4 hours, until she was under the influence of the remedy, with a diminution of urine from the first day. The dose was lessened and the interval lengthened from week to week, and finally, in 3 months, the medicine was discontinued. In the meantime, strict dieting laws were observed, carefully avoiding such diet as favored the sugar forming process in the body. She being of a scrofulous diathesis (tending to scrofula), I gave cod liver oil with hypophosphite for some time after discontinuing the rhus aromatica. He continues by saying:

"I have had the same results with two cases of diabetes insipidus under the same treatment; and I am at present treating another case of diabetes mellitus, a very interesting case, which I will report in a future article."

II. *Incontinence*.—In incontinence of urine, whether from atony (weakness) of the muscular fiber, or irritation of the nervous fiber, which prevents normal (usual, healthy) distention of the bladder, it is applicable.

III. *Dribbling*.—I have relieved several cases in which the person was unable to prevent a constant dribbling of urine; also, those cases in which the patient has no control over the urine whatever, will be promptly met by the action of the rhus aromatica. DOSE.—For adults in these cases of dribbling, or incontinence, he gave 10 drop doses only, 3 times daily. For children, strong tinct. rhus aromatica, $\frac{1}{2}$ oz.; glycerine, $1\frac{1}{2}$ ozs. DOSE.—One-half tea-spoonful 3 times a day; and when allowable, drop the morning dose, then the noon, and when cured, stop all. But in all such cases have the child urinate, at once, when nature calls for it, even in the night, and especially before retiring in all cases.

IV. *For Summer Complaint of Children*.—Dr. McClanahan, above named, reports the case of a little boy, with chronic diarrhea and dysentery, stools pale and thin, running from him like water; no particular pain, or fever. Pale and emaciated; limbs, trembling, scarcely able to stand alone; skin cool and bowels flabby. Gave tinct. rhus aromatica, $\frac{1}{2}$ oz. DOSE.—Only 3 drops, in a little water, after each passage; with proper diet and care he recovered rapidly.

V. A laborer, with chronic dysentery for two months, he gave: Tinct. rhus aromatica in doses of 10 drops, together with a boiled milk diet; made a complete recovery. He gives an account of cases where almost wholly the passages were blood, equally successful in treatment; increasing to 15 drop doses, after each stool, with the boiled milk diet. And also many other cases of incontinence of urine, but these will suffice on this class of diseases. Then he comes to:

VI. *Uterine Hemorrhages, Menorrhagia (profuse flowing) Leucorrhœa, etc.*—He first cautions against the frauds of some persons putting out bad articles, etc. But he thinks, and so does the author, that Park, Davis & Co., of Detroit, will furnish a genuine article of fluid extracts of the rhus aromatica, and if I failed with that, I would get the crude article of them, and make the strong tincture, as Dr. McClanahan had always used, up to the time of the foregoing reports. He was then called to a bad case of uterine hemorrhage, after an abortion; at least two quarts of blood lost; first gave a stimulant, then gave doses of 10 drops of the strong tincture rhus aromatica, every 15 minutes, and

applied to mouth of the womb, cloths wet in water with a fifth as much tincture of rhus, gently kneading over the uterus until it contracted, and after two hours the hemorrhage ceased, and patient comfortable. Then directed the tincture every hour, and left to call in 6 hours. Found her comfortable, removed the cotton without any more hemorrhage, improvement rapid, and recovery complete in 10 days; but there was a slight discharge during this time, for which he gave smaller doses, probably 5 or 6 drops, every 2 or 3 hours, as required.

VII. *Leucorrhœa*.—He uses the same tincture when there is a relaxed condition of the uterus, as in leucorrhœa, and also hemorrhages from falls, blows, etc.

VIII. *Hemorrhage From the Kidneys*.—For blood passed in the urine, making it dark, he prescribed: Tinct. rhus aromatica, $\frac{1}{2}$ oz.; tinct. nux vomica, 15 drops; glycerine, 3 ozs.; mix. DOSE—A tea-spoonful 3 times a day. Man able to be out in a week; good recovery.

Remarks.—These last clauses are condensed from the doctor's report, giving all that I deemed necessary to understand how, and when, and how much, to give of the remedy, not doubting that much good will arise from the further use and study of this article, of the "New Remedies." For, certainly, if it proves as successful in diabetes, which has been one of the incurables, in other hands, as it has in Dr. McClanahan's, and several other physicians whose reports were given in connection, it will be a great blessing to suffering humanity. The report was made in Vol. I, Parke, Davis & Co.'s "Newer Materia Medica," Detroit, Mich.

TOBACCO CHEWERS' WEAK STOMACH—Antidote for—Which Also Weans One From its Use.—A writer to the "Household" of the *Blade*, in answer to an inquirer for such an antidote, says: "I herewith send you my prescription, which has never failed yet. Take the inner bark of the root of poplar or whitewood, and when your friend wants a chew of tobacco let him take a chew of this bark. If he will follow this for 3 weeks, I will guarantee he will not be troubled with a weak stomach or have any more desire for the filthy weed."

Remarks.—This being just the thing desired by many, let it have a fair trial, twice as long as the writer claims to be necessary, rather than fail. Not being a "chewer," I have not tested it.

EMETIC—The Best in Use.—Lobelia and boneset (*eupatorium perfoliatum*, also called thoroughwort), each $\frac{1}{2}$ oz.; infused or steeped in water, 1 pt. DOSE—Give one table-spoonful every 10 minutes until thorough *emesis* (vomiting) has taken place.

Remarks.—This is the best emetic in use, from the fact that it injures none, and will not continue its action any longer than you give it. It is necessary, therefore, to continue to give it until the contents of the stomach are thoroughly evacuated. This was the great favorite of Prof. I. G. Jones, one of the early Eclectics, who claimed it the best emetic in use.

1. **IMPOTENCY—Espécial Tonic for.**—Strychnine, 1 gr.; sulphate of quinine (phosphate of quinine is the best, but it is not kept by drug

gfts generally), 30 grs.; tinct. of muriate of iron, $\frac{1}{2}$ oz.; glycerine, 4 ozs. DIRECTIONS—Put the strychnine into a mortar and rub first, then the quinine also, and rub together a little, then put in the tincture of iron, and rub till all are dissolved, then rub in the glycerine, and bottle for use. DOSE—Take $\frac{1}{2}$ tea-spoonful in a little water, 4 times daily, just before each meal and at bed-time. Shake well before taking.

Remarks.—When the amount here given has been taken twice, take no more for two weeks, after which, should there be still further need for the tonic, do the same again as long as needed, whether it be a year, or more. It is much to be regretted that young persons, of both sexes, very frequently are led into evil habits by seeing others do the same, and too often by persuasion and instruction, which undermines their strength and vitality; and if long followed, destroys all happiness by what is called “loss of manhood”—the destruction of the powers of nature, created for the wise purpose of continuing the existence of the human race; it is also to be regretted that men, not to say women, even after marriage, are so excessive in their indulgences, that they also become equally prostrated. And, allow me to say, that while these evil practices are continued there need be no expectations of cure. Stop them, and take the medicines necessary as long as needed, and a cure may be expected, with this drawback, however,—I care not what the evil habit may be, nor what the disease may be, if it is very long continued the same degree of health will never afterwards be obtained as that before indulgence or the disease—it is not in the nature of the human system, any more than it is for a tree to heal without leaving a scar or dead spot, although the bark may heal over after a piece has been knocked off, but there will be found always the dead spot underneath it; and although the spot may not be easily found by the physician when called to these old cases, the persons themselves will generally realize it as long as they live. Then, let every family of children be instructed against these evil habits, and every married person avoid all excesses.

The tonic effects may be increased by taking the elixir of calisaya and iron after meals. This is kept by most druggists, and the directions as to dose, etc., found upon the bottle. Calisaya means Peruvian bark. The above treatment, with an occasional change to some of the following tonics, will be found valuable in spermatorrhea (loss of semen), as well as for all purposes of debility or disease needing a tonic. (See also, Female Debility, Tonics for, etc.)

2. Tonic or Stimulant for Sexual Debility.—Tincture of iodine, 20 drops; simple syrup, 4 ozs. DOSE—Take 1 tea-spoonful 4 times daily, one being at bed-time.

Remarks.—Even in these small doses, Prof. Scudder says, it stimulates and increases the power of the sexual organs.

3. Tonic Tincture, etc., for Sexual Debility.—Geo. W. Homsher, M. D., of Fairfield, Ind., in answering several inquiries made through the *Brief*, gives the following plan, as being very satisfactory; and although I have not yet tried this, I know it will be found valuable:

“Ferro-cyanuret of potash, $\frac{1}{2}$ oz.; aq. bul. (boiling water), 3 ozs.; dissolve.

then add glycerine, $1\frac{1}{2}$ ozs.; specific tinct. (fl. ex., I think, will do as well when the specific tinct. is not kept by druggists) of staphisagria, 1 dr. Dose—Take 1 tea-spoonful 3 times daily, and at bed-time have the patient take a sponge bath over the spine and hips, and give, on retiring, 10 grs. lupulin (I think B. Keith & Co., of New York city, prepare the best lupulin in use) in a little cold water. Not only," he continues, "will this treatment relieve the discharge of semen, but will cure nine cases out of ten of sexual debility, by prohibiting sexual intercourse for 2 months, and giving these medicines that length of time; then suspending all drugs, with the exception of the lupulin at bed-time, and continuing the hip baths."

Remarks.—Should not a cure be perfected in two months, I should say, go over the same treatment again, after two weeks' discontinuance, until a cure is accomplished, avoiding absolutely all the causes which led to it in the first place. In these cases there is always an inflammatory condition of the ureter and other parts of the organs of generation; hence I have found that a 10 to 15 drop dose of the fluid extract of gelsemium, in connection with the other treatment, at or near bed-time, will greatly aid in overcoming this inflammatory condition.

4. Tonic Tincture for Impotency, Spermatorrhea, etc.—Dr. R. M. Griswold, of North Manchester, Ct., reports through the *Brief*, that he has made several quick cures of the above diseases with the following: Tincts. of nux vomica and cantharides, each 1 dr.; tinct. ferri-mur (muriated tinct. of iron), 3 drs.; fl. ex. ergot, 1 oz.; acidi phos. dil. (dilute phosphoric acid), 3 drs.; mix. [The author would say, double the amount, as it will be needed.] Dose—Thirty drops ($\frac{1}{2}$ tea-spoonful) in a wine-glass of water, 3 times daily.

"Within the last six months," the doctor says, "I have treated several cases of the above diseases with uniform success, a radical cure being effected in each case. Two cases occurred in young men of about 20 years of age, resulting from masturbation; one case, following gonorrhoea; the fourth case, a married man, was the result of excessive indulgence; and three other cases, where the search for the direct cause was unsuccessful, yet the same treatment was successful."

Remarks.—He required abstinence from all stimulants (liquors) and condiments (high-seasoned food), using light but nourishing food, especially milk, eggs, fish; sleeping on a hard bed, and in a cold, well-ventilated room; total avoidance of all sexual excitement and all undue exertion of strength. By observing the foregoing, the success was satisfactory.

The only apology I have to offer for the introduction of this class of remedies, for the above diseases, is a positive knowledge that such conditions are found throughout the country—I mean the whole United States and Dominion of Canada, and, I have not a doubt, of all other countries—and also a knowledge that those who have need of such remedies have so great a delicacy in going to home physicians, they either put off treatment too long, or are so egregiously humbugged by advertising quacks that I have felt compelled to come to their relief, as well as those troubled only with the common, or ordinary, diseases affecting the health of the people. Faithful attention in taking the

medicines, and the avoidance of all the causes leading to these difficulties, with care also as to diet, etc., will ensure success, with but trifling expense as compared with the charges of those who can cure, at most, but few of the cases they succeed in obtaining through their advertisements. I will close this subject with the following:

5. Tonic Pill for Sexual Debility.—Dr. Benj. A. Penn, of Bryantsburg, Ind., gives a valuable pill for sexual debility, in the May number of the *Brief* of 1882. “Strychnine, 3 grs.; sulphate of quinine (phosphate is best, if it can be obtained) 120 grs.; iron by hydrogen, 120 grs.; mix thoroughly and make into 240 pills. Dose—Take 1 pill every 6 hours during the day; and after the system becomes used to them take 1 every 4 hours.”

Remarks.—The only change I would suggest in this pill is that the quinine should be doubled in amount, or one grain to each pill, as I think this would greatly increase its tonic power.

BORAX—Its Value in Catarrh, Throat Difficulties, Inflamed Eyes, Dandruff, etc.—I. A solution of 1 dr. to soft water, $\frac{1}{2}$ pt., snuffed up into the nostrils, is valuable in catarrhal difficulties; if recent, it will effect a cure. Use 3 times daily; though I must say I think it is easier taken in powder, as a snuff, and better too, taken 5 to 10 times daily. I combine sugar, $\frac{1}{2}$ dr., with powdered borax, 1 oz.; and put in a few drops of white rose perfume, as a snuff; and if the throat is sore, drop a pinch of it into the throat at each time of snuffing. It soon benefits both difficulties.

II. The same strength makes a good wash for weak inflamed eyes.

III. Use as a gargle, in recent affections of the throat.

IV. It makes a valuable wash for the head if troubled with dandruff, leaving the hair soft and glossy.

V. In nervous headaches, wash the head with it two or three times as strong, then wash out with cool, clear water, rubbing well with the towel, and take a nap, and generally all headache will subside, and the patient be much refreshed. After washing the head in this way it will be very proper to use the magic headache cure, as there directed, which see.

VI. In erysipelas, a writer in the Philadelphia *Medical Times* says, from 8 years experience, he has found a solution of borax in glycerine, 1 dr. to 1 oz., to be a remarkably effective remedy, to be locally applied on linen. In connection with this borax solution upon the inflamed part, I would give 5 to 10 drops of muriated tincture of iron, every 4 or 5 hours, internally, when a cure may be expected in 2 or 3 to 6 days. If it irritates the stomach, or causes too much flow of urine, lessen the dose, or lengthen the time between them. (See also erysipelas, where the treatment may be preferable.)

VII. As a shampoo, once or twice a week, it will be valuable for everyone: but for students, clergymen and others who have considerable mental work, it will be found especially valuable, after the labors of the day, rubbing and drying the hair and head well, before retiring. The powdered borax is readily dissolved, and a small tea-spoonful to a tumbler of water makes all ready for general purposes. If there is any inflammation of the gums, rinse them with it 3 or 4 times daily.

VIII. For clothes washing, in Holland, Belgium and France the washer-women and washer-men (for in some of these countries the men do a good share of the washing) use a large handful of refined (powdered) borax; being a neutral salt (having no excess of acid or alkali) it does not injure the clothing at all, but softens the hardest water, or at least materially improves it for washing purposes. Many people use ammonia for most of the purposes here named, but the borax is generally preferable.

1. NIGHT SWEATS—Remedy for.—Dr. Charles D. Carpenter reports a case through the *Medical Brief*, of St. Louis, wherein he was attending a “medical” friend, suffering with rheumatism, which continued 7 weeks (I have heard of a case wherein the celebrated Abernethy, of England, was asked what should be taken for rheumatism, and the answer was, “Take six weeks,”—in other words, there was no cure, but it would get well in that time). In this case, after the acute stage had passed, recovery was retarded by terribly prostrating night sweats, and after trying half a dozen or more of the common remedies for them, at the suggestion of the “medical” friend, he gave 2 full doses of chloral hydrate. When the patient was fully under the influence of the chloral the sweating ceased and returned no more, the patient making a rapid recovery. He afterwards tested it in a number of obstinate cases of night sweats, and with uniform success. **DOSE**—A full dose may be put down as 15 grs. for a large man; 8 to 10 grs. for a large woman; repeating or giving the second 2 hours after, dissolved in water, say a wine-glassful or $\frac{1}{4}$ of a common tumblerful. I should not give beyond the 2 doses. It has been given in much larger doses, but it is not best to run any risk, unless absolutely necessary in great and long-continued pain or nervousness arising from delirium tremens, etc.

Remarks.—If it is good for night sweats arising from rheumatism, it is good for them arising from consumption, or any other prostrating disease. Further, it is very probable that one of Dr. Carpenter's obstinate cases above mentioned was a consumptive; although he does not say what they were, it is enough to know it is good for this symptom. It matters not, then, what the disease is in which they are present.

2. Night Sweats, Consumption, Spitting Blood and Diabetes, Valuable Remedy for.—Bugle weed (*Lycopus Virginicus*), also known as Paul's betonia and water hoarhound; the tincture or fluid extract has been found valuable remedy in all the diseased conditions above named. Prof. Scudder uses it in all chronic diseases when the pulse is too frequent and the debility considerable, for, as it lessens the pulse—which it does—so also it increases it in strength, acting, as he believes, through the sympathetic system of nerves, improving the circulation, the appetite, blood-making, nutrition, and the secretions. In consumption, he says: “We find it relieving the cough, checking the night sweats and the diarrhea, lessening the frequency of the pulse, improving the appetite and giving better digestion. It has been used more in hemoptysis (spitting of blood) than in any other disease, its action being slow but certain.”—*Scudder's Specific Medication.*

Prof. I. J. M. Goss, of Marietta, Ga., author of “*Materia-Medica and Therapeutics*,” in his “*New Medicines*,” says, among other things, that he has

had it—the *lycopus*—to arrest hemoptysis (spitting blood) in a few hours, when it was profuse and alarming. It seems to control the vascular excitement (excitement of circulation) in a manner peculiar to itself.

This, however, I do not look upon as at all singular — all remedies have their own peculiar action, and none of us can tell why, and in but few circumstances can we tell how; but it is enough for it to be known, they do it.

Prof. Goss further says, that it is also a valuable remedy in the treatment of diabetes *insipidus* (when the urine is tasteless) and *sacharina* (the urine containing sugar), and in chronic coughs, with profuse expectoration.

The dose of the infusion is 1 to 2 ozs. (2 to 4 table-spoonfuls), and the dose of the fl. ext. is 1 to 2 drs. (tea-spoonful).

Where It Grows, When to be Gathered, etc.—It grows over large portions of the United States. Has a small purplish flower through July and August, when it should be gathered, dried in the shade and carefully kept in paper sacks, for each year's use, as age injures it. It yields its strength to boiling water, 1 oz. to the pint of river or rain water—giving 1 to 2 ozs., which would be 2 to 4 table-spoonfuls, as a dose. None of these writers say how often it should be given, hence I would say, 4 to 6 times within the day and evening, as found to agree with the stomach and the action desired. It is not poisonous nor dangerous. See “Diabetes” for diet, etc., in that disease.

Prof. King, of Cincinnati, in his “American Dispensatory,” in his explanation of the uses of the bugle weed (*lycopus*), after corroborating its uses in the diseases above named, adds: “It acts somewhat like digitalis, in reducing the velocity of the pulse, but it is devoid of the dangerous effects resulting from the use of that drug, and hence has proved useful in some heart affections. It is decidedly beneficial in the treatment of diabetes, having cured when all other means were useless; and has been of service in chronic diarrhea and dysentery, inflammatory diseases of drunkards, diseases of the heart, and intermittents (agues).”

Dose of the powder, from 1 to 2 drs. (1 to 2 small tea-spoonfuls); of the infusion, 2 to 4 fl. ozs. (from 4 to 8 table-spoonfuls), and of the concentrated tinct. of the recent plant (tinct. made with 8 ozs. of the bruised plant to 1 pt. of diluted alcohol), from 5 to 60 minims (drops).

Thus it is seen, the bugle weed is a very valuable remedy. Especially is it worthy of a fair trial in the coughs and prostrating night sweats of consumption, as well as in all the other diseases mentioned.

PILES (Hemorrhoids)—Bleeding or Only Tumors, Some Remarkable Remedies for.—Stephen Adams, M. D., of West Newfield, Me., in answer to a call in the *Medical Brief*, of St. Louis, Mo., for hemorrhoids (piles), says: “I use a remedy which I have used a long time, and which has cured every case where it has been used. Mix citrine ointment and resinous ointment (both kept by druggists), about equal parts; put a few grs. on a piece of paper, rub on and about the anus (rectum) 3 or 4 times a week, at night. It will stop the hemorrhage (bleeding), and soon discuss (drive away or scatter) the tumor. You need no knife or caustic. Should the bowels incline to constipation, use, 2 or 3 times a week, $\frac{1}{3}$ gr. solid ex. of belladonna, and some gentle lax-

ative (as cream of tartar, sulphur, magnesia, etc., or the pile laxative below), or, if possible, a better plan is to keep the bowels regular by proper diet and exercise."

Remarks.—This would be considered a pretty good thing, without other testimony or corroboration; but in accordance with my general custom, although I have not had a bad case on which to try it, yet as others have, and are reported through the *Brief* above named, I will quote from one more of them. G. A. Graham, M. D., of White Hall, N. C., June 18, 1880, page 318 of that year, says: "Being a sufferer from hemorrhoids myself, I was especially interested in the many articles which appeared in the *Brief*, for the cure of this trouble without the knife. I concluded to try citrine and rosinous ointment, recommended by Dr. Stephen Adams; I only used it twice last November, and have not suffered once since. Four weeks since, an old man came to me for treatment, who had piles for forty years, in which time he tried any number of doctors and remedies, without any marked benefit. I did not care to treat his case with ointment alone, but, as he refused any more radical procedure (as the knife or ligature), I gave him, as an experiment, a little of Adams' ointment; he reports a wonderful relief. The tumor, which was two inches in length, and nearly as hard as a bone, almost entirely disappeared, causing no pain, no hemorrhage (bleeding), and leaving him like a new man. I write this hoping that others may be induced to try this remedy and report."

2. Piles, Laxative for.—The inquiry for the best medical treatment for the cure of hemorrhoids, or piles, which brought out the above and many others also, was made by Dr. Hendien, of Nicholasville, Ky., among which was the following, by Clarence H. Clark, M. D., of Haverhill, N. H. I give it, because I think it valuable as a laxative in these cases, rather than with an expectation of its making an absolute cure, although Dr. Clark says of it: "What I think to be the best remedy is the following recipe, which I have thoroughly tested. Jalap, confection of senna, bitartrate of potassa (cream of tartar) and sulphur, each 3 drs.; nitrate of potassa (purified saltpetre) 20 grs. (all in powder); syrup of tolu, sufficient to make a soft mass. Dose—A pill the size of an ordinary bean or small chestnut, 3 times a day, before meals; or sufficient amount to produce a gentle movement of the bowels; continue till the bowels become regular and natural."

Remarks.—This will, however, be found quite efficient as a laxative; and also an alterative of considerable value. The fig remedy below is an excellent laxative also, for piles, and I think more curative in itself. (See "Bleeding Piles, Laxative for, etc.")

3. Piles, Simple Remedy for Tumors in.—E. Parsons, M. D., of Savannah, Ga., gave the following. He says: "For many years I was very much troubled with piles, the tumors often being as large as a walnut and very painful. I tried many remedies with only temporary benefit; three years ago I prepared the following: Glycerine, 1 oz.; carbolic acid dissolved in the least water that will dissolve it, 20 drops; mix. At night, on going to bed, I washed the parts in cold water, and with my fingers I anointed the parts. In one

week's time, six applications cured me, and I have had no return since of this very troublesome disease. I have recommended it to quite a number of my friends, who tell me it has cured them."

4. Piles, Cured by a Simple Internal Remedy.—Another writer claims to have cured piles of long standing by taking a tea-spoonful of glycerine, twice daily, only.

5. Bleeding Piles, Valuable Laxative and Cure for.—A nephew of mine, who had been troubled considerably with piles, gave me the following recipe which had done him much good. He said it was "going the rounds of the newspapers," as we often hear remarked. It was as follows: "Take nice soft figs, 1 lb.; best powdered senna, 2 ozs.; manna and fennel seed, each 1 oz. DIRECTIONS—Trim off the stems, flower end and other hard and dry spots, if any, from the figs; then chop them in a chopping-bowl, to a salvy consistency, and mix in the other ingredients with the hand, using a little molasses, if necessary, to work all in nicely and evenly. Then put into a tin box, and put a moistened cloth over the top, and cover tightly, for use. And if no fennel seed are to be had, anise seed or caraway seed may be used in their place. The seed, whichever may be used, are a carminative, to prevent griping from the action of the senna; whichever is preferred, as to taste, may be used. DOSE—Take a piece the size of a common hickory nut, at bed-time, to move the bowels next day; and continue to take such a sized piece every night, or every other night, as will keep the bowels easy, or soluble, until cured. If there is griping to any extent, use half as much more of whichever seed was used. Additional flavor might be used, if desired, a little oil of peppermint or wintergreen, as both are highly carminative."

Remarks.—This was claimed to have been very effectual in bleeding piles, as well as where only tumors were present.

6. Piles, Simple Laxative for.—Confection of senna, 2 ozs.; cream of tartar and sulphur, each 1 oz.; syrup of ginger, enough to make a thick paste; mix well. DOSE—Take a piece the size of a medium sized nutmeg, every bed-time, or sufficiently often to keep the bowels lax or loose. That is, in piles, the bowels must be kept easy, as the soreness of the parts do not admit of strain without causing great suffering to the patient. With this laxative, or the one before it, the tendency to costiveness can easily be avoided. Dr. Warren, in his "Household Physician," says this is one of the very best laxatives for piles.

7. Piles, Lead Ointment for.—Rub well together, lard, 2 drs.; sulphur, 1 dr. Then rub it between two plates of lead, or large flat pieces of lead, until the whole is well blackened. Dr. Warren says: "It is not only soothing but curative, both in bleeding and blind piles (where no tumors come down). The food should be of a laxative nature—corn bread, rye mush, bread of unbolted flour (Graham), mealy potatoes, ripe fruit, pudding and milk, buckwheat cakes, broths, and a little tender meat once a day."

Remarks.—When the digestion and circulation are good, there never are any piles. So keep the digestion and circulation good and have no piles, is the

author's advice. But as many persons will still have them, I will give a recipe for a suppository for introducing into the rectum, which W. M. Bemis, of Jamestown, N. Y., tells us through the *Brief*, in answer to an inquiry, he has for some time used with marked success, and as it is also good for "enlarged prostrate," will be found doubly valuable. It is as follows:

8. **Piles and Enlarged Prostate, Suppository for.**—I. *For the Piles.*—Iodoform, 30 grs.; solid ext. of hyoscyamus, 18 grs.; cocoa butter, or spermaceti, sufficient to make into suppositories—6 in number; and introduce one into the rectum night and morning.

II. *For the Enlarged Prostate.*—This suppository, with the addition of solid ext. of belladonna, in the proportion of one-half gr. to each suppository, is a very satisfactory mode of treatment for enlarged prostrate.

Remarks.—Although the description is sufficient for physicians, for whom, as before remarked, the *Brief* is published, to understand the treatment of enlarged prostate, it is not so for the people for whom, especially, this work is published; therefore, the author will explain, by saying, the "prostate" is a gland in the male, lying immediately in front of and below the neck of the bladder, across, as it were, and upon the ureter just at the entrance into the bladder; hence its enlargement causes a pressure upon the urethra or water passage from the bladder, making it difficult to pass the urine, and sometimes preventing it wholly, except by passing a catheter to evacuate the contents of the bladder. Then, of course, it lies so near the rectum, into which the suppository is to be introduced for enlarged prostrate, the same as it would be for piles; and I have not a doubt that it will be found very satisfactory for this difficulty. Knowing the importance of understanding, as perfectly as possible, anything I desire to do myself, I try, at least, to make everything as plain as possible for the people, for whom I have given a life time of service, and, I trust, have done and may continue, through my books, to do a good many years after my tongue and pen have ceased their labors. This, to me, is the grandest thought of my life—I have done what I could—to benefit mankind.

9. **Piles, Common or Bleeding—Bleeding of the Nose, Womb, Wounds, etc, Remedy for.**—Samuel Wimpelberg, M. D., of Poughkeepsie, N. Y., writing to the *Medical Bulletin* on the subject of piles (of course called hemorrhoids by the doctors), says: "There are numerous remedies recommended for the cure of hemorrhoids, and I have tried many; but I can safely say that not one in the whole Pharmacopœia (whole range of medical books) has given me results half as favorable as the persulphate of iron. [Monsel's salts is the common name, and I will use it in this connection.]

"In cases known ordinarily as bleeding piles it acts promptly and positively, thus giving the best results. In such cases the dose should be Monsel's salts, $1\frac{1}{2}$ grs., *ter in die* (3 times daily), internally, and the following ointment, applied locally: Simple ointment, 1 oz.; Monsel's salts, 12 grs.; mix and apply night and morning. I have known hemorrhoidal tumors, the result of pregnancy, to disappear entirely in less than a week on the application of the internal use of Monsel's salts, as directed above.

"Piles, the result of violent efforts at stool (to force a passage), disappear



HENBANE.

(See Description)

Applied externally on Boils, Fistulas, Swellings of the Breast, Ulcers, Tumors, Inflamed Eyes, etc.

promptly by combining the internal use of the powder and the local use of the ointment. In this connection I would also mention that in *proctocoele* (a species of piles in which the mucous membrane of the rectum, or intestine, comes down with every passage), a most satisfactory result can be obtained from the internal use of the per sulph of iron (Monsel's salt), in doses of 2 grs. 3 times daily, besides the local application of the ointment."

10. Hemorrhage of the Lungs, Nose, Womb, etc.—The Monsel's salts being so prompt and positive in closing piles, the author cannot see why it would not be equally prompt in bleeding from the organs above named; still, I know that the fluid extract of ergot and tannic acid combined, say, fl. ex. of ergot, 1 oz.; tannic acid, 180 grs.; mix. **DOSE**—Take $\frac{1}{2}$ tea-spoonful every 2 hours, if the hemorrhage is moderate, or if more free, repeat once or twice only, 1 hour apart, then once in 3 or 4 hours, according to the severity of the case. I have used this latter in hemorrhage from the womb, with success, and hence know its value for all these purposes, using friction over the womb, occasionally, until it contracts, and thus ends the hemorrhage.

Remarks.—In speaking of the uses of Monsel's salts, King, in his "Dispensatory," says: "The action of this salt on blood and albumen (albumen forms a part of the blood) is powerful; with the former it produces a voluminous clot, absolutely insoluble, which continues to enlarge for several hours after its application, and becomes quite hard and firm. Dr. H. H. Tolland, of San Francisco, Cal., who has successfully used this salt says: 'If applied to a superficial (surface) wound, as soon as made not a drop of blood escapes, and no pain results from the application. It acts by producing instantaneous coagulation (thickening) of the blood, and will be found invaluable in hemorrhages from the mouth, nose and throat, when it is impossible to ligate (tie) the vessel, and may be equally efficacious in alarming uterine (womb) hemorrhages, either active or passive. [That is profuse or slight hemorrhages from the womb.] In solution, it could be readily applied; it is very deliquescent (dissolves quickly in the air), and dissolves speedily in water.'"

Remarks.—Pill form is the easiest way to take this Monsel's salt, or per-sulphate of iron, as it has an unpleasant, astringent taste in solution; still the solution is the quickest to act, in case of profuse or active hemorrhages. In wounds or ulcerative sores the powder may be sprinkled into them, or in cuts with much hemorrhage. It is the same powder that Dr. T. B. King, of Toledo, O., used in curing an ulcerated erysipelatous sore leg, on a woman in Detroit, Mich., after the doctors said nothing could help her. As in that item remarked, he applies it, and so have I, to the mouth of the womb, when ulcerated, with great success. Mind, however, it is iron, and stains clothing; so protect them.

ABSCESS.—An abscess is the collection of pus or matter in the substance of some part of the body. When the matter is poured out from some part, the process is said to be suppuration; when it collects in a tissue, it is an abscess. When the matter collecting in some organ, comes toward the surface, and a place in the centre rises above the surrounding skin, and turns white, the abscess is said to point. Some abscesses point and break in a week; others of a more chronic character, will linger on for months.

TREATMENT.—When the abscess is completely formed, and there is no longer any doubt of the presence of matter, it should be opened at once. To let out the confined pus alleviates the pain and lessens the inflammation. If the matter lie close to the bone, the opening should be made without delay. The opening should be large enough to let the matter out freely. It is a rule to keep the incision open till the cavity of the abscess is so far filled up that another collection of pus is not likely to occur.

If the matter do not readily get to the surface through the opening, it may burrow itself in the flesh, in a long narrow channel called a sinus. To relieve this the opening must be extended in such a way as to give vent to the new collection.

An abscess is sometimes indisposed to heal at the bottom, and pus continues to be formed a long time, and is discharged through an opening smaller than the sack which contains it. This is a fistula; and the opening to it should be enlarged so as to let out the matter more freely. A little soft lint may then be gently pressed into the wound to prevent its healing before the cavity below.

An abscess from acute inflammation requires to be poulticed for a time after it has been opened. When the swelling and inflammation are gone, the poultices are to be laid aside, and a bandage put on. When the inflammation is gone, let the diet be improved; and if the discharge of matter be large, give wine and tonics.

ATROPHY, OR SHRINKING OF THE HEART.—The heart, like any other organ, is liable to defective nutrition, and in consequence of it, may become small; it shrinks in some cases to the size of an infant's heart.

The complaint is generally caused by whatever reduces the general flesh, as in consumption, diabetes, chronic dysentery, cancer, and excessive loss of blood.

It can hardly be called a disease. Persons who have it are less subject to inflammatory diseases than others, though they faint from slight causes, and have nervous affections.

TREATMENT.—If its causes can be discovered, treat them; if not, the treatment should be the same as for dilatation.

DELIRIUM TREMENS.—This is often mistaken for brain fever; but it is quite a different disease. It is not the result of inflammation of the brain, but of irritation. It is important to distinguish it from inflammation, because the remedies which are employed for that would be injurious if used for this.

TREATMENT.—Opium and its preparations are the sovereign remedies. Give $\frac{1}{3}$ of a grain of morphia; if this does not quiet the patient, give 30 drops of laudanum every two hours, till sleep is produced. Sleep will cure him, and nothing else will. A draught or two of his accustomed drink, brandy, gin, or whatever it may be, will also generally dispose him to sleep.

Recently, a very effectual remedy has been found in the use of tepid baths, prolonged from four to ten hours, in connection with cold applications to the head. In connection with this, small doses of opium are required; but the

treatment may yet prove to be very valuable by enabling us to dispense with excessive doses of opium.

FAINING.—TREATMENT.—Lay the patient upon the back, with the head low; let fresh air into the room instantly, and apply gentle friction. Sprinkle a little cold water upon the face, and hold spirits of camphor, ether, hartshorn, or vinegar to the nose,—rubbing a little of the spirits of camphor upon the forehead, and about the nostrils. As soon as the patient can swallow, give a tea-spoonful of compound spirits of lavender, with 10 drops of water of ammonia in it.

Persons subject to fainting should not go into crowded assemblies where the air is bad; neither should they wear tight dresses, or allow themselves to get excited. Cold bathing, a well regulated diet, and vegetable tonics, will do much to break up the habit.

Remarks.—Whatever causes debility, particularly of the nervous system, will predispose to fainting. Persons much weakened by disease, faint easily—especially when they attempt to stand still. When on their feet, such persons should keep moving. Fainting is sometimes induced by sudden surprises and emotions, by violent pains, by the sight of human blood, and by irritation of the coats of the stomach by indigestible food.

GALL STONES.—TREATMENT.—To reduce the spasm, give Dover's powder in full doses, or chlorodine. Also apply mustard over the right hypochondrium and stomach, and follow it with hot fomentations with hops, or use wet cups.

If the stomach is irritable, give the neutralizing mixture until it moves the bowels. A warm infusion of thoroughwort, given to the extent of producing vomiting, will sometimes do well, and lobelia enough with it to relax the duct may be useful.

To relieve the acidity on which the formation of these stones so often depends, the following neutralizing preparation may be given for a long time, the diet, in the meantime, being well regulated: Rhubarb, pulverized, $\frac{1}{2}$ oz.; spearmint herb., pulv., $\frac{1}{2}$ oz.; pulv. cascarilla, $\frac{1}{2}$ oz.; pulv. bicarbonate of potassa, $\frac{1}{2}$ oz.; pulv. wild cherry bark, $\frac{1}{2}$ oz. Mix, and pour on one quart of hot water. Let this stand till cold, and add $\frac{1}{2}$ pint of brandy. Dose—Half a wine-glassful. The sponge bath, with saleratus and water, should be taken daily, followed by brisk rubbing; and free exercise in the open air should on no account be omitted.

PLEURISY.—TREATMENT.—As a general thing I am opposed to bleeding, and am even reluctant to recommend it in pleurisy. Yet if there is a human ailment which will justify it, pleurisy is that one.

Sweating should be encouraged immediately. The compound tincture of Virginia snake root, given every half hour, in tea-spoonful doses, will generally produce a free perspiration, and give immediate relief. It may be given in infusion of catnip, balm, or pleurisy root. At the same time, the affected side should be fomented with hops, tansy, wormwood, etc., applied very hot.

If this does not afford relief, or only partial relief, give an emetic of the compound powder of lobelia, and follow it with the compound powder of jalap, or the compound powder of leptandrin, or prescription as physic: Pulverized gamboge, 12 grs.; pulverized scammony, 12 grs.; elaterium, 2 grs.; croton oil, 8 drops; ex. of stramonium, 3 grs. Mix. Make 12 pills. One pill is a dose, repeated every hour until it operates. At the same time keeping up the perspiration, with full doses of tincture of veratrum.

To produce sleep and perspiration at the same time, Dover's powder may be given in 6 grain doses.

For the fever, nothing is equal to the tincture of veratrum viride.

The diet must be of the very lightest kind.

When absorption of the fluid does not take place, a puncture is sometimes made through the walls of the chest, and the water drawn off. This operation is called paracentesis thoracis, and is generally, in uncomplicated cases, entirely successful. When this is not done, let the affected side be painted daily with tincture of iodine, keeping up considerable soreness, and giving iodide of potassium at the same time.

Fluid ex. of sarsaparilla, 4 ozs.; fluid ex. of pipsissewa, 1 oz.; water, 1 qt.; iodide of potassium 2 ozs. Mix. Take a table-spoonful 3 times a day

RICKETS.—This is also a disease of scrofulous children. By some bad process of nutrition in such children, there does not enough phosphate of lime enter into the bones to harden them, and the weight of the body, or the pulling of the muscles, or the pressure of the clothing, bends and distorts them in all manner of ways. The heads of the thigh bones are pushed nearer together making the lower belly narrower, the backbone is so curved as to lessen the height; the shoulder blades stand up like wings when flying is contemplated; and the shoulders are so lifted up that the head seems only a little higher than the elevations on each side.

TREATMENT.—A good, generous, wholesome diet, properly regulated; out door exercise; the tepid or cold salt water sponge bath, with friction, and but little medicine. The hypophosphite of lime, in 2 gr. doses, given in a little sweetened water, 3 times a day, or the syrup of the hypophosphites, in ½ tea-spoonful doses, 3 times a day, may be given with advantage.

SHINGLES.—**TREATMENT.**—Light diet and gentle laxatives. If the patient be advanced in life, and feeble, the following tonic will be desirable:

1. Bicarbonate of soda, ½ oz.; compound infusion of gentian, 4 ozs.; tincture of colombo, 1 oz.; syrup of orange peel, ½ oz. Mix. Take a table-spoonful 3 times a day.

For external application—

2. White Vitriol, 1 dr.; rose water, 3 ozs. Mix. Apply outwardly.

Or the following ointments:

3. Sulphuret of lime, 1 dr.; camphor, in powder, 15 grs.; lard, 1 oz. Make an ointment.

4. Elder-flower ointment, 1 oz.; oxide of zinc, 1 dr. Make an ointment

SPASM OR CRAMPS IN THE STOMACH.—TREATMENT.

The following strong purgative injection will often bring immediate relief:

1. Castor oil, 2 ozs.; tinct. of prickly ash bark, $\frac{1}{2}$ oz.; comp. tinct. of Virginia snake root, 2 drs.; infusion of boneset and senna, equal parts, $\frac{1}{2}$ pt. Mix.

2. Sweet tinct. of rhubarb, 4 ozs.; bicarbonate of soda, 2 drs. Mix. From a tea-spoonful to a table-spoonful, as occasion may require. This, with a few drops of tincture of cayenne mixed with it, will often bring speedy relief. So will a mustard poultice laid upon the stomach. The mustard poultice is a remedy of great excellence in many cases. It deserves to be called the poor man's friend.

Remarks.—Though generally of shorter duration, this is more violent than heartburn. It is attended by a sense of fullness, by anxiety, and by great restlessness. In females hysterical symptoms are often coupled with it. Great quantities of air or a gas are generally expelled, and the pain shoots through to the back and shoulders.

TYPHOID PNEUMONIA.—TREATMENT.—This should be like the treatment of pneumonia and typhoid fever united. Great care must be taken not to use reducing remedies. While active purging must not be used, yet if there are symptoms of an inactive state of the bowels, the following may be employed:

1. Leptandrin, 1 dr.; podophyllin, 1 scruple; scutillarine, 2 drs.; pulv. cayenne, 1 scruple; pulv. loaf sugar, 4 ozs. Rub together for some time in a mortar. Dose—For an adult, $\frac{1}{8}$ of the above.

2. Leptandrin, 30 grs.; podophyllin, 10 grs.; pulv. cayenne, 10 grs.; ext. nux vomica, 6 grs.; quinine, 12 grs. Mix. Make 24 pills. One, two, or three times a day.

When there are symptoms of great depression, use the following tonics:

3. Podophyllin, 4 grs.; leptandrin, 8 grs.; quinine, 8 grs.; ext. nux vomica, 2 grs. Mix. Make 16 pills. One, two, or three pills, at bed-time.

4. Pulverized Peruvian bark, 1 oz.; pulv. rhubarb, $\frac{1}{2}$ dr.; pulv. muriate of ammonia, 1 dr. Mix. Divide into eight powders. Take 1 three times a day.

5. Aromatic syrup of rhubarb, 1 oz.; tinct. of colombo, 1 oz. Mix. Dose—Two tea-spoonfuls 3 times a day. Taking care to keep the cough loose by flaxseed, slippery elm, and marshmallow tea, and by some external irritant.

CHILDREN, MANAGEMENT OF.—1. Diet.—Between the period of weaning and the seventh year the diet should consist very much of farinaceous food, and milk; with a moderate allowance of animal food once or twice a week.

2. **Bowels.**—To keep the bowels of children in a healthy and regular state, is a matter of the utmost consequence. They are too apt to neglect the calls of nature, not being aware of the importance of regularity in this respect.

3. Sleep.—Children generally take a great deal of rough and boisterous bodily exercise; and during their education, their minds too are pretty much employed; all which occasions considerable exhaustion, so that it seems quite proper to allow them a due share of sleep, from eight to nine or ten hours at least. But it should be at sleeping time; and they should not be allowed to doze and saunter during their waking hours.

4. Clothing.—Children should have their dress accommodated to the season; and a due degree of warmth should be kept up. It is wrong to expose them to cold in order to harden them; but a proper degree of exercise in the cold air should be taken. The great evils to be avoided are, cold accompanied with moisture, and any check to perspiration; which boys too often sustain, by throwing themselves down on the moist ground, when heated by their games. Flannel next the skin need not be ordered for healthy children; but where there is much tendency to catch cold, or to have loose bowels, or continual paleness of the skin, and weakness of the system, it will be prudent to make children wear flannel. Much care should be taken to have the feet always warm and dry; and to make them change their shoes as well as their clothes, whenever they get wet.

5. Cleanliness.—Children should very early be taught the necessity and importance of cleanliness. They should be made to keep their hair, their teeth, and nails in good order, as it not only promotes their own health and comfort, but renders them agreeable to all around them. It is of the utmost consequence to keep the skin very clean, as this tends to prevent many of the cutaneous diseases which are so common with children, but which are so disgusting. Washing with cold water about the chest will lessen the susceptibility to cold; and about the feet, will strengthen them, and render them less liable to chilblains. Sea-bathing and swimming in safe places, are excellent both for health and cleanliness. Cleanliness is not without a degree of moral influence, and has been very properly styled one of the minor virtues.

6. Exercise.—Children when in tolerable health, and not of an indolent disposition, seldom require to be urged to take exercise; they are rather inclined to take it too much, and too violently, and need a little regulation and superintendance in this respect. The practice of gymnastics or dancing is a good exercise; and girls should use the skipping ropes. When out of doors, children should be allowed to choose their own amusements, and interfered with only when they are in danger of doing anything unbecoming, or hurtful to themselves or their companions. Even girls should have ample scope in their play-time, and their own sense of propriety, will soon enough correct any tendency to improper romping; their health will be promoted, and their figure expand; and it is better to possess a sound constitution and an active frame, than to be celebrated for proficiency in drawing or music, before the age of twelve or thirteen.

Moral Treatment.—We charge upon nature many of the bad passions which we ourselves implant in children. The moral treatment of children is generally bad. We are apt to begin by either making them our masters or our slaves. Sometimes we do both,—allowing them to govern us for a time, and

then, getting into a passion, or a mood for playing the tyrant, we turn upon, and govern them as if we were autocrats. We submit to their whims until we grow irritable, and then, by way of retaliation, we compel them to submit to ours. This is all wrong. Children should be *governed always*, but with an even, a gentle, and a loving hand. They should early be subjected to habits of self-control, and of regularity in eating, and sleeping; and should be taught absolute and continued obedience. All this can be brought about only by firmness, self-control, and great gentleness on the part of parents. If they would make a child cheerful and happy in its disposition, they must themselves be cheerful, and never let it see anger, passion, and fretfulness, marring their conduct. Nothing is more injurious to the health of a child than a peevish, complaining, and soured disposition; and these vices are seldom acquired, unless seen in the lives of parents.

1. DISEASES OF CHILDREN — Prickly Heat, Dysentery, Diarrhea, etc.—Remedies.—Mrs. Jay, of Fern Grove, Ill., reports through the *Blade*, that an experienced physician taught her the following, in caring for children broken out with prickly heat:

I. Keep them as cool as possible.

II. For a child of 2 years, give $\frac{1}{2}$ tea-spoonful of cream tartar in the morning, for a few mornings.

III. Bathe them in tepid (a little warm) water, with a little soda in it, every night. It is also good to have a tubful of water (the chill off, of course), and let the child splatter in it for about fifteen minutes.

IV. When the heat breaks out in little pimples, which are all sore, grease them over with fresh (unsalted) grease of any kind; then dust over with pulverized starch, at least once a day, to keep them from smarting.

2. Dysentery, Diarrhea, etc., of Children, Cordial for.—This lady continues: I. These little ones require much care during warm weather, with their dysenteries, diarrheas, etc., from teething. I have found the blackberry balsam, as I call it, a most excellent remedy, but when the disease is of long standing, and there seems to be pain and soreness of the bowels, it is best to keep them very quiet, scarcely rocking them (so the doctor told me) and apply spirits of turpentine over the bowels. Take a cloth dampened with the turpentine, large enough to extend up over the stomach, as well as to cover the bowels, and leave it on long enough to cause redness, but not to blister. Then take it off, and when the redness goes away, apply again, until it seems to be out of pain, or easier, or:—

II. *Onion Poultices*—Applied in the same way, are very good; but the turpentine, if at hand, acts quicker. Onion poultice is made by chopping, or slicing, 2 onions into a spider with a little water and cooking well, then spread on a cloth.

Remarks.—This cooking of the onion, accounts to the author, for their not acting as quickly as the turpentine; mash them and lay them on raw, and I think they will act as quickly and as effectually as the others. Her balsam is

entirely different from any I have seen, but it will be found very valuable It is as follows:

III. *Blackberry Balsam and Cordial for Children*.—Take of the small and growing roots of the blackberry, 4 ozs.; bark of the bayberry, 2 ozs.; cranes-bill root (known also as *geranium maculatum* by the profession, and alum root by the people), and cinnamon bark, each 1 oz.; gum myrrh and cloves, each $\frac{1}{2}$ oz.; fennel seed, $\frac{1}{4}$ oz.; loaf sugar and brandy as given below. DIRECTIONS—The roots should all be cut short, then with the other articles all bruised, and steeped in 2 qts. of water until half is evaporated (4 to 6 hours at least), making up with hot water if too much evaporation; but if steeped slowly, as it should be, or covered, it will be about right; then strain, and for the balsam add loaf sugar, 1 lb., and dissolve by heat.

For the Cordial.—Make the same way, but add sugar, $\frac{1}{4}$ lb., and best French brandy, $\frac{1}{2}$ pt. Each are to be bottled and kept corked for use. Dose—For children, 1 to 2 tea-spoonfuls, according to age and severity of the disease; repeat every 1, 2 or 3 hours, as needed. For adults—for it is good for them too—1 table-spoonful for a dose, time as above.

Remarks.—I can see no reason for making two kinds, balsam and cordial. I should put the full 1 lb. of sugar and the brandy, or good whiskey, as one can get handiest, $\frac{1}{2}$ pt. to the strained mixture, and call it syrup, and be done with it; for the spirit will insure its better keeping and action. Prof. King in speaking of the fruit of this berry family, in which the red raspberry, dew-berry, etc., are all included, says: "The fruit, especially that of the black-berry, is of much service in dysentery, being pleasant to the taste, mitigating (easing) the accompanying *tenesmus* (gripping and straining) and suffering of the patient, and ultimately effecting a cure. Blackberry syrup has cured cases of dysentery, even after physicians had despaired of a cure."

3. Dr. J. D. Lauers, of Conover, Ohio, adds to the blackberry cordial, made by any good cordial recipe, as follows: "Blackberry cordial, $1\frac{1}{2}$ ozs.; tinct. kino and paregoric, each, $1\frac{1}{2}$ drs., and syrup of ginger sufficient to fill a 3 oz. bottle. DOSE—For an adult, 1 tea-spoonful every hour. For children, $\frac{1}{2}$ tea-spoonful every hour. In severe cases increase the dose."

Remarks.—It will need some care about increasing the dose, if given so often, as the kino is quite astringent and might, if the dose is large and given often, have a tendency to produce the opposite condition—constipation. Watch this, and you will be safe, as it is not best to sew one up too tight. As much syrup of rhubarb added, as tinct. of kino, would prevent that condition, and improve the syrup for the purpose intended.

4. *Summer Complaint from Teething of Children*.—Sub-carbonate of bismuth, 36 grs.; Dover's powder, 6 grs. Mix thoroughly, and divide into 12 powders. DOSE—For a child from $1\frac{1}{2}$ to 2 years, 1 powder in a little syrup, every 3 or 4 hours. When the looseness, or diarrhœa, has improved to justify it, give only 2 or 3 daily, when needed, to keep it under control so long as the irritation from the teething causes the continuance of the diarrhœa. If properly managed it will control it.

Remarks.—I think, in one case, a girl of 1½ years old, I continued its use occasionally for nearly a year. The child being weak and feeble—puny, as the doctors say,—but care and perseverance overcame both difficulties, and at this writing, she is nearly 8 years old and of very good health. Without these powders and the care, I believe she would years ago have been in her grave.

5. Colic of Infants and Adults, Quick Relief and Cure.—
I. *For Infants.*—Fl. ex. of *dioscorea* (wild yam, also called colic root), ½ dr.; camphor water, 1 dr.; simple syrup, 1 oz. Mix. Dose—For an infant of 2 months or under, ½ tea-spoonful every half hour, or shorter time, if not relieved. “The mixture,” says Dr. Harris, of Suwanee, Ga., “gives immediate and permanent relief.”

II. *For Adults.*—Prof. King, in his *Dispensatory*, speaking of the wild yam, says: “It is a specific in bilious colic, having proved itself invariably successful in doses of ½ pt. of the decoction (tea), repeated every half hour or hour. No other medicine is required, as it gives prompt and permanent relief in the most severe cases.” The fl. ex. of this, which is now kept more generally than heretofore, will no doubt prove equally effective, and be easier obtained. Decoctions are made by steeping 1 oz. of the root to 1 pt. of water.

6. Hernia, or Rupture of Children, To Cure.—A Mrs. A. S. Benson, of Loveland, Col., communicates the following cure for hernia of children to the *Blade*, which I trust will give as good satisfaction to others as it did to her boy of 11 years. The sooner applied after hernia is known, the more likely it will be to effect a cure. She says:

I. “I wish to give you a cure for ‘Hernia,’ or rupture, as used on my little boy. He was ruptured when about 3 weeks old on one side, and had to wear a truss. When 2 years old he had a second rupture on the opposite side, and since then has had to wear a double truss. This he could not leave off save when lying down. A woman once told me, when he was a baby, that oil of eggs would cure rupture, but I did not know how to prepare it, and had no faith in it. My boy is now 11 years old, and last summer I was told how to prepare oil of egg, and that it would cure rupture. So I tried it, using it about 3 weeks. For 6 weeks he has not had on a truss. He has pulled beans, helped to cut corn, and done a variety of chores around the farm, and seems perfectly cured. So now to the recipe for making oil of egg. I hope every one so afflicted will try it.

II. *Oil of Eggs to Make, as Used in Hernia of Children.*—“Boil 15 eggs hard, take out the yolks and cut them up in a spider (skillet), put over a slow fire and stir constantly, gradually increasing the heat. It will soon dissolve into a creamy looking substance; then, as the fire grows hotter, it will rapidly turn brown and look almost like coffee grounds. Now stir rapidly all the time; it will smoke and smell terribly, and you will feel sure that it is all burned up, but keep at it patiently, and after a while it will dissolve into a black oil. Now strain it off and bottle it. This quantity will make over an ounce of oil, and I did not quite use up this quantity before my boy was cured, although I should not have been discouraged if I had been compelled to make the second quantity

Rub this oil on every night after lying down, being sure that the rupture is back in place. Then every morning use the following:

III. *Healing Salve*.—"Melt together a little fresh, unsalted butter with one-quarter as much beeswax, and after melting, add a few drops of oil of spike. This is very healing and prevents its getting very sore on the outside. I continued this treatment a little over three weeks."

Remarks.—Let no one, who has a child with hernia or rupture, fail to give it a fair and faithful trial.

7. **Milk-Scab of Children, Cure for**.—Fresh mutton tallow melted and applied very thick, once or twice a day; wash once a week, or oftener, with white castile soap; apply fresh tallow after washing; it will allay the burning and itching; no medicine is needed.

Remarks.—These scabs, or crusty eruptions, come out upon the forehead and upper part of the face of nursing children; at first slightly elevated pimples, sometimes becoming pustules, or containing matter, in clusters, the edges more or less red and inflamed. It takes its common name from a supposition that the mother's milk causes it; but I have seen it on children "raised upon the bottle." It is sometimes also called "honey disease," because the scabs look much like a drop of honey dried upon the skin. If it works up into, or upon the head, it would be called "scald-head." Besides washing with pure castile soap, or a weak lye made from wood ashes, and applying the mutton tallow, you can also give a little sulphur and cream of tartar, internally, to gently move the bowels, and after, give less to act on the blood. These should be mixed—half as much sulphur as cream of tartar; then mixed in molasses or syrup. This disease is also known as *tinea capitis* and dow worm; at first it is only an inflammation of the skin, but by neglect, want of cleanliness, and simple means to reduce the inflammation by slippery elm poultices and the cream of tartar and sulphur, it becomes aggravated, mattery, and harder to cure. In such cases use the following:

8. **French Ointment for Scald-Head of Children**.—Rose ointment, 1 oz.; white precipitate, 1 dr.; mix. DIRECTIONS—Wash carefully with mild castile soap and water; dry carefully with a soft dry cloth; then, after a few minutes, rub in a little of the ointment—morning and evening.

Remarks.—This originated with Prof. Spielman, at the University of Strasbourg, France, and was used by him very successfully.

9. **Scald-Head, Tar Plaster for**.—This plaster has been recommended; but if tar is to be used, let it be only in small proportions, as follows: Boil a qt. of urine, 4 ozs. of lard, and a table-spoonful of tar together for an hour or two; and when only warm, strain and add 1 oz. of sulphur; simmer together and strain again, and it is ready to use, taking all the care of washing, drying, etc., before using, and also not forgetting the aperient of sulphur and cream of tartar, to keep the bowels easy and to act on the skin, which they do.

10. **Bed-Wetting and Urinary Diseases of Children, Certain Remedies**.—The following is from the *Eclectic Medical Journal*, of Cin-

cinnati, O. The article was furnished by Dr. J. Berger, of El Passo, Kansas. He says:

I. "I have been using santonine in difficulties of the urinary organs for a year or more, and it has not failed to have the desired effect in a single case. I have used it in suppression of urine, incontinence of urine, and *dysuria* (see III., below), and also in fevers. When the urine is scant and deposits a 'brick dust' sediment, it is just *the* remedy. In my first case the suppression of the urine was complete, and resisted all treatment as per books, also the reputed *apis mel* (honey bee tea) was tried, and failed. But santonine thoroughly triturated (rubbed) with sugar, in $\frac{1}{2}$ gr. doses every 3 hours, established the secretion in 8 hours, and cured the case in 24 hours. I have used it, in two other cases of suppression, with like results. [Then rub 4 grs. of sugar of milk, if done by a druggist—or, if done at home, in half a tea-spoonful of white sugar—and divide into 8 powders—1 for the dose, as above.]

II. *Enuresis, or Inability to Retain the Urine—Bed-Wetting Proper.*—"The second case was a lad of 8 years. His mother called on me for medicine; said 'Ed.' had worms and would 'wet the bed' 3 or 4 times during the night. I gave santonine triturated, in 2 grain doses, every 4 hours till 6 doses were taken. Followed with tonics of salicine and carbonate of iron in 4 gr. doses, 3 times a day for 4 days. Saw his mother two months after; said 'Ed.' had not 'wet the bed' since taking that medicine. (Note 36, p. 792.)

III. *Dysuria, or Pain and Heat in Passing Urine.*—"The third case was a lady, aged 22 years, troubled with dysuria (pain and heat in passing urine). She was cured with santonine in 2 gr. doses every 3 hours. Continued 12 hours only, triturated as above."

Confirmatory of Dr. Perger's position above upon the use of santonine, Dr. Scudder, in his "Diseases of Children," page 35, makes the following remarks: "We think of santonine as a vermifuge only; yet it has some other desirable properties. One of them is its influence over the bladder in retention of urine. In some diseases there is sometimes a tendency to retention which ordinary remedies will not reach, and which at last proves fatal. Santonine thoroughly triturated with sugar, in doses of from $\frac{1}{2}$ to 1 gr. every 2 hours, affords very certain relief. It is also very effectual in relieving burning, scalding, etc., in passing urine and the tenesmus (pain in passing of urine), and other unpleasant sensations of the urinary passages," adding: "I think santonine is deserving a place among the 'Specific Medicines.'"

IV. *Incontinence of Urine (Bed-Wetting) Remedy for.*—Sulphate of quinine, 7 grs.; tincts. of belladonna and chloride of iron (muriated tinct. of iron), each $\frac{1}{2}$ oz.; water, $\frac{3}{4}$ oz.; mix and shake when used. Dose—Give 30 drops, 3 times daily, one being at bedtime. (Note 37, p. 792.)

Remarks.—The above dose is for a child of 6 or 7 years; older or younger in proportion. By the time this amount is taken, generally at best, there will be no more "wetting the bed."

FOR JAUNDICE OF YOUNG CHILDREN.—See under that head, or "Jaundice in Children, Treatment, etc."

1. ASTHMA, Quick Relief and Other Remedies fo. —

Although a lobelia, or some other emetic, has for a long time been considered the only hope for relief, yet, more recently, the inhalation of chloroform has proved generally a much quicker relaxant, and consequently the more satisfactory remedy. It is not necessary to breathe it to entire unconsciousness, but simply to relieve by putting a bottle of it—an ounce is sufficient to buy at a time—first to one nostril, closing the other with the thumb of the opposite hand, and, the mouth being closed, draw in a long and deep breath to the fullest extent the lungs will allow; then alternate with the other nostril in the same way until you realize the needed relief, or to the number of 2 or 3 times to each nostril. Then if not relieved, wait a few minutes and do the same again. It is better thus than to continue until unconscious. The chloroform is very satisfactorily inhaled from a glass tube inhaler, which see in note following "Acute Phthisic, or Consumption." To be corked up when not in use,

2. *Asthma, Relief in.*—A friend of mine who had had asthma, so that, at one time, he did not go to bed for 5 years, but took his sleep in a rocking chair, has found great relief inhaling the smoke of what he calls the

I. *Nitrated Stramonium for Relief in Asthma.*—He says: "I gather the green leaves of the stramonium, after the plant blossoms, and dry them in the shade. When dry I soak them a few hours in a strong solution of purified nitre (common saltpeter does not answer), 3 ozs., to soft water, 1 pt. Powder the niter finely, and pouring on the water hot, quickly dissolves it. Soak the previously dried leaves in this solution, re-dry, in the shade, then pulverize the leaves and keep from the air in box or bottle. To Use—Put a rounding teaspoonful of the nitrated powder on a plate, and touch a lighted match to the heap, when, if properly done with the purified nitre, it burns without a blaze, throwing off considerable smoke. Place a small funnel (more generally called a tunnel), over it, and breathe the smoke arising from it by holding the mouth as close to the funnel as possible, to inhale as much as you can of the fumes. It will cause some coughing, at first, but this helps to clear the throat and bronchial tubes of phlegm and soon subsides and gives very great relief.

Remarks.—I used this at one time after having taken a severe cold, which settled upon the lungs, and found great relief, as it especially (as the gentleman says above) helped to clear the phlegm from the throat and bronchial tubes, most effectually. If it seems to be going out at any time, raise the edge of the funnel a moment, and it will burn and sputter on again.

II. *Asthma Powder, Improved.*—Some persons think that sage, belladonna and digitalis, the dried leaves of each, with the dry stramonium, all in equal proportions, nitrated, as above (remembering always to use the purified nitre, kept by druggists only), and inhaled in the same manner, is preferable to the stramonium alone. If I were to use them, however, I would not use more than half as much of the belladonna and digitalis as I did of the sage and stramonium.

3. Whenever the inhalation of chloroform, or nitrated stramonium, etc., above given, fails, then 20 to 40 drops of laudanum, according to robustness of

the patient, or the severity of the case, with 15 to 30 drops of sulphuric ether, put into a glass with a little water, and immediately drank, will almost always give relief at once. This should not be taken often enough to establish the habit of opium eating, which would prove a disease in itself, as bad as asthma and as difficult to cure.

4. Alterative Relaxing Anodyne, and Curative for Asthma.

—Ethereal tinct. of lobelia and iodide of potash, each, 2 ozs.; tinct. assafœtida (fetta), and laudanum, each, 1 oz.; simple syrup, 4 ozs. Mix. Dose—From a tea to a table-spoonful every hour or two, to relieve a paroxysm, for 3 or 4 doses. As a curative, after the paroxysm has subsided, take the same dose only 3 or 4 times a day.

Remarks.—In closing the subject of asthma, I would say in addition only, that according to the condition of the system, any existing difficulty, as costiveness, liver or kidney complaint, must be met and overcome on general principles, that is, to treat them as you would if they existed alone. Do all, as per instructions given under each head referred to, in connection with the above items under this head, and very many cases of asthma will be cured, the general opinion to the contrary, notwithstanding. The condition of the surface, to keep it clean and the blood freely circulating therein, by the salt washings, dry rubbings, etc., (which see), must not, in any case, be neglected in any long standing disease. If neglected, it is at your own peril.

1. **JAUNDICE**—Successful Remedies.—No matter how much the liver may be affected, unless the stools are clay-colored, or, in other words, without color, and the skin and the whites of the eyes yellow, it is not called jaundice. With the yellowness of the skin, there is generally constipation, tongue heavily coated, mouth dry, appetite variable, and sometimes headache, nausea, or vomiting.

Treatment.—With eclectics it is claimed that the fl. ex. of chionanthus Virginia (fringe tree), in 10 to 20 drop doses, according to age and robustness of the patient, will cure it.

Dr. Goss, of Marietta, Ga., prefers the tinct. made with 8 ozs. of the bark of the root to alcohol, 1 pt. In answer to some inquirers through the *Brief*, he refers to the fringe tree in the following manner:

“The doctor again asks me about the chionanthus Virginia—fringe tree. I have stated in several journals, and in my “*Materia Medica*,” and also in my “*New Medicine*,” emphatically, that I had never failed to cure simple jaundice with the tinct. of the root (bark of the root is what is used) of the chionanthus, when it was made from the freshly dug root. Several others ask me whether it acts on the liver, or not? I never claimed it as an active stimulant to the biliary secretions in health. It cures jaundice in some specific way, but how, I do not know.”

The doctor uses the tincture, made as above, in doses of $\frac{1}{2}$ to 1 tea-spoonful, 3 or 4 times a day. He first cured himself with it, while a student in the University of Georgia. “The faculty,” he says, “having failed to cure me, or to ameliorate my symptoms in the slightest degree. In this state of utter

despair I finally concluded I must succumb to the malady; but, by accident, I heard of a tailor who had been cured of the jaundice with gin bitters, made of the bark of the chionanthus root, so I procured some, and made me a bitters in gin, by adding 2 ozs. to 1 qt. Of this I took a table-spoonful 3 times a day, and in 10 days I was entirely cured of jaundice; and at the same time I found that it improved my digestion very much, and I continued it for a month or two with much benefit to my digestive organs generally. [In making the bitters in places where it grows plentifully, I should use at least 4 ozs. to 1 qt. of gin, and take the same dose.]

“After that I prescribed it for others, and, I believe, always with success, where there was no complication of diseases. I cured many soldiers in the ‘late unpleasantness,’ only losing a single case, which was complicated with biliary calculi (gall-stones in the bile-ducts of the liver).” He closed by saying: “Since I published my use of the chionanthus I have seen reports in various medical journals of its success in jaundice and hypertrophy (enlargement of the liver), as well as some reports of its use as a female tonic. I know a case of hypertrophied (enlarged) uterus cured by the use of the chionanthus—used for a considerable time.”

2. Jaundice Cured by the Use of the Chionanthus and Acetate of Potash.—Dr. Henning, of Redkey, Ind., reports through *The Brief* also (February, 1879): “Twenty years ago I used to give calomel and leptandrin with poor success. But now I give, in all cases, of the fl. ext. of chionanthus (fringe tree) from 10 to 20 drops (of course according to age and robustness of the patient) 4 times per day. This will correct the action of the liver in a short time. But in addition I prescribe the acetate of potassa (potash), 10 grs., 3 times per day, to act upon the kidneys (it is a very valuable diuretic) to pump out and eliminate (throw off) the bilious excrementitious (of the nature of excrement or feces, but here more particularly worn out) matter from the blood. This I follow with the elixir of calisaya (Peruvian) bark with iron and strychnine (kept by druggists) as a tonic, increasing the nutrition and strength. This treatment,” he says, “has been very successful in my hands, and I am satisfied it is the true theory of the disease in practice.” He thinks it best to “follow up the treatment 3 to 5 weeks to make a permanent cure.”

3. Jaundice in Children, Treatment of.—J. E. Ball, M. D., of Texas, reports a case which was printed in the April number of *The Brief*, as follows: “I noticed in the February number of *The Brief* ‘Treatment for Jaundice,’ by John A. Henning, M. D., and as I think my treatment a little more prompt in its action I will give you the full treatment of my last case: Called Feb. 3d to a child 18 months old; skin and eyes as yellow as saffron, urine thick and stained its clothes of that saffron color peculiar to jaundiced urine. Prescribed: Leptandrin, 1 gr.; podophyllin, $\frac{1}{2}$ gr.; pulverized Jamaica ginger, 2 grs.; mix, and divide into 8 powders. Gave 1 powder every 4 hours until the biliary secretions were aroused. Also Tinct. of buchu and sweet spirits of niter, each, 1 dr. DOSE.—Ten drops every 2 hours.

“Feb. 5th.—First prescriptions acted well. Then prescribed: Fl. ext. of

chionanthus (fringe tree) and tinct. of sanguinaria canadensis (blood root), each equal parts. Dose—Ten drops 4 times per day.

“Feb. 12th.—Little patient entirely relieved; skin and urine as clear as it ever was.”

4. **Jaundice, Allopathic Treatment of—Successful.**—I give the following treatment because it contains calomel and may meet some cases where the chionanthus cannot be obtained, and also because it will lead me to follow it with remarks, showing how a very little calomel will sometimes arouse the action of the liver when, as the saying is, “everything else has failed.” This is from Geo. B. Snyder, M. D., of Hays City, Kans. It will explain itself. It was reported in the July number of *The Brief*, 1879. He says:

“In looking over the April number of your valuable journal, I notice an article on the ‘Treatment for Jaundice.’ As I understand it, the mere presence of jaundice is not a disease, but merely a symptom. The yellow skin indicates the presence or hepatic (liver) trouble, the true character of which I am, in candor, bound to confess is not always easy to determine. The last patient under these circumstances, I was called upon to see, was on August 19, 1878. His symptoms were yellow skin, impaired digestion, excessive restlessness, with eclampsia, etc.” [This ‘eclampsia,’ here, no doubt, refers to an appearance, to the patient, like flashes of light, a symptom of epilepsy.] “My prescription,” he continues, “was: Hydrarg chlor. mite (calomel), 4 grs.; podophyllin, 3 grs.; potass chlor. (chlorate of potash, pulverized), 36 grs.; ex. of hyoscyami (hyoscyamus) 3 grs.; mix. Make into 10 powders. Dose—One powder every 2 hours. On the second day I found my patient so much improved that with a single prescription of bitter tonics with ex. of nux vomica, I dismissed him. His recovery to perfect health was absolute.” [A good tonic pill for these cases would be: Quinine, 45 grs.; alcoholic ex. of nux vomica, 2 grs.; mix thoroughly and make into 30 pills. Dose—One pill only, 4 times a day, for an adult. These pills should not be given to children. But for them 1 gr. powders of quinine might be given as the tonic, without the nux, in cold strong coffee, which hides the bitter taste very much.]

Remarks.—Dr. Snyder says, above, “the yellow skin indicates the presence of hepatic, or liver, trouble,” but the true character, he “confesses is not always easy to determine.” Well, I would ask, why try to determine at all, so long as the *chionanthus*, as given in the foregoing recipe, or even his own combination, will cure it? We know this much, that whenever the skin and eyes are yellow, there is a certain condition of the liver, and it is generally believed, at least, that this condition is always the same, hence, they are always cured, as above indicated, by the same medicines. But there is a certain diseased condition of the liver, attended with considerable uneasiness, sometimes amounting to actual pain, but not having the jaundiced or yellow skin and eyes, when the author has not been able to touch the liver, so as to start the bile, with either the common liver pills, which contain podophyllin, leptandrin, etc., nor with the chionanthus; but very minute doses of calomel, even the 20th of a grain, taken at bed-time, followed with a tea-spoonful of epsom salts, in the morning, has aroused its action, and started the bile freely within

the following 24 hours, and was entirely satisfactory and lasting, by repeating the same doses, at an interval of a week, for 2 or 3 times. These were desperate cases, else I should not have ventured upon what I had always considered a desperate remedy—calomel. But, as I have always believed in “giving the devil his due,” I have thus set this down to the credit of calomel, notwithstanding I, and my mother before me, as well as eclectics generally, have fought against the use of calomel all our lives. But I would not, even now, use it in large doses, especially when such very small ones have such a decided and beneficial effect. But I always try the ordinary treatment first, and only fall back upon these small doses of calomel when the first plan fails.

But if I fail to “touch” the liver, as the allopaths call it, *i. e.*, fail to arouse its action, by which its usual biliary secretions are produced, with the small doses, I should use them as large as 1 to 3 grs.; or, if need be, blue mass, a 3 gr. pill, followed with the salts, to accomplish the same end. I know several persons who claim, and no doubt believe, that nothing but a 3 grain pill of blue mass at night, and sometimes for a second night, will act on their liver when out of order. Working off next morning, of course, with salts or some other active cathartic. And I certainly prefer to try this plan rather than to lose the life of my patient, or have him go to a doctor who will use calomel or blue mass from choice; although, by their giving large doses of calomel, they often fail to cure. But I always give this class of patients a 1 to 2 gr. pill of quinine 3 or 4 times daily, after the bilious passages have somewhat subsided; and if much sour eructations arise from the stomach while the bile is being poured out so freely, I give a little bi-carbonate (common baking) soda, in half tea-spoonful doses, in a little water. Certainly, however, there can be no objection raised to Dr. Snyder's doses of calomel, as there would be less than $\frac{1}{2}$ a gr. to each powder, while allopaths, in the first time of cholera in the United States, gave it sometimes in ounce doses, and no doubt killed by such treatment more than the cholera itself. But now, as some of them have got down to the 20th of a grain, or even $\frac{1}{2}$ grain doses, I will gracefully cease my warfare upon it, at least, when given in the above, homœopathic, doses. And I am now, more than ever before confirmed in the idea that it was by large doses, and other abuses of its use, that much of the harm it has done was brought about. Where it is used, let it be in small doses only, and its action watched with great care, and I trust the result will be as satisfactory to others, as it has been with myself.

1. SYPHILIS—**Alterative** For, **Successful in Bad Cases.**—Fl. ex. of stillingia, corydalis, poke root, yellow dock root and burdock root, each 2 ozs.; iodide of potash, $\frac{1}{2}$ to $\frac{3}{4}$ oz.; simple syrup to make 1 pt. DIRECTIONS—Dissolve the iodide in a little of the mixture, and mix all. DOSE—1 tea-spoonful 4 times daily, one being at bed-time. Large and robust patients may put in the $\frac{3}{4}$ oz. iodide, weak and feeble ones only the $\frac{1}{2}$ oz.

Remarks.—If there is any gonorrhœa discharge, every other time it is made, leave out the extract of poke root, and put in the same amount of the fl. ex. of buchu, in its place. In very bad cases of syphilis, when the pint has been all taken, get a pint bottle of Tilden's Elixir of Iodo Bromide of Calcium Com-

pound (kept by druggists), and take it according to the directions upon the bottle, and so alternate, for a year, or longer, unless well satisfied that all the syphilitic poison is eradicated from the system sooner than this. The doctor of whom I obtained this, at Grand Rapids, Mich., told me that in this manner he had cured very bad cases—one where the whole body was covered with scabs and sores, except, fortunately for the patient, his face and hands did not show the eruptions. Upon the scales, or rather around them, he applied an ointment made as follows: Take a pint bottle and put into it nitric acid, 1 oz.; quick-silver, 1 oz., and let stand until the silver is cut; then melt lard, $\frac{1}{2}$ lb., in an earthen bowl, and mix all together and stir with a wooden spatula until cold. This was swabbed on around the scabs (if a little gets on the scab it does not matter; but he thinks it not best to tear off the scabs, but to put it freely around the edges), at first three times a week, then twice, and finally only once a week, till all is smooth as a child's flesh; This case paid him \$100, and had previously paid out over \$250, without benefit. I have also since cured a very bad case with it, and therefore know its value as an alterative. In the case first given the doctor told me that after the scabs or sores were cured about 6 months, the man wanted to know if he might "marry with safety;" the answer was, "continue the alterative for a year longer, then there will be safety in marrying." He followed it up as directed, and then did marry, and never afterwards saw any ill effects from the disease. Although the plan of alternating the above alterative with the Tilden preparation is especially valuable for syphilis, yet the alterative above will be found very valuable in all the other diseases requiring one.

2. Gonorrhœa—Remedy.—It consists of an inflammation of the urethra of the male and of the vagina of the female, which causes, generally, a discharge (which is contagious) of a muco-purulent character, having the appearance of mucous and pus. It is generally caused from impure cohabitation; but it does sometimes arise from the parts coming in contact with this gonorrhœal matter, even when partially dry, upon sheets where those having the disease have slept, or from privy seats, and, in fact, husbands sometimes are affected by an inflammation of a similar character taken from the wife who has an acrid leucorrhœal discharge, while both are perfectly honest and virtuous towards each other. These points are now well-known by many physicians, but not well understood by the people, which leads me to introduce these recipes as much to point out these facts as to enable people to cure themselves or their friends in like condition. Then, as the disease is well-known, as above remarked, in the manner also described above, let everyone be very careful how they pronounce another guilty of criminal or impure connection, at least until they are positive as to the facts in any particular case. And let me caution every one having this disease, or in treating others who have it, to be very careful not to allow any of the matter to come in contact with any open sore, nor with the eye or nostrils, for all mucous membranes will take on the disease by such contact. **Keep the hands clean and burn all cloths used for the purpose of cleanliness to ensure safety.**

Other Treatment Necessary.—In the commencement of the disease, while the inflammation is acute or active, give a full cathartic dose of some cooling purgative—for instance, the compound powder of jalap, with cream of tartar, or a full cathartic dose of any medicine one is in the habit of using as a cathartic.

Compound Powder of Jalap.—Best Alexandria senna, in powder, 1 oz.; powdered jalap, $\frac{1}{2}$ oz.; powdered cloves, $\frac{1}{2}$ dr.; or powdered ginger, 1 dr.; mix. This forms an excellent cathartic in all cases requiring quick action. It is mild but efficient, stimulating the liver and biliary ducts to a healthy action, and helping materially to reduce all inflammatory diseases. It should not, however, be given in inflammation of the stomach or the bowels, if of a severe character. In pregnancy, painful menstruation, and other like conditions of females, it should be taken only in about half the usual doses; repeat half the dose, if it does not operate in 4 hours in all cases. **DOSE**—Take one tea-spoonful of the powder in a tea-cup and half fill with boiling water; stir occasionally till cool; stir again and drink all. Sweeten, if desired. In all fevers and in the above cases put into the cup 1 tea-spoonful of cream of tartar, which aids in reducing fevers or inflammations, especially of the character above indicated.

The patient should also take freely of mucilaginous drinks, as gum-arabic water, $\frac{1}{2}$ oz. to 1 oz. to the pint, poured on boiling hot, and the whole drunk in the course of the day, or two at most; or, a tea of marsh mallows, 1 oz. to the pint of water daily; or, flaxseed tea made in the same way, as most convenient to obtain. As soon as the action of the cathartic is well over, and one of the mucilaginous drinks have helped to allay the severity of the inflammation, use injections also of an astringent, tonic or antiseptic character, according to the severity of the case, like the following:

3. Injection for Gonorrhœa.—The following is one of the more common, being principally astringent, for cases where the inflammation and discharge is slight: Sulphate of zinc, 8 grs., to water, 4 ozs. **DIRECTIONS**—To be injected 2 or 3 times a day at least; but it is well to inject after each urination; but if much purulent or thick matter, use one of the following, first having injected water to cleanse the parts thoroughly, and if this strength causes much smarting or pain, reduce half with water. A glass or rubber syringe is better than the metallic ones for all these purposes.

4. Injection for Gonorrhœa.—The following combines tonic, astringent, and antiseptic properties, applicable in the severe cases. It was given by Prof. King in his "Chronic Diseases," with the remark, "that he makes it known for the first time": Sulphate of quinine, 20 grs.; elixir of vitriol (which is aromatic sulphuric acid), 1 dr., mix, and shake to dissolve the quinine; then add camphor water, 1 oz., and distilled water, 3 ozs.; solution of iodide of iron, $\frac{1}{2}$ dr. Inject as the first, and if it causes pain or uneasiness to any extent, reduce a little with water, until the improvement enables it to be borne. I will give one more, which also combines the astringent, tonic, and antiseptic properties necessary to ensure success, and equally valuable as an injection in leucorrhœa (which see). It is as follows:



LOBELIA.

(See Description)

This herb is exceedingly valuable in Asthma, Croup, Whooping Cough and Pulmonary Diseases generally, and is also used as an emetic.

5. Injection—Valuable in Gonorrhœa and Leucorrhœa.—Fl. ext. of golden seal, $\frac{1}{2}$ dr.; sulphate, or acetate, of zinc, 1 dr.; chlorate of potassa, $\frac{1}{2}$ dr.; tannin and sulphate of quinine, each 15 grs., the quinine to be dissolved with 15 or 20 drops of aromatic sulphuric acid before put in; distilled or soft water, 1 pt. Used same as the above.

For leucorrhœa it had better be made in double the quantity, and used with a female syringe, cleansing the parts, first, by injecting water as hot as it can be borne, keeping it in the vagina 2 or 3 minutes, by placing the fingers over the external parts to prevent its immediate escape. This is important in all these injections. It is also thought best, by J. W. Burney, M. D., of Des Arc, Ark., for leucorrhœa, to give, internally, a tea-spoonful 3 times daily of the fl. ext. of buchu in some flax-seed tea. It will prove valuable as a diuretic in either of these diseased conditions of the system.

6. Any of the articles named in these injections have been used alone, in the strength of 2 grs. to the oz. of water, for gonorrhœa; and, besides these, strychnia, 1 gr. to the oz. of water, and corrosive sublimate of the same strength, have been used, it is claimed, with success. The acetate, and the iodide of zinc, 1 to 3 grs. of either to the oz. of water, have been used very satisfactorily.

Of late, suppositories have been brought into use, containing a suitable amount of any of the foregoing, or other articles which are desired, to be introduced into the ureter at bed-time, by which, it is claimed, a better action is had, from the fact that the cocœ butter, in which the medicines are held, dissolves slowly, and thus the medicine is held the longer in contact with the diseased parts of the ureter. They are also made of suitable size for the vagina, in leucorrhœa and gonorrhœa of females.

7. Gonorrhœa Cured Without Injections.—If the following internal treatment will do what Dr. Given, of Louisville, Ky., claims for it, it is preferable, or, at least, is a less difficult plan to pursue. He states, through the *Brief*, in answer to an inquiry, "How to Cure Gonorrhœa Successfully Without the Use of Copaiba, Cubebs or Injections?" as follows:

"The following is my prescription, as published in the *American Practitioner* several years ago. It cures in from 2 to 10 days, if given within the first 24 or 36 hours after the disease has developed. I have never injected a single patient: Spirits of nitric ether, balsam copaiba and camph. tinct. opii (paragoric), of each 1 oz.; tinct. veratrum viride, 1 dr. Mix. Dose—A tea-spoonful 3 or 4 times a day."

Remarks.—The author would say in flaxseed tea or some of the other mucilaginous drinks. The more freely the mucilages are taken, the better for the patient. It is generally claimed, however, that those suffering with gonorrhœa must be careful about their diet, excluding meats of all kinds, fats, tea, coffee, and absolutely avoid all alcoholic and malt liquors, and tobacco in all its forms, if they hope to get well at all speedily; and also to take a mild cathartic every 3 or 4 days, and that it is also valuable to take a hip-bath 2 or 3 times a day, while the inflammation is considerable, as hot as it can be borne; also to keep as quiet as possible, else support the scrotum with a suspensary bandage to pre-

vent stagnation or accumulation of blood in the parts, to which there is often considerable tendency.

8. Gonorrhœa, the Great French Remedy for.—In Gunn's "New Family Physician" we find the following, which he says is known as the "Great French Remedy for Gonorrhœa" in any stage of the disease, and said to be infallible, without any other medicine:

"Take $\frac{1}{4}$ oz. each of dragon's blood—to be found at the druggists'—pulverized colocynth and pulverized gamboge; pulverize (better buy the pulverized article if you can) and rub these three articles together in a mortar; then add $\frac{1}{2}$ pint boiling water (rain or soft water preferable) and stir occasionally for an hour with the pestle; then add 2 ozs. each of sweet spirits of nitre and balsam copaiba, and stir again till well mixed; then bottle for use. Dose—Two tea-spoonfuls night and morning until it operates thoroughly on the bowels; then 1 tea-spoonful 2 or 3 times a day, or sufficient to keep up a gentle action on the bowels, and continue until a cure is affected."

9. Gonorrhœa in Its Commencement—Cure Without Injection.—After having written the above, I went to my dinner, and on my return found my *Medical Brief* had been delivered, and, on looking it over, was struck at the simplicity of a recipe for gonorrhœa, given in answer to an inquiry for such a cure, by Dr. Hall, of Fairmount, Ga., as follows:

"Spirits nit. dulc. (sweet spirits of nitre), 1 oz.; balsam of copaiba and tinct. of mur. ferri (tinct. of muriate of iron), of each, 1 dr. Mix. Dose—A tea-spoonful in water, milk or wine (I would say in some of the mucilages before mentioned) given every few days, 4 to 6 hours apart. No injections needed in incipient (the beginning of) gonorrhœa."

Remarks.—He uses the same in ardor urinæ (scalding, or heat in passing urine) with like success; but in this last condition he gives the same dose, repeating in 3 hours, then at longer intervals. From my knowledge of the properties of the article, I recommend a trial, at once, wherever and whenever needed, in either disease. But as some persons will not begin any treatment at once, as they ought to do, letting the disease become chronic, or by mismanagement or carelessness in taking medicine, or by persisting in the use of spirits, fat meats, etc., a gleet, or slight discharge, will continue from the urethra after the inflammatory condition has been subdued. Such a condition will require something of the character given for gleet, after the next item.

10. Gonorrhœa, the Latest and Most Simple Treatment for.—Some time after all the foregoing had been written, upon this subject, the December number of my *Therapeutic Gazette*, of Detroit, Mich., came to hand, with a treatment for this disease, from Dr. Joseph McChesney, surgeon of the Atchison, Topeka & Santa Fe Railroad Co., at Deming, N. M., which appears so simple and easy of trial, and withal so effectual (he reporting a number of cures in from 6 to 10 days, and some of them of long standing), that I feel constrained to give it, believing it to be as effectual as it is simple. It is as follows: Dissolve corrosive sublimate, 1 gr. only, in water, 6 ozs., injecting a syringe of it every 4 hours.

Remarks.—He gave cases of acute, or just commenced, as well as those of long standing, in which it was equally effective. It needs no further comment nor recommendation of mine, only to say I trust too, with him, that in the corrosive sublimate treatment for gonorrhœa, I have at last met with the drug that gives such entire satisfaction to the unfortunate, and one that will prove a financial boon to me, and hereby a boon to the unfortunate many, who may never see Dr. McChesney, nor myself.

11. Gleet, Effectual Treatment for.—Some of the first above mentioned injections for gonorrhœa, may be injected for gleet, or the following, as used by Dr. S. L. Blake, of San Francisco, Cal., who has found it so effectual that he deemed it his duty to place it before the readers of the *Brief*, in 1880, as follows: Sulphate of zinc, 12 grs.; tinct. iodine, 10 drops; distilled water (soft water will do in all such cases), 8 ozs.; mix; inject 4 times a day. Also, fl. ex. uva ursi, 3 ozs.; fl. ex. pareira brava, 1 oz.; fl. ex. cascara sagrada and syrup of orange, each 2 ozs.; water sufficient to make 8 ozs.; mix. [The pareira brava is a native of the West India Islands and the Spanish Main, says King, in his American Dispensatory, "It is a tonic, diuretic and aperient, used in chronic inflammations of the bladder, and various disorders of the urinary organs." The cascara sagrada is valuable in constipation, while the properties of the other articles in these prescriptions are well known to be valuable for what he recommends them.] **Dose**—Take a tea-spoonful 3 times a day before meals.

Remarks.—This, he says, I consider an invaluable remedy in obstinate cases. Of course the principal readers of the *Brief* are physicians, which shows that Dr. Blake was well satisfied with it or he would not risk the criticism he would receive if it was not reliable.

12. Gleet, for the Pain and Weakness in the Back.—For this condition take Venice or white pine turpentine, and work into it as much finely pulverized rhubarb as will make it pill. Make into usual sized pills, and take 2 pills twice daily.

13. Red Drops, Specific for Gleet, Gonorrhœa, Leucorrhœa, and Affections of the Kidneys.—Tinct. of guaiac and compound spirits of lavender, each $\frac{1}{2}$ oz.; oil of cubebs and laudanum, each $\frac{1}{4}$ oz.; balsam of copaiba, 1 oz.; mix. **Dose**—A tea-spoonful 3 or 4 times a day—one always being at bed-time in these cases.

Remarks.—Dr. Gunn says of these drops: "A specific (positive cure) for gleet, gonorrhœa and leucorrhœa, and good for affections of the kidneys." They are all, in a certain degree, of a similar character, *i. e.*, there is an inflammation of the mucus membrane of the parts in each disease; then, what will overcome it in one case, will also do it in any of the others, and yet not be a "cure all," as the mucus membrane is the same everywhere.

BEE AND WASP STINGS—Sure Cure for.—I. *Bees.*—Mr. R. L. Aylor, of Waterloo, Ky., in reporting his success in keeping his bees over the winter of 1881-2, sends a recipe to the *Bee Journal*, headed "Bees," claiming it as his own discovery. It is simple, easily obtained, and cheap; and if it

proves as quick and successful a cure as he claims, he is the one to have the benefit of "discovery." He gave it in the following words: "Buy from any drug store a small phial of tincture of myrrh; as soon as you are stung apply a little to the puncture, when all pain and swelling ceases instantly. It is also excellent for bites of spiders and poisonous reptiles."

Remarks.—Certainly no one would ask it to cure quicker than "instantly." I trust it shall prove as successful as claimed. If it does, nothing else could be desired.

II. *Wasp Stings, Quick and Certain Cure.*—Cut an onion, scrape and apply the juicy part to the sting. It quickly relieves, and allays the irritation almost as quickly.

Remarks.—A correspondent of the *London Times* reports the case of his son, stung in the eyeball by a wasp, and when he reached the house, "looked like death," etc., which made a great commotion, and the sal volatile was gotten, but one of the maids used the onion juice, and the relief was so quick that he got up and went out again to help the men destroy the nest. I have no doubt the onion juice, or scraped onion, is as good for bee stings as for the other; but lose no time in applying it, if a wasp sting, for they are very poisonous.

III. *Handy Remedy for Bites and Stings of Poisonous Animals and Insects.*—A writer in *Holt's Journal of Health* says: "That for persons about to travel or to go into the country for the summer, an ounce vial of spirits of hartshorn should be considered one of the indispensables, as, in case of being bitten or stung by any poisonous animal or insect, the immediate and free application of this alkali, as a wash to the part bitten, gives instant, perfect and permanent relief, the bite of a mad dog (we believe) not excepted; so will strong ashes-water. (Note 28, p. 791.)"

Remarks.—I should as soon risk the immediate application of the spirits of hartshorn as any other caustic for a mad dog bite; but it would not do to put it into the eye—as the onion juice referred to.

SPRAINS, SWELLINGS, CROUP, ETC.—Remedy for.—Best cider vinegar, 1 pt.; spirits of turpentine, $\frac{1}{2}$ pt.; beat well, 3 eggs, and mix all. **DIRECTIONS**—Apply to the neck in croup, and to sprains or swellings by saturating (thoroughly wetting) cloths and lay on, or bind on when necessary. "Cures," says Preacher Jones, "on the 'double quick.' It cured a woman's swollen arm in 9 days who had had to give up work and go to begging on account of the swelling."

Remarks.—It would be as valuable for animals as for persons. See "Croup, Sovereign Remedy for," for the value of turpentine in this disease. I think the vinegar and beaten eggs will improve it.

HOP BITTERS—Cheap and Reliable, Without Spirits of Any Kind.—Hops, 2 ozs.; ginger root, bruised, 1 table-spoonful; water, 2 galls.; brown sugar, 2 lbs.; yeast, $\frac{1}{2}$ cup. **DIRECTIONS**—Boil the hops and ginger to obtain their strength, strain half an hour; add the sugar and continue the heat, removing all scum that arises; then cool to blood warmth, put in the yeast; let the yeast work over night, or that length of time, then bottle

and keep in a cool place. DOSE—Take 2 or 3 good swallows before each meal, or in amount as found necessary from the following:

Remarks.—These bitters are recommended in all cases requiring a tonic action, where there is a tendency to a chronic inflammation, as in catarrhal headache, pain in other parts, kidneys out of order, etc. The gentleman from whom I obtained this, at Grass Lake, Mich., was a kind of “domestic doctor,” had a cure for everything. I have used these hop bitters, however, and am well pleased with their action. They improve the appetite and strengthen the digestion. One of his cures was for ague, by taking sulphur in molasses every night. He claims to have cured over 100 obstinate cases with that simple remedy. He said if the hop bitters did not loosen the bowels after a few days to add a little salts—Epsom—enough of it, for a day or two only, to loosen them.

The following is claimed to be the real Hop Bitters which has made such a stir in the world: Hop leaves, 3 ozs.; buchu leaves, 1 oz.; fl. ext. of dandelion, 1 oz.; fl. ext. of mandrake, 2 drs.; whisky, 1 qt. DIRECTIONS, DOSE, ETC.—Boil or simmer the hops and the buchu leaves in water, $\frac{1}{2}$ gal., for 6 hours, or down to 1 qt., strain, and when cold add the fl. exts. and whisky. DOSE—From 1 to 3 table-spoonfuls 3 times a day, before meals.

Remarks.—It will be found a tonic and laxative, and the amount taken must be governed so as not to loosen the bowels but slightly, else its tonic effects would be carried off too readily. I have not used this, but I have the first above, with much satisfaction.

TOBACCO—Its Use Frequently Injuring Sight and Memory.
—Dr. Mackenzie, in his “Ophthalmology,” a work on the anatomy and diseases of the eye, expresses his opinion that tobacco is the frequent cause of *amaurosis*, diminution, or complete loss of sight, and says: “One of the best proofs of this being the case, is the great improvement in vision (sometimes complete restoration), which ensues on the use of that narcotic being abandoned.” Tobacco is a powerful narcotic, and often affects the nerves disastrously. This position of Mackenzie, says a French writer, is confirmed by M. Michel, who classes the disease among the two forms of *cerebral*, or brain, *amaurosis* (loss or diminution of sight by the condition of the brain), which are but little known. One of these conditions is seen in heavy drinkers, and is symptomatic of delirium tremens; but the other, he thinks, is brought about by the use of tobacco; and he also believes there are but few persons who have habitually, for a long period, smoked more than 5 drachms, $\frac{5}{8}$ of an ounce, daily, without their sight, and often their memory, being more or less enfeebled. Then let those who already realize either of these conditions, or think the prospect good for their occurrence, abandon the use of tobacco in any form, at once, and forever, and keep their young folks from its use, if possible. Fortunate for the author he could never tolerate its use at all; but one can scarcely see an old man, or even young men, and many boys, even passing along the street, without a cigar in their mouth, or gracefully (?) held in their fingers. If its use continues to increase for the next century as it has for the last decade (10 years passed of this century) we shall, I greatly fear, be the next thing to a nation of imbeciles; with much larger per cent. of idiots than at this writing. A fearful respon-

bility rests upon parents, and governments. Certainly no school-boy should be allowed to use tobacco in any form; but it is law, and vigilant watchfulness of officers appointed for this purpose, with the same care and watchfulness of parents also that will ever prevent it, and that not wholly; for it has a fascination which cannot be accounted for upon any other principle only that of exhilaration, which is, in fact, the reason why it should never be used. It over stimulates the nerves, and thereby destroys, or very much injures them, shortening life, if no more serious catastrophe, as blindness, loss of memory, paralysis, etc., does not set in before.

EPILEPSY—Remedies Which Have Been Successful.—I.
Chas. VanWye, M. D., of Browning, Mo., reports through the *Brief* the case of a man of 37, who had been troubled from childhood with epilepsy, cured by the use of bromide of potassium, 30 grs., 3 times a day, dissolved in water, half a tumbler or so, until it produced its physiological effects, which are similar to that of iodide of potassium, *i. e.*, it may affect the head like a cold, and if the stomach or alimentary canal are irresistible, it may produce diarrhea, and increase the urine too much, but it may produce *acne* (a pustular affection of the skin), and a person taking large doses very long may have a manifestation of weakening of the mind; then, if any of these occur, stop its use a few days, or a week; or if taking it 3 times daily about meal-time, stop the noon dose, and if this does not relieve that, or either of these conditions, drop to 15 or 20 gr. doses, twice daily, then if not relieved in a few days stop as above indicated. In the case given it was used at intervals, *i. e.*, stopping every fourth week for 15 months, and only one convulsion after beginning its use. But the doctor would not begin unless the man would agree to take it several months at least. He considered it a perfect cure.

Remarks.—Dr. King, in his Dispensatory, says: "It has been used successfully in enlarged spleen and liver, swelling of lymphatic glands (glands of the neck, armpits, front of elbow, back of knee, groins, etc., externally, and along the lymphatic vessels internally), scrofula, epilepsy, nervous depression from masturbation, also nocturnal (night) emissions, irritability of the nervous centers, and in hypertrophy (enlargement) of the ventricles (of the heart). It has proved successful in pertussis (whooping-cough), and also in asthma, in doses of 20 to 30 grs., repeated 2 or 3 times a day," etc. So you see it has been used in as large doses as Dr. Wye prescribes it above; but it has not been used as long, generally, and that is the probable reason that it has not proved more beneficial heretofore. Even in doses of 10 to 15 grs. it has held fits in check, and in such doses may be continued for years safely; watch in all cases, however, for any of the above named bad symptoms and stop or lessen the dose as directed.

II. *Pill for Epileptic Fits in the Early Stages.*—Sulphate of zinc and cayenne pepper, each 60 grs.; rhubarb and ipecac, each 30 grs.; all pulverized and made into 60 pills, with solid ext. of hyoscyamus, enough only to form into pill mass. **DOSE**—Take 1 pill night and morning one week, then stop a week, and so on every other week.

Remarks.—Dr. Gunn, in his “New Family Physician,” says of it: “An important remedy, and has cured many cases of epileptic fits, when taken in early stages.”

SALT WASHINGS, DRY RUBBINGS, ETC.—Important in all Chronic Diseases, Especially of an Inflammatory Character.—In all chronic diseases, and especially diseases of an inflammatory character, as catarrh, throat, bronchial or lung difficulties, inflammation of any or all these parts named, or inflammation of the stomach, liver, kidneys, bladder, urethra, vagina, white swelling, and any or all other swellings or inflammation, and in fact in all conditions and at all times of life, it is of the utmost importance, not only to keep the whole surface clean by bathing or washing, at least twice a week in summer and once a week in winter; but in all chronic or long-standing diseases, it is very important to stimulate the skin by salt-water washings, every other morning (Sunday morning being set for a soap and water washing), followed by brisk rubbing of the whole surface, which equalizes the circulation, helps to break up congestions (an undue amount of blood in any organ or part), putting the whole machinery of the circulatory system (heart, arteries, veins, and the smaller vessels near the surface known as capillaries), into complete working order, without which perfect health cannot be long maintained.

I. *Strength of Salt Water.*—Dissolve $\frac{1}{2}$ a tea-cup of common barrel salt in 3 pints of water (in winter the water should be warm and the bath taken in a warm room; in summer, if the water stands in the room over night, it will do very well without warming); then with a sponge, or what is better, a piece of coarse woolen cloth, wash first the arms, neck and body thoroughly, then the lower limbs and feet, by which time the upper parts will be dry without wiping, when, with another piece of coarse woolen cloth, flesh-brush or hair mitten, rub as hard and long as the friction can be borne, or till the whole surface glows or burns with the heat caused by the free circulation of the blood in the skin. The morning is the best time to do it, as the system is then free from excitement, and, unless you have been too warmly covered, also free from perspiration; therefore, less likely to “take cold.” Do not neglect the feet even, but rub all well and thoroughly each time. It is claimed by some physicians that these salt washings and dry rubbings alone will break up and cure many chronic diseases. I know, however, without a good circulation in the skin, health will sooner or later fail. My desire is to impress its importance upon every invalid, for without it not half the speed can be made in curing disease, even with the best of treatment.

II. *Dry Rubbings.*—All other mornings and evenings than those for the salt-water washings, the friction or dry rubbing will materially help to bring about the desired circulation of the blood in the skin, as it draws it away from any inflamed or otherwise diseased organ or part of the system. To be done as you undress for the night, and before dressing in the morning.

III. *Cold Feet.*—In all cases of habitual cold feet, the foregoing plan of washings and rubbings is also of the utmost importance, making the friction, or rubbings, of the lower limbs and feet the most thorough.

INFLUENZA (A Cold).—*Symptoms:* A sense of fulness in the mucous membrane of the nose, and a tingling, with dryness, are among the first symptoms of this disease. Sneezing is a common symptom. Shortly, pains are felt in the forehead, and breathing through the nose becomes difficult. The eyes are red and watery, the throat sore, a dry cough, hoarseness, thirst, general languor, chills, and an anxiety to be near the fire. The mucous membrane of the nose, throat, windpipe, and breathing tubes, is inflamed, red, swollen, and occasionally painful.

In a short time water runs from the eyes and nose, and the cough becomes more moist. There is also a slight discharge from the throat and tubes, gradually increasing, and, at length, as the disease becomes less acute, the expectoration is thick and yellow.

An aching of back and limbs, appetite gone, thirst, flashes of heat and chills, whenever the patient is exposed to air cooler than accustomed to, are almost continual attendants upon this complaint.

A slight attack of the above mentioned disease, affecting here and there a person, and lasting but a few days, is called a cold. If it affects a large portion of the community at the same time, lasting days, and even weeks, it is then an epidemic, termed influenza. The latter sometimes sweeps over a whole country, as in 1832, when it extended over a greater part of the universe. In its progress it often shows marked severity, leaving serious results behind.

Treatment.—In mild cases treat the disease as you would a severe cold, as only simple treatment is required,—such as remaining in the house for a few days, bathing the feet in warm water, taking a mild sweat, drinking warm infusions of mullein, flax-seed, slippery elm, or warm lemonade, and taking sparingly of vegetable diet. If the bowels are costive, use a gentle physic, likewise a laxative drink will be useful.

When the attack is quite severe, decisive measures must be taken to induce sweating. This may be accomplished by the spirit vapor bath, or by putting bottles of hot water to the patient's feet and sides while in bed, and giving warm drinks, also compound tincture of Virginia snake root. Three drops of the tincture of veratrum viride every three or four hours, will often cause free perspiration, and reduce the inflammation upon the mucous surface.

Emetics are sometimes very useful. Vomiting may be produced by the use of powder of ipecac, ten to twenty grains, or the compound tincture of lobelia.

The inflamed mucous surfaces are soothed very much by inhaling the vapor from half a pint of hot water, with five drops of tincture of veratrum viride, or a like quantity of tincture of aconite root.

If the cough is severe, use the preparations recommended under bronchitis and consumption.

LA GRIPPE, or Russian Influenza.—For the last four or five centuries medical observers have noted the occurrence, from time to time, of an epidemic affection characterized by bronchitis (inflammation of the bronchial tubes), it is commonly known by the name of influenza, after a term introduced by the Italian writers in the seventeenth century. The French call it “la grippe.” There was a great epidemic of this disease in 1832, and it again made its appearance in the year 1889, being most severe in France, England and the United States. The epidemic is accompanied by more marked and general symptoms than the ordinary influenza.

Symptoms: Chills, fever, lassitude, debility, a loss of appetite, and a general prostration. Frontal head-ache is also a prominent feature, but no two persons are affected alike, while some at first are seized with protracted sneezing, others will commence with chills and fever; yet, however, the general run of the disease is the same. It often ends in free perspiration or with diarrhœa. The duration of an attack of “la grippe” is from three to six days, but frequently serious complications arise, such as broncho-pneumonia or capillary bronchitis, and with the old and feeble often proving fatal.

Dr. S. P. Duffield’s Prescription.—Sulphate quinine, 12 grs.; powdered capsicum, 3 grs. Mix; divide into 12 pills, or put into gelatin capsules. Take one every 3 hours. These pills, if taken at the commencement of the disease, will completely check it. This remedy is well known among the fraternity, and is extensively prescribed.

1. An Effectual Remedy.—Sulphate quinine, 20 grs.; sulphate morphine, 1 gr.; powdered capsicum, 3 grs.; tincture aconite root, 6 drops. Mix, and divide in 12 pills or capsules. Take one every 3 hours.

2. A Good Receipt to Control Fever.—Liq. Ammon. Acet., 1 oz.; tinct. aconite rad., 12 drops; spirits æther nit., 2 drachms; syr. limonis, enough to make 3 ozs. of the whole; mix. Dose—1 tea-spoonful with water every hour, until the fever is well under control.

3. Powders that will Relieve the Headache.—Acetanilid, $\frac{1}{2}$ drachm. Divide into 6 powders. Take one every 8 or 4 hours, till easy from pain. This is very simple, but the relief that it affords is in some cases astonishing.

4. A Good Receipt for Children.—To be taken in doses of one tea-spoonful every 3 hours. This will be found very effective. Sulphate quinine, 24 grs.; wine ipecac, 1 drachm; laudanum, 24 drops; syrup licorice, 3 ozs.

1. BALM OF GILEAD BUDS, TINCTURE OF—For Cuts, Bruises, etc.—Take any sized bottle and fill it, loosely, with Balm of Gilead buds, which have been bruised or cut into two or three pieces, then fill with good whiskey or diluted alcohol (half water, half alcohol), cork and shake occasionally for a week or ten days, when it will be ready for use, for wetting bandages applied to cuts, bruises, wounds, sores, etc. (See also “Balm of Gilead Ointment,” and remarks following. There is nothing known to be more healing than the Balm of Gilead buds.

2. For Coughs and Sore Lungs.—Mix equal parts of honey with the tincture and take 1 or 2 tea-spoonfuls 3 or 4 times a day. It is considered expectorant, diuretic and somewhat stimulant and tonic.

TUMORS, POISONED WOUNDS, AND WILD VINE POISONINGS—**Earth Cure for.**—Take the stratum of clay used for making the best red brick, which lies immediately below the soil. Dry in the sun so it can be put through a sieve; keep in air-tight jars; mix with hot water until of the consistency of putty, and apply warm, with a knife, over the tumor, half an inch thick; cover with light brown paper, then bandage with a good strong bandage, and keep it on 24 to 48 hours. This has caused some wonderful cures, I am told. It is also good for some forms of rheumatism, dropsy and poisoned wounds.—*Housekeeper.*

Remarks.—I have no knowledge, only my judgment, as to the value of this for tumors, but knowing the clay cure to be positive in drawing out the poisonous effects, swelling, soreness, etc., when poisoned by ivy, I know it will be valuable in poisoned wounds and, I believe, even good for mad dog bites, if applied quickly after cauterizing; and, therefore, I judge it good for tumors. The clay is very absorbing. I should, however, change it as often as the covering gets dry. (See also Poisoning by Poison Ivy, etc.)

DIURETICS, VALUABLE.—I. Buchu and uva ursi, leaves of each, 1 oz.; pareira brava root, 1 oz. Mix and divide into 3 powders or parcels, evenly. **DIRECTIONS AND DOSE**—Pour upon one of these parts a quart of boiling water, in a covered tin pail or fruit jar. When cool enough to drink, take 1 to 3 moderate swallows every 2 or 3 hours, so as to increase the flow of urine, which will use up the quart in about 2 days. If to be kept longer, 6 ozs of good gin will prevent its souring, if strained from the dregs. Used in catarrh of the bladder, irritation of the kidneys, uretha, etc.

II. Take buchu leaves, 2 ozs., and treat as in I.; when cool add 1 tea-spoonful of bi-carbonate of soda, and 30 drops of fl. ex. of hyoscyamus, and drink all in 2 days. Use more than the above in cases where there is mucus of a stringy character passed in the urine. After a day or two, repeat the same until relieved. If much irritation of the uretha, get 1 oz. of sub-nitrate of bismuth and put into 8 ozs. of soft water, and inject $\frac{1}{2}$ oz. into the urethra 3 times daily, shaking before pouring out; else, obtain "Humphrey's Marvel of Healing," and add 3 times as much water as of the "Marvel," and inject in its place. Either is excellent. Retain them 2 or 3 minutes, whichever is used. These are good for any case requiring diuretics.

HOT WATER CURE—**Directions for Using.**—The following instructions as to the manner of using hot water as a means of restoring health to a generally debilitated or exhausted system, I take from the *Medical Brief*, thinking the explanation and directions here given will enable many of our readers to obtain additional helps, over and above what are given under the head of Hot Water in Consumption, Dyspepsia, etc. I have been unable to find where Dr. Salisbury's institute is located, or anything further than given in this quotation, and the different items referred to in this book, as above indi-

cated; but as I have been using it with satisfaction in several cases of dyspepsia I think it will be found generally useful. I will here say that I recommend the water to be heated to 140° F. in summer, and 145° to 150° in winter, in quantity about $\frac{1}{2}$ to $\frac{3}{4}$ of a pint as a general thing, and taken about $\frac{1}{2}$ to $\frac{3}{4}$ of an hour before meals. If one should be very thirsty at bed-time, then also, but not unless necessary to allay thirst.

I. "*The Water Must be Hot, Not Cold Nor Lukewarm.*—This is to excite peristalsis (like peristaltic, a successive contraction and relaxing of the muscular coats) of the alimentary canal. Cold water depresses, as it uses animal heat to bring it up to the temperature of the economy (body), and there is also a loss of nerve force in the proceeding. Lukewarm water excites upward peristalsis, or vomiting, as is well-known. By hot water is meant a temperature of 110° to 150° Fahrenheit, such as is commonly liked in the use of tea and coffee. In cases of hemorrhage, the temperature should be at blood heat (98° F.). Ice-water is disallowed in all cases, sick or well.

II. "*Quantity of Hot Water at a Draught.*—Dr. Salisbury first began with one-half pint of hot water, but he found that it was not enough to wash out, nor to bear another test founded on the physiological fact that the urine of a healthy babe suckling a healthy mother—the best standard of health—stands at a specific gravity varying from 1.015 to 1.020. The urine of the patient should be made to conform to this standard, and the daily use of the urinometer (an instrument for telling the specific gravity of the urine, but not generally necessary to have nor obtain except in hot-water cures) tells whether the patient drinks enough or too much hot water.

"For example, if the specific gravity of the urine stands at 1.030°, more hot water should be drunk, unless there is loss by sweating. On the other hand, should the specific gravity of the urine fall to 1.010, less hot water should be drunk. The quantity of hot water varies usually from $\frac{1}{2}$ pt. to $1\frac{1}{2}$ pts. at one time of drinking.

"The urine to be tested should be the *urina sanguinis*, or that passed just after rising from bed in the morning, before any meals or drinks are taken.

"The quantity of urine voided in 24 hours should measure from 48 to 64 ozs. ($1\frac{1}{2}$ to 2 qts.). The amount will, of course, vary somewhat with the temperature of the atmosphere, exercise, sweating, etc., but the hot water must be given so as to keep the specific gravity of the infant's standard, to wit: 1.015 to 1.020. The urinometer will detect, at once, whether the proper amount of hot water has been drunk, no matter whether the patient is present or absent. Another test is that of odor. The urine should be devoid of the rank *urinous* smell, so well known, but indescribable. [The absence of this "rank smell" is a sufficient guide for home tests; take enough to get rid of this rank odor, is all sufficient.]

"The Salisbury Plans aim for this in all cases, and when the patients are true and faithful, the aim is realized. [If a patient will not be true to himself, or herself, you may as well give up trying at once.]

III. "*Times of Taking Hot Water.*—One to two hours before each meal, and half an hour before retiring at night. [I have taken it myself, and so recom

mended to others, half or three-fourths of an hour, only, before each meal, and have never known vomiting, or even sickness of the stomach to arise.]

"At first, Dr. Salisbury tried the time of one-half hour before meals, but this was apt to be followed by vomiting. [I have not so found it.] One hour to 2 hours allows the hot water time enough to get out of the stomach before the food enters, or sleep comes, and thus avoids vomiting. Four times a day gives an amount of hot water sufficient to bring the urine to the right specific gravity, quantity, color, odor, and freedom from deposit, on cooling. [There is probably something of importance in these points, but I have, as yet, at any rate, only recommended to take it 3 times daily, unless thirsty at bed-time.] If a patient leaves out one dose of hot water during the day, the omission will show in the increased specific gravity (weight, by the urinometer), in the color, etc. Should the patient be thirsty between meals, 8 ozs. (half pint) of hot water can be taken any time between 2 hours after a meal and 1 hour before the next meal. This is to avoid diluting the food in the stomach with water.

IV. "*Mode of Taking Hot Water.*—In drinking the hot water, it should be sipped, and not drank so fast as to distend the stomach and make it feel uncomfortable. From 15 to 20 minutes may be consumed in drinking the hot water. [About 5 minutes time is all the author took in drinking the hot water, and all he recommends; still, if 1 to 1½ pts. are to be taken, a longer time will be needed. But, for ordinary cases of home treatment, I think ½ to ¾ pt. is enough, and especially so if it is taken 4 times daily.]

V. "*The Length of Time to Continue the Use of Hot Water.*—Six months is generally required to wash out the liver and intestines thoroughly. As it promotes health the procedure can be practiced by well people throughout life, and the benefits of cleanliness be enjoyed. The drag and friction on human existence from the effects of fermentation, foulness and indigestible food, when removed by this process, gives life a wonderful elasticity and buoyancy.

VI. "*Additions to Hot Water.*—To make it palatable, in case it is desired, and to medicate it, aromatic spirits of ammonia, clover blossom tea, ginger, lemon juice, sage, salt and sulphate of magnesia (epsom salts), are sometimes added. When there is intense thirst, and dryness, a pinch of chloride of calcium (chloride of lime) or nitrate of potash (niter) may be added, to allay the thirst and leave a moistened film over the parched and dry mucus membrane surfaces. When there is diarrhea, cinnamon, ginger or pepper may be boiled in the water, and the quantity drank, lessened. For constipation, a tea spoonful of sulphate of magnesia, or ½ tea-spoonful of *taraxacum* (dandelion fl. ex.) may be used in the hot water.

VII. "*Amount of Liquid (Tea, Coffee or Water) to be Drank at a Meal.*—Not more than 8 ozs." [½ pt. or 1 cup of tea or coffee.] "This is in order not to dilute the gastric juice, or wash it out prematurely, and thus interfere with the digestion process.

VIII. "*The Effects of Drinking Hot Water, as indicated, are:*—The improved feelings of the patient. The fæces (passages) become black with bile, washed down its normal (natural, or healthy) channel. The blackness of fæces lasts for more than six months (I have not found this so, but it may be in some

cases), or until the intolerable fetid odor of ordinary fæces is abated (this I have found true), and the smell approximates the smell of healthy infants sucking healthy breasts, and this shows that the ordinary nuisance of fetid (bad smelling) fæces is due to a want of working out and cleansing the alimentary canal from its fermenting contents. The urine is clear as champaign, free from deposit and odor, or coloring, 1.015 to 1.020 specific gravity, like infants' urine. The sweat starts freely after drinking, giving a true bath from center to surface. The skin becomes healthy in feeling and looks. The digestion is correspondingly improved, and with this improvement comes a better working of the machine." [Human system as a whole.] "All thirst and dry mucus membranes disappear in a few days, and a moist condition of the mucus membrane, and the skin, takes place. Ice water in hot weather is not craved for and those who have drunk ice water freely are cured of the propensity. Inebriety has a strong foe in the use of hot water."

Remarks.—The author finds, by personal use of hot water, nearly all the foregoing statements of the *Brief* to be facts, and I especially hope the last statement shall so prove that "inebriety has a strong foe in the use of hot water," and I feel almost sorry I cannot attest to this from a personal knowledge, so anxious am I to do good to my fellow-creatures, knowing, as I do, how much confidence the statement of a fact with which the author has positive knowledge helps one to have faith enough in any certain thing to give it a trial. Let none needing it for that purpose, or any other given here and in other parts of this book, for all purposes indicated here or there, fail to try it. The author, however, can give no greater assurance of his own confidence in the use of hot water than to say that I now arise to go and heat water to take myself, half an hour before my supper, for it does me good, stops all craving for cold drinks and allays all feverishness of stomach, bowels, etc., etc., of this hot day, the thermometer reaching 90° Fahrenheit in my office at 3 P. M.

MEASLES.—This is a contagious or "catching" eruption, and would be a disease of less severity were it not sometimes followed by serious results. It is a disease peculiar to childhood, although persons well along in years sometimes have them. As children have them easier than adults, it is advisable to take no special precaution to prevent them. They usually appear in from 7 to 14 days after exposure.

Symptoms.—The first symptoms of measles are shivering, succeeded by heat, thirst and languor; then follows running at the nose, sneezing, cough; the eyes water and become intolerant of light; the pulse quickens, and the face swells; there are successive heats and chills, and all the usual signs of catarrhal fever. Sometimes the symptoms are so mild as to be scarcely noticeable, and sometimes greatly aggravated; but in any case, at the end of the third day, or a little later, an eruption of a dusky red color appears, first on the forehead and face, and then gradually all over the whole body. In the early stage of this eruption there is little to characterize it, but after a few hours it assumes the peculiar appearance, which once seen can never be mistaken. The little red spots become grouped, as it were, into crescent-shaped patches, which are slightly

elevated above the surface, the surrounding skin retaining its natural color. On the third day of the eruption it begins to fade and disappear, being succeeded by a scurfy disorganization of the cuticle, which is accompanied by an intolerable itching. The febrile symptoms also abate, and very quickly leave the patient altogether, but often in a very weak state and with a troublesome cough. Between exposure to the infection and the breaking out of measles, there is usually an interval of 14 days, which is called the period of incubation; so that it is not uncommon, where there are several children in a family, for the cases to succeed each other at fortnightly intervals.

This disease is often rendered dangerous by complications with others; so that, not in itself of a fatal character, it frequently leads to fatal results. Where there are the seeds of consumption or scrofula in the constitution, they are likely to be called into activity during the debility which follows an attack of measles; dropsy often follows it, as do affections of the air passages, chest and bowels.

How to Distinguish Measles from Scarlet Fever.—Measles is a less dangerous disease than scarlet fever, although sometimes mistaken for it in the early stages. In measles the spots are not as deeply colored as in scarlet fever, and are differently shaped and rougher to the touch. In scarlet fever the spots usually appear on the second day after the first symptoms are observed, and in measles on the third or fourth day. The irritation of the nose, sneezing and discharge, that are prominent symptoms in measles, do not occur in scarlet fever.

TREATMENT.—Generally speaking, for simple measles, little medicine is required. Give the patient plenty of diluent drinks; let him have a spare diet, and a moderately warm and well-ventilated room; keep the bowels gently open; if a roasted apple, or a little manna in the drink will not do this, give a dose of castor-oil. Where there is much heat of the skin, sponging with tepid vinegar and water will completely relieve it, and also the itching. When the eruption has subsided, and the desquamation of the skin commenced, a tepid bath will materially assist this process, and get rid of the dead cuticle. On the third or fourth day after the disappearance of the eruption, give a small dose of powder of rhubarb, jalap, or scammony. Care should be taken to protect the patient against change of weather, and to restore the strength by a nourishing diet. Attention should be paid to the cough. Give drinks of flaxseed tea or slippery elm, made slightly acid.

If the attack is severe, attended with high fever, headache, restlessness, etc., the feet should be placed in a hot mustard bath for 10 or 15 minutes, after which place the patient in bed warmly covered, giving every hour until the fever subsides and sweating takes place, Fluid Extract of Aconite, 1 drop to a tea-spoonful of water; and every 2 hours, or until the pulse is reduced in frequency, give 1 drop Fluid Extract of Veratrum Viride similarly diluted.

Cold water may be taken freely with benefit in this as well as all in other eruptive or miasmatic fevers. A very good drink can be prepared by making a bowlful of slippery elm infusion, and adding the juice of a lemon and a table-spoonful of cream of tartar, and using as a drink as the patient desires.

The bowels should be regulated by the Compound Podophyllin Pills, or the Compound powder of Jalap.

The diet should be light, and consist largely of ripe cooked fruits, gruels, broths, and other easily digestible articles.

Sore throat should be relieved by inhalation of hot vinegar, or by a gargle of Carbolic Acid, 2 drops to 1 ounce of water. If the eyes should become irritated and inflamed, they may be relieved by a cool wash of slippery elm, alum curd, rose leaves, or moist tea grounds taken from the pot.

To Bring them Out.—In cases where the eruption does not appear, warm whiskey sling or the Compound Tincture of Virginia Snake Root may be given to bring it out.

2. Sometimes when warm drinks fail to bring them out, drinking largely of cold water, and keeping warmly covered in bed, will produce the desired effect.

3. The following will be found most efficient: Strong balm tea with a little saffron infused, or hot ears of corn, wrapped in a cloth saturated with diluted vinegar, placed about the body.

Striking in.—Sometimes the eruption of measles disappears suddenly—then there is cause for alarm, and energetic treatment required; the patient should be directly put into a warm bath, and have warm diluent drinks; if the pulse sinks rapidly, and there is great prostration of strength, administer wine whey, and the following draughts: 10 drops of aromatic spirits of ammonia, or 5 grains of the sesquicarbonate in $\frac{1}{2}$ an ounce of camphor mixture, with a drop of laudanum every four hours; should the prostration be very great, weak brandy and water may be given. The state of the chest, head, and bowels should be closely watched for some time after the patient is convalescent, as disorders of these organs are very likely to occur, in which case it is probable that there may be pneumonia, hydrocephalus, or diarrhea. (Note 38, p. 792.)

2. Apply mustard poultices to the feet, ankles, wrists, and over the whole abdomen, letting the poultices remain a few minutes and until they produce considerable redness.

Severe cases of measles are liable to be accompanied with pneumonia, and where there are decided symptoms of this, the Hop Fomentation (see below) should be applied over the whole chest, with warm applications to the feet and legs. The frequent inhalation of the vapor of hot vinegar should be employed.

Chronic sore eyes, diarrhea, a lingering cough, etc., are liable to follow severe cases of measles, and these should be treated according to the indications of each individual case.

Malignant Measles.—This is a variety which commences with the above symptoms in an aggravated form; the rash quickly assumes a livid hue, alternately reviving and disappearing, and is mixed up with dark red spots like flea-bites; in this form of the disease we have extreme debility and all the symptoms of putrid fever, like which it should be treated. No time should be lost in procuring medical aid.

Herbal or Eclectic Treatment for Measles.—A strong tea composed of saffron and snake root always proves beneficial. Decoctions of licorice, marsh-mallow roots and sarsaparilla are likewise beneficial. Sudden changes should be guarded against, and especially exposure to cold draughts, the room, however, should be kept moderately cool. No animal food should at first be taken, but the patient confined to low, spare diet, such as sage, gruel, etc. A good drink may be made of barley water, acidulated with lemon juice.

HOT FOMENTATIONS AND POULTICES.—Hot fomentations are serviceable in treating many forms of disease, and in some they are indispensable. Hops, stramonium or jimson weed, tansy, hoarhound, catnip, lobelia, etc., either in the herb or in tincture, are among the most common agents employed. The herbs should be simmered in water, or vinegar and water, until their strength responds to the liquid, when they should be placed between thin muslin cloths, applied as hot as the patient can bear, and covered with a number of thicknesses of heated cloths. Material should be prepared for two applications, so that as one is removed the other may be applied. The same application may be used over and over, using the liquid in which it was steeped, or adding hot water to keep it moist. They should be changed every 5 to 8 minutes, using care not to expose the part to the cold air during the changes. When using tinctures instead of herbs, prepare a lotion by adding to a sufficient quantity of water, or vinegar and water, or whiskey and water, so much of the tincture as will give it the requisite strength, warm the lotion and place it where it will keep warm, and saturate and wring from it several thicknesses of flannel or muslin, applying hot to the part as in other cases. Vinegar or whiskey should form an ingredient, if practicable, in any fomentation, and hops form a good combination with other ingredients when not used alone.

Hop Fomentation.—In bilious colic, inflammation of the lungs, and other cases requiring energetic treatment, the best fomentation is made as follows: Take a quart of vinegar, put in a kettle, and add as much hops as the vinegar will take up; boil them together for 5 or 10 minutes, and stir in as much corn meal as will made the whole into a thick mush. The meal is added simply to give consistence to the mass so as to retain the heat and not wet the bedding. If corn meal is not at hand, shorts, or bran and flour mixed together, will do. Spread this thickly upon an ample piece of muslin cloth (if 2 or 3 inches thick all the better), and apply hot. If too hot to be applied next the skin, lay folds of cloth between. The essential point is to get the heat and the fullest effects of the hops and vinegar as soon as possible, and to hold their effect as long as possible.

Hot Mustard Foot Bath.—Prepare a bucket or tub, the same as for an ordinary foot bath, filling it a third to half full of water as hot as the patient can bear with comfort. Put in it about two table-spoonfuls of ground mustard (more or less, according to the degree of strength desired). Provide a reserve of hot water (boiling hot, or nearly so), and after keeping the feet in the bath for a short time, add hot water to keep up the temperature, keeping it as hot as

the patient can bear for ten or fifteen minutes. The parts should then be gently dried and warmly wrapped.

Slippery Elm Poultrice.—Take of slippery elm bark, in powder, half an ounce, and a sufficient amount of hot water to form a poultrice of the proper consistence. This poultrice is valuable in all cases of burns, scalds, swellings, inflammations, ulcers, painful tumors, abscesses, and wherever a general soothing emollient poultrice is required.

Yeast Poultrice.—Applicable to sores and indolent ulcers. Made by taking 5 ounces of yeast and a pound of flour (or in that proportion), and adding to water at blood heat, so as to form a tolerably stiff dough; set in a warm place (but not so as to scald) until it begins to ferment or to “rise,” and apply like any poultrice.

MUMPS.—This disease, which is a contagious epidemic, consists of inflammation of the salivary or parotid glands, which are situated on each side of the lower jaw.

SYMPTOMS.—It commences with slight febrile symptoms of a general character. Very soon there is a redness and swelling at the angle of the jaw, which gradually extends to the face and neck near to the glands. These sometimes become so large as to hang down a considerable distance, like two bags.

They may come on suddenly, or else be preceded by a few days of general indisposition, which now and then amounts to high fever. A feeling of stiffness about the jaws is soon followed by swelling, often very bulky, and more or less tense. The swelling is apt to extend either at the back of the lower jaw or underneath it. The swelling contains no fluid; dental pain is absent. Generally first one side of the jaw is attacked and then the other; it is rare for both sides to suffer simultaneously. Not uncommonly similar swellings burst out in other localities of the body, the genital organs being most liable to seizure.

TREATMENT.—But little medical treatment is required for this disease when at its height. The patient, from sheer inability to move the jaw, must live chiefly on slops; and it is well for him to be kept low, unless very delicate, in which case a little good broth or beef tea should be given. If there is much pain, the throat should have hot fomentations applied; and, in very severe cases, two or three leeches. Mumps is not a dangerous disorder, unless the inflammation should be turned inwards, in which case it will probably affect the brain or testicles; or, in the female, the breasts. Should the swellings suddenly disappear, and thereby aggravate the symptoms of fever, the following liniment must be applied: Camphorated spirits, 1 oz.; solution of sub-carbonate of ammonia, 2 drams; tincture of cantharides, $\frac{1}{2}$ dram. Mix, and rub in until the swellings re-appear. Take also, internally, nitrate of potass, 1 dram; tartarised antimony $1\frac{1}{2}$ grs. Mix, and divide into six powders, one of which is to be taken every four hours.

Camphor for Mumps.—Camphor is said to have been used successfully to reduce the after-swelling in mumps; in the case of males holding the pendant parts in a basin of spirits of camphor, and bathing the adjacent parts

freely with it, continuing or renewing the application until relief is had. If it occasion smarting more than the patient can bear, the liquid may be diluted with water.

CHICKEN POX.—Chicken-pox is an eruptive disease which affects children and occasionally adults. It is attended only with slight constitutional disturbance, and is therefore neither a distressing nor dangerous affection. The eruption first appears on the body, afterwards on the neck, the scalp, and lastly on the face. It appears on the second or third day after the attack, and is succeeded by vesicles containing a transparent fluid. These begin to dry on the fifth, sixth or seventh day. This disease may be distinguished from variola and varioloid by the shortness of the period of invasion, the mildness of the symptoms and the absence of the deep, funnel-shaped depression of the vesicles, so noticeable in variola. The main distinctions between chicken-pox and small-pox are the absence or extreme mildness of the premonitory fever in the former disease, and the form and contents of the vesicles; those of the latter eruption being filled with dark matter, and having, invariably, a depression in the center.

TREATMENT.—Ordinarily very little treatment is required. It is best to use daily an alkaline bath, and as a drink, the tea of pleurisy-root, catnip or other diaphoretics, to which is added from half to a spoonful of extract of smartweed, or the patient should be put upon spare diet; this, and a dose or two of some cooling aperient, as rhubarb or magnesia, is generally all that is necessary; but should the febrile symptoms run high, give a saline draught, as the following: Carbonate of potash, 1 scruple; citric or tartaric acid, 15 grains; essence of cinnamon, $\frac{1}{2}$ a dram; syrup of orange peel, 1 dram; water, 10 ounces. Shake, and drink while sparkling a wineglassful as a refrigerant. To make it effervescing, add the acid after the draught is poured out. Give plenty of cooling drink, and, if the bowels are at all obstinate, emollient injections. Care must be taken that the skin is not irritated by scratching—as it is, painful and troublesome sores may be produced—and also that the patient does not take a chill. If these precautions are observed, little or no danger is to be apprehended from chicken-pox.

YELLOW FEVER.—This disease is peculiar to hot climates and is a species of typhus, which takes its name from one of the symptoms, but which, however, is not an essential one. It is probably caused by a vitiated state of the atmosphere arising from decayed vegetable or animal substances, in hot, sultry weather. It is very contagious and an epidemic. (Note 39, p. 792.)

Symptoms.—Costiveness, dull pain in the right side, defect of appetite, flatulence, perverted tastes, heat in the stomach, giddiness or pain in the head; dull, watery, yellow eye; dim or imperfect vision, hoarseness, slight sore throat, and the worst features of typhus.

TREATMENT.—In this disease, good nursing is indispensable. Let the patient have perfect rest and quietness, in a well ventilated room. In the early stages of the disease, the diet must be confined to preparations of sago, arrow-root, barley, etc.; but as the disease advances, give animal broths made of lean



MARSHMALLOW.

(See Description)

This herb is used externally as a poultice on Inflammatory Tumors and Swellings, and to prevent threatening Mortification.

meat, thickened with bread-crumbs, oat-meal, or barley. The strictest attention must be given to cleanliness, and the linen changed frequently. If the stomach be very irritable and the vomiting violent, give the following preparation: Powdered rhubarb, 20 grains; powdered saleratus, 20 grains; powdered peppermint, 1 tea-spoonful; laudanum, 15 drops; brandy, 1 table-spoonful; boiling water, 1 gill. Mix. Sweeten with loaf-sugar, and give a table-spoonful every hour till the symptoms change. The bowels must be kept open as in all fevers. For this purpose use the following: Ginger, 2 ounces; bayberry bark, 4 ounces; cayenne pepper, $\frac{1}{2}$ ounce.

Dose, a tea-spoonful in a little milk, with half a tea-spoonful of powdered rhubarb every hour till it operates freely.

Captain Jonas P. Levy, who has had an extensive experience with yellow fever, states that he never knew a case of yellow fever terminate fatally under the following treatment:

Dissolve a table-spoonful of common salt in a wineglass of water; pour it into a tumbler, and add the juice of a whole lemon and 2 wineglasses of castor-oil. An adult to take the whole at one dose. Then give a hot mustard foot-bath, with a handful of salt in the water. Wrap the patient in blankets until he perspires freely. Remove to the bed, and well wrap the patient's feet in the blanket. Afterward apply mustard plasters to the abdomen, legs, and soles of the feet. If the headache is very severe, they may be applied to the head and temples. After the fever has been broken, taken 40 grains of quinine and 40 drops of elixir of vitriol to a quart of water. Give a wineglass full three times a day. Barley-water, lemonade and ice-water may be used in moderation.

CHOLERA MORBUS.—This is a disease prevalent in warm weather. From the great amount of bile secreted it is also called bilious cholera.

Causes.—Excessive heat, sudden atmospheric changes, indigestible food, unripe fruits. Dampness, wet feet and violent passions will also cause it.

Symptoms.—This disease begins with sickness and distress at the stomach, succeeded by violent gripings, with vomiting of thin, dirty, yellowish, whitish, or greenish fluid, with discharges from the bowels similar to that vomited. The nausea and distress continue between the vomiting and purging, and the pain at times is intense. The pulse is rapid, soon becoming small and feeble, the tongue dry, the urine high-colored, and there is much thirst, though no drink can be retained on the stomach.

TREATMENT.—Apply a large mustard poultice over the stomach and liver. Give large draughts of warm teas, by which means the stomach will be cleansed of all its solid contents. Every half-hour give table-spoonful doses of the compound powder of rhubarb and potassa, until the vomiting is checked. Warm injections must be given frequently, and hot bricks applied to the feet, while the whole body should be swathed in warm flannels. To get up a warmth of the body and the stomach is, in fact, the most important thing in this disease. Hot brandy, in which is a dose of cayenne, is excellent to quiet the vomiting

and griping. A few drops of laudanum in the injections may be given, if the pain is excessive; but generally it is not needed.

Either of the following have been found useful: Bicarbonate of soda, 12 grs.; common salt, 6 grs.; chlorate of potash, 6 grs. Mix and take in cold water. Or the following: Acetate of lead, 20 grs.; opium, 12 grs. Make into 12 pills and take one every half hour until looseness ceases.

Eclectic or Herbal Treatment for Cholera Morbus.—No time must be lost in treating the severe stages of this disease. Give the patient copious drinks of whey, warm barley-water, thin water gruel, or weak chicken broth. Bathe the feet and legs in warm saleratus water, and apply warm fomentations of hops and vinegar to the bowels. In addition to these, apply a poultice of well-stewed garden mint, or a poultice of mustard and strong vinegar will be found of much service. The vomiting and purging may be stopped by the following: Ground black pepper, 1 table-spoonful; table salt, 1 table-spoonful; warm water, $\frac{1}{2}$ tumblerful; cider vinegar, $\frac{1}{2}$ tumblerful. Dose, a table-spoonful every few minutes. Stir and mix each time until the whole is taken.

The evacuations, however, should not be stopped till the patient feels very weak. Nourishing diet should be taken by the patient. A wineglass of cold camomile tea once or twice a day would be very beneficial, as would ten drops of elixir of vitriol three or four times a day, or a tea made of black or Virginia snake-root. Flannel should be worn next to the skin, and the warm bath should be frequently resorted to.

CHOLERA INFANTUM, otherwise known as the summer complaint of children, has been by some regarded as belonging exclusively to America. It has been ascertained, however, that this disease prevails in Europe, where it is called by a different name. It usually attacks children under four years of age, and generally between the months of June and October.

Symptoms.—There is at first diarrhea and the stools are sometimes of a watery, colorless consistence; at others they have a greenish-yellow appearance; the pulse is quick, the head and abdomen are hot, while the limbs are cold. The child seems to suffer more or less pain, as indicated by its crying, and frequently screams as if suffering acutely. The disease often terminates unfavorably and sometimes within a few hours; again, it continues for several weeks, and the little sufferer becomes very much emaciated, his eyes sunken, countenance pale, and yet a recovery is possible.

Causes.—From the fact that it oftener occurs during the summer months than at any other time of the year, it may be inferred that the temperature greatly influences the prevalence of this disease. It more frequently attacks the poorer classes, or those living in unhealthy sections, although the children of the wealthy are likewise subject to it. Teething, change of diet at the time of weaning, and unhealthy, diluted milk, may be the exciting causes of this disease so common to children.

Cholera infantum is more prevalent in our large cities, it being comparatively unknown in rural districts. Often these little sufferers are greatly

improved by a trip into the country or to the sea-shore. Pure air and fresh sweet milk, as hygienic and dietetic adjuncts, are necessary for recovery.

TREATMENT.—The first treatment should be *preventive*. The little patient should be placed in a well ventilated room. Next, attend to the diet, and ascertain if the milk be pure and healthy. If the child nurses, then the mother should properly regard her diet. She should not eat unripe or stale fruits or vegetables, but her food should be nutritious and easily digested. She should not overwork, nor heat her blood, neither should she allow herself to become excited and irritable. She should occasionally give the child some milk alkali to obviate undue acidity of the stomach. Scalding the milk, or using a little lime-water in it, is sometimes beneficial. The following can be obtained at almost any drug store: Syrup of rhubarb, 2 ounces; lime-water, 4 drachms (about 4 tea-spoonfuls), and water of peppermint 2 drachms. Give of this mixture, to a child one year old, 1 tea-spoonful every hour until it acts on the bowels as a laxative, which may be known by the changed appearance of the passages. Follow this with small doses of compound extract of smart-weed and cover the bowels with cloths wet with the same. This treatment I have employed with perfect success in my own family and also with the same uniformly happy results in the general practice of medicine.

SALT RHEUM, or ECZEMA.—In this disease the minute blood vessels are congested, causing the skin to be more vascular and redder than in the natural state. There is an itching or smarting sensation in the affected parts and the skin is raised in the form of little pimples and a watery substance exudes. This disease usually attacks the hands, and depends very much upon the occupation and habits of the person. Washerwomen, and those whose hands are exposed to the action of flour, soap, wax, resin, etc., are most subject to it.

TREATMENT.—All soaps and alkalies, and lead preparations, should be avoided. Wash the hands only in warm water, to which may be added some oatmeal or cornmeal, or a little oxalic acid or vinegar. The following prescription is an excellent external application: Stramonium ointment, 1 ounce; carbolic acid, 10 grains. Mix thoroughly together. First wash the part affected with warm water and oatmeal and cornmeal, then dry thoroughly, and apply the ointment, bandage, and let remain all night.

2. Make a wash of warm water and oatmeal, cleanse the part with it, and dry with a soft cloth; bathe with tincture of iodine, let it dry, and apply carbolic acid mixed with sweet cream, about 5 drops of the acid to a tea-spoonful of cream.

3. Take of beef marrow, sulphur, black pepper, white turpentine, equal parts; mix, make an ointment, and apply, cleansing as otherwise directed.

SCALD HEAD.—This is a disease of the scalp, and at first consists of minute pustules around the roots of the hair. These pustules increase in size and number until the entire scalp becomes covered by one dense and uniform crust. The disease is contagious, and is caused by the presence of parasites.

TREATMENT.—Cut the hair as closely as possible; wash the head with castile soap and water, then apply at night on going to bed a large flaxseed meal poultice and let remain until morning, when the poultice should be removed, and with it all loose incrustations. This poultice should be applied from time to time, if there should any new crusts form. On removing the poultice cleanse the scalp with carbohc acid soap and warm water, then use the following ointment: Carbohc acid, 10 grs.; vaseline, 2 ozs. Mix, and apply every morning sufficient to anoint slightly all the diseased parts. Wash the scalp each time with carbohc acid soap before applying the ointment.

To increase the general tone of the system, the muriate tincture of iron in 5 drop doses may be given in 1 table-spoonful of water, 3 times daily.

THRUSH.—This is one of the most common diseases of infancy. It is characterized by a peculiar eruption of minute pustules, and a whitish incrustation of the tongue.

Symptoms.—There are generally much thirst, restlessness, languor, acid and flatulent eructations, loose and griping stools, drowsiness, pain, difficulty of sucking, and a copious flow of saliva from the mouth. The stomach and bowels are almost always prominently disordered, and the infant is apt to vomit after taking anything into its stomach. The abdomen is often sore to the touch, and great difficulty of swallowing is experienced. Feeble and sickly children scarcely ever escape this disease; children, also, who are kept in crowded or ill-ventilated apartments are especially liable to it.

TREATMENT.—The first object is to restore the healthy condition of the stomach and bowels, if disordered. Where the ejections from the stomach are sour, and the alvine evacuations of a grass-green color, from 3 to 4 grains of magnesia, with 2 grains of rhubarb, and 1 of powdered valerian should be given every two or three hours until the bowels are freely evacuated. If there is much general irritability and restlessness after this, the tepid bath, followed by a drop or two of laudanum, should be employed. The mucous membrane of the intestines is apt to become highly irritated in severe cases; the alvine evacuations in such instances are frequent, watery, and streaked with blood. When these symptoms are present, a large emollient poultice should be applied over the abdomen in conjunction with the internal use of minute portions of Dover's powder, with a solution of gum arabic as drink. Borax is a familiar remedy with nurses and mothers as well as the profession. It may be used either in form of powder or in solution. If the former is employed, 2 or 3 grains of it, mixed with a small portion of pulverized loaf sugar, must be thrown into the mouth every 2 or 3 hours; if the solution be used, a drachm of the borax should be dissolved in 2 ozs. of water, and applied to the mouth with a soft linen rag tied to the extremity of a pliable piece of whalebone, or with a soft feather. The practice of forcibly rubbing off the eruption is extremely reprehensible; for, when rubbed off in this way, the crust is soon renewed in an aggravated form. Where the mouth is very red, livid or ulcerated, we must have recourse to a decoction of bark. A $\frac{1}{2}$ oz. of powdered bark, boiled about 30 minutes in $\frac{1}{2}$ pt. of water, will make a suitable decoction; and of this about the third of a tea-spoonful may be put into the child's mouth every hour or two.

1. WATERBRASH.—Pyrosis is the medical name for this disease, but it is usually called Waterbrash. It is a peculiar affection of the stomach, in which the patient brings up frequently a considerable quantity of thin watery liquid, sometimes insipid, at others intensely acid. Before the fluid is brought up, often there is more or less pain experienced at the pit of the stomach. This complaint attacks, mostly, persons past the middle age, particularly females, and the fit comes on generally in the morning and afternoon. It usually begins with a severe pain in the pit of the stomach, attended with a feeling of constriction or oppression, and soon after a quantity of thin watery fluid is thrown up, which is sometimes insipid, at other times it has a highly acid or burning taste. The causes of this complaint are various, but whatever disorders the stomach may give rise to it. It appears to be owing to a peculiar state of irritation of the stomach; and is most certainly relieved by the use of the white oxide of bismuth, from 2 to 3 grs. made into pills with extract of gentian, 3 times a day. This medicine will often perfectly cure waterbrash; but attention to the diet, as laid down under dyspepsia, is of much consequence, and will be absolutely necessary in order to render the cure permanent. A diet of plain animal food may be allowed, with which may be united the use of biscuits, home-made bread, and preparations of rice and milk. Daily exercise must also be taken, and frictions, with the flesh-brush, over the region of the stomach and bowels, are of no small service. The bowels must of course be kept open by purgatives, when necessary, even when making use of other curative means.

2. Plump wheat carefully burned to a charcoal, and powdered, a teaspoonful into the nursing bottle before filling it, once a day. The same, taken before each meal, is good for dyspepsia.

1. RINGWORM.—A disease of the skin appearing in small circular patches, or rings of vesicles round the circumference of a circle of apparently healthy skin: these vesicles are small, and contain a transparent fluid, which is discharged in three or four days, when little dark scabs form over them. Sometimes there is a succession of the circles on the upper parts of the body, as the face and neck, and the arms and shoulders.

The more formidable and infectious species of ringworm appears in distinct patches of an irregularly circular figure, on the scalp, head, and neck. It commences with clusters of small light yellow pustules, which soon break and form thin scabs over each patch; and these, if neglected, become thick and hard by gathering on one another. If the scabs are removed, however, the surface of the patches is left red and shining, but studded with white elevated points, in some of which, minute globules of pus again appear in a few days. As the patches extend, the hair covering them becomes lighter in its color, and sometimes breaks off short; and as this process is repeated, the roots of the hair are destroyed, and at length, there remains uninjured only a narrow border of hair round the head. It generally occurs in children of three or four years old and upwards, and often continues for several years. It can be considered as about to terminate, only when the redness and exfoliations disappear together, and the hair begins to grow of its natural color and tex-

ture. The disease seems to originate spontaneously in children of feeble and flabby habit, or in a state approaching to marasmus; who are ill fed, uncleanly, and not sufficiently exercised; but it is principally propagated by the actual conveyance of the matter from the diseased to the healthy, by the frequent contact of the heads of children, but more generally by the use of the same towels, combs, caps, and hats.

TREATMENT.—While the patches are in an inflamed and irritable condition, we must be content with regular washing or sponging with warm water, or some emollient fomentation. Even the operation of shaving, which is necessary to be repeated at intervals of 8 or 10 days, produces a temporary increase of irritation. At this time, all stimulant lotions and ointments should be avoided. The disease assumes various forms, and these require a corresponding variety in the treatment; so that no single application can be said to possess any unfailling power against the ringworm. When the inflammatory state subsides, a dry scabbing and exfoliation ensues, but again the pustular eruption breaks out, and the patches again become red and tender. In other instances, the surface becomes inert and torpid, while a dry scaly scab constantly appears, and active stimulants are requisite to effect any change in the disorder. In more irritative states, the milder ointments, with calomel, oxide of zinc, acetate of lead, should be employed, or sedative lotions, or decoctions or infusions of poppy heads or tobacco. When there is an acrimonious discharge, the ointments of zinc and lead, or the milder mercurial ones, or a lotion of lime-water with calomel, are advantageous. In a very dry and inert state of the patches, caustic substances are often very successful. The late Dr. A. T. Thomson strongly recommends the application of a solution of 1 dr. of nitrate of silver in $\frac{1}{2}$ an oz. of diluted nitric acid. But in the varying forms and degrees of ringworm, the remedies must be varied, and combined, according to the degree of irritation which prevails. The constitutional treatment is of consequence. A nutritious diet must be prescribed, containing a due admixture of animal food; the clothing must be warm; regular exercise must be enjoined; and a course of tonic medicines, such as iron or quinine, must be ordered.

2. Touch it with caustic ammonia.

3. Apply sulphate of copper, 20 grs., to 1 oz. of water. The same is good for *Itch*.

PAINTERS' COLIC.—This form of colic is caused by the slow introduction of lead into the system,—generally the carbonate of lead. It passes under the different English names of painters' colic, Devonshire colic, and dry belly-ache. The first of these is the name by which it is most commonly known, from its frequent occurrence among painters, who use white lead (carbonate of lead) a great deal in the preparation of their colors.

TREATMENT.—For relieving the pain and opening the bowels, the treatment should be very much the same as that for bilious colic. There is one article, however, which is thought to have some special influence in curing this disease, after it has become chronic; it is alum. Fifteen grs. of alum, 2 of aloes, 2 of jalap, and 4 of Dover's powder, may be mixed, and taken for a

dose 2 or 3 times a day. If the muscles of the arm be palsied, 1-16 of a gr. of strychnine may be added to the above. The aromatic sulphuric acid, taken as a drink, fifteen drops to the tumblerful of water, is always worthy of trial.

The use of the electro-magnetic machine may be tried for the palsy; or a splint applied to the arm and hand, with vigorous friction applied once or twice a day, will sometimes do much for recovering the use of the muscles.

But the best remedy for the palsied muscles that I know of is the following: Fl. ex. of sarsaparilla, 4 ozs.; fl. ex. of pipsissewa, 1 oz.; water, 1 quart; iodide of potassium, 2 ozs. Mix. Dose—A table-spoonful 3 times a day. The sulphuret of potassa, 1 oz., dissolved in a quart of water, and taken in tea-spoonful doses, 3 times a day, is also worth a trial. The affected arm should be soaked an hour, once or twice a day, in the same amount of this latter salt, dissolved in a gallon of water. The following is Dr. Gunn's treatment:

TREATMENT.—The treatment in this form of colic should be very similar to the bilious form. The first thing to be done, is to overcome the constipation of the bowels. If there is vomiting, give medicines to allay it. Then make use of strong purgatives, with hot fomentations to the bowels. Narcotics and relaxants are also indicated to relieve the pain, and overcome the spasms. As a narcotic and anodyne use the ex. of hyosciamus; take 20 grs., and form into 6 pills; give 1 every 2 hours. At the same time give the Anti-bilious Physic, and aid the operation with purgative, stimulating and relaxing injections. A portion of the physic, with a little salt, a tea-spoonful of tincture or powder of lobelia and hot water may be used as an injection, to be repeated according to the urgency of the case. Sometimes it will be well to add a little cayenne to it. Apply hot fomentations to the bowels, and if the physic does not operate in 2 or 3 hours, give the croton oil, 2 or 3 drops at a time, in a spoonful of castor oil, or a little milk, and repeat every 2 hours. Also rub a little of the croton oil on the abdomen, over the bowels. In other respects, treat the same as a severe case of bilious colic. It is sometimes well to put the patient into a warm bath, for half an hour, or even longer, in order to relax the muscular system, and overcome the spasm of the intestines. After you have got an operation on the bowels you may give the following pills: Ex. of hyosciamus, 40 grs.; ipecac, 20 grs.; pulverized opium, 10 grs.; podophyllin, 10 grs.; make into 20 pills, and give 1 every 3 or 4 hours. Also Cholagogue as a tonic and alterative.

Remarks.—The numerous persons who work in lead, should comb their hair with a fine comb, wash their hands and face, and rinse their mouth several times a day, and also wash the whole person with soap once or twice a week, and with clear water, or saleratus and water, once a day. Their working clothes should be of a kind to admit of being washed once or twice a week, and they should be put off for others when out of the workshop. A paper cap should be worn while at work. The food of the workmen should not be exposed to the vapors or floating particles of lead, and consequently should not be carried into the shop; and when much of the poison is floating in the air of

the work room, it is a good plan to wear a mask to prevent its being drawn with the breath into the throat and lungs.

It has been said that those who eat freely of fat meats, butter, and other oily substances are not attacked by the disease, though exposed to the poison. I know not what protection this can give, unless the skin is in this way kept more oily, which prevents the absorption of the poison. This would seem to afford a hint in favor of anointing the whole person once or twice a week with sweet oil.

STITCH IN THE SIDE.—This is a spasmodic affection of the muscles of the chest, and is rheumatic in its origin. With this there are not the symptoms of inflammation nor the difficulty of breathing, except that caused by the pain or stich in the side. Exposure to cold or violent exercise will also cause this. Apply warm applications, mustard poultices, or stimulating liniments. The best medicines in this case will be pills of colocynⁿ 3 grs., with ex. of colchicum $\frac{1}{4}$ of a gr. in each, taken every night; and 3 times a day a seidlitz draught, with 15 grs. of wine of colchicum and 6 of laudanum in each.

PROUD FLESH.—The granulations which arise when a sore is in progress of healing, sometimes project beyond the level of the surrounding parts, and form a red excrescence very irritable, easily made to bleed, and sometimes growing fast in spite of all that can be done to prevent it. Caustics of various kinds, as lunar caustic, or the blue vitriol, are to be applied, or red precipitate of mercury, and occasionally pressure, by straps of adhesive plaster or other bandages, is found useful.

1. **BED SORES.**—The constant pressure of certain portions of the body upon the bed or mattress frequently produces in invalids excoriations, which are known by the above name.

TREATMENT.—When the skin becomes red and inflamed, and painful to the touch, immediate steps should be taken to prevent if possible an abrasion of the skin. Mix two tea-spoonfuls of brandy with a wine-glassful of hot water, with 30 drops of tincture of arnica. Dab the part with this, and dry with violet powder. Or, either before or after the skin breaks, dip a camel hair brush into collodion, and brush the inflamed surface over, repeating the operation from time to time until the part is healed.

2. Saturate cloths with alcohol and apply; not painful and effects speed^y cure.

3. Bismuth powder is also good, and is just the thing for *chafing*. Covering the sore with clay dust or "mineral earth" is recommended also.

FITS OR CONVULSIONS IN CHILDREN.—Most persons have seen a baby in fits; and it is a sad sight,—its little face all distorted and livid; its eyes rolling and squinting frightfully; its hands clenched, and arms bent, and legs drawn up, and body arched backward, and limbs twitching violently,—itself insensible, and unable to see, or swallow, or move. After a time the fit ceases, sometimes by degrees, at other times suddenly,—the child fetching a deep sigh, and then lying quiet and pale, as if it had fainted.

From this state it passes into a sleep, and, on waking some hours later, seems quite well.

Fits may attack a child which is apparently well, and cause death immediately, or it may have fits daily, or even several times a day, and linger on for weeks. A child may have fits from a great variety of causes. Fits, therefore, have a different meaning in different cases. But they always show that the brain has in some way been disturbed.

TREATMENT.—As fits are not a disease in themselves, but only a symptom of some disease, the treatment must have reference to the cause. Sometimes, while the fit lasts, it is wise to do nothing. But, if a fit come on suddenly, in the case of a child previously healthy, it is generally safe to place it in a hot bath, and at the same time to dash cold water on its face, or to pour cold water on its head, or hold on it a large sponge dipped in cold water. The hot bath will draw the blood to the skin, and away from the over-loaded brain. It will quiet the disturbance of the system, and if scarlet fever or measles are about to appear, it will bring them out.

HYSTERIA—HYSTERICIS.—**TREATMENT.**—To treat this complaint successfully, it is necessary to search out its cause, and remove that. Like the whites, it is not so much a disease in itself, as a symptom.

The first inquiry to be made should have reference to the real origin of the complaint. Is it dependent upon inflammation of the ovaries or the womb, or to displacement of this latter organ; or does it arise from the low state of the blood, and the weakened condition of the nerves, acted upon by some irritation or heightened sensibility of the sexual organs.

If dependent upon inflammatory disease, that is to be treated according to directions elsewhere; if upon falling of the womb, no remedies will avail until that is put in its proper place. If diluted blood and weakened nerves be the cause, iron and quinine are the remedies. When the complaint arises from deficient menstruation, iron and aloes will be serviceable. The nervous spasm can sometimes be broken up by pouring cold water upon the head, or face, or limbs of the patient.

The Hygienic and Moral Treatment are of great consequence. The complaint is very much under the control of the will. Whatever tones the moral nature and strengthens the will, tends to subject this disorder to the control of the patient. Plain wholesome diet, exercise, bathing, and the enforcing, as far as possible, of a rugged, self-reliant habit, generally go far towards breaking its force.

TONGUE-TIED.—The tongue is fixed down to the lower part of the mouth by a membranous cord, which prevents too great a degree of motion. Sometimes the cord ties down the tongue of infants so much that they cannot suck. This is supposed by the common people to be the case much oftener than it really happens; and they very often request the surgeon to remove the inconvenience; but so long as the patient sucks there is no occasion for any operation. But it happens sometimes that the tongue is not perceived to be tied till the child begins to articulate, and is prevented from forming certain

letters for which a free motion of the tongue is requisite. At whatever time the operation may be necessary it is easily done by a pair of scissors; but the surgeon must be careful not to wound any of the neighboring large vessels.

1. GANGRENE.—TREATMENT.—When the result of cold, the part becomes first white, and a restoration of the suspended circulation should be attempted by rubbing with snow, if it can be procured; if not, with a coarse cloth or flesh-brush. No heat must be applied; even that of the bed-covering will sometimes set up inflammation. Camphorated spirit of wine is, perhaps, the best liniment that can be used. After the rubbing, if it appears to be at all effectual, apply cold poultices. If, in spite of these efforts, a discoloration of the skin shows that gangrene has really commenced, apply to the part a poultice of flaxseed with a little powdered charcoal in it, and also spirit lotions, to keep the disease from spreading. The constitution of the patient must be soothed and supported by some anodyne and stimulant. Cooper recommends from 7 to 10 grs. of carbonate of ammonia, with 20 or 30 drops of tincture of opium, 2 or 3 times a day or more frequently if required. A bolus composed of 5 grs. of carbonate of ammonia, with 10 grs. of musk, may be given every 4 hours, with excellent effect. When the gangrene has proceeded to a sloughing sore, a port wine poultice is a good application, as is spirits of turpentine, to stimulate the parts.

2. Apply yeast poultice mixed with charcoal powder, and renew the poultice often; or keep the part well covered with charcoal powder.

If, however, the gangrene is not stopped in its first stages, it can seldom be averted; and the only chance of saving the patient's life is to amputate the limb; and this must be done before the morbid influence has spread far towards a vital part.

BLOODY FLUX.—TREATMENT.—In mild cases, give a table-spoonful of castor oil and 2 tea-spoonfuls of paregoric, mixed, once a day. Sometimes, in place of the above, a dose of Rochelle powder, dissolved in water, with 30 or 40 drops of laudanum, may be taken. A moderate quantity of flaxseed or slippery elm tea, may be taken as a drink, and the bowels be well emptied by an injection of starch.

When there is much pain in the bowels, a mustard poultice laid upon them, will have a good effect. The starch injections should, in such case, have a $\frac{1}{2}$ tea-spoonful of laudanum mixed with it. The compound syrup of rhubarb and potassa will often act favorably, given in table-spoonful doses.

If there is reason to suppose the liver is affected, give podophyllin, or some other liver remedy recommended under the head of "Liver."

The patient should not be allowed to sit up, and must be kept very still, and be allowed only a very scanty diet, as flour porridge, well boiled, rice water etc.

RUPTURE (Hernia).—Children and old people are most liable to this, though sometimes they occur to persons of middle age. If difficult, or impossible to be returned, it is called strangulated rupture, and requires the best assistance.

TREATMENT.—The patient must be laid on the back, the head low, and the buttocks raised; while in this position the gut must be returned by a gentle pressure, if it does not fall back of itself. After it is returned, a piece of sticking-plaster may be applied over the part, and a truss, or bandage, worn for a length of time. If it has been forced down with great violence, or happens from any cause to become inflamed, it is often very difficult to return it, and sometimes impracticable, without an operation, a description of which is foreign to our purpose, but in those cases, until some assistance can be obtained, act as follows: foment with warm fomentations; give clysters; then, when the bowels have emptied, the operator must press and guide the gut back through the aperture, if possible to do so. An adult, after being ruptured, should never neglect wearing the proper truss.

HAY FEVER.—This disease is so called on account of its occurring during hay time, or summer, and is thought to be caused by the odor of new-mown hay; but it may be caused by other strong odors. It does not differ very much from the ordinary asthma, except perhaps there is not so much difficulty of breathing, and the attacks last longer in the hay-asthma; the lining membrane of the nose is also much more inflamed and the throat irritated in the latter disease. (Note 40, p. 792.)

The best thing to do is to remain within doors and keep quiet for a few days; take a few doses of Rochelle salts or rhubarb, also a tea-spoonful of paregoric at bed-time for two or three nights, and live on light diet. A dose or two of quinine (1 gr.) may be beneficial, night and morning.

Remarks.—Thousands of people go to Northern Michigan annually for this disease, and I have never heard of one that did not get relief—Northern Michigan is the surest cure in the world for Hay Fever.

VARICOSE VEINS OR ENLARGED VEINS.—The veins which lie near the surface, especially those of the legs, are apt, by exhausting labor upon the feet, and by strains, to get weakened, so that their valves lose their tone, and their sides stretch and give way in certain places, letting the blood bulge out, and form purple bunches. These bags of blood, lying along upon the surface of the limb, form knotty tumors, looking like blood boils. They occasion a kind of distress, but no sharp pain.

Persons of weak, soft, and relaxed muscles and blood vessels are particularly liable to this complaint. It often attacks women in the family way.

TREATMENT.—Where only a few veins are affected, it may be sufficient, in some cases, to apply firmly over them a few strips of leather, spread with soap plaster. But generally it is better to support the whole limb with a good cotton bandage, or with a laced stocking, which should be applied in the morning before the patient is up. It is generally also well to use friction with some liniment or iodine ointment. Lead water or alum water, or an infusion of white oak bark, may be used with advantage. Burdock and plantain leaves, bound upon the skin, and removed before they are dry, are useful. Showering with cold water strengthens the veins.

INGROWING TOE NAILS.—Those who have been afflicted with this affection have often found it to be very troublesome and painful, at least I have found it to be so myself. The edges or sides of the nail are disposed to turn down and grow into the flesh, giving rise to inflammation, ulceration, and often great pain and suffering.

For this difficulty the best remedy I have ever known is to scrape with some sharp-pointed instrument, as the point of a pen-knife, a sort of groove or gutter in the center of the nail, lengthwise from the root to the end. It should be scraped down to near the quick, or as thin as it can be borne. This makes the nail weak, so that it will gradually and ultimately turn up at the sides until the edges come above and over the flesh. Keep up this practice as fast as the nail grows out and grows thicker, and you will eventually succeed in getting the nail in its proper shape and position. It is a good idea to poultice if there is much inflammation, and also apply healing salve. If ulceration, bathe the parts occasionally with tinctures aloes, myrrh, and opium, mixed in equal parts.

1. **FEVER-SORES.**—One lb. fresh lard, $\frac{1}{2}$ lb. red lead, 1 table-spoonful soft water; put in an iron dish and cook until it turns to quite a dark brown; stir most of the time while cooking, and watch to keep it from running over; apply it, spread on a cloth, change twice a day.

2. The following has cured some very severe cases of fever sores, and is good for cuts and bruises in man or beast. Take a quantity of the bark of sumac root and boil for two hours; strain and add fresh lard to the liquid, then boil down until the water is all out; anoint the sore three times a day.

Remarks.—This salve cured a sore on a son of G. W. Childs, of Petoskey, Mich., from which pieces of bone had been taken. They had tried several things but all but this failed. Uncle Chancy Howard, Chardon, Ohio, cured a fever-sore of long standing, and up to the time of his death, some ten years ago, it had never bothered him. The above is also good for chilblains and ulcers.

CHOLERA.—**TREATMENT.**—There is one important precaution which ought to be observed at all times, but more particularly during the epidemic of cholera: the perfect *purity of the drinking water* should be ascertained, and its freedom from all *decomposing organic matters* made certain.

Care is also to be observed *not to take active purgatives*, especially *salines*, such as Epsom or Rochelle salts, seidlitz powders, etc., which produce watery evacuations; if aperient medicine is required, it ought to be of a warm character, such as magnesia and rhubarb, with some aromatic, (cinnamon or allspice), for whatever produces free action of the bowels apparently increases the susceptibility to attack. For this reason, too, *the slightest tendency to diarrhœa should at once be arrested* by a dose of paregoric or laudanum, or what is preferable, a mixture of prepared chalk, 1 table-spoonful; cinnamon or allspice powdered, 1 table-spoonful; white sugar and flour, 1 table-spoonful each, water, 1 wine-glassful; paregoric, 2 table-spoonfuls; Cayenne pepper, $\frac{1}{2}$ tea-spoonful. Mix, and take a tea-spoonful every half hour, or as may be needed, and the use of milk and farinaceous preparations (corn starch, farina, flour, etc.,) contain-

ing gelatine, for food. The speedy adoption of these measures, in places distant from medical assistance, might do much to check the disease. Should the astringents above recommended fail, use the remedies recommended below.

As to the actual treatment of the disease itself, when fully established, many different methods have been proposed and practiced, and few of them, perhaps without apparent advantage in some cases, but as yet no treatment which can be called decidedly successful (a cure), has been discovered.

The treatment which would be safe in the hands of others than medical men would be about the following: When vomiting and purging have set in, with cramps, give the following mixture: Tincture of Cayenne pepper, laudanum, spirits of camphor, of each 1 oz.; spirits of hartshorn, $\frac{1}{2}$ oz.; mix together, and take 1 table-spoonful every hour or half hour according to the symptoms. Or give 1 gr. of opium, 1 of camphor, 1 of Cayenne pepper, (made into a pill with a little flour and water) every hour, or as may be needed.

The patient should be wrapped at once in a blanket, or flannels next the skin. For the cramps use the following as a liniment: Tincture of Cayenne pepper, spirits of hartshorn, chloroform, turpentine, or kerosene oil, 2 ozs. of each. Mix, and rub over the affected parts with a woolen cloth. *Be careful to remove the contents of the chamber from the room immediately and bury it in the ground.* Also mix with the discharges from the stomach and bowels, as soon as voided, some sulphate of iron (common green vitriol), also dissolve some of the green vitriol in hot water, and set the same in vessels around the room and in the different parts of the house; and then throw some down the sinks, privy, cellar, and such places, once every day. Keep the sick chamber well aired, and by all means try to cheer and comfort the patient, so as to keep up his spirits. A mixture of mustard and Cayenne pepper moistened with strong vinegar, applied to the stomach and bowels is good to check the vomiting and purging, or applied to the limbs for cramps.

During the prevalence of this disease the greatest care is necessary in regard to cleanliness, ventilation, etc. It may be mentioned also that warm bricks or warm stones, irons, or hot salt should be applied to the limbs or body where there is coldness or cramps. An injection up the bowels of $\frac{1}{2}$ a tea-spoonful of laudanum, 4 or 5 table-spoonfuls of brandy or whisky, with a little thin starch, is often very beneficial in the active stage of this disease, to be repeated if necessary.

1. **ULCERS.**—A chasm or vacancy formed on the surface of a part, whether external or internal, by the absorbent vessels removing parts back into the system. Ulceration takes place more readily in the cellular and fatty substance, than in muscles, tendons, blood-vessels, and nerves. For treatment by bandaging, see page 82.

2. **Simple Purulent Ulcer.**—Some ulcers are covered with matter of a white color, of a thick consistence, and which readily separates from the surface of the sore. There are a number of little eminences called granulations, which are small, florid, and pointed at the top. As soon as they have risen to the level of the surrounding skin, those next the old skin become smooth, and

are covered with a thin film, which afterwards becomes opaque, and forms skin. The principal thing to be done in the treatment of this kind of ulcer, is to keep the surface clean by putting on a little dry lint, and a pledget over it, covered with very simple ointment. In some patients ointment irritates and inflames the neighboring skin. Bandages sometimes irritate the sore, and disturb the healing process; but when they do not, they are useful in giving a moderate support to the parts, and in defending those that are newly formed.

3. Ulcers in Weakened Parts.—Other ulcers are in parts which are too weak to carry on the actions necessary to their recovery. In them the granulations are larger, more round, and less compact than those formed on ulcers in healthy parts. When they have come up to the level of the healthy parts, they do not readily form skin, but rising still higher, lose altogether the power of forming it. When the parts are still weaker, the granulations sometimes fill up the hollow of the ulcer, and then are suddenly absorbed, leaving the sore as deep as ever. Ulcers are very much under the influence of whatever affects the constitution; so that change of weather, emotions of the mind, diet, and other agents, quickly occasion a change in their condition. Such ulcers as we have been describing, require general as well as local treatment; bark, wine, porter, and other cordials and tonics are to be given; and the granulations are to be kept from rising too much, by the prudent application of blue vitriol, lunar caustic, and the like, weakened sufficiently by proper admixture of ointment to act as stimulants, and not as caustics. This will give a proper and healthy action to the granulating surface; whereas the destroying of the rising parts by escharotics seems rather to encourage the growth. Bandages and proper support to the parts are highly useful. These ulcers, in weak parts, do not seem to be the better of poultices, or other relaxing applications; powders rarely do good, and perhaps the best dressing is the citrine ointment, more or less diluted.

4. Irritable Ulcers.—There are certain ulcers, which may be called *Irritable Ulcers*. The margin of the surrounding skin is jagged, and terminating in an edge which is sharp and undermined. There is no distinct appearance of granulations, but a whitish spongy substance, covered with a thin ichorous discharge. Every thing that touches the surface gives pain, and commonly makes the ulcer bleed. The pain sometimes comes on in paroxysms, and causes convulsive motions of the limb. Such ulcers seldom do well without a frequent change of treatment. Fomentations with poppy heads, chamomile flowers, or hemlock leaves, are sometimes of use in irritable ulcers. When poultices are prescribed, they should never be allowed to rest or bear weight on the sore limb. Powdered applications are generally too stimulating for irritable ulcers, and bandages also prove hurtful.

5. Indolent Ulcers.—These ulcers are those which have the edges of the surrounding skin thick, prominent, smooth, and rounded. The surface of the granulations is smooth and glossy; the matter is thin and watery, and the bottom of the ulcer is nearly level. A great proportion of the ulcers in hospitals are of the most indolent kind. Indolent ulcers form granulations, but

frequently they are all of a sudden absorbed, and in four and twenty hours the sore becomes as much increased in size as it had been diminished for many weeks. The principal applications required for indolent ulcers are those of a stimulating nature, as the basilicon ointment, and occasional sprinkling with red precipitate. Pressure is to be made by a roller, and by slips of adhesive plaster. Scrofulous, syphilitic, and cancerous ulcers are to be treated according to the methods laid down under these various diseases.

PALSY.—A disease in which some part of the body is affected with the loss of the power of motion. It may be of all degrees, from a universal attack of the whole body, or a complete palsy of one of the sides, to the palsy of a single finger, or a few fibres of a muscle. It proceeds from the same causes as apoplexy, and is in reality often a modification or partial attack of that disease. The disease is also brought on by mere loss of nervous power, as when the brain “gives way,” in hard-worked literary men. When a patient, by proper remedies, or the powers of nature, recovers a little from an attack of apoplexy, it is very common for him to be seized with palsy.

Palsy sometimes comes on suddenly, at other times there is numbness, coldness, and paleness of the part about to be affected. Sometimes the judgment and memory are impaired; the speech is imperfect from the disease of both body and mind; the mouth and cheeks are distorted, and the countenance is expressive of much anxiety. When the lower extremities are partially affected, the patient drags them after him.

Causes.—The same causes that excite apoplexy, occasion palsy when applied in a less degree; therefore tumors, wrong determination of blood, bruises, pressure on nerves, the drying up of usual evacuations, are often found to induce palsy. When one side of the body is palsied, the disease is termed *hemiplegia*, and when the lower part of the body is affected the disease is called *paraplegia*. Certain sedative substances, long applied, produce palsy of some parts of the body, as we see in those who work among lead, and are affected with the Devonshire Colic; one remarkable symptom of which is the palsy of the thumbs and calves of the legs. Palsy is not unfrequently produced gradually by some tumor or other disease pressing on the vertebræ of the back; and this is commonly the cause of the palsy of young people.

Prognosis.—It is generally unfavorable. Palsy does not suddenly prove mortal. Its cure is the more difficult the more the senses are injured; and such cases commonly continue till the end of life, often very remote. When palsy follows apoplexy, or happens in old people, it is seldom cured. The palsies of young people are sometimes recovered from. If convulsions occur in the parts opposite to those that are palsied, the danger is great. When palsy occurs from pressure or blows on the spinal marrow, or on any large nerves, it is generally hopeless, and the dragging of the limb is seldom got completely the better of.

TREATMENT.—When palsy comes on suddenly, it is proper to treat it as we do apoplexy sometimes, by bleeding, by purging, by blisters to the head; and when the acute symptoms are in some measure relieved, we apply stimulants to the limbs, or weakened parts, if they are within our reach. When

the case is of longer standing, and the constitution is in a state of debility, those evacuating measures would be improper; and instead of them we must be contented with stimulating applications, aided by such exercise as the patient is able to take. It is surprising how much may be done in cases apparently very hopeless. The patient must not be discouraged at the apparent bad success of his first efforts at motion, but must persevere, and his perseverance will probably at last be rewarded. The applications proper for palsied limbs are such as the following: Ammoniated oil, camphorated oil, cajeput oil, when it can be got; turpentine and oil, warm sea-water, warm salt, stinging with nettles, mustard, etc. Great benefit is often derived from strychnia, but this drug is so powerful that it ought to be given only by a medical man. Electricity and galvanism are also frequently had recourse to; also the use of the Bath or other mineral waters pumped upon the palsied limbs. Our choice of internal medicines must be determined by the state of the constitution. If there be any excitement, or inflammatory tendency, or any probability that the palsy may be followed by apoplexy, all internal stimulants must be avoided; and it is only in old cases, unattended by fever, that we are to give such medicines as guaiac, iron, aromatics, or the like. Paralytic limbs should be kept warm, and well covered with flannel. The diet should be light and nutritive. The patient should take what exercise he can; and if he is unable to do it by his own exertions, he must have it by a carriage, or by sailing, or by a swing. In the palsy of the lower limbs from diseases of the spine, issues to the back, or to the neighborhood of the diseased vertebræ, are of great service. (See Apoplexy.)

Remarks.—Many astonishing cures have been effected by taking the mineral baths at Mt. Clemens and Ypsilanti, Mich. There may be other places, and I have no doubt there are, where the mineral waters will have the same effect. I only speak of these from my own knowledge.

Palsy in children occurs pretty frequently, and attacks infants and young persons in different degrees. It often attacks one side at first, and gradually comes on the other side. It is generally attended with costiveness and deranged state of the bowels; and, accordingly, a course of purgative medicines of considerable activity, as jalap and calomel, or rhubarb and calomel, in no long time effects a cure. Blistering on the head, or on the palsied limb, may be tried; and leeches to the temples, when the head is much affected. If the palsy is owing to water in the head, it is to be feared the case is hopeless. Tonic medicines and external stimulants are proper, when there is no fever present. Electricity is often a valuable assistant to other remedies.

SUFFOCATION.—Is the extinction of life by the function of breathing being violently stopped. This may happen from hanging and drowning; from blood or matter bursting from the lungs into the branches of the wind pipe; from inflammation or croup, producing a false membrane or thickened mucus in the air passages from foreign bodies sticking in the same; from large pieces of meat in the gullet pressing on the back of the wind pipe; and many similar incidents. Where the suffocation is complete nothing can be done; but where it is only threatened the proper means of relief are to be had recourse to, varying, of course, according to circumstances. Foreign bodies

are to be extracted, if possible, from the windpipe, and vomited from the gullet, or pushed down into the stomach; and the means for restoring suspended animation to be employed in the case of hanging and drowning.

SUFFOCATION FROM HANGING.—Immediately remove all clothing from the upper part of the body, and follow the directions under Artificial Respiration to restore breathing.

SUFFOCATION FROM GAS AND OTHER NOXIOUS VAPORS.—Immediately remove the person into the open air, and throw cold water upon the face, throat and chest, expel the foul gas from the lungs, and restore respiration by means prescribed for Artificial Respiration. As soon as you discover the least breathing, hold strong vinegar to the nostrils. Should the suffocation be from breathing carbolic acid gas, chloride of soda or a solution of chloride of lime, is preferable, sometimes moistening a cloth, with either of the solutions, and holding it to the nose, will produce the desired effect. Oxygen should be forced into the lungs if it can be produced. Excite warmth in the manner prescribed for "Drowned Persons" on pages 80 and 81. Where suffocation is caused by fire-damp in mines, wells, etc., remove the person at once and treat as above.

SUSPENDED ANIMATION FROM COLD.—When a person is apparently frozen to death, the body should be handled very carefully, and be very careful not to bend the joints; have the body in a cold place, and rub the same from head to foot with cold water or snow, for fifteen or twenty minutes, until the surface is red, then wipe the body perfectly dry and rub with bare warm hands; it is better if several persons will join in this rubbing, and then wrap the body in a woolen sheet, and follow the directions as in "Artificial Respiration" to restore breathing. This treatment must be continued with energy for several hours if necessary, and until animation and respiration are thoroughly restored. Allow the patient to swallow a little lukewarm water and wine or red pepper, or ginger tea.

STRICTURE OF THE RECTUM.—In many cases this is the result of an inflammatory process, simple or syphilitic, from the cicatrization of deep-seated and extensive ulceration; in others, it is due to the contraction of inflammatory material poured out external to the bowel in the sub-mucous tissue; in exceptional instances it may be caused by contraction of the parts external to the bowel, after pelvic cellulitis, and Curling quotes a case where it was the direct result of injury.

The disease, taken as a whole, is twice as common in women as in men, my note book revealing the fact that thirty-two out of forty-eight consecutive cases were in this sex. But syphilitic stricture is more common in the female, and cancerous stricture in the male.

Constipation is the one early symptom, and it is not till some ulceration has commenced, either at the stricture or above it, that others appear, such as diarrhœa, with lumpy stools, containing blood, pus or mucus, straining at stool and a sensation of burning afterward, with at last a complete stoppage, abdominal distension and dyspeptic symptoms.

An examination with the finger carefully introduced into the rectum will, as a rule, at once reveal the true nature of the case, for about two inches up the rectum the narrowing will be felt, with or without new tissue infiltrating the part or ulceration. In exceptional cases the stricture is beyond the reach of the finger; under these circumstances, however, it may, at times, be brought within reach by pressing with the free hand upon the abdomen above the pelvis.

The examination of a rectum, the subject of disease with a tube, flexible or otherwise, requires the greatest care and gentleness. Fallacies may mislead the surgeon in every way, the end of the instrument striking against the sacrum, or being caught in a fold of mucous membrane, may lead him to suspect obstruction where none exists. But if some warm fluid, as linseed tea, be injected somewhat forcibly through the tube, a place is formed admitting the easy transit of the instrument. In stricture pain is felt when an instrument reaches the point of contraction, and a flexible one is arrested or passed on with more or less difficulty.

TREATMENT.—It is so rare for a surgeon to be consulted about a stricture of the rectum till the ulcerative stage has set in, or nearly complete obstruction has taken place, that he has few opportunities of testing the value of dilatation of the stricture, for, although this practice is clearly useless if not injurious when ulceration exists, it is probably of great value before any breach of the surface has taken place. In cicatricial or inflammatory strictures, indeed, it is the only form of practice upon which reliance is to be placed, but in the cancerous, whether in the ulcerating style or not, it is not wise to make the attempt.

The dilatation is to be effected by mechanical means, and many instruments have been invented for the purpose. The elastic gum bougie, in the hands of the surgeon is, however, the best; forcible dilatation is inadmissible. They are made in many sizes, and the one just large enough to pass through the stricture should be chosen. It should be warmed and well greased, and guided by the finger passed gently through the stricture, and retained for ten or fifteen minutes at a time. When it does not produce any irritation, a second larger, may be passed in two days. But when irritation has set in, the repetition of the operation should be suspended until it has subsided. By these means a simple stricture may be checked in its progress, and even dilated, but rarely cured; this practice may prolong life for years. Mr. Curling has, however, given a case in his book in which he believes he cured an annular stricture in a lady, aged 24, by incisions and dilatation.

This dilatation is, however, only a means to an end, and that end is to secure a passage for the intestinal contents. Enemata are valuable aids to effect this purpose, the daily washing out of the bowels with gruel and oil giving great relief to the daily dose of mist, olei with manna, confection of senna with sulphur, or any other gentle laxative that the patient has found to suit. Cod liver oil in full doses often acts as a laxative as well as a tonic. Care must, however, be observed in the introduction of the tube, for a cancerous bowel perforation is very apt to occur, and even in a healthy one the same accident has taken place.



SARSAPARILLA.

(See Description.)

Used in all Diseases of the Blood,
Eruptive Skin Diseases, etc.



WILD CARROT.

(See Description.)

Used in Kidney and Bladder Complaints,
obstructed Meneses, Dysentery, Chronic
Coughs, etc.



MUSTARD.

(See Description.)

Used externally to allay pain, and
internally as an emetic.

How far it is safe to allow a patient to pass a bougie for himself or herself, is another question. I am disposed to think it is an unwise act to allow when the bougie is solid, for I am sure I have seen great irritation and harm follow upon the practice, and in several cases deep seated suppuration. Curling has given a case where the patient caused his own death by perforating the bowel, half an inch in extent, above the stricture. I have, consequently, been in the habit of instructing my patients to use candles as bougies, and have been well pleased with the practice.

There comes a time, however, when this treatment by dilatation ceases to be beneficial; when the stricture has so closed as to render it useless; or ulcerated so as to render it unwise to adopt the practice; or associated with so much distress as to forbid its use; and under these circumstances the practice of *colotomy* is of great value; it gives comfort to a degree that sometimes astonishes, and always gratifies. On convalescence or recovery, it is not found to be practically associated with such inconveniences as surgeons of old have practically surrounded it. It prolongs life and adds materially to its comfort, and little more than this can be said of most operations. But it must not be postponed till the powers of life have become so exhausted as to render the chances of recovery from the operation poor; or till the large intestine has become so distended as to have become damaged or inflamed. It should be undertaken as soon as it is clear that the local disease has passed beyond the power of local treatment with any prospect of good, and the general powers of the patient are beginning to fail; as soon as the local distress finds no relief from palliative measures, and a downward course, with unmixed anguish, is evidently approaching. The difficulties of *colotomy* are not great, nor are its dangers numerous. When unsuccessful, it is usually made so from the delay in its performance; from want of power in the patient; or death has resulted from the secondary effects of the disease on the abdominal viscera.

When most successful, it gives immediate relief to most of the symptoms, and makes life worth living. When least so, by lessening pain, it renders what remains of life endurable. The operation is now regarded as established, and creditable to surgical art, and according to Curling; but, in the general way, it has been postponed until too late a period to demonstrate its value.

HYDROPHOBIA. — **TREATMENT.** — Cut off the bitten part, or apply dry cupping, or suction, at once. Also the caustic potash. The internal remedies heretofore employed have had little success. Perhaps nothing now known promises more than to keep the patient, for a long time, under the influence of chloroform or ether. The tincture of scullcap, in 2 or 3 dram doses, will allay the nervous agitation, and is always worth using. It has been proposed to clear the throat of the tough mucus by cauterizing it with a strong solution of nitrate of silver applied with a shower syringe. The remedy is worthy of a trial.

Some of the Western physicians declare the red chickweed, or scarlet pimpernell, to be an absolute remedy for this disease, and cite some quite remarkable cases of its success. Four ozs. of this plant, in the dried state, are directed to be boiled in 2 qts. of strong beer or ale, until the liquid is reduced

one half. The liquid is to be pressed out and strained, and 2 drs. of laudanum added to it. The dose for a grown person is a wine-glassful every morning, for 3 mornings. A larger dose is required if the disease has begun to show itself; and if the case be fully developed, the whole may be taken in a day. The wound is to be bathed with the same decoction. The medicine, it is said, produces profuse sweating. It is worth a trial.

Considerable has been said of late of a remedy used in some parts of Europe, and said to be effectual. It is the "golden cenotides" (*cectonia aurata*), or common rose beetle, found in large quantities on all rose trees. A similar insect is said to infest the geranium plant. When collected, they are dried and powdered; and given in this form, relieve excitement (so it is said) of the brain and nerves, and throw the patient into a sound sleep. (Note 28, p. 791.)

HEARTBURN.—What is commonly called heartburn is not a disease of the heart, but an uneasy sensation of heat or acrimony about the pit of the stomach, accompanied sometimes by a rising in the throat like water.

Causes.—Debility of the stomach; the food, instead of being properly digested and turned into chyle, runs into fermentation, producing acetic acid; sometimes the gastric juice itself turns acid, and causes it; at other times, it arises from bilious humors in the stomach.

TREATMENT.—Take 1 tea-spoonful of the spirit of nitrous ether, in a glass of water or a cup of tea; or a large tea-spoonful of magnesia, in a cup of tea, or a glass of mint-water.

DISEASES OF THE HEART.—The heart, from the important part which it plays in the animal economy, is subject to various, serious and often fatal diseases. Like the other viscera, it is removed from the eye, so that but little knowledge of its condition can be obtained by inspection; and hence we must have recourse to other means. The ear is the principal means of obtaining a knowledge of the state of the heart, and by auscultation and percussion we are enabled to detect the existence of various diseases. The heart gives out two sounds, known as the first and second, which are distinguished from each other. The first sound is longer than the second, and the interval between the first and second sounds is shorter than that between the second and first. They have been compared to the two syllables *lupp*, *dupp*. Any manifest alteration in these sounds is indicative of the existence of disease. They may be high or low, clear or dull, muffled, rough, intermittent, etc. Murmurs or regurgitant sounds may arise from disease of the valves. The power of distinguishing between the normal and abnormal sounds of the heart, and of the causes producing the latter, can only be obtained by lengthened experience. Diseases of the heart are usually divided into two classes: first, functional or nervous; and second, structural or organic. Chief among the former are palpitations, syncope or fainting, and angina pectoris. They are chiefly to be met with in persons of a naturally nervous temperament, more especially women suffering from hysteria, or other like complaints, and may be induced by great mental excitement. In such cases great attention should be paid to the general health, and, by means of tonics, sea-bathing, and gentle open-air exercise, the system is to be strengthened. Violent exertion and strong

mental excitement are particularly to be avoided. Among the principal organic diseases to which the heart is subject are pericarditis, carditis, endocarditis, atrophy, hypertrophy, dilation and valvular diseases.

TREATMENT.—In all cases of heart disease, the body and mind should be kept as easy and cheerful as possible. The diet should be well regulated,—nourishing but not stimulating. Coffee, tea, liquors, and tobacco must be dispensed with. The feet should be constantly dry and warm, and occasionally rubbed with mustard.

For inflammatory diseases of the heart, the bowels, if costive, may be moved with compound tincture of jalap. To each dose add 10 grs. of cream of tartar. Keep up a perspiration till the pain is relieved, by giving a tea-spoonful of compound tincture of Virginia snake-root; also a warm infusion of pleurisy-root. Mustard-plasters over the chest and spinal column are also to be employed. If the patient is troubled with sleeplessness, give 8 to 10 grs. of compound powder of ipecac and opium.

For palpitation, the tincture of digitalis, 10 or 15 drops 3 or 4 times a day, has been found useful. When the nervous system is affected, give small quantities of wine or spirits, or a few drops of laudanum or ether.

For neuralgia, or breast-pang, give a tea-spoonful of a mixture of equal parts of laudanum, ether, and oil of castor. The powder of Indian hemp-root may also be taken in doses of a small tea-spoonful 2 or 3 times a day. If the stomach is acid, a tea-spoonful of soda in half a tumbler of water will correct it.

1. INFLAMMATION OF THE LIVER.—**TREATMENT.**—When the bowels are confined, usually termed a costive state of the bowels, 1 pt. of warm water, 1 table-spoonful of salt, and 1 tea-spoonful of hog's lard, as a clyster, will give relief; or take one or two of the following liver pills at bedtime:

Dr. Chase's Cathartic and Liver Pill.—Take podophyllin, 60 grs.; leptandrin, sanguinarin, ipecac, and pure cayenne, each 30 grs.; make into 60 pills, with a little soft extract of mandrake or dandelion. This is the best pill I have ever used, as a cathartic and liver pill, and to act on the secretions generally. As a purgative the dose is from 2 to 4 pills, for a grown person; and as an alterative and substitute for blue mass, and to act on the liver, 1 pill once a day, or every other day.

Remarks.—Should you not wish to go to the trouble of making this pill, inquire at the drug store for it, or send 25 cents to the Chase Medicine Company, Detroit, Mich., for it.

When, from any cause, the languor, sleepiness, furred tongue, etc., give notice of an impending bilious attack, 4 or 5 of the liver pills should be taken at night, and followed in the morning by a dose of infusion of senna and salts, or a dose of castor oil. Extract of dandelion made into pills with 1 gr. of leptandrin to each pill, 1 taken every night, is an excellent remedy. From a long practical experience I have found that the dandelion is a most valuable medicine for this complaint, and there are herbs to cure all diseases provided by our Heavenly Father, if we would but seek them out and test

their virtues. But experiments on this subject have been too much neglected to afford us all the information we need. I have found the use of the dandelion in the treatment of this disease to be a most valuable remedy. Indeed I may here observe that in the treatment of liver complaint the same precautionary remarks as those on indigestion, will also apply to this disease—that sick headache, foul tongue, or heaviness in the region of the stomach, will indicate the necessity of giving a mild emetic of ipecacuanha; and should there be great heat, inflammation, or feverishness, the use of warm lemonade or a dose of salts mixed in warm water, and bathing the feet in warm water, so as to produce perspiration or determination to the surface will afford relief. Should the bowels be costive, regulate them with the following valuable pills: Take extract of butternut, 30 grs.; powdered jalap, 20 grs.; soap, 10 grs. Mix. Make 15 pills. Three or 4 is a dose. The extract of butternut has been found one of the best cathartics in fevers, and as a general purgative medicine.

Dr. Wilson, in the *Medico-Chirurgical Review*, says: “The more the dandelion is employed the more certain proofs it will afford of its great virtues,”—a fact to which my experience enables me to testify. In my own practice, more than a hundred cases have been cured either by the simple extract of the herb and root, or by taking a tea-cupful of a strong decoction of dandelion twice a day. In almost every instance I have succeeded in relieving and restoring those who have used this most valuable plant of the fields.

2. The dandelion is diuretic and aperient, and has a direct action upon the liver and kidneys when languid; and is likewise applicable to all derangements of the digestive organs generally. In chronic inflammation of the liver and spleen, in cases of deficient biliary secretions and in dropsical affections of the abdominal viscera or belly, it will be found very beneficial. The inspissated (thick) extract is the most efficacious and active form of using this plant, and may be purchased at any drug store; the doses of these are from 10 grs. to $\frac{1}{2}$ dr. I have, however, generally used it in a decoction as before mentioned.

3. The constant application of hot poultices relieves the pain and hastens cure. This is good for inflammation of any of the internal organs.

For disordered liver, good strong thoroughwort (boneset) tea is a mother's cure. For thorough case of biliousness there is nothing better than Dr. Chase's Cholagogue; it combines the antibilious ingredients that act directly upon the liver in a mild and pleasant form, and is very effective in all malarial diseases.

1. **BRAIN—Inflammation or Concussion of.**—The name given to the injury supposed to be received by the brain from great violence inflicted on the head, when there is no organic injury discovered, neither fissure, fracture, nor extravasation, either in the living or dead body. The same symptoms occur when the head has not received any external injury, and when the shock has appeared to have been sustained by the whole frame. A person may fall from a height, light on his feet, and yet be affected with all the symptoms of concussion of the brain. These vary in degree from the slight stunning which follows almost every violence done to the head, to the loss of all sense and

motion which is soon followed by death. Dr. Abernethy thinks that the symptoms of concussion may properly be divided in three stages; the first is that state of insensibility and derangement of the bodily powers which immediately succeeds the accident. The breathing is difficult, but in general without stertor or snoring; the pulse intermits, and the extremities are cold. This goes off gradually, and is succeeded by the second stage; in this, the pulse and breathing are better, and though not regular, are sufficient to maintain life, and to diffuse warmth over the extreme parts of the body. The patient is inattentive to slight external impressions, though he feels when the skin is pinched. As the effects of concussion diminish, he replies to questions put to him in a loud tone of voice, particularly if they refer to his own suffering; otherwise he answers incoherently, and as if his attention was occupied by something else. While the stupor remains there appears little inflammation of the brain, but as the stupor abates, the inflammation increases; and this constitutes the third stage. Much caution and prudence are required in the treatment of the first stage. A person is knocked down and becomes insensible; many have seen or heard of bleeding being employed when a person has fallen down suddenly, and the bystanders impatiently require that this shall be the first article of the treatment. But the breathing is slow, the pulse intermitting and the extremities cold; and to draw blood in such circumstances as these would be taking the effectual method completely to extinguish life. Again, suppose people were to reason from the resemblance of the state in which the patient is in, to that of a person in a faint, and should as in that case give stimulant liquors by the mouth, or apply pungent substances to the nose, there is danger here, that by such appliances, the subsequent inflammation may be increased. The utmost that should be tried is the endeavoring to restore the heat of the extremities by friction with warm cloths or with stimulating embrocations; we must wait a little till we see whether the patient recovers from the first stunning effect of the blow, and then be regulated in our future treatment by the symptoms that occur. Those that we are principally to look for are those of an inflammatory tendency; and to prevent the evils arising in the after stages of concussion, we are to employ bleeding and purging, to keep the patient in a dark room, to enjoin perfect quiet, and to put in force the anti-phlogistic (inflaming) regimen.

2. Brain—Inflammation of.—Inflammation of the brain and its membranes is characterized by very violent feverish symptoms, great flushing of the face, redness of the eyes, intolerance of light and furious delirium; the skin is hot and dry, the pulse hard and frequent, the bowels are costive, and there is a great feeling of tightness across the forehead.

Causes.—These symptoms are occasioned by passions of the mind, by drinking spirituous liquors; and in warm climates by exposure to the sun forming what is called *sun-stroke*.

TREATMENT.—Quiet both of mind and body with cooling aperient medicines, abstinence from all rich and stimulating food and drink is the proper treatment; in those of spare, weakly habit, it is sometimes owing to want of vital energy, and in this case the diet should be rich and stimulating; and the

aperients, if required, must be of a cordial nature; but all this should be left to the medical practitioner; the disease too nearly affects the issues of life and death to be tampered with, and a doctor must be called.

1. THROAT, INFLAMMATION OF.—Quinsy and sore throat are names of an acute disease, of which the seat is in the mucous membrane of the upper part of the throat, and all the surrounding parts of the muscles which move the jaws. The tonsils or almonds of the ears, are especially affected, and the inflammation extends to the pendulous *velum* of the palate and to the uvula. Commonly, shiverings and other symptoms of approaching fever precede the affection of the throat, which is attended with pain and difficulty of swallowing, the pain sometimes shooting to the ear; there is also troublesome clamminess of the mouth and throat; a frequent but difficult discharge of mucus; and at an early period of the disease the fever is fully formed. The inflammation and swelling are commonly most considerable at first in one tonsil; and afterwards, abating in that, they increase in the other. The disease is not contagious. When the disease is actively treated at an early period, it abates gradually, or is said to end in resolution; but very often it goes on to suppuration, and the pus which is evacuated is of the most fetid and nauseous kind. Very soon after the abscess breaks, great relief is obtained, and the pain and difficulty of swallowing cease.

Causes.—The most frequent cause is cold, externally applied, particularly about the neck. It is chiefly the young and sanguine who are affected; and when a person has had sore throat once or more, he is very liable to frequent repetitions of it, so that the slightest exposure to cold, or getting wet feet, will bring on an attack of the disease. It occurs especially in spring and autumn, when vicissitudes of heat and cold are frequent.

Remarks.—The principal point in the diagnosis of this disease is to distinguish it from the sore throat which attends scarlet fever; in some varieties of which the rash is inconsiderable, although the disease of the throat goes rapidly on to gangrene, accompanied with a destructive fever of the typhoid kind. The distinction between the two kinds of sore throat is of great importance, as it most materially influences our practice. It is, in general, easily made by proper attention. The smart fever, the difficulty of swallowing, and the bright florid redness of the parts, mark out the inflammatory sore throat with sufficient distinctness; and we are in many cases assisted by observing the person affected to be often subject to the disease, which occurs soon after the application of cold. The dangerous and malignant sore throat is known by the dark and livid color about the fauces, by the appearance of specks on the part, which rapidly spread and form sloughs; and by the circumstance of scarlet fever being the prevailing epidemic. The treatment proper in inflammatory sore throat would be destructive here. And it is probably the knowledge that some sore throats are so dangerous, that makes many people much alarmed when a quinsy seizes themselves or any of their family.

TREATMENT.—When sore throat is threatened, it may in many cases be prevented from coming forward, by using a strong astringent gargle. Of these,

there is a great variety. As useful a one as can be made is that with diluted vinegar, a little sweetened with honey or sugar. The infusion of red rose leaves, acidulated with a few drops of sulphuric acid, forms a very elegant gargle. The same purpose may be served by gargling with strong spirits, or with the decoction of oak-bark or diluted spirit of hartshorn not so strong as to hurt the mouth. A blister behind the ear, extending from under the lower jaw to the wind-pipe, will almost certainly prevent the internal disorder of the throat; but it must be put on at the early part of the disease, or it will do no good. If this is not done, Dr. Chase's Liniment should be rubbed on the under jaw, below the chin. An emetic may be given at the commencement of the disease, but a saline purgative is better. Gargles must be used with incessant diligence as long as the disease continues. Jellies of preserved fruits, vegetable acids, or good sharp small beer, may assist the gargles in keeping the mouth clean and allaying the thirst; but the difficulty of swallowing is so great that the patient is very apt to save himself the pain, and let the throat get dry. However, a resolute draught occasionally to quench the thirst, gives little more pain than swallowing the spittle. A little bit of sal ammoniac, or sal prunella, allowed slowly to dissolve in the mouth, is useful. If there is much swelling, and pain in swallowing, 4 or 5 leeches may be applied outside the throat, and afterwards large bran poultices should be assiduously kept on. At the same time marked relief will be got by inhaling the steam of hot water, impregnated with vinegar or any aromatic; and if there is a tendency to suppuration, this is a good way of ripening the abscess, which often forms in the tonsils. As the sore throat and fever are sometimes relieved by perspiration, the patient should keep his bed for a few days. Sometimes the swelling is so great that nothing can be swallowed, and the breathing is impeded. The tonsils have been scarified, or the abscess has been opened, and the operation of opening the wind-pipe may be sometimes required. Happily those very violent cases are of rare occurrence.

2. The yolk of a raw egg is excellent for sore throat of public speakers.

3. Gargle frequently with hot water and vinegar in which black pepper has been boiled.

Remarks.—I would add: apply to the throat flannel cloths wrung out of hot water and vinegar, covering them with dry ones. (See receipts for sore throat elsewhere.)

1. INFLAMMATION OF THE LUNGS.—This disease requires prompt treatment, and of course, if possible, a physician should be called at the earliest moment. When one is not to be had conveniently, let no time be lost, but pursue the course here marked out, which in a great many cases will be the means of curing the disease, or checking it while medical aid is being procured.

TREATMENT.—Open the bowels by means of an injection, and also giving some mild purgative, such as castor oil, Epsom or Rochelle salts, or rhubarb. Apply leeches, 10 to 20 to the side affected, if they can be procured; if not, scarify (to scratch or cut the skin off) and apply the cups, (cupping is the operation

of drawing blood after the skin has been scratched off) after which a warm poultice of bran, Indian meal, or linseed meal or slippery elm, etc., to be sprinkled over with a little laudanum or paregoric; to be applied frequently. Small doses of ipecac, either in powder or the syrup, should be given every 3 hours, just so as to produce slight *nausea but not vomiting*. When this has been continued for about 12 hours, then use the following mixture: Water, 8 ozs. (1 gill); syrup of ipecac, 1 table-spoonful, or 5 grs. of the powder; chlorate of potash, 1 dr., or about 1 tea-spoonful; spirits of nitre, 2 table-spoonfuls. Dose—A tea-spoonful every 3 hours; if much sickness of the stomach is produced, not so often. Let the patient have plenty of cooling drinks, such as flaxseed tea, gum arabic, or slippery elm water, toast water, etc. The bowels to be moved occasionally by a dose of castor oil.

Dr. Scudder's treatment of this disease is so *short, plain and effective*, I will give it in his own words. He says:

"Have the person bathed with an alkaline wash, to prevent undue heat of the skin, and apply a poultice of bran, or corn meal to the chest, changing it twice a day, keeping the patient well covered. Give internally, tinct. of veratrum, 1 dr.; tinct. of aconite, 20 drops; water, 4 ozs.; a tea-spoonful every hour until the fever is *subdued*, and then in smaller doses. On the *third*, or *fourth* day, add a solution of acetate of potash as follows: Acetate of potash, 1 oz.; water, 8 ozs.; simple syrup, 2 ozs.; mix. This will be found an excellent diuretic in fevers and inflammations, headaches, etc., as it helps to carry off the urea, or solid matter that should be carried off by the urine. Dose—tea-spoonful every 1, 2 or 3 hours as required.

"The patient's bowels should be kept regular, but active physic should be avoided. If the cough is *very severe*, give a sufficient dose of opium to give the necessary sleep. Let the patient's food be light and nutritious. Keep the room *well ventilated*, and everything scrupulously clean."

Thus you have it in a "nut shell." The variations which I make are as follows:

In cases where a good nurse, or plenty of help is not to be had to look after the comfort of the patient, instead of the "bran, or cornmeal poultice to the chest," I use a *bag of hot dry bran*, changing it sufficiently often to *keep it hot*, and *occasionally use a mustard poultice*, having a thin piece of cloth between the poultice and the body, as this means appears, at least, to have as good an effect, and avoids the *wetting* of the bed clothing and the chilly dampness which will arise unless, as above stated, you have *plenty of help and use great care to keep the patient dry and comfortable*.

Also, if the case is taken in hand *at once*, in the commencement of the disease, I take the *sweating* process at first, as you will see below, but if the disease gets some days the *start*, then the "alkaline wash," or spirit sponging, not only "twice a day," but as often as it will add to the comfort of the patient. The temperature of the "wash" must also be governed by the patient's feelings—if he wants it *cool*, have it so, if *warm*, make it to his liking. *The tinctures of veratrum viride, and aconite, in all inflammatory diseases and in fevers, I consider almost an absolute necessity.*

2. Sweating Process.—Pleurisy has been cured with but very little other treatment than the *bag of hot dry bran*, being kept upon the side for the greater portion of the day, after the case became severe. As often as one

became at all cool, another was ready to be applied, as hot as it could be borne, by which means a little perspiration was kept up, until the severity of the pain gave way, and the cure was complete—in fact, inflammation nor fever can long exist in the system after a gentle perspiration is fully established, and permanently maintained.

Remarks.—There is no alkaline wash equal to that made by leaching ashes in the regular way, as for making soap, then put sufficient of this lye to the water to give it quite a perceptible slippery feeling to the hand. Dr. Beach recommends it very highly in *all fevers* and *inflammations*, when there is any *considerable* fever, to be used as often as the *heat or dry harshness* of the skin calls for it.

3. Sal-soda makes a passable substitute, using of it until the same slippery feeling is obtained. The putting of sufficient ashes into a pail of water and stirring until a good strength is obtained, then straining off, also answers very well.

4. **Congestion of Lungs.**—Bandage limbs tightly at arm-pit and groin. Keep the blood in the extremities.

5. Apply hot fomentations or poultices to chest; renew frequently and keep covered with dry compress.

1. **ACID IN STOMACH.**—Also **Inflammation from Gas.**—Chloroform, 10 to 20 drops in a little sweetened water, ten or fifteen minutes after meals.

Remarks.—I know from experience that this is an excellent remedy.

2. For pains in the stomach, or old stomach troubles: for an adult, 1 tea-spoonful of fl. ex. of Eucalyptus in milk, before meals, will produce instant relief in most cases.

3. Lying with the head lower than the rest of the body during sleep at night cures headache caused from a deranged stomach.

INFLAMMATION OF THE STOMACH.—This is a very much more common disease than the preceding. Though it does not put life in immediate danger, it perverts the feelings of the stomach and causes many of the symptoms of indigestion. Dyspepsia, however, is a different complaint, and not necessarily connected with inflammation.

TREATMENT.—If there be much tenderness, we may apply leeches over the stomach. With less tenderness, counter-irritation will answer,—as blisters, croton oil, mustard poultices, the compound tar plaster, or dry cups.

The skin of the whole surface should receive special attention. The warm or the cold bath should be used often, according to the strength of the patient. When the reaction is good, a cold compress bound upon the stomach every night will do much to bring relief.

The diet cannot be too carefully managed. While there is considerable tenderness, the nourishment must be of the most simple and un-irritating kind,—consisting of little more than the most bland nutritive drinks; and even these should be taken in small quantities at a time. Gum arabic water, rice water, barley water, arrowroot gruel, tea, and toast without butter will be

amply sufficient to keep soul and body together, and will, in two or three weeks, generally starve the enemy out of his quarters. After this a more nourishing diet may gradually be resumed.

INFLAMMATION OF THE BOWELS OR BELLY ACHE.—Like other chronic inflammations, this may follow the acute form, but it also results from various other causes, as unripe fruit, taking cold, drastic physic, and improper treatment of other diseases.

Symptoms.—Red end and borders of the tongue, dull pain in belly, increased by pressure and rough motion, abdomen either swelled or flat, skin dry and husky, feet and hands cold, small frequent pulse, thirst, loss of flesh, low spirits, urine scanty and high-colored, and dirty, slimy discharges from the bowels, from one to four times a day.

TREATMENT.—To begin with blisters of croton oil or mustard poultices if the tenderness is not great, or leeches if it is.

If the bowels are hot and feverish, bind a cold compress upon the belly over night,—covering it well with flannel. The warm bath should be used twice a week.

The diet must be of the most simple, un-irritating kind,—beginning with a solution of gum arabic, rice water, barley water, arrowroot or sago gruel, and gradually rising as the symptoms improve, to beef tea, mutton and chicken broth, tender beef steak, etc.

When the strength will permit gentle exercise must be taken in the open air, but not on horseback or in hard, jolting carriages.

As soon as the inflammation is subdued some mild laxative may be given in connection with an infusion of wild cherry bark, geranium, and Solomon's seal, equal parts.

1. INFLAMMATION OF THE KIDNEYS.—*TREATMENT.*—Avoid everything of a heating or stimulating nature, and let the diet consist chiefly of light, thin broth, mild vegetables, etc.; drink plentifully of balm tea, sweetened with honey, decoction of marshmallow roots, with barley licorice, etc. Nothing so safely and certainly abates the inflammation as copious dilution. Should there be much pain in the back, heat should be applied to the part; and this is done by means of cloths dipped in hot water, re-warmed as they grow cool. Another good plan is to fill bladders with a decoction of madders and camomile flowers, to which is added a little saffron, and mixed with about a third part of new milk. Should there be shivering and signs of fever with considerable tenderness over the kidneys, and no medical advice at hand a few leeches may be applied. After some time the bowels should be freely opened, and the best means of effecting this is with 3 grs. of calomel, and 2 hours afterward $\frac{1}{2}$ an oz. of castor oil; subsequently the following may be given; carbonate of soda, 2 drs.; spirit of nitric ether, tincture of henbane, of each 2 drs.; syrup of tolu, mixture of acacia, of each 1 oz.; camphor mixture 4 to 8 ozs.; mix, and take half a wine-glassful every 4 hours. A very good remedy is the following: Take of tincture of opium, liquor of ammonia, spirit of turpentine, and soap liniment, of each equal portions; mix and rub well into

the parts affected. In conjunction with this external application, take of infusion of buchu, 11 drs.; powdered tragacanth, 5 grs.; tincture of buchu, 1 dr.; mix for a draught, and take every morning. If there be much nausea, a clyster should be administered, consisting of a dram of laudanum, with $\frac{1}{2}$ a tea-cupful of thin starch; this to be injected every 2 or 3 hours, or at longer intervals, according to the effect produced. Employ the warm bath, and afterwards warm fomentations to the stomach and loins; drink freely of linseed tea. Take also of sulphate of magnesia 1 oz.; solution of carbonate of magnesia, 1 oz.; tincture of henbane and tincture of ginger, of each 2 drs.; sulphuric ether, $\frac{1}{2}$ a dr.; water, 4 ozs.; mix and give 3 table-spoonfuls every 6 hours. Those who have once suffered from inflammation of the kidneys are very liable to it again; to prevent a recurrence of the attack, they should abstain from wine and stimulants; use moderate exercise; avoid exposure to wet and cold; eat of food light and easy of digestion; not lie too much on the back, and on a mattress in preference to a bed

2. Aconite in minute doses is good for kidney complaint, peritonitis, puerperal fever, etc.

3. Constant application of poultices, as recommended in "2" for the liver, promotes cure and relieves pain.

1. INFLAMMATION OF THE BLADDER—Acute.—This disease affects the lining membrane of the bladder,—sometimes its muscular substance. It may attack the upper portion, the middle, or the neck of this organ. It runs a rapid course.

TREATMENT.—If the urine be retained, it is of the utmost importance that it be early drawn off with the catheter, lest a distention of the bladder bring on mortification. Great care is required not to produce irritation by any roughness in introducing the instrument.

Lecches should be applied upon the lower part of the bowels, the perinæum and around the anus. When these are removed, warm poultices should be applied. Cold compresses will often do as well. The bowels must be opened with Epsom salts. Injections of warm water with a few drops of tincture of arnica leaves will act finely as a local bath,—the water being retained as long as possible.

The tincture of *veratrum viride* will be required in 5 to 10-drop doses, or the compound tincture of Virginia snake root to induce perspiration. Dover's powders may sometimes be used for the same purpose.

Drinks must be taken very sparingly. A small amount of cold infusion of slippery elm bark or marshmallow and peach leaves. This mucilaginous drink must be the beginning and the end of the diet during the active stage of the disease.

2. Inflammation of the Bladder—Chronic.—This is much more common than the active form of the disease. It often arises from the same causes which produce acute inflammation of the bladder.

It often passes under the title of "catarrh of the bladder." It is a chronic inflammation of the mucous lining of the bladder, and is a very common and troublesome affection among old people.

TREATMENT.—To reduce the inflammation apply leeches, mustard, croton oil, or a cold compress every night.

As a diuretic give an infusion of buchu, uva ursi, trailing arbutus, queen of the meadow, etc. The compound infusion of trailing arbutus is well recommended. So is the compound balsam of sulphur. An infusion of the pods of beans has been well spoken of, but I have found the following very effective: Pulverized gum arabic, 1 scruple; soft water, 2 ozs., sweet spirits of nitre, $\frac{1}{2}$ oz.; tincture of veratrum viride, 20 drops. Mix. Give $\frac{1}{2}$ a tea-spoonful every half hour.

3. An injection into the bladder once a day of a tepid infusion of golden seal root with much care may be of great service; or an infusion of equal parts of golden seal, witch hazel and stramonium. It may be done with a gum elastic catheter and a small syringe.

The bowels must be kept open with the neutralizing mixture or some other mild physic; and the skin bathed with saleratus and water once a day and rubbed well with a coarse towel.

Should there be any scrofulous, gouty, or rheumatic condition of the system, the remedies for those complaints may be used in addition to the above.

4. For an adult, 1 pint a day of compound of sarsaparilla is the "boss" cure for gravel, and restores the worn out and wasted system. Try it.

1. BRONCHITIS.—**TREATMENT.**—The patient should, as a matter of course, be confined to bed; warm diluent drinks, such as flaxseed tea, or barley water, with a slice or two of lemon in it; gentle aperients, if required; foot-baths, and hot bran poultices to the chest. The chief dependence, however, is to be placed upon nauseating medicines. Four grs. of ipecacuanha powder, in a little warm water every quarter of an hour until vomiting is produced, and should be kept up at intervals of 2 or 3 hours. Sometimes a state of coma or collapse follows this treatment, and then it is necessary to give stimulants; carbonate of ammonia in 5 gr. doses, or sal volatile, $\frac{1}{2}$ tea-spoonful about every hour. These are preferable to alcoholic stimulants; but should they not succeed, brandy may be tried, with strong beef tea. Should the urgency of the symptoms yield to the emetics, a milder treatment may be followed out. The following is a good mixture: Ipecacuanha wine, 1 dr.; aromatic spirit of ammonia, 2 drs.; carbonate of potash, 1 dr.; water, 8 ozs.; 2 table-spoonfuls to be given every 4 hours. If the cough is troublesome, add 1 gr. of acetate of morphine. The diet should be light and nourishing, and all exposure to cold must be carefully avoided. In children, acute bronchitis does not commonly produce such marked effects as in adults, although sometimes it is extremely rapid and fatal, allowing little time for the action of remedies, which should be much the same as those above recommended, with proper regard, of course, to difference of age. If the child is unweaned, it must be allowed to suck very sparingly, if at all. The best plan is to give it milk with a spoon,



POKE WEED.

(See Description.)

This herb is used externally on Abscesses, Cancers and Ulcers, and is given internally in Chronic and Syphilitic Rheumatism.

or feeding-bottle, as the quantity can be thus better regulated. Great attention must be paid to the bowels, and also to the temperature of the air breathed by the little sufferer. A blister on the chest, about as big as a large copper cent, may be sometimes applied with advantage if the hot bran does not give the desired relief. (Note 41, p. 792.)

Winter coughs, catarrh, and asthma are very commonly but forms of chronic bronchitis. For the troublesome coughs which almost invariably attend confirmed bronchitis, and especially in the aged, opium is the most effectual remedy. The best form of administration is perhaps the compound tincture of camphor taken with ipecacuanha or antimonial wine—say $\frac{1}{2}$ dr. of the former, with 10 grs. of either of the latter, in a little sugar and water or flaxseed tea, or use Dr. Chase's Cough Syrup. If there are febrile symptoms, add 15 minims of sweet spirits of nitre to each dose.

It is especially during the spring months, and when there is a prevalence of east wind, that bronchitis attacks young and old, often hurrying the former to a premature grave, and making the downward course of the latter more quick and painful. With aged people, in such cases, there is commonly a great accumulation of mucus in the bronchial tubes, which causes continued and violent coughing in the efforts to expel it, which efforts are often unsuccessful. Thus the respiration is impeded; the blood, from want of proper oxygenization, becomes unfit for the purposes of vitality, and death, often unexpectedly sudden, is the consequence. Such bronchitic patients must be carefully treated—no lowering measures will do for them, but warm and generous diet; opium can not safely be ventured on. Warm flannel next the skin, a genial atmosphere, inhalation of steam—if medicated with horehound, or some demulcent plants, so much the better—a couple of compound squill pills at night, and during the day a mixture, composed of camphor mixture, 6 ozs.; tincture of squills, wine of ipecacuanha, and aromatic spirits of ammonia, each 2 drs.; with perhaps 2 drs. of tincture of hops. Take a table-spoonful every 3 or 4 hours.

ANOTHER TREATMENT.—To properly introduce the treatment, we will suppose a case, similar to which I have had many a one,—a man (for men have these inflammatory diseases 10 times to women once) comes home at night, with a cough, sore throat, etc., indicating that he has *taken cold*, and that it has settled upon the *throat and bronchial tubes*—take no supper, but go right to work, as for common colds, and get up a perspiration, by soaking the feet in water as hot as it can be borne, and pouring in more hot, from time to time, to keep it hot for 20 to 30 minutes, and if you have one of the *alcohol lamps for sweating purposes*, set it to work at the same time, and take some hot teas to help the work, and if there are no sweating herbs in the house, of course there is some whiskey or other liquor, make about a pint of hot stew, using 1 gill of whiskey, **with sugar and hot water; and drink one or two good draughts of this while the feet are in the water, and the rest of it after you get into bed, covering up warm so as to continue the sweating for an hour or two, with hot iorns, bricks or stones at the feet, as your conveniences will allow; then, when the family go**

to bed, take a good dose of physic, so it shall operate well by the next morning, and *ten* chances to *one* you will not need much further treatment. Perhaps some of the *sweating tincture*, and a little of the *cough syrup* and a little *diuretic* may be needed through the following day, or for a few days. But, if this does not work such a decided improvement as to indicate that no serious trouble remains, after the physic has operated, then take an *emetic*, or repeat the previous process, at farthest, on the following evening, when the symptoms, fever, etc., would likely be worse than through the day. But should you deem it best, from the violence of the symptoms, to take an emetic, one of the *diaphoretic* or sweating medicines had better also be taken to keep a tendency to the surface, according to the directions under that head.

But if these cases are neglected, they run on into a *chronic*, or long standing disease, and become very troublesome to cure, and often set up a chronic inflammation of the lungs, and finally consumption is the result.

2. Bronchitis—Chronic.—Chronic bronchitis must needs be of a similar character, and treated in a similar manner; but the emetic or sweating need not be repeated oftener than once a week, nor the cathartic, and they need not both be taken the same day; but a cough syrup, or some cough medicine should be taken daily; and a diuretic be taken for a day or two each week, as the case seems to demand, and a little essence of spearmint may be taken, a few drops whenever the soreness or rawness of the throat is troublesome, keeping a vial of it handy to taste, night or day, without water; or a drop or two of cedar oil may be taken on a little sugar, and the throat have some of it rubbed upon the outside as a liniment. The following combination of articles will fulfill all the indications needed, except that of cathartic, which can be used by itself, once in a week or 10 days:

Acetic tincture of bloodroot, tincture of black cohosh, and of the balsam of tolu, and wine of ipecacuanha, of each, $\frac{1}{2}$ oz.; sweet spirits nitre, 1 oz. Mix. Dose—tea-spoonful, in a little water, 3 to 5 times daily according to the amount of irritation present.

SCARLATINA.—With Severe Fever.—In other cases of scarlet fever, the febrile symptoms at the commencement are more severe; there is a sensation of stiffness and pain on moving the neck, and it is also painful to swallow; the voice is thick, and the throat feels rough and straitened. The heat of the surface rises in a most remarkable manner; not only to the sensations of the patient or observer does the heat seem greater, but the thermometer shows it to be 108° or 110°, that is more than ten degrees above the natural standard. There is sickness, headache, great restlessness and delirium; the pulse is frequent but feeble, and there is great languor and faintness. The tongue is of a bright red color, especially at the sides and extremity, and the rising points are very conspicuous. The rash does not appear so early as in the milder scarlet fever, as is seen in patches, very frequently about the elbows. Sometimes it vanishes and appears again at uncertain times without any corresponding change in the general disorder. When the rash is slight or goes off early, there is little scaling off of the skin; but in severer cases, large

pieces of the skin come off, especially from the hands and feet. The swelling and inflammation of the throat sometimes go off without any ulceration, but at other times slight ulcerations form at the tonsils and at the back of the mouth; and whitish specks are seen intermixed with the redness, from which a tough phlegm is secreted, clogging the throat and very troublesome. This kind of scarlet fever is not unfrequently followed by great debility, or the occurrence of other diseases, as inflammation of the eyes, or dropsy, or an inflammatory state of the whole system or water on the brain.

TREATMENT.—It is in general, proper to begin with giving an emetic, especially if we at all suspect the stomach to be loaded with undigested matter; and we are very soon after to exhibit laxative medicines which are truly one of our most important remedies in this disease. A dangerous and exhausting looseness which takes place towards the fatal termination of an ill-managed scarlet fever, for a long time excited great fears and prejudices against the use of laxative medicines in this disease; but better observation has convinced us that so far from being detrimental, laxative medicines, early and prudently begun have the best effect in mitigating the disease and in preventing the collection of that putrid and offending matter in the bowels which is so sure to produce wasting diarrhoea when it is suffered to accumulate. To lessen the burning heat of the skin, nothing is at all comparable in some cases to the free affusion of cold water, which, when employed prudently and at the proper time, cools the surface, and from a state of the most restless irritation, brings the patient to comparative ease and tranquility. The cold affusion, however, is not proper where there is much fullness of blood on one hand or great debility on the other; and in the majority of cases we must trust to the washing or sponging of the whole body with tepid water, or vinegar and water; and till the heat of the body is reduced by these means, it is in vain that we give internal medicines to procure perspiration or to allay restlessness and induce sleep. After washing it is not at all unusual for the formerly harassed patient to fall into a gentle and refreshing sleep, and a mild and breathing sweat comes out over the whole body. This supersedes the necessity of sudorific and anodyne medicines; and provided we attend to the bowels, keep away stimulant and nourishing food, give the drink cold or acidulated, and employ proper gargles for the mouth and throat, the drugs we administer may be very few indeed. (Note 42, p. 792.)

The inflammatory state of the system which often follows scarlet fever is not unfrequently accompanied with a swelling resembling dropsical swelling; but we are not to regard this last as a sign of debility, or to be deterred from the use of active remedies. Bleeding from the arm is seldom admissible, but leeches behind the ears may be necessary if head symptoms come on; brisk purgatives are to be freely administered, and the inflammatory and dropsical tendency is to be combated by the use of foxglove and other diuretics. When the inflammatory action has subsided and the dropsy appears to be the principal malady, we are to give tonic medicines and nourishing diet along with such medicines as increase the flow of urine.

MALIGNANT SCARLET FEVER—With Putrid Sore Throat.—There is yet another and more fatal form of scarlet fever where the malignant and putrescent symptoms are more rapid and severe, where the general system is much oppressed, and the throat and neighboring parts affected with rapidly spreading ulcerations. It is this which has obtained the name of *putrid sore throat*. This form of scarlet fever begins like the preceding, but in a day or two shows symptoms of peculiar severity. The rash is usually faint, and the whole skin soon assumes a dark or livid red color. The heat is not so great nor so permanent as in the other kinds; the pulse is small, feeble, and irregular, there is delirium and coma, with occasional fretfulness and violence. The eyes are suffused with a dull redness, there is a dark red flush on the cheek, and the mouth is incrustated with a black or brown fur. The ulcers in the throat are covered with dark sloughs and surrounded by a livid base; there is a large quantity of tough phlegm which impedes the breathing, occasioning a rattling noise; and increasing the pain and difficulty of swallowing. A sharp discharge comes from the nostrils, producing soreness, chaps, and even blisters. There is severe diarrhœa, spots on the skin, bleedings from the mouth, bowels, or other parts, all of which portend a fatal termination to the disease. Sometimes the patients die suddenly about the third or fourth day; at other times in the second or third week; gangrene having probably arisen in the throat or some parts of the bowels. Those who recover have often long illnesses from the ulceration spreading from the throat to the neighboring parts, occasioning suppuration of the glands, cough, and difficulty of breathing with hectic fever.

TREATMENT.—The active remedies formerly mentioned are quite inadmissible here. Unnecessary heat is to be avoided, but we are not to think of the cold washing or of purging, lest we oppress the powers of life and bring on a fatal diarrhœa. The system requires support and stimulants from the commencement of the attack. Strong beef tea should be given in as large quantities as possible, and wine and bark should be liberally administered; the throat must be injected with strong cleaning gargles. The infusion of cayenne pepper or the decoction of bark acidulated with sulphuric or muriatic acid, or gargles to which a little tincture of myrrh or of camphor is added, may be usefully employed. Too often, however, all treatment is unavailing, and there is no more fatal contagious disease than malignant scarlet fever.

There is an ulcerated sore throat of peculiar malignity, distinct from scarlet fever, which commonly terminates with the worst symptoms of croup.

ABORTION, OR MISCARRIAGE—(Abortus.)—The separation of the child from the womb of the mother at any period before the sixth month of pregnancy; between which period and the full time the same event is called premature labor.

Symptoms.—Abortion may be described as consisting of three stages, each of which should be carefully studied; because in the two first much may be done by the patient herself or by the judicious management of friends about her.

In the first stage the woman merely "threatens to miscarry;" there is pain in the lower part of the belly, or about the back and loins, with unusual depression of spirits and faintness without any apparent cause. If these symptoms do not pass off, they are succeeded by a discharge of blood from the external parts, sometimes light, at other times profuse and alarming; accompanied or succeeded by sharp pains in the back, the loins, and the lower part of the belly, not constant, but intermitting, like those of regular labor. Often there is vomiting, sickness, or pains of the bowels, and headache; and from the quantity of blood lost, fainting fits frequently occur, and there is commonly a sense of weakness, much greater than can be accounted for by the copiousness of the discharge. This is the second stage; and in it the child has become partially separated from the womb. If by the efforts of nature or the assistance of art these symptoms abate or cease, the embryo may be retained, and many continue to grow. But in other cases the discharge of blood continues and the signs of approaching expulsion of the contents of the womb become more evident. Regular pains ensue, there is a feeling of bearing down, with a desire to make water; and at last the fœtus comes away, either surrounded with its membranes, if the whole ovum be small, or the membranes break, the waters are discharged, and the fœtus comes away, leaving the after-birth behind. This constitutes the third stage, in which the child is altogether separated and must be expelled.

Causes.—1. Abortion may be caused by external violence, as kicks or blows, a fall, or violent action, as dancing, riding, jumping, or much walking. Women in the state of pregnancy should avoid many of the domestic operations so proper at other times for good housewives to engage in. As our aim is to be practically useful, we venture at the risk of exciting a smile, to mention some exertions that ought to be avoided, viz., hanging up curtains, bed-making, washing, pushing in a drawer with the foot, careless walking up or down a stair. 2. Straining of the body, as from coughing. 3. Costiveness. 4. Irritation of the neighboring parts, as from severe purging, falling down of the gut, or piles. 5. Any sudden or strong emotion of the mind, as fear, joy, surprise. 6. The pulling of a tooth has been known to produce a miscarriage; and though toothache is occasionally very troublesome to women in the pregnant state, the operation of drawing teeth should, if possible, be avoided at that time. 7. Women marrying when rather advanced in life are apt to miscarry. It would be hazardous to name any particular age at which it is too late to marry, but the general observation is worth attending to. 8. Constitutional debility from large evacuations, as bleeding or purging; or from disease, as dropsy, fever, small-pox. 9. A state the very opposite of this is sometimes the cause of abortion, viz., a robust and vigorous habit, with great fullness of blood and activity of the vascular system. 10. The death of the child.

TREATMENT.—Miscarriage is always an undesirable occurrence, and is to be prevented by all proper means, as a single miscarriage may irretrievably injure the constitution, or give rise to continual repetitions of the accident.

Unless we have reason to believe that the child is dead, it is desirable that miscarriage should be prevented, and that the woman should go on to the full time, if possible; but if the motion of the child should cease, if the breasts of the mother should become soft, after disease or great fatigue, and signs of miscarriage come on, it would be improper to endeavor to prevent the embryo coming away; and we must direct our efforts to relieve any urgent symptoms, and do what we can to conduct the patient safely through the process.

In the first stage of abortion, when it is merely impending or threatening, and even in the second stage, when the child has become partially separated, it is proper to attempt to check the discharge and prevent the consequent expulsion. The patient must cease from all exertion in walking, or even sitting upright, and must lie on a bed or sofa; all heating food or liquors must be avoided; whatever is taken should be rather cool, and cold applications must be made to the back, the loins, and neighboring parts. A lotion useful for this purpose is 1 part of vinegar to 2 or 3 parts of cold water; cloths or towels dipped in this are to be applied as directed above. The fainting which so often occurs requires to be relieved by a very moderate use of cordials, as a little wine and water, or even brandy and water; but in this much caution is required, lest feverishness or inflammatory symptoms be brought on, which in a weakened frame are apt to occur, from causes too slight to have the same effect in a healthy one.

As abortion sometimes takes place from too great fullness of blood, and from that state of the constitution well known by the name of high health, it is right in such cases to enjoin abstinence, to order a cooling diet, as light puddings, preparations of milk, or boiled vegetables; and to give gentle laxatives, as castor oil, senna, small doses of purging salts, magnesia, and rhubarb. If, under such treatment, the discharge from the womb stops, if the pains cease, and the sickness, headache, and constitutional symptoms are relieved, we may hope that the woman will not part with her offspring, but bring it to the full time. She must make up her mind to be in the reclining posture for some time, and must consider herself as liable to be again affected by the same symptoms and the same danger, if she uses the smallest liberty with herself.

If the discharge, however, still continues, and if there is little likelihood of the pregnancy going on, everything must be done to assist the woman in the safe completion of the process. We must introduce a soft cloth dipped in oil into the birth, so as to fill the lower part of it. By this means the blood has time to form into clots, and the contraction of the womb throws down the embryo along with them. We should not hastily use any force by the hand to bring it away; but the time when this may be done is to be left to the judgment of the medical person in attendance. As the after-birth in the early months bears a larger proportion to the contents of the womb than it does in the later months, it is often retained long after the child is expelled; but it must be remembered, that the womb will not contract till every thing is out of it, and therefore the bleeding will continue till the after-birth is off. It may ~~open~~ lie partly out of the womb, and if so, the practitioner is to attempt

gently to remove it by the hand; but if it be wholly in the cavity of the womb, its expulsion is to be promoted by clysters of gruel, with the addition of salts, or with senna, or even a little of the tincture of aloes; or by a cautious use of the ergot of rye.

Patients should be careful not to throw away any thing discharged, on the supposition that they know what it is, but should uniformly show every clot to the practitioner, that he may be enabled to distinguish with certainty whether the child and after-birth are thrown off. When the womb is emptied, the belly is to be tied up with a binder, as after delivery at the full time; the same rest and quiet is to be ordered; the diet must be light and nourishing; heating food, all spirituous and malt liquors, are to be avoided, till the practitioner judges it proper to allow sulphuric acid, bark, and wine, or porter, to assist in recruiting the strength, which in the event of abortion is generally so greatly exhausted.

A very strong reason for enjoining rest and quietness after a miscarriage is this, that when twins or three children have been conceived, the embryo of one of them may be thrown off, and the other may be carried to the full time. Any premature exertion might, therefore, endanger the life of more than one child. When the woman is in some degree recruited, her recovery is to be completed by moderate exercise, by proper diet, by the use of the cold bath or sea-bathing, and by taking stomachic medicines, as the bark and wine, preparations of iron, or the elixir of vitriol. Few incidents have so pernicious an effect as a miscarriage, on certain constitutions; sometimes the health is irreparably injured, or a habit is begun which prevents the woman from ever carrying a child to the full time. In every future pregnancy particular caution is requisite; especially at the period when the miscarriage formerly happened, which is very generally between the eighth and twelfth week. For a considerable time before and after this, the woman should lie in a reclining posture, should attend to keeping the bowels easy by such mild laxatives as have been already mentioned; and if too full, should lose a little blood.

Sometimes, for wicked purposes, it is attempted to procure abortion, either by strong and acrid medicines, by violent exercises, or by direct application to the parts concerned; but it should be generally known that there is no medicine which directly and certainly acts on the womb itself; and that to procure abortion by any drug or mechanical violence, is to run the risk of speedy death, or inducing madness, or causing irreparable injury to the constitution, besides being punishable by law as a crime.

DISEASES OF WOMEN.—Women, in all civilized nations, have the management of domestic affairs; and it is very proper they should, as Nature has made them less fit for the more active and laborious employments. This indulgence, however, is generally carried too far; and women instead of being benefited by it, are greatly injured, from the want of exercise and free air. To be satisfied of this, one need only compare the fresh and ruddy looks of a milk-maid with the pale complexion of those females whose whole business lies within doors. Though Nature has made an evident distinction

between the male and female with regard to bodily strength and vigor, yet she certainly never meant, either that the one should be always without, or the other always within doors.

The confinement of women, besides hurting their figure and complexion, relaxes their solids, weakens their minds, and disorders all the functions of the body. Hence proceed obstructions, indigestion, flatulence, abortions, and the whole train of nervous disorders. These not only unfit women for being mothers and nurses, but often render them whimsical and ridiculous. A sound mind depends so much upon a healthy body, that where the latter is wanting, the former is rarely to be found.

I have always observed that women who were chiefly employed without doors, in the different branches of husbandry, gardening, and the like, were almost as hardy as their husbands, and that their children were likewise strong and healthy.—But as the bad effects of confinement and inactivity upon both sexes have been already shown, we shall proceed to point out these circumstances in the structure and design of woman, which subject them to peculiar diseases; the chief of which are their *Monthly Evacuations, Pregnancy, and Child-bearing*. These indeed cannot properly be called diseases, but from the delicacy of the sex, and their being often improperly managed in such situations, they become the source of numerous calamities.

MONTHLY TURNS OR MENSES.—**First Signs of the Menstrual Discharge.**—Women generally begin to menstruate about the age of *fifteen*, and leave it off about *fifty*, which renders these two periods the most critical of their lives. About the first appearance of this discharge, the constitution undergoes a very considerable change, generally indeed for the better, though sometimes for the worse. The greatest care is now necessary, as the future health and happiness of the woman depends, in a great measure, upon her conduct at this period. It is the duty of mothers and those who are entrusted with the education of girls, to instruct them early in the conduct and management of themselves at this critical period in their lives. False modesty, inattention, and ignorance of what is beneficial or hurtful at this time, are the source of many diseases and misfortunes in life, which a few sensible lessons from an experienced matron might have prevented. Nor is care less necessary in the subsequent returns of this discharge. Taking improper food, severe nervous strain or catching cold at this period is often sufficient to ruin the health, or to render the woman ever after incapable of procreation.

If a girl about this time of life be confined to the house, kept constantly sitting, and neither allowed to romp about, nor employed in any active business, which gives exercise to the whole body, she becomes weak, relaxed, and puny: her blood not being duly prepared, she looks pale and wan; her health, spirits, and vigor decline, and she sinks into a valetudinary for life. Such is the fate of numbers of those unhappy women, who, either from too much indulgence, or their own narrow circumstances, are at this critical period, denied the benefit of exercise and free air.

A lazy, indolent disposition proves likewise very hurtful to girls at this period. One seldom meets with complaints from obstructions amongst the more

active and industrious part of the sex, whereas the indolent and lazy are seldom free from them. These are, in a manner, eaten up by the *chlorosis*, or green-sickness, and other diseases of this nature. We would therefore recommend it to all who wish to escape these calamities, to avoid indolence and inactivity, as their greatest enemies, and to be as much in the open air as possible.

Another thing which proves very hurtful to girls about this period of life is unwholesome food. Fond of all manner of trash, they often indulge in it, till their whole humors are quite vitiated. Hence ensues indigestions, want of appetite, and a numerous train of evils. If the fluids be not duly prepared, it is utterly impossible that the secretions should go properly on. Accordingly we find that such girls as lead an indolent life and eat indiscriminately are not only subject to obstructions of the *menses*, but likewise to glandular obstructions, as the scrofula, or King's evil, &c.

A dull disposition is also very hurtful to girls at this period. It is a rare thing to see a sprightly girl who does not enjoy good health, while the grave, moping, melancholy creature proves the very prey of vapors and hysterics. Youth is the season for mirth and cheerfulness. Let it therefore be indulged. It is an absolute duty. To lay in a stock of health in time of youth, is as necessary a piece of prudence as to make provision against the decays of old age. While therefore wise Nature prompts the happy youth to join in sprightly amusements, let not the severe dictates of hoary age forbid the useful impulse, nor damp with serious gloom the season destined to mirth and innocent festivity.

Another thing very hurtful to women about this period of life, is tight clothes. They are fond of a fine shape, and foolishly imagine that this can be acquired by lacing themselves tight. Hence by squeezing the stomach and bowels, they hurt the digestion, and occasion many incurable maladies. This error is not indeed so common as it has been; but, as fashions change, it may come about again; we therefore think it not improper to mention it. I know many women, who to this day, feel the direful effects of that wretched custom of squeezing every girl into as small a size in the middle as possible. Human invention could not possibly have devised a practice more destructive to health.

RETENTION OF THE MENSES.—After a woman has arrived at that period of life when the *menses* usually begin to flow, and they do not appear, but, on the contrary, her health and spirits begin to decline, we would advise instead of shutting the poor girl up in the house, and dosing her with steel, *asafetida*, and other nauseous drugs, to place her in a situation where she can enjoy the benefits of free air and agreeable company. There let her eat wholesome food, take sufficient exercise, and amuse herself in the most agreeable manner, and we have little reason to fear but Nature thus assisted, will do her proper work. Indeed she seldom fails, unless where the fault is on our side.

This discharge in the beginning is seldom so instantaneous as to surprise women unawares. It is generally preceded by symptoms which foretell its approach; as a sense of heat, weight, and dull pain in the loins; distention and hardness of the breasts; headache; loss of appetite; lassitude; paleness of the countenance, and sometimes a slight degree of fever. When these symptoms

appear about the age at which the menstrual flow usually begins, everything should be carefully avoided which may obstruct that necessary and salutary evacuation; and all means used to promote it, as sitting frequently over the steams of warm water, drinking warm diluting liquors, taking hip baths, &c.

SUPPRESSION OF THE MENSES.—Cold is extremely hurtful at this particular period. More of the sex date their disorders from colds, caught while they were out of order, than from all other causes. This ought surely to put them on their guard, and to make them very circumspect in their conduct at such times. A degree of cold that would not in the least hurt them at another time, will at this period be sufficient to entirely ruin their health and constitution.

After the *menses* have once begun to flow, the greatest care should be taken to avoid everything that may tend to obstruct them. Women ought to be exceedingly cautious in what they eat or drink at the time they are out of order. Everything that is cold, or apt to sour on the stomach ought to be avoided; as fruit, butter-milk, and such like. Fish, and all kinds of food that are hard of digestion, are also to be avoided. As it is impossible to mention every thing that may disagree with individuals at this time, we would recommend it to each one to be very attentive to what disagrees with herself, and carefully to avoid it.

The greatest attention ought likewise to be paid to the mind, which should be kept as easy and cheerful as possible. Every part of the animal economy is influenced by the passions, but none more so than this. Anger, fear, grief, and other affections of the mind, often occasion obstructions of the menstrual flow, which proves absolutely incurable.

From whatever cause the flow is obstructed, except in the state of pregnancy, proper means should be used to restore it. For this purpose we would recommend sufficient exercise, in a dry, open, and rather clear air; wholesome diet, and, if the body be weak and languid, a good tonic, (see Mrs. Chase's Magic Tonic;) also cheerful company and all manner of amusements. If these fail, recourse must be had to the physician.

When obstructions proceed from a weak relaxed state of the solids, such medicines as tend to promote digestion, and assist the body in preparing good blood, ought to be used. The principal of these are iron and Peruvian bark, with other bitter and astringent medicines. The bark and other bitters may either be taken in substance or infusions, as is the most agreeable to the patient.

When obstructions proceed from a viscid state of the blood; for women of a gross or full habit, evacuations, and such medicines as attenuate the humors are necessary. The patient in this case ought to bathe her feet frequently in warm water, to take now and then a cooling purge, and to live upon a spare thin diet.

When obstructions proceed from affections of the mind, as grief, fear, anger, &c., every method should be taken to amuse and divert the patient. And that she may the more readily forget the cause of her affliction, she ought, if possible, to be removed from the place where it happened. A change of place,

by presenting the mind with a variety of new objects, has often a very happy influence in relieving it from the deepest distress. A soothing, kind, and affable behavior to women in this situation, is also of importance.

An obstruction of the *menses* is often the effect of other maladies. When this is the case, instead of giving medicines to force that discharge, which might be dangerous, we ought, by all means, to endeavor to restore the patient's health and strength. When that is effected the other will return of course.

1. For *Suppressed menstruation*, as soon as possible use the tepid foot-bath. At the same time sit over a vessel of warm water, in which has been boiled some bitter herbs, till a profuse perspiration is produced. Then retire to a warm bed and take every hour or two a tea-cupful of warm tea made from the root of bervine. If this is not successful, give a little pulverized mandrake root, with a little cream of tartar, on an empty stomach; after which pennyroyal or motherwort tea may be drank freely.

2. Aromatic spirits of ammonia taken in doses of 20 to 30 drops in sweetened water several times a day is almost sure to relieve suppression and is good for painful menstruation.

3. Mrs. H. Y. Johnson, of Iowa, once told my wife that oil of cotton seed, one dram daily, was unfailing. I have used it in my practice with success, and have also used it to spur up *labor* when it dragged, with good success.

4. Crushed ice placed to the back in oil cloth or rubber bag—place low down—is also good for suppressed menses. It is also valuable sometimes in restoring *falling womb* and cures leucorrhœa.

MENSES, TO RESTORE.—Fl. ex. of ergot, and fl. ex. of gossypium (cotton root), each $\frac{1}{2}$ oz.; fl. ex. of black cohosh, 1 oz.; simple syrup, 2 ozs. Mix. Dose—Take 1 tea-spoonful 4 times daily, for a few days; then if the menses are not restored, stop its use till 4 or 5 days before the regular period for their return, and take it up again, with the help of warm hip baths daily, and daily sitting over the steam of bitter herbs, etc., as the grandmothers knew so well how to do. In the meantime, doing anything needed to tone up the system, by taking tonics; overcoming constipation by laxatives, and in a similar manner endeavoring to overcome any other irregularity, if any exist; and it is thus—or by such means—you will succeed in restoring the general health.

PROFUSE MENSTRUATION.—The menstrual flow may be too great as well as too small. When this happens, the patient becomes weak, the color pale, the appetite and digestion are bad, and swelling of the feet, dropsics, and consumption often ensue. This frequently happens to women about the age of forty-five or fifty, and is very difficult to cure. It may proceed from a sedentary life; a full diet, consisting chiefly of salted, high-seasoned, or acrid food; the use of spirituous liquors; excessive fatigue; relaxation; a dissolved state of the blood; violent passions of the mind, &c.

The treatment of this disease must be varied according to its cause. When it is occasioned by any error in the patient's regimen, an opposite course to that which induced the disorder must be pursued, and such medicines taken as have

a tendency to restrain the flow and counteract the morbid affections of the system from whence it proceeds.

To restrain the flow, the patient should be kept quiet and easy both in body and mind. If it be very violent, she ought to lie in bed with her head low; to live upon a cool and slender diet, as veal or chicken broths with bread; and to drink decoctions of nettle-roots, or the greater comfrey. If these be not sufficient to stop the flow, stronger astringents may be used, as Japan earth, alum, elixir of vitriol, the Peruvian bark, &c.

Two drams of alum and 1 of Japan earth may be pounded together, and divided into 8 or 9 doses, one of which may be taken 3 times a day.

Persons whose stomachs cannot bear alum, may take 2 table-spoonfuls of the tincture of roses 3 or 4 times a day, to each dose of which 10 drops of laudanum may be added.

If these should fail, half a dram of the Peruvian bark, in powder, with 10 drops of the elixir of vitriol, may be taken in a glass of red wine, 4 times a day.

2. Oil of erigeron 1 to 5 drops every $\frac{1}{2}$ hour or hour, dissolved in a little alcohol, arrests flooding, or hemorrhage of the womb, promptly. A very severe case of "flooding to death" was saved by putting hot sand bags under the back of the head and heart—hotter than the hand could bear, frequently renewed.

LEUCORRHEA, FLUOR ALBUS, OR WHITES.—The *uterine flow* may offend in quality as well as in quantity. What is usually called the *fluor albus*, or "whites," is a very common disease, and proves extremely hurtful to delicate women. This discharge, however, is not always white, but pale, yellow, green, or of a blackish color; sometimes it is sharp and corrosive, sometimes foul and fetid, &c. It is attended with a pale complexion, pain in the back, loss of appetite, swelling of the feet, and other signs of debility. It generally proceeds from a relaxed state of the body, arising from indolence, the excessive use of tea, coffee, or other weak and watery diet.

To remove this disease, the patient must take as much exercise as she can bear, without fatigue. Her food should be solid and nourishing, but of easy digestion; and her drink pretty generous, as red port or claret, mixed with lime-water. Tea and coffee are to be avoided. I have often known strong broths to have an exceeding good effect; and sometimes a milk diet alone will perform a cure. The patient ought not to lie too long a-bed. When medicine is necessary, we know none preferable to the Peruvian bark, which in this case ought always to be taken in substance. In warm weather, the cold bath will be of considerable service.

1. Moisten a sponge with glycerine, roll it in fine powder of boracic acid and push up in the mouth of womb daily—a tape or ribbon may be tied to the sponge to remove it. (Note 43, p. 792.)

2. Obstinate cases of "whites," or leucorrhœa may be cured by insufflation of powdered vegetable charcoal.

3. Pond's ex. of witch hazel, 1 table-spoonful in a tea-cupful of warm water, injected well up into the vagina, 3 times a day—cures the worst cases in a few weeks.

4. Leucorrhœa, Injection for.—Pulverized golden seal, 1 oz.; boric acid, $\frac{1}{2}$ oz.; pulverized alum, $\frac{1}{2}$ oz.; sulphate of zinc, 20 grs. DIRECTIONS—Mix thoroughly together, and keep in a well stopped bottle, or suitable covered box. At tea time put 1 tea-spoonful of the powder into a cup of hot tea—green tea is preferable. Stir 2 or 3 times during the evening, and at bed-time strain it and inject, with a female syringe, every night, if bad, or every second night in ordinary cases. First cleansing the parts by injecting 1 pt. to 1 qt. of water, as hot as it can be borne. (See also “Injection, Valuable in Gonorrhœa, or Leucorrhœa.” See also “Red Drops for Gonorrhœa, Leucorrhœa, etc.”)

Remarks.—Dr. Mason says this has proved a splendid remedy in every case where he has used it. I have also used it with success. But as quinine and tannin have latterly been used considerably in these cases of leucorrhœa, with almost entire success, I will give one containing them, which I have also tried with great satisfaction as follows:

5. Leucorrhœa, Valuable Injection for.—Fl. ex. of golden seal and chlorate of potash, pulverized, each 1 dr.; sulphate of zinc, 2 drs.; tannin and sulphate of quinine, each $\frac{1}{2}$ dr.; distilled or pure soft water, 1 qt. Inject morning and night; first cleansing the parts by injecting, once or twice, water as hot as can be borne. DIRECTIONS—In mixing these ingredients, dissolve the sulphate of zinc in $\frac{1}{2}$ pint of water, then put the quinine in a mortar, with a little aromatic sulphuric acid to dissolve it, then add to the zinc water. Put the tannin into another $\frac{1}{2}$ pint of the water, and stir until dissolved, then mix the two and add the other articles, and the balance of the water, to make 1 qt.; shake when used; and use only enough to fill the vagina once, holding it in place 2 or 3 minutes, by placing the fingers of one hand over the vulva, or external part, having first used the hot water, as directed in the last recipe above; keeping it in place also 2 or 3 minutes, each time, in the same manner as here directed, is of the utmost importance, as this plan distends and cleanses the whole vagina, while in the old way, the injections flowed out alongside of the tube, cleansing but very little indeed. Use enough of the hot water to distend it twice at least, before using the tea or other injection, and the cure will be quick and satisfactory.

Remarks.—With this, Dr. J. W. Burney, of Des Arc, Ark., says he has had more success than with any other; but with this he also gives 1 tea-spoonful 3 times daily of the fl. ex. of buchu internally, in a little flaxseed tea. The plan and remedies are excellent, as I have tested them.

CESSATION OF MENSES, OR TURN OF LIFE.—That period of life at which the *menses* cease to flow is likewise very critical to the sex. The stoppage of any customary evacuation, however small, is sufficient to disorder the whole frame, and often to destroy life itself. Hence it comes to pass, that so many women either fall into chronic disorders, or die about this time; such of them, however, as survive it, without contracting any chronic disease, often become more healthy and hardy than they were before, and enjoy strength and vigor to a very great age.

If the *menses* suddenly cease, in women of a full habit, they ought to abate somewhat of their usual quantity of food, especially of the more nourishing kind, as flesh, eggs, &c. They ought likewise to take sufficient exercise, and to keep the bowels open. This may be done by taking, once or twice a week, a little rhubarb, or an infusion of *hiera picra* in wine or brandy, or purgatives recommended elsewhere, and if complicated with other diseases, call a doctor.

DEFICIENT AND PAINFUL MENSTRUATION.—The amount of suffering among women from this disease is alarming, and far greater than in our “grandmothers’ days.” It seldom appears until they have menstruated some time with considerable regularity, and little or no pain; afterward, they begin to suffer more or less pain, which increases until it becomes grinding and more severe than those of labor.

It soon affects the general health, destroys the complexion, and ruins the disposition. The pain generally begins in the back, extends to the loins and hips, and is followed by pressing down pain, resembling in severity, those of labor. At first a slight discharge takes place, but suddenly ceases, after some time is renewed and becomes more plentiful, which, together with the pain gradually ceases. The discharge differs from that of a healthy menstruation in appearance, being mixed with lumps, and clots of flaky matter, having the appearance of membrane or skin. The breasts frequently swell and become painful. Women seldom have children who have this disease in a severe form.

Strictly avoid the use of all spirituous liquors, and keep the bowels well open a few days before the expected attack. The patient should be kept in bed, drink freely of tea made either of pennyroyal, catmint, sage, or the leaves of spruce pine, until the discharge be fully established; after which the pain seldom returns for that period. Sometimes 1 or 2 grains of powdered ipecac, or $\frac{1}{2}$ tea-spoonful of the syrup taken every 2 hours, will bring on the flow freely, when other means fail. Keep up the warm baths for some time.

1. In painful menstruation, great benefit is received from the use of the warm bath; and apply hot water in bottles to the whole surface of the abdomen, with hot bricks to the feet; or apply a hot poultice or fomentation of hops, tansy, or boneset and take the following:—Pulverized camphor, 25 grs.; macrotin, 25 grs.; ipecac, 25 grs.; cayenne, 12 grs.; opium, 12 grs. Mix, and make into 24 pills, with ex. of hyoseyamus, and take 1 pill every 2, 3, or 4 hours, according to the urgency of the case.

2. Take warm hip baths $\frac{1}{2}$ hour at a time. Hot fomentation low down on the back will arrest *overflow of menses*.

3. Take $\frac{1}{4}$ gr. codeia night and morning. You won't need anything else.

4. **Painful Menstruation and Other Pains, Remedy for.**—Dr. King, of Toledo, thinks very much of the following remedy, not only in painful menstruation, but also for pain in the stomach or bowels, colic, cholera-morbus, diarrhea, etc. The author has used it in the latter cases with so much satisfaction that he has faith in its virtues in the first named: Oil of cloves, cinnamon, anise and peppermint, each 40 drops ($\frac{2}{3}$ drs.); put these into 3 ozs of alcohol, and add sulphuric ether and laudanum, each 1 oz. **DOSE**—In bad



SENECA SNAKE ROOT.

(See Description)

This herb is a valuable remedy in advanced stages of Chronic Bronchitis and Pneumonia; also in protracted Whooping Cough and the latter stages of Croup and Bronchitis in infants and children.

cases, 1 tea-spoonful in cold, sweetened water; repeat in 10 to 20 minutes, if needed, and at longer intervals as long as needed. For children, in stomach or bowel difficulties, according to age and severity, from 10 drops to $\frac{1}{2}$ tea-spoonful, as required to meet all cases.

5. Painful Menstruation and Nervous Debility, Stimulating Tonic for.—Quinine, 60 grs.; morphine and arsenious acid, each 1 gr.; strychnine, 1 gr.; alcoholic ex. of aconite (or if this is not on hand, the same amount of the ex. of hyoscyamus may take its place), 3 grs. of the one used. Mix very thoroughly, and make into 30 pills. **Dose**—Take 1 pill only, every 6 hours, until relieved. Women troubled with painful menstruation, should keep them on hand for use, as soon as the least pain is manifested; but do not take them any oftener than 1 once in 6 hours.

Remarks.—This pill I obtained from an old physician, whom I have known over 40 years, and I know him to be in every way reliable. Some will say: "They contain poisonous articles." So they do, and so do very many of our best medicines. It depends wholly upon the amount taken as to their injurious effects; here we have 2 grs. of quinine, $\frac{1}{2}$ gr. of the ex. of aconite, $\frac{1}{30}$ th. of a gr. of morphine and arsenious acid, and $\frac{1}{30}$ th. of a gr. of strychnine, only, in each pill. If they are taken as directed, as to dose and time—1 pill, 6 hours apart—there is not the least danger in their use, as these articles are all sometimes, given in doses twice as large as here given. It is indeed, a happy combination of our most reliable remedies, for cases requiring the properties named—something to allay pain and strengthen the system. After the 30 pills have been taken, if not cured before, wait a week, at least, before having any more made. By that time some of the chinoidine, or cinchonidia pills, found among the *Ague Remedies* or the tonic pills for Debility following *Leucorrhœa*, may be taken, with good results.

DISEASES OF THE WOMB, UTERUS—The organ in which the embryo lives and grows until the time of birth. It is shaped something like a pear, with the broad end uppermost. Its broadest part is called its *fundus*; it has also a body and a neck; its mouth opens into the vagina. In the unimpregnated state, it would hardly contain a kidney-bean, but at the full time, it expands sufficiently to contain one or more children, with their waters, membranes, and after-births. At the upper part of the womb, two broad membranous expansions arise, and are the means of its attachment to the sides of the pelvis; in the doublings of these expansions are situated the ovaria, the receptacle of certain vesicles, which are afterwards animated; and also the tubes, through which one or more vesicles pass down into the uterus, there being an opening at each side of the fundus. Sometimes the embryo grows in one of these tubes, instead of getting into the uterus. Such extra-uterine conceptions are generally fatal to the mother and child. From the womb proceeds the *Monthly Discharge*. (Note 44, p. 792.)

The sympathies of the womb with the other parts are of the most general and extensive kind. Not even the stomach itself has more influence on the rest of the system. When the state and contents of the womb are altered by preg-

nancy, the stomach, the bowels, and digestive functions are in very frequent instances exceedingly deranged. The brain and nervous system, the function of respiration, and the state of the breasts, are all very much influenced by the condition of the womb.

The womb is subject to a variety of disorders, the most common and important of which are as follows:

1. Bearing Down or Falling Down signifies that the womb is lower than it ought to be. The first symptom is an uneasy feeling in the lower part of the back, while the patient is standing or walking; with a sense of pressure or bearing down. As the complaint increases, a swelling appears to come in the way of the discharge of urine, which the patient cannot pass without lying down, and pushing aside the tumor which prevents it. In more advanced and severe cases, the womb is forced altogether out of the parts, as a hard and bulky substance hanging between the thighs. In many cases the protruded parts are ulcerated, and give great uneasiness by their being fretted. Many complaints arise in other parts of the system from this local disease. There is sickness and other disorders of the stomach and bowels, with hysterics and nervous affections; while the inability to take exercise is itself a great evil, and tends to impair still more the general health.

Causes.—Every woman should know these, and avoid them as far as possible. Whatever tends to weaken the general system or the passage to the womb, may give occasion to its falling down. In the unmarried state, all violent or long continued exercise when the person is unwell, has a tendency to bring on the complaint; hence, young women at these times should avoid dancing, riding, and long walking or standing. Married women have it brought on by frequent miscarriage, improper treatment during labor, and taking much exercise too soon after delivery.

TREATMENT. When the disease has occurred recently, and is not very bad, the system is to be strengthened by nourishing diet, by the cold bath, by moderate exercise; and a mild astringent fluid is to be thrown into the passage. This may be made of 20 grs of white vitriol to 1 pint of rose-water. But when the complaint is of longer standing and more severity, the patient must be confined to the horizontal posture; bark and wine, and chalybeate medicines must be employed, and a stronger astringent, as a decoction of oak-bark, with some acid added to it, must be thrown up. Sometimes these means are all ineffectual, and an instrument of wood or ivory, called a pessary, must be worn, to fill the outer passage and prevent the womb from falling down. This instrument should be removed every two or three days, and cleaned. Sometimes this soon effects a cure; but, in general, it requires to be worn for years. If a person liable to this disease becomes pregnant, it disappears about the third or fourth month; and if proper measures be taken after delivery, the return of the complaint may be prevented in many instances. (Note 45, p. 792.)

2. Tumors or Polypi in the Womb and Vagina.—These are of various sizes and consistency; they are sometimes broad and flat at their base, sometimes they have a narrow neck. They occasion a discharge of blood at

times; but when small, they are not productive of much inconvenience. But if they become large, they give rise to symptoms both troublesome and dangerous. There is violent bearing down pain, discharges of blood, or of fetid dark-colored matter from the vagina, pain or difficulty of making water, irritation of the rectum, and a frequent desire to go to stool. When very large, the polypus hangs out from the passage. If the disease be not relieved, the pains become more violent, the constitution is affected, and the continual discharge greatly weakens the patient.

TREATMENT.—As the patients themselves cannot distinguish tumors from other diseases producing similar symptoms, their existence must be ascertained by the examination of a physician; and their removal effected by a surgical operation, either by the knife or by ligature, performed by a surgeon well acquainted with the structure and connections of the parts. No internal remedies will do any good till the tumor is removed. When this is accomplished, the general health is to be improved by proper diet and tonic medicines.

3. Cancer of the Womb.—This, when in a state of ulceration, constitutes one of the most deplorable diseases which can afflict humanity. Cancer of the womb most generally attacks at the decline of life, though not exclusively so. At first the patient has an uneasy feeling of weight at the lower part of the belly, with heat or itching. Afterwards shooting pains occur; then a pain, giving a gnawing burning sensation, seems fixed in the region of the womb. This pain is attended by the discharge of ill-colored, sharp matter, which irritates and corrodes the neighboring parts. As the disease continues, almost every function of the body becomes disordered. Sickness and vomiting comes on, the bowels are torpid and irregular, hectic fever, and great emaciation ensue, and the spirits are dejected and desponding. Swellings of various glands, and watery swellings of the limbs, not unfrequently occur. Symptoms resembling those of the early stages of cancer, may arise from other complaints in the womb, as from polypus growths; the nature of the disease should therefore be, if possible, ascertained at an early period, that the one may be removed, and the other kept from rapid advancement and ulceration, so far as we are able. Cancer in the womb appears to begin with a thickening and hardness of that organ; which we suspect when there are pains in the thighs and back, a bearing down when the patient is using exercise, and occasional discharge of clotted blood.

TREATMENT.—Of the nature of cancer of the womb, we are as ignorant as of cancer in any other part of the body; and when the disease is established, we are as destitute of any remedy. In the periods of deplorable suffering which terminate the life of the patient, we can do little more than palliate symptoms; and the whole tribe of narcotic medicines have been brought into requisition on such occasions. Opium, belladonna, hemlock, and various others have been tried, and failed. Mercury, in every shape, is absolutely pernicious in cancer.

The melancholy distress to which patients are reduced by cancer of the womb, disposes the minds both of themselves and their friends to listen with

eagerness to the promises of relief, which ignorant and interested empirics so liberally make to them. But all such promises must be met with the most obstinate incredulity. The learned, the experienced, and the candid members of the medical profession declare, that, as yet, no drug has been found capable of curing cancer by acting on the constitution and whoever suffers herself to be deluded by the boasts of those whose only aim is to vend their nostrums, loses the time that might be better employed, and neglects those suggestions which might palliate, though they cannot cure, her complaints.

4. Inflammation of the Womb.—This seldom happens, except in the puerperal state. It may occur at any time of life, especially during the years of menstruation. Like other inflammations, it is ushered in by shivering, followed by great heat, thirst, quick hard pulse. Pain is felt in the womb from the beginning, with a sensation of fulness and weight; also a burning heat and throbbing. The exact spot where the pain is felt varies according to the part of the womb that is inflamed; it may be towards the navel, or over the sacro-bones, or shooting backwards, or down the thighs; or it may affect the bladder with pain and suppression of urine, or difficulty of passing it.

It is distinguished from after-pains by the constancy of the pain, by the heat and throbbing of the part, and by the pain being much increased on pressure at the region of the womb.

Causes.—Inflammation of the womb is induced by cold, direct injury external or internal, from medicinal or instrumental means to produce abortion, by difficult or tedious labor, by officious interference during labor, or by forcing the expulsion of the child and after-birth; by too much strong food or heating drinks; by exposure to cold during perspiration, or by using cold drinks.

TREATMENT.—It requires very prompt and active interference, as its progress is very rapid, and its event uncertain and dangerous. If assistance is procured in time, it may be stopped by blood-letting, both general and local, by leeches, low diet, diluent drinks slightly acidulated; with laxative medicines or clysters, and fomentations to the belly. A copious sweat, and a flow of the lochia, with relief from pain, mark the success of this plan of treatment. But we are not always so successful; for the pain sometimes becomes more acute, with throbbing, and an increase of fever, sickness, delirium, and restlessness. In these cases there is risk of mortification; and this is shown to have come on by a languid pulse, low delirium, and cold clammy sweat. Such termination happens chiefly in bad constitutions, or in those who are much debilitated. The discharge does not escape and there is absorption. A physician should be called at once as there is great danger. When the discharge commences, the strength of the patient is to be supported by nourishing diet, the bowels are to be kept open, and bark and wine to be given. Much attention must be paid to cleanliness.

MISCELLANEOUS RECEIPTS FOR FEMALE COMPLAINTS IN GENERAL.

1. **Female Debility, Tonic Pill and Infusion for.**—In cases of female debility from uterine difficulties, often also connected with ague or chills and fever; but whether chills and fever or not, the following pill and infusion will be found valuable:

I. *Pill.*—Sulphate of quinine, 1 dr.; citrate of iron, 2 drs.; solid, or alcoholic ex. of nux vomica, 16 grs. Mix thoroughly, and make into 64 pills. **DOSE**—Take 1 pill only, half an hour before each meal and at bed-time.

II. *Tonic and Alterative, or Infusion.*—In connection with the above pill much additional benefit will be derived in these cases by the use of the compound infusion of gentian, made as follows:

Gentian root, $\frac{1}{2}$ oz.; orange peel and coriander seed, each, 1 dr.; dilute alcohol (half alcohol and half water), 4 ozs.; cold water, 12 ozs., to which in these cases add nitro-muriatic acid, 1 dr. **DIRECTIONS.**—All the articles to be dry and coarsely ground or bruised; then put on the diluted alcohol and let stand 3 or 4 hours; then put on the water and let stand 12 hours, and strain; then add the acid and shake well. "An excellent way," says Dr. Warren, "for using gentian." This plant comes from Germany, growing in the Alps, Apennines and Pyrenees mountains. It excites the appetite and invigorates the digestive powers, and is used in all cases of debility. It is much used in dyspepsia and during recovery from all exhaustive diseases. **DOSE**—Take 1 table-spoonful half an hour after each meal.

Remarks.—If in any case there are ulcerations at the neck of the womb or vagina, let there be taken $\frac{1}{2}$ tea-spoonful doses, 3 times daily, of the syrup of iodide of iron, an hour or two after the infusion is taken; and in these cases of ulceration it is best to submit the case to a physician and have him make such caustic applications as will kill the ulcers. The Monsel salts is a good thing to be applied to them. The fact of ulceration may be known by a sensation of heat, and perhaps pain, at the point of ulceration, the discharge of matter, etc. This combination of treatment is well known to be exceedingly valuable. The nitrate of silver (lunar caustic in stick) is often used, and I have applied it—just touching the surface of the ulcer once in 4 or 5 days, has soon cured them, but more recently I have introduced the Monsel salts upon them, and also along the vagina as the speculum was withdrawn, with very satisfactory results, except that this salt contains iron, and consequently stains the clothing; hence, again, I have applied the sub-nitrate of bismuth, which does not stain, and I cannot see but it does equally well if put on pretty freely twice a week, night and morning, using the injections as given in leucorrhœa (which see).

2. **Mrs. Chase's Magic Tonic Bitters for Weak and Debilitated Females.**—Best red Peruvian bark, prickly ash bark, and poplar root bark, each, 4 ozs.; cinnamon bark, 1 oz.; cloves, $\frac{1}{2}$ oz.; whiskey and clear worked cider, each, 2 qts. **DIRECTIONS, DOSE, ETC.**—Grind all coarsely.

or bruise with a hammer, and put into the jug or bottle with the spirits and cider, (or water, if no good cider can be had, but the cider is much the best), and shake daily for 10 days; take out the dregs, either filter, or strain and press out, as you choose, and take a wine-glass of it immediately after each meal. The dregs steeped in 1 qt. of water will yield considerable more strength, which may be added to the tonic bitters when strained off.

Remarks.—I have made this for my wife several times, and I did not fail to help her dispose of it occasionally myself. Her remark has often been: "Oh! what an appetite it gives me," etc. It is a very valuable tonic, and, from the spices, very pleasant to take.

3. Sore Nipples, Remedy.—A mixture of honey, borax, alum and strong sage tea.—Mrs. Mary Blake, of Parsons, Kan., in *Blade*. Knowing a similar mixture to be valuable as a gargle for sore throat, I believe it will be equally valuable for sore nipples. About $\frac{1}{2}$ tea-spoonful each of powdered borax and alum, and 1 tea-spoonful of strained honey to 1 cup of strong sage tea.

For a Gargle.—A heaping tea-spoonful, each, of the powder, and 2 tea-spoonfuls of honey to $\frac{1}{2}$ pt. of the strong sage tea, will be sufficient, and be found excellent; and for the gargle it would be all the better, if 1 to 2 cayenne peppers (such as pepper sauce is made of), or small red pepper, was steeped with the sage in making the tea. Children, however, cannot tolerate the pepper; then, for children, leave them out. Gargle at least 6 times a day, and for the nipples, wash off the saliva, and apply after each time of nursing. (See also the following, and "Sore Nipples, Breasts, etc., to Avoid and to Cure," below.)

4. Sore Nipples, Efficient Remedy.—A medical writer informs us that nitrate of lead, 10 grs., in 1 oz. of glycerine, or brandy, applied after each nursing, and washed off before each nursing, is an efficient (certain) remedy.

Remarks.—As he leaves it optional to use one or the other, the author would say use $\frac{1}{2}$ oz. each of brandy and glycerine, to the 10 grs. of nitrate of lead.

5. Milk, Suppression of, While Nursing—Treatment to Restore.—I. As this difficulty quite frequently occurs with nursing mothers, and is also sometimes slow in its first secretions after child-birth, I will give an item from the *L'Union Médicale*, a French publication, which will prove valuable when needed. It says:

"When the milk secretion is slow in appearing, in a lying-in-woman (woman in confinement, or child-bearing), or when it ceases from mental or moral causes (not from inflammation of the breasts or other actual disease), it may be made to return by cataplasms (poultices), or fomentation of castor leaves applied to the breast, or by suction of the nipple, or by means of electricity. The mammary gland (the breast), is to be slightly compressed between two sponge electrodes (also known as the poles of a battery), and a feeble current passed through the gland for 10 or 15 minutes twice a day, after the first few electrizations, the breasts become full, the large veins appear on the gland, and the milk secretion is set up.

Remarks.—I have only had an opportunity to test this in one case, which began to improve by the third day. The poultice should be warm, and if the castor-bean leaf can be got (many people raise them as an ornamental plant in the garden), they, too, should be put on as hot as can well be borne. The poultice or the leaves used in connection with the electricity make it more likely to succeed.

II. It is well, also, in suppression of the milk which occurs most generally, if at all, when the child is only a few weeks old, to give acetate of potash, 1 oz., in water, 8 ozs.; adding a little tinct. ess. or fl. ex. of sassafras to flavor. Give in doses of 1 to 2 tea-spoonfuls, in a little more water, 3 times daily, to act on the kidneys, which are generally at fault, governing the dose by this action, not to make too free a flow of urine. As this also helps to relax the secretory functions of the breasts as well as the kidneys, weak coffee with plenty of milk and loaf sugar, and the old-fashioned chocolate, with milk and sugar plenty, drank alternately with the coffee, through the day, is also excellent, says an old doctor who has had large experience; and also rub upon the breasts freely, Trask's ointment, or what he thinks better, the bitter-sweet ointment, given below, all that will be absorbed.

6. Sore Nipples, Breasts, etc.—To Avoid and Cure.—Sore nipples are sometimes caused by wearing the dress or corsets too tight, but most generally by neglecting to wash them with cool water, and properly drying with a soft towel, after every nursing. When there is the least tendency to soreness of the nipples, dust on a little powdered magnesia or starch, kept generally as a baby powder, to prevent soreness in the groins or other folds of the skin. A very little mutton tallow, or, better still, lamb tallow, which is much softer, will prevent chafing when applied to any part liable to chafe. But if they become sore and irritable, make the following:

I. *Bittersweet Ointment.*—Bark of the root, with the outside scraped off a little, $\frac{1}{4}$ lb.; mutton tallow or lamb tallow, $\frac{1}{2}$ lb.; stewed carefully together; then strain while hot, and box or bottle for use. Apply a little after washing and drying the nipples as above at each nursing.

II. *Smartweed Ointment.*—In places where the bittersweet can not be obtained, take smartweed and tallow, the same amount, and make the same way, and use in the same manner as the Bittersweet Ointment.

[The bittersweet makes a most valuable ointment for all healing purposes, and I know of only one thing at all comparable with it for similar purposes, and that is an ointment made with Balm of Gilead buds, same amount, and made the same as the bittersweet. (See also Tinct. of Balm of Gilead Buds for Cuts, Bruises, Wounds, etc.) But the smartweed ointment is considered much the best to prevent breasts from inflaming and going on to suppuration.] So if there is danger of this, use the smartweed, if obtainable, or the following:

7. Sore Breasts, to Prevent Breaking, etc.—As soon as there is inflammation and swelling of the breast, indicating any danger that suppuration will take place, send to the druggist and obtain fl. ex. (remember, fl. stands for fluid and ex. for extract,) of poke root, 4 ozs., and apply to the breast by

wetting cloths with the extract and keeping upon the breast. Also take internally of the same, in doses of 5 to 10 drops, in a little water, every 3 hours, until you see improvement has commenced; then every 4 or 5 hours, lessen the dose to 3 to 8 drops. (A large, fleshy and robust woman will take the 10 drops; small and feeble ones, the 5 only.) Re-wet the cloths, at least, as often as taken internally.

Remarks.—This is from Dr. Duncan (referred to in II., for Milk, To Dry Up), who says of it: “If administered early, it will in 12 hours begin to give relief, and in 36 hours all traces of inflammation will have subsided and disappeared.” He has used it in numbers of cases, and always with success, when begun as soon as inflammation set in, and before suppuration began. He thinks it, in such cases, specific (positive cure).

But if it is seen that the inflammation of the breast will go on, in any case, to suppuration, poultice with slippery elm, or bread and milk, as warm as can be borne, till they break without lancing, if possible; but when it comes to lancing, this calls for a physician. So I will leave the further treatment of that condition to him, simply remarking that a weak tinct. of myrrh and aloe, or a weakened tinct. of the muriate of iron, make good injections into the orifices; if they do not heal kindly, with some of the healing ointments, as Bittersweet, Balm of Gilead, etc., which are good to heal any sore on persons or domestic animals. (Note 46, p. 792.)

8. Itching of the External Genital Organs.—The delicate internal lining of the external organs of generation sometimes becomes the seat of a most distressing itching, to relieve which the parts may be so irritated by friction as to become violently inflamed. Leeches have been used sometimes with benefit: so has the application of cold, such as ice-water, or even lumps of ice introduced into the vagina. When there is an eruption like that in the sore mouth of children, injections of a strong solution of borax have been very useful; thick starch water, with a solution of sugar of lead, injected into the vagina and retained for an hour or two, have been also of great utility in a few cases under our care. This irritation sometimes arises from disease of the womb, pregnancy, the presence of a stone in the bladder, or worms in the bowels. The original affection must first be attended to in these cases.

9. Milk, To Dry Up—Camphor and Soap Liniment for.—Take a pint bottle and put into it alcohol, 12 ozs.; gum camphor, 1 oz.; and when dissolved, fill the bottle with good soft soap; but if no soft soap can be obtained, put in castile soap (shaved finely), 2 ozs., and fill the pint bottle with alcohol. Either has to be shaken when used; apply by wetting cloths and laying on 3 or 4 times a day, after having rubbed the breast thoroughly each time. Before rubbing, however, apply a little of the Bittersweet Ointment, or a little mutton or lamb tallow, to enable the hand to glide over the breast easily. Careful rubbing is good alone—with the hand, or a soft, dry towel, properly gathered in the hand, so it shall not slip. The friction must always be gentle, but continued some time. If you want to avoid a broken breast, see “Sore Nipples, Breasts, etc., to Avoid.”

D. P. Duncan, M. D., of Waynesboro, Ga., says that mint leaves, steeped and applied to the breast, will at once stop the secretion of milk, even of one breast alone, leaving the other with its usual flow of milk, if desired. The poultice should be applied hot, and changed when getting cold.

10. Sore Nipples.—Nothing better than pulverized gum acacia applied every night, or as often as convenient.

11. Prevent Flooding.—Put your bandage on early and secure it firmly with good, strong safety-pins; as time and labor advances tighten the bandage.

12. Hemorrhage Pill.—Sulphate of berberine made into 5 gr. pills; take every 2 hours if necessary. Women suffering from *excessive flow* may rely on these pills, and should always keep them on hand. The same cures itching of the vulva.

13. Offensive Urine—10 to 20 grs. of boric acid will remedy it every time.

14. Vomiting during Pregnancy—1 drop of chloroform in hot sweetened water stops it.

15. Leucorrhœa or Whites.—Back ready to break. Take pulverized egg shell (burn the shell so as to pulverize it) 10 grs. with sweetened milk.

1. BABY'S RECEIPTS.—Sore Mouth.—Wash with cold water, with a drop of alcohol in it.

2. Colic.—Aromatic spirits of ammonia, 2 to 4 drops in milk is as good a thing as I ever discovered.

3. Nursing Baby's Colic.—Let the mother take 1 gr. pill of asafoetida every morning for a week; baby will take more comfort. Anise tea taken by the mother increases the flow of milk and prevents colic. Fennel seed tea has the same effect.

4. Baby's Sore Mouth.—Borax mixed in honey and applied to the sore.

5. Baby's Food.—Boil sugar of milk, 1 oz. in $\frac{1}{2}$ pint water 15 minutes, then add $\frac{1}{2}$ pint fresh cows' milk and boil again. Always give from bottle lukewarm. If bowels are loose add a tea-spoonful of ground barley, and if bowels do not move freely, use oatmeal instead, boil 15 minutes. Do you want to "make the baby fat," bring fresh milk just to a boil, add 1 table-spoonful each of corn starch and white sugar, and continue to boil until it thickens.

6. Baby's Diarrhea.—In the course of 24 hours give the white of an egg well beaten and stirred into 5 or 6 ozs. of water that has been boiled, add 3 to 5 drs. condensed milk. Increase the quantity if necessary.

7. Spasms of Children.—Apply a rag wet with ice water, or ice itself to the back of the neck, just below the base of the brain. Never apply it to the head.

8. Fretful Baby.—Give it onion tea. The same is also good for colic and colds.

MIDWIFERY—NURSING.

THE EARLY SIGNS OF PREGNANCY: Cessation of Menses—Morning Sickness—Changes in the Breasts—Enlargement of the Abdomen—Calculation of the Probable Date of Confinement.

First Signs of Pregnancy.—The first circumstance to make a woman suspect that she is pregnant is generally the non-appearance of her usual monthly discharge. This is called the cessation of the *menses*, or monthlies, and is one of the most constant signs of pregnancy. Cases, do, indeed, now and then occur, in which, notwithstanding pregnancy, the customary flow takes place for the first few months just as usual, and in certain still rarer instances it has been known to appear regularly throughout the pregnancy.

On the other hand its absence is by no means a sure indication of pregnancy, as it may be due to many other causes; such, for example, as an attack of severe illness, a condition of general weakness, or even strong emotional excitement.

Another Symptom.—The next symptom to attract attention is usually a feeling of sickness, often most distressing in the early morning, and sometimes accompanied with vomiting. This commences about the fourth or fifth week, and continues to the middle of pregnancy, when it generally ceases. Occasionally it lasts to the end of the pregnancy, while, on the other hand, in some women it is entirely absent throughout.

Shortly after pregnancy has commenced, a sensation of weight and fullness is felt in the breasts. A little later these organs enlarge, and the nipples become more prominent; the skin, too, just around the nipples becomes darker in color, an alteration most marked in women of fair skin and light complexion. Of course these changes are most noticeable in women who are pregnant for the first time; for when they have once occurred, the breasts never quite resume their original appearance, so that subsequent changes are less observable. The breasts *may* increase in size, and *may* even contain milk, without pregnancy; *as*, for example, in the case of certain diseases of the womb.

Enlargement of the Abdomen.—About the end of the third month the abdomen begins to enlarge, and continues to do so from that time forwards; by the end of the seventh month the hollow of the navel has generally disappeared. It need scarcely be said, however, that the abdomen may enlarge from many other causes, so that not one of the four signs above described affords, when taken alone, positive proof of pregnancy; although, when two or more of them are found to be present, there is good ground for a strong suspicion. Whenever it is important that the question of pregnancy should be established beyond a doubt, a doctor should be consulted.

Probable Date of Confinement.—The usual method of reckoning the probable date of confinement is to learn on what day the last monthly flow ceased, then to count three months backwards (or nine months forwards) and add seven days. This is, in practice, the best plan that has been suggested, and will generally give a date within a very few days of actual confinement, frequently the very day. The following example will show how the calculation is made:—A woman, we will say, was last unwell on March 10; counting three months back from March 10 gives December 10; add seven days and it will give December 17, which is the probable date of her confinement. If it is not the actual day, labor will in all probability take place within three or four days before or after it.

Movements of the Fœtus.—The movements of the fœtus are not perceived by the mother until between the fourth and fifth months—that is, until pregnancy has advanced about half-way. Not very uncommonly the occurrence of the first definite movement of which the mother is conscious is accompanied by a sensation of nausea and faintness. It is this fact which gave rise to the opinion long held, and still prevalent amongst the ignorant, that the fœtus then for the first time becomes living, an opinion that finds expression in the word “quickening,” the use of which, like that of many other words, has outlived the theory in which it had its origin. As a matter of fact, the fœtus is living from the very commencement of pregnancy, and the reason why movements are not felt during the earlier half of pregnancy is to be found in the fact that the womb itself is not sensitive, and that it is not until the middle of pregnancy that that organ has enlarged sufficiently to bring it in direct contact with a part fully endowed with sensibility—namely, the inner surface of the abdominal wall. From the moment when they are first perceived, the movements of the child become more and more distinct as pregnancy advances and constitute one of the most important of the later signs of that condition. When from any cause it is impossible for the probable date of confinement to be calculated according to the rule laid down in the preceding paragraph (as, for example, when the date of the last menstruation is uncertain, or when one pregnancy succeeds another so quickly that menstruation has not been re-established in the interval), it may be approximately arrived at by reckoning it as four and one-half months after the date of “quickening.”

MANAGEMENT OF PREGNANCY: General Rules—Constipation—Piles—Hardening the Nipples—Swollen Breasts—Varicose Veins—Falling Forward of the Womb—Obstinate Vomiting—Difficulty in Passing Urine, &c.

Proper Treatment of Pregnancy.—The proper treatment of pregnancy consists for the most part in paying increased attention to the laws of health. A pregnant woman requires a full allowance of rest, and should therefore be careful to avoid late hours. She should take plenty of outdoor exercise whenever the state of the weather permits; and, while avoiding all unnecessary strain, such as the lifting of heavy weights, or reaching things

from a height, she may engage in the lighter duties of her house, not only without risk, but with actual gain of health and strength. Her food should be taken with the utmost regularity, and should be plain and simple in its nature. Good new milk should form a considerable part of her every-day diet. Stimulants are entirely unnecessary, except when taken under special medical direction.

As the abdomen enlarges it is of the utmost importance that the clothing should not be tight. A foolish regard for appearances has led many a woman into most lamentable mistakes on this point.

During pregnancy the mind should be attended to as well as the body. All unnatural excitement is to be carefully guarded against, and *distressing sights are to be especially shunned*.

Action of the Bowels.—Great care must be exercised to ensure a daily action of the bowels. An excellent plan is to set apart a certain hour of the day for attending to this function, whether the desire for relief be urgent or not. Perhaps the most convenient time for most people is immediately after breakfast. By following this simple rule, a habit is established which will go far to obviate the necessity for aperient medicine. When such medicine is required, it should be of the simplest possible kind; for example, a compound rhubarb pill, or a little castor-oil. When constipation is associated with piles, the aperient chosen should be a tea-spoonful of sulphur in a little milk every morning, or a similar quantity of the compound liquorice powder made into a paste by mixing a little water with it; and the patient should be instructed to make her daily visit to the water-closet immediately before retiring to bed for the night. By these means the aching pain which, under such circumstances, is apt to follow every action of the bowels, may be considerably diminished. Injecting half a pint of cold water into the bowel, immediately before the bowels are moved, often proves highly serviceable. Should the piles become inflamed or unusually painful, the patient must keep her bed for a day or two, and bathe the parts with warm water from time to time. Where these measures are required, however, the medical attendant should be consulted.

The nipples, especially in first pregnancies, should be hardened by bathing them daily during the last month or two with a mixture of equal parts of eau-de-Cologne and water, in order to render them less liable to crack and become sore and painful on the application of the child. Inflammation and abscess of the breast often originate in cracked nipples.

Sore Breasts.—When the breasts become swollen and painful, they should be frequently fomented with flannels wrung out of hot water, and, in the meantime, should be supported, as in a sling, by a broad handkerchief passing under the arm of the affected side and over the opposite shoulder.

Sometimes the veins of the legs, thighs, and lower part of the body become swollen and uncomfortable. Under these circumstances, the patient should lie down as much as possible every day, and at once discontinue the use of tight garters.

In women who have borne many children, the abdominal walls are apt to become relaxed, and the pregnant womb, being insufficiently supported, is

men in danger of falling forward, so as not only to produce deformity, but to prove a hindrance during labor. A flannel binder, or one of the abdominal belts sold for the purpose, should in these cases be constantly worn during the daytime.

Now and then the sickness, already alluded to as a common accompaniment of the early months of pregnancy, becomes so troublesome and incessant as to cause serious loss of strength. Under such circumstances consult a physician.

(**The Urine.**—Towards the end of pregnancy it is not at all unusual for there to be some difficulty in passing urine, and for the desire to pass it to become very frequent. Should these symptoms, however, occur during the earlier months, and especially during the third and fourth, a medical man should be consulted; as they may be due to a displacement of the womb, which requires immediate attention.

Troublesome heartburn, diarrhœa, palpitation, persistent neuralgia, salivation, itching or swelling of the external parts, swelling of the face or ankles, all require prompt attention, and if severe, the personal care of the medical attendant.

UTERINE HEMORRHAGE DURING PREGNANCY: Its Usual Significance and Temporary Treatment—Placenta Prævia—Precautions after Previous Abortions—Treatment after Miscarriage.

Uterine Hemorrhage, or a discharge of blood from the womb, during pregnancy, is usually a sign that miscarriage is threatening, and hence requires prompt medical attention. In summoning a doctor under these circumstances it is always desirable to send a note, rather than a verbal message, and to state clearly the nature and urgency of the case. Meantime an endeavor should be made to restrain the hemorrhage by causing the patient to lie down, with the head low and a pillow under the hips, by admitting plenty of cool, fresh air into the room, and by ensuring perfect quietness.

If possible, the services of a trained nurse should be obtained at once, and she, with perhaps one other person, should alone remain in the room. Cloths, dipped in cold water or in vinegar and water, must be applied to the external genitals for a few minutes at a time, the application being frequently repeated. If wet cloths are kept on for a longer period, they are sure to become warm, and so, by acting as a poultice, defeat the object in view, and indeed tend rather to increase than to check the flow of blood. When the hemorrhage continues, or becomes very profuse, the nurse must not hesitate to send for the nearest doctor as well as for the ordinary medical attendant. In such cases it will be desirable for her to take a dry napkin or two, and, having folded them in the form of a pad, to press them forcibly against the external genitals and hold them there. All the discharges, whether solid or fluid, should be carefully retained for the inspection of the medical attendant.

These alarming hemorrhages are often brought about by accidents, such as blows or falls, or by the lifting of heavy weights. But when flooding first makes its appearance, at the seventh month or later, and there has been no such accident to account for it, the probability is that the case is one of *placenta prævia*, in which the after-birth is in an unusual position—namely, over the mouth of the womb, constituting a very dangerous complication. The temporary treatment of flooding due to this condition in no way differs, however, from that already described.

When previous pregnancies have been cut short by miscarriage, it is very necessary that the greatest precautions should be observed to avoid the repetition of such an accident. Now, we know from experience, that miscarriages are most apt to take place at those times which, in the absence of pregnancy, would have been the ordinary menstrual periods. It is on these occasions, therefore, that preventive measures are most needed and most likely to be useful. Every month, then, during the time that the patient would, under other circumstances, have been unwell, she should maintain the recumbent posture, if not in bed, at any rate on a couch. If this simple rule were attended to, many a miscarriage would be averted. A woman known to be liable to abortion should, moreover, be specially careful to avoid all its most common causes; she should abstain from exciting entertainments, violent exercise, fatiguing or rough journeys, strong purgative medicines, and exposure to cold. And, lastly, as it is very doubtful whether any of the causes I have named are sufficient in themselves to bring on abortion, without a predisposition thereto from some local or general weakness or disease, it is very desirable that patients who have formed the so-called "habit" of aborting, should consult their medical attendant at the commencement of pregnancy with a view to being placed under a regular course of treatment.

The after-treatment of patients who have miscarried is a most important matter, and one which receives far too little attention. It is no uncommon thing among patients of the laboring and middle classes for women to go about their ordinary duties as early as the second or third day, and some do not even rest for more than a few hours. Now, although this neglect of proper precaution may not result in any immediate ill-effects, it frequently lays the foundation of chronic disease with much attendant misery and suffering. Whenever nurses have an opportunity they should tell their patients what there is in store for them if they resume their ordinary duties too soon after such an occurrence. No absolute rule can be laid down as to the length of time during which rest is necessary; it depends so entirely on circumstances that vary in different cases. Thus, in a case of abortion during the early months, for instance, where the loss has been small and the health has not suffered, four to six days' absolute rest in bed, followed, during the next ten to fourteen days, by the greatest care and prudence, will, in the absence of special directions from the medical attendant, be generally found sufficient. When the health is unaffected it becomes very irksome to lie in bed for the time here indicated; nevertheless, this rule cannot be neglected without running grave risk.

Should the pregnancy be further advanced, or the circumstances less favorable, a longer period of rest will be required. Where there has been severe or long-continued flooding, a patient is frequently reduced to a condition of weakness quite equal to that following an ordinary confinement. In such cases it is only reasonable to expect the same care to be exercised as after a labor at full term.

On no account should a patient leave her bed, after a miscarriage, so long as any discharge of blood continues, as, while that persists, it is uncertain whether there is not some portion of the after-birth or membranes still remaining in the womb, and rendering the patient liable to further attacks of flooding.

PROCESS OF NATURAL LABOR: Signs of Approaching Labor—Its Division into Stages—Labor-Pains.—The “Bag of Waters”—Description of First Stage—Of Second Stage—Of Third Stage.

Approach of Labor Pains.—Towards the latter part of the ninth month, certain changes take place which give warning that labor is not far off. One of the earliest of these is sinking of the abdominal swelling; the upper end of the womb, which at the beginning of the ninth month, reaches as high as the pit of the stomach, now falls a little below that point. Great relief to the breathing follows this alteration, as the pressure upon the organs within the chest is thereby greatly lessened. On the other hand, owing to this change in the position of the womb, certain new inconveniences arise from the pressure of its lower portion on the various important parts contained in the pelvis. Thus, walking becomes more difficult, the bladder requires relieving more frequently, and piles are apt to form.

A sign that makes it probable that labor is actually about to commence is the appearance of a slight discharge of mucus, streaked with a little blood. This is spoken of, in the lying-in room, as the “show.”

Labor is Divided, for the Sake of Description, into Three Stages.—*The first* of these is called the stage of dilatation of the mouth of the womb; *the second* lasts from the moment when that dilatation is completed up to the birth of the child; while *the third*, or last stage, includes the time from the birth of the child to the coming away of the after-birth, or placenta.

The so-called pains of labor are, in reality, contractions of the muscular wall of the womb. At the early part of labor they are slight, occur at long intervals, and are felt mostly in the lower part of the front of the abdomen; as labor advances, they become longer and more energetic, follow one another more quickly, though always with a certain regularity, and are generally felt chiefly in the back and loins. Each pain is comparatively feeble at its commencement, increases in intensity until it reaches its height, and then gradually passes off. This character, together with the regularity of their recurrence, serves to distinguish pains really due to uterine contraction from colicky and other pains, for which they are sometimes mistaken.

The bag of waters consists of the membranous coverings of the fœtus, enclosing within them what the doctors call, the *liquor amnii*, in which the child floats. During pregnancy this fluid serves to preserve the child from injury; during labor it forms a pouch at the mouth of the womb, which it acts upon like a wedge, and so assists in dilating. Experience tells us that, when the waters escape early, labor is rendered more tedious. The explanation of this is to be found in the fact that the bag of waters, being round and even, and pressing on the mouth of the womb (*os uteri*) equally all around, the mouth of the womb is opened out more rapidly and easily by this even pressure than by the uneven surface of the presenting part of the child.

As the *os uteri* opens, and the end of the first stage draws near, the pouch formed by the protruding membranes is pushed further into the front passage, or vagina, and, the pains becoming more violent, the membranes at last give way during a pain more severe than the rest, and so the waters escape. In natural labors this usually happens as soon as the mouth of the womb is fully opened and thus the *first stage of labor is ended*.

The head of the child now begins to pass through the *os uteri*. After a certain time, usually much shorter than that occupied by the first stage, it reaches the vaginal opening, through which it gradually escapes, and thus the child is born, and the *second stage is completed*.

The pains of the first stage are called "grinding pains," and are different in character from those of the second stage, which are known as "forcing" or "bearing pains." The cry which is called forth by the pains during the first stage is also different from the groan which escapes from the patient when the pains of the second stage commence. An experienced nurse knows from this circumstance alone that the first stage is over, and as the sending for the doctor ought on no consideration whatever to be delayed beyond this period, it is a point of great practical importance.

The pains now become stronger and more frequent; the patient, holding her breath and bearing down at each return of the pain, becomes hot and flushed, and breaks out into a profuse perspiration. At the end of each pain the head of the child goes back a little, which prevents the strain from being so continuous as to be hurtful and exhausting. Nevertheless, almost every pain marks an advance upon the one preceding. This slight withdrawal of the head is frequently perceived by the patient herself, and unless explained to be natural and necessary, is apt to make her think she is not making any progress. There eventually comes a point, however, when the head is so far expelled that it no longer recedes between the pains. The intervals become shorter, and the pains more severe, until at last the head slips out altogether, and then the most painful part of the labor is over. The uterus usually now rests for a moment. Then the face of the child makes a little turn towards one of the patient's thighs, generally the right, in order that the shoulders may be brought into such a position that they may pass with the least difficulty. With another strong pain the shoulders are expelled. The rest of the body gives little trouble, for no part of it is as broad as those which have already passed.

The contractions of the womb now cease for a short time, varying from five to ten or twenty minutes, when a little pain is again felt, and the after-birth and membranes are discharged, along with a small quantity of blood, with which a few clots are generally mixed.

Such is a brief account of the order of events in a perfectly natural labor.

DUTIES OF A NURSE DURING LABOR—Articles Needed in the Lying-in Room—Preparation of the Bed—Personal Clothing of Patient—Number of Persons in the Room—Caution in Conversation—Attention to the State of the Bladder—Food—Vomiting—Cramp—Fomenting the Perineum in First Labors.

If the nurse is not already in the house, the appearance of the first discharge or "show" is a sufficient warning that she should be summoned. No time should be lost in obeying the call, for many women, especially if they have borne children previously, pass through all the stages of labor very quickly. On arriving at the house the nurse should make the necessary changes in her dress, and appear before the patient ready for duty. An opportunity will soon occur of forming a judgment as to whether the patient is really in labor, and, if so, how far it has advanced. If labor has actually commenced, the patient will, before long, cease speaking, suddenly grasp the nurse's arm, or the back of a chair, or whatever happens to be at hand, and exhibit other signs of suffering. The nurse will know, by the characters enumerated on a previous page, whether this is a genuine labor-pain or not, and will observe how long it lasts and the degree of its severity. When it is over, she should inquire when the pains began, how often they return, whether the waters have been discharged, and other similar questions, in order that she may know what kind of message she is to send to the medical attendant, who ought at once to be informed that his patient is in labor.

Let me now suppose that the nurse has made sure that her patient is in labor, and that she has acquainted the medical attendant.

If the bowels have not been freely opened within the last six hours, it will be desirable to give a simple enema of soap and water. The emptying of the lower bowel will facilitate the labor, and will save both the patient and attendant the annoyance caused by the passing of feces during a later stage. This having been attended to, the patient may be allowed to sit up in a chair or walk about the room, according to her inclination, provided it is clear that the labor has not yet reached its second stage. If it is night-time, however, it is better for her to remain in bed, in order that she may, if possible, get a few moments' sleep between the pains. During the early stage of labor it is of no use for patients to "hold their breath and bear down" during each pain, as they are often urged to do by untrained and inexperienced nurses. It must always be left to the medical attendant to decide when bearing-down efforts have become desirable and ought to be encouraged.

It is often a great relief to a patient for the nurse to support her back with her flat hand during a pain. In the meantime she should see that all things are in readiness for the actual confinement. The following are always wanted:—

Basins.	Sponges.
Binder.	Thread, or strong worsted, for tying cord.
Napkins.	Towels.
Needles and Thread.	Vaseline, cold cream, or lard.
Nursery, or safety, pins	Water, hot and cold.
Olive-oil.	Waterproof sheeting.
Pieces of old linen.	Puff-box, and complete set of clothes for the baby.
Receiver.	
Roller-towel.	
Scissors.	

In addition to the above it is advisable to have in the room some good brandy, a fan, a syringe, a foot-bath, and a nursing-apron.

The **Binder** usually consists of two pieces of stout twilled cotton, each two yards long and of good width, the edges of which are stitched together so as to make the binder of double thickness. On an emergency, a small table-cloth or cotton sheet, suitably folded, answers the purpose very well.

The **Receiver** should be of flannel made of double thickness, and large enough to wrap the child thoroughly. The flimsy receivers sometimes used are only fit to protect a doll. A good thick flannel petticoat, or a cot-blanket, is as good as anything.

The **Thread or Worsted for Tying the Cord** must be made ready in the following way: Twelve equal lengths, measuring about a foot, are to be laid side by side and arranged evenly. Six of these lengths, are then to be knotted together at a distance of about two inches from each end, and the remaining six in the same way. Having been thus prepared, the threads must be laid on the dressing-table, and a pair of good scissors by the side of them, ready for handing to the medical attendant at the proper moment.

The **Preparation of the Bed** is a matter of considerable importance, and ought to be attended to during the early part of labor. Women are usually delivered lying on the left side, with the knees drawn up towards the abdomen. The right side of the bed, therefore, is the one which requires preparing, and that part of it near the foot is preferable because the upper part of the bed is thus kept clean and comfortable for the patient when the labor is over, and because of the help derived from being able to plant the feet firmly against the bed-post during the pains.

The mattress being uncovered, a large piece of rubber cloth is to be spread over it, and upon this a sheet folded several times. Next to this should come the clean under-sheet, on which the patient is to lie, and upon that another piece of waterproof sheeting, large enough to reach above the hips. Over this upper rubber, and ready to be removed with it after the labor is over, are to be then placed a folded blanket, and, lastly, a folded cotton sheet, both of which should reach well above the hips, so as to absorb the discharges.

Two pillows are then to be put in the centre of the bed, so that the patient may lie with the upper part of the body directly across the bed, the hips being as near the edge as possible. The upper bed-clothing during labor should consist of a sheet, one blanket, and a thin counterpane, which should completely hide from exposure every part of the patient's person, except the head and neck. A long roller-towel should be fastened to the bed-post at the patient's feet. Nurses often make the mistake of fixing this to the post at the opposite corner, or even to one of the posts at the bed's head. A very little consideration, however, will make the inconvenience of this arrangement apparent. By grasping the end of a towel, attached in the way I have recommended, the patient pulls herself still closer to the edge and foot of the bed; whereas, by pulling at a towel fastened to one of the posts on the further side of the bed, she drags herself away from the very position which it is desirable she should preserve. The same objection, of course, applies to supplying the place of the towel by means of the hands of an attendant standing on the left side of the bed. This should never be encouraged, as it always has a tendency to displace the patient, and to render it difficult for the medical attendant to give needful assistance.

As labor advances, and it becomes necessary for the patient to be placed in bed, she should put on a clean chemise and night-dress, which should be rolled up under the armpits out of reach of the discharges, while the soiled chemise and night-dress should be slipped down from the arms and shoulders, and loosely fastened round the waist. (Amongst the working classes it is still too much the custom for women to be confined in their every-day dress. It is a practice that ought always to be discountenanced.) The hair should be dressed in such a way that the continuous lying in bed after the confinement will not drag upon or entangle it more than is inevitable.

It is very undesirable for a woman in labor to be surrounded by a number of friends and neighbors. In most cases the nurse herself is the only attendant that is really needed, although the presence of one other person (the husband) should not be objected to, if the patient wishes it.

No nurse should ever allow herself to be teased into prophesying that the labor will be over by a certain hour. If such prophesies turn out incorrect, as they are most likely to do, the patient loses courage and confidence. All gossip is to be avoided, and nurses should be particularly careful to make no reference to their past experiences, especially such as have been unfavorable. A good, kind nurse will not be at a loss for a few helpful and encouraging words as labor goes on, and will not need to have recourse either to foolish promises or dismal anecdotes.

Every now and then the patient should be reminded to pass water, lest the bladder should become so full as to hinder labor. This point is often neglected, partly because the attention is so preoccupied that the desire to empty the bladder is scarcely perceived, and partly because when the waters have broken, the escape of a little gush of amniotic fluid during each pain often misleads the patient, making her think she has passed urine when really she has not.

Food for the Patient.—In the early part of labor when pains are slight and the intervals long, there is no reason for interfering either with the charac-

ter or regularity of the patient's ordinary meals, provided there exist the desire for solid food. During the later stages, however, it is wise to confine her to fluids, such as beef-tea, gruel, milk, and tea, and to administer them in small quantities at a time, so as not to overload the stomach and excite sickness. Patients often ask for a little cold water, and many nurses, influenced by old traditions, fear to gratify the wish. A sip of pure water can never do harm, only it must be a "sip" and not a tumblerful, the patient being assured that small draughts, frequently repeated, assuage thirst far better than larger quantities. On no account must stimulants be given, except when expressly ordered by the medical attendant.

Vomiting is a troublesome symptom and distresses the patient, but its influence on the progress of the labor is in no way unfavorable. Should it, however, be excessive, it is well to give a little iced effervescing water from time to time.

Cramps During Labor.—Many patients suffer very severely from cramp during labor. Relief can frequently be obtained by stretching the limb straight out, and at the same time bending the ankle so as to put the muscles of the calf well on the stretch. Gentle rubbing of the affected part with the hand also affords great comfort.

In the case of patients who have not borne children previously, it is an excellent plan to diligently foment the perineum from the very outset of labor, so as to render the skin softer and more yielding, and lessen the risk of tearing.

DUTIES OF A NURSE DURING SECOND STAGE OF LABOR:

—What to do in the absence of the Medical Attendant—
Supporting the Perineum—Assisting at the Birth—Tying
the Cord—Breech Cases—The Third Stage—Application of
The Binder, &c.—Convulsions—Fainting—Falling Forward
of the Womb.

When the pains alter in character, compelling the patient to make efforts to bear down, and the face begins to get flushed and the skin to become moist with perspiration, the nurse may feel pretty well assured that the first stage is over; and if the medical attendant has not arrived, she should request him to be summoned without delay. In the meantime, the patient must be put to bed, and encouraged to bear down and assist the pains. The binder, napkins, and receiver must be spread near the fire in readiness.

Should the child's head press upon the perineum before the arrival of the medical attendant, a warm folded napkin may be placed in the palm of the nurse's left hand and held against the bulging perineum, the fingers being directed backwards, so that the front edge of the perineum may receive the chief support. The object of this is to prevent the child's head passing too quickly and suddenly forwards to the vaginal outlet and to preserve the perineum from being torn. The great point at this stage is to avoid doing too much. Nothing but harm is likely to result from attempts to enlarge the opening by stretching the lips apart with the fingers, or to push back the edge of the perin-

eum in the hope of facilitating the escape of the head. Contrary to the popular belief, the attendant's duty is rather to keep back the head by gentle pressure, than to hasten its expulsion. Above all things there should be no pulling; Nature is to be allowed to do her own work.

If the medical attendant be still absent when the head is born, the nurse must spread the flannel receiver close up to the vaginal orifice, and receive the head of the child upon her right hand, still keeping up the gentle pressure upon the stretched perineum until the shoulders have passed out. Even then the body and legs must be left to follow of themselves, the nurse meanwhile holding up the parts which are already born. The upper bed-clothes should be now turned back sufficiently to allow the child to breathe, without causing any exposure of the patient herself. If the navel-string is found coiled around the child's neck, it must be slipped over its head as quickly as possible, lest the life of the child should be sacrificed owing to a stoppage in the circulation of the blood through the cord. Very occasionally it happens that the child is born with the membranes unbroken; they will in such cases be found drawn tightly over the little face, and will cause death from suffocation, unless quickly torn open and the mouth freed. Amongst some people this occurrence is known as being born with a *veil* or *caul*.

The cry which a child usually utters as soon as it is born, helps to fill the lungs with air, and is on that account rather to be encouraged than checked. If the child does not cry, the nurse must examine the mouth to ascertain whether there is anything either over it or within it, preventing the breathing. Sometimes there is some frothy mucus in the mouth which can be cleared away with the finger. It is often useful, also, when breathing is delayed to turn the child on its face, and give it a few gentle slaps on the back with the flat hand.

The navel-string must not be tied until the breathing is established, unless it is quite evident that the child is still-born. The first ligature must be tied an inch and a half from the navel, and the knot must be pulled tightly two or three times so as to squeeze out of the way the jelly-like material which surrounds the blood-vessels of the cord; otherwise the vessels may not be closed by the ligature, and bleeding from the stump may occur to a fatal extent while the nurse is attending to the mother. The second ligature is placed an inch further from the child than the first one, and the cord is then divided with scissors mid-way between the two. All this must be done outside of the bed-clothes, lest some other part than the cord be cut in mistake.

Now and then it happens that a nurse has to take the temporary charge of cases where not the head, but the breech, passes out first. Delivery with the child in this position is full of danger to the life of the child. The nurse must not hasten matters by pulling, even when the legs are already born; but, when the whole of the child's body has passed except the head and arms, and when these parts appear to be arrested, she may endeavor to assist Nature by bringing down the arms from the sides of the child's head in the following manner:— Passing her forefinger up the child's back, and over its shoulder, she draws the

arm gently down across the front of the chest by hooking her finger into the bend of the elbow. The same manœuvre is repeated with the other arm. The head will then be the only part remaining unborn. It is possible that, now that the arms have been brought down, the efforts of Nature may be equal to the task of expelling the head. Should the pains, however, prove ineffectual, the nurse may render further assistance by pressing with the fingers of one hand against the back of the child's head and so tilting the head forwards, while with the two first fingers of the other hand, placed one on each side of the nose, she endeavors to draw down the face. This plan is generally preferable to the one, not unfrequently adopted, in which traction is made by placing the fingers in the child's mouth. In all breech-cases a warm bath should be in readiness, in the event of the child requiring to be resuscitated.

The child, having been now separated, is to be wrapped in the receiver, with the face alone exposed, and placed out of harm's way on the other side of the bed. The patient must be warned to lie perfectly still, and to wait patiently for the one or two insignificant pains which accompany the expulsion of the after-birth. These generally occur from five to twenty minutes after the birth of the child. Meanwhile the nurse must provide the medical attendant with a basin or other vessel, previously warmed before the fire, to receive the after-birth, and one or two warm napkins.

Should the medical attendant, however, be still absent, the nurse must place her hand upon the abdomen of the mother and ascertain whether there is another child. If she should find such to be the case, she must convey the news to the mother very cautiously, assuring her that the second child will be born with much less pain than the first. If there is no second child to be felt, the nurse will do well to keep her hand laid upon the mother's abdomen until a slight pain occurs, when she must spread out her hand like a fan and gently press the uterus so long as the pain continues. Meantime, she is to hold a suitable vessel in her left hand ready to receive the placenta when it is expelled, taking care on no account to pull the cord. Sometimes the placenta and membranes are expelled during the first pain; more frequently two or three pains occur before this takes place.

If the uterus can be felt, under the hand, hard, firm, and as small as a good-sized cricket-ball, the placenta, if it has not already made its appearance, will in all probability be found lying in the vagina. In order to make sure about this, the hand may be withdrawn from the front of the abdomen, and the fore-finger passed gently up by the side of the cord. If the insertion of the cord into the after-birth can be easily and distinctly made out, it is pretty certain that the placenta has escaped from the uterus into the vagina, and it may, therefore be carefully hooked down with the finger. As the placenta passes out, it is a good precaution to twist it round once or twice, so as to make a wisp of the membrane and bring them all away at the same time. A slight discharge of clotted and fluid blood usually accompanies the termination of the third stage.

When the placenta and membranes have come away, the hand should again be placed over the uterus, in order to make sure that it is firm and well con-

tracted. If, instead of this being the case, it is felt to be large, soft, and uncontracted, firm pressure should be continued, so as to excite contraction and prevent flooding, which, in such circumstances, is greatly to be feared.

Should a gush of blood make its appearance in spite of the pressure, the hand must still be kept over the uterus and the pressure increased, cold wet cloths being in the meantime repeatedly applied with suddenness to the external genitals. Of course, if the medical attendant has left the house, he must be again summoned at once.

The uterus being firmly contracted, and the flow of blood having ceased, the thighs and surrounding parts are to be gently sponged with warm water and dried by means of a soft warm napkin.

If there has been no flooding, the soiled chemise and night-dress may now be drawn down, and, along with the folded sheet, blanket, and upper rubber, removed from beneath the patient, who must not be permitted to make the slightest effort while this is being done. Then she may be slowly rolled over on to her back, to allow of the application of the binder. The binder, well aired, must be rolled up to half its length, and the roll passed underneath the lower part of the patient's back. Being caught on the other side, it is then unrolled, and having been smoothed out free from wrinkles, it is so applied as to encircle the hips tightly, and the overlapping end is then secured by means of three or four good safety-pins. All this is to be done with as little exposure of the patient as possible. The pillows having been duly replaced, the patient may now be carefully lifted into her usual position in bed; a fresh warm napkin being applied against the vulva, and the clean chemise drawn down into its place.

If, however, there has been any flooding, the patient, must still remain undisturbed for some time after the discharge has ceased, the nurse from time to time examining the napkins to make sure that there is no return of the bleeding.

When the medical attendant is present, he will probably prefer to undertake many of these duties himself; at any rate he, being the responsible person, will give instructions according to the requirements of each individual case, which instructions it will be the nurse's simple duty to obey.

During the passage of the child's head, it facilitates matters if the patient's knees are separated. This is sometimes effected by placing a pillow between them, but the pillow is apt to be in the way, and a better plan is for the nurse to pass her hand beneath the right knee, and keep it well raised during each pain.

Sometimes the medical attendant desires the nurse to make pressure upon the womb during the third stage of labor, to assist it in expelling the after-birth. To do this she should stand behind the patient at the doctor's left hand, and passing the hand under the bedclothes, she should place it on the abdomen, where she will feel the round, firm body of the uterus above the pubes. Spreading out her hand over this organ, she should keep up a steady pressure downwards and backwards as long as the attendant desires it.

Convulsions, coming on during labor, are always alarming, and place the patient's life in great danger. Should they occur before the arrival of the medical attendant, no time should be lost in sending for him. In the meantime all that the nurse can do is to keep her patient lying flat down; to see that there is no tight clothing about her head and chest; to prevent biting the tongue by pushing it, if possible, behind the teeth, and placing a cork or piece of India-rubber between them; to admit plenty of fresh air into the room; and, lastly, to restrain the meddlesome interference of bystanders. It is altogether worse than useless to attempt to force water or stimulants down the throat while the patient is struggling and unconscious; and although sprinkling the face with water, rubbing the hands, and applying smelling salts to the nose, can do no harm, it is more than doubtful whether they ever produce any benefit. When the fit is over, should the medical attendant not have arrived, the nurse may administer a soap-and-water enema with advantage.

Fainting during labor should always lead to a suspicion that there is some loss of blood going on, and the medical attendant ought to be immediately summoned, even if there is no blood to be seen externally, for internal bleeding may be going on, notwithstanding. The important point to remember about fainting is, that the patient is on no account to be raised up, however much she may desire it. The level posture, plenty of cool, fresh air, sprinkling a little water on the face, and firm, steady pressure with the hand over the uterus, comprise all that it is desirable for a nurse to do in the way of treatment. If there is external hemorrhage, an endeavor must be made to control it in the manner described later on.

Some women, who have previously borne children, suffer from a falling forward of the womb, causing an unusual prominence of the lower part of the abdomen. Such persons require to be put to bed at a very early stage of labor, and should either be allowed to lie flat on the back, or be supported in the half-sitting posture. The late Dr. Radford, of England, to whom I am indebted for the recommendations contained in this paragraph, has recorded two fatal cases in which this condition was present, and in each of which rupture of the uterus took place at the very moment of the patient rising to her feet during labor.

He suggests that, in order that the uterus may be safely guided into, and maintained in such a position as will facilitate labor, the nurse should, in all such cases, put on a broad bandage at a very early period of the labor, and tighten it as labor advances. After the membranes have ruptured and the waters have been discharged, this bandage should be applied as follows:—The end lying upon the bed is to be fastened to the side of the bed, so as to constitute a fixed point, while the other end is held obliquely by the nurse, and gradually tightened as the child descends into the pelvis. The direction of the pressure will thus be slightly upwards as well as backwards.

This mode of support, by what he terms a "regulating bandage," effectually assists the entrance of the child's head into the pelvis.

MANAGEMENT OF THE NEWLY-BORN CHILD: Washing and Dressing—Feeding and Feeding-bottles—Aperients—Sleep—Warmth and Fresh Air—Separation of Navel-string—Swelling of the Breasts in the Newly-born—The “Thrush.”

After making the mother comfortable, the next duty of the nurse is to attend to the washing of the child. This should be done, if possible, before the medical attendant leaves the house, in order that he may have an opportunity of examining the child thoroughly. For the washing, a foot-bath is required, or a basin at least one foot broad, one foot deep, and two feet long, so that the whole body, with the exception of the head, may be placed in the water for a minute or two. The nurse must also be provided with a piece of soft flannel, some olive-oil, a piece of good, unirritating soap, and, for the dressing, in addition to the clothes, a needle and thread, some safety-pins, and a piece of linen rag six inches square, with a hole cut in its centre large enough to admit the navel-string. Sitting at a convenient distance from the fire, she then proceeds to unfold the flannel wrapper and anoint the child's skin with warm olive-oil wherever it is covered with the white greasy material usually present. This having been done, the child is to be put into the water, the temperature of which should be about 90°, and the head supported on the left hand out of the water. After having rested there for about two minutes, it is to be taken on the lap and washed with soap and flannel, the eyes being carefully cleaned first, then the head, and afterwards the remainder of the body, great pains being taken to cleanse the little wrinkles at the various joints. After gently drying the skin with a soft warm towel, it must be well powdered, and especially those parts near the joints where chafing is most likely to occur; viz., under the knees and armpits, in the groins, and between the thighs. The piece of flannel used for the first washing should be burnt.

The skin having now been well washed, dried, and powdered, the square of old linen is to be held near the fire for a minute and slipped over the remains of the navel-string, which is to be folded in it and turned upwards upon the child's abdomen, where it is to be retained by means of the flannel binder until its separation, which usually takes place about the fourth or fifth day.

Up to the time of this separation, the child must be washed from head to foot on the nurse's lap, night and morning. Afterwards, when there is no longer any fear of injuring the navel, the child should be placed in the water for two minutes during the morning washing, the evening washing being done on the nurse's lap as before. Whenever a napkin is removed, the parts protected by it must be well cleansed by sponging with a little soap and water, and then thoroughly powdered, so as to prevent the skin becoming sore. This rule holds good even if the napkin has only been soiled with urine, though it is of course still more necessary when there has been also an action of the bowels.

It is part of a nurse's duty to wash and dress the child during the time she stays in the house, and she should, for this purpose, be provided with a large soft flannel apron, which must be carefully dried each time it is used.

The child's clothing should be warm without being heavy, and should fit loosely so as to allow the organs free play, and the blood to flow unhindered. The body-binder should be of flannel, as it is impossible to prevent its being soiled with the urine, and flannel, when wetted, does not chill the skin so much as other materials. None but patent safety-pins should be used about a baby, and even for them it is better to substitute two or three stitches wherever it is possible.

The medical attendant must always be informed, when he makes his first after-visit, whether the infant has passed urine and whether the bowels have acted; also as to any marks or other peculiarities that may have been noticed. The state of the eyes, too, should be narrowly watched, and any unhealthy appearance or the least sign of discharge at once reported.

It is most undesirable to give a newly-born child butter and sugar, or other similar compound. For the first twelve hours at least, and indeed for a much longer time, the child will take no harm if left unfed. The proper course, however, is to apply it to the breast a few hours after birth—that is, as soon as the mother has recovered a little from the fatigue of labor. The breasts will probably not fill with milk for twenty-four or thirty-six hours, or even a little longer; but there is generally a little thick secretion of creamy fluid, called *colostrum*, much earlier than this, of which it is good for the mother to be relieved, and which acts as a gentle laxative upon the child. The early application of the child to the breast also helps to form the nipples, and renders the flow of milk easy from the first; it teaches the child how to suck, a lesson learnt less readily if it has previously been fed with a spoon; and, lastly, it provides it, in the majority of cases, with all the food it requires during the first day or two, and obviates the necessity of artificial feeding.

The child should be put to the breast with clock-like regularity. Until the flow is fairly established, the interval should be four hours; afterwards, for the first month, an hour and a half or two hours in the daytime and four hours in the night. In the daytime the child may be awakened at the feeding-hour; in the night he should on no account be disturbed out of his sleep. Many infants will sleep continuously for six hours in the night, and suffer no harm from the long fast.

If it is important that a child should be fed as often as is here stated, it is no less important that he should not be fed oftener. Young infants very soon learn habits of regularity, and, besides, their stomachs need rest between their meals, just as in our own case, except that, of course, the intervals required are shorter. Many women put the child to the breast whenever it cries, forgetting that this is the only way in which it can express its sense of discomfort, from whatever cause arising, and that it is quite as likely to be crying because it is in pain, or because its napkin wants changing, as from hunger.

It is important from the first to apply the child to each breast in turn.

When the secretion of milk is long delayed, and it becomes consequently necessary to feed the infant, the proper food is good cow's milk, boiled, so as to prevent its being a carrier of infection, then mixed with about an equal



SNAKE HEAD.

(See Description.)

This herb is a remedy for Costiveness, Dyspepsia, Loss of Appetite, General Languor and Disorders of the Liver.

quantity of water, and sweetened. Bread and oatmeal gruel are not fit food for newly-born infants. They irritate the stomach and bowels and cause griping and flatulence. In short, during the first month of life no other food than the mother's milk or diluted cow's milk should be given, except under medical advice.

When the mother has not enough milk to satisfy the child, nursing may be combined with hand-feeding, which is generally preferable to hand-feeding alone. The additional food should consist of good milk, boiled, diluted with an equal quantity of water and sweetened. After the first month the quantity of added water requires to be gradually lessened.

In case the mother cannot nurse her child, the next best way of feeding it is to obtain a good, healthy wet-nurse, whose child is not much older than the one she is to nurse. The medical attendant should always be consulted in regard to the health and suitability of a wet-nurse, before she is engaged.

It may be that a wet-nurse cannot be obtained, and then hand-feeding becomes necessary. For this purpose good milk (from one cow if possible), boiled, diluted, and sweetened, as already directed, is for the first few months all the food that is required. Arrowroot, cornstarch, and bread are all unsuitable at this tender age, and afford far less nourishment than milk.

Now and then a child is found with whom fresh milk does not agree, the curdy character of the stools showing that it is only partially digested. Should a change of dairy not suffice to set matters right, it will be desirable to try the concentrated Swiss milk, which, though greatly inferior to fresh milk, is the best of all artificial substances. Failing success with this, a malted preparation, known as Mellin's Food for Infants, may be tried, at any rate until the digestive powers become sufficiently improved to return to milk.

The custom of using feeding-bottles with India-rubber tubes has become exceedingly prevalent. These tubes are difficult to keep clean, and a mere drop or two of milk left adhering to the bottle or tube will often be sufficient to turn the next supply sour. Hence have arisen flatulence and indigestion, and much sickness and suffering. Another objection to the use of tubes is, that nurses are tempted to place children in the cot with the bottle of milk by their side and the tube in their mouth, a practice which is highly objectionable on several grounds. It does away with all regularity in feeding, and is very liable to cause the milk to be turned sour owing to the heat given off from the child's body. Feeding-bottles without tubes, and fitted with teats only, have the advantage of requiring to be held in the nurse's hand, and are on every account to be preferred. There should always be two, for alternate use, one being kept under water while the other is in actual use. Immediately after the child has had a meal, the bottle must be thoroughly washed in warm water.

It is an unnecessary and injurious practice to administer castor-oil to the newly-born. The first milk (or *colostrum*) from the mother's breast generally relaxes the bowels sufficiently, and if not, no aperient should be administered except under the advice of the medical attendant.

Children should not sleep in the same bed with an adult, but should, from the first, be placed in their own separate cot. Attention to this rule would

annually save many lives which are now sacrificed. The number returned every year as having been found dead in bed is astounding. Sometimes both mother and child fall asleep, while the child is at the breast, whereupon the child's face gets pressed so closely against the mother's body that both nose and mouth are covered, breathing becomes impossible, and the child is smothered; sometimes fatal asphyxia is produced by the child nestling down in the bed and going to sleep with its head completely covered by the bedclothes; and sometimes, though of course very rarely, the cause of death in these cases is overlying. These dangers are best avoided by letting the child sleep by itself.

During the first month or two a healthy child sleeps the greater part of both day and night.

Children should not be allowed to form the habit of being put to sleep on the nurse's lap, but should be placed in their cot awake, and soothed to sleep there. This is a lesson learnt without difficulty, if taught from the earliest days.

On no account should any kind of soothing medicine be given, except under medical advice.

Young babies require to be kept very warm, and yet need abundance of fresh air. Nursery windows should be opened very frequently, and the room kept pure and wholesome. After the first two or three weeks children should be carried in the arms out of doors every day in fine weather. In winter they should be well wrapped up, and in summer the head should be carefully protected from the rays of the sun.

When the navel-string is an unusually long time in separating, no force is to be used; all will go on properly if left to Nature. Separation having taken place, a small round piece of linen should be covered with a little vaseline or simple ointment, and applied to the navel. If the process be accompanied or followed by bleeding, the medical attendant should be informed without delay, as children occasionally die from this cause. He should also be told if, after the separation, the navel is found to project more than usual.

It is by no means an unfrequent occurrence for the breasts of newly-born children to become swollen and inflamed, and sometimes they are even found to contain a few drops of milk-like fluid. In either case the nurse must carefully avoid rubbing or squeezing them. The swelling will gradually disappear, and the fluid become absorbed under soothing treatment— as, for example, the ordinary water dressing; whereas rough manipulations, such as have just been mentioned, increase the inflammation, and are apt to result in the formation of abscess.

The appearance of a number of little white spots on the tongue, inside the lips and cheeks, and on the roof of the mouth, known in the nursery as "the thrush," is an almost certain sign that the child's food is in some way unsuitable, and ought, therefore, invariably to be reported to the medical attendant. In the meantime the affected places should be painted several times a day with glycerine of borax, by means of a camel-hair brush.

MANAGEMENT OF THE MOTHER AFTER LABOR: Treatment During the First Few Hours—The Lochia—Necessity of the Level Posture—Care when First Sitting-up—Change of Room—Going out of Doors—Changing the Linen—The Binder—Washing, &c.—Avoidance of Excitement—Occupation—Diet—The Bowels—Flooding—Rigors—Suckling—Sore Nipples—Abscess of Breast—Dispersion of Milk in the Event of Not Suckling.

After the patient has been made comfortable in the manner already described, it is above all things desirable that she should have several hours of undisturbed rest, and, if possible, sleep. There used to be a curious notion prevalent amongst nurses that a woman ought not to be allowed to fall asleep directly after delivery. This is altogether a mistake; sleep is to be encouraged by every possible means. To this end the room should be kept exceedingly quiet, and the blinds drawn down so as to subdue the light. In this way the patient will be best enabled to recover from the exhausting effects of labor. In the meantime the nurse should keep an eye on the patient's face, and if she observe that it is becoming unusually pale, she must at once ascertain whether there is any flooding.

For the first few days the patient will suffer more or less from after-pains, which only require to be brought under the notice of the medical attendant in case they are very severe or interfere with sleep. As a rule, no after-pains occur after a first confinement.

The Proper Food to be given directly after labor is a cup of tea, gruel, or warm milk; but if the patient prefers to wait a little before taking anything at all, there is no harm in allowing her to follow her inclination. When the patient has had a few hours' rest, and has recovered from her exhaustion, the child should be applied to the breast. The nipples can be drawn out much better before the breasts become filled with milk than afterwards.

Not more than six hours should elapse after labor before the patient is reminded to pass water. She should not be allowed to wait until she feels a desire to do this for, under these circumstances, the bladder may be quite full without the patient having any inclination to empty it. At the end of six hours, then, if it has not been already asked for, the slipper-pan should be passed, a little hot water having previously been poured into it and the vessel itself warmed before the fire. If she finds herself unable to use the slipper-pan, she may be allowed to turn herself gently on to her hands and knees, in which position she will almost always succeed, an ordinary chamber utensil being in in that case substituted for the slipper-pan. Should she, even after changing her position, still be unable to pass urine, she must not make forcing efforts, but lie down again, rest a little, and then make a further attempt. The patient herself frequently imagines that she has passed urine, when she has not; hence the nurse, knowing this, must not be satisfied without seeing for herself the contents of the vessel after its removal.

Should no urine be passed during the first twelve hours, something to aid the patient to do so must be given, as recommended elsewhere; and probably it will be necessary to call a doctor to draw it off by means of the catheter.

For the first few hours after delivery the vagina and external genital organs are very sore and painful, and the discharge consists of pure blood. Ten or twelve napkins are required during the twenty-four hours succeeding labor. On the second day the discharge becomes less, and each day the quantity diminishes, the discharge itself gradually changing from pure blood to a thick dark fluid, and lastly to a thin serum, like soiled water. The discharge always possesses a peculiar and distinctive odor, but if the odor become offensive the medical attendant should be informed. Similarly he should be told if, after having once ceased to consist of pure blood, the discharge should again assume that character.

The discharges after labor are termed the *lochia*; they sometimes last only a few days, and at other times continue for three or four weeks. They vary, too, in quantity in different women, even when they are quite natural and healthy. When they have passed through the changes I have named, they ought presently to cease, and if, instead of doing so, they continue, and if, especially, they become purulent in character—that is, if they contain matter like that of an abscess—an examination is necessary and the medical attendant must be informed.

On the other hand, it is not very unusual for the lochia to cease rather early and suddenly, and although this often causes alarm both to patient and nurse, it need not do so provided there is no other sign of ill-health, such as shivering, thirst, and feverishness.

For the first three days after confinement a patient should on no account be raised to a sitting posture lest an attack of flooding should come on, or fainting and even sudden death occur. There is not the same danger in allowing her to turn on to the hands and knees; indeed, I have already said that this posture may be resorted to in the event of any difficulty in using the slipper-pan in the ordinary way.

After the first three days, provided all is going on favorably, this rule as to the level position may be relaxed a little, by allowing the patient to be propped up by means of pillows or a bed-rest while she is taking food. At all other times, however, she must continue to lie down until the ninth day, when she may be assisted or carried to a couch and allowed to remain upon it for an hour or an hour and a half. At first very little dressing ought to be attempted on these occasions, the patient being protected from cold by wearing a warm dressing-gown, or by having a good blanket thrown over her. The length of time she is allowed to be out of bed may be increased day by day; and on the twelfth or thirteenth day she may be fully dressed. The temperature of the room must be regulated most carefully when the patient first leaves her bed, it being much more important for the room to be well warmed then, than during the time she remained in bed.

Should there be a suitable sitting-room on the same floor, the patient may take advantage of it as early as the fourteenth day; the lying-in chamber being

meanwhile thoroughly freshened by opening the windows, spreading out the bedclothing, and leaving the mattress or bedding uncovered for some hours. If, on the other hand, the only available room is downstairs, it will be prudent to postpone the change for a few days longer.

If it happens to be mild, bright summer weather, and the patient's recovery has been rapid and satisfactory, the medical attendant may, in an exceptional case, consent to her taking a short walk or drive, at the end of three weeks.

After confinement a patient's linen requires to be frequently changed, both for health's sake and her own comfort. The patient must on no account be allowed to sit up or make any exertion while the clothes are being changed; the nurse must take off the soiled clothing by drawing down the sleeves from one arm, gathering up the clothes on that side into a handful, passing them gently over the head, and then drawing off the sleeves from the opposite arm. The clean linen, well aired, must then be put on as the patient lies.

The first binder should always be placed next to the patient's skin; after the first twenty-four hours this is a matter of less consequence. Each morning during the first week a clean binder should be applied with moderate tightness, the nurse re-adjusting it from time to time during the day in case it should become wrinkled or loose.

The patient's hands and face should be washed, and her hair straightened, as far as is possible without raising her, every morning. The hands and face having been attended to, the external genitals should be thoroughly cleansed over a bed-bath by means of a sponge and some water. In the absence of a bed-bath, a large slipper bed-pan may be made to answer the purpose, and if neither is obtainable, the patient must be made to turn on to the left side, with the thighs close to the edge of the bed, and the knees drawn up, when, the bed being duly protected by means of a rubber and warm folded sheet, the nurse can proceed with the sponging in the manner ordinarily adopted immediately after labor. For the first few days, while the lochia are somewhat abundant, it is well to repeat this process again in the evening.

Should the nurse while bathing the patient, discover a wound or raw surface, or any unusual swelling, she must quietly mention it to the doctor at his next visit; and so, too, if she finds any piles protruding. In the event of the patient complaining of severe pain from piles, the nurse must frequently foment the part, or apply a bread-poultice, until she receives instructions from the medical attendant.

Vaginal injections and douches are only to be used under medical direction.

The mind requires rest equally with the body. No painful news, or other exciting or disturbing influences, should be allowed to reach her. The visits of friends to the lying-in room must be entirely forbidden, except in the case of those who have obtained special permission.

It should never be forgotten that a peculiar and distressing form of mental derangement is liable to attack lying-in patients. Hence, if a nurse finds her patient irritable in temper and difficult to manage, she must avoid anything like contention or direct contradiction. By a firm, quiet, decided manner, a good nurse will be able to carry her point without exciting her patient.

As the patient grows a little stronger, there can be no objection to her occupying herself while in bed, if she is wishful to do so, with a little plain sewing or fancy work, and now and then with a little reading, so as to make the time pass more agreeably.

With regard to diet, many medical practitioners have rules of their own, which the nurse must always be prepared loyally to carry out. It is not now generally thought necessary for patients to be restricted to tea and gruel for a whole week. When a nurse is left to her own discretion she will find her patients recover their strength most rapidly by being allowed some variety in their food from the beginning. Boiled milk should always enter largely into the dietary of a woman who intends to suckle her child. An occasional cup of good black tea is generally very grateful, with or without a little biscuit, toast, or bread-and-butter. From the first, beef-tea, chicken, mutton, or veal broth, rice-caudle, milk or oatmeal gruel, and other simple fluids, are perfectly allowable. If all is going on well, and the bowels have acted, there is no harm—in case the patient expresses a desire for more solid food—in giving, even on the second or third day, a slice of chicken, or tender roast beef, or a mutton chop. The diet, indeed, at this time needs to be nutritious and plentiful, while its kind may safely be regulated very much according to the patient's inclination. No stimulants of any sort, however, must be given, except under medical direction.

A nurse should not give opening medicine on her own responsibility. The medical attendant will order what is necessary and state when it is to be given. Very often, instead of medicines, he will prescribe a simple enema of soap and water.

Flooding after Delivery.—Whenever an attack of flooding comes on during the period of lying-in, the nurse must at once send for the medical attendant, stating clearly her reasons for sending, in order that he may know what will be required. In the meantime she must unfasten the binder, and make firm pressure with her outspread hand on the womb, which she will have no difficulty in finding, as it will not yet have returned to its natural size and position. She must also apply cloths dipped in cold water, or in vinegar and water, to the external genitals, keeping them applied not longer than a minute or two at a time. Where the flow is great it will be right for the nurse to try to check it by taking a dry napkin and pressing it firmly with her hand against the external parts, while the other hand is still engaged in compressing the womb from above. The patient must, of course be kept all this time strictly lying down, with the head and shoulders low, and cool, fresh air must be admitted through the open window. (Note 47, p. 792.)

The occurrence of a shivering fit, especially if it is a severe one, or is followed by others, ought always to be regarded seriously. No time should be lost in acquainting the doctor, and the nurse must meanwhile do all in her power to produce a feeling of returning warmth in her patient. With this object, a warm bottle should be put to her feet, an additional blanket thrown over her, and a cup of warm tea administered. This event is often the sign of

approaching illness that, when it has shown itself, the patient should be watched with the utmost anxiety.

The secretion of milk is not usually established until the second or third day; now and then, however, it makes its appearance earlier. This event is sometimes accompanied with a little constitutional disturbance, which soon subsides. When the breasts are becoming so full and hard as to be painful, great relief will be afforded by fomenting them every few hours, and supporting them, in the meantime, as in a sling, by a handkerchief tied over the opposite shoulder. (See page 193.) This condition will generally soon subside if the child be applied at regular intervals. Nurses must beware of meddling too much with the breasts, and especially avoid rubbing them, except under special direction from the doctor. The nipples and surrounding parts should be carefully washed each time the child leaves the breast, and should be excluded from the air by covering them with a small piece of linen rag on which a little vaseline or simple ointment has been spread.

As soon as it becomes clear that the supply of breast-milk is insufficient, it is unwise to keep putting the child to the breast, as this only produces irritation and is very liable to set up inflammation and abscess. Similarly, if the nipples are extremely sore, so that, even when they are protected by a nipple-shield, the application of the child is attended each time with intense pain, or if they are so depressed that neither the efforts of the child nor the cautious use of the breast-pump will draw them out, it is running a great risk of exciting breast-abscess to persevere beyond twenty-four hours in an attempt to suckle.

If the nurse notices a patch of redness on a patient's breast, and finds that the skin at that spot is painful and tender to the touch, she should take means to acquaint the medical attendant as soon as possible, for an abscess has actually formed; it should be opened with as little delay as possible, lest it spread and become much more formidable.

Still-Born.—When the child is still-born, or when, from any other cause, it is not going to be suckled, there is often great anxiety expressed about the dispersion of the milk. It is astonishing, however, how quickly it becomes absorbed if left to Nature. If the patient will only submit to the discomfort arising from the fullness of the breasts for a few hours, without insisting on their being partially emptied from time to time by the use of the breast-pump, or other similar means, whereby the breasts are stimulated to fresh secretion and the evil is aggravated, she will soon have the satisfaction of finding them softer and less painful, and will be amply rewarded for her patience. Should the feeling of tension be excessive, it will be best relieved by hot fomentations applied every few hours; if not excessive, the application for a few days of belladonna plasters with a hole in the centre for the nipple, is often all that is necessary. In ordering these plasters the nurse should furnish the druggist with paper patterns showing the size required.

FOOD FOR THE SICK.

THE SICK-ROOM.—Its Location—A Good Nurse—Fresh Air—Light—Warmth—Cleanliness—Quiet—Food, Drink and Delicacies, and the Faithful Administration of Medicines, are of the utmost importance, and will each receive consideration. But, in accordance with the design of this work, the *essentials* only will be pointed out, the *minor details*, or little things, must be left to the judgment and “common sense” of the nurse or head of the household, to be met as best they can by the conveniences at hand or the means of obtaining them.

I. Location of the Sick-room.—In summer, if it be possible, let the sick-room be on the north side of the house; in winter, upon the south—to avoid the mid-day heat of summer and the cold blasts of winter. And also, if there is a room in the house having a fire-place, give it the preference, as it is considered the best means of aiding ventilation and providing artificial warmth when needed. And, if the windows do not admit of *lowering* the upper sash as well as to *raise* the lower ones, prepare them at once to allow this movement. Further on, you will see, under the heads of “How to Produce the Temperature of Sick-rooms,” and “Ventilation of Sick-rooms,” where the necessity of this is fully explained.

II. A Good Nurse.—We have so often heard the expression: “If Mr. Blank had not had the best of nursing, he would never have got well.” Knowing that very much depends upon it, I say, get the best nurse that your means can obtain; then see and know for yourselves that they carry out your, or the physician’s directions faithfully; for a physician’s prescriptions, nor your own desires or directions, are of any account unless they are faithfully followed: But, of course, much of the details must be left to the nurse, hence the necessity of getting one of sound judgment and considerable experience, if possible.

III. Fresh Air.—Although fresh air is essential in a sick-room, yet a draft must not be allowed to strike upon the patient; hence the necessity, in small rooms especially, of having the means of raising and lowering the sash, either for ventilation or to reduce the temperature. The temperature of the sick-room, in all ordinary cases of diseases, had better be kept as near 60° to 65° Fah. as possible, by opening or closing windows, or by raising the fire or lessening it—either, or both,—as the necessity of the case requires. And, let me say, the day has gone past when the great “bug-a-boo” against “night-air” has any weight—pure night-air, properly managed in the season of the year requiring it, is far better than the stifled or suffocating air of

a close sick-room; ventilate and reduce the temperature always as needed, and, of course, with proper care. Keep the air pure by carrying out of the room any and all vessels *de chambre* as soon as used, no matter how small the discharge may be. Never bring a slop-bucket into the sick-room, as the pouring out, rinsing, etc., is not only very contaminating to the air, but annoying to the patient.

IV. Light.—If a room for the sick has been chosen which will allow proper ventilation and fresh air, as needed, through the windows, the light can easily be governed by the curtains; and it is only necessary to say: allow all the light that is agreeable to the patient; and, except in nervous or eye diseases, but little exclusion of light will be necessary, unless the room is on the south or western side of the house, which is not desirable, generally.

V. Warmth.—Under this head it will be necessary to include the temperature of the patient's surface as well as that of the room. The warmth or temperature of the room being about 60° to 65° Fah. if the limbs are cold, rub them with the dry naked hand, or wrap in hot, dry woolen cloths, or place hot bricks, or bottles or jugs, filled with hot water, or, what is still better, small bags of dry, hot sand, made for this purpose, whichever is most convenient or necessary to keep them comfortable. Comfort is to be sought, no matter how much labor and trouble it causes; for, unless a genial warmth can be maintained, health will seldom be regained. On the other hand, in fevers and inflammatory diseases, the surface must be cooled by means of sponging with cool or cold water with a little whiskey, or what is better, whiskey with bay-rum in it—sponging sufficiently often to keep down extreme heat. Especially overcome all extremes of heat or cold.

VI. Cleanliness.—It is claimed that "cleanliness is next to Godliness." Whether this be a fact or not, it is absolutely necessary, if it is desired to restore the patient to health in the least possible time, that not only the sick-room be kept clean, but the bed, bed-clothing and wearing apparel be kept neat and clean; and the patient, also, must have such frequent washings or spongings as will keep the pores of the skin open, that the general exhalations, perspiration sensible or insensible, as when sick an odor, also, may not only pass readily through the pores, but to provide, in disease, for the escape not only of a larger amount than usual but that of a more offensive and injurious character, if left to be re-absorbed from the surface or clothing.

VII. Quiet. If the patient is very sick, absolute quiet is very essential. If a person is once admitted to the sick-room who is found to annoy the patient by long talking, or, in fact in any manner, they must not only be asked to retire but never be admitted again. What is necessary to say, speak in a mild but perfectly distinct voice, and never allow whispering in a sick room for any purpose whatever. If there are any secrets to be kept from the patient, no hint of them, or whispering about them, should ever occur in his hearing; yet if it is believed the patient can not live very long, I would most certainly inform them of this belief—'tis cruel and unjust to withhold it. Any continuous noise,

although slight in itself, soon becomes annoying to any nervous person, and there are but few sick persons, indeed, who do not soon become more or less nervous. Be firm, but kind, in all your relations with the sick. Give them to understand you know best, and what you know to be best to do you are going to do; and what you know they ought not to do, you are not going to allow them to do, but in all the kindness possible, and their acquiescence may soon be expected. Rustling silks, squeaking shoes and the rattling of dishes must not be allowed in a sick-room.

VIII. Food, Drink and Delicacies. While the patient's condition will allow them to use plain and substantial food, and the usual drink, as tea and coffee, not too strong, it is best they should have them; but with the weak and debilitated the delicacies must take their place; and I desire to call especial attention to, and to give my sanction and advice, that if any special thing is craved, be it food or drink, I would most positively allow it, in moderation. We have all heard of the cravings, in olden times, of fever patients for cold water, and the cures brought about from its having been obtained stealthily against the commands of the physician; but there has recently come to my knowledge a case wherein the life of a typhoid fever patient was saved by drinking two quarts of hard cider, which he had craved and repeatedly called for, and when he got hold of the pitcher he would not let it go until it was empty. I do not call this, however, "in moderation," but the patient was stouter in his desperation than the nurse and the physician who had allowed it to be brought, so no one could have been blamed even if it had killed rather than cured the patient. Do not understand this, however, even in desperate cases, to be a pattern drink—A small glass, and often, as long as the craving continues, would be the safer plan with any drink. But both food and drink should be given regularly in reasonable quantities. And to aid the nurse or family in this, the following recipes, or receipts, may be resorted to with confidence and general satisfaction. To purify sick-rooms, see "Disinfectants."

BEEF TEA, ESSENCES OF BEEF, ARTICLES OF DIET, DRINKS, ETC., FOR THE SICK.

1. Beef Tea.—Take lean beef, $\frac{1}{2}$ lb.; cold water, $\frac{1}{2}$ cup; a little salt, pepper, mace, or nutmeg. **DIRECTIONS**—Cut the beef into small bits— $\frac{1}{4}$ or $\frac{1}{2}$ inch squares—and see that no particle of fat adheres to it; put into a bottle with the water and cork, placing the bottle in a pan of cold water upon a stove, and as soon as it reaches the boiling-point, move it back, but keep it near the boiling-point for 2 hours; then strain, pressing out the juices, and season with a little salt and a sprinkle of pepper, mace or nutmeg, as preferred by the patient.

2. Beef Tea—Improved Flavor, by Broiling.—Take a nice steak and remove all the fat. Have a gridiron, perfectly clean—all particles of burned steak may easily be removed from the bars by placing it in hot water a few minutes when first taken from the fire; then scrape, or what is better, use a stiff brush, kept for this purpose. Have a very nice fire of coals, and place the

steak upon the gridiron and broil, as usual, till it is ready to turn; then take off, having at least a qt. bowl with 1 pt. of boiling-hot water in it, and keep it standing by the fire, or on the back part of the stove, to keep it hot. Place the steak, when the first side is nicely broiled, in this bowl of hot water, and press it with the knife and fork—a stiff spoon is the best—to extract the juices of the meat. Repeat this broiling and pressing several times, turning the steak each time, till all the juices and strength of the steak are extracted; and if, at the last, the steak is cut into squares of an inch or a little more, and each piece pressed in a lemon-squeezer, its virtue, or strength, will all be obtained. It looks much like wine of itself; but still, if a teaspoon or so of wine is added to what may be taken at any one time, it will not injure the most delicate stomach, but will be borne, even by a delicate stomach, better than bread-water, while it, of course, is much more nourishing; and, if properly seasoned, as suggested in No. 1, it will be relished by the patient—much more so from the broiling.

3. Essence of Beef.—The real essence, or nourishing properties of beef, is obtained the same as directed in No. 1, except that no water is to be put into the bottle, and the boiling may need to be continued an hour or two longer; then the juice or essence pressed out, and a little wine added when desired or needed; also a touch of salt and pepper; or, if mace or nutmeg is preferred, there is no reasonable objection that can be offered against their use.

Remarks. The foregoing are the plans which have been heretofore followed in extracting the strength or essence from beef for the sick. But as the science of medicine, especially the chemical department thereof, advances, it has been prolific in improvements, among which that of not boiling, but steeping, either in cold water, or using heat only of a moderate degree, or not above 100° to 135°, so as not to cook the albuminous (like white of egg) portions of the meat in making beef tea, or extracting its juice.

4. Beef Tea for the Sick—New Process.—Beef tea, if rightly made, may be received with benefit by a stomach which would reject any nourishment; but skill in preparing it, is not universal among nurses. The two following receipts may be relied on as among the best that can be devised:

Beef Tea (with moderate warming up after cold steeping).—Take 1 lb. of the best beef; cut in thin slices and scrape the meat fine; put with a salt-spoon of salt into 1 pt. of cold water contained in an earthen bowl, and let the mixture stand 2 or 3 hours, stirring it frequently; then place it in the same vessel covered, on the back part of the range or stove, and let it come very gradually to a blood-heat and no more. It has been found that 135° of heat does not set or cook the albumen—blood-heat is only 98°. Any higher temperature would injure the nutriment, or nourishing properties; then strain it through a fine sieve or muslin bag, and it is ready for use. The making of beef tea is not a cooking process, but a steeping process. Some chemists think it better to be made without heat, with the addition of the muriatic acid, which is a component part of healthy gastric juice, as follows:

5. Beef and Other Meat Teas Without Heat.—Take $\frac{1}{3}$ lb. of fresh beef, mutton, poultry or game (the lean part only), minced very fine;

place it in 14 ozs. of soft cold water (2 or 3 tablespoons less than 1 pt.) to which has been added a pinch or about 18 grs. of table salt, and three or four drops of muriatic acid; stir all with a wooden spoon, (on account of the acid, which rusts iron) and set it aside for 1 hour, stirring it occasionally; then strain it through gauze, or a sieve, and wash the residue left on the sieve by means of 5 additional ozs. of cold soft water, pressing it so that all the soluble matter will be removed from the residue; mix the two strainings and the Extract is ready for use. It should be drunk freely every two or three hours.

Remarks.—The properties taken from these last two receipts are largely borne out by a well known article made at Richmond, Va., by Mann. S. Valentine, called "Valentine's Preparation of Meat Juice," which, in using, is not to be heated above 130° F., and that only upon a water-bath to avoid the possibility of over-heating—the preferable way being to use it cold, even with ice when this is desirable. Stale bread is recommended by him to be crumbled into the Meat Juice as a savory diet for the sick, as one becomes able to digest more solid food. This, of course will hold good with any of the above or other juicy foods, or soups, or essences, etc., prepared from any meats whatever. The greatest objection that can be raised against Valentine's Meat Juice is its cost. He claims to have concentrated the strength, or virtues, of 4 lbs. of beef into a 2 oz. bottle which, usually, retails at \$1.25, which would certainly prevent its use by the sick poor—the sick rich, of course, can indulge it. But from its array of testimonials from the most popular physicians in America and Europe, and by those connected with insane asylums, hospitals, etc., it must have proven an exceedingly valuable preparation; and I will close my remarks upon this subject by saying I have not referred to it for the benefit of the manufacturer (for he knows not of this reference at all), nor am I paid for it, only as it may do good to the people in observing the value of the cold process, as it may be called, of the last two receipts, and being "posted," as the saying is, upon the best ways or plans of preparing food for the sick. This Meat Juice was on exhibition and received awards at the International Exhibition in '76 at Philadelphia, and in '78 at Paris, and although he does not give its mode of preparation in his circulars, yet this must have been given to the commissioners at these exhibitions, for the awards were:

"For excellence of the method of its preparation, whereby it more nearly represents fresh meat than any other extract of meat, its freedom from disagreeable taste, its fitness for immediate absorption and the perfection in which it retains its good qualities in warm climates."

The method is undoubtedly by maceration (softening by steeping), and then by pressure, having used but little water, and leaving a heavy pressure to accomplish the separation of the juices of the meat, to avoid the necessity of heat to condense by evaporation. There is no doubt of the value of this article as a food for the sick, and as only from $\frac{1}{2}$ to 2 teaspoonfuls of it are required as a dose, or meal, those who can afford to use it will prefer to do it rather than prepare any of the others above given, unless they have a skillful nurse; and, in that case, I shall have done the good I intended by calling attention to it. See also Beef Water, Broths, etc., below.

6. Oyster Essence.—Take $\frac{1}{2}$ doz. (or any number, according to the necessity, or ability of the patient to take the essence) of large, nice oysters, with their share of juice; put in a stew-pan, and place on the stove, or over the fire, and let them simmer slowly, until they smell, or become plump or full—3 to 5 minutes according to the heat; then take off, strain and press out the juices without breaking the oysters, and serve hot. Light, stale, bread crumbs, very light, dry biscuit, or crackers, as preferred or convenient, will give additional relish and strength when the patient is able to have them.

Remarks.—Most people say, “put in salt,” when they give directions to prepare oysters; but I know it is best not to put in the salt, or other seasoning, until just as you are about to remove them from the fire.

7. Chicken Broth.—Cut up half of a young chicken, removing the fat and skin; sprinkle a little salt upon it and put it into 2 qts. of cold water and set it over a quick fire; when it comes to a boil, set it back on the stove or range, where it will only simmer. When entirely tender, take out the white parts, letting the rest remain until it is boiled from the bones. Mince the white part and pound it fine in a mortar or suitable dish; add this to the broth, adding boiling water, if necessary, to make it thin enough to drink readily. Put again in the sauce-pan and boil a few minutes. Some persons will desire a slight addition of salt and a little pepper; but use just as little pepper as will satisfy them, a light sprinkle, however, will hurt no one. It is very nutritious, and hence should be taken only in small quantities. A little rice may be boiled in some of this broth, either for its taste or greater nourishment; and a little stale bread, or a cracker or two, may be broken into some of it at another time, for the same reason, and for changing the flavor also. A little parsley may be added to flavor any of these broths, waters, or drinks, if desired, or any other pot-herbs.

8. Mutton Broth.—Take $1\frac{1}{2}$ lbs. of chops, from the neck of a lamb or young sheep (old and strong mutton is never to be used for the sick); cut into small bits, removing all the fat possible; put bones, as well as the lean meat, into a stew-pan, with 3 pts. of cold water and a little salt; put where it will stew gently till all scum is removed as it rises. In 30 to 40 minutes some may be poured off for the patient, if he is impatient for it. Continue to stew it slowly an hour or two, seasoning to taste while hot; when cool strain, and when cold, remove all the tallow or fat from the surface. After this it may be given cold or hot, as suits the patient. A slice of bread, as in the chicken panada, may be toasted nicely and broken into a plate; then pouring on some of this broth, as in that case it is more strengthening, and gives another variety of broth to meet the varying tastes of the sick; or stale bread, without toasting, is generally preferable.

10. Veal Broth.—Veal broth is generally made by some chops of veal, as in the mutton broth above, or a joint of veal, with suitable amount of meat upon the joint, in about 3 qts. of water, 2 oz. of rice, a little salt, and a piece or two of mace; stew till the water is about half evaporated.

10. Beef Broth or Water.—Take a piece of perfectly lean steak (from the rump or shoulder is preferable) the size of your hand; cut it into small bits, and put into a stew-pan with 1 pt. of cold water; bring it to a boil and skim; then set it back and simmer 20 to 30 minutes, occasionally pressing each piece with a spoon to obtain the full juice, or strength of the beef. In hot weather any of these broths or drinks will be relished well if ice-cold, by setting upon ice what was not taken hot when first made; otherwise it is better to re-heat them when called for.

11. Vegetable Broth.—Let all the articles named be of medium size only: potatoes, 2; carrot, turnip and onion, 1 each; slice (of course after washing and paring); boil 1 hour in 1 qt. of water, adding more boiling water from time to time to keep the original quantity good. Add a little salt and pepper, and any pot-herbs, as parsley or other herb, as preferred, to flavor; strain, or allow to settle. This is a good substitute for the animal broths, when they can not be borne, or at distances from where fresh meats can be obtained; or as an additional variety when sickness is long continued.

12. Milk Porridge, with Raisins.—Stir 2 tablespoons of flour with sufficient cold milk to make smooth; then stir this into 1 qt. of boiling milk; break or cut into halves 20 or 30 nice large raisins, and boil 20 minutes. Strain and add a little salt.

13. Oatmeal Porridge, or Gruel.—Mix 2 tablespoons of the finely ground oatmeal with a little cold water, then stir it into 1 pt. of boiling water and let it boil 15 to 20 minutes. Add a little salt and sugar, to taste; if desired a small quantity of wine and nutmeg may also be added.

14. Cornmeal Gruel, or Porridge.—One of the most common gruels is made with cornmeal and a little flour. Half a cup of cornmeal and $\frac{1}{2}$ a tablespoon of flour wet to a smooth paste, then stirred into 1 qt. of boiling water, and the boiling continued slowly for 30 minutes. Seasoned with salt and a little sugar, makes it the most palatable to most people; and some add a little butter; but if any is used it should be a very little, and that of the choicest kind. This is not only nourishing for the sick, but is mildly laxative, and aids the action of cathartic medicine; but if it is intended to aid a cathartic do not use any flour in its make. A bit of cinnamon or nutmeg, as preferred, may be added to any of these gruels or waters. But if any astringent is desired, or a gruel to aid astringent remedies, use one of the two following:

15. Browned Cornmeal Gruel, or Cakes, for Weak Stomachs, and for Summer Complaints of Children.—Brown corn the same as you roast coffee; grind it fine in a coffee-mill, and make a gruel as with common cornmeal. Make some into a mush, or batter, and bake, in thin cakes, to a light brown. Very feeble stomachs will retain the gruel; or the cakes, as preferred. See also "Corn Coffee for the Sick."

16. For Diarrhea of Children, or Others.—Parch the corn nicely; grind it into meal, and boil it in skim milk. This is claimed to be a sure cure for summer complaints.

17. Milk and Rice Gruel.—Rice flour, or very finely pulverized rice, 3 table-spoonfuls, wet smoothly with cold milk, and stir into 1 qt. of boiling milk, and stir all the time it is boiling—10 to 15 minutes, or till it tastes *done*. Nutmeg is a very nice flavor for this gruel, and a little sugar, if desired. It is very acceptable for children.

18. Tamarind Whey—Cooling and Laxative.—Dr. John King, of Cincinnati, says:

“A convenient and cooling laxative is Tamarind Whey, made by boiling 1 oz. of the pulp of the Tamarind in 1 pt. of milk, and straining the product.”

Remarks—Tamarinds grow on quite large trees, principally in the East and West Indies. They are put up in kegs with syrup for importation; and on being received in the United States are often put up, by wholesale druggists, in bottles for their better preservation as, like other fruits, they keep better in air-tight bottles. I trust their value as a cooling and thirst-allaying fruit may, hereafter, be more fully appreciated, especially in fevers, inflammation and dyspepsia.

19. Tamarind Water, for Fever Patients—To Allay Great Thirst in Hot Weather, and for Dyspeptics.—Take nice Tamarinds (kept by druggists in large cities, and sometimes, also, by grocers), 1 qt. —3 lbs will about equal 1 qt.—place them in an earthen jar and pour upon them 3 qts. of boiling, soft water; cover, and let stand three or four hours; then, with the hand squeeze the pulp out of the bird-nest clusters, in which the seeds and pulp are held; then strain through stout muslin; bottle and cork tightly; and put into a cool cellar. In three or four weeks it will be ripe and fit for use.

Remarks.—In hot weather, especially with dyspeptics, there is often experienced very great thirst. With such, I am not aware of any other article or drink equal to this to relieve them of the excessive craving for drink. Then take a wine-glass of this in as much ice-cold water, sweetened to taste, and you will have a healthy and most agreeable nectar, and one of the most powerful extinguishers of thirst ever discovered. The author has tested it and knows whereof he speaks. It settles by standing and becomes as clear and pure as champagne. I have taken a glass of it when very thirsty, ice-cold, as above mentioned, and the relief would be so perfect I would not think about drinking again for 2 or 3 hours. The properties of the tamarind are very peculiar, as it contains not only small quantities of sugar, but pectic, citric, tartaric and malic acids, and also the bi-tartrate of potassa; is nourishing, refrigerant (cooling), calmative and laxative; hence its great value in fevers. But, of course, to prepare it for a drink in fevers, you cannot wait for it to purify itself by standing, yet it should be bottled all the same, and a bottle of it placed at once upon ice; or if no ice is at hand, stand a bottle of it in a bucket of cold water, so as to have it as cool as possible; then add as much cold water to what you use of the tamarind water at each time, and sweeten to taste. Let the patient partake of it as freely as desired, so long as it agrees with the stomach, and does not prove too laxative.

20. Wine Whey.—Put 1 pt. of sweet milk in a suitable basin upon the stove, and when it comes to a boil, pour into it a gill (about 5 or 6 table-spoon

fuls) of wine, and when it has again boiled about 15 minutes, remove from the fire; let it stand a few minutes, but do not stir it; then strain or remove the curd, and sweeten to taste; flavor with cinnamon, or nutmeg, or any other spice or fruit, as orange or lemon peel, etc. It is used for very weak and feeble patients.

21. Sour Milk Whey.—Where wine is not to be had, and a whey is needed, bring a cup of sweet milk to a boil, and add the same amount of sour milk, and the result is a very nice whey. Season or flavor, as desired.

22. If no sour milk, a table-spoonful of good vinegar will do the same thing if not curdled, by standing a few minutes, stir in a little more vinegar, strain and season to taste.

23. Chicken Water.—Take half of a young chicken, divest it of the skin, remove the feet, and break all the bones. Put into 2 qts. of water and boil for half an hour; strain through muslin, and season with a little salt and pepper, if desired. It quenches the thirst and is quite nourishing for use when the strong teas or essences cannot be borne by the stomach. Straining through muslin removes or absorbs any oil or fat upon the surface, which cannot be dipped off.

24. Barley Water.—Pearl barley, 1 oz.; wash in cold water, and pour off; then boil it a few minutes, and pour off again, which removes a certain rank taste; now pour on boiling water, 1 qt.; and boil, in an open dish, until half evaporated; strain and season to the taste of the patient. It is nourishing and pleasant, hot or cold, as desired.

25. Chicken Panada.—Toast a slice of stale bread (bread not less than two days old) to a very nice brown (be careful never to burn bread in toasting for the sick, for scraping off does not remove the burned taste,) and break into a soup plate, pouring over it some chicken broth, boiling hot; cover the plate and let it stand till cold enough to eat, or drink, according to the condition of the patient.

26. Plain Panada.—Split 5 or 6 Boston, or other very light crackers, put into a bowl with a very little salt, nutmeg and sugar to taste; pour boiling water over them and cover till cool; it makes a nourishing drink—and still more nourishing if the patients digestion will allow them to eat the crackers, or a portion of them.

27. Plain Panada, With Bread.—Put into a bowl, in small pieces, 1 slice of stale bread (not less than 2 days old), leaving out the crust; put in a small piece of nice butter, and pour upon it $\frac{1}{2}$ pt. of boiling water. Sweeten, if desired, and flavor also if preferred, with nutmeg and a little wine also, if desired.

28. Corn Coffee, for the Sick, or for a Nauseous Stomach.—Take nice, sweet, dry corn (I do not mean sweet corn, but nicely dried field corn); be careful in browning it, not to burn it, as it injures its flavor, as much as it does to over-brown coffee for general use—makes it bitter rather than pleasant. To 1 coffee cup of this ground, as coffee, stir in 1 beaten egg; put

into the coffee pot, and pour on boiling water, 1 pt. or a little more; steep and season also as coffee, with cream and sugar. It is nourishing and sufficiently stimulating to allay a nauseous stomach before vomiting has taken place. See also browned corn meal gruel for weak stomachs.

29. Corn Tea.—Make the same as the corn coffee above, except not to use the egg. It is pleasant, hot or cold, but not quite as nourishing, lacking the egg; hence adapted to very weak patients (see also the herb teas), but as there will be found patients in every condition of strength, or want of strength, it becomes important that a variety of receipts should be given, and hence the following:

30. Rice Coffee, Especially Nice for Children or Weakly Patients.—Brown the rice carefully, as you would the coffee bean, or corn, above; then grind, or mash in a mortar, and to 1 cup of this pour on 1 qt. of boiling water, let it stand 15 minutes; strain if it does not pour off clear. Sweeten all these coffees with loaf or granulated sugar, and used boiled milk with them, as freely as relished. It may be drank as freely as the stomach will bear. Children are very fond of it; and it is better for them, or for weakly persons, than common coffee. The same holds good, also, of the corn preparations above.

31. Common Teas.—A rather weak tea (never a strong one) may be made of any of the ordinary green or black teas, when craved by the sick, sweetening and using milk as desired; for we believe it better to allow a mild beverage of this kind to any sick person rather than to allow their minds to worry over a refusal, for all excitement is to be avoided if reasonably possible, for amendment seldom begins, nor does it continue long, after any dissatisfaction arises, no matter what the subject, nor how slight the dissatisfaction may be; hence indulge all opinions, or even whims, that have not in themselves an absolute wrong.

32. Eggnog for the Sick.—Beat the yolk of 1 egg with 1 table spoonful of pulverized sugar to the consistency of cream; grate in a little nutmeg; add 1 large table-spoonful of brandy and 2 of Madeira wine. Beat the white of the egg to a stiff froth, and mix in with 1 cup of nice sweet milk.

Remarks.—This is palatable, and for weak and feeble patients will be found very invigorating and strengthening, the true "Madeira" being rich in its tonic and invigorating qualities. The original formula ran thus: "The yolks of 16 eggs, and 16 table spoonfuls of pulverized loaf-sugar (the day of this "loaf-sugar" is over, except in small cubes or squares) beaten to a cream; 1 grated nutmeg; $\frac{1}{2}$ pt. of good brandy or rum, and 2 glasses of Madeira wine. The whites beaten to a stiff froth and put in, finishing with 6 pts. of milk made cold." This would indicate that it was being made for general or hospital use, or the patient must have been expected to live on it for a week at least, or otherwise to have many visitors. But this was a universal practice in an early day, and finally whiskey took the place of the brandy and the wine. No party or evening gathering was considered to be well provided for unless a large supply of milk punch or eggnog was prepared and set before the guests, when every

one was expected to help themselves, from time to time, to all they desired; but it is one of the most dangerous forms in which liquor can be placed before young men, and especially so if there are to be frequent evening parties. I speak from the experience of my early life, where this beverage was freely supplied by a man of social disposition, having plenty of means, to induce about a dozen of us young men to spend our evenings in his society at least two or three evenings in the week. But, for one, I soon discovered that the days were too long, and that I desired the parties would suit me better every night rather than only two or three in the week, and on the days upon which a party was to gather in the evening, I wanted night to come even before supper-time, which opened my eyes to the danger of these nightly meetings while I yet had moral courage and strength of mind to say: "Excuse me, I shall meet with you no more,"—and I did not, notwithstanding the jibes and jeers of my associates in labor through the day. To this decision, made very soon after my marriage, I owe a life of great industry and labor, in which, I humbly believe, I have done at least some good to my fellow creatures; for which I feel very grateful to Him to whom we all have to render an account. Then allow me to say to everyone, but especially so to every young man: "Touch not any liquor as a beverage, as you hope to spend a life of usefulness here, and of happiness in the better land beyond the river."

33. Negus for the Sick.—Barley-water, 1 pt.; wine, $\frac{1}{2}$ pt.; lemon-juice, 1 table-spoonful; nutmeg and sugar to suit. DIRECTIONS—Make the barley-water, as before given; then mix.

Remarks.—Nourishing and stimulating. Used by weak patients like Col. Negus, from whom it takes its name.

34. Raw Egg and Milk for Convalescents.—A fresh egg; milk, 1 cup; a little port or other wine, and a little sugar. DIRECTIONS—Use only the yolk, beating thoroughly; then add the milk, and beat till foamy; then sugar and wine.

Remarks.—Have this ready to be taken by convalescents when they feel the least fatigue on returning from exercise.

35. Milk Punch for the Sick.—Nice sweet milk, $\frac{1}{2}$ pt.; white sugar, 2 table-spoonfuls; best brandy, 2 table-spoonfuls, ice. DIRECTIONS—Dissolve the sugar in the milk, and add the brandy, stirring well.

Remarks.—This punch has maintained the life of very sick persons when nothing else could be taken for several days, or until the natural forces returned to the rescue. Make cold with ice, or keep it on ice

36. Milk Punch, with Eggs, for Weak Patients.—If the patient is very weak, it is more strengthening to beat a fresh egg (in fact, none but freshly laid eggs should be used with the sick) thoroughly, and stir into the above punch before the spirit is added.

Remarks.—The white of a fresh egg beaten with 1 table-spoonful of white sugar, then a table-spoonful of best brandy added and again beaten, was fed to me by a Methodist clergyman—a special friend—in tea spoonful doses, which sustained me 2 or 3 days, and, no doubt, saved my life, when even the consulting

physician declared it would send the disease to the brain and soon destroy me. The occasion for its use arose from typhoid pneumonia of the right lung—the exhausting discharges from the bowels and the change of position necessary producing such sinking spells that life must have soon given out. The attending physician had determined to administer the brandy; but the consulting one (a much older man, and hence more set in the “old foggy” idea that brandy would excite inflammation of the brain) was contending with him in the parlor, as I was afterwards informed, that it would not do; when the clergyman came in, as he was in the habit of doing in my sickness, and heard their argument, he came in to see my condition; as soon as he saw my exhaustion—he having been raised from the same condition by a physician in another city, went back to the doctors and said: “I will take the responsibility of this case to-day,” thus agreeing with the advance in science, as shown by the younger physician; he did as above indicated, personally attending to me all that day and night till 5 o’clock in the morning; pronouncing the danger past, he called my dear wife (since passed to the “better land”), whom he had compelled, as it were, to lie down for a few hours, which she had not before done for several days and nights (getting all her rest and sleep in a chair, notwithstanding there was plenty of help, through her anxiety for me—such is a true woman’s love). The brandy was truly the hinge on which the case turned back to life, when scarcely a hope was entertained that such could be the result. Why should not this, then, or some other of these punches, eggnogs, etc., save others when in such extremely weak conditions? If I did not so believe, I would certainly not take such pains and so much space to explain and recommend them. But do not understand me as recommending these stimulating drinks, only in these exhausting diseases, where the diffusive as well as the stimulating power of the spirit is demanded to aid the strength and stimulate the recuperative powers of nature to rally to the rescue. My reasons for opposing stimulation generally, is more fully shown in the remarks following “Eggnog.”

37. Claret Punch.—Claret, 1 bottle; ice-water, $\frac{1}{4}$ as much as wine; sliced lemons, 2; powdered sugar, $\frac{1}{2}$ cup. Put the sugar upon the sliced lemons for a few minutes; add the ice-water and stir well for a minute or two, then pour in the wine. Put plenty of ice into each glass as served. For the sick come as near to the proportions as practicable, for why should not the sick have their share of the good things, as well as those who only use them for the enjoyment? These fixtures are only additions to improve flavor, and make more palatable; hence let the sick have the advantage of them by all means.

38. Currant Shrub for the Sick.—A lady writer says: “Make the same as jelly, but boil only ten minutes; then bottle, and cork tightly. Put 2 table-spoonfuls of the shrub (jelly) to $\frac{1}{2}$ glass of ice-cold water, and have some bits of ice in it.”

Remarks.—This would be pleasant and grateful to the taste, but it is not shrub—that always contains spirits of some kind, to prevent souring; or, for its stimulating effects; see the following:

39. English Shrub, for the Sick.—‘One sour’ (lemon juice)

“two sweet” (sugar), “three strong” (rum, or other spirit), “four weak” (water)

Remarks.—The measure might be a tea cup, or a pint measure, as desired, but each article was to be measured in the same dish. For those patients needing any stimulants, I would add $\frac{1}{4}$ as much good whiskey, or Bordeaux, preferably, as is used for the jelly. Any common acid jelly, properly diluted with ice-cold water, makes a pleasant drink for fever patients, or those sick from other diseases. Or, any of the following may be used, as needed.

40. Acid Drinks From Raspberry Vinegar Jelly, is Nourishing and Pleasant for Invalids.—Take 4 qts. of red raspberries and cover them with good cider vinegar, and let them stand 24 hours, then scald, strain and add sugar, 1 lb., to each pint of the juice; boil 20 minutes, or until it jells; bottle and cork, or can, air tight, and it will keep well, or is ready for present use. A table-spoonful of this to a glass of ice-cold water, taken a little at a time, makes the patient, if a reasonable one, feel very grateful, when sick, or convalescing. So also does.

41. Toast Water.—Make by nicely browning (not burning in the least) stale bread; then pouring boiling water upon it, and letting it stand upon ice, if you have it, then squeezing in a little lemon juice.

42. Raw Egg Drink for Invalids—Strengthening, Restorative and Pleasant.—A fresh, raw egg, being both strengthening and restorative, may be made into a pleasant drink, for the feeble, by breaking a freshly laid egg into a bowl, and beating it well, with 1 or 2 table-spoonfuls of sugar, then adding a little ice-cold water, and a tea to a table-spoonful of spirits, or wine, as prepared, or at hand.

43. Drink for Great Thirst of Fever Patients.—Cream of tartar, $\frac{1}{2}$ oz.; white sugar, 4 ozs.; confection of orange peel, 3 ozs.; boiling hot water 3 pts.

[*Confection of Orange Peel.*—Take the external rind of nice fresh oranges, separated by rasping (grating), 1 lb.; white pulverized sugar, 3 lbs. (or in these proportions) DIRECTIONS.—Beat the rind in a stone, or wedge-wood mortar, then add the pulverized sugar, and continue the beating till perfectly incorporated together. Keep in cans.]

DIRECTIONS.—Pour the hot water upon the other ingredients; when all are dissolved, set aside to cool. When cold drink as freely as the thirst of the patient demands. (See fevers, preventative and cure.—Dr. Buchanan.)

Remarks.—This confection is tonic, and stomachic, and is principally used as a vehicle for the exhibition of tonic powders, drinks, etc.—*Cooley's Cyclo-pedia.*

44. Pectoral Drink.—Common barley and stoned raisins of each 2 ozs.; licorice root, bruised, $\frac{1}{2}$ oz., water, 2 qts. DIRECTIONS.—First boil the barley, then add the raisins and continue the boiling until the water is one-half evaporated, and add the licorice. When cool, strain.

Remarks.—Dr. Buchanan, an old English physician, made it the usual drink in all pectoral (chest) difficulties, to be drank freely.

45. Herb Teas, for the Sick Room.—Dried sage leaves, or any of the mints, or balm leaves, $\frac{1}{4}$ oz.; boiling water, $\frac{1}{2}$ pt.; steep and strain, or pour off, when cool enough to drink. A little sugar may be used with any of them when desired.

46. Sage Tea, Made as above, with $\frac{1}{2}$ tea spoonful of pulverized alum dissolved in it and sweetened with honey, is especially valuable as a gargle for sore throat.

47. Mint Teas, From the dried or green leaves crushed, with a little sugar, are agreeable to the taste, and soothing to a nauseous stomach, and to an irritated condition of the bowels of children.

48. Catnip Tea, However, is considered, by old nurses, as the greatest panacea for infant ills, known among them.

49. Pennyroyal Tea, Is equally well known as the best thing to break up colds, and to restore a checked perspiration from exposures, damp feet, etc.

50. Gentian Root and chamomile flower teas are both valuable tonics, and may be taken hot or cold, as preferred, and with or without sugar, but as both are quite bitter, sugar will make them more palatable.

51. Strawberry Leaf Tea, From the green leaves, is considered valuable in canker of the mouth of infants, and with the alum, as in the sage, for adults, as a wash or gargle.

52. Blackberry Tea, Made from the roots are considered valuable in bowel difficulties; and that from the raspberry are believed to be equally valuable; and a syrup from these fruits are valuable in bowel complaints, and also make agreeable drinks in fevers and inflammatory diseases.

53. Mint Tea, Juleped.—It would be hardly right to close the subject of herb teas without giving an idea that something besides teas can be made from the mints. Take, then, a few sprigs of green mint (if any urinary difficulty, or in case of fever let it be spearmint, as that is more diuretic and febrifuge than peppermint, while the peppermint is the most carminative and anti-spasmodic), and bruise them in a glass with a spoon—mashing considerably—adding sugar freely, and cold water to half fill the glass, with a table-spoonful or two of wine, or brandy, and pounded ice to fill, shaking, or stirring well, and if quaffed quickly you will think there has been a hail storm in the neighborhood, of an agreeable character—a little of which is not bad to take by sick or well people.

PUDDINGS, TOAST, PAP, JELLIES, STEAKS, CHOPS, ETC., FOR THE SICK

54. Rice Pudding—Baked.—Rice $\frac{1}{2}$ lb.; water, 1 pt.; milk, 1 qt.: sugar 1 cup; 2 eggs; salt, 1 tea-spoonful; lemons, nutmegs or vanilla to flavor. **DIRECTIONS**—Wash the rice and boil in the water 30 minutes; then add the milk and boil 30 minutes longer; beat the eggs, sugar and salt together, and

stir into the rice. Bake in a nicely buttered dish for half an hour. To be eaten with a very little nice butter, or sauce, if preferred.

Remarks.—Although a little of this is very appropriate for the sick, yet, I think, most families will be willing to help them dispose of the surplus, if it comes from the oven just at dinner-time

55. Tapioca, Cream Pudding.—Tapioca, 3 table-spoonfuls; water and milk, 1 qt.; 3 eggs; a little salt; lemon or vanilla to flavor. DIRECTIONS—Cover the tapioca with water and let soak 4 hours; pour off what water is left. Put the milk over the fire, and as soon as it boils stir in the beaten yolks of the eggs and the salt, then the tapioca, and stir till it begins to thicken. Make a frosting of the whites and brown a moment only, having added the flavoring. This is very palatable and very nourishing.

56. Graham Pudding—Steamed.—Boiling water, 1 pt.; graham flour, salt; hot milk, 1 pt.; 1 egg. DIRECTIONS—Stir into the boiling water sufficient graham flour to make a stiff paste; adding the egg, beaten, and a little salt; then stir into the hot milk and steam $\frac{3}{4}$ of an hour—the steam being up when the dish is set in the steamer. Serve with maple syrup, or nice cream and sugar, or any other sauce preferred.

57. Egg Toast.—A fresh egg, nice bread, not less than one day old, salt and hot water. DIRECTIONS—Toast the bread only to a light brown; break the egg into hot water on the stove, and cook only to “set” the white; put a little salt into sufficient hot water, dip the toasted bread, quickly, into it, and place it on a hot plate, and put on the egg, adding a sprinkle of salt only.

Remarks.—It is presumed that if this is done nicely, according to directions, and the patient is able to digest this kind of food, it will be found enjoyable. At another time a soft toast, with water or sometimes with milk, of course, hot, in either case will give the needed varieties, to meet different tastes and circumstances.

58. Pap, of Boiled Flour—For Diarrhea of Children.—Tie 1 cup of flour closely in a cloth, and boil 5 hours; when cool grate off a table-spoonful of it, and mix smoothly in a little cold milk; then stir this mixture into 1 pt. of boiling milk, and boil a few minutes, and sweeten with loaf sugar, and add a little nutmeg, if desired. Very valuable in diarrhea of children or adults.

59. Wine Jelly.—In places where none of the common fruit jellies are obtainable, the following will make an excellent substitute: Boil white sugar, $\frac{1}{2}$ lb., in 1 gill of water. Have dissolved isinglass, 1 oz., in a little water, and strain into the syrup; and when nearly cold add $\frac{1}{2}$ pt. of wine; mix well in a bowl or suitable dish; cover. For convalescents or those getting up from exhausting diseases, this will be found as nutritious as it is palatable. If too thick at any time, add a little milk or water, as preferred, or convenient.

60. Arrowroot.—Mix 2 table-spoonfuls of arrowroot to a smooth paste with a little cold water; then add to it 1 pt. of boiling water, a little lemon peel,



SUMACH.

(See Description.)

This herb is useful in Scrofulous and Venereal Diseases, Skin Eruptions, Falling of the Bowels and Womb, Kidney Derangements and Sore Throat.



SKUNK CABBAGE.

(See Description.)

Useful in Asthma, Coughs, Catarrhs, Consumption, &c. also in the cough of old people.

and stir while boiling. Let it cook till quite clear. Sweeten with sugar, and flavor with wine or nutmeg, if desired. Milk may be used instead of the water, if preferred.

61. Beefsteak—Broiled.—Have a small piece of rather thick surloin-steak; a perfectly clear, coal fire should be ready, to avoid the possibility of the taste of smoke, and the gridiron must be perfectly clean; 3 or 4 minutes to each side, if the patient likes it at all rare, will be sufficient, being very careful to avoid burning. Season with a little salt and very little pepper. Place on a hot plate and serve immediately.

62. Mutton or Lamb Chops.—These must be trimmed free of fat, and broiled the same as beefsteak, except that they must be a little better done, and hence should be cut a little thinner to allow cooking through. Season and serve the same. But if any patient, at any time, desires any modification in cooking or seasoning, let it be done to suit him, unless known to be injurious.

63. How to Reduce the Temperature of Sick-rooms and to Keep them Cool.—In very warm weather it is often desirable, for the comfort of the patient to have the room considerable cooler than the natural atmosphere. In such cases raise the lower sashes entirely upon the side of the room from which the breeze comes; then have a piece of muslin soaking wet, squeeze slightly, and tack it on so as to make all the air come in through the wet muslin, which will reduce the temperature of the room 5 or 6 degrees in a few minutes. This is done by the absorption of a part of the heat in the atmosphere by the passing of the water in the muslin from its liquid to a gaseous state (a principle well known in philosophy), and the air of the room becomes more moist also, which makes it more endurable.

Remarks.—It only needs trying to satisfy the most incredulous, and it will benefit the very feeble patient more than enough to pay everyone for the trouble taken. As the cloths become dry, replace them with others; or keep them well wet with a sponge.

64. Ventilation of Sick-rooms and Sleeping-rooms—Avoiding the Draft over the Patient.—Have a piece of board made just as long as the width of the window; then raise the lower sash, and place the board under it. The width of the board may be 3 or 4 inches only, as this will allow a current of air to pass up between the glass and sash, breaking the draft that otherwise enters directly into the room when the sash is raised. In this way air may be admitted even at the head or back side of a sick-bed, for the curtain may be lowered to break the current from passing directly upon the patient. This plan is equally important in small and ill-ventilated sleeping-rooms. This much fresh air, at least, should be admitted into every sleeping-room, excepting the extremely cold and windy days of winter.

Additions and Corrections

- Note 1.**—This remedy would not now be recommended for cancers but is good for other purposes mentioned.
- Note 2.**—Sulphate of morphine is now used.
- Note 3.**—The fluid extract of these drugs is now used. Use $1\frac{1}{2}$ ounces of each.
- Note 4.**—Instead of the tincture use the fluid extract of black cohosh and then the dose should not be more than from 10 to 20 drops.
- Note 5.**—It is now called chloride of ammonia instead of muriate of ammonia.
- Note 6.**—The last two and a half lines refer to receipt No. 1 under "Bronchocele" instead of receipt No. 2.
- Note 7.**—The corrosive sublimate should be left out of this mixture.
- Note 8.**—Preparations made from poke-berries are now much used as an anti-fat.
- Note 9.**—The name "Dextro" is not now used but sulphate of quinine is used.
- Note 10.**—This treatment is now considered an adjunct (assistant) only. Antitoxin is now largely used for diphtheria.
- Note 11.**—This paragraph is not now in accord with the belief of most physicians.
- Note 12.**—The third trituration is used more now for tonsillitis than the second trituration and is more effective.
- Note 13.**—Pork is not now recognized as a cause of diphtheria. Antitoxin is the remedy used and these other treatments are considered adjuncts, or assistants, only.
- Note 14.**—Many physicians now consider this too strong a statement.
- Note 15.**—Boil the clothing in carbolic water, using $6\frac{3}{4}$ ounces of carbolic acid to a gallon of water.

- Note 16.**—Tincture of iron is not used much now. Dieting and nursing are more emphasized these days.
- Note 17.**—Carbolic acid is extensively used now for disinfecting clothing, etc.
- Note 18.**—Formaldehyde, generally called formalin, is the agent now used.
- Note 19.**—This remedy might be useful to keep the kidneys and bowels working better but it is not now regarded as a cure of small-pox.
- Note 20.**—Tetanus antitoxin should also be given early.
- Note 21.**—This disease is caused by the "Plasmodium Malariae," a parasite developing in the body of a mosquito and transmitted to man by the bite of the infected mosquito. The emetic here prescribed is strong treatment and not used much now.
- Note 22.**—You may have some trouble buying quinidia.
- Note 23.**—Avoid being bitten by mosquitos, especially in a malarious country.
- Note 24.**—Turpentine is not now used with chloroform.
- Note 25.**—This statement is disputed by some.
- Note 26.**—The last statement of this paragraph should be omitted.
- Note 27.**—This disease is caused by a micro-organism.
- Note 28.**—The Pasteur treatment should be taken without delay if bitten by a mad dog. This is imperative.
- Note 29.**—This should be used with great care. Better use some of the simpler treatments given.
- Note 30.**—A child should not take opium except by prescription from a doctor. This dose is too large.
- Note 31.**—A child should not take morphine except by prescription from a doctor. This dose is too large.
- Note 32.**—Use less santonine—5 grains—and 15 grains of sugar of milk. Then divide into 20 powders instead of 10.

- Note 33.**—Use but $1\frac{1}{2}$ to 3 grains of santonine instead of 16 grains.
- Note 34.**—This treatment is doubtful.
- Note 35.**—Instead of specifying 1 oz. of carbolic acid No. 1 it would be better to specify 2 teaspoonfuls of carbolic acid solution.
- Note 36.**—Use $\frac{1}{2}$ grain of santonine instead of 2 grains.
- Note 37.**—Use but $\frac{1}{4}$ oz. of tincture of belladonna instead of $\frac{1}{2}$ oz.
- Note 38.**—You may not be able to purchase the sesquicarbonate now.
- Note 39.**—Yellow fever is probably caused by a specific organism conveyed by mosquitos and not by clothing.
- Note 40.**—Plants, rag-weed, hay, barley and some flowers are the causes of this ailment.
- Note 41.**—The use of nauseating medicines as here prescribed has been discontinued.
- Note 42.**—The giving of an emetic as here prescribed is not now considered good treatment.
- Note 43.**—The sponge should merely be put into the vagina and not in the mouth of the womb.
- Note 44.**—Extra-uterine conceptions are fatal unless recognized early and operated upon.
- Note 45.**—This instrument is now usually made of rubber.
- Note 46.**—Instead of myrrh and aloes, antiseptic injections of either glycothymoline and sterile water or borolyptol and sterile water are considered better. Diluted peroxide of hydrogen is also good.
- Note 47.**—Sometimes it is necessary to inject hot sterile water into the womb and pack it with sterile gauze. Injecting a solution of crane's bill (geranium) is often good. This must be done by a doctor.

DOMESTIC SCIENCE AND COOKING RECIPES

BREAD, PUDDINGS, PIES, CAKES, SOUPS, MEATS, AND VARIOUS DISHES.

BREAD.

Remarks.—If the simple word “bread” only, is spoken, it is always understood to mean white, or bread made from wheat flour. Other kinds always have a descriptive attachment, as Graham, Indian, brown, Boston brown, corn, etc. Two things are especially essential in good bread—lightness and sweetness. If bread is heavy—not light and porous—or if it is sour, it is only fit for the pigs. And it is important to know that good bread cannot be made out of poor flour. In the following these points are nicely explained, together with full and complete instructions in the three necessary processes of making good bread—making sponge, kneading, and baking.

How to Make Good Bread.—A loaf of perfect bread, white, light, sweet, tender, and elastic, with a golden brown crust, is a proof of high civilization, and is so indispensable a basis of all good eating that the name “lady,” or “loaf-giver,” applied to the Saxon (English, as now understood, for England was overrun and conquered by the people of Saxony, in northern Germany, in an early day, so that now, to say a “Saxon,” or of the Saxon race, refers to the English, descended from them, more often than to the people of Saxony itself—and especially Anglo-Saxon always means English) matron, may well be held in honor by wife or maiden. But do all the gracious ladies who preside in our country homes see such loaves set forth as daily bread?

Inexperienced housekeepers and amateur cooks will find it a good general rule to attempt at the beginning only a few things, and learn to do those perfectly. And these should be, not the elaborate dishes of special occasions, but the plain every-day things. Where can one better begin than with bread? The eager patronage of the over-crowded, carelessly served, high-priced Vienna bakery at the Centennial gave evidence that Americans appreciate good bread and good coffee, and had, perhaps, some effect in stimulating an effort for a better home supply. To make and to be able to teach others to make bread of this high character is an accomplishment worth at least as much practice as a *sonata* (a piece of music); and the work is excellent as a gymnastic exercise. With good digestion, honest personal pride, and the grateful admiration of the family circle as rewards, surely no girl or woman who aspires to responsibilities and joys of home, will shrink from the labor of learning to make bread.

The whole art and science of bread-making is no mean study. *The why,*

as well as the *how*, should be aimed at, although exact knowledge or science, even in bread-making, is not so simple a matter as some might fancy. Varying conditions, even the temperature of the kitchen, work confusion in the phenomena of a batch of bread as surely as in the delicate experiments of a Tyndall or a Huxley. Fortunately, an exhaustive knowledge is not essential to practical success. Skillful manipulation will come with experience, and I have taught the actual art to a succession of uneducated cooks so that, with a little supervision, they satisfactorily supplied an exacting family. But the mistress, the house-mother, who must give intelligent direction, will not be satisfied without going to the root of the matter. Let her not rest upon her laurels without making sure that her table is constantly supplied with such delicious loaves of "the staff of life" as, with the fragrant, highly-flavored butter of May or June, shall make a fit repast even for the good women whose hand have prepared them.

Good Flour Essential.—The first requisite to good bread is good flour (and *sifted*, to enliven it and make it mix more readily). If the very best seems too expensive, make up the difference in cost by eating less cake. With really delicious bread you will do this naturally, and almost unconsciously.

The Yeast, to Make.—In the country, where fresh yeast from breweries is out of the question, the first process must be making yeast; and it is well to begin there, and know every step of your way. The commercial yeast cakes must form a basis; from them it is easy to make the potato yeast, which is perhaps the simplest and best of several good forms of soft yeast. Dry yeast cake used directly will not make bread of the first quality. For the yeast, soak *three yeast cakes* in a cup of tepid water, while *six or eight* fair-sized potatoes are boiling. When they are perfectly soft, put the potatoes, with a quart of water in which they were boiled, through a colander, and add a teaspoonful of salt and two of sugar. When tepid, add the yeast cakes, rubbed with a spoon to a smooth paste, and place the whole in a stone jar, and keep the contents at blood heat for twelve hours, when a lively effervescence should have taken place. The yeast will be in perfect condition the next day, and will remain good for ten days or more if kept in a cool cellar in a closely covered jar.

Setting the Sponge.—Many New England housekeepers make a great mistake in setting their sponge over night. One secret of good bread is that every stage of the process must be complete and rapid. Every moment of waiting means deterioration. At the precise moment *when the sponge is fully light* the bread should be kneaded, and the process of rising ought not to require more than *three hours* at most. Set your sponge, then, as early in the morning as you like, by taking in the bowl or basin kept for the purpose (and you will soon learn just how high in it the sponge should rise) two quarts of *sifted* flour. Make a hole in the middle with the stirring spoon; pour in half a pint of the soft yeast, first thoroughly stirring it from the bottom, then mixing with the flour; add tepid water, stirring constantly, until a smooth, stiff batter is formed, which stir and beat vigorously with the spoon for at least five minutes after it is perfectly mixed. Cover lightly, and set in a warm place until thoroughly

light, almost foaming; but be sure not to delay kneading until it begins to subside.

Kneading.—Sift the flour, say 6 qts., in a pan, make a hole in the middle, pour in the sponge; add a pinch of salt, and, dexterously mingling the flour with the soft sponge by the hand, gradually add a quart of warm milk or warm water, quickly incorporating the whole into a smooth, even mass. Cover the kneading-board with flour, place upon it the dough, which must not be soft enough to stick or stiff enough to make much resistance to pressure, and knead vigorously and long. Half an hour's energetic kneading is not too much for a family baking. By that time the bread should be elastic, free from stickiness, and disposed to rise in blisters. Cover with a soft bread-cloth folded to four thicknesses, and set it where a temperature of about blood-heat will be maintained.

In two hours it should have risen to fully twice its volume. Place it again upon the board; divide with the hands (which may be floured, or, better, buttered) a portion of the size which you wish for your loaves, remembering that it will rise again half as much more; lightly mold it into a smooth, shapely loaf, with as little handling as possible, and place in a well-greased pan. Set the loaves back in their warm corner for half an hour, when they should be very light and show signs of cracking. Bake at once in a hot oven, with a steady heat, from 45 minutes to 1 hour, according to the size of the loaves. Take immediately from the pans and wrap in soft, fresh linen until cold.

Biscuit From Some of the Dough.—A portion of the dough will make a pan of delicious biscuits by adding a piece of butter as large as an egg to sufficient dough for a small loaf, mixing it lightly but thoroughly, and molding into small round balls, set a little distance apart in the pan. They will soon close up the space, and should rise to twice their first height. The swift, sure touch which makes the work easy, rapid, and confident, will come with practice; but the necessary practice may come only with patience and determination.

To Make Bread Crust Soft and Delicate.—Take a cup of cream off the pan, and put it into your bread when you are about molding it, and it will cause the crust to be very soft and delicate.

Remarks.—Knowing this to contain good sound sense, from the fact that I know the Vienna bread has a softer and more delicate crust than common bread, I mention it, believing that one reason, at least, for this is that the Vienna bread is made richer with milk than the common, as you will notice, by comparison. Bread should not be made too thin and soft, in kneading, nor too stiff and hard; but of such a consistence that when you press the doubled hand upon the mass of dough the depression will quickly rise up again to nearly its former shape. Let beginners be a little careful in all the foregoing points of instruction, and the author has no fears in guaranteeing a bread that they, even, shall not be ashamed of. If bread, or rather the sponge, becomes sour from being set over night (although it is conceded not to be best to set it over night), or from neglect to knead it at the right time (when just fully light), dissolve a

teaspoonful of soda (baking soda is always meant) in a little warm milk or water and work it in, which will correct it. If there is danger at any time, in baking, of burning, or over baking, cover the bread with thick brown paper, or a folded newspaper, until the loaf is done through; and if too hot at the bottom to endanger burning, put the oven grate, or a few nails or bits of iron, under the pan, which will prevent it from burning by the admission of air under it. By observing these points you are always safe.

Bread, Cakes and Pies, to Stand in the Cook Room, After Baking, Till Cool.—Bread and cakes, as soon as baked, should be taken out of the pans, wrapped in suitable cloth and stand till cool in the cook room; pies the same, or simply covered, if too juicy to take out of the pans; for, if put too soon into a cold closet, they are liable to fall, by chilling. After they are cool, put in jars or boxes and keep from the air as much as possible.

Vienna Bread, or Yeast.—Since the Centennial there has been much said about the Vienna, or yeast bread—called yeast bread from the fact that it is made with the compressed brewers yeast, known by various names, such as “German Pressed Yeast,” “Patent Yeast,” etc., in place of ordinary yeast, differing from common bread principally in use of a larger proportion of yeast, to the flour used, and also in its being made in smaller loaves. Below you will find, under the head of “The Best Yeast Known,” the way the Vienna, or pressed, yeast is made. The following is the process, or way the bread is made at Vienna, and by the bakers who make it in this country, since the Centennial at Philadelphia, where, so far as I know, it was first introduced in the United States. And as I find a very plain description of how to make it given, at the time, in *Peterson's Ladies National Magazine*, I will give it in their words. It says:

“Sift in a tin pan 4 lbs. of flour; bank it up against the sides, pour in 1 qt. of milk and water (half-and-half), and mix into it enough of the flour to form a thin batter; then quickly and lightly add 1 pt. of milk, in which is dissolved 1 oz. of salt, and $1\frac{3}{4}$ ozs. of compressed yeast. Leave the remainder of the flour against the sides of the pan; cover the pan with a cloth, and set it in a place free from draught, for three-quarters of an hour; then mix in the rest of the flour, until the dough will leave the bottom and sides of the pan, and let it stand two hours and a-half. Finally, divide the mass into 1 lb. pieces, to be cut in turn into 12 parts each. (This, you will see, is for biscuit; for bread this last division is not to be made, and more recently, it is made into rather long, narrow loaves.) This gives square pieces about $2\frac{1}{2}$ inches, each corner of which is taken up and folded over to the centre, and then the cakes are turned over on a dough-board to rise for half an hour, when they are put into a hot oven, that bakes them in 10 minutes, or till done.”

For a Breakfast Loaf.—“Take 1 lb. of the above dough, 2 ozs. of butter, 2 ozs. powdered sugar, 2 eggs; beat all well together, in a basin, in the same manner as eggs are beaten, only using the hand instead of the whisk; set in a plain mould to rise for three-quarters of an hour, then bake in a quick oven. When cut, it should have the appearance of honeycomb. This is a very nice breakfast-cake, and will make delicious toast when stale.”

Remarks.—I see that some of the ladies who have been trying the Vienna bread recommend putting a tablespoonful, or two, of sugar into the sponge,

when they begin to knead it. The author does not think it amiss in any kind of bread.

Vienna Yeast, or the Best Yeast Known.—A writer, in describing how the compressed, or Vienna, yeast is made, first says: “Vienna bread is the best in the world. It owes its superiority to the yeast used, which is prepared in the following manner: Indian corn, barley and rye (all sprouting) are powdered and mixed, and then macerated in water at a temperature of from 149 to 167° Fah. Saccharification (production of sugar) takes place in a few hours, when the liquor is racked off and allowed to clear, the fermentation is set up by the help of a minute quantity of any ordinary yeast. Carbonic acid is disengaged during the process with so much rapidity that the globules of yeast are thrown up by the gas and remain floating on the surface, where they form a thick scum. The latter is carefully removed and constitutes the best and purest yeast, which, when drained and compressed, can be kept from 8 to 15 days, according to the season.”

Remarks.—Although but very few people may engage in the manufacture of compressed yeast, yet it is a satisfaction to almost every one to know how it is done.

Potato Bread.—Boil 6 or 8 good sized potatoes, mash fine while hot, then add 1 qt. sweet milk, $\frac{1}{2}$ cup of white sugar, a good pinch of salt, $\frac{1}{8}$ of a cup of good yeast; have ready a pan of sifted flour, make a hole in the middle, stir in the ingredients; do this about 6 o'clock, and if it gets light before you retire at night, stir it down, sprinkle flour over the top and let it stand until morning, then mix it down again, and when light the third time, knead into loaves. Try this, and if your yeast is good you will never have poor bread.—*Mrs. S. T. Dolph, McBride, Mich.*

Remarks.—It will not be amiss to say here, that new potatoes are of no value in bread making. Only those that are fully ripe can be used.

About Setting Sponge Over Night.—It will be observed that the above recipe for potato bread, as well as most of the following ones, contrary to the instructions of the first recipe, directs to set the sponge over night; but those who may use them, must act upon their own judgment as to doing so, or in beginning in the morning, depending upon its being cold winter weather, warmth of the room, etc.; and also depending upon whether they can give it their watchful care during the day, or until the sponge is risen and the whole process completed and the bread baked, thus avoiding all possibility of souring, as it often does if set over night; for, although to a certain extent, by the use of soda, this condition is corrected, yet, after once souring, the bread will never be as good as if kneaded and baked at just the right time, *i. e.*, as soon as light in each process, not having stood to overwork in either case.

Hop Yeast Potato Bread.—Another lady writer says: “I would like some of the ladies to try my way of making hop yeast bread. Set a sponge at night and be sure to put in a dozen good-sized potatoes. In the morning put half a tea-spoonful of grated alum in half a tea-cupful of water and add to the sponge. Mix quite hard in the pan and let stand till light; then mix down in

the pan once more before putting in the tins. It makes the puffiest bread you ever saw."

Remarks.—Much has been said against the use of alum in making bread but in the quantity here given for a batch of 3 or 4 loaves, the author would have no fears of using. It gives an additional lightness to bread, and that is the only object of its use. Potatoes also help in this respect, while they also, as well as milk, make bread more rich and nourishing, and which also keeps moist longer than without them. It is well to use both if you have them.

Rice Bread.—Rice prepared as follows, makes another variety of bread, which will please many tastes at the seaport table: Take 1 pt. of well-cooked rice, $\frac{1}{2}$ pt. of flour, the yolks of 4 eggs, 2 spoonfuls of butter, melted; 1 pt. of milk, $\frac{1}{2}$ teaspoonful of salt. DIRECTIONS—Beat these altogether; then having beaten the whites of the eggs to a stiff froth, beat them in also. Bake in shallow pans, or gem tins.

Naples Bread or Biscuit.—Flour, 1 lb. ($3\frac{1}{2}$ cups); nice fresh butter, 1 oz. (1 rounding table-spoonful), worked into the flour, with 1 egg, a little salt, good yeast, 2 table-spoonfuls, and 1 pt. of milk. Mix all well and let it rise one hour; then do not work it down, but cut it in suitable sized pieces and form into biscuit and bake in a quick oven. If baked in a loaf, you have Naples bread.

Currant Sweet Loaf.—Mix 2 heaping tea-spoonfuls of cream of tartar with 1 pound of flour; then rub into it 4 ozs. of butter, as for pastry; add 8 ozs. of currants, 6 ozs. of sugar, and 1 pt. of milk, in which 1 heaping tea-spoonful of soda has been dissolved; add a little salt; spice to taste, and bake. The addition of 2 beaten eggs and 4 ozs. of citron makes a rich loaf.

Remarks.—This baked in biscuits, or rolled out and cut in strips 1 or $1\frac{1}{2} \times 4$ inches, makes a nice tea or breakfast cake.

Graham Bread, Western Rural's.—When the author can find arguments in favor of any point, whether it be the making or use of Graham bread, or upon any other subject of value to the public, and perhaps written better than he could do it, he considers that by quoting them, giving the proper credit, which he always does, if the originator is known, the public, as well as himself, are materially benefitted; and in this case, especially, the well-known popularity of the *Western Rural* will undoubtedly influence many persons to use more Graham bread than they otherwise might do, whereby their health will be greatly improved, and certainly no one harmed; and it is by this course that the author in his two former books, as well as in this the third and last which he will ever write, has done and still is enabled to do a greater good than he otherwise could. I fully agree with the principles and suggestions, and the way of making, and hope that every family into whose hands this book shall come, will adopt them and keep their tables supplied with this delicious and health-giving bread. The editor says:

"We are seldom without Graham bread on the table, and have noticed that our friends and visitors almost invariably prefer the brown bread to the white. We have often wondered why more people do not use it, especially when we

take into consideration the fact that it is less trouble to make, being much more wholesome, and yielding a greater amount of nourishment. Some people who are habitually constipated, only need unbolted wheat in some form once a day, with plenty of fruit, to entirely obviate this difficulty. You want good, finely ground Graham flour, and good yeast to begin with. Take your mixing bowl, put into it two table-spoonfuls of any kind of molasses or brown sugar, a table-spoonful of salt, a little over a pint of warm water, and yeast in the same proportion that you would for white bread. We use the compressed yeast, and use a little less than 2 cents' worth to make 2 pie-pan loaves. Stir in Graham flour to make a sponge and beat it a few minutes hard, then add a pint of white flour, adding Graham to make it stiff enough to mould, taking care not to get it too stiff. Better have to add a little flour in molding. Let it stand only long enough to get quite light. Mold and put into pans, and when it is light, bake in a moderate oven. Graham requires a few moments longer to bake than white. All bread should be kept at a rather low but even temperature while rising, away from drafts, as a higher temperature produces what is known among chemists as false yeast, which is an advanced stage of fermentation or decomposition, and is unwholesome."

Remarks.—This last point, as to the temperature being too high, causes the bread, or sponge, to become sour by over working, and would call for soda to correct it whenever this occurs. I will give another wherein the sponge is set with white flour, and also a small amount more added in the morning, which some prefer to an all Graham. There is a caution, too, near its close, against a too hot oven at the beginning, by which the crust is set so soon, the center of the loaf must necessarily be soggy, as it had not time to rise—because tight—before it was bound down by the setting of the crust from the over-heat. But if you ever find that your oven is too hot, see plan of covering the bread with paper, as directed with the white bread at first given. I am unable to give the proper credit for the origination of the following, but I know it will make a nice bread if carefully done.

Graham Bread.—For 4 loaves of bread take $1\frac{1}{2}$ cups of good fresh yeast. Sift white flour and mix to rather a stiff sponge with moderately warm water, beat well; add the yeast and beat again; set in a warm place over night. In the morning, when light, add salt, a heaping pint of sifted white flour, and then stiffen with graham, this being the first graham which is put into the bread. Allow it to rise again, and when light, mold into loaves, working as little as possible. When these have raised sufficiently, bake well in a moderately heated oven. If the stove be too hot when the bread is first put in, the crust forms too quickly and the inside of the loaf is apt to be moist and soggy,

Graham Bread, One Loaf.—Wheat flour, 1 cup; Graham flour, 2 cups; warm water, 1 cup; soda, $1\frac{1}{2}$ tea-spoonfuls, dissolved in water; yeast, $\frac{1}{2}$ cup; molasses, $\frac{1}{3}$ cup; salt, 1 tea-spoonful. Stir with a spoon, let it rise once, and bake very slowly about 1 hour, or a little longer, as needed.

Graham Bread with Soda, Started after Breakfast for Dinner, Baked or Steamed.—Graham bread that can be started after breakfast and

baked before dinner, is made of $1\frac{1}{2}$ pts. of sour milk; 2 scant tea-spoonfuls of soda, dissolved in a little hot water; $\frac{1}{2}$ cup of New Orleans molasses; 1 tea-spoonful of salt; and as much Graham flour as can be stirred in with a spoon. Grease a large bread tin very evenly, as the molasses in the bread renders it liable to stick, put into the oven and bake 2 hours. Have the oven hot when the bread is put in, and toward the last half of the last hour let it cool gradually. Or, this bread may be steamed $1\frac{3}{4}$ hours, and be dried off in the oven 20 minutes. When it is taken from the oven, wrap a towel around the loaf, the tin and all, and in 10 minutes remove from the tin, and keep the loaf wrapped in the cloth until it is sent to the table.

Remarks.—I am sorry I can not give credit for the originator of this plan, but it is too good to lose on that account, especially as it will help some person who may find in the morning that they have not bread enough for dinner.

Rye Bread.—Set in the evening, with good hops or other good yeast, and mold it in the morning, just the same as wheat bread, only a little stiffer. Let it rise and mold it down again. This makes it spongy. After this it will come up very quick. Shape it into loaves, and, when light enough, bake it in a moderate oven a little longer than ordinary wheat bread.

Rye and Indian Bread.—Take Indian meal, 2 cups, make in a thick batter with scalding water; when cool add a small cup of white bread sponge, a little sugar and salt, and a tea-spoonful of soda, dissolved. In this stir as much rye flour as is possible with a spoon; let it rise until it is very light; then work in with your hand as much more rye as you can, but do not knead it, as that will make it hard; put it in buttered bread tins, and let it rise for about 15 minutes; then bake it for $1\frac{1}{2}$ hours, cooling the oven gradually for the last 20 minutes.

Wheat and Indian Bread, Steamed.—Molasses, 1 cup; sour milk, 2 cups; soda, 2 tea-spoonfuls; flour and Indian meal, of each 1 pt. **DIRECTIONS**—Beat well together, put into a buttered pan and steam 2 hours.—*Mrs. Carrie Case.*

Remarks.—Perfectly reliable, for I have eaten it of her own make, and I shall never forget the “jolly time” we had while eating it the first time.

Brown, or Rye and Indian Bread, Steamed.—Indian meal, 1 qt.; rye flour, 1 pt.; stir these together and add sweet milk, 1 qt.; molasses, 1 cup; soda, 2 tea-spoonfuls; a little salt, and steam 4 hours.

Brown, or Wheat and Indian, Baked.—Indian meal, 2 cups; stir into it $\frac{1}{2}$ cup of cold water; stir well, and add 1 qt. of boiling water, allowing it to cool; then add 1 cup of molasses and a small soaked yeast cake; then stir in sifted flour to make it as thick as possible with the spoon and let rise over night; knead lightly in the morning, and bake slowly.

Brown Bread, Rye and Indian, New England Style; or Steamed and Baked.—Rye flour, 4 cups; Indian meal (the yellow is generally used in making any of the brown breads), 3 cups; molasses, 1 small cup; cream tartar, $\frac{1}{2}$ tea-spoonful; a little salt; mix very soft with sour milk or buttermilk; steam four hours, and then bake two.

Boston Brown, Baked.—Take 4 cupfuls of Indian meal and 4 cupfuls of rye meal (not flour); sift through a coarse wire sieve; add 2 tea-spoonfuls of soda, a little salt, 1 cupful of molasses; 1 cupful of sour milk, and water sufficient to make a soft dough. Bake 4 hours in a moderately heated oven, or what would be better, 2 hours in a brick oven.

Brown, or Minnesota Corn Bread, Steamed and Baked.—Corn meal and flour, each 2 cupfuls; sweet and sour milk, each 1 cupful; molasses, $\frac{1}{2}$ cupful; salt and saleratus, or soda, each 1 tea-spoonful. Put into round tin cans, and steam 1 hour and bake $\frac{1}{2}$ an hour.

Brown, or Indian Bread, Baked for Tea.—Sour milk, 1 pt.; sweet milk, $\frac{1}{2}$ pt.; molasses, 1 cupful; butter, $\frac{1}{2}$ cupful; eggs, 3; saleratus, 2 tea-spoonfuls, or its equivalent in soda; salt, 1 large tea-spoonful; Indian-meal, 1 qt.; flour, 1 pt. Mix all according to general rules, and bake in a deep basin, with oven same heat as for cake, for $1\frac{1}{2}$ hours, or thereabouts.

Indian Bread, Baked.—Take 2 qts. Indian meal, add 1 large spoonful of butter, 1 of sugar, a little salt; mix together; pour upon the whole 1 qt. of boiling water; then cool with cold water sufficiently to add $\frac{1}{2}$ cupful of good yeast. Let it rise for 2 hours, then add wheat flour (if the dough is not thick enough) so as to give it the consistency of "pound cake." Put it into deep dishes, let it rise for 1 hour. Bake in a stove oven. You will find it delicious.—*Mrs. L. B. Arnold, Ithaca, N. Y.*

Indian Bread, Extra, Steamed.—Buttermilk, sweet milk and Indian meal, each 3 cups; flour, 2 cups; soda, 2 tea-spoonfuls; salt, 1 tea-spoonful. Mix, put into a greased or buttered pan (as all should be), and steam 3 hours.

Old-Fashioned Indian, or Corn Bread.—This is from Mrs. S. N. Ross, Sparta, O., in *Toledo Blade*: "The recipe which I have is the nearest to the old Dutch-oven corn bread of anything that can now be baked: Two pt. cups of Indian meal, 1 pt. cup of flour, 2 pt. cups of sweet milk, 1 pt. cup of sour milk, $\frac{1}{2}$ pt. cup of sugar, 1 tea-spoonful of salt, 1 tea-spoonful of soda. Mix, and bake slowly $1\frac{1}{2}$ hours."

Corn Bread, Southern, Far-Famed.—The following recipes, obtained through the *Blade*, give you the different plans of making the celebrated "Southern Corn Breads" and "Southern Corn Dodgers," and will be found very satisfactory, as well as a very healthful form of bread. The first is from the "Old Lady" who always knows how to do things in the "Household" line, while the second claims to be an improvement upon that, and the third, the latest style of corn dodger, *i. e.*, baked on tins or in a pan, while the old style or plan was to wrap them in corn husks, or paper, wet, and then bake them in the embers or upon the hot hearth. The "Old Lady" says:

"Take 2 eggs, beat them well; add 1 pt. of water, and stir well; put in 1 tea-spoonful of salt, same of yeast powders, and add meal enough to make a batter that will pour out of the pan. Put a table-spoonful of lard into the baking pan, set it in the oven and let it get hot; pour the batter in it and bake a nice brown. I assure you you will never make any other kind after eating this."—*Old Lady, Mobile, Ala.*

Corn Bread, Southern, Improved.—This writer says: “In the *Blade* I saw a recipe for the ‘far-famed Southern Corn Bread.’ I was raised in the South, and have a few times eaten bread made in that way; but it is not the way we make our bread—and as I think there is an ‘excellence’ about *ours*, I send you the recipe. Take 1 egg, a tea-spoonful of salt and 1 of soda (if the milk is very sour it will take more soda), and $1\frac{1}{2}$ pts. butter-milk; then put in white corn meal enough to make a nice tolerably thick batter. It is very nice baked in a bread pan, but we like it best baked in gem irons, or muffin irons, as some people call them. Whatever it is baked in must be well greased and smoking hot when the batter is put in. Serve while hot. Corn bread never was intended to be eaten cold.”—*Hawthorne, La Place, Ill.*

Remarks.—It will be noticed that “Hawthorne” calls for white corn meal. The Southern people raise the white corn only, or, at least, almost wholly so; and some people, even in the North, think it makes the best bread. It would be well, then, to give it a thorough trial in the North, and if it proves more valuable than the yellow, let it be raised especially for cooking purposes. I would say in regard to the idea that “corn bread was never intended to be eaten cold,” I think it to be an error. I like it best warm, still I have eaten it many hundred times cold, and enjoyed it very much, although I believe it to be healthful while warm, and I know it is rather more palatable and pleasant warm; still, if there is any left over, I should by no means throw it away, but warm it up by steaming, else eat it cold, as preferred, or most convenient.

White Corn Dodgers.—Take 1 pt. of Southern corn meal (white corn meal), and turn over it 1 pt. of boiling water, add a little salt and 1 egg well beaten up and stirred into the batter when nearly cold. Butter some sheets of tin and drop your cakes by the table-spoonful all over the pan. Bake for 25 minutes in a hot oven.

Remarks.—Do not think for a moment, that because you may not have white corn meal, therefore, you can not make corn bread or corn dodgers, for you can; although the yellow meal may not be quite as nice, yet it does make excellent bread, as well as griddle cakes, too, by using a very little white or graham flour with it.

Salt-Rising Bread, How to Make.—Knowing my propensities for gathering valuable recipes, a gentleman friend said to me one day: “Doctor, the finest bread I ever ate in my life was at Mrs. J. A. Marks’ in Detroit. I wish I had asked her for the recipe, especially for you.” As my friend seemed so enthusiastic over the elegant bread eaten at the table of Mrs. Marks I took her name and address and wrote her, asking for the recipe. Here it is in her own words: “Early in the evening I scald 2 table-spoonfuls of corn-meal, a pinch of salt and 1 of sugar, with milk enough to make a mush; then set in a warm place till morning; then scald a tea-spoonful of sugar, 1 of salt and $\frac{1}{2}$ as much soda with a pint of boiling water; then add cold water till lukewarm, and thicken to a thick batter with flour, then add the mush made the night before and stir briskly for a minute or two. Put in a close vessel in a kettle of warm water, not too hot. When light, mix stiff, add a little shortening, and

mold into loaves It will soon rise and will not require as long to bake as yeast bread—25 to 30 minutes in a good oven. Great care is required to keep the sponge of a uniform heat (the water should be about as warm as the hand will bear) The finest patent process flour is not as good as a little coarser grade—I prefer Knickerbocker—for this kind of bread. All dishes used in making should be perfectly clean and sweet, scalding them out with saleratus or lime-water.”

Remarks.—My wife has made many loaves after this recipe, and, like my friend, I must say “it is the finest bread I ever ate.”

Salt-Rising Bread No. 2.—A Mrs. Bruce, although she does not give her whereabouts, tells “Aunt Nancy,” who inquired through the *Blade*, how to make salt-rising bread as follows, which will speak for itself, and as many people prefer this kind, I give it a place: “Set your rising in a pitcher, a sugar bowl, or a new tin dipper. Either must be sweet. Have ready a crock or pot with warm water enough to come even with the rising and just hot enough not to burn the finger. Put a plate in the bottom of the crock, so the rising does not scald. Set on the back of the stove or anywhere to keep an even heat. I set my rising about 5 o'clock in the morning, and about 10 o'clock I add 1 table-spoonful of flour and stir. If successful, your rising will be ready to make into loaves about 2 o'clock in the afternoon. To set rising, take 1 table-spoonful of sifted corn meal, scald it by pouring over it 1 pt. of boiling water and stir quickly. To this add cold water until just hot enough not to scald. Then add a large tea-spoonful of coarse salt, a pinch of soda, a pinch of sugar, and flour enough to make a stiff batter. When risen, sift 4 or 5 qts. flour into the bread bowl. Make a hole in the center and put in a table-spoonful of sweet lard or butter. Pour over this 3 pts. of warm water. Then add your rising. Mix and work in loaves; grease on top. This makes 3 large loaves. When risen to top of pan, bake. Bake in long, deep tin pans, and from a $\frac{1}{2}$ to $\frac{3}{4}$ of an hour. When done, let remain in the oven about 10 minutes to soak. Do not wrap it up, but lay on the table until cool. Then put away in a large stone jar. Cover closely, and you will have nice moist, sweet bread. I use coarse flour to set rising and fine to make it up when I can get both. I have had 18 years' experience, and my bread is No. 1.”

Apple Bread, Pumpkin Bread, etc.—A very light, pleasant bread is made in France by a mixture of apples and flour (meaning wheat flour, of course), in the proportion of one of apples to two of flour (say cups or pints, as you please). The usual quantity of yeast employed as in making common bread, and the yeast is beaten with the flour and warm pulp of the apples (dried) after they are boiled and mashed, and the dough is then considered “set;” it is then allowed to rise from 8 to 12 hours, then baked in long loaves. Very little water is needed.

Remarks.—This will make nice and very pleasant flavored as well as healthful bread, but I must caution against giving it too long a time to rise. “Keep an eye on it,” and when properly risen make into loaves and bake, lest some one should go by the “8 to 12 hours.” Use judgment in all cases, and

there will be but few failures. I have known my mother and my wife to use pumpkins in a similar manner, even with corn meal as well as flour, which gave a pleasant relish to the bread. And if I was a woman I should try peaches which had been peeled before drying, believing that I should get a still finer flavored bread. Not the sourest, but a medium tart apple or peach only should be used. I think the proportion of apple above given is greater than is generally used of pumpkin. About 1 cup to each loaf of bread would, in my opinion, be enough, instead of 1 of apple to 2 of flour or meal or rye and Indian, etc. It is used with either or all kinds of bread, when desired, except the Vienna.

ADDITIONAL RECIPES.

Bread Recipe.—Material.—Milk, 1 pint; bread flour, $1\frac{1}{2}$ quarts; compressed yeast, 1 cake; salt, 1 teaspoonful. DIRECTIONS.—Scald the milk in a double boiler very slightly, only until a few bubbles gather around the edge of the milk. Turn this into the bread mixer and cool to lukewarm. Add the yeast dissolved in one-quarter cup of lukewarm water and salt. Sift the flour and measure, putting the given amount in all at once and turning with the bread mixer from five to ten minutes, until it is smooth and elastic. Brush the top with a little melted butter; cover and set in a warm place. This does not mean hot, nor any place where you cannot lay the bare hand. It should be out of draughts as bread is very susceptible to heat and cold. When this has doubled its bulk by raising, divide in halves. Make one into a loaf, put into a pan, grease the top, cover, set again in a warm place until it doubles its bulk. Then bake in a moderately quick oven forty-five minutes. The other half of the dough can be flattened out on the bread board and $\frac{1}{4}$ cup of shortening, 1 tablespoonful of sugar, the beaten white of 1 egg—or a whole egg if you prefer—should be well worked into this dough. Sometimes I take my chopping knife and chop this so as to keep my hands free from the mixture. A little more flour will have to be added to this. Knead and set away again to raise, doubling its bulk as before. Then make into oblong rolls and lay in a pan without touching. Brush with a little melted butter. Cover and let them raise until very light. Bake in a quick oven twenty minutes, or until done. If any of the coarser flours are used from $\frac{1}{4}$ to $\frac{1}{2}$ cup less should be used. I would suggest to those who are not familiar with bread making that they follow just this recipe repeatedly for at least a month, doubling the amount if they choose, according to the size of the family, and by that time they will have some standard of their own bread.

Nut Bread.—Materials.—Sour milk or buttermilk, $1\frac{1}{2}$ cups; whole wheat flour, 4 cups; white sugar, $\frac{1}{2}$ cup; chopped English walnuts, 1 cup; baking powder, 4 teaspoonfuls; salt, $\frac{1}{2}$ teaspoonful; eggs, 1. UTENSILS.—Egg beater, bowl, chopping knife, two bread pans. DIRECTIONS.—Beat the egg in the bowl, add the sugar, beat again and then add the remaining ingredients. Mix and knead into two loaves and set in a warm place for twenty minutes, and then bake in a moderate oven forty-five minutes or one hour. This is fine for children's lunch, sliced thin and slightly buttered.

PUDDINGS.

PUDDINGS.—*General Remarks and Directions.*—Puddings are much like cake, and require about the same manipulation (skillful hand-working), and much the same ingredients. Eggs should be well beaten, and usually the whites and yolks are beaten separately although not quite so essential; but if so beaten the yolks should be beaten into the sugar before creaming in the butter, then the whites, having been well beaten; saving the whites of a sufficient number, when desired, to frost the top of a pudding—latterly called a *meringue*, made by whipping the whites of three or four eggs to a froth, with a tablespoon of powdered sugar to each egg used, with a little lemon juice, or such other fruit juice, as orange, etc., or some of the flavoring extracts, as rose, cinnamon-waters, etc., as you have or prefer; the pudding, when just done, to be carefully drawn to the mouth of the oven and covered with the frosting, or *meringue*, and a few minutes more given to nicely brown it; then taken hot to the table—nothing, it seems to the author, is so out of place as to pretend to have a pudding, just baked, come to the table only luke-warm (half cold); for me, I tell them: “Save this for me till tea-time, as I love cold pudding very much.” But, of course, I would not add: “I dislike a half-cold one,” but I do dislike them “all samee.” Bread puddings, or those made with corn-starch, rice, or fruits, require only a moderate oven to bake them; while butter or custard puddings require not only a quick oven, but should go into it as soon as all the ingredients are mixed in with a final thorough beating, or stirring, and placed in the oven at once. The pudding-dish should always be well buttered, and, if to be a boiled pudding, the cloth must be first dipped into boiling hot water, then well floured on the outside. If boiled in a basin or mold, it must be buttered, and if a cloth is to be tied over it, it is to be treated the same as for boiling in a cloth; then when done, either way, dip into cold water, which will allow it to be emptied at once, without sticking, into a suitable dish to place upon the table; but always keep covered with the cloth or a napkin until placed upon the table, but there ought to be no delay in serving after it is emptied out of the cloth. It is usual to direct that “puddings be tied loosely,” but you will see in the first receipt, that this plan is wrong, as it gives too much chance for water to get in and make them “soggy.” Steam puddings often swell up and crack open—a sure sign of lightness. In boiling a pudding, remember this, the water must be boiling before the pudding is put in, and not allowed to slacken lest it becomes clammy or “soggy,” as the sailor calls it in the first receipt. Keep the pudding also well covered all the time by pouring in boiling hot water, if needed, from time to time. To prevent the pudding from adhering or sticking to the kettle, cloth or dish, while boiling move it occasionally or else put a tin cover of some other dish into the bottom of the kettle, to make at least half an

inch space from the kettle—the rim around the cover does this. To show the real value of the old English plum pudding, I take my first one from the *New York Times*, as related by a sailor—the second mate on a ship from New York to Liverpool—in which case, of course, even the half of the Christmas plum pudding saved (?) the ship and quickly brought all safely to their desired haven. Note well the instructions given in the receipt part of the item, as they will all be found correct and worthy to be followed, on land as well as on the sea. I take the item from the *Detroit Free Press*, but it originated with the *Times*, as credited above. It is as follows:

English Plum Pudding.—It was about the stormiest voyage I ever see. We left the Hook on November 5, 1839, in a regular blow, and struck worse weather off the Banks (New Foundland), and it grew dirtier every mile we made. The old man was kind of gruff and anxious like, and wasn't easy to manage. This ain't no Christmas story, and ain't got no moral to it. I was second mate and knowed the captain pretty well, but he wasn't sociable, and the nearer we got to land according to our dead reckoning (for we hadn't been able to take an observation) the more cross-grained he got. I was eating my supper on the 24th, when the steward he comes in, and says he, "Captain, plum pudding to-morrow, as usual, sir?" It wouldn't be polite in me to give what that captain replied, but the steward he didn't mind. All that night and next day, the 25th of December, it was a howling storm, and the captain he kept the deck. About 3 o'clock Christmas day dinner was ready, and a precious hard time it was to get tha dinner from the galley to the cabin on account of the green seas that swept over the ship. The old man, after a bit, came down, and says he, "Where's the puddin'?" The steward he come in just then as pale as a ghost, and says he showing an empty dish: "Washed overboard, sir." It ain't necessary to repeat what that there captain said. Kind of how it looked as if the old man had wanted to give himself some heart with that pudding, and now there wasn't none. I disremember whether it wasn't a passenger as said "that, providing we only reached port safe, in such a gale puddings was of no consequence." I guess the old man most bit his head off for interfering with the ship's regulations. Just then the cook he came into the cabin with a dish in his hand, saying: "There is another pudding. I halved 'em," and he sot a good-sized pudding down on the table. Then the old man kind of unbent and went for that pudding and cut it in big hunks, helping the passenger last, with a kind of triumphant look. He hadn't swallowed more than a single bit than the first mate he comes running down, and says he: "Lizard Light on the starboard bow, and weather brightening up." "How does she head?" "East by north." "Then give her full three points more northerly, sir, and the Lord be praised." And the captain, he swallowed his pudding in three gulps, and was on deck, just saying, "I knowed the pudding would fetch it," and he left us. We was in Liverpool three days after that, though a ship that started the day before us from New York was never heard of. This here is the receipt for that there pudding:

Take six ounces of suet, mind you skin it and cut it up fine. Just you use the same quantity of raisins, taking out the stones, and the same of currants; always wash your currants and dry them in a cloth. Have a stale loaf of bread, and crumble, say three ounces of it. You will want about the same of sifted flour. Break three eggs, yolks and all, but don't beat them much. Have a teaspoonful of ground cinnamon and grate half a nutmeg. Don't forget a teaspoonful of salt. You will require with all this a half pint of milk—we kept a cow on board of ship in those days—say to that four ounces of white sugar. In old days angelica root candied was used; it's gone out of fashion now. [Angelica grows all over the United States, as well as Europe, has

a peculiar flavor, and was, at least, once believed to be a very valuable medicine, but used more, of late, merely for the agreeable flavor it imparts to other medicines. The root is of purplish color, and is to be sliced up and cooked in sugar, if "candied," as referred to above, the same as citron or lemon, etc., are done. King sets it down as "aromatic, stimulant, carminative, diaphoretic, expectorant (this often used in cough or lung medicines), diuretic and emenagogue." Used in flatulent colic and in heartburn. It is said to promote the menstrual discharges. In diseases of the Urinary organs, as calculi and passive dropsy, it is used as a diuretic, in decoction with *wiursa* and *eupatorium purpureum* (queen of the meadow). Dose—of the powder 30 to 60 grs.; of the decoction (tea), 2 to 4 ozs, 3 or 4 times a day. There are several species, or kinds, of it, any of which may be used medicinally as a substitute for other kinds.] Put that in—if you have it—not a big piece, and slice it thin. You can't do well without half an ounce of candied citron. Now mix all this up together, adding the milk last in which you put half a glass of brandy. Take a piece of linen, big enough to double over, put it in boiling water, squeeze out all the water, and flour it; turn out your mixture in that cloth, and tie it up tight; good cooks sew up their pudding bags. It can't be squeezed too much, for a loosely tied pudding is a soggy thing, because it won't cook dry. Put in 5 qts. of boiling water, and let it boil 6 hours steady, covering it up. Watch it, and if the water gives out, add more boiling water. This is a real English plum pudding, with no nonsense about it.

Remarks.—It has always appeared to the author that an occasional incident like the above sea voyage, in connection with a recipe, or receipt, (recipe is the proper spelling, but receipt is much the more common manner of speaking), not only gives relief to the mind from the sameness of the receipts, or descriptions, but also helps one to remember the *modus operandi* (manner of operation) of the whole instructions and directions of the receipt.

An incident like this one here given will also give a subject for conversation, and also call for the relation of other incidents known, or passed through, by some of those who may be gathered around the Christmas board, when the old English plum pudding, "with no nonsense about it," will be reproduced, if at no other time in the whole year. So I trust to be excused for the space the story part of the receipt occupies. I think, generally, there is no instruction to remove the dry membrane, or skin, as the sailor calls it, from suet; but it ought to be done, as it is not only indigestible, but hard to chop, becoming more or less stringy and troublesome while chopping. I will give a few more plum puddings, for variety's sake. It is to be understood that when plum pudding is mentioned, it always means a pudding to be boiled.

Plum Pudding No. 2, and Sweet Sauce for Same.—Bread crumbs, 1 lb ($3\frac{1}{2}$ cups); sweet milk, 1 qt.; eggs, 6; sugar, 1 cup; suet, chopped; English currants, and raisins, each, 1 lb.; sliced and chopped citron, $\frac{1}{2}$ lb.; cinnamon, cloves, nutmeg and allspice, each, $\frac{1}{2}$ teaspoonful; sifted flour to make a thick batter; pour into the flannel cloth (see general directions), tie, leaving very little room for swelling, and plunge into a large kettle of boiling water, and boil for 7 hours, in a well covered kettle, pouring in boiling water, if needed, to keep the pudding covered all the time. This pudding, says a lady writer, in the *Free Press*, will keep for several weeks, and is nearly as good steamed, as when first boiled.

Sauce for Same.—Sugar, 4 tablespoonsful, rubbed to a cream with

butter, 2 spoonfuls, and 2 of flour; then add boiling water, 1 pt., or still better, some of the boiling water in which the pudding was boiled, same amount flavored with lemon or vanilla. "A tin fire-pan, or small tin cover, bottom upwards in the bottom of the kettle," she says, "will prevent the pudding from burning."

Remarks.—This, to the author, only seems to lack a teaspoonful of soda, and 2 of cream tartar, but if light enough without them, all right. Of course any other extracts as orange, rose-water, or cinnamon-water, can be used, if preferred, with any sauce. But the author would like to see the family in which the above or the following pudding, (made to Englishmen's taste, in rhyme,) "will keep for several weeks," unless put "under lock and key."

Plum Pudding to Englishmen's Taste, No. 3, In Rhyme.—

To make plum-pudding to Englishmen's taste,
 So all may be eaten and nothing to waste,
 Take of raisins, and currants, and bread-crumbs, all round;
 Also suet from oxen, and flour a pound,
 Of citron well candied, or lemon as good,
 With molasses and sugar, eight ounces, I would,
 Into this first compound, next must be hasted
 A nutmeg well grated, ground ginger well tasted,
 With salt to preserve it, of such a teaspoonful;
 Then of milk half a pint, and of fresh eggs take six;
 Be sure after this that you properly mix.
 Next tie up in a bag, just as round as you can,
 Put into a capacious and suitable pan,
 Then boil for eight hours just as hard as you can.

Plum Pudding, No. 4.—Sifted flour, 3 cups; eggs, 3; a wine-glass of molasses to color it; milk, $\frac{1}{2}$ pt.; finely chopped suet, 1 large cup; English currants and raisins, each 1 cup; mace, cloves, and cinnamon, $\frac{1}{2}$ teaspoonful each, or to taste; soda, 1 teaspoonful; cream of tartar, 2 teaspoonfuls; boil for at least $2\frac{1}{2}$ hours 3 is still better. The $2\frac{1}{2}$ are sufficient to cook, but the other half-hour's boiling gives a certain lightness to the pudding, which is greatly to be desired. Eat with any good sauce. The following either with the vinegar or brandy is good:

Pudding-Sauce—Fast or Spirituous.—Sugar, 2 cups, dissolved in boiling water, $\frac{1}{2}$ pt.; flour, or corn starch, 2 tablespoonfuls, worked smooth, in cold water, 1 cup, and stirred into the boiling sugar, with nice butter, the size of an egg, (hen's egg); then add two or three tablespoonfuls of good vinegar (more or less as a sharp or mild taste is preferred); or brandy, or good wine, in like quantities to suit the taste of self or guests, with cinnamon, nutmeg, or other flavor, as you like.

Plum-Pudding, No. 5.—Suet, chopped fine, English currants and raisins, each 1 lb.; flour, $1\frac{1}{2}$ lbs. (about 5 cups); cloves, cinnamon, and nutmegs, each $\frac{1}{2}$ teaspoonful; salt, 1 tablespoonful. Mix all well together and add molasses, 1 cup; sugar, 2 cups; eggs, 7; sweet milk, $\frac{1}{2}$ pt. Make over night, in the morning tie in a cloth and boil 4 hours. To be eaten with sweet sauce. Any of the above sauces are known as "sweet sauce."

Remarks.—Salt, the author considers, as important in puddings as in bread or cakes, although it is not always mentioned. [See, also, “Suet Puddings, Steamed.”]

Christmas Plum-Pudding, No. 6, Old Style.—Stone $1\frac{1}{2}$ lbs. of raisins, wash, pick and dry $\frac{1}{2}$ lb. of currants, mince fine $\frac{3}{4}$ lb. of suet, cut into thin slices $\frac{1}{2}$ lb. of mixed peel (orange and lemon), and grate fine $\frac{3}{4}$ lb. of bread-crumbs. When all these dry ingredients are prepared; mix them well together, then moisten the mixture with 8 eggs, well beaten, and one wine-glass of brandy; stir well, that everything may be thoroughly blended, and press the pudding into a buttered mould; tie it down tightly with a floured cloth, and boil 6 hours. On Christmas day a sprig of holly is usually placed in the middle of the pudding, and about a wine-glass of brandy poured round it, which, at the moment of serving, is lighted, and the pudding thus brought to the table encircled in flames.

Remarks.—With half-a-dozen plum-puddings none need go without a Christmas day, certainly. The only point that seems to me unreasonable is the long boiling, 8, or even 6 hours, which appears to be more than is needed. A circle of three ladies, to whom I referred the matter, gave it as their judgment that 3 hours would be sufficient. Let English people stick to the old custom, but Americans will find that from 3 to 4 hours will cook them perfectly. [See the Paradise Pudding below, which is only to be boiled 2 hours.] A wine-glass, at least, of brandy is almost universally put into the sauce upon Christmas occasions.

Paradise Pudding.—Pare, core and mince 3 good-sized tart apples into small pieces, and mix them with $\frac{1}{4}$ lb. of bread-crumbs, 3 eggs, 3 ozs. of currants, the rind of one-half lemon, $\frac{1}{2}$ wine-glass of brandy, salt, and grated nutmeg to taste. Put the pudding into a buttered mould, tie it down with a cloth, boil for 2 hours, and serve with sweet sauce.

Remarks.—These fancy names, no doubt, are calculated to convey the idea that the article is to be very nice. The author would prefer to see more common names used, but he takes them as he finds them, so long as the article itself, like this pudding, is really nice. “Angels’ Food” has been recently advertised; so these dear creatures will not have to “live on air” much longer.

Cottage Pudding, or Pudding Baked as Cake, No. 1, and Sauce.—Eggs, 3, well beaten; sugar, 2 cups; butter, $\frac{1}{2}$ cup; sweet milk, $1\frac{1}{2}$ cups; baking powder, 1 tea-spoonful; flour to make as cake batter, to dip with spoon into a cake pan to bake. To serve, cut into suitable pieces, for a saucer or side-dishes, with the following sauce:

Lemon Sauce for the Pudding.—Boiling water, 3 cups; sugar, $\frac{1}{2}$ cup; butter, half the size of an egg. Mix. Boil a lemon and cut it into small pieces and add to the sauce, putting at least one piece to each dish of pudding in serving.

Remarks.—I first ate of this pudding at the City Hotel, Winfield, Kans., kept at that time by S. S. Major, and was so well pleased with it that I got him to take me to the cook, who kindly gave me the recipe, as above, which has proved itself many times since, and it will please all who try it carefully.

Cottage Pudding, No. 2, With Sauce for Same.—Sifted flour (flour should always be sifted), 1 pt.; white of 3 eggs, beaten to a stiff froth; butter, 3 table-spoonfuls; sugar, 1 cup; sweet milk, 1 cup; baking powder, 3 teaspoonfuls. Mix, and sprinkle granulated sugar over the top.

Sauce for the Same.—Sweet milk, 1 pt.; sugar, $\frac{1}{2}$ cup; yolks of 2 eggs, beating and stirring well while being boiled together; flavor with lemon. Of course, any other flavor can be used.

Cottage Pudding, Quickly Made, No. 3, With Sauce for Same.—Sugar, raisins and sour cream, each 1 cup; flour, 2 cups; soda, 1 tea-spoonful; 2 eggs; $\frac{1}{2}$ grated nutmeg; bake in long cake tin.

Sauce for Same.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; flour, 4 heaping table-spoonfuls; rub all well together, and grate in the other half of the nutmeg and pour on boiling water, 3 pints; let it boil up once, and it is ready for use. Use freely, as there is plenty of it; and light cottage puddings take up sauce as freely as a toper does whiskey—all he can get. I can take the sauce freely, but beg to be excused on the whiskey, although I do not object to a little spirits in pudding sauce. Sugar makes it palatable, if but little is used.

Cottage Pudding, No. 4, Steamed.—Sugar and sweet milk, each 1 cup; melted butter, 3 table-spoonfuls; 1 egg; flour, 1 pt.; soda, 1 tea-spoonful; cream tartar, 2 tea-spoonfuls. Steam in suitable dish $1\frac{1}{2}$ hours. Serve with any sauce desired.

Custard Pudding.—Sweet milk, 1 pt.; peel of 1 fresh lemon; lump sugar, $\frac{1}{4}$ lb.; eggs, 4. **DIRECTIONS**—Shred (cut in long thin strips) the lemon peel very fine, and put it into the milk, bringing to a boil; then take out the peel and add the sugar and pour the scalding milk upon the eggs, which have been well beaten. Put into a basin or tart dish, and set in a sauce pan with boiling water to reach only half way up. Do not boil the water, but keep it at bubbling heat for 20 minutes, or until the custard sets.

Remarks.—Very nice, hot or cold. Orange or other flavoring may take the place of lemon, if preferred.

Pudding with Chopped Eggs, a la Creme.—Boil 6 eggs hard, chop fine; have grated bread sufficient. Put into a buttered dish, alternate layers of the chopped egg and grated bread to fill the dish, or nearly so, put butter in small bits, 1 table-spoonful over the top; a little salt and pepper; then pour on boiling sweet milk, 1 pt. Bake to a light brown. To be served warm with very nice butter.

Cream, or Custard Pudding, No. 1.—Sweet cream, 1 pt., into which stir smoothly fine sifted flour, 1 cup; put over the fire and stir until quite thick, take off, and when cool, stir in 4 well beaten eggs; white sugar, 2 cups, and chopped citron, 1 cup. Bake till set only. If a custard is baked too long it becomes watery, which is considered to spoil them. To be eaten cold, with or without sauce as preferred.

Custard Pudding, "Dandy," No. 2.—Sweet milk, 1 qt.; flour, 2 table-spoonfuls; white sugar, 5 table-spoonfuls; a pinch of salt and a little mace. **DIRECTIONS**—Mix the flour, salt, mace and 4 spoonfuls of the sugar with the

milk, beat the yolks of the eggs and stir in also, and place in the oven to bake, stirring with a spoon 2 or 3 times after putting it into the oven, which prevents the flour from settling; beat the white of the eggs with the other spoonful of sugar and spread on the top, just before done; replace in the oven to cook the eggs and to give the top a nice brown. Serve with a little granulated or powdered sugar.

Remarks.—The word “dandy” here simply means “tip top,” or very nice.

Snow Pudding, With Gelatine, Very Nice—No. 1.—Pour boiling water, 1 pt., over $\frac{1}{2}$ box of Cox's gelatine; add sugar, 2 cups, to the juice of 2 lemons; put peel and all in, and mash all together. Let simmer till the gelatine is dissolved; when only lukewarm, strain through a thin cloth into the dish in which you are to send it to the table. When cold and formed, or hardened, beat the whites of 3 eggs to a stiff froth, with 1 table-spoonful of powdered sugar, and place on top. And if, on especial occasions, you would give variety, make a soft-boiled custard with the yolks of the eggs and spread a layer over the white; then put bits of any jell, or bits of different-colored jells, thickly—*i. e.*, $\frac{1}{2}$ to 1 inch apart—over the top of all, so that each guest will have several bits in the dish.—*Miss Tillie Bratshaw, Detroit.*

The following sauce is from the same person:

Snow, or White Pudding Sauce.—Beat powdered sugar, 1 cup, with butter, $\frac{3}{4}$ cup, till white and foamy. Just before sending to the table, add 2 tea-spoonfuls of boiling water, no more, no less. If rightly made, it will drop from the spoon, white and light as snow.

Remarks.—The lady who gave me these recipes was the daughter of a special friend of mine, with whom I have frequently dined, and therefore know her ability and taste in getting up very nice dishes.

Pudding Sauce, Strawberry Color and Flavor.—Rub butter, $\frac{1}{2}$ cup; sugar, 1 cup, to a cream, adding the beaten white of 1 egg and 1 cup of nice ripe strawberries, thoroughly mashed. This, in the season of strawberries or other berries, gives a nice color, as well as flavor, to the sauce.

Snow Pudding, with Corn Starch, No. 2.—Dissolve, or rub up smoothly, 3 table-spoonfuls of corn starch with cold water; then pour on 1 pt. of boiling water; beat well the whites of 3 eggs and stir in, it all being done in a suitable earthen dish, to steam it in 10 or 15 minutes.

Sauce for Same.—Beat the yolks of the eggs into 1 cup of sugar, then the same amount of sweet milk, and 1 table-spoonful of butter; boil till quite thick. If enough is made to leave over, it is nice cold at tea time; many prefer it cold.

Sauce for Puddings—The Author's Favorite.—The best sauce to suit me is made by using rich cream with plenty of pulverized sugar, so the spoon will fetch it up from the bottom of the “boat,” or bowls, at every dip—and I like to dip deep every time; milk does very well, but it is well known that it is not so rich as cream; but half and half does excellently. Use any flavoring you please; grated nutmeg is the most common with cream sauce.

Tapioca Pudding, No. 1.—Sweet milk, 1 qt.; tapioca, 1 cup; eggs, 2; sugar, 4 tablespoonfuls; butter, half the size of an egg; a little salt, nutmeg to taste. **DIRECTIONS**—Put a part of the milk upon the tapioca for 1 hour; beat the eggs and sugar together; mix all and bake.

Tapioca Pudding No. 2.—Tapioca, 2 cups; sweet milk, 4 cups; eggs, 4; butter, 1 heaping table-spoonful; sugar, 1 cup, or to taste; a grated lemon peel improves it. **DIRECTIONS**—Soak the tapioca in the milk 1 hour; then put into a rice kettle, or tin pail, set in an iron pot, or kettle, of hot water, and cook till soft. When soft, or done, put into the baking dish, with the butter, eggs well beaten, sugar, lemon peel, etc., and bake about $\frac{1}{2}$ hour. Orange peel may be used in the same manner, or it may be flavored with any fruit extract desired. [A rice kettle is a double dish, or double kettle, on the same principle as a glue-pot (generally made of tin), smaller at the top than bottom, to allow another one made smaller at the bottom than at the top, to set inside of it. The inner dish has a cover, and the outer one a lip, or nose, to allow pouring in water, as may be necessary, while cooking the rice or other articles which burn easily, if not surrounded with water. Tanners know them as rice kettles. They are exceedingly handy for cooking, not only rice, but tapioca, sago, oat meal, etc.]

Tapioca Pudding, with Apples, No. 3, Without Milk or Eggs.—Tapioca, 1 cup; water, $1\frac{1}{2}$ pts.; apples, 6 good sized tart ones; sugar, lemon or nutmeg. **DIRECTIONS**—Soak the tapioca in water over night. Pare and punch the cores from the apples, with a tin apple corer—a piece of tin rolled into cylinder shape, about $\frac{5}{8}$ of an inch in diameter, and soldered together—at the proper time to have the pudding ready for dinner, and place them in a pudding dish, fill the holes with sugar and sprinkle some over them, grate on nutmeg, or put on powdered cinnamon, or other flavor, as preferred, pour over a cup of water and bake till quite soft; then pour over the tapioca in the milk, and bake $\frac{1}{2}$ to 1 hour. (See also “Danish or Tapioca Pudding.”)

Sauce for Same, Hard.—Butter, 1 cup; powdered sugar, 2 cups; wine, $\frac{1}{2}$ cup, or brandy, 2 table-spoonfuls; the juice of 1 lemon or orange, and nutmeg, 1, grated. First beat the sugar and butter to a cream, then add the wine or brandy, and the lemon or orange juice, and the nutmeg, stir all well together and set on ice to cool, if you have it. The wine, or brandy, and the fruit juice may be left out, and still you have a nice sauce, good enough for anybody; but as some persons will use them we have to give them.

Sago Pudding.—Sago, 3 table-spoonfuls; milk, 1 qt.; peel of 1 lemon; nutmeg, $\frac{1}{2}$ of 1; eggs, 4; a little salt. **DIRECTIONS**—Boil the sago in the milk, in the rice kettle (double kettle) till done; remove from fire, and when cool stir in the beaten eggs, salt and seasoning, and bake about 1 hour.

Sauce for Same.—Eat with sugar and cream, if you have it, if not rub 1 butter to 2 sugars, with a little nutmeg, if the pudding is not highly flavored. Almost any pudding is nice to be eaten with plenty of sugar and rich cream. Even milk does pretty well, if rich with sugar and nutmeg (most people like the flavor of nutmeg), at least I have yet to find the first one who does not

Orange Pudding.—Peel and slice 4 large oranges, lay them in your pudding dish and sprinkle over them 1 cup of sugar. Beat the yolks of 3 eggs, $\frac{1}{2}$ cup of sugar, 2 table-spoonfuls of corn starch, and pour into a quart of boiling milk; let this boil and thicken; then let it cool a little, before pouring it over the oranges. Beat the whites of the eggs and pour over the top. Set it in the oven to brown slightly.—*Mrs. R. McK. of Jackson, Mich., in Farm and Fireside.*

Pop-Corn Pudding.—Sweet milk and pop-corn, each 3 pts. (each kernel must be popped white, and not a bit scorched); eggs, 2; salt, $\frac{1}{2}$ teaspoonful. Bake $\frac{1}{2}$ hour.

Sauce for Same.—Sweetened cream or milk.

Chestnut Pudding.—Peel off the shells, cover the kernels with water, and boil till their skins readily peel off. Then pound them in a mortar, and to every cup of chestnuts add 3 cups of chopped apple, 1 of chopped raisins, $\frac{1}{2}$ cup of sugar, and 1 qt. of water. Mix thoroughly, and bake until the apple is tender—about $\frac{1}{2}$ hour. Serve cold with sweet sauce.

Remarks.—Whoever loves chestnuts (and who does not) will like the flavor of this pudding. Take out a chestnut from the boiling water, and drop it into cold water a moment, and if the dark skin will rub off with the thumb and finger (which is called blanching), they have boiled enough.

Salt Pork Pudding.—Chop very fine 1 large cup of salt pork, which has been sliced and soaked in milk over night. Add to it 1 cup of molasses, with 1 tea-spoonful of saleratus or soda stirred into it. Three-fourths cup of sweet milk; 1 cup of stoned raisins or currants; 1 tea-spoonful each of ground cinnamon, cloves and nutmeg. Add flour enough to make as stiff as a berry pudding. Steam in a cloth or boil for 4 hours.

Sauce for Same.—For a sauce take 1 cup of white sugar and pour over it the same quantity of boiling water; when melted stir in two well beaten eggs. Flavor with vanilla or lemon.

Remarks.—If made nicely it will equal rock cake, and keep well, if made in large quantities.

Fig Pudding, Boiled.—“Cooking for Invalids” directs fig puddings to be made as follows: Chop $\frac{1}{2}$ lb. of figs very finely; mix with them coarse sugar, $\frac{1}{4}$ lb.; molasses, 1 table-spoonful; milk, 4 table-spoonfuls; flour, $\frac{1}{2}$ lb. ($1\frac{3}{4}$ cups); suet, chopped, $\frac{1}{2}$ lb.; 1 egg and a pinch of grated nutmeg; put the pudding into a buttered mould, and boil 5 hours.

Remarks.—Nothing said about a sauce; but any of the “sweet sauces” would be nice for it; or the “sweetened cream,” as the prune pudding below.

Prune Pudding. Prunes, $\frac{1}{2}$ lb., boiled soft and thick; remove the pits, chop fine, and stir in coarse sugar, a scant cup; the whites of 6 eggs, beaten stiff. Bake a light brown. Serve with sweetened cream or milk, with nutmeg to suit.

Apple Pudding, No. 1, Dutch.—Flour, 1 pt. ($1\frac{3}{4}$ cups); salt, $\frac{1}{2}$ tea-spoonful, baking powder, 2 tea-spoonfuls, or 1 of cream of tartar; soda, $\frac{1}{2}$ tea-

spoonful. Rub 1 tablespoonful of butter into the flour. Beat 1 egg and add to it, and $\frac{3}{4}$ of a cup of milk. Mix the flour into a dough thick enough to spread $\frac{1}{2}$ an inch thick in a baking tin. Peel and cut in eighths 4 apples and place them in rows in the dough, narrowest edge down. Sprinkle over it 2 table spoonfuls of sugar and bake in a quick oven 20 minutes. Serve with the following:

Lemon Sauce for Same.—One cupful of sugar and 2 cupfuls of water put on to boil; 3 tea-spoonfuls of corn starch into a little cold water and stir into the boiling syrup; cook about 8 minutes, adding a little more water when thick; juice and grated rind of $\frac{1}{2}$ a lemon, 1 tablespoonful of butter; stir until the butter is melted and serve at once. **ITEMS**—It is well to have the pan buttered and everything ready before wetting up the dough. If the dough is too soft it will rise and fall; just thick enough to drop and to spread.—*Blade Household.*

Apple, Peach, or Other Fruit Pudding-Pie, or Pie-Pudding, No. 2, Yankee Style.—Sweet milk, 1 cup; 1 egg; butter, 1 table-spoonful, heaping; baking powder, 1 tea-spoonful; flour, 1 cup, or sufficient to make rather a thick batter ("batter" means like cake—better to handle with a spoon, or to pour out); a little salt; tart, juicy apples to half fill an earthen pudding-dish, **DIRECTIONS**—Stir the baking powder into the sifted flour; melt the butter, beat the egg and stir all well together; having pared and sliced the apples or peaches, buttered the dish and laid in the fruit to only half fill it, dip the batter over the fruit to wholly cover it, as with a crust; the dish should not be quite full, lest as it rises it runs over in baking. Bake in a moderate oven to a nice brown, to be done just "at the nick of time" for dinner. Turn it bottom up upon a pie-plate, and grate over nutmeg or sprinkle on some powdered cinnamon or other spices, as preferred; then sprinkle freely of nice white sugar over all and serve with sweetened cream or rich milk, well sweetened. Peaches, pears, strawberries, raspberries, blackberries, etc., in their season, work equally as well as apples.—*Mrs. Sarah A. Earley, Mt. Pleasant, Iowa.*

Remarks.—This plan avoids the soggy and indigestible bottom crust of pie; and it matters not whether you call it pie or pudding, it eats equally well, even cold, with plenty of sugar and milk, having the cream stirred in.

Apple Short-Cake Pudding, No. 3, With Sour Cream and Buttermilk.—Fill a square, deep bread-tin $\frac{1}{2}$ or $\frac{3}{4}$ full of pared and sliced tart apples; make a thick batter of $\frac{1}{2}$ cup each of sour cream and buttermilk, 1 tea-spoonful of saleratus, a little salt, and flour, sifted, to make quite stiff, a little stiffer than for cake; turn this over the apples; bake 40 minutes, and serve with sauce, or cream and sugar with nutmeg.

Remarks.—Other fruit, as peaches, etc., will do nicely with this as well as the No. 2, above; nor would an egg in the batter hurt it a bit.

Sweet Apple Pudding, No. 4.—Sweet milk, 1 qt.; eggs, 4; sweet apples, pared and chopped, 3 rounding cups, a lemon, nutmeg and cinnamon; soda, $\frac{1}{2}$ tea-spoonful; vinegar enough to dissolve the soda; flour to make as cake batter. **DIRECTIONS**—Grate off $\frac{1}{2}$ the rind of the lemon, using all the juice; beat the yolks very light; add the milk, seasoning and stir in flour to

make rather a thick batter, and stir hard 5 minutes; then stir in the chopped apples, then the beaten whites, and finally the soda, dissolved in a little vinegar, mixing all well. Bake in 2 shallow dishes, to ensure cooking the sweet apples, which require more cooking than tart ones—about 1 hour—covering the top with paper the last half hour. To be eaten hot with cream, or milk and sugar.

Apple Charlotte, or Bread Pudding With Tart Apples, No. 5.—Butter your pudding-dish, line it with bread buttered on both sides; put a thick layer of apples, cut in thin slices, or chopped, sugar, a little cinnamon and butter on top, then another layer of bread, apples, sugar, cinnamon and butter last. Bake slowly $1\frac{1}{2}$ hours, keeping the basin, or dish, covered till a little before serving, to let the apples brown on top.—*Blade Household.*

Remarks.—No matter whether there is any *Blade* about it or not, it will be found nice and healthful.

Apple Custard Pudding, No. 6.—Good-sized tart apples, pared, and the cores punched out with a tin cutter [see “Tapioca Pudding, No. 3,” for description], sufficient only to cover the bottom of a large earthen pudding-dish, buttered; set the apples on end, so as to fill the holes with sugar; grate over them a little nutmeg, and cinnamon powder, if liked; then make a rich custard, say with 4 or 5 well-beaten eggs to 1 qt. sweet milk and 1 to 2 cups of sugar, according to the sourness of the apples, and pour over the apples. Bake till the apples are tender; serve with sweetened cream or milk. One apple to be placed in each dish in serving. Very delicious and healthful.

Bird’s-Nest Pudding—Several Styles.—Tart apples, pared and the cores punched out, sufficient to cover the bottom of an earthen pudding-dish; fill the holes with sugar and grate on some nutmeg; having mashed, say 4 heaping table-spoonfuls of sago, mix with cold water to properly fill the dish; pour it upon the apples and bake in a moderate oven about 1 hour.

Remarks.—Ripe peaches, pears, cherries, prunes, etc., with the proper amount of sugar, may take the place of apples, and tapioca may take the place of sago; time for baking the same. Serve either with cream and sugar, or milk with the cream stirred in. Palatable, healthy and not expensive, as good brown sugar may be used with any colored fruits.

Dried Peach Pudding.—Dried peaches, 1 pt.; wash, sweeten with sugar, 1 cup, and stew till nicely done, using water sufficient to have plenty of the juices; then, having made a batter with buttermilk, 1 small cup, and $\frac{1}{2}$ tea spoonful of soda and a little salt, thicken with flour very stiff; drop in spoonfuls among the peaches while boiling. Continue the boiling about 20 minutes. An egg and $\frac{1}{2}$ a cup of sugar would improve this puffy paste. Serve with cream and sugar, or sweet sauce, as you choose. Be careful not to burn the peaches in stewing.

Yorkshire Pudding, English.—Sweet milk, $1\frac{1}{2}$ pts.; flour, 7 table-spoonfuls (as you lift them up out of sifted flour); a little salt. DIRECTIONS—Put the flour into a basin with the salt and sufficient of the milk to make a stiff, smooth batter (that is, to be no lumps); then stir in two well-beaten eggs and the remainder of the milk; beat all well together, and pour into a shallow tin

which has been previously rubbed with butter. Bake for 1 hour; then place it under the meat for $\frac{1}{2}$ an hour to catch a little of the gravy as it flows from the roasting beef. (This is the English way, where they "spit" the beef in roasting. See remarks below for the American way, and also about serving on a napkin.) Cut the pudding into square pieces and serve on a hot folded napkin with hot roast beef.—*Warne's Model Cookery, London, Eng.*

Remarks.—The plan of putting the pudding under the roasting beef, where they roast it upon spits (a pointed bar of iron, or several of them, to roast before a fire), as our grandmothers used to roast a goose, turkey or spare-rib, was a very convenient way of moistening the top of the pudding with the rich juices of the beef; but in place of that we, here in America, have the pudding 10 or 15 minutes longer in the oven, but baste it frequently during this time, with the meat drippings; make this pudding only when you are roasting beef; and we serve it upon the plates with the beef, and not upon napkins, which makes too much washing for our wives and daughters. In England, with plenty of "servants," they care not for this extra work. "A hot oven, a well beaten batter, and serving quickly, are the secrets of a Yorkshire pudding," to which the author will add, also a rich meat gravy.

Hunters' Pudding, Boiled—Will Keep for Months.—Flour, suet finely chopped, raisins chopped, and English currants, each, 1 lb.; sugar, $\frac{1}{4}$ lb.; the outer rind of a lemon, grated; 6 berries of pimento (all-spice) finely powdered; salt, $\frac{1}{4}$ tea-spoonful; when well mixed add 4 well beaten eggs, a $\frac{1}{2}$ pt. of brandy, and 1 or 2 table-spoonfuls of milk to reduce it to a thick batter; boil in a cloth 9 hours, and serve with brandy sauce. This pudding may be kept for 6 months after boiling, if closely tied up; it will be required to be boiled 1 hour when it is to be used.—*Farm and Fireside.*

Remarks.—This, for hunters going out upon a long expedition, would be a very desirable relish to take along. There is not a doubt as to its keeping qualities, as it contains no fermentive principles; and the fruit and brandy are both anti-ferments, while the long boiling is also done to kill any possible tendency to fermentation. I should, however, boil it in a tin can, having a suitable tight-fitting cover, if intended for long keeping, on the principle of air-tight canning, as well as to be safe from insects, and convenience in carrying. Do not think, however, but what it would be very nice for present use with only 4 or 5 hours' boiling, using the sauce freely, as it is made so dry for the purpose of long keeping.

Danish, or Tapioca Pudding.—Tapioca, 1 cup; water 3 pts.; salt, $\frac{1}{2}$ tea-spoonful; sugar $\frac{1}{2}$ cup; any high-colored jelly, 1 tumblerful. DIRECTIONS—Wash the tapioca in the evening, and soak over night in the water; in the morning put into a double boiler (see Tapioca Puddings No. 2—Note—for the Rice, or double kettle, a rice-boiler is what is wanted), and cook 1 hour, stirring occasionally; then add salt, sugar, and jelly, and mix thoroughly; then turn into a mold or serving-cups which have been dipped into cold water, and put in a cool place to "set" for dinner or tea, with cream and sugar. (See also Tapioca Puddings.)

Naples, or Duke of Cambridge Pudding, with Candied Peel.

Candied lemon, orange and citron, each, 1 oz.; butter and pulverized sugar, each, 6 ozs.; yolks of 4 eggs; rich puff-paste, or well-buttered bread, to line the dish. DIRECTIONS—Chop the candied peel finely, put the rich crust or paste into the dish, else line it with bread well buttered on both sides; then put in the chopped mixture; warm the butter and sugar together, adding the well-beaten yolks, stirring over the fire until it boils; then pour this over the other and bake in a slow oven 1 hour; or, in place of the butter, beat the whites of the eggs also with the yolk, and make a custard with milk, 1 qt.; sugar the same, and pour over, and bake $\frac{3}{4}$ hour. This makes you two puddings for variety's sake—make one way at one time, and the other way next time.

Chester, or Almond Flavored Pudding, English.—Lemon, 1; sweet almonds, 20; bitter almonds, 6 only; butter, 1 heaping table-spoonful; sugar, 1 cup; eggs, 4; puff paste. DIRECTIONS—Blanch the almonds and chop them, or what is better, cut into long strips, or shreds, with a sharp knife. Put the butter into a sauce pan over a slow fire, and as soon as the butter melts put all in, except the whites of the eggs, and beat together thoroughly, having the pudding dish already lined with the light paste, pour in the mixture, and bake in a quick oven. To be sent to the table on a folded napkin, with the whites of the eggs beaten to a froth with a spoon of powdered sugar, and laid upon the top. [To blanch almonds, pour boiling water on the meats, and let stand till the skin will rub off easily, between the thumb and finger, throwing them into cold water as the skin is removed, to whiten; then drain off the water and chop, or slice up into shreds, with a sharp pen-knife, or pound in a mortar, as directed in the recipe. Never let them dry, as that brings out their oiliness.]

Remarks.—Being an American, I would say put the whites beaten on top, and brown a few moments before serving, and serve in saucers, or suitable side dishes. (See remarks following the "Yorkshire Pudding," about serving on napkins, etc.)

Sponge Cake Pudding.—Butter a mould, and having cut in halves, large raisins, $\frac{1}{4}$ lb.; fill the mould $\frac{3}{4}$ full, loosely, with sponge cake which has been cut in long strips—square form—crossing each tier, strips a little distance apart, cob house fashion, to allow space for the custard; then pour in a custard made with 3 eggs to rich milk, 1 pt. (rich milk means milk with the cream stirred in), or 5 eggs to 1 qt., with $\frac{1}{2}$ to $1\frac{1}{2}$ cups, as to whether liked very sweet or not; flavored with nutmeg or any extract desired. Set the mould in a kettle of water to come up $\frac{2}{3}$ or $\frac{3}{4}$ only; up the sides, and boil 1 hour; or set in a steamer, if you have one (and they are very convenient in every family), and steam 1 hour, properly covered, to prevent the condensing steam from dripping from the cover into the pudding.

Sauce for Same.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup, whipped to a cream; then pour in boiling water, 1 cup, setting the same dish on the stove, to continue to scald, but not to boil, while 2 or 3 tea-spoonfuls of corn starch are rubbed up with a little cold water and stirred in; then a well beaten egg, and lastly a wine-glass of wine; or still better, a wine-glass of brandy. Serve while both are hot. I wonder if the English would not say, "On a folded napkin."

Remarks.—A napkin will be needed to wipe the lips, after smacking them. for there are but few persons who will not smack their lips for more of it.

St. James' Stale Bread Pudding.—Grate a stale loaf of bread (*i. e.*, 2 or 3 days old) into crumbs; pour over them 1 pt. of boiling milk; let stand 1 hour; then beat to a pulp; then beat, sugar, $1\frac{1}{2}$ cups, to a cream with 4 eggs, and butter, 2 table-spoonfuls; grate in the yellow of a lemon, and a bit of nutmeg, and a pinch of cinnamon, if liked; beat all well together, and pour into a pudding dish lined with nice puff paste, and bake about 1 hour. The juice of the lemon to be used in making whatever sauce you prefer, as there are many already given.

Remarks.—The author feels very sure you will ask St. James to call again. Bread, buttered well on each side, may be substituted for the puff paste to line the dish.

Baron Brisse's Rice Pudding.—Wash 1 cup of rice and boil it in as little milk and water, half-and-half, in a rice kettle (which see) as will swell it soft. When thus cooked, add 6 well-beaten eggs, leaving out the whites of 4; butter, 3 heaping table-spoonfuls, and a little salt. Butter a tin baking-mould well and sprinkle over it finely-powdered bread-crumbs, or cracker-crumbs, thickly at bottom and all that will adhere on the sides. Whip the whites to a stiff froth and stir in last; then pour into the mould and bake $\frac{1}{2}$ an hour. Turn out upon a dish and serve as if it was a loaf of cake.

Remarks.—I do not know who Baron Brisse is, or was, but I do know this pudding is nice. It matters not what a pudding is called, but it does matter whether it is good or not when you are "called" to eat it. I will vouch for the Baron's; still I think he might have allowed 1 cup of sugar to the mixture, as the author has a "sweet tooth." Yet it does very well without, if served with a sauce of 1 butter to 2 sugars, whipped nicely together, and flavored with grated nutmeg or other flavor, as preferred.

Queen Mab's Pudding, With Gelatine.—Soak a sixpence packet (about 1 oz.) of gelatine, in warm water enough to cover it, for 2 hours; then boil a fresh sliced lemon-peel (better a candied one, nicely chopped) in 1 pt. of milk and add to the gelatine, continuing the heat till the gelatine is dissolved; then sweeten to taste, pouring in gently the beaten yolks of 4 eggs; place the saucepan again upon the stove and simmer as a custard (which it is) over a slow fire, not allowing it to boil; when thick enough, remove from the fire and stir in preserved cherries (preserved blackberries, or black-caps), and stir occasionally till nearly cold, and pour into a mould or cups for serving. Set on ice, if you have it, till served.

The Queen of Puddings, With Bread-Crumbs.—Bread-crumbs, 1 pt.; sweet milk, 1 qt.; the yolks of 4 eggs, well beaten; butter, the size of an egg; sugar, 1 cup; the grated rind of 1 lemon. Mix and bake till done, but not watery: then, having beaten the whites with a cup of white sugar (powdered always for this) to a froth, replace for a few moments to brown. If needed for a dinner-party, it improves the appearance by spreading on the top of the pudding, when taken from the oven, a layer of preserves or jelly and then the

sugar and whites of the eggs over the jelly; set it back in the oven and bake slightly, to be served when cold; cut in slices it is very beautiful.

Remarks.—Butter and sugar creamed, and the juice of the lemon creamed in, is not amiss when served, especially for the dinner-party. But sifted sugar over it does nicely.

Cracked-Wheat Pudding.—Unskimmed sweet milk, 1 qt.; sugar and cracked-wheat, each 1 cup; a bit of cinnamon; stir together and place in an oven of medium heat. When about half done stir in the crust already formed, and leave it to form another, which will be sufficiently brown. Try when it is done by tasting a grain of wheat, which must be very soft. This, served hot or cold with sweetened cream or rich milk, is not only delicious but a very healthful pudding. So is the following, with the same sauce:

Poor Man's Pudding, Boiled.—Molasses, water, chopped suet and raisins, each 1 cup; saleratus or soda, 1 tea-spoonful; salt, 1 teaspoonful, and sifted flour to make a stiff batter. Tie in a prepared cloth [see general directions] and boil 2 hours. Of course, it must be put into boiling water and kept boiling all the time. [See last remarks for a sauce.]

Floating Island Pudding, No. 1 — Very Nice.—Eggs, 8; sweet milk, $1\frac{1}{4}$ qts.; sugar, 5 heaping table-spoonful; vanilla and lemon extracts, or any other two kinds of extracts. DIRECTIONS—Separate the whites, and make a custard of the yolks with 4 spoonfuls of the sugar and the milk, flavored pretty freely with one of the extracts; and when properly made, put into a suitable glass dish and set in a cool place, to be ready for the “floats,” to be made with the whites of the eggs and the other spoonful of sugar, and slightly flavored with the other extract, as follows: Beat the whites, with the spoonful of sugar and slight flavor, to a stiff froth; have a shallow pan of water—or milk is best, if you have it—boiling hot when the froth is hot; then, with a wet spoon, take up this white froth and poach (boil the same as poaching eggs, which see) them in the water or milk, turning once to ensure cooking both sides, and when all is poached, carefully place these, the large end outwards (if properly done, they will keep their oblong shape), on top of the yellow custard. Each piece of the “floats” may have a bit of colored jell upon them, if you choose, for ornamentation.

Remarks.—You may say, this is too much trouble. Of course, it is considerable labor; but you can't have nice things without a certain amount of labor, and as this would only be expected upon occasions of the presence of especial friends, it might be a pleasure to make it; otherwise, take the following, No. 2—the more common plan. If not so large a supply is needed, take half the quantities.

Floating Island Pudding, No. 2.—Ingredients and quantities the same as No. 1, lining the dish, however, with strips of cake, pour in the yellow custard, when properly cooked, and place the beaten white froth upon the top, as a whole, and put on a few bits of colored jell, if you like; but if it is in a dish which you can set in the oven 3 or 4 minutes, to slightly brown the frosting, do so before putting on the bits of jell.

Blanc-Mange, or Substitute for Pudding.—Sweet milk, 1 qt.; corn-starch, 1 cup; sugar, $\frac{1}{2}$ cup; salt, 1 tea-spoonful. DIRECTIONS—Heat the milk to a boil, and stir in the salt and corn-starch, and boil 10 minutes (in a farina, or rice-kettle), and stir it all the time, so it shall not burn. Remove from the fire, and stir in the sugar and flavoring extract to taste. Pour into cups, and set in a cool place. Eaten cold, with sugar and milk, or powdered sugar, as you prefer, or have.

Remarks.—If you want it richer, beat 3 eggs, yolks and whites separately, and stir in the yolks 3 minutes before removing from the fire; and the whites, after removing and stirring in the sugar. It does nicely without the eggs. I have so eaten it many times, with a tea-spoonful or two of sugar dipped on, then pouring over a little milk. Irish moss, gelatine, tapioca, etc., can be used in place of the corn-starch, to make blanc-mange; but this is nice, and the easiest made.

Quick Pudding, Baked.—Eggs, 1; sugar, 1 cup; melted butter, 1 table-spoonful; sweet milk, 1 cup; soda, $\frac{1}{2}$ tea-spoonful; flour, 3 cups; bake in a quick oven, about $\frac{1}{2}$ hour, or a little more. Eat with any sauce preferred; or the quickest is, butter, 1, and sugar, 2 spoonfuls, creamed together.

Strawberry Float No. 3—A Substitute for Pudding.—Cap and sugar to taste 1 pt. of nice fully ripe strawberries, and set aside one hour; then mash them through a colander; beat the whites of 6 eggs to a stiff froth, and stir into the mashed berries; whip all till the spoon will stand erect in them. Serve with rich cream.—*Good Cheer.*

Float No. 4, With Corn Starch or Flour.—"M," of Mason, Mich., in answer to "Kitties'" inquiry in the *Blade* for a float, sends the following, which she says is simple and easy to make and good—very desirable points: "Take 2 pts. sweet milk and put in a large spider or saucepan on the stove. When it boils have the whites of 2 eggs beaten to drop in the milk. While they are scalding, beat up the 2 yolks with $\frac{1}{2}$ cupful sugar and 1 table-spoonful corn starch or flour wet with a little cold milk. Take out the whites with a skimmer to drain, and stir in the above mixture. Set away in the cellar until tea-time."

Remarks.—Of course, when cold or cool, the whites of the eggs are placed on top of the float. If put into cups or glasses to be ready to serve when cold, the white is cut up and a part placed on each cup. Or, the white may be cut into dice and scattered on top when partially cool; or ripe berries of any kind, or pieces of cake, or lady-finger cakes (which see) may be laid upon the edge of the dish, when it is cooled in a large one, for variety's sake.

Batter Pudding No. 1, Boiled or Steamed, with Sweet Milk.—Flour, 1 cup; sweet milk, 1 qt.; eggs, 6; salt, 1 tea-spoonful. DIRECTIONS—Rub the flour smooth with a little of the milk, adding the balance, salt and well-beaten eggs. Turn this into the pudding-cloth and tie tight, leaving room for it to swell one-third. Boil 2 hours; serve with liquid sauce. Great care must be taken in boiling puddings to have the water boiling when you put the pudding in and to keep it boiling all the time. Steaming is the safer way.

Always keep a kettle of boiling water to fill up as it boils away from the pudding. For a pudding-cloth get $\frac{3}{4}$ of a yard of white drilling. Keep an old saucer in the bottom of the kettle to save the pudding from burning.—*Christian Union*.

Remarks.—Steaming is not only the safer way, but it is, of late, much the more common way, and no doubt, much the most healthful way. Any of the sweet sauces, heretofore given, will be nice for this or any of the following batter puddings, unless otherwise directed.

Batter Pudding No. 2, with Sour Cream, Baked.—Sour cream, flour, and sweet milk, each, 1 cup; eggs, 3; a little salt, and soda, $\frac{2}{3}$ tea-spoonful. DIRECTIONS—First rub the flour smooth with the cream, then add the milk and the well-beaten eggs, salt and soda, and bake in a quick oven. To be eaten with highly sweetened cream or milk to make up for the absence of sugar in the pudding.

Batter Pudding, No. 3, with Sweet Cream, Baked.—Sweet cream, $\frac{1}{2}$ cup; sweet milk, 1 cup; eggs, 2; flour, 4 table-spoonfuls; butter, 1 table-spoonful; sugar, 1 cup; 1 lemon. DIRECTIONS—Work the same as the last above, grating in the yellow rind of half the lemon, and putting in half the juice, saving the other half for flavoring the butter and sugar, to be creamed to serve it with; bake in a moderate oven.

Fruit Batter Pudding, No. 4, with Sour Milk, Baked or Boiled.—Sour milk and sugar, each 1 cup; flour, 1 pt. ($1\frac{3}{4}$ cups); cream tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful; home-made dried fruit, English currants or raisins, as most convenient, or preferred, $1\frac{1}{2}$ cups; eggs, 2, well beaten; a little salt and the flavoring extract preferred, 1 table-spoonful. Bake in a moderate oven $\frac{3}{4}$ to 1 hour, or boil in a mould, cloth, or tin pail, covered, 3 hours. To be eaten with cream and sugar, maple syrup, or any other sauce preferred.

Batter Pudding, No. 5, Without Milk or Sugar, Except in the Sauce, Baked.—Flour, 1 cup; eggs, 3; a little salt, and soda, 1 tea-spoonful; mix on general principles. Bake in a reasonably hot oven, and serve with the following:

Sauce for Same, or Any Other Pudding.—A table-spoonful of flour rubbed smooth in a little cold milk; pour it into 1 cup of boiling milk, having sugar, 1 cup, rubbed well with butter, $\frac{1}{2}$ cup, and as soon as the milk comes to a boil again put in the creamed sugar and butter, and continue to boil 2 or 3 minutes only, and serve, both pudding and sauce, hot.

Batter Pudding, No. 6, Rich with Sweet Milk and Eggs.—Sweet rich milk, 1 qt.; eggs, 8, beaten separately, very light; flour, sifted, 12 table spoonfuls; a little salt. Beat the batter perfectly smooth, and bake in a quick oven, and serve immediately, with butter and sugar creamed, and flavored to suit each maker's taste, or preference.

Batter Pudding, Extra, No. 7, with Pork and Raisins, Steamed.—Sifted flour, 3 cups; sweet milk, 2 cups; chopped raisins, 1 cup;

molasses, $\frac{1}{2}$ cup; chopped, fat, salt pork, $\frac{2}{3}$ of a cup; soda, 2 tea-spoonfuls. Steam 3 hours. Serve with any sweet sauce, dipped on freely.—*Postoria Review*.

Remarks.—I have found their “domestic recipes” reliable every time, which is more than can be said for many newspapers; but I know the value, or worthlessness of a recipe, for the last 15 years, as quickly as I read it; hence blame the author if the recipes he gives fail in any case.

Suet Pudding, No. 1, with Sour Milk, Splendid, Steamed.

—Julia M. M. writes to the *Western Rural*, as follows, upon the suet pudding question; and as ladies make all their explanations before they give the recipe, I will let her speak for herself, simply saying she headed it, “Splehdid Suet Pudding,” and then proceeded by saying: “Our suet pudding for dinner was so very nice, and gave such general satisfaction, that I send the recipe for the benefit of my *Rural* sisters, as it may be new to some of them. It is particularly nice and convenient for house-keepers, as it will keep nicely a month or two in a cool, dry cellar in earthen jars or a tin box, and a part of it may be sliced off and steamed from time to time, as needed—when, with suitable sauce, it will be found as good as when newly made. Take suet, chopped fine; raisins, chopped; syrup and sour milk, each 1 cup; English currants (of course washed and picked over, to free them from dirt and little gravel stones), $\frac{1}{2}$ cup; soda, 2 even tea-spoonfuls. Mix the suet, raisins and currants well into the syrup; then add the sour milk, next the soda, pulverized and well mixed in a handful of dry flour. Stir until it begins to foam; then add flour enough to form a stiff batter. Steam $1\frac{1}{2}$ hours. For a large family double the quantity, and steam 2 hours. Serve hot, with the following:

Sauce, Lemon, for Same.—Butter and sugar, $\frac{1}{2}$ cup, each; beat these together with flour, 1 heaping table-spoonful. Pour into it, a little at a time, stirring all the while, boiling water, 1 pt., and let it simmer on the stove a few minutes. Add lemon extract, 1 tea-spoonful, and the juice of 1 lemon. Or the following:

Lemon Sauce for Any Pudding.—One large cup of sugar; nearly $\frac{1}{2}$ cup of butter; 1 egg; 1 lemon, all the juice and half the grated peel; 1 tea-spoonful nutmeg; 3 table-spoonfuls boiling water. DIRECTIONS—Cream the butter and sugar, and beat in the egg whipped light; the lemon and nutmeg. Beat hard 10 minutes, and add a spoonful at a time the boiling water. Put in a tin pail, and set within, or upon, the uncovered top of the kettle, which you must keep boiling, until the steam heats the sauce very hot, but not to boiling. Stir constantly.

Remarks.—I see this is modified, slightly, from one of Mrs. Harland’s, in “Common Sense in the Household,” still it will be found a very nice sauce, for any pudding,

The principles given by “Julia” are all correct, but most people use twice as much sugar as butter in making sauces. Cooks can suit themselves. See “Hunter’s Pudding” for corroboration as to the keeping properties of this or any pudding which has plenty of these dry fruits in them and are made with a “stiff” batter, when well covered and kept in a dry, cool cellar, or other cool place,

Suet Pudding, No. 2, With Sweet Milk and Crackers, Baked.

—Suet, chopped fine and freed from strings (to skin the membrane of the suet is to “free it from strings;” see the first, or “English Plum Pudding,” and the remarks following it, as to “skinning” suet to save time), $\frac{1}{2}$ cup; fine cracker-crums, 1 cup; sugar, 3 table-spoonfuls; eggs, 3; sweet milk, 3 cups; salt, 1 tea-spoonful. DIRECTIONS—Beat the yolks with the sugar; add to them the cracker and milk; then the suet; whip the whites and add lastly, leaving out the white of one to whip for the frosting; bake about 1 hour; make the frosting by beating, and adding 1 table-spoonful of powdered sugar; spread your frosting on when the pudding is baked; set it back in the oven to give it a brown, watching closely; and, before sending it to the table, ornament with dots of currant jelly.—*Letters of Experience.*

Remarks.—“Experience” is necessary to do things well. The author, when he began his work of making “receipt books,” had great difficulties to overcome; but twenty years of experience enables him to tell at a glance now what formerly would take a long time, and often several tests to accomplish. Stick to your life-work as I have to mine, and 99 in every 100 will succeed as I have done. See, also, “Plum Puddings,” which are generally made with suet, in place of other shortenings.

Stale Bread Pudding, With or Without Fruit.—Stale bread (dry bread or hard crusts), grated, 2 qts.; eggs, 5; sugar, raisins and English currants, each 1 cup; butter, $\frac{1}{2}$ cup; spices to suit. DIRECTIONS—Soak the bread in water sufficient to cover it (milk is much better); whip the eggs, then the sugar into them; pick over the raisins, mash and look over the currants, melt the butter, and mix all nicely together, having mashed the bread-crums into a pulp; and if not sufficiently moist, add a little more water or milk, whichever you are using, to make a suitable batter. Having lined the pudding-dish with a nice crust, pour in the mixture and put a thin crust over of the same; bake in a moderate oven about 1 hour; serve with any of the “sweet sauces” preferred.

Remarks.—Home-made dried fruit may take the place of the foreign kinds, remembering that home-dried currants require double the amount of sugar. If no fruit is used, you will still have a nice pudding. And if you cut prunes in bits from the “pit,” you also have a nice pudding.

Bread Pudding, Aunt Rachel’s.—“Aunt Rachel,” in the *Rural New Yorker*, says: “A pudding may be made of small pieces of bread, if the family taste does not rebel. [I never see the family taste rebel against so good a pudding.] The bread should be broken fine, covered with milk, and set on the stove where it is not too hot, until it becomes soft. Remove and stir in a table-spoonful of sugar, 1 of butter, a small tea-spoonful of salt, also a pinch of cinnamon, or allspice, and, if liked, $\frac{1}{2}$ cup of chopped or cut raisins, or dried raspberries. When cool enough, stir in an egg, well beaten, and bake 1 hour in a moderate oven. To be eaten with cream and sugar, or pudding-sauce, as preferred.”

Remarks.—This is like what my wife used to make, except she used to put the raisins in whole, to which I should never object; nor did I, as above remarked, “ever see the family taste rebel against it.”

"Aunt Rachel" adds: "I knew a lady who kept all the broken pieces of bread in a bag, that was hung where they would dry and not mold, and she had the material for a pudding always at hand. The price of flour and cost of living would determine whether such economies would pay." It would pay, unless it may be for farmers, who raise their own wheat and have fowls to feed the broken pieces of bread to.

Quick Pudding.—When hurried, butter a pudding-dish well, and put in a layer of stoned raisins, cut into halves; then fill up with small bread-crumbs, or rolled crackers; beat an egg, and add a little milk, a pinch of salt and a spoonful of sugar; stir well and pour over the crumbs and bake in a moderate oven. Turn out upon a plate just at time of serving.

Honey Pudding.—Best honey, $\frac{1}{2}$ lb., with 6 ozs. butter, to a cream, and stir in a cup of bread-crumbs; beat the yolks of 8 eggs, then beat all together for 10 minutes; pour in suitable dish to set in water and boil, or steam, $1\frac{1}{2}$ hours. Make a sauce with arrowroot or corn starch, and flavor with extract of orange.

Blackberry Pudding, Baked or Boiled, and a Jelly, or Jam, as Sauce for Same, and a Cordial for the Children.—A writer in the *Western Rural* gives the following very nice ways of using this delicious fruit in its season. For the pudding: Take nicely ripe blackberries and sweet milk, each 3 pts.; eggs, well beaten, 5; sugar, 1 cup; a little salt: yeast powder (the author would say baking powder, as it acts quicker), 2 tea-spoonfuls, and flour to make a suitable batter to handle with a spoon, if to be baked; and as stiff as can be worked if to be boiled. To be eaten with any sauce, or the following jelly or jam:

For the Jelly.—Place perfectly ripe blackberries in a porcelain kettle with just water enough to keep from burning, stirring often, over a slow fire, until thoroughly scalded; then strain or drain through a jelly-bag, the berries having been well mashed by the stirring in scalding—twice through, if necessary to make it clear;—measure, and put the juice on the stove and boil briskly 10 minutes; then add equal measures of nice white sugar, and continue to boil until a bit of it dropped into a glass of very cold water sinks at once to the bottom, instead of dissolving much in the water, when it is done, and makes a splendid sauce for the pudding.

For the Jam.—To each pound of the berries put, for present use, half as much light brown sugar, and boil to thoroughly cook the fruit, and use as sauce for the pudding; but for longer keeping, for winter use, use berries and sugar equal weights, and cook carefully 1 hour, stirring constantly to avoid burning. It is a cheap and excellent preserve, of which the children are very fond; and it is valuable for the younger ones having the least tendency to bowel complaints, and may be given half-and-half with the cordial, flavored highly with cinnamon, of which most children are very fond.

For the Cordial.—Take the very ripest blackberries, mash them in a suitable tub or pail, pressing out the juice through a stout piece of muslin; and to each quart put 1 lb. of best loaf or lump sugar, also in a porcelain kettle, pouring on

the juice, and as soon as softened place on the stove and boil to a thin jelly only; and when cold add brandy, $\frac{1}{2}$ pt. to each pound of sugar used. If this is to be given to very young children, the jelly may be used in place of the jam, in equal parts, thus avoiding the seeds. For a child of 2 to 5 years, put 2 or 3 table-spoonfuls of each into a glass with a tea-spoonful of essence or extract of cinnamon, mixing thoroughly, and giving a tea to a table-spoonful of it as often as they like, or every half hour until relieved.

Remarks.—This shows the great value and variety of ways in which the blackberry may be used. (See also the Blackberry Cordial in the Medical Department.)

Whortle (Huckle) Berry Pudding, Boiled.—Eggs, 4, well beaten; sweet milk, 1 pt.; salt, 1 tea-spoonful; nicely assorted and fully ripe whortle-berries, 3 pts; stir all well together, then stir in sifted flour to make a stiff batter, tie tightly in a properly prepared pudding-cloth, mold or dish, and boil or steam 2 hours. To be served with any sweet sauce, or sugar and butter creamed.

Beefsteak Pudding, Boiled.—Cut into small pieces tender, round beefsteak, 2 lbs.; season with a little salt and pepper; celery, or celery salt (an article now in the market), and summer savory, each, 1 tea-spoonful; a few sprigs of parsley, if you have it, chopped, and if you use fresh celery, chop it, too; and 1 small onion, chopped very fine (if you tolerate them at all); mix the seasoning well together; having lined the pudding dish with a crust or paste, as directed below, put on a layer of the steak, and sprinkle on some of the seasoning, and so fill in all with alternate layers of steak and seasoning; then dip over with a spoon sufficient hot water, and cover in with a top crust, and lay upon this a buttered paper, covered with a suitable plate; stand it in a basin of boiling water and let it continue to boil 2 hours; then remove the plate and paper, and set in a hot oven a few minutes to brown. Sufficient for 5 or 6 persons.

For the Paste.—Flour, $1\frac{1}{2}$ cups; salt, $\frac{1}{2}$ tea-spoonful; eggs, 1; butter, or what is better for this paste for meat, beef, or other drippings, 2 table-spoonfuls; water, about $\frac{1}{2}$ cup, to properly wet up the flour.

Meat and Rusk, or Bread Crumb Pudding, Baked.—Chop any kind of cold meat, with an equal amount of cold salt pork, or better still, season it well with butter, pepper and salt, and add 2 or 3 beaten eggs. Then put into the buttered dish a layer of rusk, or bread crumbs; wet with milk; or in place of these, cold boiled rice, or hominy, and so fill in, in alternate layers; crumbs, or rice, or hominy being first and last; cover with a plate, and bake $\frac{3}{4}$ of an hour; remove the plate to brown the top, and serve hot, in place of other meat. (See also Potato Pudding, No. 2, below.)

Potato Pudding, No. 1, Baked.—Large mealy potatoes, 6; eggs, 6; sugar, 2 cups; butter, 1 cup; flour, $\frac{1}{2}$ cup; milk, or if you have it, cream, 1 pt.; 1 lemon, and a little salt. **DIRECTIONS**—Boil, or steam, the potatoes and mash nicely, stirring in the yolks of the eggs; beat the whites to a froth and stir in the sugar, flour, milk, or cream, the grated rind of the lemon, and salt; squeeze out the juice, and stir all together, and bake about $1\frac{1}{2}$ hours. Sugar and cream, or sugar and butter sauce. Very nice.

Potato Pudding, No. 2, with Meat or Fish, Baked.—Steam and mash mealy potatoes, and season with butter, cream, salt and pepper, or for eating, butter; butter the dish and place a layer of the potatoes on the bottom; then, having finely chopped meat, or finely picked fish, put a layer of the one used, and so on alternating, finishing with a layer of bread or cracker crumbs, with a few bits of butter and a little water, or milk to moisten, at last; cover, till nearly done, with a paper, and bake about 1 hour. If fish is used stir into it a beaten egg. “Very nice” does not express the full parts.

Sweet Potato Pudding.—A writer in the *Blade Household* gives us the following ingredients: Buy sweet potatoes, 2 lbs. (they are sold by the pound now almost wholly); brown sugar, $\frac{1}{2}$ lb.; butter, $\frac{1}{3}$ lb.; cream, 1 gill ($\frac{1}{4}$ pt.); 1 grated nutmeg; a small piece of lemon peel; eggs, 4; flour, 1 table-spoonful. DIRECTIONS—Boil the potatoes well and mash thoroughly, passing it through a colander; and while it is yet warm mix in sugar and butter; beat the eggs and mix in when cool, with the flour, grated lemon peel, nutmeg, etc., very thoroughly; butter the pan and bake 25 minutes in a moderately hot oven. May be eaten with wine sauce. I would say yes, or any other sauce, and still be good, very good.

Indian Pudding, No. 1, Baked.—This pudding was made at the Cataract House, Niagara Falls, by Mrs. Polk, for thirty-six successive seasons: One quart of milk put on to boil; 1 cup of meal, stirred up with about a cup of cold milk; a piece of butter, about the size of an egg, stirred into the hot milk, and let boil; beat 6 eggs, or less, with 1 cup of powdered sugar, and add a tea-spoonful of ginger and nutmeg; then stir the whole together, and have it thick enough to pour into the dish, buttered. Bake in a quick oven.

Sauce for Same.—One cup powdered sugar; $\frac{1}{2}$ cup butter, beaten to a cream. Flavor with nutmeg and a little wine or brandy, to taste.

Remarks.—Myself and family spent several days at the above hotel, in 1874, where we were so well pleased with this pudding—as has always been my custom, in my travels, if I found some particularly nice dish upon the table—I made an effort (through the waiter) to obtain the recipe, and, by “oiling the machinery,” at both ends of the route—paying waiter and cook—I succeeded. I have given it word for word as dictated by Mrs. Polk (colored), who was highly gratified because we were so much pleased with her pudding, assuring us she “had made it in the same house for thirty-six seasons, without missing one.” The family having made it many times since, I can, therefore, assure every one “it is genuine,” and very nice indeed. Coarse meal is considered better than fine for baked puddings; and if the milk is rich by stirring in the cream so much the better. They are made without eggs, molasses taking the place of sugar, as No. 2.

Indian Pudding, No. 2, Without Eggs, Baked.—Indian meal, 1 cup; butter, or lard, 2 table-spoonfuls; molasses, 1 cup; salt, $\frac{1}{2}$ tea-spoonful; cinnamon, or ginger, as preferred, 1 tea-spoonful; mix all these nicely, and pour in boiling milk, 1 qt., mixing thoroughly, and put into a buttered dish; and when ready to set in the oven stir in cold water, 1 cup; bake $\frac{3}{4}$ to 1 hour.

Remarks.—The water, it is claimed, gives the same lightness as the eggs—certainly it can not give the same richness.

Indian Pudding No. 3, Old-Fashioned, Baked.—Scald milk, 1 pt., and pour it upon Indian meal, 1 cup; add a beaten egg; molasses, $\frac{2}{3}$ cup; salt and cinnamon, to taste, add cold milk, 1 pt., and bake about 2 hours, stirring 2 or 3 times while baking to make it wheyey.

Remarks.—This, it will be seen, has more meal in proportion to the milk, and consequently is not quite so much of a custard, but more of a pudding—the more eggs and milk, the more they are like custards.

Indian Pudding No. 4, Steamed.—Sour milk, 2 cups; Indian meal, $1\frac{1}{2}$ cups; wheat flour, 2 cups; soda, 1 tea-spoonful, dissolved in a little of the milk; a little salt, and chopped raisins, $\frac{1}{2}$ cup. Mix all, and steam 2 hours. To be eaten with any sauce preferred.

Indian Pudding No. 5, With Sweet Apples, Baked.—Sweet milk, 2 qts.; scald 1 qt., and stir in Indian meal, 10 rounding table-spoonfuls; molasses, $\frac{1}{2}$ cup; salt, 1 tea-spoonful; then stir in chopped sweet apples, 1 cup, and bake 3 hours in a moderate oven.

Corn Starch Pudding.—Sweet milk, 1 qt.; corn starch 4 table-spoonfuls, nicely rounding; eggs, 5; sugar, $1\frac{1}{2}$ cups; $\frac{1}{2}$ grated nutmeg, or other flavor to suit. DIRECTIONS—Put the milk in a suitable dish to set in water to boil (it is always safer to boil milk in this way); when it boils stir in the beaten yolks, corn starch, 1 cup of the sugar, and flavor, and continue the heat to cook the starch; then put into the baking dish and set in the oven 15 or 20 minutes, having the whites beaten with the $\frac{1}{2}$ cup of sugar, and a little flavor if desired; put on top and brown nicely.

Cream Pudding.—Stir together 1 pt. of cream, 3 ozs. of sugar, the yolks of 3 eggs, a little grated nutmeg, add the well-beaten whites, stir lightly, and pour into a buttered pie-plate, on which has been sprinkled the crumbs of stale bread to the thickness of an ordinary crust; and over the top also sprinkle a layer of the grated crumbs, and bake. Very nice. (See also cream pies.)

Remarks.—And now, it appears to the author, that with about sixty recipes for puddings—a different one for each Sunday in the year, Fourth of July, and Christmas, too,—some very rich, and others plain, there need be no family which can not select one to suit special occasions, as the visits of friends, holidays, etc., and also such as shall meet the demands, with plain puddings in places where the richer materials are not to be had, or when, although everything might be obtained, yet, the pocket-book does not allow it, or the health, or rather, the want of health, will not allow rich food. Every condition as well as desire can be met satisfactorily. So we will next see what we can do in the line of pies.

PIES.

PIES.—The Pie of Our Fathers—Minced Pie.—General Remarks

—Any pie, to be good, ought to have a light and flaky crust, or “pastry,” as more recently called, and the filling should be put in sufficiently thick to remove all suspicion of stinginess on the part of the maker, both of which points are most eloquently brought out in the following communication of Jennie June’s, to the *Baltimore American*, written more particularly as a defence of the minced pie, or “the pie of our fathers,” as she calls it, against which so much has not only been said, but written. It is so rich in thought, eloquent in argument, and correct in its principles of instruction, it is worthy of a perusal, at least on Christmas occasions, by all lovers of minced pie, who have not “abused their stomachs,” as she puts it, “until they have become dyspeptics.” Such persons may feel grieved that they cannot allow themselves to indulge in this luxury any more, but they should have been reasonable in an earlier day, then they would not feel a necessity for complaint. Some writers claim that minced pies are bad, only, when eaten just before retiring. Such a plan with any food, to be made a habit of, is bad. The stomach needs, and must have rest, as well as the body, or it will sooner or later make a complaint, never to be forgotten. She says:

“I feel moved to say a word in defense of not only the pie in general, but the pie in particular—the symbolic *mince pie*, which the people who have abused their stomachs until they have become dyspeptics unite in abusing. The mince pie is a very ancient institution, and the only pie that has religious significance. The hollow crust represents the manger in which the Savior was laid; its rich interior, the good things brought by the wise men as offerings and laid at His feet. A good mince pie is not only better for digestion than a poor one but it has a representative character of its own—it symbolizes our love and devotion to the divine principle to which the Christmas festival is consecrated. Mince pies should be prepared with a due sense of their character and importance. They should not be eaten often; but they should be well-made of fine and abundant materials, and, when served, received with due regard and given the place of honor. Thin layers of impoverished mince, inclosed in flat, ceramic (hard, like earthenware) crust, are *not* mince pies; they are the small-souled housekeepers substitute for the genuine article. The true mince pie is made in a brown or yellow earthen platter, is filled an *inch thick* with a juicy, aromatic compound, whose fragrance rises like incense the moment heat is applied to it, and it comes out the golden brown of a russet which has been kissed by the sun. No common or nerveless hand should be allowed to prepare or mix the ingredients for this sum of all pastry. Every separate article should be cut, cleansed, chopped, sifted, with strong but reverent touch, and the blending should be effected with the sweetest piece of the apples, reduced by boiling with the sirup of the maple and sacramental wine. Thus the spices of the East, the woods of the North, the sweetness of the South, and the fruit of the West is laid under tribute, and the result, if properly compounded, is a pie

that deserves the esteem in which it was held in ancient times, and does credit to the skill of our foremothers, who brought it to its present state of perfection and to the good judgment of our forefathers, who appreciated and ate it. Let us defend and sustain one of our time-honored institutions against the attack of a weak and effete generation, which, having demoralized itself by indulgence in many more obnoxious pleasures of the table, makes the "pie" the scapegoat, and especially the "mince pie," which, when deserving of its name, is a revelation of culinary art—a kitchen symphony—deserving the respect and consideration of all who understand and appreciate a combination and growth which has achieved the highest possible result."

Pastry, or Crust, No. 1, for Minced and all other Pies.—As it is of the utmost importance to have a light and flaky crust for minced pies, as well as all others, I will give two or three plans of making. The first is the celebrated Soyer's Receipt given by "Shirly Dare," in the *Blade Household*; and, although it is some labor to make it, it will pay to follow it whenever a very nice, flaky crust is desirable. It is as follows:

"To every quart of sifted flour allow the yolk of 1 egg, the juice of 1 lemon, 1 saltspoonful of salt, and 1 lb. of fresh butter. Make a hole in the flour, in which put the beaten egg, the lemon and salt, and mix the whole with *ice water* (*very cold* water will do) into a soft paste. Roll it out, put the butter, which should have all the buttermilk thoroughly worked out of it, on the paste, and fold the edges over so as to cover it. Roll it out to the thickness of a quarter of an inch; fold over one-third and roll, fold over the other third and roll, always rolling one way. Place it with the ends toward you, repeat the turns and rolls as before twice. Flour a baking sheet, put the paste in it on ice or in some very cool place half an hour, roll twice more as before; chill again for a quarter of an hour; give it two more rolls and it is ready for use.

"This is very rich paste, and may be made with *half* the quantity of butter only, chopped fine in the flour, rolled and chilled, forming a very light puff paste that will rise an inch, and be flaky throughout."

Remarks.—The object of chilling the pastry, by putting it upon ice or into a cold place, is to keep the butter cold, so it shall not be absorbed into the crust, but keep its buttery form, which makes it flaky, by keeping the dough in layers, while the many foldings and rolling out makes them thin, like flakes of snow. But it is only in *hot* weather that this chilling becomes necessary, and not then, unless you desire it to be flaky. In making pie by the last paragraph above, using only $\frac{1}{2}$ lb. of butter to 1 qt. of flour, for common use, the lemon juice, and egg too, may be left out, using the salt however. Still the yolk of an egg gives some richness, but more especially a richness of *color*. And even *half* lard, or "drippings" may be used, as indicated at the close of the 1st receipt below, and be good enough for all common purposes, using the egg, or not, as you choose.

It has always seemed to me, however, that pie-crust ought to have soda or baking-powder in it to make it light; and to be certain about it, I have just called on one of our best bakers in the city and asked him about it. He tells me that some bakers keep flour, sifted with baking-powder or soda, ready for use; and, in making crust, they take one-fourth of the amount of flour to be used from that having the baking-powder or soda in it, to make the crust rise a little, and help to prevent any soggyness from using a juicy pie-mixture;

But he says it depends more upon the heat on the bottom, or rather from the want of a proper heat at the bottom of many stoves. With the uniform heat of the bottom of a baker's brick-oven they have no trouble, generally, in baking the bottom crust so it is done, and hence not soggy. To do this in a stove-oven, move the pie occasionally to another part of the oven, where the heat has not been absorbed or used up in heating the plate or tin—in other words, see that the bottom of the oven is kept as hot as it ought to be, and you have no soggy or under-done crusts. Pies, not to be eaten the day they are baked, should be baked harder than those for immediate use, to prevent the absorption of the juice of the pie or dampness from the air.

This baker also gave me the following as the best glaze to prevent the escape of the juices of very moist pies, as apple, peach, pie-plant, etc., of any thing that can be used.

Pie-Crust Glaze—To Prevent Escape of Juices.—Dust flour all around the outer edge of the crust, after the mixture is put in; then wet this completely, with a brush or otherwise, before laying on the top crust, and pinch together, and no juice can possibly escape; but if any place is not wet, there the juice will escape. He thinks it far preferable to the white of an egg or anything he knows. Bakers keep a small soft-haired brush for this purpose. But I guess the women will find a way to do it, even if they tie a bit of cloth on a stick, and keep it for that purpose. However, I will guarantee that to wet up a little flour into a rather thick, smooth paste, and apply a little of it with the swab, finger, or brush, will do the same thing, in less time and with greater certainty of touching every part, than by using the dry flour and depending on wetting every part of it—this much for the Doctor's inventive genius. I believe, also, this glaze will be just as nice, or nicer even, than the egg, to have a light coat of it put over the crust of minced or other juicy pies, as named above, and allow it to dry a minute or two in the oven or to stand a few minutes upon the table, before putting in the pie-mixture, to prevent the under-crust from becoming soggy by absorbing the juices before the baking is completed. We use the word pastry as synonymous, or meaning the same as pie-crust, probably from the fact that these mixtures, in an early day, were baked in a crust, or paste, without a dish or tin, and were called "pasties," or "pasty"—like paste—on the same principle that we now make turn-over pies, frying in hot fat; as Shakespeare says: "If you pinch me like a pasty," etc. So "pinching" is the thing to do, to prevent the escape of any of the mixture or juice from the swelling or puffiness, caused by the necessary heat to bake the pie properly.

Cream Pastry or Pie-Crust, No. 2.—This is the most healthy pie-crust that is made. Take cream, sour or sweet; add salt, and stir in flour to make it stiff; if the cream is sour add saleratus in proportion of one teaspoonful to a pint; if sweet, use very little saleratus.

Remarks.—Soda will do very well in place of the saleratus, when that is not to be obtained.

Pea Pie-Crust, No. 3.—Stew the split peas as for dinner. Strain through a colander or coarse sieve. Then add equal parts good wheat meal

(sifted Graham will do nicely) and fine corn meal sufficient to make a soft dough. Knead well for fifteen minutes, adding mixed meal enough to make a moderately stiff dough, then roll out and use as any other pie-crust. As it cooks very quickly, it is not best to put in for a filling, any fruit that requires long cooking.

Remarks.—This is undoubtedly of German origin, as they make great use of the split pea soup, etc. But you may be assured of its healthfulness, for the Germans, with their plain cookery and hard labor manage to be healthy and long-lived people.

Baking the Pastry Before Putting in the Pie Material.

—It has always seemed to the author that to bake the under crust before putting in any juicy pie, as mince, custard, lemon, etc., as it will be seen in the cream pie, No. 1., below, would ensure a light and more healthy crust, by preventing the absorption of the juices, and consequently, a soggy and indigestible crust, which I never eat. I think there is nothing that will pay better in pie making than this, and especially so with any not to be eaten the day they are made. It will take but a few minutes to do it, pricking the crust the same as you would crackers, to prevent their blistering, or puffing up, in some part of them.

Minced Pies, No. 1.—Boil a fresh beef's tongue (or very nice tender beef in equal amount, about 3 lbs), remove the skin and roots (any remains of the wind-pipe, blood vessels, etc.) and chop it very fine, when cold; add 1 lb of chopped suet; 2 lbs of stoned raisins; 2 lbs of English currants; 2 lbs of citron, cut in fine pieces; 6 cloves, powdered ($\frac{1}{2}$ teaspoonful powdered cloves); 2 teaspoonful of cinnamon; $\frac{1}{2}$ teaspoonful of powdered mace; 1 pt. of brandy; 1 pt. of wine, or cider; 2 lbs of sugar; mix well and put into a stone jar and cover well. This will keep some time. When making the pies, chop some tart apples very fine, and to 1 lb of the prepared meat put 2 bowls of the apple; add more sugar if taste requires it, and sweet cider to make the pies juicy, but not thin; mix and warm the ingredients before putting into pie plates. Always bake with an upper and under crust, made as follows:

Crust.—Lard, butter and water, each 1 cup; flour, 4 cups.

Remarks.—To which I would add, the yolk of an egg and a little salt. As a general thing, I do not think so much brandy and wine are used, and although I do not object to eating, occasionally, of such a pie, yet, as many persons do, they can leave them out, substituting boiled cider—3 to 1—in the place of the brandy or wine; or pure alcohol, $\frac{1}{2}$ pt., would be as strong in spirit, and cost less than half as much, while the difference in taste would not be observed. Each person can now suit themselves and be alone responsible. I will guarantee this much, however, no one will be led into habits of drink from the amount of spirit they will get in a piece of pie thus made—possibly one-fourth of a teaspoonful. Nearly all receipts for minced pies contain wine or brandy; they can be used or left out, as any one shall choose, by using the cider more freely.

Minced Pie, No. 2, for Ready Use.—One beef's tongue, suet, and currants, each 1 lb.; raisins (stoned), and citron, each $\frac{1}{2}$ lb.; large tart apples, 5:

juice of 1 lemon; wine, 1 qt.; and spices to taste—cinnamon and cloves are generally used; but it always seemed to the author that black pepper should have a place in them. Sweet cider may take the place of the wine; but boiled cider is better, because there is more spirit in it. Of course, all to be properly chopped, mixed, etc, and put in, at least, half to three-fourths of an inch thick.

Mock Minced Pies, No. 1, with Bread Crumbs.—Bread crumbs, sugar, molasses, vinegar, boiling water, raisins, and currants, each 1 cup; butter, $\frac{1}{2}$ cup; spices to taste.

Mock Minced Pies, No. 2, with Cracker Crumbs.—Cracker crumbs, sugar, molasses, boiling water, and raisins, each 1 cup; vinegar and butter, each $\frac{1}{2}$ cup; 2 beaten eggs; nutmeg and cinnamon, each 1 tea-spoonful; cloves, $\frac{1}{2}$ tea-spoonful. Either of them will make 3 pies.

Remarks.—English currants can be added to this, if desired, or dropped from No. 1, as one may choose. To imitate minced pies, of course, they must have upper as well as under crust. (See Pastry, for making the crust.)

Mock Minced Pies, No. 3, with Apples.—Crackers, double handful; tart apples, medium size, 8; raisins, 1 cup; butter and molasses, each $\frac{1}{2}$ cup; ground cinnamon, cloves, and allspice, each 1 tea-spoonful; salt, 1 salt-spoonful; sugar and cider. **DIRECTIONS**—Roll the crackers; pare, core and chop the apples, melt the butter, and mix all, using cider to make sufficiently moist, and if the cider is not quite tart, add 1 or 2 table-spoonfuls of vinegar, with sugar enough to give the requisite sweetness, which each must judge for himself, as tastes vary so much.

Remarks.—The apples give these pies a much greater resemblance to the real, than as formerly made without apples. If they are made with a light biscuit crust, which is made with at least 1 tea-spoonful of baking powder; then wetting the bottom crust with the beaten white of an egg before the mixture is put in, even the dyspeptic may eat them, if he can eat ordinary food. They are healthful, as well as very palatable. Give the author the one with the apples when he calls upon you.

Lemon Pie, Quickly Made.—One lemon; melted butter, 1 table-spoonful; water, 6 table-spoonfuls; corn starch, 1 table-spoonful (flour will do, but not quite so good); eggs, 2; sugar, 6 table-spoonfuls. **DIRECTIONS**—Grate off the yellow, or zest of the lemon, as it is called—peel off the white part and throw it away—then grate up the pulp, if you have a coarse grater, or chop it fine having picked out the seeds. Put starch or flour in the water, and stir as for gravies; then stir in the melted butter and 3 spoonfuls of the sugar, and the beaten yolks of the eggs with the grated yellow and pulp of the lemon. Make with one crust only, and when baked properly, having beaten the whites of the eggs with the balance of the sugar for frosting, put it on and give it a nice brown. Powdered sugar is the best for frosting.

Remarks.—The advantage of this pie is it can be made in a hurry, as it is all made cold, except the butter. Lemon pies are quite often made with flour in place of the corn starch.

Lemon Custard Pie, Extra.—Sweet milk, 1 pt.; 3 eggs; 1 lemon; $\frac{3}{8}$

cup of sugar. DIRECTIONS—Mix the beaten eggs, sugar and milk together, as for a custard; remove spots, stem, and flower end from the lemon, and chop perfectly fine, and stir into the custard, and bake at once.—*Mrs. Eastman, Toledo, O.*

Remarks.—Having eaten of this pie several times while boarding there, and considering it a very nice custard pie, except in its lemon flavor, I enquired as to using lemons to flavor them without spoiling the custard, and received the above instructions from the lady herself, and can recommend it as an “extra” indeed worthy of all confidence. One lemon gives a nice flavor to 3 pies.

Lemon and Raisin Pies No. 1.—Two small lemons, prepared as above; sugar, 1 coffee-cupful; 1 egg; butter, 1 rounding table-spoonful; flour, 3 table-spoonfuls; boiling water, $2\frac{1}{2}$ coffee-cupfuls; raisins, 1 coffee-cupful; a little salt. DIRECTIONS—Stir the flour smooth in a little cold water, and mix all, putting in the beaten egg last, not to scald it. This makes 2 or 3 pies, according to your liberality in filling or size of your plate. Bake with 2 crusts.

Lemon and Raisin Pies, No. 2.—Raisins, 1 lb.; 1 lemon, prepared as in the “Extra” above; sugar, 1 cup; flour, 2 table-spoonfuls. DIRECTIONS—Stew the raisins 1 hour, leaving just water enough to cover them; then, having rubbed the flour smooth in a little cold water, mix all and make 3 pies.

Remarks.—Either of these may be baked with or without upper crust, as you choose, generally without. We have so many lemon pies we must next have an

Orange Pie.—One good-sized orange, grate the rind, and chop or slice the inside, removing the seed; 3 eggs, $\frac{1}{2}$ cup of sugar, 1 cup of milk, 1 heaping table-spoonful of corn starch; no upper crust.—“*Keystone,*” *Bradford, Pa.*

Remarks.—The author cannot see why any person who can make as nice a pie as this recipe does should blush by dropping her name and taking an artificial one. So it is with some people. I can tell if the recipes are good as soon as I read them, even if they have no name at all attached to them. Hence I take the best I can find anywhere and everywhere, giving the proper credit, for the good of the many people who have so far patronized “*Dr. Chase’s Book,*” not because they were Dr. Chase’s, but because they were good. And I will here remark that I have often wondered that I did not see more orange pies, even to the lessening of the lemon. For, if you get nice juicy oranges, the flavor is delicious, and less sugar is required than for lemons. They may be frosted the same as lemon, if desired. What is more delicious than a nice juicy blood orange—certainly there is but one thing which can equal it—a luscious peach.

Cream Pie, No. 1, Crust Baked First.—For each pie to be baked take 2 small eggs; sugar, $\frac{1}{2}$ cup; corn starch, 2 table-spoonfuls, or half flour; milk, 1 pt. DIRECTIONS—Make your crust and have it ready baked (pricking with a fork to prevent blistering); put the milk on to boil; beat the yolks of the eggs, stir the corn starch in a little cold water, smoothly; then add sugar, and stir all into the boiling milk, and continue the heat until the custard is set, or thick; then put into the baked crust and bake 15 or 20 minutes, having beaten the whites with 1 tea-spoonful of cream or butter and 2 table-spoonfuls of sugar; spread on top and brown nicely in the oven.—*Henry Crane.*

Remarks.—Having eaten of this pie many times, I know it is very nice. The pumpkin pie below is from the same gentleman, and is equally nice of its kind. See, also, "Cream Pudding," which is mixed like a pie:

Cream Pie, No. 2.—Sweet cream, 1 cup; sugar, 3 table-spoonfuls; flour, 1 table-spoonful; butter, the size of an egg; a little grated nutmeg, all creamed together; bake like a custard, or put strips of crust across the top.—*Eliza Watts, Croton, Iowa, in Toledo Blade.*

Boiled Custard Pie.—"Mrs. B. H. H.," in *Farm and Fireside*, gives the following directions for making: Morning's milk, a qt. Let it simmer—not boil; stir into it sugar, 1 cup; the yolks of 3 eggs; flour, 3 table-spoonfuls, and a little nutmeg. When it becomes thick, pour it into the crusts—which should be previously baked—and when just done spread with frosting made of the whites of the eggs with sugar, 3 table-spoonfuls, with a little nutmeg, and brown slightly. This makes 3 pies.

Pumpkin Pie.—Stewed pumpkin, 1 heaping pint; 6 eggs; flour, 6 table-spoonfuls; butter, size of an egg; sugar, 1½ cups; cinnamon, 2 level tea-spoonfuls; ginger, ½ tea-spoonful; ½ a grated nutmeg. DIRECTIONS—Rub the pumpkin through a colander, adding the butter, sugar and spices, and make hot, then the beaten eggs and flour; mix smoothly together, and while hot put into the dish, having a thick crust to receive it, and bake in a moderate oven.—*Henry Crane, Frost House, Eaton Rapids, Mich.*

Remarks.—This makes a thick, salvy pie, very nice. If fearful of a soggy crust, bake it before putting in the pie mixture. If a pint of milk was added, it would be more like the old-fashioned pumpkin-custard pie, softer and not quite so rich, unless an additional egg or two, with an extra cup of sugar is put in. If milk is plenty, and pumpkin scarce, take this latter plan.

Pumpkin and Squash, Best for Pies, Prepared by Baking.—Ruth H. Armstrong, in the *Housekeeper*, says: If all housekeepers who make pumpkin pies knew how much better and easier it is to bake the pumpkin first, they would no longer worry over cutting up and peeling it, but just cut it in halves, take out the seeds, lay it in the oven and bake until soft, when it can be scraped out and used as usual, and is so much better for not having water in it. Winter squash makes a much richer pie when treated in the same way.

Squash Pie, Very Rich.—Stew a medium sized crook-necked (or other equally rich) squash, and rub the soft part through a colander, as for the pumpkin pie, above; butter, ½ lb.; cream and milk, each 1 pt., or milk with the cream stirred in, 1 qt.; sugar, 2 cups; 1 dozen eggs well beaten; salt, mace, nutmeg and cinnamon, 1 tea-spoonful each, or to taste.

Remarks.—Of course the mixing and baking, the same as for the pumpkin pie above; and if less is needed for the family keep the same proportions as in that also. I think good squash makes a richer pie than pumpkin, while some persons claim the reverse, and call for an egg or two extra. If a poor quality is used, this would be so; but crook-necked, or Hubbard, are much nicer than pumpkin, both in quality and flavor, and I like this pie much the best, but can get along very nicely even with a good rich pumpkin pie.

Potato Custard Pie.—Nicely mashed potatoes, $1\frac{1}{2}$ cups; sugar, 2 cups; milk, 1 qt.; eggs, 5; a little salt, and any flavoring desired. DIRECTIONS—Beat the eggs well, mix all, and dip into the pans made ready with the usual paste, or crust, and bake the same as custard pie.

Sweet Potato Pie.—Sweet potatoes make an equally nice pie, for all who, like myself, are fond of them, treated the same as their Irish brethren above.

Remarks.—Sweet potatoes make a richer pie than the common potato, as much so as good squash makes a pie richer, in quality and flavor, than common pumpkin; but as the Irish potato keeps the best, a pie can be made of them, after the sweet ones are out of season.

Apple-Custard Pie.—Moderately tart apples, stewed, and treated the same as the potatoes, above, make a custard pie, of very excellent flavor; using sugar according to the sourness of the apples, with cinnamon, nutmeg, or other spices as you like, baked with one crust only, in all kinds of custard mixtures. Bars, or strips, as mentioned in cream pie No. 2, above, may be put upon any of them, if one chooses to do so. But I think they muss, or mar the pie, in cutting them for the table, hence I think them nicer without bars.

Apple, Peach, and Other Fruit Pies.—Pare and slice, ripe, tart apples from the core, or peaches from the pit, for as many pies as you wish to make at one time; line your plates, or tins, with a crust, having a little baking powder or soda in the flour (one-fourth as much only as for biscuit; see remarks following Pastry, No. 1), wetting, or not, as you choose, with the flour paste, to prevent the juices from soaking into the crust; put on a layer of the sliced fruit, and sprinkle over light brown sugar according to the sourness of fruit; then another layer of fruit and sugar, for at least 3 layers, using cinnamon, nutmeg, or any other spices preferred, freely on the last layer, and 2 or 3 spoonfuls of water, unless the fruit is very juicy; cover with a crust secured from the escape of the juices, with the flour wet, and a few ornamental cuts through the top crust; bake in a moderate oven, and you will have a pie "fit for a king," especially so, if you sprinkle freely of powdered sugar over the top before serving. Blackberries, raspberries, strawberries, cranberries, whortleberries, and stoned cherries, in their season, make an equally nice pie, with the same treatment, remembering this, the sourer the fruit the more sugar. But it is important to remember this also, that pies, not to be eaten the day they are baked, ought to be baked a little longer, or harder, than those to be eaten at once, which prevents their absorption of dampness from the air, as well as from the moisture of the pie-mixture. By canning or drying, and stewing when needed, pies from any of the above named fruits may be had at any time of the year.

Grandmother's Apple Pie.—Line a deep pie-plate with plain paste. Pare sour apples—greenings are best—and cut in very thin slices. Allow 1 cup of sugar and a quarter of a grated nutmeg mixed with it. Fill the pie-dish heaping full of the sliced apple, sprinkling the sugar between the layers. It will require not less than six good-sized apples. Wet the edges of the pie with cold water; lay on the cover and press down securely that no juice may escape.

Bake three-quarters of an hour, or even less if the apples become tender. It is important that the apples should be well done, but not over-done. No pie in which the apples are stewed beforehand can be compared with this in flavor.

Chicken and Other Meat Pies.—According to the number in the family, 1, 2, or more, young and tender chickens, cut up, washed and put into a stew-kettle, with water enough to nicely cover, and a very little salt, and stew till perfectly done, and if pork or small pieces of any cold meats are to be used, stew also with the chicken; when entirely tender, rub a spoon or two of flour smooth, in cold milk or water, and stir in as for gravy; add salt and pepper to taste. Set back on the stove to keep hot while you make the pastry or crust.

Pastry or Crust.—If for 1 chicken in a 2 quart basin, or pie dish, use 1 pt. of flour with 1 tea-spoonful of baking powder, and 1 table-spoonful of lard, and a little salt. For a 4 quart or 6 quart dish double the amount of all the articles, and if half butter is used, it will be nicer and require a little less salt. It is designed to have a light, but thick crust when baked. Put the chicken, with its gravy, enough to nicely cover it, into the dish, without a bottom crust; but roll out the pastry of such a thickness as to just cover the dish nicely, cut a few fancy slits through the top, to allow the steam to escape, and place in the oven at once, and bake about 30 minutes, or long enough to cook the crust nicely. Serve hot, with mashed potatoes, made rich with milk and butter, or cream, if you have it. Some put potatoes in the pie, but it is out of fashion, and, thank the Lord, there is one fashion, at least, which is conducive to health, as water-soaked potatoes are not.

Beefsteak, cold roast beef, veal, lamb, prairie hens, and other wild game, may be treated in the same way, with like success; but prairie hens should have the skin removed before cooking. Any meats not tender must be stewed tender, or done, before putting into the pie dish, as you cannot depend on the baking to cook the meats, it would spoil the crust.—*Mrs. Catherine Baldwin, Toledo, Ohio.*

Remarks.—Having had my office in this lady's house for about two years, and boarded in the family most of the time, I am able to say, if you follow these instructions, you will have no reason to complain. A closing word, only, milk, for wetting up pastry, as bread, makes them richer than water, hence use is when you have it plenty, but do not make pastry too soft, but rather stiff.

Chicken and Ham Pie.—Season sufficient slices of boiled ham, with pepper and salt, if needed, and put a layer upon the paste, which should be $\frac{1}{2}$ inch thick; then a layer of chicken, which has been jointed and cooked till tender, upon the ham, and also the yolks of some hard-boiled eggs, sliced; a couple layers of each should properly fill the dish; putting in some gravy made with water in which the chicken was boiled, adding, if liked, $\frac{1}{2}$ cup of tomatoes to the gravy; cover with another crust, and bake only to bake the crust; or it may be baked without the gravy, and I think this the better way, the gravy being made to dip upon the pie, and mashed potatoes, with which it is to be served. If no eggs and tomatoes, make it without, and still it will be very nice, if the meats have been cooked tender before putting into the pie.

Rabbit Pie, Fricasseed and Roast.—Cut up the rabbit, remove the breast bone and bone the legs. Put the rabbit, a few slices of ham, a few force-meats, and 3 hard-boiled eggs, by turns, in layers, and season each with pepper, salt, 2 blades of pounded mace, and $\frac{1}{2}$ tea-spoonful of grated nutmeg. Pour in $\frac{1}{2}$ pt. water, cover with crust, and bake in a well-heated oven for $1\frac{1}{2}$ hours. When done, pour in at the top, through the middle of the crust, a little good gravy, which may be made of the breast and leg bones, flavored with onion, herbs and spices.

Fricasseed.—Rabbits, which are in the best condition in midwinter, may be fricasseed like chicken in white or brown sauce.

To Roast.—Stuff with a dressing made of bread-crumbs, chopped salt pork, thyme, onion, and pepper and salt, sew up, rub over with a little butter, or pin on it a few slices of salt pork, and a little water in the pan, and baste often. Serve with mashed potatoes and currant jelly

Oyster Pie.—Small oysters, $1\frac{1}{2}$ qts.; cracker crumbs, 1 cup; salt and pepper to suit. DIRECTIONS—Drain the oysters in a colander, and throw away the juice, unless you wish to cook it, seasoning properly and eating it as “soup,” with some crackers; there will be juice enough from the oysters. Line the sides of a deep buttered pie-dish with a crust made as for the chicken and other meat pies above; put a layer of the oysters, salt and pepper to suit; then a light sprinkling of the cracker-crumbs, and so fill the dish; put over the top some bits of butter to season nicely, and cover with a crust; bake in a quick oven. As soon as the pastry is done the oysters will be cooked also.

Remarks.—By using the juice the pie is made too mushy, or soggy.

Escaloped Oysters, or Oyster Pie With Crackers.—Oysters, $1\frac{1}{2}$ qts.; crackers, sufficient; pepper, salt and a little mace. DIRECTIONS—Drain the oysters as above; butter the dish and put a layer of the oysters over the bottom; then, the crackers being thin, butter one side lightly, and place a row of them around the dish in place of a crust; season the oysters, each layer as you go along, then sprinkle on some cracker-crumbs, else split crackers, buttered, does nicely in place of crumbs, and so fill the dish, or until the oysters are all in, putting another tier of crackers up the side, if needed, as you fill up to the top of the first tier, and cover the top with a layer of buttered crackers, putting on the butter pretty freely on the top crackers, which melts down into the dish and makes a crispy cover or crust, without the trouble of making pastry.

Remarks.—If this new plan is done carefully you will be pleased with the result. If not, you can take the old crusty, mushy way again; but I know you will not.

Minced Turn-Over Pies, Fried or Baked.—For the pastry, or crust, sugar, 1 cup; 2 eggs; butter, $\frac{1}{2}$ the size of an egg; sour milk, $1\frac{1}{2}$ cups; soda and salt, each, 1 teaspoonful; flour. DIRECTIONS—Beat the eggs, butter and sugar together; put the soda into a bowl with a tea-spoonful of water, mash it and dissolve, then pour the milk upon it, and mix all together, stirring in what flour you can with a spoon, then mix with the hands; work in only

enough to make a soft dough, as for fried cakes. Cut off a piece as large as a good sized egg, rolling out in round form; then put 2 table-spoonfuls, or a little more, of minced pie meat (which see), which is not very moist. Spread it over one-half only, of the crust, leaving an edge margin of $\frac{1}{2}$ inch; then turn over the other half, and with plenty of flour on the fingers pinch or crimp the edge firmly together, to keep in the juices. Fry in hot lard, turning carefully when one side is done. Take up carefully also, using a knife to assist, lest they fall from the fork, placing them on plates, separately, until cold; but if done just before dinner, at our house, several of them never get cold. If the juice works out while frying the hot lard will sputter and fly around lively; hence, be sure to pinch the edges well together. Bake when you prefer to do so.

Remarks.—If the pastry is made as soft as it can be rolled by dusting freely it will be very light, and the turnovers very nice. They are very nice, too, to bake them.

Apple Turn-Overs, Fried or Baked.—Dried apples, 1 pt.; raisins, 1 cup; cinnamon and allspice, or nutmeg, each, 1 tea-spoonful. **DIRECTIONS**—Stew the apples and raisins together, leaving as little water as possible. Mash the apples to a pulp (but I prefer to find the raisins whole), and put in the seasoning. Make the paste and otherwise treat the same as the mince turn-overs. Of course, the apples may be used without the raisins, but they suit me better with them. These, also, may be baked as well as fried, when you choose. Other fruit, as peaches, berries, etc., may be used in the same way.

Apple Turn-Over Pudding, Baked—Apples, sugar, butter, nutmeg, a little salt, and pie-paste. **DIRECTIONS**—Sufficient nice tart apples to fill such a pudding-dish as the family demands; peel, slice and put into the dish, which has been buttered; cover with good pie-paste, and bake in a quick oven. When done, “turn-over” upon a suitable plate, and spread upon the apples 3 or 4 table-spoonfuls of sugar, and butter half the size of an egg, and a pinch of salt, mixing with a spoon a little on the top; then grate on some nutmeg. Serve hot. The sugar, butter, and nutmeg on it form the sauce, but milk or cream passed with it will suit some better. Of course, this may be “turned over” with peaches as well as with apples.

Remarks.—Although this is a dish to be “turned-over-upon-a-plate,” yet I have placed it here among the “turn-overs” proper, as it makes but little difference where we find or place a good dish. It is nice. I speak from knowledge.

Cheese Cake or Pie.—Material.—Cottage cheese, one and one-half cups; sugar, one-half cup; cream, two teaspoonfuls; melted butter, one teaspoonful; juice and rind of one lemon; eggs, three. **DIRECTIONS**—Dress the cheese through a colander or coarse sieve. Beat the eggs without separating and add all the other ingredients to the cheese and beat until smooth. Line a deep pie dish with plain pastry, fill with the cheese mixture and bake about thirty minutes in a moderate oven.

CAKES.

CAKE-MAKING, BAKING, ETC.—*General Remarks and Explanations.*—To make good cake every article used must be good, of its kind—flour, sugar, or molasses, butter or lard, eggs, spices, or flavoring extracts, fruit, cream of tartar and soda, or saleratus, or baking-powder, milk, etc.

But to save repeating the explanation with every cake receipt given (many of which must be very similar, if not absolutely the same), I will make such an explanation in connection with each of the articles mentioned as entering into cake-mixtures that persons can soon familiarize themselves with, all that is necessary, to a full and complete understanding of the whole subject, without the repetition referred to.

Flour.—It being understood, then, that all the articles, or material used in making cake shall be good, I need only say: The flour will be the better if put into the oven and thoroughly dried—stirring a few times while drying—then sifted; and if cream of tartar with soda, or baking-powder are to be used, they—or the one to be used—should be stirred into the flour before sifting.

Sugar and Butter.—Use your own judgment as to whether white or light brown sugar may be used. For common purposes the light brown will do very well; but if a delicate cake, for any particular occasion, is to be made, use pure white sugar and very nice butter. If sugar is at all lumpy, crush by rolling, then the sugar and butter should always be creamed together, *i. e.*, beaten together until they are completely blended into a mass, much the appearance of cream, hence the word “creamed” has been appropriately applied. And this creaming of the butter and sugar is a very important part of cake-making; for, by this process, the oiliness and consequent indigestibility of the butter is overcome, the cake rises brighter, and is much more healthy and digestible than by rubbing the butter into the flour, which has heretofore been the more usual custom.

In cold weather it may be necessary to place the butter in a warm place a short time to soften—not to melt—to enable the creaming to be properly done.

Lard and Drippings.—Neither lard nor drippings are as good as butter, but, for family use, half the amount may be very satisfactorily put in the place of half of the butter named.

Molasses.—When molasses is used the cake will scorch quickly if the oven is too hot; hence for these, and for cakes having fruit in them, bake in a moderate oven, especially such as fruit loaf-cakes, they being generally thick require a longer time for baking. Then, if there is danger of burning the top in any case, cover with brown paper, until nearly done.

Eggs.—Eggs must be fresh and well-beaten; and it is claimed that all cakes are better if the yolks and whites are beaten separately. This may be true, to a certain extent, but my wife who has made cake for me (or seen that it was done as she desired) for over forty years, claims, and I have no doubt of the fact, that the difference, for general use, is not sufficient to pay for the extra trouble; while, for nice cake, for special occasions, it may be best to beat separately.

Spices are always to be ground, or very finely pulverized, where the old fashioned mortar is still in use.

Flavoring Extracts, kept by dealers may be used, or those made by receipts given in this work, which will be found under proper headings, using only sufficient to obtain a fair flavor of the fruit represented.

Fruit requires care in selection, or purchase, and also in its preparation for use.

Raisins need to be looked over to free them from any remaining stems, and from small gravel-stones, which are often found among them, then washed drained, dried and floured, and used whole, or they may be seeded and chopped after washing and draining, then rubbed—"dredged"—with flour, which largely prevents them from settling to the bottom of a cake or pudding.

English Currants require picking carefully to free them from gravel, dirt, etc., and several careful washings, for the want of proper care in curing. They also require drying and flouring, the same as raisins, for the same reason.

Home-dried Fruit.—Currants, raspberries, blackberries, whortle ("huckle") berries, etc., may be substituted for foreign fruit very satisfactorily when desired, or when they are plenty.

Citron, when used, is to be "shred," *i. e.*, cut into long narrow strips, or chopped, as preferred. If chopped, however, leave it the size of peas, so that one eating the cake can tell what it is without too close scrutiny.

Almonds are to be blanched, *i. e.*, boiling water is to be poured upon them and allowed to stand until the thin skin will rub off easily, then chopped as citron, or pounded finely in rose water—preferably chopped.

Cream of Tartar and Soda are always to be stirred into the flour before it is sifted, the same as baking powder. The proportions in using should always be two of the first to one of the latter. They are usually kept in separate boxes and mixed when used, by taking out 2 teaspoons of the cream of tartar to 1 of the bi-carbonate of soda (baking soda), but they may be purchased in quantities of $\frac{1}{2}$ lb. of the cream of tartar to $\frac{1}{4}$ lb. of the soda (or in these proportions) and all mixed at once, if dry, and kept in an air-tight box in a dry place, and thus you have always ready for use a better baking powder than you can buy.

Saleratus, when used, is to be dissolved in a little hot water, or in a little of the milk, by rolling finely on the table or moulding-board before putting

into the cup to dissolve. After the same is dissolved, add it to the cake mixture.

Soda, when used alone, is to be treated the same as saleratus.

Baking Powder should always be mixed into the flour, the same as cream of tartar and soda, before the flour is sifted.

Milk is always to be sweet when baking powder, or cream of tatar with soda are to be used. Sour milk or buttermilk when soda, or saleratus only are to be used.

Making Up or Putting Cake Together.—The eggs being properly beaten, the flour sifted, the sugar and butter creamed, everything to be used being placed within reach, little by little add the milk to the creamed sugar and butter, stirring constantly, then the yolks of the eggs (when beaten separately), after which the sifted flour, having the proper amount of baking powder, or cream of tartar and soda in it, and then the fruit (if fruit is to be used), spices or flavoring extracts; but, now, if saleratus is being used, it is to be dissolved and stirred in, and lastly the beaten whites of the eggs, stirring but little after these are added: but the more thorough the stirring together, previous to putting in the whites, the better.

Baking—Heat of the Oven, etc.—To bake cake nicely, the heat of the oven should be uniform throughout the whole time of baking; and for light, thin cakes (and that covers nearly all, except those having fruit in them) a quick oven is required, so that by the time the cake is properly raised the baking shall commence; for if the heat is not uniform throughout the baking there will be a soggy streak shown in the cake, because if the cooking slackens much the cake begins to “fall,” and although the heat may be again raised, yet what has settled together will not rise again; while if you get too great a heat simply cover the cake with brown paper to prevent burning the top, and partly close the damper to prevent too much heat from passing under the bottom; but the oven door must not be left open in cake baking, or else the cake will “fall,” the same as if the heat had fallen off for want of fuel. Avoid, as much as possible, also, the moving of cake after it is placed in the oven and has begun to rise, as the motion may cause the escape of gas, leaving the cake heavy, and especially is this important with cake containing grated or dessicated cocoanut.

Pans.—Pans should always be well buttered, except for thick, or loaf cake, which requires the bottom of the pan to be covered with a buttered piece of white paper, buttering the sides, unless deemed safest to paper the sides also, especially if the cake is a thick fruit cake, and in this case the top must be covered with brown paper until nearly done.

To Know When a Cake is Done, pierce it with a clean broom splint. If it comes out free of the cake mixture it is done; but a few minutes more had better be given it than to have it at all under done.

Hints and Suggestions.—If attention is given to the above explanations and a moderate degree of experience is brought to bear upon the following recipes, I have no fears of a failure; and those who have not been instructed

as they should have been by their mothers,, or those having the care of them in their minority, and now find it necessary to make cake for themselves and their husbands, must begin with the cookies, and other smaller and plainer cakes, lest a failure should too greatly discourage them; and should they fail a few times, take the mottoes, "don't give up the ship," but "try, try again," and ultimate success must follow.

Special Explanations.—If any special explanations are needed, they will be given in connection with the recipe.

Lastly—Keeping Cakes.—Keep cakes in the cook-room until cool; then wrap and place them in boxes with covers to exclude the air. Jelly cakes, however, had best not be removed from the plates upon which they have been built up, but need to be wrapped and placed in boxes, the same as others, which insures their moisture much longer than if not put away in boxes. Fried cakes, cookies, etc., after becoming cool, may be put into stone jars, and a cloth of several thicknesses be put upon them, pressing it down around the edge, then another cloth over the top of the jar, with a plate upon it will keep them sufficiently moist. It is not best to make large amounts of them at a time. Bread needs the same care to keep it nicely moist.

Table of Explanations and Comparative Weights and Measures.—When white sugar is called for, "A," or first-class coffee sugar is intended.

The cup intended to be used is the common sized tea-cup, but if larger amounts are needed for large families, double the number, or use the larger coffee-cup.

1 lb. white sugar equals about $2\frac{1}{2}$ cups; 1 lb. butter, 2 cups; 1 lb. lard, 2 cups; 1 lb. wheat flour, $3\frac{1}{2}$ cups; 1 lb. graham, $3\frac{1}{2}$ cups; 1 lb. Indian meal, $3\frac{1}{2}$ cups.

Icing, Boiled, for Cakes.—Powdered sugar, (and this is the right kind to use for all Icings), 2 cups; boiling water, 1 gill; whites of 2 eggs; flavoring to suit. **DIRECTIONS**—Pour the boiling water upon the sugar in a suitable dish, upon the stove, and boil until it readily creams, then pour this hot upon the beaten whites, and beat till cool, when it is ready to use, the cake being cold, or, at least, cool; add vanilla, lemon, or orange extract, rose or cinnamon water, or essence, a teaspoonful to a tablespoonful, to suit, and dip upon the cake; smoothing, if necessary, with a knife wet in cold water,

Icing, Boiled, that will not Break.—White sugar, 1 cup; white of 1 egg; put water enough into the sugar to dissolve it; put it on the fire and let it boil till it will "hair." Beat the white of the egg to a stiff froth; pour the heated sugar on to the froth and stir briskly until cool enough to stay on the cake. The icing should not be applied until the cake is nearly or quite cold. This quantity will frost the tops of two common sized cakes.—*Godley's Lady's Book.*

Boiled Icing—Quick to Harden.—To 1 cupful sugar, take 1 egg. Put sugar in pan and a little water over it, and let boil 20 minutes. Beat white

of egg stiff and gradually beat boiling sugar into egg. Flavor. Apply to cake quickly, as it soon becomes hard.

Icing, Old and Confectioner's Plan, or Without Boiling.—

Icing or frosting for cakes was formerly done by beating the whites of eggs to a stiff froth, then beating in white sugar till stiff, or as hard as desired; but if it is not desired to boil it, as above, a better plan is to take the white of 1 egg for each medium-sized cake, and at the rate of $\frac{1}{4}$ lb. of powdered sugar for each egg to be used; and first, throw in some of the sugar, then begin to beat, and, from time to time, throw in more of the sugar, continuing the beating until the sugar is all in, and the icing of a smooth and firm consistence—nearly or about half an hour will be required: The piece of a lemon or an orange, or any of the extracts, may be used to flavor, allowing sugar extra to absorb it.

Remarks.—If beaten together as above, it hardens on a cake quicker than if the eggs were beaten, as of old, before the sugar was added; and if made as thick and as hard as it ought to be with the sugar, one coat will suffice; while in the old way it almost always required two. If in a hurry to have the cake ready, this may be set two or three minutes in a moderate oven to harden,

Icing to Color Different Shades.—Any icing may be colored, if desired, a yellow with lemon or orange, and pink with strawberries or cranberries. Grate the yellow of a lemon or orange, squeeze some of the juice upon the gratings, put into a stout muslin and press out the coloring into the icing. Strawberries and cranberries are to be pressed in the same way, or their syrups used. If considerable is used, add powdered sugar to make them thick before stirring in.

Icing Chocolate for Cakes. Flavored chocolate, 4 ozs.; whites of 2 eggs; powdered sugar, 20 tea-spoonfuls; corn starch, 4 tea-spoonfuls; extract of vanilla, 2 tea-spoonfuls. **DIRECTIONS**—Beat the eggs and add the sugar and corn starch, stirring together; then, having grated the chocolate before you began the other work, add it and beat to a smooth paste; then spread it upon the cake, the top layer as smoothly as possible, and place the cake in the oven a moment, turning it around, and the icing will become nice and glossy.

Icing, Almond.—Blanched almonds, $\frac{1}{2}$ lb. (for two ordinary cakes), rosewater, sufficient. **DIRECTIONS**—Rub the almonds to a smooth paste (in a mortar) by adding a little rosewater from time to time to moisten sufficient only to form the paste; and then mix with any of the icings having no other flavor.

Icing With Gelatine.—More recently some cooks have been using gelatine in making icings. Where no eggs are to be had it will make a good substitute. For each cake, soak gelatine, 1 tea-spoonful, in cold water, 1 table-spoonful, till soft, or about $\frac{1}{2}$ hour; then pour upon it hot water, 2 table-spoonful, stir to perfectly dissolve it; then stir in, while warm, pulverized sugar, 1 cup, continuing to stir until perfectly smooth, and spread upon the cake.

CAKES—Martha's Cake.—*Remarks.*—As my wife's name is Martha, I trust I shall be excused for beginning the cake list of my "Third and Last Receipt Book" with her favorite, especially as it is plain and not expensive,

and by little changes, and flavoring, such a variety may be made out of it, as loaf cake, jelly cake, etc. Sugar, 2 cups; butter, 1 cup; 6 eggs; flour, 2 cups; sweet milk, $\frac{1}{2}$ cup; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful. **DIRECTIONS**—Familiarize yourself with the general remarks and explanations, at the head of this subject, then you will be able to make any ordinary cake—the articles, and proportions, only being mentioned. I only mention here the different ways this may be flavored, baked, etc.

This may be baked in a loaf, or in jelly cake tins (shallow pans) and, when cold, laid up with fruit jelly spread between the layers, and you may ice the top, or not, as you choose—sometimes with—sometimes without. Sometimes flavor with the juice and grated yellow of a lemon, again with an orange, or the extracts of one or the other, and again without either, being plain. And thus you can have a cake differing from the leopard's skin in this—its spots may be changed, and that as often as you like, giving a great variety of cake without change of composition, except in flavoring, icing, etc., or in not flavoring, or not icing, baking in loaf, or for jell cake, or by baking in patty pans, as you choose, or as occasion may call for. Mrs. Chase occasionally ices them when baked in the little pans, especially so if the icing is being made for large cakes, at the same baking.

Ribbon Cake.—I. Sweet milk, $\frac{1}{2}$ cup; butter, $\frac{1}{2}$ cup; 3 eggs, flour, 2 cups; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful. **DIRECTIONS**—Dissolve the soda in the milk: mix the cream of tartar in the flour; beat the eggs, sugar and butter well together; then the milk and flour.

II. Take of the above mixture, 1 cup; molasses, 1 tea-spoonful; cinnamon, cloves, allspice and nutmeg, each $\frac{1}{2}$ tea-spoonful; citron, almonds or walnut meats, each $\frac{1}{4}$ lb.; raisins and English currants, each $\frac{1}{2}$ cup. **DIRECTIONS**—Chop the citron, and almond or walnut meats (whichever you prefer to use), dredge the raisins and currants with flour, and mix with the molasses and spices into the cup of batter taken from the first. Use shallow tins for baking, putting in a strip of the white batter lengthwise of the tin; then a strip of the dark beside it, and so cover the tins; thus you have a "marbled cake," which has ribbon-like strips.

Remarks.—By leaving out the citron and fruit, and putting into pans, as the marble cake next following, you have another variety of composition for marble cake.

Marble Cake.—*Light Part:* White sugar, 3 cups; whites of 6 eggs; butter, $\frac{1}{2}$ cup; flour, 2 cups; sweet milk, $\frac{1}{2}$ cup; baking powder, 2 tea-spoonfuls. *Dark Part:* Yolks of 6 eggs; butter, 1 cup; brown sugar, 3 cups; sweet milk, 1 cup; cinnamon, cloves, allspice and nutmeg, each 1 table-spoonful; flour, 3 cups; baking powder, 3 tea-spoonfuls. **DIRECTIONS**—Beat the butter, sugar, milk, eggs, and spices together in each part (they will work best if put in in the order named); then mix the baking powder in the flour for each part, stirring in the flour with the baking powder in it last, and one quickly after the other, for when baking powder is used, the cake must be placed into a hot oven as soon as can be done, to insure lightness. Cover the bottom of the pan with

the light part, and dip the dark over it, in spots; then level up with the light, and so on till the pan is properly filled, allowing room to raise.

Marble Cake—Chocolate.—Make any plain cake and pour out half of it; then, having shaved up 2 table-spoonfuls, or a sufficient amount of chocolate, and dissolved it in as little water as practicable, boil it a minute or two; then mix it with one of the parts, and put into the pan the same as the receipt above.

Watermelon Cake.—I. White sugar, 2 cups; butter and sweet milk, each $\frac{3}{4}$ cup; whites of 5 eggs; flour, 3 cups; baking powder, 1 tea-spoonful. DIRECTIONS—Beat the eggs, sugar, butter and milk together; put the baking powder into the flour before sifting it in, and mix.

II. Red sugar (kept by confectioners), 1 cup; butter and sweet milk, each $\frac{1}{2}$ cup; flour, 2 cups; baking powder, 1 tea-spoonful; whites of five eggs; raisins (nice large ones), $\frac{1}{2}$ lb. DIRECTIONS—Beat together in the same order as the first, cut the raisins into halves, the longest way, and mix in last; then put some of the first into the pan, hollowing it in the center to receive all of the second or red part, if it is sufficiently stiff to allow it, piling it up in the round form as neatly as possible, to represent the red core of the melon; then cover with the balance of the white, so you have a white outside and a red core, like a watermelon, if neatly done.

Watermelon Cake, No. 2.—*White Part:* White sugar, 2 cups; butter, 1 cup; sweet milk, 1 cup; flour, $3\frac{1}{2}$ cups; whites of 8 eggs; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; dissolve the soda in a little warm water; sift cream of tartar in flour; mix.

Red Part:—Red sugar, 1 cup; butter, $\frac{1}{2}$ cup; sweet milk, $\frac{1}{8}$ cup; flour, 2 cups; whites of 4 eggs; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful; raisins, 1 cup; mix. Be careful to keep the red part around the tube of the cake-dish; the white part outside; best to have two persons fill in, one the red and the other the white, going around the tube till full.—*Mrs. S. O. Johnson, in Inter Ocean.*

Lemon Cake With Milk.—Butter, 1 cup; sugar, 3 cups; 5 eggs; flour, 4 cups; sour milk, 1 cup; soda, 1 tea-spoonful; the juice and grated yellow (the white has a bitter taste,) of one lemon. DIRECTIONS—Study well the General Remarks and Explanations, and also the Making-Up, or Putting Together, and you will then be prepared to proceed with the work of cake-making.

Remarks—In making cake, double the amount, or only half may be used, to suit the size of the family. But in taking half, if 5 eggs are called for, always use 3 in the reduction, as eggs are absolutely necessary to maintain the lightness of the cake.

Lemon Jelly Cake, Without Milk.—Sugar, 3 cups; flour, 2 cups, cold water, $\frac{1}{2}$ cup; 5 eggs; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful; 1 lemon or orange. DIRECTIONS—Beat all the yolks and the whites of 2 of the eggs for the cake, and cream with 2 cups of the sugar, butter, etc. Bake in 4 jelly cake tins. Grate off the yellow of the lemon or orange, peel off the

white and throw away (this part of these fruits is bitter); then squeeze out the juice and chop up the pulp; having beaten the whites of the other 2 eggs, mix and stir in the other cup of sugar, or sufficient to make of proper thickness to put between the layers in place of jelly.

Remarks.—When lemons or oranges are used in making the cakes or the jelly, avoid the seeds.

Lemon Jelly Cake.—Butter, $\frac{1}{2}$ cup; sugar, $1\frac{1}{2}$ cups; milk, $\frac{1}{2}$ cup; 3 eggs; flour, 2 cups; baking powder, $1\frac{1}{2}$ tea-spoonfuls; 1 lemon; water, $\frac{1}{2}$ cup. **DIRECTIONS**—Cream the butter with 1 cup of the sugar, stirring in the beaten whites of the eggs, and the milk; then sifting in the flour in which the baking powder was mixed, and bake in jelly cake tins. To the beaten yolks of the eggs add the other $\frac{1}{2}$ cup of sugar, and the water, and juice of the lemon, and boil till thick enough to spread between the layers.

Remarks.—You will observe this receipt calls for baking powder, the one above for soda and lemon juice in place of cream of tartar. This enables you to choose between them, either from taste, or from having the soda and not the baking powder, or *vice versa*.

Orange Jelly Cake.—Sugar, $4\frac{1}{2}$ cups; butter, 1 cup; milk, 1 cup; 5 eggs; baking powder, $1\frac{1}{2}$ tea-spoonfuls; flour, 2 cups; 2 oranges. **DIRECTIONS**—Cream $2\frac{1}{2}$ cups of the sugar with the butter, beat the yolks of the eggs and stir in, then the milk, and sift in the flour, having the baking powder in it. Bake in jelly cake tins.

For the Jelly.—Beat the whites of the eggs and whip in the other 2 cups of of sugar, adding the juice of the 2 oranges. Put between the layers.

Orange Jelly Cake.—Sugar, 1 cup; 3 eggs; milk, $\frac{1}{2}$ cup; flour, $1\frac{1}{2}$ cups; baking powder, $1\frac{1}{2}$ tea-spoonfuls; salt, 1 salt-spoonful; 1 orange. **DIRECTIONS**—Make up the cake as above, and bake in 3 layers. Grate the yellow of the orange, peel off the white and throw it away, beat the white of an extra egg and beat in 3 table-spoonfuls of the extra sugar, then the grated yellow and chopped pulp of the orange. Lay up with this and strew sugar upon the top thickly.

Orange and Lemon Jelly Cake.—Mix 2 cups of sugar with the yolks of 2 eggs; then the whites beaten to a froth, then a large table-spoonful of butter, then 1 cup of milk, and flour enough to make a batter that may be lifted upon a spoon (like cup cake). Bake in jelly cake tins.

Jelly for Same.—Grate the yellow from 1 lemon and 2 oranges, add the juice of the same, and add 1 cup of water, 1 of sugar, 1 table-spoonful of corn starch, and boil till smooth. When cool put between the cakes.

Remarks.—The boiling makes a harder jelly, not so likely to soak into the cake, the same as in boiling the icings.

Delicious Filling or Jelly for Any Layer or Jelly Cake.—Take 1 cup of white sugar, put it into a tin basin with enough water to dissolve it; let it boil until it will harden in cold water; have 1 cup of stoned and chopped raisins ready; then beat the white of an egg to a stiff froth, and mix with the raisins into the boiling sugar; stir briskly, and while warm put between the

layers of cake, having taken them from the tins and laid on a cloth, selecting the brownest done for the bottom and the smoothest one for the top.—*Michigan Farmer.*

Orange—Sponge—Jelly Cake.—Sugar, 2 cups; 5 eggs, cold water, $\frac{1}{2}$ cup (sweet milk is better); flour, $2\frac{1}{2}$ cups; baking powder, 2 tea-spoonfuls; salt, 1 pinch; 1 orange. DIRECTIONS—Beat the yolks and whites of 2 of the eggs for the cake, and make up as others and bake in jelly cake tins.

Jelly.—Beat the whites of the other 3 eggs with 7 large table-spoonfuls of additional sugar, and all the grated yellow and the juice of the orange; spread this between the layers.—*Mertie Odell, Spartansburgh, Va.*

Orange Jelly Cake—Rich.—Sugar, 1 cup; butter, $1\frac{1}{2}$ cups; cold water or milk, $\frac{1}{2}$ cup; flour, 2 cups; baking powder, 2 tea-spoonfuls; 3 eggs, 1 orange. DIRECTIONS—Make the cake as usual and bake in jelly cake tins; reserving the whites of 2 of the eggs for frosting, using $\frac{2}{3}$ cup of powdered sugar; grate off the yellow of the orange, to be sprinkled between the layers; but use the juice and chopped pulp of the orange in the cake mixture.

Chocolate Jelly Cake—French.—Butter, 1 table-spoonful; sugar, $1\frac{1}{4}$ cups; 2 eggs; milk, 1 cup; flour, $2\frac{3}{4}$ cups; soda, 1 small tea-spoonful; cream of tartar, 2 tea-spoonfuls; vanilla, 1 tea-spoonful.

Jelly.—Milk, 1 cup; corn starch, 2 table-spoonfuls; cold water, $\frac{1}{2}$ cup; Baker's flavored chocolate, 2 ozs.; yolk of 1 egg; powdered sugar, 1 cup; extract of vanilla, 3 tea-spoonfuls. DIRECTIONS—Warm the butter a little, if necessary, to cream with the sugar and the beaten eggs; then sift in the flour with the cream of tartar therein, and the milk with the soda therein; then the vanilla; bake on 4 jelly cake tins in a quick oven. For a jelly or paste to go between the layers: Bring the milk to a boil, and while boiling add the corn starch which has been stirred smoothly in the water; then add the chocolate, grated, and the beaten yolk of the egg, stir all these over the fire and remove, and when a little cool stir in the powdered sugar and vanilla and put between the layers.

Chocolate Jelly Cake.—Butter, $\frac{1}{2}$ cup; sugar, 2 cups; flour, 3 cups; milk, 1 cup; 4 eggs; baking powder, 1 tea-spoonful.

Jelly.—Milk, 1 pt.; grated chocolate and sugar, each 1 cup; corn starch, 1 table-spoonful. DIRECTIONS—Cream the butter and sugar, eggs and milk, as usual (in the order here named); then sift in the flour and baking powder and bake in jelly cake tins. For the jelly: Bring the milk to a boil and stir in the grated chocolate and sugar, and, having rubbed the corn starch smooth in a little cold water, stir it in and boil until it forms a smooth jelly, or paste, as some call it; when a little cool put between the layers.

Remarks.—In boiling milk it is safest to set the tin containing it into a larger pan containing a little water, which removes the danger of burning—otherwise, it requires constant watching and stirring. Allow me to say that this is my favorite chocolate cake, as it has no other flavoring, while it seems that many of the recipes call for vanilla or lemon or orange, etc.; but for me, give me a single flavor only in any cake. But it may be vanilla to-day and the next

day lemon, then orange, and then chocolate; but a mixture of flavors only leaves one to wonder what the cook had been trying to imitate; but persons can suit themselves. A recipe is no sign that that flavor must be used. If you have not got what is called for, but have some other; or if you prefer some other flavor, the cake will be just as nice if you accommodate yourself to the circumstances or to your preferences. There is another point, also, which calls for an explanation: If you have fruit jellies on hand, they may sometimes be used in laying up any of these "jelly cakes," instead of those which are called for in the recipe. This also extends the varieties which may be made.

Chocolate Jelly Cake.—Butter, 2 table-spoonfuls; sugar, 1 cup; 1 egg; milk, $\frac{1}{2}$ cup; flour, 2 cups; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful. Jelly: grated chocolate, 1 cup; milk enough to mix in. Lemon or vanilla to flavor. DIRECTIONS—Cream the butter, sugar and egg; then sift in the flour with the cream of tartar therein; dissolve the soda in the milk and stir in also, and bake in 3 jelly cake tins. For the jelly, moisten the chocolate and sugar with the milk, and bring to a boil, stirring until smooth; remove from the stove and when cool put in the flavor, and lay up the cake with it, before it gets cold.

Remarks.—To boil milk, see remarks in next recipe, above.

Chocolate Jelly Cake.—The following recipe is from Bertha Stanley, Decatur City, Iowa. I give it in her own words: Two cups sugar, 1 cup butter, the yolks of five eggs and the whites of two; 1 cup of milk, $3\frac{1}{2}$ cups of flour, 1 tea-spoonful of cream of tartar, $\frac{1}{2}$ tea-spoonful of soda. Spread on 8 tins and bake in a quick oven. Use the following mixture for filling: Whites of 3 eggs, $1\frac{1}{2}$ cups of sugar, 3 table-spoonfuls of grated chocolate, 1 tea-spoonful extract of vanilla. Beat well together and spread between the layers and on top of the cake.

Remarks.—If it is preferred, at any time, any cake, although directed to be baked in layers, may be baked in a loaf, or loaves, by putting the chocolate, grated or dessicated (dried), cocoanut, orange, lemon, etc., into the cake mixture, instead of putting them into the jelly, as directed when the cake is to be baked in layers. With a little practice, in both ways, you can make a great variety of cakes with but few recipes.

Chocolate Cake.—Sugar, 2 cups; butter, 1 cup; 3 eggs; sweet milk, $\frac{3}{4}$ of a cup; flour, 3 cups; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful. Bake in jelly pans. For the icing or jelly: Chocolate, $\frac{1}{4}$ cake; sugar, $1\frac{1}{2}$ cups; sweet milk, $\frac{3}{4}$ of a cup; lemon extract, 2 tea-spoonfuls. Let boil until it thickens, so as to spread between the layers.—*Farm and Fireside.*

Cocoanut Cake—Jelly and Loaf.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; 3 eggs; milk, $\frac{3}{4}$ of a cup (if a fresh cocoanut is used let it be a good sized one, then the milk of the cocoanut may take the place of the milk); flour, $2\frac{1}{2}$ cups; baking powder, 2 tea-spoonfuls. Jelly: Whites of 2 eggs; pulverized sugar, $\frac{1}{2}$ lb.; cocoanut, 1 good sized one, grated, or dessicated (dried) cocoanut $\frac{1}{4}$ lb. DIRECTIONS.—Cream sugar and butter; then having beaten all the yolks of the eggs and the white of 1, stir them in and the milk (or the milk of the cocoanut

in its place), and sift in the flour with the baking powder therein, bake in jelly cake tins. For the jelly: Beat the whites of 2 eggs, saved for this purpose, to a froth, and stir in the pulverized sugar, and beat properly. Put this between the layers; having grated the cocoanut, strew this over the jelly in laying up the cake; or, if dessicated is used, strew it in place of the fresh. In this way the full flavor of the cocoanut is obtained. If baked in loaf all the eggs are to be used in the body of the cake, and the cocoanut also stirred into the cake just before putting it into the oven, being careful not to jar it after putting it into the oven, as it is more likely than other cakes to fall, if jarred.

Cocoanut Jelly Cake.—Sweet milk, butter, corn starch, each 1 cup; white sugar and flour, each 2 cups; whites of 5 eggs; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful. Bake in 3 layers. For the jelly: White sugar, 1 lb., and boil until candied; when cold stir in the beaten whites of 2 eggs, and $1\frac{1}{2}$ cups, rounded, of grated, or 1 cup dessicated, cocoanut, saving some for the top.

Cocoa Cones.—Whites of 5 eggs; powdered sugar, 1 lb.; $\frac{1}{2}$ or $\frac{3}{4}$ a grated cocoanut, having pared off the dark coating which adheres from the shell, before grating. DIRECTIONS—Whip well the whites, then, from time to time, sprinkle in a little of the sugar, till all is whipped in; then beat the grated cocoanut, and mold with the hands into cones, and set them on buttered paper, not to touch each other. Place in a pan and bake in a very moderate oven—if too hot they will melt down.—*Farm and Fireside.*

Cocoanut Drops.—One cocoanut; the white of 1 egg; powdered sugar. DIRECTIONS—Grate the cocoanut, weigh it, and take $\frac{1}{2}$ its weight of the sugar; beat the white of the egg to a stiff froth; stir all together; then with a dessert, or small spoon, drop upon buttered white paper, or tin sheets, and sift sugar over them. Bake in a slow oven 12 to 15 minutes.

Roll Jelly Cake—Fancy Way of Making.—Take the whites of 6 eggs, 1 cup of white sugar, same of flour, 1 tea-spoonful of butter, 2 table-spoonfuls of sweet milk, 2 tea-spoonfuls cream tartar and 1 of soda. Bake in a large oblong dripping pan, so the cake will be very thin; meanwhile stir another batch, making just the same, with the exception of using the yolks instead of the whites; when both are done, spread when warm with jelly, or preserves of any kind; put together, bring the largest side of the cake towards you, and roll immediately; or cut in four or eight parts, put together alternately, putting jelly between each layer, and frost lightly over the top. Another method is to make three pans, making the third layer of $\frac{1}{3}$ red sand sugar, preceding the same as for the other layers; in putting together let the first layer be the yellow, made of the yolks, then the red, and lastly the whites. Nicely frost the top, and you have a beautiful as well as delicious party cake. They are very pretty made into rolls.

Jelly Rolls.—Sugar, $\frac{1}{2}$ cup; 3 eggs; flour, 1 cup; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful (or in place of the tartar and soda, use baking powder, $1\frac{1}{2}$ tea-spoonfuls). DIRECTIONS—Bake in thin cakes, spread with jelly and roll up (jelly side in); cut across the roll.

Roll Jelly Cake.—Sugar, 1 cup; 4 eggs; flour, 1 cup; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful; salt, 1 pinch. DIRECTIONS—Mix the powders and salt with the flour, beat the eggs, light; add the sugar and flour, and beat up light again. Bake in a square pan, turn upon a towel, spread on the jelly, and roll immediately.

Jelly Cake.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; sour milk, $\frac{1}{2}$ cup; 2 eggs; flour, 2 cups; soda, $\frac{1}{2}$ tea-spoonful; jelly. DIRECTIONS—Bake in 4 cakes. When cold spread the jelly and lay up.

Remarks.—Grated cocoanut and sugar are very nice in this, or any other jelly cake, in place of the jelly, which is generally used. Remember this, also, when shortening (butter) is used in a jelly cake, it cannot be rolled.

Corn Starch Cake.—Sugar, $1\frac{1}{2}$ cups; flour, $1\frac{1}{2}$ cups; butter, $\frac{1}{2}$ cup; corn starch, $\frac{1}{2}$ cup; milk, $\frac{1}{2}$ cup; whites of 6 eggs; baking powder, 1 tea-spoonful; extract of lemon, orange or vanilla, 2 tea-spoonfuls, or to taste; or if your taste says none, use none. DIRECTIONS—Cream the sugar and butter, then the beaten whites of the eggs; wet up the corn starch with the milk and stir in; then sift in the flour wherein the baking powder has been mixed. Bake in a moderate oven.

Remarks.—See general remarks upon cake making, baking, etc., to test when done; but another test is a cake generally loosens from the edge and sides of the pan when it is done.

Lady Cake.—Whites of 8 eggs, beaten to a froth; white sugar 2 cups; butter, 1 cup, creamed with the sugar; flour, 3 cups; cream of tartar, 1 tea-spoonful in the flour; sweet milk, $\frac{1}{2}$ cup, with soda, 1 tea-spoonful in it; then heat all together and bake in a mold or small pans, as you please. Season, if desired, any flavor preferred.

Lady Cake, No. 2.—Sweet milk, $\frac{1}{2}$ cup; powdered sugar and flour, each 2 cups; 4 eggs, whites only; baking powder, $\frac{1}{2}$ tea-spoonful.

Lady-Fingers.—One-half lb. pulverized sugar and 6 yolks of eggs, well stirred; add $\frac{1}{4}$ lb. flour, whites of 6 eggs, well beaten. Bake in lady-finger tins, or squeeze through a bag of paper in strips two or three inches long.

Lady Fingers, as Made in India.—Sugar, 1 lb.; 8 eggs; flour, 1 lb. DIRECTIONS—Sift sugar and flour; beat the yolks separately, then beat with the sugar for 20 minutes; then beat in also the beaten whites, then, slowly, the flour, and drop upon white paper, long, to resemble the finger; dust sugar over them and bake in a hot oven.—*Indian Domestic Economy and Cooking.*

Remarks.—These will be found equal in delicacy to a true “lady’s finger,” even with an engagement-ring upon it. I should say moderate oven, lest they melt, if too hot, in baking.

Love Knots for Tea.—Little cakes folded over in the form of love knots are nice for tea. Flour, 5 cups; sugar, 2 cups; butter, 1 cup; a piece of lard the size of an egg; 2 eggs; sweet milk, 3 table-spoonfuls; soda, $\frac{1}{2}$ tea-spoonful; a grated nutmeg, if liked, or as much cinnamon. DIRECTIONS—Sift the soda in the flour, then rub in the butter, lard and sugar, and then the beaten eggs, milk and spices, if any are used; roll thin and cut in strips an inch

wide and 5 or 6 long, and lap across in a true love knot. Bake in a quick oven. *Ann Arbor Register.*

Charlotte Polonaise—Iced Cake.—Powdered sugar, 2 cups; butter, $\frac{1}{2}$ cup; 4 eggs, beaten separately; cream, 1 cup, or rich milk with a little cream; prepared flour (an article now in the market), 3 cups.

The Custard.—Powdered sugar, 1 small cup; 6 eggs; flour, 2 table-spoonfuls; cream, 3 cups; chocolate, 1 small cup; almonds, $\frac{1}{2}$ lb.; citron, $\frac{1}{4}$ lb.; macaroons, $\frac{1}{2}$ lb.; apricots, $\frac{1}{4}$ lb.; candied peaches, or other candied fruit in their place, $\frac{1}{4}$ lb.; cold milk. DIRECTIONS—Beat the yolks very light; mix the flour with the cold milk, then stir in the cream, then the yolks, slowly; boil for 5 minutes, stirring constantly. Now pour out the custard into 3 equal parts.

First part—The chocolate being grated and the macaroons crumbled, stir them, with 1 table-spoonful of sugar with the first and boil for 5 minutes, stirring all the while; then pour out and whip 5 minutes with the egg-beater (if you have none, beat with a spoon), flavor with vanilla and set away to cool.

Second part—The almonds having been blanched (the skin removed by soaking in water until it will slip off with the thumb and fingers), chop them, then pound them in a Wedgewood mortar (same as druggists use, the name coming from the man who first made them from a mixture made for this purpose), putting in a few only at a time, adding a little rosewater from time to time. Chop the citron and mix with the pounded almonds, adding sugar, 3 table-spoonfuls, and stir into the second part, heating to a boil; flavor with extract of bitter almonds, then set aside as the first.

Third part—Chop the peaches, or other candied fruit, fine, and stir into the last custard, which will not need flavoring. The cake being baked in 4 layers, you have a custard, or jelly, of different color or flavor to go between each, the top to be iced with lemon ice or frosting.

Remarks.—This makes 2 loaves, and although it is not presumed that this cake will be made for every-day use, yet, for an evening party or other especial occasions, the nicety of the cake will pay for the extra trouble. The name, Polonaise, means simply, in three parts, like music having three crotchets in a bar.

National Cake.—White part—Cream together 1 cup white sugar and $\frac{1}{2}$ cup of butter, then add $\frac{1}{2}$ cup of sweet milk, the beaten whites of 4 eggs, $\frac{1}{2}$ cup of corn starch, 1 cup of flour into which has been mixed 1 tea-spoonful of cream tartar and $\frac{1}{2}$ tea-spoonful of soda. Flavor with lemon extract.

Blue part—Cream together 1 cup of blue sugar sand an $\frac{1}{2}$ cup of butter, then add $\frac{1}{2}$ cup of sweet milk, the beaten whites of 4 eggs and 2 cups of flour, in which mix 1 tea-spoonful of cream of tartar and $\frac{1}{2}$ tea-spoonful of soda. No flavor.

Red part—Cream together 1 cup of red sugar and $\frac{1}{2}$ cup of butter, then add $\frac{1}{2}$ cup of sweet milk, the beaten whites of 4 eggs and 2 cups of flour, in which mix $\frac{1}{2}$ tea-spoonful of cream of tartar and $\frac{1}{2}$ tea-spoonful of soda. No flavor. Place in a bake pan, first the red, then the white, and last the blue. Bake in moderate oven.

Kansas Puffs.—One cup of sugar, $\frac{1}{2}$ cup of butter, $\frac{1}{2}$ cup of molasses, 1 cup of sour milk, 1 tea-spoonful of soda, 1 cup of chopped raisins, and 1 cup of currants. Flavor with cloves and cinnamon. Make a little stiffer than you would cake and bake in little gem pans.—*Ella J. Shirley, Larned, Ks.*

Remarks.—Following our National colors, or red, white and blue, it is proper to give one of black and white, or the Union Jack (perhaps red and white would have been better, but we take them as we find them), for the Prince of Wales, by Miss E. R. Bruckman, of Tioga, Ill., in *Blade*:

Prince of Wales Cake.—Black part—One cup of brown sugar, $\frac{1}{2}$ cup each of butter and sour milk, 2 cups of flour, 1 cup of chopped raisins, 1 tea-spoonful of soda dissolved in warm water, 1 table-spoonful of molasses, the yolks of 3 eggs, 1 tea-spoonful each of cloves and nutmeg.

White part—One cup of flour, $\frac{1}{2}$ cup each of corn starch, sweet milk and butter, 1 cup of granulated sugar, 2 tea-spoonfuls of baking powder, the whites of 3 eggs. Bake all in 4 layers. Put together with icing, a black, then a white, alternating.

Corn Starch Cake.—Sugar, 1 cup; flour, 1 cup; corn starch, $\frac{1}{2}$ cup; milk, $\frac{1}{2}$ cup; butter, $\frac{1}{2}$ cup; whites of 3 eggs; cream of tartar, 2 tea-spoonfuls; soda, $\frac{1}{2}$ tea-spoonful. DIRECTIONS—Make same as the first, above, except the cream of tartar goes into the flour, and the soda to be dissolved in the milk.

Corn Starch Cake.—May Millbank, of Barnhart's Mills, Pa., vouches for the following: One-half cup of butter, 1 cup pulverized sugar, $\frac{1}{2}$ cup of milk, $\frac{1}{2}$ cup of corn starch, 1 cup of flour, $\frac{1}{2}$ tea-spoonful of soda, whites of 2 eggs. DIRECTIONS—Make the same as the first.

Ginger Snaps.—Brown sugar, 1 lb. (see table of number of cups to the pound); butter, 1 lb.; New Orleans molasses, 1 qt.; Babbitt's saleratus, 1 oz.; cloves, 2 ozs.; ginger, 1 oz.; cinnamon, 2 ozs. DIRECTIONS—Cream sugar, butter and molasses; dissolve the saleratus in a very little hot water, and stir in, then the spices, of course, all ground; then sift in winter wheat flour, to make a stiff, very stiff, batter; no water, excepting the least possible to dissolve the saleratus.

Remarks.—Having to stay over night at Howard Station, Ill, I found so nice a ginger snap on the breakfast table, I inquired how they were made, and found that they were made by a baker within a short distance of the hotel, who, upon my introducing myself, very kindly gave me the recipe, as above. But in my hurry, lest being left by the cars, I missed taking his name, so I cannot give him the proper credit, which I ought to do, as bakers will very seldom part with their plans, or recipes, for doing their work. He charged particularly that spring wheat flour, such as was generally used in his neighborhood, would not do. Whether it is chargeable to their mills, or whether it is applicable to all spring wheat flour, I am not aware; a test in the north-western states will have to settle this point, as I have never had any of the flour to test it with.

Ginger Snaps, Evangeline's.—This lady says: Somebody wanted a ginger snap recipe that would stay hard, and not get soft. One cup of butter,

1 cup of lard, 1 cup of brown sugar, 1 pt. of molasses, 1 table-spoonful of ginger, 1 cup of sour milk, 2 tea-spoonfuls of soda, 1 pt. of flour—use more, if needed. Melt lard and butter together, stir in the ginger, sugar and molasses; dissolve the soda in the milk; stir all together, put in the flour, roll out thin, cut and bake in a quick oven.

Remarks.—If made sufficiently stiff, properly baked, allowed to get cold, then kept from the air, they will keep hard a very long time.

Ginger Snaps.—Here is the way they make them in the Old Bay State (Massachusetts), and they consider them very excellent: Molasses, 1 cup; butter, 2 table-spoonfuls; ginger, 1 table-spoonful; saleratus, 1 tea-spoonful; flour. **DIRECTIONS**—Boil the molasses and stir in the butter, ginger and saleratus, rolled fine; and stir the flour in while hot; roll out thin, cut and bake.

Ginger Snaps.—Sugar, 2 cups; 2 eggs; fried meat gravy, 1 cup; cider vinegar, 1 table-spoonful; ginger, 1 table-spoonful; soda, 1 large tea-spoonful; flour enough to roll; bake in a quick oven. Mrs. R. S. Armstrong is responsible for this.

Ginger Snaps.—I will give you another from the “Indiana Dutch Girl,” of Tillmore, Ind.; Lard or butter, 1 cup; New Orleans molasses, 1 cup; ginger, 1 table-spoonful; soda, 1 heaping tea-spoonful; flour enough to make a stiff dough; roll quite thin, cut with cake cutter and bake quick.

Ginger Drop Cake.—Shortening, $\frac{1}{2}$ cup; sour milk, 1 cup; brown sugar, 1 cup; molasses, $\frac{1}{2}$ cup; 2 eggs; ginger, 1 tea-spoonful; soda, 1 rounding tea-spoonful; flour enough to make a thick batter, to drop from a spoon, in drops as large as an egg, in a bread pan, far enough apart not to touch. To be eaten warm.

Remarks.—In this, and the foregoing “snap” recipes, you have a sufficient variety for the hard or drier kind of ginger cakes; hence I now take up the softer gingerbread, for which I have several excellent recipes.

Gingerbread for Training.—This recipe was sent to the *Detroit Tribune* by a “Mrs. D.,” of Atchison, Kan., in answer to “Uncle Ben’s” inquiry for a recipe for making “training” gingerbread; and although she was not positive that it was ever used to “train” by, yet she thinks it good enough: “Molasses, 1 cup; butter, $\frac{1}{2}$ cup; boiling water, $\frac{1}{2}$ cup; ginger, 1 tea-spoonful; soda, 1 tea-spoonful; flour. **DIRECTIONS**—Pour the water on to the butter and when cool add the rest and flour enough to roll. When baked wet the top with molasses, diluted considerably with water, and sprinkle with sugar. It will be found toothsome.”

Gingerbread, Alice’s.—This was furnished to the “Household Department” of the *Blade* by Elizabeth Kent, of Burlington, Vt., but for a plain, small cake or loaf, with quite a ginger flavor, it can be depended upon: “Molasses, 1 cup; boiling water, 1 cup; butter, 1 table-spoonful; ginger, 1 table-spoonful; soda, 1 tea-spoonful; thicken to pour.”

Remarks.—Pouring the hot water upon the butter, and then putting in the molasses to help cool it, as in the next recipe above, and when cool, the other articles, and baking in a moderately hot oven, is the order of proceeding.

Gingerbread, Mrs. Rice's.—This recipe is from Mrs. Rosella Rice, quite an extensive writer for the *Blade* "Household." It was given in answer to an inquiry for her gingerbread recipe, which, she says, "I give with pleasure." I take pleasure, also, in giving it a place, for I know it is good. She says: "Take 1 cup of sugar, 1 of butter, 1 of West India molasses, 1 of sour milk or butter milk, 2 eggs, 1 table-spoonful of ginger, 1 tea-spoonful of cinnamon, and one of soda, dissolved in hot water. Take flour enough to make a good batter, say 4 or 5 cupfuls, but don't make it too thick; stir the spices, sugar butter and molasses together, keeping the mixture slightly warmed; then add the milk, then the eggs, beaten their lightest, then the soda, and then the flour, last. Beat it long and well, and bake in a large buttered pan; or, if for cakes, in patty pans. If you want to add raisins, dredge them with flour, and put them in the last thing."

Remarks.—Here you may have a loaf cake with or without raisins, or may bake in small cakes if you choose.

Gingerbread, Soft.—Molasses, 3 cups; butter or lard, 1 cup; sour milk, 1 cup; 4 eggs; ginger, 2 table-spoonfuls; soda, 1 table-spoonful; flour, 7 cups. **DIRECTIONS**—Stir butter, sugar, molasses, and ginger together; then the milk and eggs well beaten; then the soda dissolved in a little hot water; then the flour.

Remarks.—This writer to the *Blade* "Household" only gives the name "Jessie," but assures her friends that "I know this to be good, for I have used it over twelve years," but the reading of it satisfied me it was good, hence I give it a place. Having given my whole life to the observation and test of practical items of a general character, I know as quick as I read a recipe whether it is reliable or not. At least, for several years past, I have tested but very few recipes which proved a failure; while, in my earlier experience, the failures were frequent. Such I now throw aside on their first reading.

Gingerbread, Poor Man's.—Molasses, 1 cup; sugar, $\frac{1}{2}$ cup; 1 egg; buttermilk, $\frac{2}{3}$ cup; lard or butter, 1 table-spoonful; ginger, 1 table-spoonful; cinnamon, 1 tea-spoonful; soda, 1 tea-spoonful; flour, 2 cups. "A. Y. E.," of O'Brien, Iowa, says of it: "Good and very cheap. [See, also, "Poor Man's Cake."]

Ginger Cakes, or Bread.—"Mrs. S. E. H.," of Circleville, O., gives the *Blade* "Household" the following, which I give in her own words: "I give a good ginger cake recipe—one that has taken the premium at our county fair for the last five years: One pt. best Orleans molasses, 1 pt. of scur buttermilk, 1 large table-spoonful of ginger, 1 of lard, 1 of soda; dissolve the soda in the buttermilk; flour enough to make soft as you can handle, the softer the better. Turn on the bread-board, roll, cut into cakes, and bake in a quick oven. Try this. If you prefer it baked in pans, add 2 eggs, well beaten, and mix as other cake. A small lump of alum, dissolved, improves the cake."

Remarks.—Most people object to the use of alum in baking powders; then why not objectionable to use it here? I think it is not at all necessary; but if it is used, "a small lump" is too indefinite. I would say not more than half to a

tea-spoonful, at most. If pulverized, it dissolves quicker, using a little hot water.

Ginger Cookies.—Sugar, $\frac{1}{2}$ cup; molasses, $\frac{1}{2}$ cup; shortening, $\frac{1}{2}$ cup; boiling water, $\frac{1}{3}$ cup; soda, $\frac{1}{2}$ tea-spoonful; ginger, 1 large tea-spoonful; salt; flour. DIRECTIONS—Have the shortening very hot and the water boiling; dissolve the soda in the water and put into the creamed sugar, shortening and molasses; use only flour enough to make as soft a dough as you can roll, dusting freely.

Remarks.—This recipe is from Sarah Green, of Portageville, N. Y., who indicates it to be nice, if properly made. The two following are also hers:

Sugar Cookies.—Sugar, $\frac{2}{3}$ cup; butter, $\frac{2}{3}$ cup; 1 egg; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; hot water, $\frac{1}{2}$ cup, to dissolve the soda; flour, sufficient

Remarks.—Make from general directions, at the head of this subject, also the following:

Sugar Cookies.—Sugar, 1 cup; butter, 1 cup; sour milk, 1 cup; soda, 1 tea-spoonful. Mix soft as possible, Caraway seed, she says, is the best seasoning for sugar cookies.

Sugar Cookies, No. 2.—Sugar, 1 cup; butter, 1 cup; 1 egg; essence of lemon; flour to roll and cut out.—*Mrs. C. W. Phillips.*

Excellent Cookies.—Meat fryings, 1 cup, or butter, $\frac{1}{2}$ cup, and lard, $\frac{1}{2}$ cup; sugar, 1 cup; cold water, 1 cup; soda, scant tea-spoonful; nutmeg to taste. Mix quickly, roll very thin, and cut with teacup or goblet. The cookies will not curl; bake in a quick oven.

Cookies, With Carbonate of Ammonia.—Carbonate of ammonia, 1 oz.; sugar, 1 pt., sweet milk, $\frac{1}{2}$ pt.; sweet cream, $\frac{1}{2}$ pt.; flour, enough to roll them out nicely. Bake quick. They are better to let them stand 2 or 3 days. So says "Fannie C.," of Medina, Wis.

Cookies, With Ammonia.—Lard, 1 lb.; sugar, 5 cups; milk, 1 qt.; carbonate of ammonia, $1\frac{1}{2}$ ozs.; caraway seed, a little salt, and flour to make stiff enough to roll. DIRECTIONS—Dissolve the ammonia in the milk and add to the lard and sugar, previously rubbed together. For small families, one-half or one-fourth the amount may be used. Hope Humason, of Brookside, Conn., says: "It has been tried and approved."

Remarks.—It will be observed that where more than one recipe is given for making any cake, or other article, they are always different; so that persons who have not the articles called for in one may have those called for in another, thus enabling everybody to be accommodated. And I may properly say here that I give none which my own judgment, from my long experience in studying and testing practical recipes, does not at once consent to the appropriateness of the ingredients to produce, if properly combined, the cake, or whatever other article the recipe calls for.

Custard Jelly Cake.—Sugar, 1 cup; 3 eggs; flour, $1\frac{1}{2}$ cups; cream of tartar, 1 tea-spoonful; soda, 1 tea-spoonful; cold water, 2 table-spoonfuls; make 4 layers.

Custard for the Cake.—Sweet milk, 1 pt.; 2 eggs; sugar, 1 cup (light brown is best); corn starch, 2 table-spoonfuls, beaten with a little milk; butter, $\frac{1}{2}$ cup. DIRECTIONS—Put the milk in a tin pan on the stove and let it come to a boil; then stir in the sugar, then the butter, then the eggs, then the corn starch; it must be stirred rapidly all the time, so as not to burn. Let it boil until it is about as thick as jelly. When cold flavor with lemon extract. Do not make the cake until you make the custard, as the custard must be put on the cakes as soon as they are taken from the oven.—*White Lily, Wilseyville, O.*

Cream Cake.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; whites of 4 eggs; sweet milk, $\frac{1}{2}$ cup; soda, 1 tea-spoonful; cream of tartar, 2 tea-spoonfuls; flour 2 cups. Bake in round tins.

For the Cream.—The yolks of 3 eggs; sweet milk, $\frac{1}{2}$ pt.; butter the size of an egg; corn starch, 4 teaspoonfuls; sugar to suit the taste, as for custard. DIRECTIONS—Boil the same as custard, and when a little cool, flavor with lemon, orange, or vanilla, and spread between the layers.

French Cream Cake.—I will give it in their words: Beat 3 eggs and 1 cup of sugar together thoroughly; stir 1 tea-spoonful of baking powder into $1\frac{1}{2}$ cups of flour (sift the flour in), stirring all the while in one direction. Bake in 2 thin cakes. Split the cakes while hot, and fill in the cream prepared in the following manner: To 1 pt. of new milk add 2 table-spoonfuls of corn starch, 1 beaten egg, and $\frac{1}{2}$ cup of sugar; stir while cooking, and when hot, put in butter, size of an egg; flavor the cream with lemon, vanilla, or pineapple. The milk for cream must be put in a pail and then heated in a pot of hot water—same as one does blanc mange.

Boston Cream Cakes.—Water, $2\frac{1}{2}$ cups; flour, 2 cups; butter, 1 cup; and 5 eggs. Boil the butter and water together; stir in the flour while boiling; after it is cool add the eggs well beaten. Put a large spoonful in muffin rings, and bake 20 minutes in a hot oven.

The cream for them is made this way: Put over the fire 1 cup of milk, add not quite a cup of sugar; 1 egg, mixed with 3 tea-spoonfuls of corn starch and 1 table-spoonful of butter. When cool add vanilla to the taste; boil a few moments only. Open the cakes and fill them with the cream. They are easily made, and are delicious.

Snow or Tea Cake.—Mrs. R. H. De La, Brough, Iowa, makes these remarks in introducing this cake recipe. She says:

“I often make a cake which I think is the nicest tea cake, or for dyspeptic persons (as it is not a rich cake), that I ever saw. One and a half cups of nice white sugar and 1 cup of flour, rubbed well together; add 1 tea-spoonful of cream tartar, and stir until thoroughly incorporated; whites of 10 eggs (or 7 make it very nice when eggs are scarce), beaten to a stiff froth, stirred with the other mixture, just enough to mix evenly; bake in a moderate oven.”

Saratoga Tea Cakes.—To each pound of flour allow a dessert-spoonful of yeast powder, 1 egg, $\frac{1}{2}$ pt. of milk, 2 spoonfuls of melted butter, 2 spoonfuls of sugar. Rub the dry ingredients together, then quickly mix in the milk with the butter, then the beaten egg; cut out into biscuit form, and bake quickly in buttered pans.

White Cake.—Contributed by Laughing Ora, Morris, Ill. Two cups of sugar, $\frac{1}{2}$ cup of butter; beat the butter and sugar till like cream; stir in 1 cup of sweet milk; add 3 cups of flour and 2 tea-spoonfuls of baking powder; beat the whites of 5 eggs and stir in with the flour. Do not bake too fast.

White Mountain Cake.—Sugar, 2 cups; butter, 1 cup; flour, 3 cups; sweet milk, $\frac{1}{2}$ cup; whites of 10 eggs, beaten very stiff (or the whole of 5 eggs, if the shade from the yolks is no objection); cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful. DIRECTIONS—Bake in 3 deep jelly tins, or 6 thin layers. If iced, take the whites of 4 eggs; white powdered sugar, 16 table-spoonfuls; flavor to taste, if desired.

White Mountain Cake, Iced.—Granulated sugar, 3 cups; butter, 1 cup; 5 eggs; sweet milk, 1 cup; flour, 3 cups; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; salt, 1 pinch. DIRECTIONS—Beat the butter, sugar, and yolks of the eggs to a cream; mix soda in the milk and the cream of tartar in the flour; add the whites just before the flour. Bake in jelly cake tins, browning a little.

In Place of Jelly.—Take the whites of 2 eggs, a little water, and the proper amount of powdered sugar, beat together and with a knife spread over the top of each cake. Grate a fresh cocoanut and mix it with more sugar, and sprinkle it over the cakes; then lay-up, finishing the top the same.

Remarks.—Especially applicable for use upon occasions when ice cream is to be served.

Loaf Cake.—Butter, 1 cup; sugar, 2 cups; 4 eggs; sweet milk, 1 cup; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful.

White Cake, With Sweet Milk.—Sugar, 2 cups; butter, 1 cup; sweet milk, 1 cup; whites of 5 eggs; baking powder, 2 tea-spoonfuls.

White Cake, With Butter Milk.—Fine white sugar, 3 cups; butter, 1 cup; butter milk, 1 cup; whites of 10 eggs; baking powder, 3 tea-spoonfuls; lemon, to taste; flour, 4 cups. DIRECTIONS—Let some one beat the whites of the eggs to a stiff froth while you cream the sugar and butter, etc., mixing in the whites last.

Tea Cake Instead of Biscuit—Without Sugar.—Butter (or half hard), 1 cup; sweet milk, 1 cup; 4 eggs; salt, 1 pinch; flour, $1\frac{1}{2}$ pts.; baking powder, 2 tea-spoonfuls.

Remarks.—It will be found excellent.

Tea Cake.—Sugar, 1 cup; butter, 1 table-spoonful; 1 egg; buttermilk, 1 cup; soda, $\frac{1}{2}$ tea-spoonful; flour to make a tolerably stiff batter.

Remarks.—“Aunt Margaret” always makes this when she finds a visitor to tea, and only half an hour to make and bake the cake in; also, because it is good cold.

Tea Cakes.—Sugar, 2 cups; butter, 1 cup; sour milk, or buttermilk, 1 cup; soda, $\frac{1}{2}$ tea-spoonful; flour, nutmeg or caraway. DIRECTIONS—Beat the sugar and butter together and add the milk. Dissolve the soda in a little water and add, with as much flour as will make a stiff dough, grating in a little nut-

meg, or sprinkle in some caraway seed, as you choose. Roll and cut in small cakes, baking a light brown.

French Loaf Cake.—Sugar, $2\frac{1}{2}$ cups; butter, $1\frac{1}{2}$ cups; flour, $1\frac{1}{2}$ cups; 8 eggs; some milk, 2 table-spoonfuls; soda, $\frac{1}{4}$ tea-spoonful; 1 lemon. DIRECTIONS—Cream the butter and sugar together, then stir in the yolks (the French always beat the yolks and whites separately), then the whites; and, having grated off the yellow of the lemon (peeled off the white and thrown away), and also grated up the inside upon a coarse grater and picked out the seeds, stir this in, then the flour, and having dissolved the soda in the sour milk stir it in and bake in a moderate oven. An orange or two may be used instead of a lemon, for variety's sake, if desired or preferred.

Remarks.—It may not be amiss to say that the French not only beat the yolks and whites of eggs separately, and for a long time, but they also make their cakes very rich. If it is desired to have cake like theirs we must follow their directions.

French Loaf Cake—Plain.—Sugar, 2 cups; butter, $\frac{1}{2}$ cup; sweet milk, 1 cup; flour, 3 cups; 3 eggs; baking powder, 3 tea-spoonfuls. DIRECTIONS—Cream the sugar and butter together with the hand; beat the eggs well and stir in; then add the milk; stir the baking powder into the sifted flour and mix in thoroughly, and bake in a moderate oven two fair-sized cakes.

Remarks.—Flavoring of any kind may be used; but the first time I ate of it was at my own table, made by one of my married daughters, without flavoring. If flavoring is used, of course it is not plain, and it certainly is very nice with any flavoring.

Delicious Cake.—White sugar, 2 cups; butter, 1 cup; sweet milk, 1 cup; 3 eggs; soda, $\frac{1}{2}$ tea-spoonful; scant tea-spoonful of cream of tartar; flour, 3 cups. DIRECTIONS—Beat eggs separately and bake in rather a hot oven.

Delicate Cake.—Flour, 3 cups; sugar, 2 cups; butter, $\frac{1}{2}$ cup; sweet milk, $\frac{3}{4}$ cups, and 1 tea-spoonful of cream of tartar (or $\frac{3}{4}$ cup of sour cream), $\frac{1}{2}$ tea-spoonful of soda. Beat well, then add the whites of 6 eggs beaten to a stiff froth, flour to taste.

Remarks.—This is in the words of the "Belle" of Libertyville, Iowa, and will be found delicate as belles in general.

Delicate Cake, Cheap and Easy to Make.—Butter, $\frac{3}{4}$ cup; sugar, scant 2 cups, stirred to a cream; flour, 3 cups; baking powder, 2 tea-spoonfuls, run through a sieve twice; sweet milk, $\frac{1}{2}$ cup; whites of 6 eggs; flavor with lemon.

Remarks.—This makes a delicate jelly cake baked in layers.

Jumbles.—Mrs. Phœbe Jane Rankin, of Illinois, gives the following recipe for a very nice jumble: Sugar, 2 cups; lard, 1 cup; beat to a cream, then add 2 eggs; sweet milk, 1 cup; soda, 1 tea-spoonful; cream of tartar, $\frac{1}{2}$ tea-spoonful; then stir in flour till about as stiff as pound cake; put plenty of flour on the board; dip out the dough with a spoon; flour your rolling pin well; roll to about $\frac{1}{4}$ inch thick; sprinkle sugar over the top; cut out and bake in *

quick oven; when done set on edge to cool; the softer they are rolled out the better they will be. Add a little lemon extract if you like.

Jumbles, or Sand Tarts.—Sugar, 2 cups; eggs, 4; sweet milk, $\frac{1}{2}$ cup; baking powder, 2 tea-spoonful; flour. DIRECTIONS—Use flour enough, only, to make as cookies; then sprinkle on sugar, cinnamon and nutmeg, and bake in a quick oven.

Remarks.—Sprinkling the sugar and spices upon the surface gives them a sandy appearance, and hence some cooks call them sand tarts.

Soft Jumbles.—Butter, 1 cup; sugar, 2 cups; 2 eggs; sour or sweet milk, 1 cup; flour, 4 to $4\frac{1}{2}$ cups; soda, 1 tea-spoonful, scant; cream of tartar, 2 tea-spoonfuls; vanilla ex., 1 tea-spoonful. DIRECTIONS—Cream the sugar and butter, and add one-half the milk, in which the vanilla has been put; then one-half the flour, then the beaten eggs; then the other half of the flour into which the cream of tartar has been mixed by sifting together; lastly the other half of the milk in which the soda has been dissolved. Make in small cakes and bake quickly.

Remarks.—Jumbles are always to be sprinkled with sugar, or rolled in sugar. For me the more sugar the better is the jumble.

Rich Jumble.—Sugar and butter, 1 lb. each; cream together, with 4 eggs; then mix in $1\frac{1}{2}$ lbs. of flour. DIRECTIONS—Roll in powdered sugar, lay on buttered tins and bake in a quick oven.

Remarks.—Coffee sugar, $2\frac{1}{2}$ cups, equal 1 pound. Butter, 2 cups, equal 1 pound; and flour, 3 cups, make 1 pound. Common sized tea-cups are intended. But, for large families, the largest coffee cup may be taken, as the proportions would be the same, except that the soda and cream of tartar (when used) should be increased accordingly.

Muffins for Tea.—Flour, 3 cups; baking powder, 2 tea-spoonfuls; 3 eggs; melted butter, 2 table-spoonfuls; sweet milk, 1 pt.; a little salt. DIRECTIONS—Sift flour and baking powder together, stir in the egg and butter, then the milk. Bake in rings, in a quick oven.

Muffins.—Milk, 1 pt.; yeast, $\frac{1}{2}$ cup; salt, a very little; flour, sufficient to make a batter. DIRECTIONS—When light, cook in rings upon the stove.

Mush Muffins.—Take cold mush, made in the ordinary way, thin with milk, 1 qt.; 7 eggs, and butter the size of an egg; a little salt; then bring to the proper consistency with wheat flour. Bake in rings.

Remarks.—Very nice and healthful to thicken with graham flour. If these are not as light as some may choose, put a little baking powder in the flour.

Hermits.—Brown sugar, $1\frac{1}{2}$ cups; 3 eggs; butter, 1 cup; raisins, chopped, 1 cup; sour milk, 2 table-spoonfuls; soda, 1 tea-spoonful; cinnamon, nutmeg, cloves, and allspice, of each $\frac{1}{2}$ tea-spoonful; flour enough to roll out; cut as in cookies.

Apple Fruit Cake.—Dried apples, 1 cup; molasses, 1 cup; 1 egg; sugar, $\frac{1}{2}$ cup; milk, $\frac{1}{2}$ cup; flour, $2\frac{1}{2}$ cups; baking powder, 1 tea-spoonful. DIRECTIONS—Soak the apples over night, then steam until soft; then simmer

them slowly in the molasses, until well cooked; when cool, add the other ingredients and bake.

Apple Fritters.—Prepare the batter as for fritters, having washed, and sliced the apples, crosswise, and if you have a corer the core should have been taken out. Have the lard boiling hot. Drop the slices into the batter and see that every part is well covered; fry until brown, then turn and fry until done.

Remarks.—These instructions are from Miss Arabell, of Knox City, Mo. I say Miss because, as she gives no "sir" name, I take it for granted she had not found the "sir." I will guarantee the fritters, however, to be found nice.

Coffee Cake.—Brown sugar, 2 cups; 4 eggs; butter, 1 cup; molasses, 1 cup; cold coffee, 1 cup; raisins, 2 cups; cloves, 2 tea-spoonfuls; $\frac{1}{2}$ a nutmeg; soda, 1 tea-spoonful; flour, 4 cups.

Coffee Cake.—Brown sugar, butter, cold, strong coffee and molasses, each 1 cup; 3 eggs; raisins, 2 cups; baking powder, 2 tea-spoonfuls; flour, 2 cups.

Raisin Cake.—Sugar, $1\frac{1}{2}$ cups; butter, $\frac{2}{3}$ of a cup; milk, $\frac{2}{3}$ of a cup, flour, 3 cups; chopped raisins, 1 cup; 3 eggs; baking powder, $1\frac{1}{2}$ tea-spoonfuls. Bake as a whole or in sheets.

Raisin Cake, Without Sugar.—Flour, 1 cup; cream, 2 cups; butter, 1 cup; 4 eggs; raisins, 1 lb., not chopped; candied lemon, 1, chopped; soda, 1 tea-spoonful; a little cloves and cinnamon may be added. Stir well.

Fig Pound Cake.—Brown sugar, chopped figs, raisins and flour, each 1 lb.; butter, $\frac{3}{4}$ lb.; cream or milk (sour), $\frac{1}{2}$ pt.; 7 eggs; soda, $\frac{1}{2}$ tea-spoonful; 1 nutmeg.

Remarks.—One tea-spoonful of alum, pulverized, is added, by some, but I would prefer cream of tartar.

Currant Cake.—Butter, 1 cup; sugar, 2 cups; 4 eggs; flour, $3\frac{1}{2}$ cups, sour milk, 1 cup; English currants, 2 cups; saleratus or soda, 1 tea-spoonful, flavor with lemon or other extracts, as you choose.

Fruit Cake, Plain.—Sweet milk, 1 cup; molasses, $\frac{1}{2}$ cup; brown sugar, 1 cup; butter, $\frac{1}{2}$ cup; 2 eggs; raisins and currants, each, $\frac{1}{3}$ lb.; salt, 1 tea-spoonful; cloves and cinnamon, each, 1 table-spoonful; nutmeg; baking powder, 2 tea-spoonfuls; flour, 3 cups. See directions in next cake.

Premium Fruit Cake.—Sugar, 3 cups; butter, $1\frac{1}{2}$ cups. 6 eggs; sour cream, $1\frac{1}{2}$ cups; saleratus or soda, 2 tea-spoonfuls; currants $\frac{1}{2}$ lb.; raisins, $\frac{3}{4}$ lb.; citron, $\frac{1}{4}$ lb.; 1 nutmeg; flour. DIRECTIONS—Beat the eggs thoroughly; then add sugar and butter, and beat till smooth. Dissolve the saleratus in a little warm water and put it in the cream, and make the cake quite thick with flour to prevent the fruit from settling to the bottom. Do not chop the raisins, but cut them in halves and remove the seeds, else use "seedless" raisins; then scald a few moments to soften, drain and flour (dredge) them before putting into the cake. Cut the citron in thin slices, and as you fill in a layer of cake put the citron over evenly, then more of the cake mixture and another layer of citron; and so on, until the citron is evenly divided through the whole.

Remarks.—Mrs. John Rice, of Seneca county, Ohio, who originated this recipe, says: “If any one will follow this recipe she may do as I did—get the first premium at the coming fair.

Fruit Cake that will Keep for Months.—Butter, sugar, molasses, and sweet milk, of each, 1 cup; currants, 4 cups; 8 eggs; baking powder, 2 tea-spoonfuls; citron, chopped, $\frac{1}{2}$ lb.; 2 grated nutmegs, and cinnamon to taste. Bake 2 hours.

Fruit Cake, Very Nice.—Butter, brown sugar, sifted flour, and citron, of each, 1 lb.; 12 eggs; raisins, stoned, and English currants, of each, 3 lbs.; molasses, $\frac{1}{2}$ cup; cinnamon, mace, cloves, and allspice, of each, 1 table-spoonful; 1 nutmeg; grated rind of 1 lemon; baking powder, 4 tea-spoonfuls. **DIRECTIONS**—Beat the yolks, butter and sugar together till very light; then stir in the molasses, spices and the grated rind of the lemon, also the stiff-beaten whites of the eggs; then the flour, into which the baking powder has been mixed by sifting; when, after thoroughly mixing, the raisins and currants are to be added and evenly mixed in. The citron having been shaved and chopped finely, and a suitable pan well buttered, and a buttered paper also having been put into the pan, dip in a layer of the batter; then sprinkle on a thin layer of the citron, until all is put in, the top layer, of course, having no citron upon it. Bake in a moderate oven, covering with paper if necessary to avoid burning the top. It will require about 4 hours to bake it.

Remarks.—This will be found a very nice cake to have been given to the *Blade* by the “Sunflower,” of Farragut, Ia. It will keep well, and will be all the better if not cut for some weeks. And now, although either of the above fruit cakes will make nice wedding cakes, yet I must give one which is so called, and a very good one, too, the baking, manner of preparation, etc., being about the same as in the foregoing:

Wedding Cake, Very Rich.—The finest and nicest flour, 5 lbs; very nice butter, 3 lbs.; English currants, nicely washed, dried and dredged, 5 lbs.; sifted loaf sugar, 2 lbs.; nice sweet almonds, blanched, 1 lb.; nutmegs, 2; mace, $\frac{1}{4}$ oz.; cloves, $\frac{1}{8}$ oz.; lemon and orange peel, each $\frac{1}{2}$ lb.; wine and brandy, each $\frac{1}{4}$ pt.; very nice fresh eggs, 16. **DIRECTIONS**—See the directions in the recipes above and the general directions. I will say, however, if made in one, or even into two cakes, it will take 4 hours to bake them, as the oven must not be over hot, and care, by covering with paper. etc., not to burn them.

Coffee Cake.—Strong cold coffee, butter and raisins, of each 1 cup; sugar, $1\frac{1}{2}$ cups; flour, $3\frac{1}{2}$ cups; cinnamon, cloves, nutmeg and soda, of each 1 tea-spoonful; eggs, 2. **DIRECTIONS**—Make it upon general principles. Other fruit may be used in place of the raisins, and it will be nice even without any fruit at all.

Molasses Cake.—Molasses, 1 pt.; brown sugar, 2 cups; sour milk, 1 pt.; 4 eggs; soda, 2 tea-spoonfuls; flour, 7 cups; cinnamon, or any other spice, or ginger, to taste.

Soft Molasses Cake.—Molasses, $\frac{3}{4}$ cup; brown sugar, 1 table-spoonful;

butter or lard, the size of an egg; sour milk, $\frac{1}{2}$ cup; soda, 1 tea-spoonful; flour, 2 cups.

Mrs. Chase's Sponge Cake.—Sugar, 1 cup; 4 eggs; sweet milk, 3 table-spoonfuls; flour, 2 cups; baking powder, 2 tea-spoonfuls; salt, 1 pinch; orange or lemon extract (home-made), 2 tea-spoonfuls. DIRECTIONS—Beat the eggs, then beat in the sugar, add the milk, salt and flavor; and, having mixed the baking powder into the flour, sift it in, beat all together and bake in a quick oven.

Remarks.—This will make 2 cakes if baked in the round tin, or 1 in the square. I have eaten of this many times with great satisfaction, and expect the same in eating of the one which, I am just informed, is ready for tea. Yet I give several others to meet all circumstances and desires. Sponge cake is credited with being the most healthful of any form of cake, for the reason that, as a general thing, no butter or other shortening is used, although of late, as will be seen below, some people are beginning to introduce them; but, for myself, I am very fond of one of the above, coming warm from the oven at tea-time, having some very nice butter to eat with it. Those who are dyspeptic had better forego this luxury. My next is from "Fern Leaves," of Oswego county, N. Y., who told the *Blade* "Household" that it would make "roll jelly cake," "cup cake," or "plain cake." It is as follows:

Sponge Cake.—Sugar, 1 cup; flour, 1 cup; 3 eggs; water, 2 table-spoonfuls; baking powder, 2 tea-spoonfuls; salt and spice to taste.

The following is from somebody's lady friend, as the result of long experience: "Flour, 1 cup; sugar, 1 cup; baking powder, 1 heaping tea-spoonful; cold water, 3 table-spoonfuls; flavor with lemon or vanilla. DIRECTIONS—Beat the whites and yolks separately, and add the water the last thing before baking.

Improved Berwick Sponge, or Custard Cake.—Sugar, 2 cups; 4 eggs; flour, 3 cups; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; salt, a pinch; cold water, 1 cup; the juice of 1 lemon. DIRECTIONS—Beat the eggs well, then beat in the sugar and half of the flour, in which the cream of tartar has been mixed; the soda and salt being dissolved in the water, add in with the lemon juice, and lastly the balance of the flour, stirring well together, and bake in cakes to be fully 2 inches thick.

For the Custard.—Milk, a scant $\frac{1}{2}$ pt. (take out a little to wet up 3 tea-spoonfuls of flour); sugar, 1 scant cup; butter half the size of an egg; 1 egg, well beaten; flavor with the grated peel of the lemon. Mix all, and cook for 15 minutes in the rice-boiler (a tin dish made to fit inside of another, in which the water is placed, on the same principle as a glue kettle, which saves the labor of constant watching and stirring to prevent burning) then set aside to cool. This should be done so as to be cold by the time the cake is done. Split the cake with a sharp knife, and spread the cold custard between.

Molasses Sponge Cake.—Molasses, 1 cup; melted butter, 1 table-spoonful; 2 eggs, well beaten; sweet milk, $\frac{1}{2}$ cup; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful; flour, $1\frac{1}{2}$ cups; ginger, to taste. Makes a good loaf, or it may be baked in layers and laid up with jelly for variety.

Butter Sponge Cake.—Butter, 1 cup; sugar, 2 cups; flour, $1\frac{1}{2}$ cups; 6 eggs; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful. DIRECTIONS—No special directions given, except to dissolve the soda in a table-spoonful of the milk, and mix the cream of tartar evenly with the flour, which is in accordance with my general directions.

Remarks.—But as this recipe shows how a farmer's wife, of White Church, Kansas, makes sponge cake, I thought I would give her directions in full. It will be noticed that this cake is rich in eggs and butter; but if the Kansas farmers can not afford it I do not know who can.

Lemon Sponge Cake, with Butter.—Sugar and flour, each, 1 cup; 3 eggs; sweet milk, 3 table-spoonfuls; melted butter, 2 table-spoonfuls; baking powder, 2 heaping tea-spoonfuls; extract lemon, $\frac{1}{2}$ tea-spoonful.

Cream Sponge Cake.—Gertie, of Kewanee, Wis., prefers cream in hers, as follows: Beat 2 eggs in a tea-cup, fill up the cup with thick sweet cream, 1 cup of sugar, 1 cup of flour, 1 tea-spoonful each of cream of tartar and soda.

Sponge Cake.—Sugar, 1 cup; 1 egg; sweet milk, 1 cup; butter the size of an egg; baking powder, 2 tea-spoonfuls; flour, 2 cups; season to taste.

Remarks.—The more frequent use of sponge cake, as compared with other kinds of cake, is the reason of my giving so large a number of them, that everybody may be suited.

Pound Cake.—Sugar, 1 lb. ($2\frac{1}{2}$ cups); butter, 1 lb. (2 cups); flour, 1 lb. (3 cups); 10 eggs; soda, 1 tea-spoonful. DIRECTIONS—Beat the yolks and whites separately; and if you wish a fruit cake, use raisins, or currants, 1 lb.

Remarks.—It keeps moist a long time, if properly covered. For varieties sake, flavoring extracts may be sometimes used, or take the Imperial next below, for the variety.

Imperial Cake.—Sugar, flour, butter, eggs (10), raisins, currants, figs, almond meats, peel ($\frac{1}{2}$ citron, $\frac{1}{4}$ lemon, $\frac{1}{4}$ orange), of each 1 lb., except as explained about the peel, baking powder, 3 tea-spoonfuls. DIRECTIONS—No flavoring, nor spices, are to be used. The butter and sugar rubbed together, then the beaten eggs (10 eggs average a pound); add baking powder to the flour and put it in after the eggs; add only one kind of the fruit at a time—no flour on the fruit—but the peel and figs are to be chopped fine, the almonds blanched and split. Stir well when all is in, and bake in square tins.

Remarks.—I should think it would be rich enough for any imperial family of Europe, or for the wedding of an American, but, in this case, the company to be large, the amounts may be doubled, or trebled.

Dark Cake.—Brown sugar, 2 cups; molasses, 1 cup; butter, 1 cup; raisins, chopped, 2 cups; sour milk, 1 cup; saleratus, 2 tea-spoonfuls; 3 eggs; flour, 5 cups; cloves and cinnamon, of each, 1 table-spoonful; allspice, 1 tea-spoonful; 1 small nutmeg, all well beaten.

Remarks.—Mrs. C. B. Greely, of Alpena, Mich., says: This makes two good sized loaves. Is splendid! Don't get too much butter in, take large cups

of flour, etc. The compiler needs not to add a word, he knows it will be found splendid.

Charity Cake.—Sugar, 1 cup; butter the size of an egg; 1 egg; stir to a cream; add sweet milk, 1 cup; flour, 2 cups; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful.—*Emily A. Hammond.*

Remarks.—No other place so appropriate for a poor man's cake, as to let it follow charity cake, for who needs charity any more than a poor man is likely to.

Poor Man's Cake.—One cup of sugar, 1 cup of milk, 1 table-spoonful of butter, 1 tea-spoonful cream of tartar, $\frac{1}{2}$ tea-spoonful of soda dissolved in the milk, 1 egg, a little cinnamon, and flour to make it as stiff as pound cake.

Potato Cake.—"S. A. M." (Sam), of Mogadore, O., claims this to be a new kind of cake. She says: Mashed potatoes, 1 cup; sugar, 1 cup; risings, 1 cup; $\frac{3}{4}$ cup of shortening, and 3 eggs. DIRECTIONS—Stir well together about 5 o'clock P. M., and at bedtime stir all the flour in the mixture you can with a big spoon; keep in a warm place, and in the morning put it in gem dishes and let rise again. Bake in a slow oven, and you will have a cake that children and invalids can eat without harm.

Potato Cake, Without Eggs and Quick Process.—Mashed potatoes, 3 cups; flour, 1 cup; melted butter and sugar, of each $\frac{1}{2}$ cup; a little salt; milk to make a paste of proper consistence to roll; roll rather thin, and bake in a quick oven. If not light enough first time, add a little soda to the flour next time.

Potato Puffs.—Take mashed potatoes and make them into a paste, with 1 or 2 eggs, roll it out with a dust of flour and cut round with a saucer; have ready some cold roast meat (any kind) free from gristle and chopped fine, seasoned with salt, pepper, thyme, or pickles cut up fine; place them on the potato and fold in over like a puff, pinch or pick it neatly around and bake for a few minutes.—*Detroit Free Press.*

Remarks.—The author would say, "no pickles in his," but cold ham would be very nice.

Spanish Fritter Puffs.—Powdered sugar, 1 table-spoonful; butter, 2 ozs. (2 table-spoonfuls); salt, 1 tea-spoonful; water, 1 cup; yolks of 4 eggs; flour. DIRECTIONS—Put the water into a saucepan, add the sugar, salt and butter, and, while it is boiling, stir in flour enough to have it leave the pan; then stir in the one-by-one, the yolks of the eggs; now drop a tea-spoonful at a time into boiling lard and fry to a light brown. If nicely done they will be very puffy.

Philadelphia Cream Puffs.—Butter, 2 cups; 10 eggs; flour, 3 cups; water, 1 pt.; soda, 1 tea-spoonful. DIRECTIONS—Boil the water, melt the butter in it, stir in the flour dry while the water is boiling; when cool, add the soda and the well-beaten eggs; drop the mixture with a spoon on buttered tins and bake 20 minutes. CAUTION—Do not open the oven door more than twice while they are baking.

Cake Without Eggs.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; sweet milk, 1 cup; cream of tartar, 2 tea-spoonfuls, soda, 1 tea-spoonful. Flavor to taste.

Cider Cake, Requires Neither Eggs Nor Milk.—Sugar, $1\frac{1}{2}$ cups; butter, $\frac{3}{4}$ cup; sweet cider, $1\frac{1}{3}$ cups; flour, $4\frac{1}{2}$ cups; soda, 1 tea-spoonful; cinnamon and cloves, of each 1 tea-spoonful.

Remarks.—Although this from the “Young Lady,” of Tontogany, O., it will make a nice cake, better than some old ladies make.

Scotch Cake.—Brown sugar, 1 lb.; flour, 1 lb.; butter, $\frac{1}{2}$ lb.; 2 eggs; cinnamon, 1 tea-spoonful; roll very thin and bake [See, also, “Scotch Oat-cake.”]

Buffalo Cake.—Sugar, 1 cup; butter, melted, 1 table-spoonful; 1 egg, beaten to a froth; soda, 1 tea-spoonful, dissolved in sweet milk, $\frac{2}{3}$ cup; cream of tartar, 2 tea-spoonfuls; flour to make so it will pour on tins. Bake like jelly cake, and put custard or jelly between.

Remarks.—Mrs. J. A. Heister, of Denver, Col., says: “It is cheap and good enough for any one.” And I cannot account for the name, unless it is because the Denver people take it with them when they go out to hunt buffalo.

Buckeye Cake.—Sugar, $\frac{3}{4}$ lb.; butter, $\frac{1}{2}$ lb.; 6 eggs, well beaten; sweet milk, $\frac{1}{2}$ pt.; 1 lb. of “prepared” flour; flavor with vanilla. Good for Ohio people, where they use this kind of flour.

Boston Cake.—Sugar, 1 cup; milk, 1 cup; butter, 1 table-spoonful; 1 egg, flour, $2\frac{1}{2}$ cups; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; flavor with lemon or nutmeg. Nutmeg is their favorite; so much so, some of them have been accused of making wooden ones.

Vanilla Cake.—Sugar, $\frac{1}{2}$ cup; 4 eggs; sour cream, 4 table-spoonfuls; salt, 1 tea-spoonful; cream of tartar, 1 tea-spoonful; soda, $\frac{1}{2}$ tea-spoonful, flour, $1\frac{1}{2}$ cups; flavor with vanilla—is the way “Jenny” makes hers at Irving, Mich.

Nutmeg Cake.—Sugar, 2 cups; butter, 1 cup; 3 eggs; 1 nutmeg; flour, 4 cups; milk, 1 cup; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; rind of 1 lemon. DIRECTIONS—Beat sugar and butter together, then add half of the flour and half of the milk, then the beaten eggs, grated nutmeg and grated rind of the lemon, then the balance of the flour, having the cream of tartar mixed into it, and lastly, the balance of the milk with the soda dissolved in it. Beat all thoroughly and bake in bread pans, buttered and prepared.

Choice Cake.—Sugar, 1 lb.; flour, 1 lb.; butter, $\frac{1}{2}$ lb.; 7 eggs; cream, 1 cup; saleratus, 1 tea-spoonful; nutmeg, to taste. DIRECTIONS—Beat sugar and butter to a cream, add the eggs, then the cream, with the saleratus dissolved in it; then flour and nutmeg. It requires much beating. Bake in a quick oven. —*Godey's Lady's Book.*

Rock Cakes, To Make.—Break 6 eggs into a dish, and beat till very light; then add powdered sugar, 1 lb. ($2\frac{1}{2}$ cups), and mix well; then dredge in gradually flour, $\frac{1}{2}$ lb. ($1\frac{3}{4}$ cups), and English currants, $\frac{1}{4}$ to $\frac{1}{2}$ lb., which have been nicely washed and dried. Mix all well together; then put on to a baking

tin (size to suit) with a fork, to make them look as rough as you can. Bake in a moderate oven, about half an hour. When cool store them in a box and keep them in a dry place, and they will last as long as you keep them in the box; but if placed on the table at meal times they will not keep a great while.

Cold Water Cake.—Flour and white sugar, each, 1 cup; 2 eggs; butter, 1 heaping table-spoonful; cold water, 3 table-spoonfuls; baking powder, 1 heaping tea-spoonful. Not expensive but nice. Make on general principles.

German Crisps.—Sugar, 2 cups; butter, 1 cup; 3 eggs, and the rind and juice of 1 lemon; flour. DIRECTIONS—Mix thoroughly with hand or spoon, adding sufficient flour to roll out. Roll out very thin. Cut in small cakes. Place in the pan and rub the tops with egg and sprinkle on white sugar. Two eggs are enough for the tops. They will bake in a few minutes. — *Harper's Bazar*.

Common Cake.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; sour cream, 1 cup; 2 eggs; soda, 1 tea-spoonful; $\frac{1}{2}$ a nutmeg, and as much flour as needed. DIRECTIONS—Beat the sugar and eggs together, then add the cream and butter, then the nutmeg and soda, and lastly the flour, are the instructions given by Mrs. A. M. McCrary, of Kirwin, Kan.

Raised Cake.—Light dough, 2 cups; butter, 1 cup; sugar, 2 cups; 3 eggs, beaten light. Mix all well together, add fruit and spices, as you wish. It is good without either, but better with plenty of both. DIRECTIONS—Put in a pan and let stand till light before baking.

Spiced Cake.—Butter and cold water, of each, 1 cup; flour, 3 cups; sugar, 2 cups; 3 eggs; soda, 1 tea-spoonful; cinnamon or other spices, as preferred, 2 tea-spoonfuls; chopped raisins, 1 cup; currants, 1 cup. DIRECTIONS Sarah F. Purdy, of Belmont, Iowa, says: "Beat butter and sugar, adding the beaten eggs, then the cold water, sift the soda into the flour, and add the spice and fruit."

Aunt Lucy's Spice Cake.—Sugar, 2 cups; butter, $\frac{2}{3}$ cup; 2 eggs; butter milk, 1 cup; soda, 1 tea-spoonful; cloves, 1 tea-spoonful; cinnamon, 1 table-spoonful; $\frac{1}{2}$ of a nutmeg; "rising flour," 1 cup, or to make thick.

Remarks.—Who ever knew a cake-making aunt that did not make a good cake? This will make a nice cake, however, even if common flour is used, as the soda will make it light.

Spiced Cake, Very Fine.—Sour milk, molasses, and brown sugar, of each, 1 cup; butter, $\frac{2}{3}$ cup; 3 eggs; soda, nutmeg, and cloves, of each, 1 tea-spoonful; cinnamon, $1\frac{1}{2}$ tea-spoonfuls (or if any other flavor is preferred to be the most prominent, use the $1\frac{1}{2}$ tea-spoonfuls of that, and of the cinnamon only 1); flour, about 3 cups, or to make the batter pretty thick, as spice cake is disposed, if too thin, to run or spread before the baking begins to set it. Make as the others.

Sally Lunn Cake.—Sugar, 1 egg cup; sweet milk, 1 pt.; butter, 1 table-spoonful; 4 eggs; flour, 4 coffee cups; yeast powder, 3 tea-spoonfuls. DIRECTIONS—Warm the milk and melt the butter in it; beat the whites of the

eggs to a stiff froth; the yolks and sugar together, and stir into the warm milk; the yeast powder having been mixed in the flour, sift it in; then the whites of the eggs; pour into a buttered cake mold, and bake in a quick oven 30 minutes.

“Sallie-Long,” or Tea Cake.—Flour, 1 qt.; baking powder 3 tea-spoonfuls; sweet milk, 1 pt.; eggs, 3; butter and lard, of each 1 table-spoonful; pulverized sugar, $\frac{1}{2}$ cup. Mix the baking powder into the dry flour; beat the eggs, and stir them and the milk, butter, lard and sugar together, then the flour, mixing all thoroughly; baking in a moderate oven.

Remarks.—This cake I suppose to be an own cousin of Sally Lunn, but why it should have been called Long, when, in fact, it is so nice and short, I cannot tell. I give it as I received it, and will make no complaint about its “Long” name, so long as it fills the bill as well as it has done, with my family, for a long time. It is, no doubt, a first cousin of Sally Lunn, above.

Apees, or Cake Without Eggs or Yeast.—Fresh butter, 1 lb. (2 cups); sifted flour, 2 lbs. (7 cups); powdered sugar, 1 lb. ($2\frac{1}{2}$ cups); mixed spices (nutmeg, mace and cinnamon), 1 tea-spoonful; caraway seeds, 4 tea-spoonfuls; wine (white is best), 1 large glass; cold water to make a stiff dough. **DIRECTIONS**—Cut the butter into the flour and rub fine, or smooth, mixing in the sugar and spices, then put in the wine, and water to work stiff, with a broad knife, or knead with a wooden potato masher. Roll thin (less than $\frac{1}{2}$ inch), and cut into small cakes. Place in long tins, slightly buttered, not to touch each other. Bake in a quick oven till they are a pale brown.

Remarks.—They are quickly made, requiring no eggs nor yeast, and are very nice, resembling, somewhat, the German crisps.

Cream Cake.—Sweet milk, 1 pt.; butter, 1 table-spoonful; salt, a pinch; flour, 3 cups. **DIRECTIONS**—Melt the butter in milk, put in the salt and then mix in the flour, only enough to make a stiff dough. Roll out rapidly, several times, on the board, cut into squares and bake on a griddle, or in a hot oven.

Cookies, Plain.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; soda, $\frac{1}{2}$ tea-spoonful; warm water, $\frac{1}{2}$ cup; flour enough to roll. **DIRECTIONS**—Dissolve the soda in the warm water; mix, roll very thin, cut and bake in a quick oven.

Plain Cookies, with Ammonia.—Sugar, 2 cups; butter, 1 cup; milk, 1 cup; 2 eggs; carbonate of ammonia, $\frac{1}{2}$ oz.; flour, 1 qt. ($3\frac{1}{2}$ cups.) **DIRECTIONS**—Pulverize the ammonia and mix it with the flour, and mix the butter in well, then the other ingredients; use only flour enough to allow you to handle (not stiff); roll thin, cut and bake in a suitable oven—in fact all cookies require quick handling and a quick oven.

Cookies—Rose Flavor.—Sugar, 3 cups; butter, 1 cup; 3 eggs; milk, $\frac{1}{2}$ cup; rosewater, 2 table-spoonfuls [see “Tincture of Rose”]; flour, enough to roll out well. **DIRECTIONS**—Beat the eggs very light, rub the butter, sugar and rosewater together, then the eggs, soda in the milk, flour, etc.; roll thin, bake quickly.

Caraway Cookies.—Sugar, 2 cups; butter, 1 cup; 2 eggs; milk, $\frac{1}{2}$ cup; soda, $\frac{1}{2}$ tea-spoonful; caraway seed, 1 table-spoonful, or to taste. **I like them to be put in freely.**

Nice Plain Cookies, Without Eggs.—Sugar, 2 cups; butter, 1 cup, or salt pork drippings; sweet milk (all milk is to be sweet unless sour is called for), 1 cup; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; flour to make a dough. **DIRECTIONS**—Roll thin, bake in a quick oven, but not to scorch. If you have no milk, cold water will do quite well.

Ginger Cookies, With Molasses.—Molasses, 2 cups; butter, 1 cup (lard or salt pork drippings do well); hot water, 4 table-spoonfuls; ginger, 1 table-spoonful; salt (unless salt pork drippings are used), 1 tea-spoonful; flour enough to roll out; soda, 1 tea-spoonful.

Remarks.—As the ladies say: “It is just splendid.”

Spiced Cookies.—Orleans molasses, 1 cup; sugar, 1 cup; warm water, $\frac{3}{2}$ cup; soda, 1 large or rounding tea-spoonful; butter, $\frac{3}{2}$ cup; cloves, cinnamon and ginger, of each 1 tea-spoonful. **DIRECTIONS**—Mrs. S. M. Ferguson, of West Holbach, Ill., is the originator of this, and says: “Dissolve the soda in the water, mix soft, roll thin, bake quick, etc. If made nicely and not over baked they will please old people and young children.”

Spiced Cakes.—Yolks of 4 eggs, well beaten; baking powder, $2\frac{1}{2}$ tea-spoonfuls, in flour, $2\frac{1}{2}$ cups; brown sugar, 1 cup; syrup, milk and butter, of each $\frac{1}{2}$ cup; powdered cloves, $2\frac{1}{2}$ tea-spoonfuls; allspice and cinnamon, powdered, of each 1 tea spoonful. **DIRECTIONS**—Rub the baking powder and spices well into the flour, add the syrup after the sugar and butter are creamed together, then the beaten eggs, then the milk, and lastly the flour, and prepare at once for a moderate oven. Given me by a sister-in-law after making them many times.

Macaroons, or Drop Cake.—Sugar, 1 lb.; blanched and pounded almonds, $\frac{1}{4}$ lb.; whites of 3 eggs. **DIRECTIONS**—Mix, sprinkle sugar on paper, then drop the mixture thereon and bake quickly. Very nice.

Farmers' Gems.—White sugar, 1 cup; sour cream, 1 cup; soda, 1 tea-spoonful; flour, as for cookies. **DIRECTIONS**—Roll thin, cut and bake quickly. Sue Perrin makes them in this way. If you expect them to last long, however, you will have to double the quantity of material.

Drop Cake.—Powdered sugar, 1 cup; butter, 1 cup; flour, 2 cups; 3 eggs; juice and rind of 1 lemon. **DIRECTIONS**—Mix butter and sugar to a cream, add the well-beaten eggs, then the flour, and lastly the lemon. Drop on buttered paper and bake in a quick oven.

Remarks.—Nice making and nice baking make nice cake, whether plain or delicate cake are being made.

Drop Cakes.—Put 6 well-beaten eggs into a pint of thick cream; add a little salt, and make it into a thick batter with flour. Bake it in rings or in small cups 15 or 20 minutes. The same may be made with graham flour.

Rye Drop Cup Cake.—Wheat flour, 1 cup; 3 eggs, well beaten; new milk, 1 pt.; salt, 1 tea-spoonful; sugar, 1 teaspoonful; rye flour, enough to make a stiff batter; half fill earthen cups, put them in a pan and bake 1 hour in a moderate oven.

Remarks.—Equal to rye and Indian bread. If you wish them lighter, use baking powder or sour milk and soda. Have them come out just at tea-time, and have some freshly-made butter if you wish to appreciate a good thing.

Pork Cake.—Fat salt pork, 1 lb.; strong coffee, 1 pt.; brown sugar, 4 cups; stoned raisins, 1 lb.; citron or English currants, $\frac{1}{2}$ lb.; flour, 9 cups; soda, 1 table-spoonful; 1 nutmeg and 1 table-spoonful of cinnamon. **DIRECTIONS**—The pork is to be weighed free of rind and chopped very fine; then pour the coffee, boiling hot, upon it and set on the stove a few minutes before adding any of the other ingredients. The spices are all to be ground, and if citron is used, it is to be finely chopped. The raisins and other fruit are to be dredged with flour to prevent settling. Fit a piece of white paper to the bottom of the pan or pans and cover the top with paper also, to prevent burning. Bake in a moderate oven until a splinter can be thrust into it and pulled out without the cake sticking to it.—*Mrs. Carrie Case, Toledo, O.*

Remarks.—This will be very palatable, and will keep as long as you will allow. It is excellent.

Buns.—Flour, $6\frac{1}{2}$ cups; sugar, 1 cup; butter, $\frac{3}{8}$ cup; milk, 1 cup; currants, 2 cups; yeast, 1 table-spoonful. **DIRECTIONS**—Dry and sift the flour, melt the butter in the milk; the currants to be washed and dried beforehand. Mix all, and stand in a warm place till it rises, before baking.—*Peterson's Magazine.*

Buns, Better Than Bakers'.—Warm milk, 3 cups; sugar, 1 cup; yeast, $\frac{1}{2}$ cup. Stand over night. In the morning add another cup of sugar, 1 cup of butter, knead stiff and let rise again; then cut into 60 pieces, roll in the hand and put into pans just to touch each other, let rise again, then rub with whites of eggs, and bake to a light brown. Currants or raisins improve them. These are much better than bakers' buns.

Remarks.—They will be excellent if not allowed to stand so long as to sour before baking—if so, soda will correct it.

Easter Buns, or "Hot Cross Buns" of the London Criers.—Sweet milk, 3 cups; yeast, 1 cup; flour, to make a thick batter. Set over night, and in the morning add sugar, $\frac{1}{2}$ cup; $\frac{1}{2}$ a nutmeg; 1 salt-spoonful of salt, and flour enough to roll out like biscuit dough. Knead well and set to rise 5 hours. Roll $\frac{1}{2}$ inch thick, cut and set in a well-buttered pan; when they have stood a $\frac{1}{2}$ hour make a cross with a knife upon each, and instantly put in the oven; bake to a light brown, and brush over with the whites of eggs beaten with white sugar.

Remarks.—"Mrs. A. M. S.," of Junction City, Kansas, says: "These are the 'Hot Cross Buns' of the London criers." I know they are nice enough to be that same.

Breakfast Buns.—Sugar, sour milk or butter milk, of each, 2 cups; 2 eggs, melted butter, $\frac{3}{8}$ cup; soda, 1 tea-spoonful; flour and salt. **DIRECTIONS**—Break the eggs into a suitable dish to make the cake in, and beat them well, then put in the sugar, butter and a little salt, and beat all well together; having dissolved the soda in the milk, add it; then sift in sufficient flour to allow

handling it upon the molding-board or table, leaving it as soft, however, as you can roll it. Roll out to half an inch in thickness, and cut with a goblet or a large cutter, as it is intended to have a large and thick bun when done. If made sufficiently soft they will rise up in the center to fully an inch in thickness, and be very nice with coffee as a breakfast dessert. Put in a stone jar and cover over to prevent their becoming dry.

Remarks.—Bakers make a bun, also, having English currants in them. One cup, washed and drained, will be enough for this amount, if evenly mixed in. Mrs. Chase makes them, sometimes with and then without the fruit, perhaps because the baking has to be done more often when the fruit is in.

Rusk.—On putting your light bread in pans save 2 or 3 lbs. of dough, and take 5 or 6 eggs, lard or butter, $\frac{1}{2}$ lb.; brown sugar, $\frac{1}{2}$ lb.; mix, and add flour to make dough as stiff as for bread; keep warm, and rise again. When light, make into rusk the size of a hen's egg, stick a hole in the center of each, place in a pan and when they have risen $\frac{1}{2}$ an inch prime the top with the yolk of an egg beaten with sugar, and bake.

Remarks.—This is the plan adopted by "Mrs. J. A. W.," of Polona, Ill., and this is the only woman, of which I have heard, who could "jaw" without scolding—j-a-w spells *jaw*; but, to set joking aside, the rusk are nice. The children like them better, however, if a large raisin is stuck into the center of the top, in place of the hole.

Rusk With Few Eggs.—Mrs. Lettie Larsen, of Fair Haven, Minn., makes excellent rusk in the following manner: "New milk, 1 pt.; hop yeast, 1 cup, and flour to make a batter, setting over night; in the morning adding $\frac{1}{2}$ pt. more of new milk, 1 cup of sugar, 1 cup of butter and 1 egg, seasoning with nutmeg, and flour to make quite stiff. Let it rise, then rolling it out, cutting it into small cakes, rising again, and baking. Have ready 1 tea-spoonful of sugar, with an egg well beaten, and just before done, brush over the top with this, replacing till lightly browned, to keep the crust moist." If she wants extra nice, she adds 1 cup of raisins.

Rusk Without Eggs.—When making light bread take 1 pt. of the sponge, 1 cup of sugar, 1 cup of butter, and mix with flour enough to make as for biscuit; spice to taste. Let set till it rises like bread, then mold into small biscuit and stand till light before baking.

Remarks.—Mrs. Etta Wilson says this meets the wants of her people, at Lawn Ridge, Marshall county, Cal. With nice butter, I haven't a doubt of it.

Rolls.—Sweet milk, 1 cup; whites of 2 eggs; butter, $\frac{2}{3}$ of a cup; $\frac{1}{2}$ cup of yeast; sugar, 2 table-spoonfuls; flour to make a thick batter. DIRECTIONS—Raise over night, not putting in the butter nor eggs until morning, working in sufficient more flour to make a soft, or limber dough; form into rolls, place in the pans, and bake as soon as they rise again.

Remarks.—For variety's sake, sometimes use water in place of milk; again, and especially if to be eaten with meat, leave out the sugar; and if eggs are scarce make without; but if for "tea," it is better with them all in. I make such remarks, occasionally, to set cooks to thinking for themselves, for it is by

thought and experiment that hundreds of varieties may be made from the few pages of recipes here given—the same will hold good throughout the book, provided the principles of chemistry are not interfered with, *i. e.*, if sour milk or buttermilk is used, the soda must never be left out, it neutralizes the acid and thereby produces a gas (carbonic acid gas), which gives lightness to the rolls, or cakes.

Parker House Breakfast Rolls.—Sifted flour, 2 qts.; sugar, butter and yeast, of each $\frac{1}{2}$ cup. DIRECTIONS—Mix with new milk until the consistence of a nice light bread dough. If for tea, stand in a warm place 4 hours; if for breakfast, let stand in a cooler place over night. When light, in either case, take enough off for a roll, and roll it out to any desired size. Spread on one-half of the piece $\frac{1}{2}$ tea-spoonful of melted butter, and lap over the other half, place in a pan to rise again, and as soon as light bake in a quick oven.

Remarks.—If as nicely done as at the Parker House, Boston, they will be very nice indeed. I have tried them there and at home.

Heating the Oven for Cake Baking.—So much depends, in baking cake, upon the heat of the oven, it is probably best to repeat here some of the instructions given in the general directions, and, perhaps, an additional thought or two upon the subject. In baking cake the oven should always be hot, unless the directions give something especially to the contrary; yet, if the oven is too hot, a few nails may be placed under the pans, and the paper doubled over the top, and a cover may be removed from the top of the stove; but the oven door must not be left open any longer than is absolutely necessary, to follow the above hints. The drafts may be entirely closed (should always be partially closed when baking cake) for a short time, or until the temperature is right. To tell when the cake is done, pierce it with a broom splint, and if the splint comes out free of the cake mixture, it may be considered done; but it is better to leave it in a few minutes over, rather than to remove it a minute too quick; the same holds good also with short cake, bread, pies, etc.

Short Cake, Sweet, with Soda.—Flour, 3 cups; butter, 3 table-spoonfuls; sour cream, or rich clabber (milk becoming thick), $1\frac{1}{2}$ cups; 1 egg; sugar, 1 table-spoonful; soda, 1 tea-spoonful; salt, 1 tea-spoonful. DIRECTIONS—Dissolve the soda in a little warm water and add it and the beaten egg to the milk; having put the salt in the flour, cut the butter in small pieces, and work it in smoothly also; mix all, handling as little as possible. Roll quickly and bake in a hot oven. The soda and sour cream will take care of the rising.

Shortcake, Plain, from Light Dough.—Prepare the dough as for biscuit, doubling the amount of butter; roll out to make a cake of good thickness; let rise and bake in a quick oven.

Strawberry Shortcake, in Layers.—Make the cake as for the sweet above, but roll in 2 sheets, $\frac{1}{2}$ an inch thick for the upper, the lower less; spread a very little butter upon the thin one, placing it in the pan, put the other upon it, and bake. When a little cool, lift off the top one and place a good layer of strawberries upon the other, and replace the top, spreading as many berries

upon the top as will lie; serve with sweetened cream or milk—of course the first is the best.

Remarks.—My family find that raspberries, blackberries, etc., are also very nice used in the place of strawberries.

Strawberry Shortcake, Old Way.—Mix as for biscuit, roll about 1 inch thick, and bake. When done, have the strawberries mixed with sugared cream: split the cake with a sharp knife, spread lightly with butter the lower half, then put in a thick layer of the fruit, replacing the top, and covering the top also. Some persons then replace in the oven for a few minutes; but this, I think, make it more like pie than fresh berry shortcake. Other berries or pieplant may be used, but pieplant must be stewed and no cream used.

Mother's Strawberry Shortcake.—I believe the Household and the editor will agree with me in thinking Puck never ate any strawberry shortcake. We are 50 years old, but don't we remember, as well as if it was but yesterday, the dear, delightful ones made by mother in our childhood, and don't we know just how they were made, too; we heard her tell so many times, as every one wanted her recipe. She made them as follows: Sour cream, 1 cup; cream of tartar, 1 tea-spoonful; soda, $\frac{2}{3}$ tea-spoonful, with flour to make a suitable dough to roll $\frac{1}{2}$ an inch thick, baked nicely; split open and spread each piece with the sweetest, freshest butter; then pour on to one of the halves, not 6 or 7 gritty, mussy berries, but 2 whole cups of those large, luscious ones from the south side of the garden; put on the other half for a cover, and pour over sweetened cream when eaten.—*Aunt Lulu, Red Willow, Neb.*

Remarks.—The author loves all these aunts, because they know how it is done; but he would love them better if they were not ashamed of their real names. This is about as my own mother used to make them, so I know it will prove good and worthy to be followed by all who have the nice "sour cream." But good rich milk with soda—no cream of tartar—will do very nicely. Of course, any berries, fresh or canned, at all suitable for a short cake, ripe, nice peaches, or even a nice, thick custard, may take the place of strawberries when they are not plenty, or for the sake of variety. See the remarks also following "Pumpkin Shortcake," below.

Pumpkin Shortcake, With Graham Flour.—"Stewed and strained pumpkin or squash, 'C' oatmeal porridge and water, each 1 cup. Beat these up together, and then stir in 3 cups of Graham flour. Mix thoroughly, spread $\frac{1}{2}$ an inch thick on a baking-tin, and bake half an hour in a good oven. Cover for 10 minutes, and serve warm or cold."

Remarks.—Our readers will see by the quotation marks ("") that this is not my own, nor do I know who to credit it to. But I have given it for the sake of a few explanations, or remarks, which, I think, will be for the general good; and first, you will see that a porridge is called for made from "C" oatmeal; what does the "C" mean here? It means the grade of fineness of the meal, as known to dealers, the same as "A" coffee sugar means the best—"C" coffee sugar is not quite so good. While with the oatmeal it means not quite so coarse a meal as "A" would be. For Scotch cake the finest kind is used,

and, I should think, would be the best to make into a porridge. Second, some persons never use oatmeal porridge; then, unless people will use a little of good common sense, they, or persons living where they cannot get oatmeal, could never have those nice short cakes; but by using, or calling up this common sense, and reasoning a little, they may say, "now I have not got the oatmeal, nor can I get it; but I will take milk in its place; and even, if no milk, I will take water, and by adding a little butter, lard or drippings, I will have just as good a cake"—and so they would. Now, please judge, in the same manner, in all cases, where such difficulties may of necessity arise, then these remarks will have their intended effect. I will add this word, only, additional, those who don't know anything more than simply to always confine themselves to, or follow a recipe, or receipt, as generally called, (never changing it at all) will never amount to much, to themselves, or to the world. The above recipe says "pumpkin, or squash"—everybody ought to know that squash will make the richer cake.

Apple Shortcake.—Season well stewed apple sauce with sugar and nutmeg, or mace, make any of the nice shortcakes, above given, open, or split, as the case may be, butter nicely and spread on a thick layer of the prepared sauce, and replace the top; serve with well sweetened cream.

Remarks.—You will need to have quite a quantity, if you satisfy the taste and desires of the family, and the guests. The following from dried apples, will enable families to have apple shortcake all the year round, says a writer in the *New York Post*.

Apple Shortcake From Dried Apples.—I will tell you of something that makes an agreeable filling for a shortcake. You will not believe it until you try it, but for those unfortunate ones to whom the acid of the strawberry is as poison, it can not be too highly recommended. Take some nice dried apples, wash and soak, and cook them until they are tender; then rub them through a sieve or a fine colander, add sugar and the grated rind and juice of a lemon; then make a shortcake in the ordinary manner and use this in place of the berries.

Scotch Oat-Cakes.—Put 3 ounces of drippings with a small tea-cup of water into a pan, and let it boil. Pour it over 1 lb. of oatmeal. Stir it; roll it out at once, very thin; cut with a small round cutter; bake in the oven till done.

Remarks.—As suggested in the remarks following pumpkin shortcake, the Scotch cake is nicest made with oatmeal that is ground the finest, which is, as I think, that which is bolted, or sifted out from the coarse, in fact, a flour, rather than meal. I like them done quite crisp.

Biscuit, Plain and Light.—Take enough light bread dough to make what you desire; for each square bread pan full, work, or knead in, 1 tablespoonful of butter, lard, or pork drippings, mold into biscuit, place in the pan, or pans, and, when risen again, place in a moderately hot oven—the heat increasing—as for bread. If biscuit or bread are put into a hot oven, the crust is soon set and the rising is, thereby, greatly prevented.

Light Biscuit, Sweet.—If a sweet biscuit is desired, prepare the dough as for rusk, and follow the same directions.

Remarks.—Mrs. Chase furnishes us with nice, light biscuit by following the directions she has here given me. I have given them a place here because they seem to belong to the rusk and shortcake family, rather than among the breads.

Biscuit with Baking Powder, Quickly Made.—Flour, $3\frac{1}{2}$ cups; baking powder, 3 tea-spoonfuls; butter, or nice lard, 1 table-spoonful (rounding); sweet milk. DIRECTIONS—Stir the baking powder into the flour and sift; work in the butter smoothly; then use milk enough to have a soft dough; mold into biscuit by using flour, dusting freely; bake in a hot oven at once.

Remarks.—Do not knead biscuit made with baking powder, nor make them stiff, in this lies the secret of making nice light biscuit with baking powder, so says “my good woman,” and she knows from an experience of 40 years of married life. In cold weather the butter will work in easier, if warmed. Water may take the place of milk by doubling the amount of butter or lard, to make then equally rich.

Biscuit With Soda, Cream of Tartar, and Sweet Milk.—Flour, 1 qt. ($3\frac{1}{2}$ cups); cream of tar, 2 tea-spoonfuls; soda and salt, of each, 1 tea-spoonful; butter, lard, or “drippings,” 1 table-spoonful, and sweet milk to wet it up properly. DIRECTIONS—Roll the cream of tartar and soda finely and sift together with the flour; mix in the shortening, and wet up with the milk to a proper consistence, mixing with the hand quickly, till it can be rolled out, cut, and place in tins, and into a hot oven at once, if you wish them to be “light” and “puffy,” which they will be if this is all properly and quickly done. For as soon as the soda and cream of tartar are mixed into the flour and wet they begin to produce the gas which gives the biscuit or cake its lightness. The oven may be tempered down a little, if thought best, after the baking is fairly begun, to avoid burning. *Mrs. Catharine Baldwin.*

Remarks.—The author has seen nothing in the biscuit line so light, nice, sweet, and good, for his eating—when cold. Most people, however, prefer them hot. Half milk and half water does very well. When no milk is to be had, a very little more shortening will fill the bill.

Breakfast Biscuit.—To 3 cups of buttermilk add 1 of butter, 1 tea-spoonful of cream of tartar, $\frac{1}{2}$ a tea-spoonful of soda, sufficient salt, and flour enough to make the dough just stiff enough to roll out into biscuit. These will be wonderfully light and delicate.

Biscuit or Bread, Quick.—Flour, 1 qt. (3 or $3\frac{1}{2}$ cups); salt, scant tea-spoonful; baking powder, 2 tea-spoonfuls; sift together. Sweet milk makes soft dough. Work quickly as soft as can be handled, and bake immediately.

The next five recipes I take from the *New York Tribune*, headed “Some Southern Recipes,” which will prove valuable to some people, no doubt, in the North as well as in the South, and as they are all in the nature of biscuit or cakes, except the last one—“Velvet Cream,”—I will keep them together as found in the *Tribune*.

1. Southern Biscuit.—Two cups of self-rising flour, 1 spoonful of lard; mix with warm milk; knead into soft dough, and roll; cut with a biscuit cutter and prick each with a straw. Cook in a hot oven 10 minutes.

2. Palmetto Flannel Cakes.—One pt. of buttermilk, 2 well-beaten eggs, flour enough to make a stiff batter—the flour to be mixed, half wheat and half corn flour. Put a tea-spoonful of sea foam into the flour and cook on a griddle.

3. Breakfast Muffins.—For a small family, use 1 pt. of milk, 3 gills of wheat flour, 3 eggs, and a pinch of salt. Beat the eggs very light, add the milk, and lastly stir in the flour. Bake in rings or small pans and in a quick oven. They are very light.

4. Breakfast Waffles.—After breakfast stir into the hominy that is left 1 tea-spoonful of butter and a little salt. Set it aside. The next morning thin it with milk and add 2 eggs, beaten well. Stir in flour enough to make the right consistency, and bake in waffle-irons.

5. Velvet Cream.—Two table-spoonfuls of gelatine, dissolved in $\frac{1}{2}$ a tumbler of water; 1 pt. of rich cream, 4 table-spoonfuls of sugar; flavor with sherry, vanilla extract, or rose water. This is a delicious dessert, and can be made in a few minutes. It may be served with or without cream.

Remarks.—See the remarks above “Southern Biscuit.”

Rusks.—Rusks require a longer time for rising than ordinary rolls or biscuits. If you wish them for tea one evening, you must make all your preparations and begin them the day before; In cold weather, to make up $2\frac{1}{2}$ qts. of flour, prepare early in the afternoon a sponge in this manner: Mix into a paste with 1 pt. of boiling water, 2 table-spoonfuls of sugar, 3 of flour, and 2 large potatoes, boiled and mashed smooth. At 7 in the evening make up your dough with this sponge, adding 3 well-beaten eggs, $\frac{3}{4}$ of a lb. of sugar, and $\frac{1}{2}$ a pt. of sweet milk. Set it away in a covered vessel, leaving plenty of room for it to swell. Next morning after breakfast work into the risen dough, which should not be stiff, a $\frac{1}{4}$ of a lb. of butter and lard mixed. Make into rolls or biscuits, and let the dough rise for the second time. Flavor with 2 grated nutmegs, or $\frac{1}{2}$ oz. of pounded stick cinnamon. When very light, bake in a quick, steady oven till of a pretty brown color; glaze over the top with the yolk of an egg, and sprinkle lightly with powdered white sugar.

Rusk.—Boil and mash 2 good-sized potatoes, 1 qt. rich milk, 1 compressed yeast cake, dissolved, and flour to make a stiff batter; mix at noon; in the evening, when quite light, rub together $\frac{1}{2}$ lb. of sugar, $\frac{1}{4}$ lb. of butter, and beat very light 2 eggs; stir these into the batter with $\frac{1}{2}$ a grated nutmeg; mold up soft, put in a warm place, and when quite light break off pieces about the size of an egg, form them into small cakes laying them closely together in the pan; when very puffy wash over the top with a little sweetened milk and a little sugar if desired. Sugar is generally used on the top of rusk, but not on biscuit. Bake in a moderately quick oven.

Indian Rusk.—Two light cups Indian meal, 1 cup flour, 1 tea-spoonful

saleratus, enough sour or buttermilk to dissolve, 1 cup sweet milk; stir in $\frac{3}{4}$ cup molasses. Bake at once.

Muffins, No. 1, Very Light and Nice.—Flour, sifted, 1 qt.; sugar, 1 cup; eggs, 1; sweet milk, 2 cups; lard, 1 heaping table-spoonful; salt, 1 tea-spoonful; baking powder, 2 tea-spoonfuls. Mix on general principles; put into muffin rings, set in a pan, or, what is better, cast-iron muffin rings made in sets, and hot when dipped in, and placed at once into a quick oven.—*Mrs. Catharine Baldwin, Toledo, O.*

Remarks.—This amount will make about $1\frac{1}{2}$ dozen, so you can judge by the size of the family to use more or less material, as needed. Eaten in place of bread, with the meat course, then with butter and syrup, they are splendid. I think the nicest I ever ate. Very nice also cold. Although they are so light and dry, I do not object to eating them hot:

Muffins, No. 2. With Eggs.—Sugar, $\frac{1}{3}$ cup; butter or lard, 1 large table-spoonful; salt, 1 tea-spoonful; sweet milk, 1 qt. (if water is used, double the shortening); yeast, $\frac{3}{4}$ cup; 3 eggs; flour to make a batter. DIRECTIONS—Make over night; in the morning beat the eggs nicely and stir into the batter, and bake in muffin rings in a quick oven. If the oven is sufficiently hot they will bake in 20 minutes.

Muffins, No. 3, Without Eggs.—Sweet milk, 1 cup; flour, 2 cups; baking powder, 1 heaping tea-spoonful; bake in cup tins, in a hot oven.

Muffins, No. 4, With Cream.—Nice sweet cream, $2\frac{1}{2}$ cups; flour, $2\frac{1}{2}$ cups; 3 eggs; butter, 2 table-spoonfuls; salt, 1 tea-spoonful. DIRECTIONS—Beat the eggs very light, adding the cream, salt and butter; then stir in the flour, stirring only sufficient to mix evenly. Only half fill the rings and bake in a hot oven, serving as soon as done.

Remarks.—Muffin rings should always be well buttered.

Graham Muffins, No. 5.—Graham flour, 2 cups, or 1 of graham and 1 of white, as you prefer, only even full; sweet milk, 2 cups, a little scant; eggs, 2, well beaten. Bake in a hot oven; about 15 minutes will be required.

Corn Meal Muffins, No. 6.—Corn meal and flour, each 2 cups; baking powder, $1\frac{1}{2}$ tea-spoonfuls; eggs, 3, beaten with sugar and butter, each $\frac{1}{2}$ cup; sweet milk, 1 pt.; salt, a little. DIRECTIONS—Mix the baking powder into the mixed meal and flour, beat eggs, sugar and butter together, then the milk; stir in the meal, having the muffin rings set in a pan, fill properly and place at once in a hot oven.

Graham Gems.—Sour milk, 2 cups; sugar, $\frac{1}{2}$ cup; soda, $\frac{1}{2}$ tea-spoonful; graham flour, to stir thick; bake in cups, or iron gem pans, in a hot oven.

Remarks.—Both light and healthful.

Graham Gems, With Sour Milk and Eggs.—Sour milk, 1 pt., 1 or 2 eggs, well beaten, with one or 2 table-spoonfuls of sugar; soda, 1 tea-spoonful, and nice fresh graham flour to make a stiff batter; if 1 egg only 1 spoon of sugar. Put into heated iron gem pans and bake in a hot oven, and they will be light and nice.

Graham Gems, With Sweet Milk and Cream.—Sweet cream, 1 cup; sweet milk, 2 cups; salt, 1 salt-spoonful; graham flour, to make a batter, only a little stiffer than for griddle cakes. Beat thoroughly and drop into hot gem pans, while standing on the stove. Bake quickly, but be careful not to burn. If no cream, use milk in its place, with a very little butter to get the same richness.—*American Farm Journal*.

Remarks.—If any one fails to get light gems, next time add a little soda.

Graham Gems.—I have been watching your papers to see if they gave any recipe for graham gems as good as mine. I have seen none. Take $1\frac{1}{2}$ good pt. of graham flour, 1 pt. of sweet milk, mix them well together, beat the whites of 2 large eggs to a stiff foam, add yolks, beat well, heat gem pans hot, grease, have oven pretty hot, mix eggs in the last thing, carefully and quickly, as soon as they are beaten. Bake from 7 to 10 minutes.—*Mrs. M. P. Bush, Saline, Mich., in Detroit Post and Tribune*.

Graham Gems with Sour Milk or Buttermilk.—Graham flour, 1 qt.; 1 egg, well beaten; butter, 1 table-spoonful, melted; soda, 1 tea-spoonful; a little salt, sour milk or buttermilk, as below. Put the flour, beaten egg, butter and salt into a pan, dissolve the soda in a cup of the milk, and stir it with more sour milk, sufficient to make a stiff batter. The gem pans being warm, or hot, and buttered, dip in the batter to half fill them, for, if properly prepared, they will raise to fill the pans. This will be about sufficient to fill two sets of pans. Bake in a quick oven. These and graham griddle cakes are the only warm bread which the doctor allows dyspeptics to eat. Other bread should always be one day old before eaten by dyspeptics. Except warm corn bread, or breakfast corn cakes may also be eaten in moderation by dyspeptics, if it does not disagree with the stomach, as shown by rising after eating.

Graham and Wheat Pop Overs.—For the graham, use fine graham flour and milk, each 4 cups; eggs, 4; well beaten together; and the gem irons being hot, dip in, and bake in a ready hot oven.

For the wheat use the milk and eggs, and white flour enough to make a soft batter. Bake the same. Nice butter, and any nice fruit sauce, as berries, peaches, etc., make either kind very enjoyable.

Corn Cake with Soda.—Indian meal and wheat flour, of each 1 cup; butter the size of an egg; 2 eggs; sugar, $\frac{3}{4}$ of a cup; milk, 1 cup; cream of tartar, 1 tea-spoonful; soda or saleratus, $\frac{1}{2}$ tea-spoonful. Bake in a moderately hot oven.

Corn Cake, Set Over Night.—Put 1 pt. of meal in a dish with 1 tea-spoonful each of butter, sugar and salt; then pour over them 1 cup of boiling milk; when cool enough to bear the finger well, add yeast, $\frac{1}{2}$ cup, the same of flour and 2 beaten eggs; now, thin with water until a proper consistence for baking nicely. If kept quite warm it will rise in 2 or 3 hours. Bake in a moderate oven. Corn cakes require nearly double the time to bake, and less heat than flour; still they require good steady heat.

Vermont Johnny Cake.—Sour milk, 1 cup; soda, 1 tea-spoonful;

butter or lard, 1 table-spoonful; Indian meal to make a thin batter. Bake in a hot oven.—*Elizabeth Kent, Burlington, Vt.*

Plain Corn Cake, to Bake at Once.—Three cups sour milk, or buttermilk; 3 cups of Indian meal; 3 table-spoonfuls of molasses; 1 egg; a pinch of salt; 1 tea-spoonful of soda, and a heaping table-spoonful of flour. Bake in a quick oven.

Kentucky Corn Dodgers.—Place your griddle where it will heat, for this is much better than a bread pan, there being less danger of scorching at the bottom. Take an even pint of sifted meal, a heaping table-spoonful of lard, a pinch of salt and a scant half pint of cold water; mix well and let it stand while you grease your griddle and sprinkle some meal over it. Make the dough into rolls the size and shape of goose eggs, and drop them on the griddle, taking care to flatten as little as possible, for the less bottom crust the better. Place in the oven and bake until brown on the bottom. Then change the grate and brown on top, taking from 20 to 30 minutes for the whole process. To be eaten while hot, with plenty of good butter.

Corn Bread or Breakfast Corn Cake.—Some years ago business called me to pass through Toledo several times, and I staid over night, each time, at the Island House, where I found so much better corn bread at the breakfast table than I had ever eaten—according to my custom when traveling and finding some dish extra nice—I obtained the recipe, through influence of the waiter girl, as “mail carrier,” (paying a price equal to the price of this book,) who wrote it out for me in my diary while I ate my breakfast; here it is: One quart of corn meal, 1 cup of flour, or a little less; 1 table-spoonful of baking powder; milk, to wet; beating in 1 or 2 eggs, a little sugar and salt; put into a dripping pan, and put, at once, into a hot oven, but do not dry it up by over-baking. (See Corn Dodgers among the breads.)

Remarks.—I think I have eaten of it more than 100 times since, but I have never seen corn cake to excel it. It should be 1 to 1½ inches thick when baked.

Oatmeal, or Scotch, Cake.—Into 1 qt. of cold water stir the finest oatmeal enough to make it about as thick as hasty pudding. Be sure that the meal is sprinkled in so slowly, and that the stirring is so active, that the mush will have no lumps in it. Now, put it on the buttered pan, where it can be spread out to half the thickness of a common cracker, and smooth it down with a wet case knife. Run a sharp knife across it, so as to mark it into the sized pieces you wish, and then place it in a warm oven and bake slowly, being careful not to brown it. Salt.

Waffles, With Yeast.—Sweet milk 2 cups; flour, 2 cups; yeast, 3 table-spoonfuls; 2 eggs; melted butter, 1 table-spoonful; salt, 1 salt-spoonful. DIRECTIONS—Set the sponge over night; in the morning beat and stir in the eggs and butter; bake in waffle-irons.

Rice Waffles.—Cold boiled rice, 1 cup; sweet milk, 2½ cups; 2 eggs; butter, 2 table-spoonfuls; cream of tartar, 1 tea-spoonful; soda, ½ tea-spoonful; use flour to make the batter. Bake in waffle-irons.

Fried Cakes, Nut Cakes, Doughnuts, Crullers, or Twist Cakes, etc.—It does not matter which you call them, but Mrs. J. M. Venoy, of Wayne, Mich., informs the *Detroit Tribune* that for 10 years she has made fried cakes in the following manner without a failure: Sugar, 2 cups; cream and buttermilk, of each 1 cup; 2 eggs; soda and salt, of each 1 tea-spoonful.

Raised Doughnuts, or Fried Cake.—Bread sponge, equal to 1 qt.; warm water, 1 pt.; 2 eggs; sugar, 1 cup; salt, a pinch; lard or fryngs. 3 tea-spoonfuls; cinnamon, 1 tea-spoonful. DIRECTIONS—Mix same as bread; when light roll out and cut in any desired shape, and fry in hot lard. Mrs. J. F. Bayles, of Salina, Kans., furnishes this recipe to the *Blade*, and says: "If made without sugar, they are nice with coffee. I never object to the sugar, even with coffee."

Doughnuts, as Made by "Peggy Shortcake."—Sugar, 1 cup; 1 egg; sour milk, 1 cup; soda, $\frac{1}{2}$ tea-spoonful; flour to mix as for biscuit. DIRECTIONS—"Peggy" says: "Roll pretty thin; have your lard boiling hot, and fry a nice brown. No dyspepsia about these; try 'em, if you want such as grow 'way down East.'"

Doughnuts.—Sugar, 1 cup; butter, $\frac{1}{2}$ cup; 4 eggs; flour, $3\frac{1}{2}$ cups; milk, 1 cup; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; salt, 1 tea-spoonful; nutmeg, to taste. DIRECTIONS—Beat sugar and eggs together, with the cream of tartar and butter in the flour; dissolve the soda in the milk, then add it to the eggs and sugar, then the flour; roll out thin, cut and fry in hot lard.

Crullers, With or Without Eggs.—Buttermilk or sour milk, cream and sugar, of each $\frac{1}{2}$ cup; saleratus or soda, 1 tea-spoonful; spice and salt, to taste; a little yeast, and flour enough to mold, and let rise before frying: or, if an egg is at hand, beat and put in; the yeast may be left out, and the cakes molded, cut and twisted to suit and fried at once. But care must always be given in the frying, heat of the lard, etc.; for if not done they are spoiled, as much so as if scorched or over-done. Done nicely, any of these will be nice of their kind.

Fried Cakes.—Sugar and sweet milk, of each 1 cup; 2 eggs; baking powder, $1\frac{1}{2}$ tea-spoonfuls; melted lard, 6 table-spoonfuls; salt, 1 salt-spoonful, or to taste; flour to make as soft as can be rolled. Cut it into any shape desired and fry carefully. The author prefers his the next day after made, and so on as long as they keep without becoming too dry and hard; but if any of these cakes become dry and hard—the same with biscuit or slices of bread—steaming softens them very nicely.

Norwegian Breakfast Cake, Fried—Very Nice.—Put into a pan 4 eggs and 4 table-spoonfuls of sugar, and beat very light. Then add $1\frac{1}{2}$ cups of sweet cream, and 1 tea-spoonful of salt, flour enough to roll very thin. Cut in diamonds, and have ready a frying-pan of hot lard. The lard should be about half an inch deep in the pan. Lay the cakes in and turn quickly. They should fry fast. If you want them very nice, roll them in pulverized sugar as you take from the lard. In making them be careful not to roll the cakes up as

you put them into the frying-pan, but keep them nice and flat.—*Fannie T. Bradley, Fossum, Minn., in Blade.*

Rye and Indian Fried Cakes, or Drop Cakes.—Indian meal, 1 pt.; rye meal, $\frac{1}{2}$ pt.; molasses, 2 table-spoonfuls, and a little salt; cold milk to make a smooth batter, and drop from a spoon into hot lard. If not as light as desired, use a little soda next time. To be eaten with syrup.

Fritters, Plain—Quick.—Sweet milk, 1 pt.; 4 eggs; salt, 1 tea-spoonful; baking powder, 1 table-spoonful; flour. DIRECTIONS—Beat the eggs well, stir in salt and milk; then put the baking powder into 2 or 3 cups of flour and stir in, using as much more flour as will stir in well; drop into hot lard. To be eaten with maple syrup, or syrup made by dissolving granulated sugar.

Remarks.—"Ivy," of West Jefferson, Ohio, calls these Johnny Jumpup Cakes, because they jump up from the bottom of the hot lard so quickly and lightly.

Fritters, Sweet, Quick.—Make as above, with the addition of 1 table-spoonful each of sugar and butter.

Fritters, Light.—Warm water, 1 pt.; yeast, 2 table-spoonfuls; salt, $\frac{1}{2}$ tea-spoonful; stir in flour to make a thick batter. When light, drop into hot lard and fry brown. Eat with syrup or honey, while warm.

Cream Fritters.—Milk and cream, of each, 1 pt.; 6 eggs; $\frac{1}{2}$ of a nutmeg; salt, 1 tea-spoonful; flour, $1\frac{1}{2}$ pts.; baking powder, 2 tea-spoonfuls. DIRECTIONS—Mix in the usual manner, stirring in the sweet cream last; let the lard be pretty hot when dropped in.

Orange Fritters.—Take 3, or as many large smooth oranges, as needed, take off the peel and the white skin also, then slice them, crosswise, $\frac{1}{4}$ inch thick, pick the seeds out, and dip the slices in a thick batter made according to any of the foregoing recipes; fry nicely, placing them in layers, on a plate, as fried, sifting sugar over each layer. Serve hot.

Cheese and Apples, or Sandwich Fritters.—Wash and slice as many tart apples as needed, and cut half as many slices of cheese; beat 2 or 3 eggs, or according to the amount needed, and season rather highly with salt, mustard and pepper. Soak the cheese, a few minutes, in the egg mixture, then place a slice of the cheese between two slices of the apple, and dip them into the mixture also; then fry in hot butter, turning carefully, the same as oysters are fried. Serve hot, for breakfast, or Sunday tea, as there is too much labor for more than once a week.

Corn Fritters.—One qt. corn meal; 1 table-spoonful of lard; 2 eggs; 1 table-spoonful of salt; scald the meal with the lard in it with boiling water, cool with a little milk, add the eggs (beaten light); beat very hard for 10 minutes; make them thin enough with cold milk to drop off the spoon and retain their shape in boiling lard; have the lard boiling hot when you drop them in. Serve hot.

Buckwheat Griddle Cakes, Aunt Essy's.—Warm water, 3 pts.; salt, 1 dessert-spoonful. $\frac{1}{2}$ cup of good jug yeast; buckwheat flour to make a

batter. DIRECTIONS—Set in a warm place over night, and bake on a hot griddle. Serve warm, with good butter and syrup, made of sugar—maple is best—and she says you will need but little else for breakfast. The author would have at least some potatoes, and nice steak, and plenty of butter gravy with his breakfast; does not even refuse nice ham with plenty of ham gravy with his buckwheat cakes.

Buckwheat Griddle Cakes, "Arf and Arf."—Buckwheat and wheat flour, of each 1 pt.; molasses, 2 table-spoonfuls; a little salt; mix with water, and just before baking stir in a heaping table-spoonful of yeast powder.

Remarks.—"Sunshine," of Bridgeton, N. J., says they are nice made with wheat flour alone. I have no doubt of it; there might be some shortening added, but if to be eaten with meat, having plenty of gravy, it is not needed.

Buckwheat Griddle Cakes, in Rhyme.—For ordinary buckwheat cakes, we will give one in rhyme, from one of the muses of the *Detroit Free Press*, which may be relied upon as safe to follow:

If you fine buckwheat cakes would make
 One quart of buckwheat flour take;
 Four table-spoonfuls then of yeast;
 Of salt one tea-spoonful at least;
 One handful Indian meal and two
 Good table-spoonfuls of real New
 Orleans molasses, then enough
 Warm water to make of the stuff
 A batter thin. Beat very well;
 Set it to rise where warmth do dwell.
 If in the morning, it should be
 The least bit sour, stir in free
 A very little soda that
 Is first dissolved in water hot,
 Mix in an earthen crock, and leave
 Each morn a cupful in to give
 A sponge for the next night, so you
 Need not get fresh yeast to renew.

In weather cold this plan may be
 Pursued ten days successfully,
 Providing you add every night
 Flour, salt, molasses, meal in right
 Proportions, beating as before,
 And setting it to rise once more.
 When baking make of generous size
 Your cakes; and if they'd take the prize
 They must be light and nicely browned,
 Then by your husband you'll be crowned
 Queen of the kitchen; but you'll bake,
 And he will, man-like, "take the cake."

Remarks.—When buckwheat cakes are made without molasses, as is often done, if a small spoonful of molasses is added, each morning, to the cake batter, they will take a much nicer brown, being careful, however, not to burn them.

Mock Buckwheat Cakes.—To make mock buckwheat cakes, warm 1

qt. skimmed milk to the temperature of new milk; add 1 tea-spoonful of salt and 3 table-spoonfuls of good lively yeast; thicken to the consistency of real buckwheat cakes with graham meal, in which 3 small handfuls of fine corn meal have been mixed. Very coarse middlings, such as one gets from country mills, answers quite as well, and none but an expert would know the difference between the imitation and the real.—*Indiana State Sentinel*.

Remarks.—Why not have mock buckwheat cakes as well as mock minced pies? Certainly these will be found very nice and healthful. And any person can eat these, while with some persons real buckwheat cakes eaten as steadily as many do in the winter, causes an irritable condition of the skin, these will not, with anyone.

Buckwheat Batter, To Keep Sweet.—Keeping buckwheat batter sweet is sometimes very troublesome, especially in mild weather. It is said the only way to keep it perfectly sweet is to pour cold water on that left from one morning to another. Fill the vessel entirely full of water and put it in a cool place. When ready to use pour off the water, which absorbs the acidity.—*Lansing Republican*.

Buckwheat and Graham Griddle Cakes, Also Oatmeal Griddle Cakes.—Buckwheat cakes are improved for some people by mixing the buckwheat with graham flour. Put about one-third of graham with it. Start the cakes at night with yeast—a small tea-cupful of yeast to 1 qt. of flour; mix with cool, not cold, water, and set in a warm corner. Griddle cakes can be made of oatmeal by putting one-third of wheat flour with it. They require more time for cooking than buckwheat cakes do, and should be browned thoroughly.

Bread Griddle Cakes.—Take your pieces of dry bread, and pour over them boiling water; stir and beat to a smooth paste; put in flour enough to make them the consistency of buckwheat cakes; add a little salt, 1 tea-spoonful of soda, and 3 eggs, well beaten. They are delicious for breakfast or tea. If the weather is cold, it will be better to soak the bread over night. Milk is better than water to soak the bread in.

Bread Griddle Cakes, Richer.—Soak a loaf of bread, or its bulk in stale bread, in milk over night; in the morning stir in 1 cup of flour, 2 eggs, beaten till light; a table-spoonful of butter or lard; soda, 1 tea-spoonful, and a little salt. Mix smooth and drop 2 spoonfuls upon the hot griddle for each cake.

Pancakes or Griddle Cakes With Dry Bread.—Crumble the bread and soak in cold milk until soft, then add soda or saleratus, and salt, according to amount, and flour to make a batter.

With Rice.—Cold, boiled rice, 1 cup; flour, 3 cups; 2 eggs, beaten; salt, 1 tea-spoonful; milk to make a thick batter; baking powder, 1 tea-spoonful; beat well together—hot griddle.

Rice Griddle Cakes.—Left over rice may be used; but if it is to be boiled purposely take rice, 2 cups, well washed, and boil in about 1 qt. of

water till nicely done and the water about all evaporated; then add milk, 1 qt. wheat flour, 1 cup, and 1 beaten egg.

Indian Griddle Cakes.—White Indian meal, 2 cups; flour, 1 cup; yeast, $\frac{1}{2}$ cup; salt, 1 tea-spoonful; milk to make a stiff batter; put in a warm place over night, as sponge for bread; stir in the morning, and make of a suitable consistence by adding milk or meal with a little flour, which ever may be needed.

Graham Griddle Cakes.—For a family of 4 or 5 persons, take sour buttermilk, 2 cups, with a small tea-spoonful of soda; 2 eggs, well beaten, and added with a pinch of salt; then stir in graham flour to make a batter a little thicker than usual for cake batter. Fry upon a hot griddle, and keep in a tureen or other covered dish.

Remarks—By some people griddle cakes are always called “pancakes.” It matters not which you call these; but they take the place of bread during the meat course for breakfast, after which with a little nice butter and a home-made syrup, by dissolving granulated sugar by putting in a little water and bringing to a boiling heat—I like the syrup to be pretty thick; and I greatly prefer these for general use to those made from buckwheat, both in flavor and for healthfulness, as they never cause an eruption upon the skin as buckwheat often does. With those having rich cream and maple sugar, they will prove a rare dish, not soon abandoned if tried. If graham bread, graham biscuit, or gems, are left over until they become dry, let them be broken into sour milk or buttermilk over night, then mashed with a spoon or a clean hand in the morning, and thickened with a little graham flour, and the cakes will be very light and nice by using a little soda, as first mentioned. These, like warm graham biscuit or gems, may be eaten in moderation even by dyspeptics, by which you may know, as the author has proved, they are healthful.

Crackers.—To 1 qt. of light bread dough—about enough for 1 loaf of bread—work in shortening, 1 cup, and soda, $\frac{1}{2}$ tea-spoonful; then knead in flour to make a stiff dough; roll and pound with the rolling-pin for 15 or 20 minutes, then knead and roll thin and cut with a small cutter, put in a dripping pan, pick with a fork and bake. Graham crackers may be made in the same way.—*Farm and Fireside.*

Graham Drop Cookies.—Material.—Brown sugar, one and one-half cups; stoned and chopped dates, one cup; vegetable fat and butter, one cup; sour milk, one-half cup; graham flour, to roll; powdered cinnamon, one tea-spoonful; baking soda, three-fourths tea-spoonful; salt, one tea-spoonful; eggs, one or two. DIRECTIONS—Cream the fat and sugar together in an earthen mixing bowl; add the well-beaten eggs, milk and all dry ingredients mixed and sifted with some of the flour. Add more graham flour to stiffen for rolling or they may be mixed and dropped from a teaspoon into a buttered pan and bake from ten to twelve minutes. This makes about fifty cookies. Three cups of rolled oats and two cups of pastry flour may be used for oatmeal cookies. If vegetable fat is used instead of lard these cookies are a perfectly good, wholesome sweet for children to eat.

M E A T S .

CURING, SMOKING, KEEPING, ETC.—Curing Hams, Smoking, Etc., as Done in Pennsylvania.—Good for All Places and Kinds of Meat.—The following is the plan pursued in Pennsylvania, where it is well known that they have the very nicest hams:

After the hams are nicely trimmed, lay them upon slanting boards, to carry off the dripping brine, and rub well with pure fine salt, working it into every part; then let them lay 48 hours. Then brush off the salt with a dry cloth or brush-broom, and have ready a mixture of powdered saltpeter, 1 teaspoon; brown sugar, 1 dessertspoon, or a small tablespoon, of red pepper; use 1 teaspoonful of the mixture for each ham or shoulder, and rub well into the fleshy parts; then pack in a tub or barrel, skin-side down always; put also a good sprinkling of nice, pure salt on the bottom, and between each layer, as packed. Let them stand thus 5 days; then cover with pickle made as follows:

To each pail of water required put 4 lbs. of pure, coarse salt; saltpeter, $\frac{3}{4}$ to $1\frac{1}{2}$ ozs., and brown sugar, $\frac{3}{4}$ to $1\frac{1}{2}$ lbs. The pickle should be made beforehand, so as to remove all skum arising, and to be cold when poured on. According to the size of the hams, let them lay 5, 6 or 7 weeks.

For Beef, 10 to 15 days only, according to size of pieces, in the same strength of pickle, and same treatment. Hang up a few days to dry nicely before smoking.

Remarks.—It will be noticed that there is a margin given in the amount of saltpeter and the sugar; it is because some persons prefer more than others. The least amounts given would be enough for me. I will remark here, for all, that the smoking and putting away for summer use should always be done while the weather is yet too cold to allow a fly to be seen, so there need be no annoyance from them, nor from bugs, if packed according to direction.

The following for hams or beef is from a lady, a name-sake of mine, Jennie Chase, of Elsie, Mich., differing a little from the above in that she uses a little saleratus, which is said to prevent meat from becoming dry and hard. I will give it, as some of the ladies know more about such matters than their brothers or husbands. I do not know, however, that this one has either, for I have never seen her, but would be glad to, and thank her for not being ashamed to give her name with her information. She says:

Hams or Beef—Pickle for.—“For 200 lbs. of meat, use 14 lbs. of salt, $1\frac{1}{2}$ lbs sugar, 6 oz. saltpeter, 2 oz. saleratus; dissolve by boiling in three pails of soft water; skim, and when cold, pour over your meat. Sprinkle a very little salt on when you put down your meat. As soon as the weather is warm, scald the brine, and add a little fresh salt.”

Remarks.—The plan of scalding on the approach of hot weather, and add

ing a little more salt, is certainly desirable for keeping meat over summer in the pickle.

Curing Ham, or other Meat for Smoking, without Pickle—Warranted to Keep all Summer.—This plan is from Mrs. S. Weaver, of Columbiana, O., who says it has been in use in their family eight years, while, if not good, one year would have been sufficient. I will give it in her own language. She says:

“Take 1 lb. of saltpeter, one 1 lb. of pepper, 3 lbs. brown sugar and 10 qts. of salt to 1000 weight of pork. Dissolve the saltpeter in a very little hot water; mix all the ingredients well, and then rub it on and into the meat—hams, etc.—with the hand, until it is everywhere covered. Insert your finger under the center bone in hams and shoulders, and then fill that opening with the mixture. Then lay in a cool place for about two weeks, not allowing it to freeze, when it will be ready to smoke. This recipe has been tried and tested by a number of people, and is a preventive in keeping off all troublesome insects, and the meat will be sweet and tender, and warranted to keep all summer.”

Remarks.—The plan of pushing the finger in alongside the bone, and filling with the salt mixture, is valuable. A butcher-knife pushed in along-side of the bone, would be the easier way for many to do. If used on beef, one week would be long enough to lay instead of two for pork, as it takes salt or other seasoning quicker than pork.

Pork and Beef for Farmers, or Others, to Have Fresh in Hot Weather, Without Cooking to Keep it, as Heretofore—Tested for Several Years.—It has been known for some time past that if fresh meat was pretty well cooked, seasoned as for present eating, and packed in jars in its own fat, it would keep a whole season as well as canned fruit, it being upon the air-tight principle; but a writer in the *New York Times*, after a fair test, gives us the following plan, without the cooking, which most persons will, no doubt, prefer, then do the cooking when it is wanted for the table. He says:

“There is no good reason why farmers and their families should eat so much salt pork, leaving all the fresh to the inhabitants of cities and villages, when the following method will keep meat fresh for weeks even in the warmest weather. I have tried it for several years. As soon as the animal heat is out of the meat, slice it up ready for cooking. Prepare a large jar by scalding it well with hot salt and water (strong brine). Mix salt and pulverized saltpeter. Cover the bottom of the jar with a sprinkle of salt and pepper. Put down a layer of meat, sprinkle with the salt, saltpeter and pepper the same as if it was just going to the table, and continue in this manner until the jar is full. Fold a cloth or towel and wet it in strong salt and water in which a little of the saltpeter is dissolved. Press the cloth closely over the meat and set it in a cool place. Be sure and press the cloth in tightly, as each layer is removed, and your meat will keep for months. It is a good plan to let the meat remain over night, after it is sliced, before packing. Then drain off all the blood that oozes from it. It will be necessary to change the cloth occasionally, or take it off and wash it first in cold water, then scald in salt and water as at first. In this way farmers can have fresh meat all the year round, I have kept beef that was killed the 12th of February till the 21st of June. Then I packed a large jar of veal in the same way during the dog days, and it kept six weeks. This recipe alone is worth the price of any newspaper in the land.”

N. B. If you have not a cool dry place to keep the jar, run about two inches of lard over top of meat and then put on the cloth.

Remarks.—This writer is certainly correct in the idea “that there is no good reason why farmers and their families should eat so much salt pork,” for it is destructive to good health, besides it is not so palatable and pleasant as to have it fresh, at least once daily, and as much oftener as they will take this little additional labor of putting up. The pieces should be cut of a uniform thickness, and also cut to fit the jar as nearly as possible, small pieces being cut to fill each layer nicely, to keep it level; and no more salt and pepper put on than would be required for present eating. A heaping teaspoonful of powdered saltpeter will be enough for 1 pt. of salt. This writer does not give his proportions. Of course, a brine is formed by the juices of the meat, salt, saltpeter, pepper, etc.

To show you that this writer is not alone in this plan of keeping meat, I will give an item from another, who says:

Beefsteaks—To Keep Fresh a Long Time.—“Have the steaks cut about the usual thickness. Mix together some salt, sugar and some finely-powdered saltpeter. In an earthen jar lay a steak, and sprinkle it with the mixture; put on another, and sprinkle the same as before, and over all turn a plate with a heavy weight on it. This will form a brine of its own, and the meat will keep sweet in this way a long time. You can take it out and broil in the usual way. This is a very good receipt for people who live away from cities. Do not let it freeze.”

Remarks.—He says: “Do not let it freeze.” Of course, anybody ought to know that this would keep steaks fresh in cold, freezing weather; but it will do it, too, in warm weather. He does not give the proportions; put on only as much seasoning as if just going to cook it for the table; say, for each pound of steak 1 teaspoonful each of salt and sugar, with 1 teaspoonful of saltpeter and black pepper to each 4 or 5 lbs. of steak, on the principle of one of the plans of seasoning sausage below; for me, if 1 teaspoonful of summer-savory was also put in for each 4 lbs. of steak, so much the better.

To Keep Hams After Being Smoked.—After Hams are smoked, and ready to be put away, a writer in the *Toledo Blade* says:

“First fill a large kettle or boiler full of water and let it come to a boil, then dip your hams in and let them remain three minutes, then remove to a board or table and cover them with a thick paste made of flour, water and cayenne pepper. Have the paste red with the pepper. Let them lay in the sun until dry. Then put in paper sacks and tie closely, and hang in a dark place. This will keep them nice the year round if they are put up before fly time. This is a tried recipe and can be relied on.”

Remarks.—There is no doubt of the reliability of this plan; for the simple wrapping of hams in brown paper, then tying up in flour-sacks, will secure them against flies, bugs, etc.; still, the above additional labor will certainly give a positiveness that no fly nor bug can pierce this peppery paste. I would put that on, even if I did not dip them in the boiling water. But the dipping makes, as it were, an oily case, or cover, of the outer surface, which, with the paste, is really an air-tight protector, as much as if put into an air-tight can.

Even by packing hams in open barrels, secured on every side with wheat or oat straw, a writer in the *Iowa State Register* claims to have kept hams perfectly sweet and free from flies and bugs. I should greatly prefer the stout paper sacks, either with the paste above or wrapping in several thicknesses of brown paper, secured with twine, before putting into the sack.

Curing Hams, as Done by Packing Houses.—A Mr. Backus, who used to carry on the packing business in Adrian, Mich., with whom I afterwards became well acquainted in Toledo, both of us doing business in the same block, gave me his plan, with which he was very successful, as follows: Use pure salt, enough to make the brine to float a medium sized potato half an inch out of the water; and for 280 to 300 lbs of ham to be packed with salt in a 40 gallon cask: good rich molasses, 1 qt., and $3\frac{1}{2}$ ozs. of rock niter (saltpeter), which has not been adulterated with salt. He thinks it better to not put in over 280 pounds to such a cask, head up, then bore a hole and put in the brine and let settle and fill up again, leaving some on top of the head to insure the cask to be full when driving the plug. Bore with 1-inch augur after the head is put in. Six weeks will cure, but no harm if they stand for months before smoking.

Remarks.—I have given this in his own form of expression, and am well satisfied of the nature of his instructions. After smoking properly, packing house men always wrap well in paper, then cover with canvas, to secure against insects. This same strength of brine, with the molasses and pure saltpeter, will be equally valuable for side meat to be kept "all the year round."

Beef Pickle, and an Excellent Plan of Keeping Sweet and Juicy.—For 200 lbs., or a barrel of beef, the best, pure salt, 15 lbs.; saltpeter, 4 ozs.; molasses, 1 qt., and brown sugar, 3 lbs.; soft water to fill the barrel, 6 to 8 gals., if well packed. **DIRECTIONS**—The beef, having been properly cooled and cut into sizable pieces, of 5 to 8 lbs., rub a little salt on the cut edges, that has 1 table-spoonful of powdered saltpeter to 1 qt. of salt, and lay them, singly, upon a table or bench over night to draw out the blood. In the morning put the water and saltpeter, as above, into a large kettle and bring to a boil. And now, having a suitable wire hook or two, dip each piece of beef into the boiling water and hold while you count 20 naturally, *i. e.*, not hurrying, nor being slower than usual in counting, which closes the pores against the escape of the juices of the meat into the pickle when barreled; on the same principle that meat should be put into boiling water when to be cooked for the table, and into cold water for soups, so the juices will flow out into the soup. When this is all done, put in the other ingredients, as above, to the water and dissolve, and as it begins to simmer begin to skim before it boils, pouring in a little cold water, if needed, to allow all the skum to be taken off before it boils; then let stand till cold; the beef having, in the meantime, been packed with a little salt in bottom of the barrel, and between the layers, strain the cold pickle upon it through muslin. If the blood was properly drawn off, as first directed, it will seldom be necessary to scald the pickle before May 1st to 15th, then adding 2 or 3 lbs. more of salt, skimming well, re-packing with a little more salt, putting on the pickle cold.

Remarks.—This needs no further comment nor explanation. If done as directed, I will guarantee its safe keeping and juiciness. It takes a little more labor to ensure success with beef than it does with pork, but it pays; for what is nicer than a piece of corned beef with the “biled dinner” occasionally? Nothing. Some persons like soda in their beef, believing it helps to keep the pickle sweet and the beef more tender. The following contains it:

Dr. Warner's Recipe for Curing 100 Pounds of Beef.—Six qts. salt, 6 lbs. sugar, 6 ozs. soda, 4 ozs. saltpeter. Mix all together, and rub well into the meat, having previously removed the bones. This makes its own brine.

Remarks.—I should prefer to draw out the blood, over night, as in the next recipe above; then rub this mixture into the 100 lbs. of beef and keep weighted down, and be sure of success.

Pressed Beef.—Take any amount you choose of the cheaper pieces of beef, as the neck, say 8 or 10 lbs., and of the flank, or “skirt” pieces, that has some fat, to make it show a marbled appearance when pressed. Let it lay in a weak brine over night; rinse and boil until it will fall to pieces when you attempt to lift it, or from the bones, if any in it, keeping closely covered to retain as much of the flavor as possible; using only water enough to avoid burning, adding boiling water, at any time, if needed. Take up the beef, and when cool chop it finely, skim off all the grease from the liquor; and it is all the better to add to this liquor, a table-spoonful of good gelatine for each 4 or 5 lbs. of beef, the liquor being boiled down properly, and when the gelatine is dissolved and the liquor quite jelly like, mix it with a little salt and suitable spices (the mixed spices as now kept by most grocers are very good), into the chopped beef and pack in jars, and put a plate upon the top, and at least 15 pounds weight on the plate. When cold it is ready for slicing, for breakfast or tea, and if properly seasoned, is easily digested, is very nourishing as well as economical, and very convenient when in a hurry. It will keep several days, in spring and fall, and a month or so in winter. Garnished with a lemon sliced thin, so a slice can be taken by each guest, gives a zest to ones lagging appetite, although, with this, but few appetites need coaxing. To avoid any possibility of moulding, a cloth, two or three thicknesses, wet in salt water, may be pressed upon the top of the jar, after the plate is removed, and against the side when sliced off.

1. SAUSAGE—Amount of Seasoning to Suit Most Tastes.
—Pork, 20 lbs., $\frac{3}{4}$ lean, $\frac{1}{4}$ fat; salt, 6 ozs.; pepper, 1 oz.; sage, $1\frac{1}{2}$ ozs.
DIRECTIONS—Chop the meat fine, or grind, if you have a grinder, mash the salt, if lumpy, pepper and sage ground nicely, and all mixed in evenly, and put in cases, or in clean muslin sacks, as you prefer. Muslin works very nicely cut in strips about 10 inches wide and sewed up gives a sack about 3 inches in diameter—cut off about 15 inches long, one end tied, then, they being perfectly clean, and wet, pack in the sausage meat, and press in with the potato masher, or one made for the purpose, as they need pressing closely to keep well. Tie the other end, pack closely in a jar, or firkin, and cover with a weak

brine, for present use—a stronger brine if to keep long, or the sacks may be well rubbed with lard, or butter, and hung up. To use, open one end, turn the sack back, and slice off about $\frac{3}{4}$ of an inch thick, for frying, is a very nice way. To keep into the summer as much as $\frac{1}{2}$ lb. of salt may be needed; and some persons may like more, and some less, sage. Those who like but little sage use only 1 oz. to the 10 lbs., and those who like it quite strong of sage use 2 ozs. But the $1\frac{1}{2}$ ozs. will suit most tastes. With these variations all tastes can be met with very little trouble. It saves all this trying, tasting and guess work. Having tested these in this way, and submitted them to the taste of many others, I know whereof I speak. Those who like beef in their sausage can put in 1 lb. of the lean to each 10, which will be found plenty. It makes the sausage dryer and firmer.

Remarks.—For small amounts of sausage Mrs. M. E. Kellogg, of Brighton, Mich., says: “For each pound of meat put 1 tea-spoonful of salt, 1 of pepper and 1 of sage. These proportions are just right and easily got at.” Heaping, of course.

2. Sausage, to Can, or Put in Jars for Long Keeping.—A writer, in one of the “Household Departments,” gives the following instructions for doing this. She says: If partly fried, packed in jars, and covered with its own dripping, it remains delicately fresh for a long time. We like the method of packing sausage in muslin bags about 3 inches in diameter—just the thinnest old, clean muslin will answer—and the slices are so round and dainty. Rub the surface with lard before hanging away, as an aid to preservation.

3. Sausage to Keep Through the Summer and Ham the Year Round.—The above is confirmed by O. S. Cohoon, of Belvidere, Ill., with the additional thought of preserving ham, through the *Detroit Tribune*, in answer to a lady, who inquired for a recipe to keep sausage through the summer, which, if properly done, can't fail. The writer says: After the sausage has been made from 24 to 48 hours, slice and cook about two-thirds done and pack in good stone jars, allowing the jars to stand on the stove hearth, or in some warm place while cooking and packing. Have plenty of hot lard in the pan while cooking. When done, place a light weight on the meat and cover with hot lard. The meat must be kept covered with the lard. This is also the best way to preserve ham—the year round.

Remarks.—To have nice fresh sausage or ham, at all times, handy, is worth a little extra labor. Keep covered with lard, as taken out, to avoid mould.

1. BOLOGNA SAUSAGE—Fine, as Made in Germany.—The London, England, *Farmer* claims to have obtained this from the classic land of sausages. I think it will be nice enough for the people of our country, as well as England and Germany. It is as follows: Lean beef, freed from gristle, is to be chopped up very fine and mixed with $\frac{1}{3}$ or $\frac{1}{2}$ its weight of lean pork similarly treated. To this mixture is added an equal bulk of fat bacon, cut in strips as thin as the back of a knife, and then chopped into pieces about the size of a pea. For every 12 lbs. of this mass are required $\frac{1}{2}$ lb. of salt, 1 dr. of saltpeter, $\frac{1}{2}$ lb. of powdered sugar, and 1 table-spoonful of whole white pepper. The block on which the meat is to be chopped should be previously

rubbed over with garlic, but none of this must be mixed with the sausage mass. In filling the sausages the meat must be well crammed home with suitable appliances, as pressure with the hand alone is quite insufficient to keep out the air, which is sure to spoil the result. After hanging for 2 or 3 weeks to dry, the red color of the meat and the white bits of fat will be visible through the skin of the sausages, and then it is time to smoke them. By careful attention to these directions, sausages thus prepared will keep well for at least a year and a half, and the delicacy of their flavor increases as they get older. The great secret of their keeping qualities is to put in plenty of bacon.

Remarks.—Where the word “bacon” is used here, and above “fat bacon,” they mean simply fat pork, fresh, of course, the same as the beef must be, not “bacon,” as we understand the word in the United States to mean cured and smoked sides—not at all—this is not it, but fresh, fat pork.

2. Bologna Sausage Americanized.—Somebody has Americanized the above, as follows, but I don't know who; still, it will be nice for those who like cayenne (and, by the way, if we would all use more cayenne or red pepper, and less of the black, it would be the better for us); but I should try only $\frac{1}{2}$ spoonful at first, and if more would be tolerated by the children (who, as a general thing dislike it very much), and only a small onion, increasing or lessening either, as found most agreeable:

“Lean pork, 6 lbs.; lean beef, 3 lbs; beef suet, 2 lbs.; salt, 4 ozs. (I should say 6 ozs.); 6 table-spoonfuls of black pepper, 2 table-spoonfuls of cayenne pepper, 2 tea-spoonfuls of cloves, 1 of allspice, and 1 minced onion. Chop or grind the meat, and mix well the powdered spices through it. Pack in beef skins as you do those of pork, tie both ends tightly and lay them in strong brine. Let them remain one week, then change them into a new brine. Let them remain another week, frequently turning them. Then take them out, wipe them, and send them to be smoked; when smoked rub the surface well with sweet oil or butter and hang them in a dark, cool place.”

Remarks.—It strikes me that 1 table-spoonful of cayenne will be found enough for most persons, especially children, who are very fond of “Bologna.”

After all this mincing for sausage, “Bologna,” etc., it may not be amiss to close with a mixture for Christmas pie, aside from those in the department of “Dishes for the Table,” etc., to have always ready for use through the winter, as follows:

Minced Meat for Pies.—Chopped beef (the neck does very well if boiled very tender—any part should be thus boiled), 5 cups; suet (uncooked), chopped, after freeing it from the membrane and stringy portions, 2 cups; stoned raisins, unchopped, 3 cups; English or dried currants, and cherries, if you have them, each, 1 cup; brown sugar, 5 cups; nice cider, 6 cups; or, if no cider is to be had, water, $3\frac{1}{2}$ cups, and good vinegar, $2\frac{1}{2}$ cups; but these are not equal to the cider; citron, chopped, 2 cups; cloves, cinnamon, nutmeg, mace, allspice (all in powder), and salt, each, 1 table-spoonful (more of all, or any one of these spices, or salt, if desired, on tasting); the grated yellow and juice of 2 lemons; nice, tart, chopped apples. **DIRECTIONS**—As this amount will make more than many families will wish to bake into pies at one time, for

each 2 cups of this mixture that you wish to bake take 3 cups of apple, as above, and mix nicely, and if not as juicy as desired (and mince pie to be good needs to be quite juicy), put in cider to suit, or its substitute as above, and bake with light, porous crusts, the "filling" meat being not less than a plump half to three-fourths of an inch in thickness, so it may be said of the cook, as it often is when she cuts her bread pretty thick, "You would make a good step-mother," which will be as great praise as can be bestowed upon her, and if she does it all nicely, she will deserve it.

Remarks.—Some people will have brandy or wine in their mince pies, let such put in 1 cup of brandy, or 2 cups of wine, into the above amount. It is each one's privilege to suit themselves, or the demand of the majority, or the head of the house, as the case may be. What is not baked up when made, pack nicely in jars and cover well with cloths and a plate with a light weight upon it, or other cover, not adding the apples only as used, as the meat keeps better without.

ADDITIONAL RECIPES.

Beef a la Mode.—Materials.—Upper cut of round of beef, five pounds; salt pork, six strips; carrot, dried, one-third cup; turnip, one-third cup; celery, one-third cup; onion, one-third cup; parsley, bay leaf, salt and pepper, cinnamon, one-fourth teaspoonful; cloves, one-fourth teaspoonful. DIRECTIONS.—Have this cut about four inches thick. Remove the bone and bind the beef into good shape with a tape or strip of muslin. Cut deep gashes in the meat and mix salt, pepper and spices together and rub into these openings, then lay in strips of salt pork, put two tablespoonfuls of good fat into a kettle and when hot brown the meat well on both sides. Remove the meat and thicken a gravy made with four cups of water and two tablespoonfuls of flour. Boil and add the vegetables and other seasonings. Push them to one side in the kettle and return the meat. Cover closely and cook slowly in a fireless oven, cooker, casserole or over a very slow fire four hours. Serve on a hot platter with vegetables and sauce poured around it; or the sauce may be rubbed through a sieve. This may be allowed to cool in the sauce and sliced cold, garnished with radishes and parsley and served with tartare sauce.

Beef With Dumplings.—Materials.—Shoulder of beef, two pounds; butter or fat, two tablespoonfuls; flour, one tablespoonful; onions, one; parsley, salt and pepper. DIRECTIONS.—Select the given amount of meat from the shoulder and cut it into inch pieces. Put the fat into a spider and when very hot put in the meat and brown on all sides. Take out and put into a sauce pan and add the flour to the fat in the spider, mix and add one quart of boiling water. Stir over the fire until it boils, then strain over the meat, add the onion sliced and a spray of parsley. Cover the sauce pan and let simmer for two hours. When half done add salt and pepper.

SOUPS, BOILING MEATS, ETC.

Remarks and General Directions.—The most nourishing soups are made of fresh meats; but whatever meat you use should be put in cold water, well covered, and kept at a low temperature and never allowed to boil, for at least one hour, after which a bubbling boil may be allowed. Remembering that the first hard boil hardens the surface and locks up the juices of the meat, which is important to draw out in soup-making. For economy's sake, a knuckle-joint or a shin-bone is preferable; but there should be sufficient meat attached to give the required nourishment and flavor of the meat used. However, after the first hour slow stewing has passed, any cold meats or bits of fowl which have been left over, may be added, having been cut in small slices. It is well, also, with fresh meats to cut small, and bones to be well cracked, or sawed across to allow the marrow and juices to escape. Vegetables should be cut fine or sliced thin, or grated upon a coarse grater, as preferred. Salt helps to harden and lock up the juices, and hence should not be put into soups until the vegetables are added, about an hour before serving. But soup meats should be put over the fire as soon after breakfast as possible, so as to give 4 or 5 hours to its preparation.

In Cold Weather soup-plates should be well heated before serving the soup in them from the covered tureen; and in fact, all plates in cold weather, from which meats or gravies are to be eaten, should be well warmed before bringing to the table. Soup properly "warmed up," *i. e.*, put on just before dinner-time, so as not to be long upon the stove, is equal if not better than the fresh made; and this is especially so when beans enter into its make.

Straining and Filtering not at all Necessary.—The fancy "Cook-Books" talk about straining soups, and some even of filtering through a hair sieve after straining. The straining will remove fully one-half of the nourishing properties used, but if "style is preferable" to the strength which would otherwise be obtained from the thicker parts of the soup, by all means both strain and filter them. One point more, and I am done with the general ideas of soup-making—it is this: for healthy people it is not essential to trim off the fat from soup meats, nor the oily particles from the top of soups; but for invalids both these must be done, either by making the day before and removing the fat when cold from the top, or by dipping off as much as possible while hot. As soups always come on the table before the other dishes, we will let them also go before "Various Dishes" in making up the book.

Boiled Dinner—How to Get It Up.—To get up a "boiled dinner" it is of the same importance to keep the juices in the meats that it is to draw them out in making soups, therefore as putting into cold water and heating

slowly draws them out, so putting into boiling water, properly salted (when fresh meat is used), and continuing to boil briskly shuts up the pores and keeps the juices and nourishing properties in the meats, which is the whole secret of success. And nothing more can be said except what would repeat, in some manner, this only important difference. So the author will now trust to the common sense of the people for whom he writes, and has for over twenty-five years written, only adding: never let the boiling stop when getting a boiled dinner, nor never allow hard boiling when making a soup.

Bean Soup.—As I look upon bean soup as the *best* of old soups, I will give a receipt taken from “A Book of the Sea,” which, having had it made several times, I can say it can be depended upon. And when I say it was given by a sailor, the phraseology needs no further explanation. He says:

“The fact is, that bean soup at sea is such a stand-by that the sailor-man on shore sometimes gets quite mad when it’s offered him, and still, bean soup is a mighty good thing, and all according to the way you make it. Now, you get a lot of swells on board, and make ’em soup, and call it *haricot* (in England, this name is still used for beans) and not beans, which is vulgar, and if you know how to turn it out, they will take three platefuls.

“First, you get a *pint and a half* of good sound beans—I don’t think there is much difference in beans, whether they are *big or little*—and pick ’em over and stand them for an hour in a bowl of cold water. Take three pounds of meat or a shin-bone, and put the beef in 4 quarts of cold water, and let it boil. Fry an onion and put that in, with say 6 white cloves and a dozen peppers (the small cayenne peppers, the same that are used in making pepper sauce), and some parsley, with a tablespoon of salt. Let it boil for two hours, and you keep skimming. As fast as the water boils away, you keep adding a little hot water. When the concern is cooked, take a colander and strain your soup through it, mashing up the beans and keeping out the meat and the bean shin. If you want to be superfine, you can hard boil an egg, and slice white and yellow through, and put them in the tureen; likewise some slices of lemon. Bits of toast don’t go bad with it. If you happen to be cruising south, just you use, instead of the New England bean, the Georgia or South California cow-pea.”

Remarks.—The author never had any soup he liked better than this, although the following is very nice.

Bean Soup with Cream or Milk.—Take 1 pt. of beans, parboil and drain off the water, adding fresh. Never put cold water upon beans which have been once heated, as it hardens them—boil until perfectly tender, season with pepper and salt, and a piece of butter the size of a walnut, or more if preferred; when done skim out half the beans, leaving the broth with the remaining half in the kettle, now add a teacup of sweet cream or good milk, a dozen or more of crackers broken up, let it come to a boil, and you have a dish good enough to offer a king.

Corn and Bean Soup.—Take 2 lbs. of fresh beef, 1 lb. of fresh pork, and 1 pint of black or navy beans (I think white ones will do just as well), soak over night, one large onion, a small carrot, a head of celery. Put the above ingredients into the soup pot with a gallon of cold water, and let simmer gently for five or six hours. Take off and let get cold; remove the grease, and place

on the stove to boil again. About an hour before dinner add a quart of **canned** corn. Strain the soup, season with cayenne pepper and salt, and **serve it with** or without the addition of boiling cream.

Remarks.—Excuse me from the straining, but give me the cream, if you have it, by all means. And I have not a doubt but what salt meats, properly freshened, would make a soup hard to tell from that made with fresh; and sweet corn, in its season, cut from the cob, 1 qt., will do as well as canned. I know this from the nature of things upon general principles. So let others judge, in all things from their own common sense—Think. I have made these remarks to set people to thinking upon common things in the way here indicated, for themselves, which is the true way to all improvements. Instead of straining, sometimes, you may rub the beans and the corn, when perfectly tender, through a colander, as indicated in the sailor's plan above, and thus get rid of the skins of the beans, and the hulls of the corn. This last is from more of the same kind of thinking. Put the *puree*, (any soft, mushy mass) back into the soup, and make hot when served.

SOUP, TOMATO—Very Nice.—To canned tomatoes, 1 pt., or 4 large, ripe raw ones, scalded, peeled and sliced, add boiling water 1 qt., and boil till thoroughly soft, then add cooking soda, 1 teaspoonful, and stir well; when done foaming, immediately add sweet milk 1 pt.; with salt and pepper to taste, and 1 tablespoonful of butter; and when it boils again have 8 or 10 common crackers rolled fine which add, and serve hot. Some think this equal, or better, even, than oyster soup. As the girls often say of a new bonnet: "It is just splendid." Try it, by all means.

2. Tomato Soup with Milk.—Take nice ripe tomatoes, scald, remove the skins, and slice up 1 qt., and stew $\frac{1}{2}$ hour in 1 pt. of water; then add a level teaspoonful of baking soda, stir till done foaming, and put in 1 qt. of hot sweet milk; and as soon as it boils again add salt and pepper to taste; with a bit of butter and a few broken crackers if you want it richer. A small slice or two of salt pork makes a nice substitute for the butter. And if you desire a meat flavor, put in some steak from the soup-jar. It should be made so that the milk addition is put in just as you are ready to serve it. This is often called economical or mock-oyster soup.

Potato Soup.—Thinly slice enough potatoes to make 1 pt., with 1 to 4 small onions (to obtain a little or more flavor, as you prefer) and boil in 1 qt. of water until perfectly tender; add 1 pt. of rich milk, and season with salt and pepper to taste. Serve hot. The potatoes and onions may be skimmed and rubbed smooth through a colander, if you like.

Milk Soup.—Same as the last without the onions, using 1 pt. of water to boil the potatoes in, then add 1 qt. of milk instead of 1 pt., simply using half as much water and twice as much milk. Use with either crackers or not, as you choose.

Chicken Soup, Delicious.—Take 1 chicken, 4 qts. of water, 1 table-spoonful of rice, an onion potato and turnip, 1 of each, $\frac{1}{2}$ cup of tomatoes, 2 stalks of celery, pepper and salt. DIRECTIONS—Joint the chicken and boil very tender; pour through a colander and return the soup to the kettle, adding the rice, which has been soaking; chop the potato, onion and turnip and add $\frac{1}{2}$ an hour after. Cut the celery in dice and add 20 minutes before serving; the tomato and seasoning last. If well done it will be very delicious; with milk or cream more so, if $\frac{1}{2}$ pt. of either are put in just in time to get hot when ready to season.

2. Chicken, Cream Soup.—The best way to get the virtue out of an old, tough chicken is to properly dress and joint it, then boil it with 1 onion in 4 qts. of water till only 2 remain. Take it out and cut off the breast, chopping it fine with the yolks of 2 hard-boiled eggs, returning to the soup and simmering a few minutes more, then adding 1 cup of heated cream, or $\frac{1}{2}$ pt. of rich milk, boiling hot, seasoning to taste and serving hot from a covered tureen.

3. Soup, Chicken Currie, as Made in India.—A pair of nicely dressed chickens, butter, currie powder, flour, salt and cayenne pepper and some rice, to be nicely boiled by itself. DIRECTIONS—Boil the chickens carefully, keeping always covered with water, till perfectly tender, removing scum and oily fat as it rises: then bone them and have a skillet ready for frying the meat in enough hot butter, first dredging the meat with flour before laying in the hot butter; brown nicely, keeping hot. Take 1 pt. of the chicken broth, which is to be kept hot, and stir in 1 table-spoonful of flour, 2 of butter, 1 tea-spoonful of salt, and a little cayenne pepper and 2 table-spoonfuls of currie powder, and, when all is well mixed in, add this to the balance of the hot soup in the kettle and simmer a few minutes, then add the hot browned meat and serve hot, and with the hot boiled rice.

Remarks.—This is a very nice soup for those loving currie. Is very healthful from the warming nature of the currie. It would still be more warming to the stomach if a spoonful of currie is put into the meat when frying, and some prefer to put into the soup only half of the fried meat, serving the rest as a fry with the rice, I like it either way, because I like the currie.

Soup, Celery, Rich and Creamy.—A shank of beef, 1 large bunch of celery or two small ones, and rich cream, 1 cup; a little flour. DIRECTIONS—Make a rich broth of the shank, always putting into cold water, skimming off all the fat as it rises; when ready take up the meat and thicken the broth with a spoon or two of flour, first rubbed in a little cold water; have the celery cut fine and boil it in the soup till tender; then add the cream, salt and pepper to taste, and serve at once.

Green Corn Soup.—Cut the corn from a dozen good-sized ears (real "sweet" corn is the best in all cases), lay the cobs closely in the kettle and cover with water—not less than 3 pts. or 2 qts. if needed—and boil half an hour; then take out the cobs and cook the corn in the same water till tender. Now add 1 pint of rich sweet milk, if you have it, and boil a few minutes longer; season with salt and pepper, and if no milk beat 2 eggs and stir in, and cook

inue to stir 2 or 3 minutes just as ready to serve. It will be found delicious, if nicely done.

Barley Soup.—Take a 2 or 3 lb. shin of beef, well broken, pearl barley, $\frac{1}{4}$ lb.; 2 small onions, sliced; 2 small carrots, chopped; salt and pepper. **DIRECTIONS**—Put all into a soup kettle, cover nicely with cold water and heat up slowly for an hour, then continue 3 or 4 hours of more brisk boiling; and if you have celery, a stalk or two, cut and put in 15 or 20 minutes before serving improves the flavor very much. The old plan of simply putting in a little barley requires a fife and drum to call the very much scattered nourishing properties together.

Macaroni (Italian) Soup.—To 2 qts. of boiling beef-broth, or soup (made as for the carrot beef soup, above, without the vegetables), add 6 or 7 sticks of macaroni and allow it to cook $\frac{1}{2}$ or $\frac{3}{4}$ of an hour; then, just when ready to serve, grate in $\frac{1}{4}$ lb. of nice cheese. (The macaroni should be broken up and soaked in water a couple of hours before cooking with the broth.)

Beef Soup.—A knuckle-joint or shin-bone, having sufficient meat attached for a family of 5 or 6 persons; six medium-sized potatoes, 3 or 4 small onions, $\frac{1}{2}$ of a small head of cabbage, salt and pepper. **DIRECTIONS**—If a joint it should be cut through by the butcher; and if a shin, it should be sawed 1 or 2 times across to allow the escape of the marrow and juices. Put this into sufficient cold water and place upon the stove as early as practicable to allow it to be pretty thoroughly done an hour before dinner, at which time the cabbage, having been finely chopped, should be put in. The potatoes and onions, having been properly prepared, should now be chopped finely together and added to the soup, with the salt and pepper to taste. Some persons are fond of adding a few bits of red pepper to their soups; but if much is put in children usually dislike it. If used, it should be put in with the vegetables.

Remarks.—A well-made soup is very healthful, and they ought to be made much oftener than they are in most families.

Rice Soup.—The fore leg and brisket of a lamb or very young sheep; rice, $\frac{1}{2}$ to 1 cup, according to size of family; water, sufficient. **DIRECTIONS**—Wash the rice early in the morning, and put to soak in warm water to wholly cover it. The bones being broken, stew the meat until tender, then put in the rice with the water in which it has softened, and continue the boiling until the rice has become perfectly soft, having set back the kettle where there is no danger of burning.

Seasoning for Soups.—A rice soup is usually seasoned with salt and pepper only; but a little celery, summer savory, thyme, parsley or marjoram may be added, when desired, to any soup. All these herbs ought to be raised by all who have gardens, for they add much to the taste of many other dishes as well as soups.

Remarks.—There is probably no soup equal to rice generally for the sick. The seasoning may be made to suit their taste, but usually the plainer the seasoning the better it suits them. Certainly nothing but a little salt and pepper should be put in without consulting the patient. There may be some satisfac

tion in knowing that what is considered best for invalids is good enough for general use. Beef soup is also excellent made with rice occasionally in place of other vegetables.

Scotch Broth (Soup).—Take 2 lbs. of the scraggy part of the neck of mutton. Cut the meat from the bone, removing all the fat; cut the meat into small pieces, and put into a soup pot with a large slice of a turnip, 2 small carrots, 1 onion, 1 stalk of celery, all sliced, and $\frac{1}{2}$ cup of pearled barley, water, 3 pts. to 2 qts., and boil gently 2 hours. On the bones put 1 qt. water and boil gently the same length of time; then drain this into the soup. Cook 1 spoonful each of flour and butter together until perfectly smooth, then stir this into the soup with a spoonful of chopped parsley, season with salt and pepper and serve at once.—*Free Press Household.*

Remarks.—While we are with the Scotch, we will give a “Scotch Girl’s” Porridge, from Tilden, Ill., as it is near enough like soup to go with them. She says:

Scotch Porridge.—“If the family consists of 6 persons, take 3 qts. of water, and bring to a boil, take your *spurtle* (the Scotch for pot-stick or mush-stick), keep the pot on the fire, take the oatmeal in your left hand (of course, only right-handed girls can make this), and let it drop gently through your fingers into the boiling water, stir briskly for 10 minutes, and you will have a most delicious dish; salt to taste.”

Remarks.—It strikes the author that this would not only be more “delicious” if made pretty thick with the oatmeal and then thinned with 1 qt. of rich milk, all made hot together, but more nourishing also. I always like to get the greatest possible good out of a dish, in fact, out of every thing, while it is on hand or being made.

Soup, Scotch or Mutton, Excellent.—A leg of mutton, 4 lbs., water, 1 gal.; pearl barley, 1 cup; small carrots, 5 or 6; small turnips and onions, each, 2; a small head of cabbage, a handful of parsley, if to be had, pepper and salt. **DIRECTIONS**—Put the mutton and barley into a suitable kettle with the water, cold; slice the onions, turnips, and 2 of the carrots; grate the other carrots, chop the cabbage fine, and when the water comes to a good bubbling simmer, add all the vegetables, keep covered and simmering for 3 or 4 hours, or until all is perfectly tender; add salt and pepper, and serve hot, when all lovers of soup will say “excellent.”

Noodle Soup, and Noodles, To Make.—By putting noodles into any soup it thereby becomes noodle soup. See carrot and beef soup for the “stock” or manner of making the soup for the noodles. They will cook in 15 or 20 minutes, hence should not be put in only this length of time before serving.

To Make the Noodles.—Put 1 cup of flour upon the molding board, making a hole in the center into which put a well-beaten egg with a little salt. Knead and roll as thin as possible, dredging with a little flour, roll up snugly and slice from the end; then shake out the strips and place on plates until perfectly dry. This may be done in the oven, when not too hot, with both doors left open. They may be added to any rich soup, or one made purposely for them as indicated above.

Remarks.—How this name ever got applied to this article for soups, I can not imagine, as noodle signifies a simpleton. I know it is a favorite dish with the Germans, although I would by no means consider them simpletons from that fact. Still, I do think that flour dough in this form, or in the form of dumplings boiled in water or soup, is a very indigestible mass, and in no way fit for an invalid. Still, I know, also, that our German population are much more healthy than Americans, and, therefore, they are better able to digest noodles and dumplings than we are. It is from their more simple and plainer style of cookery, no doubt.

Mock-Turtle or Make-Believe Terrapin Soup, From Bob, the Sea Cook.—He says: “Of course, its a sham, for there ain’t nothing in this world that can take the shine out of a real terrapin (turtle); still, if you ain’t got none of these nice crecturs, you can manage to make shift with a calf’s head. You don’t want the whole head of a calf, but boil it just the same, but don’t sluice it with all the water in the reservoir, only enough to cover it, and in that water put a couple of onions and salt and pepper. When boiled tender, take, say, half the meat, half the tongue and a table-spoonful of the brains. Cut it up, but not too fine. Put into a frying-pan a $\frac{1}{4}$ lb. of the best butter, and bring it up to a light brown, mixing in a very little sifted flour when it is off the fire, and a little cayenne pepper, and just a touch of sweet marjoram. If you put herbs into hot, boiling butter it makes a bitter taste. Then stir the sauce with a little of the water the calf’s head was boiled in. Then put in your chopped-up calf’s head. Place it on the fire again—not to cook, but to get hot only—and last of all pour in 2 wine-glassfuls of Madeira, but if you have not that let it be sherry- Though it ain’t terrapin, it’s good all the same.”

Remarks.—Turtle soup being a favorite with saloon men, of course, wine is always used but home-made will “fill the bill” in any case where wine is always called for. Excuse me from using the brains. If one has not enough of his own, it is no use to try and make it up by using those of a calf. For oyster soup, see Oyster Stew, etc., as made at Delmonico’s. For marjoram and other seasoning herbs for soups, see Seasoning for Soups, in connection with the Rice Soup.

The following Prussian, Green Pea, and Asparagus Soups and the Broths, or “Stocks,” Veal and Lamb, are from the “Indian Domestic Economy and Cookery,” quoted from in some other places, an explanation of which will be found in connection with the Chicken Currie. The recipes are plain, and will be found a valuable addition to those of our own country. See also Mock Oyster, and some other soups in the Miscellaneous Department.

Prussian Soup, as Made in India.—Celery, 4 heads; carrots, turnip, onions, and lettuce, 2 of each. DIRECTIONS—Cut them all into small pieces, and fry in a little *ghee* (butter or drippings). Take a *geer* (2 lbs.) of mutton, cut it into slices, put it all together in a large saucepan and keep it sweating for an hour without any water; then pour on water, 2 qts., and shut the lid close and simmer gently for 2 hours longer, and serve. (See explanation of this and the following in the last remarks above.)

1. Green Pea Soup of India.—Nice, freshly picked and shelled peas, of a green color, 3 pts.; nice butter, $\frac{1}{4}$ lb.; parsley and green onions, a handful of each. DIRECTIONS—Boil, as they call it, all these in the butter over a slow fire till thoroughly stewed (fried, as we say); then pound in a mortar (rub through a colander), and put in *consommé* (“stock”) to suit the number for dinner, and leave it on the corner of the fire, for if it boils the peas will lose their green color. (In India the cooking is generally done over a fire-place.) We would say set it back on the stove, merely to simmer. At the moment of ending to the table put in sippets of bread (bread cut into dice-shaped pieces and nicely fried in *glace* (butter), and serve.

Remarks.—It strikes me if $\frac{1}{3}$ or $\frac{1}{4}$ of the peas were saved, and boiled in water with a little salt to fairly cook them, then put into the pea soup when about to serve, it would be a little nicer flavor and show more plainly what it was made of, especially so if the bread “sippets” were thought too much trouble to prepare.

2. Green Pea Soup, American.—Take lean, fresh beef, 2 lbs.; green, shelled peas, 2 qts.; water, 2 qts. DIRECTIONS—Boil the pods in the water $\frac{1}{2}$ an hour, then skim them out and put in the meat and simmer slowly till half an hour before serving, adding boiling water to make up for evaporation; then add the shelled peas, and when tender, thicken with a little flour or corn starch, and season with chopped parsley, if you can get it; salt and pepper just before serving.

Asparagus Soup of India.—This is made only with the green part of the tops. Prepare a veal or lamb broth, which see below, for each 2 qts. needed take $1\frac{1}{2}$ pts. of the green tops and cut about 2 inches long and boil in water with a little salt; then rub two-thirds of them through a sieve or colander and put into the broth; the other one-third, chop as nearly the size of peas as may be (about $\frac{1}{4}$ inch long), and put into the soup just before serving, which leaves them quite firm.

Turkey Soup, From the Bones and Left Over Meat.—I do not know who to credit for thinking out the plan of obtaining the flavor of turkey in a soup, by breaking the bones (instead of throwing them away, as usually done), and putting, with the left over pieces, into a kettle with 2 qts. of cold water, and a table-spoonful of rice, covering closely, and setting on the back of the stove to simmer for an hour; then let boil slowly till the rice is done; and pour into an earthen jar, and set in a cold place till next day. When wanted for dinner remove the layer of fat (and this is a good plan with any soup); then heat, and serve hot, with crackers and pickles.

Remarks.—So you may do with the remains of 2 or 3 chickens, leg of lamb, veal, rabbits, etc., not forgetting to break all bones containing marrow, or, for using rabbits, see next recipe.

Game Soup.—Two rabbits, $\frac{1}{2}$ lb. of lean lamb, 2 medium sized onions, 1 lb. of lean beef; fried bread; butter for frying; pepper, salt, and 2 stalks of white celery cut into inch lengths; 3 qts. of water. DIRECTIONS—Joint the game neatly; cut the lamb and onion into small pieces, and fry all in butter to

a light brown. Put into a soup pot with the beef; cut into strips and add a little pepper. Pour on the water; heat slowly and stew gently 2 hours. Take out the pieces and cover in a bowl; cook the soup 1 hour longer; strain, cool, drop in the celery and simmer 10 minutes. Pour upon fried bread in the tureen.

Carrot Soup, from Stock.—The day before this soup is required boil 3 lbs. of good soup beef in 1 gallon of water until reduced one-half; when cold skim off all fat. The next day add salt and replace on the fire. Scrape your carrots and cut them into small dice (except one, to be grated, as below); put these in the soup with cayenne pepper, 1 table-spoonful each of burned sugar, sharp vinegar and grated carrot. Boil till the carrots are tender and serve.

Remarks.—Much is said about “stock” by nearly all who give directions for making soup. The plan here given is the true way to have a soup rich and nourishing. A jar can be kept for this purpose, if soup is to be made every day, otherwise, the above plan is the better way. When a jar is kept for this purpose all marrow bones, bits of meat, fowl, etc., shall be put in and heat up every day, by placing the jar upon the stove for that purpose, and to draw out the juices of the tit-bits, broken bones, etc., which are added from time to time; observing, however, if a jar is kept for this purpose, it must be scalded out once or twice a week—according to whether the weather is hot or cold—to keep it perfectly sweet.

Split Pea Soup.—Make a broth of some water that corned beef or salt pork has been boiled in, and some beef bones. Do not let it be too salt; in that case use half water. Put 1 qt. of the split peas in enough of the water to cover them; when they have stewed soft, mash them through a colander, and then mix with them 2 qts. of the broth, in which the bones have been boiling; add 1 onion, and 1 turnip, chopped up, and 1 carrot, grated. Just before serving put small pieces of toast in the soup.—*Peterson's Ladies' Magazine.*

Green Pea Soup.—Boil 1 pt. of green peas in salted water with a slice of onion, a sprig of parsley and a few leaves of mint. When done draw off the water and pass the peas through a sieve. Dilute this purée to a proper consistency with some good stock. Just before serving make it very hot, put in a piece of fresh butter, and if you have it half a cup of cream. If the color is not a sufficiently bright green add a few drops of spinach greening. Serve with small pieces of fried bread.

Remarks.—If a broth, or soup, is used, as made for the carrot soup, above, in place of the salted water, as here directed, the soup will be that much richer and better. It is “stock” itself.

Broths, as Made in India—Veal or Lamb.—Take a joint of veal, or the fore leg of a lamb, crack the bones nicely, make clean and put into a stewpan and cover with cold water; watch and stir well, and the moment it begins to simmer skim carefully; then add a little more cold water to make all the skum rise; skim again, and when the scum is done rising, and the surface of the broth is quite clean, have properly prepared the following: A medium-

sized carrot, 1 head of celery, 2 turnips and 2 onions. Put these into the broth, cover closely and simmer very gently, not to evaporate the broth, for 4 or 5 hours, according to the amount of the meat, strain, and, if not to be used the same day, set in a cool place.

Remarks—This may be used for all soups, brown or white, made of beef, lamb or veal, as a knuckle of beef can be used in preparing the broth or stock, if you choose, in place of the veal or lamb.

“Stock,” Explanation of and How to Make.—The meaning of this, now common, word is the unthickened broth from any meats to form the basis, or strength, of all soups; also often added to gravies to enrich them or to increase the quantity. Made as follows:

Brown Stock.—To make the common stock for brown soups, gravies, etc., get a “hock” or “shin-bone” and about 4 lbs of extra soup meat; cut the meat into small pieces, saw the bone off inside the joints and split, to obtain the marrow; slice an onion and fry it, with the cut beef, in the marrow to a nice brown; now put the fried meat and onion with the hock into cold water, 2 gallons, and let it simmer 6 to 8 hours, and pour through a sieve and strain through a cloth into a perfectly clean and sweet earthen crock, and in the morning skim off all the grease. This is used for any brown soups or brown gravies. For white, or uncolored soups or gravies, omit the frying. If kept in a cool place in ordinary weather this stock will keep a week; when the crock or jar in which it is kept must be thoroughly scalded out and aired in the sun or before a hot fire or stove. See, also, remarks at the beginning of soups upon “Stock.”

Onion Soup—The Best Saved to the Last.—An onion soup nicely made is one of the most healthful, consequently the best soups made. Take 6 medium-sized onions, sliced, and brown slightly in a suitable dish, with a table-spoonful of butter, adding 3 medium-sized potatoes, also sliced, and a little pepper and salt, and let all then cook an hour or two, putting into cold water, and simmer slowly. Add stock, 1 pt., season to taste, and serve hot, as all soups should be.

Remarks.—Onions, if peeled under water, saves the tears for other occasions, and does not leave an odor upon the hands.

Oatmeal Gruel, for Invalids and Children.—Take oatmeal, 2 table-spoonfuls, and pour upon it boiling water, 1 pt., or a little more; let it boil until quite like jelly; then strain, or pour through a small fine sieve, kept for such purposes. To a coffee cup of this add sugar, 1 tea-spoonful, and 2 tea-spoonfuls of cream, when it will be fit for a king. For very young children or very weak invalids of a dyspeptic tendency make thinner with water while boiling, or with cold fresh milk after done boiling.

Remarks.—Although a little out of place, 'tis valuable anywhere and good for anybody, even in health. For those who are sensible enough to take a light tea or supper, this, with some bread or crackers, will “fill the bill” nicely, even with straining.

VARIOUS DISHES.

MEATS, POULTRY AND FISH—With Suitable Gravies, Sauces, Etc.—*Remarks.*—Most beginners in house-keeping will not only find it well to have a few receipts for cooking meats, poultry, fish, etc., in their more common ways, but particularly valuable to know how to be economical in saving what may be left over from a meal, or several meals; with which a dish may be prepared not only as savory and palatable as the original, but often more so. We trust both these points will be found true in the following receipts. And, as we so often hear the question asked by the housewife: "What shall I get for dinner?" or whatever the next meal may be, I will start out in the "dish" line, with a "bill of fare" for a week, so everyone may know what will be proper, remembering, however, they can make any change they choose for the day or for a single meal, as suits their pleasure or desire, according to what they may have on hand.

A Week's Bill of Fare.—This list was taken from a note-book, kept by a city lady for her own convenience. It will be found to be as well adapted to a village or country housewife as for a lady of the city. The amounts to be cooked or purchased for cooking to depend upon the number of persons to be at the table; always remembering that it is better to have something over rather than to be short, especially if you have company. Besides the articles named in the daily lists for breakfast there may be oatmeal or cracked wheat, milk or water toast, corn, graham, or buckwheat cakes, tea, coffee or cocoa—as you choose; for dinner, as many of the vegetables of the season as you like, with tea or coffee also; and for supper, such side dishes as you choose, made up from any of the meats, together with canned or fresh fruits, according to the season:

SUNDAY.—Breakfast, beefsteak; dinner, turkey, chicken or other fowl, plenty to leave over, with vegetables, pie or pudding, or both.

MONDAY.—Breakfast, the left-over turkey, or fowl, broiled; and for dinner, what is still left over, fricaseed, warmed up or fried, with the gravy.

TUESDAY.—Breakfast, chops of lamb, mutton, veal or pork, as preferred, dinner, beef-soup, vegetables, and pudding.

WEDNESDAY.—Breakfast, ham and eggs; dinner, boiled corned beef, or pork and beans, and pie.

THURSDAY.—Breakfast, hash or any of the made-up dishes from left-over corned beef, etc.; dinner, soup, with its surplus meat, vegetable etc.

FRIDAY.—To suit catholic "help," be sure to have fish for breakfast and dinner, and any other meats desired by any others of the family.

SATURDAY.—Breakfast, veal cutlets or chops of other meat, as preferred, and buckwheat or other griddle cakes; dinner, beefsteak, mashed or fried potatoes, and pie or pudding.

HINTS IN COOKING MEATS AND FISH.—Boiled Meats.—

For cooking they should always be put into boiling water, which sets or closes the pores and keeps in the juices; after which slow boiling until tender. And if corned boiled beef, to be eaten cold, is left to stand in its water over night, it will be sweeter and more juicy.

For Soups always put into cold water, which leaves the pores open and allows the juices to escape into the soup, which is desired. After it begins to boil keep it boiling slowly—not merely to simmer, but to boil.

The Same for Fish, using only water sufficient to cover it.

For Roasting Meats and Poultry, a hot oven, the door to stand a little open, covering the meat well with drippings or butter before putting into the oven, which keeps the surface moist and also helps to retain the juice of the meat.

For Frying Fish always have fat or butter hot, and plenty of it; and the fish should always be well drained after soaking, or the moisture absorbed with a napkin before putting into the pan to fry.

Remarks. As sometimes in warm weather meat and fish are liable to get “tainted,” I will next give a receipt for correcting this difficulty. This receipt also relieves the pain of burns, etc., and is a great disinfectant.

Putrid, or Ill-Smelling Meats, Poultry Fish, Butter, etc.
to Correct: Permanganate of potash, 1 oz.; water that has been boiled and become cold, 1 qt. DIRECTIONS: Put into a bottle, cork, and shake well, to dissolve the permanganate, and it is ready for use. Put from a teaspoon to a tablespoonful of this (according to the size of the piece of meat), into sufficient cold water to cover the meat in a suitable sized jar or crock; stir with a stick (as it stains the hand or clothing); then put in the meat, chicken, duck, or fish, as the case may be, washing every part thoroughly and letting it remain ten minutes in the water; then rinse thoroughly which will remove all “taint” or ill-smell.

For Butter.—Slice it off thin, wash carefully in the same strength, rinse nicely in pure water, then mold again, wrap in muslin, and cover with nice brine.

For Burns.—Take 1 teaspoonful of the mixture to $\frac{1}{2}$ pt. of water; wetting cloths in it, laying on and keeping them wet is said to relieve the pain immediately; it is also good for bruises, to relieve pain. See the remarks below as to how to treat extensive scalds and burns and for a general disinfectant.

Remarks. Observe the heading is putrid, not putrid. The first comes from the Latin word, *putere*, to have an ill-smell; the second from *putrere*, to be rotten. It will not restore rotten meat, but it will correct ill-smelling meat. Actual decomposition (rottenness) cannot be restored. This mixture is claimed to be the same as

Condy's Fluid, which is claimed to be the best disinfectant known; and Dunglison, the great Medical Dictionary man says: “Condy's Disinfectant”

ing fluid, is supposed to be a concentrated solution of permanganate of potassa," etc., which is the same as "potash," above. Mr. Condry, in a pamphlet published by himself in 1862 says "half a tumbler of his fluid in a good sized bath (this is supposing a person to be scalded all over, or at least much of his surface), will give instant relief in these frightful scalds and burns,

Driving away Flies with It.—The writer of "Hints and Helps," published in the *Blade* in 1879, from which the author gathered and condensed these items, claims that a little of this mixture, in a soup-plate of water, will drive away flies, even those big buzzing ones which are so troublesome when fresh meat is around. This is easily tried, but knowing the permanganate to be a powerful disinfectant, I have no hesitation in recommending the mixture for all the purposes for which it is claimed to be valuable.

BEEFSTEAK.—How to Cook It.—As beefsteak is, probably, more often cooked than any other dish, I will begin with it; and as I have, in rhyme, by a Layman contributor to the "Home Department" of the *Toledo Commercial*, the way it was cooked by an English "beefsteak fluke" in 1734, and which has continued to be the plan, until very recently, and still is the plan pursued by most people. I will give it, and afterwards make such explanations, in the remarks, as shall give the true, and better way, of cooking beefsteaks. The rhyme referred to is as follows:

*" Pound well your meat till the fibres break,
Be sure that next you have, to broil the steak,
Good coal in plenty; nor a moment leave,
But turn it over this way, and then that;
The lean should be quite rare—not so the fat.
The platter now and then the juice receive,
Put on your butter, place it on your meat,
Salt, pepper, turn it over, serve, and eat."*

Remarks.—This "contributor" asked: "Can any correspondent of the "Home Department" furnish a better rule?" to which I answer, yes. Simply leave off the first, or italicised line, and you have the better rule, except the steak be very tough, that is the only reason why pounding should be resorted to, as it lets out the sweet juices of the meat, and removes, if broiled, (broiling is the true way to cook a steak) much of the nourishing properties, and spoils its delicacy of flavor. Some people broil, or rather cook, their steak on top of the stove. This is not delicate, nor so advisable as to cook in the hot skillet, or spider, without butter, as mentioned below; but I will give you the plan which my family pursued for a number of years before my companion was taken away by death.

BEEFSTEAK.—Broiler, to Make.—I went to a tinner and told him I wanted a kind of "Griddle Ring Broiler," made of suitable sized wire—cross-barred, of a size to drop into the stove, by taking off a cover. The holes being 9 inches, he made a ring of No. 9 wire, $8\frac{1}{2}$ inches in diameter; and cross-barred it with No. 15 wire, to lay the steak upon. Then, for a handle, he took a piece of the No. 9, or possibly No. 8, which is still larger, about 4 or $4\frac{1}{4}$ feet long,

and bent it, in the centre, parallel, about 2 inches apart, looping, or bending the two free ends of this wire for the handle, around one side of the ring, or frame, part of the circular griddle, on the under side, fastening these two wires, forming the handle, to the opposite side of the ring, with smaller wire, to keep the handle in place, then bending these two wires up, at right angles, with the griddle ring, and bending 6 inches, or thereabouts, of the top of this handle off again at right angles, to take hold of with the hand when broiling; the handle to be long enough to carry the upper bend at least 1 foot above the top of the stove, supposing it, the griddle, to be down in the stove hole 6 inches or more, with the steak upon it, which will prevent burning the hand while broiling with it. In this way, properly seasoning, and turning two or three times, a steak is very quickly cooked, retaining all the juices, if you did not pound it, to let them out. With this kind of a griddle broiler you can get down close to the coals and save much trouble. We have used this over a coal fire with about the same satisfaction as over a wood fire, if the fire is pretty well burned down. I think almost any tinner can get up such a broiler from the above description, if so, they will be found very convenient for all who love a nicely broiled steak. It is equally as nice for broiling veal, lamb, chicken, etc. Of course seasoning properly, having a hot plate to put it upon, with a moderate amount of butter upon the steak to form the gravy. Cover with another hot plate, if not to be served immediately.

Remarks.—Either of the above plans make a nice dish, or, if after the water is poured off the beef, a little milk, or if no milk, a little more hot water is put on, and after cooking a few minutes, thickening a little with flour, rubbed smooth in a little cold water, makes an agreeable change, a very nice dish indeed. Or the sliced dried beef may be minced fine or sprinkled into a salad, or mixed with potatoes and eggs for a breakfast dish: or heated with steam, or eaten with fresh or canned peas, or with stewed onions and potatoes. Thus it may be used in many ways, to suit the taste; or be utilized with such things as may be on hand or obtainable.

BEEF BALLS.—With Uncooked Meat, Fried.—Chop very fine raw beef, 2 lbs, or as much as needed, with $\frac{1}{4}$ lb of suet, skinned or chopped; season to taste with salt, pepper and a little cloves; mix in a handful of flour; and mould into balls and fry in hot drippings, or lard, (drippings is best for this) to a nice brown, turning to brown both sides. Serve hot; but they are good cold. For the author a tablespoonful of powdered sage helps the flavor much.

BEEF OR OTHER MEAT BALLS.—From Left Over Meats.—Chop cold, or left over meats of any kind, with the same bulk of potatoes, add a little onion to flavor slightly. Then take dry bread, pour hot water on it, to moisten sufficiently, having bread enough to make the mass adhere, so it can be fried in cakes or balls (a nice brown), in a skillet, with a little butter or drippings, as you would fry meat. Nettle Hines-Wood, of Janesburg, Mo., in *Blade*.

Remarks.—She called them “noodles,” but, although I can see a nice dish

in them, I do not see "the chuckling grin of noodles." 'Tis too nice to have been made by a "simpleton."

Cold Meats Economically Used.—Chop any cold meats, as for hash, and warm up in milk, the more cream in it the better. When about ready for the table, season and break in an egg, if you like; some like it better without. To be eaten with nicely baked potatoes, or potatoes warmed up in a little milk and a bit of butter.

Cold Beef—Another Way.—Mince it fine with pepper, salt and onions and some rich gravy, and put it into tins three parts full; fill them up with mashed potatoes and brown in the oven.

Cream Croquettes—Delmonico's Substitute for "Hash."—Mr. Delmonico describes croquettes as the attractive French substitute for American hash, and tells how to make them. "Veal, mutton, lamb, sweet breads, almost any of the lighter meats, besides cold chicken and turkey can be most deliciously turned into croquettes. Chop the meat very fine. Chop up an onion, fry it in an ounce of butter, add a table-spoonful of flour; stir it up well; then add the chopped meat and a little broth, salt, pepper, little nutmeg; stir for two or three minutes, then add the yolks of 2 eggs, and turn the whole into a dish to cool. When cold mix well together again, divide into parts for the croquettes; roll into the desired shape in bread-crumbs, dip in beaten egg, then in bread-crumbs again, and fry crisp to a bright golden color. The croquettes may be served plain, or with tomato sauce or garniture of vegetables." —*New York paper.*

Remarks.—Thus it will be seen that any kind of cold meats may be economically "turned," as the women say of re-making a dress, into a new dish, which may even have a nicer relish than in its first form or "dress." The following is the manner in which "Winifred," of Toledo, saves her

Cold Beef and Dry Bread, or Biscuit Balls.—Chop your beef very fine (pork will not do), then soak your bread in cold water till it is soft, then take it in the hands and squeeze as much of the water out as you can, having two-thirds as much bread as meat; then mix the bread and meat thoroughly together, beat 3 eggs well and mix in; add salt to taste, and grate in enough nutmeg to season nicely; make out in balls about the size of a small biscuit, and fry slowly in butter or cooking fat, till brown on both sides.

Beefsteak, Broiling in a Spider or Skillet.—A writer who knows about how to cook a steak says: When steak is bought see that it is not cut more than $\frac{3}{4}$ of an inch thick, and that it is of the same thickness all through. Have the skillet on the stove until it gets hot, lay the steak on it, without pounding (she certainly learned the secret of not pounding); turn it immediately, and keep turning for two minutes, or longer, if you do not wish it very rare. Be sure and have the skillet hot enough before you begin; perhaps you may be afraid it will stick or burn, but it will not, if you manage right. Meantime have a plate in the oven heating, and when the meat is done lay it on the plate, with a little butter over it, season with pepper and salt to taste, place in the oven for one minute and it is done.

Remarks.—I can see no use of putting in the oven for one minute, unless it is to melt the butter, but if the plate and steak are both hot that will soon melt without putting in the oven, unless you have to wait for something else, which ought not to be, as a hot steak is the way to have it; let it be the last touch to finish getting the meal. It is very proper, however, to cover with another hot plate to send to the table. If the steak sticks to the skillet, at first, loosen it with a knife. Trim off any membrane around the steak that would cause it to curl, or turn up at the edge. This gives you a crisp and brown surface, with all the juices retained. Pepper and salt to taste, in all cases.

Beefsteak Smothered With Onions.—Broil the steak, as above, having 2, 3 or 4 onions, according to size of family, nicely chopped, and put into a skillet, or frying pan, with drippings, or butter, stirring to avoid burning until done. Put them upon the steak, in a hot plate, and turn another hot plate over them, for a few minutes, to allow the steak to absorb their flavor; serve hot. Those who do not like the onions can have their steak served without them.

Remarks.—Some people boil their onions, first, until tender, then mash, or chop, frying the steak in butter, or drippings, taking up the steak and then frying the onions in the gravy and pouring over the steak. This makes them softer and a little more mushy, and the steak not quite so digestible.

Beefsteak and Salt Pork Smothered With Onions.—Fry a few slices of salt pork brown; take out the pork then put in the steak and fry also—any tender steak will do; when done take up and put in the onions, sliced thin, cover and cook slowly, stirring occasionally. Put pork, then steak, then onions upon the dish. Make a gravy by adding a little water, flour, butter and salt, if needed, and pour over the whole.

Beefsteak Fried in Cracker Crumbs.—A writer in one of the papers asks, and directs as follows: Do any of you have to get up early in the morning, and get breakfast in such a terrible hurry that you can't wait for nice coals to broil the steak? If so, just have a little very hot butter in the pan, and after pounding or hacking the steak lightly, salt and pepper it, roll in finely crushed cracker crumbs, and brown quickly in the butter. You will find it a decided improvement on the leathery substance called fried steak, and a very palatable substitute for broiled.

Remarks.—To have the steak cooked in this way, done, without burning the cracker crumbs, it would seem to me necessary to have the steak cut very thin, say split ordinary steak, with a sharp knife, which will enable it to cook through much quicker than if thick. Steak, as well as pork, is improved by the dipping into cracker crumbs, or batter, and frying quickly, when to be fried at all. I like even broiled pork better than fried, unless the fat, or butter is very hot—sozzling (long soaking) any meat in half hot fat, spoils it for digestion, whether dipped in crumbs or not.

Dried Beef With Eggs.—Slice, or buy it of the grocer, cut into thin chips, dried beef $\frac{1}{2}$ lb. Put into a frying pan, well covered with hot water, upon the stove; and when it comes to a boil pour off the water, which freshens

it, now put in butter, a good table-spoonful (lard or drippings will do), add a dash or two of pepper, and let it cook a few minutes, over a quick fire; then break and add 3 or 4 nice eggs, and stir until the eggs are done. Serve hot; or, dredge the beef with flour just as it is done frying, and fry the eggs by themselves, and serve as with ham.

Remarks.—Another lady writer uses up her cold meats in the following way:

Nice Meat Balls.—Take a quantity of cold meat sufficient for a meal, bone and chop fine, season with salt and pepper, nutmeg and allspice; soak about one-third as much of white bread in cold milk, press out, and mix with the meat; add beaten egg—one egg is enough for three persons—and lump of butter the size of a walnut, mix thoroughly and roll into balls; fry in hot lard. Pipe in a pyramid on a flat dish and serve.

A Dish of Scraps.—Take some cold potatoes, a few pieces of dry bread, some scraps of cold boiled or fried meat; chop it all quite fine in the chopping-bowl; season with salt, pepper and sage; put in a piece of butter and cook it the same as hash. It is much better than potatoes alone warmed over.—*Mrs. A. M. Fellows, Prairieville, Mich.*

Beef or Veal Head Cheese from Bony Pieces, or With Chicken.—Take the bony or cheap pieces of beef or veal and boil them until perfectly tender; remove the bones and chop it fine, as for hash; season with butter, pepper and salt, a few crackers rolled fine, a little sage or sweet herbs of any kind to suit the taste, add a little of the broth in which it is cooked, stir it well together and press it into a tin basin or deep dish, cover with a plate (with weights upon it), let it stand until cold, then slice it as you would head-cheese. It is very nice for supper and lunch, or for your hungry boys and girls who carry their dinners to school. Chicken or turkey prepared in the same way, omitting the herbs, is very nice.—*Melissa W.*

Remarks.—This will be just as good a dish as though “Melissa W.” had given her full name. Still the author would prefer to give full credit, but it is impossible in all cases. I know it will make a nice dish prepared from any of the articles named.

Venison Steaks, Broiled.—Cut them thin and broil nicely by turning frequently, having seasoned to suit the taste; put into a hot dish or plate, with a bit of nice butter upon each steak; keep hot. 'Tis customary to serve venison with cranberry sauce or jelly. No meat equals venison for the author's taste. But rabbits treated as next given are also very nice:

Rabbit Cutlets.—Cut the different limbs into the size of cutlets; such as the shoulders cut in half; also the legs, with the ends of the bones chopped off, and pieces of the back, even to the half of the head. Have ready some bread-crumbs and the yolk of an egg beat up. Drop each cutlet into the egg, and then into the bread-crumbs, as for veal cutlets. Fry them a nice brown, and when you dish them pour round them some rich brown gravy, which may be flavored with tomato sauce, if approved, and put round them pieces of fried bacon, if liked.

Liver Hash.—"Hash" made of beef is such a common dish we have thought to get up something new, and very nice for those who are fond of liver. Boil the liver until thoroughly tender—there must not be even a suspicion of hardness about it. Then mince it finely with a chopping-knife. Heat the mince very hot in a sauce of butter and browned flour. The seasoning is pepper, salt, a dash of lemon, or a little piquant sauce, such as mushroom or other catsup.

Chicken Hash.—This is the proper way to serve for breakfast whatever roast or boiled chicken may be left over from dinner. Mince the cold chicken, but not very fine, and to a cup of meat add two table-spoonfuls of good butter, a half cup of milk, enough minced onion to give a slight flavor, and salt, mace and pepper to taste. Stew it, taking care to stir it, and serve with a garnish of parsley, if you like it. Every particle of bone must be extracted.

Remarks.—If prepared cold, press it instead of stewing and serving hot.

Beef Liver, to Fry.—Cut the liver in thin slices, dip each slice in wheat flour or rolled crackers, and fry in hot lard, beef dripping or butter; season with pepper and salt. It must be thoroughly cooked and a fine brown; served hot.

Calf's Liver Head-Cheese, or for Eating Cold.—Take a calf's liver and put into a saucepan with just water enough to cover it and cook till tender; then bruise it with a spoon, or mash it with a potato masher; add a cup of cream and season with salt, pepper, a little cloves and sweet majoram, if you have it; if not, a little sage, if you like it. Mix nicely and put in a wet dish, or mold, and weight it tightly till cold, when it is ready for tea or lunch at any time, and a very nice dish it makes.

Remarks.—It is more delicate and palatable than beef's liver fried in butter as steak, *i. e.*, without the trouble of making into head-cheese; but the head-cheese, too, is nice fried.

Beef to Roast or Bake.—A "Farmer's Wife" informs us—and they know how to do it—"to lay the meat on some sticks in a dripping-pan, the sticks to be thick enough to allow $\frac{1}{2}$ an inch of water in the pan without touching the meat. Season with salt and pepper, and put in the oven 3 or 4 hours before it is wanted for the table. Baste it often with the water in the bottom of the pan, renewing it as often as it gets low. This makes sweet, juicy baked beef. The great secret of it is, not to have the meat touch the water in the bottom of the pan, and to baste it often. Tough, unpromising pieces of beef are best cooked by steaming them an hour and a half, or so, and then putting them in the oven and baking as much longer."

Remarks.—If the sticks nor the water are used, to prevent burning beef place a dish of water in the oven, the steam from which removes the danger of burning the meat. But the basting with the water and juices as they drip from the meats is a very nice way indeed. The following will also be found a very nice way of roasting a kind of half roast and half stew:

Beef, a Pot Roast or Stew.—Slice thin salt pork, $\frac{1}{2}$ lb., and lay it on the bottom of a dinner-pot; peel and slice a medium-sized onion and lay it over the pork; then put into the pot a rather square, solid piece of the round of beef,

weighing about 6 lbs.; season it with a table-spoonful of salt and a table-spoonful of pepper; add sufficient hot water to reach one-fourth up the side of the meat; cover the pot and set it where the meat will cook slowly; about $\frac{1}{2}$ hour to each pound of meat is generally the time required for cooking. Turn the meat occasionally and cook it very slowly until it is brown and tender; take care to keep only sufficient water in the pot to prevent burning. When the meat is done keep it hot in the oven, while a table-spoonful of flour is boiled for two minutes in the gravy; then serve the gravy and pork on the dish with the pot roast.

Salad Dressing for Any Kind of Meat, Chicken, etc.—A scant pint of cold boiled or roast meat cut in small dice. Veal, lamb or chicken can be used, or even two kinds of meat if you have not enough of one. Twice as much cabbage as meat. Only that part of the cabbage which is white and brittle should be used, and it should be chopped fine.

The Dressing, or Salad.—Take good vinegar, $\frac{1}{2}$ pt.; 1 heaping table-spoonful of sugar; 1 tea-spoonful of dry mustard; 2 eggs, a little salt and pepper and butter the size of an egg. **DIRECTIONS**—Heat the ingredients, the butter excepted, over boiling water, or by setting the basin into a pan of boiling water; stirring all the time to prevent curdling the eggs; as soon as it thickens remove from the hot water, then add the butter, stir it in, and pour, while hot, over the meat, stir and let stand till cold; then stir in the chopped cabbage.

Remarks.—This makes a dish for tea rarely excelled.

Corned Beef, To Boil with Cabbage.—A 6 to 8 lb. piece will require 3 to 4 hours slow boiling. Put it into cold water, and remove all scum that rises. If allowed to boil quick, at first especially, it will never become as tender as to cook slowly. The slower it boils, the better or more tender it will be, and the better, also, the flavor. If cabbage is to be cooked with it, split a young head into halves and pour boiling water upon it; then, after a few minutes, pour off the water, which carries with it much of its rank odor and taste. An hour will cook the cabbage nicely. It is said that a bit of red pepper, the size of your finger ends, dropped into boiling meat or vegetables, will kill all unpleasant odors. It is worth a trial, and for me, I like the red pepper flavor, if a small-sized one is put in, whether it carries off the odor, or not.

If is to be used cold, let it stand in the water in which it is boiled over night, or until cold, which makes it more juicy and sweeter to the taste.

Mock Beef Tongue, or Savory Beef, Baked.—Lean, raw beef, $3\frac{1}{2}$ lbs.; square soda crackers, or their equivalent, 6; butter, size of an egg; sweet cream, $\frac{1}{2}$ cup; eggs, 3; salt, 4 tea-spoonfuls; pepper, $2\frac{1}{2}$ tea-spoonfuls; powdered sweet marjoram (if you have it and like it, if not, summer savory will fill its place, wherever this is called for, or sage, if liked), 1 table-spoonful. **DIRECTIONS**—Chop the beef fine and also pound it, removing strings or gristle; roll the crackers fine, warm the butter a little so it will mix nicely, break the eggs over the pounded meat and mix all together with the hands; now make into 2 loaves or rolls like beef tongues, press closely together, put into a pan, and bake $1\frac{1}{2}$ hours, basting with water and butter, nicely browning both sides. What is left, sliced thin for tea, gives a delicious relish.

Cold Roast Beef Broiled.—Cut thin slices from the under-done parts of the roast, season with salt and pepper, place upon the gridiron over nice coals, turn them 2 or 3 times quickly, as it broils quicker than if entirely raw, and serve as soon as done, while very hot, with a bit of butter on each slice.

Remarks.—Our wire beef-steak broiler, which see, will be very nice for this, as you can drop it into the stove hole, close down to the coals, as it requires quick heat.

Flank of Beef Rolled and Corned for Eating Cold.—A lady writing in the *Blade* to a Dr. Utter, who had given a plan of how the Cincinnati butchers prepared their beef for corning, gives what she calls “a better way,” as follows:

“For rolled corned beef we take the flank, bone it, sprinkle salt, pepper, and a little saltpeter on one side; salt it, beginning with the thickest end; when rolled, tie firmly and securely with a strong cord around and lengthwise; lay in strong brine 10 to 14 days, remove and boil in fresh water several hours, or till done. On taking from the fire it must be pressed immediately, by laying a board on top, put a heavy stone on the board for a weight, keep the weight on till the next day; when pressed well it cuts up in slices like ham. Hope the doctor will try it and tell me how he likes it.”

Remarks.—I did not see the “Utter” Doctor’s report of how he liked it; but, as the author likes it, and knows that others will, who like a nice slice of cold boiled beef for supper or a lunch, that is enough. It will be found very nice. Summer savory, marjoram, etc., can be added in the seasoning, which will improve its flavor to those who like them, or sage.

Fresh Beef, To Cook for Use When Cold.—Take flank, or parts where there is no bone, but streaks of lean and fat; salt and pepper to taste, and roll like jelly cake; then wrap twine around it, tie tightly, and boil till done; when cold, slice as you would cake.—*Mrs. Emma Weatherwax, Cedar Rapids, Iowa.*

Remarks.—It will be seen by this that it is not necessary to wait to corn it, but that fresh does equally well, only for those who prefer the corned. Each can suit himself.

Beef’s Heart, to Bake With Dressing.—Remove the “deaf ears,” and all the superfluous strings, fat, etc., washing inside and out, to remove all blood in the heart. Put into the pot and cover with boiling water—boiling until tender. Take up and cut out the inside partitions, to make room for the dressing, or stuffing, made the same as for chicken or turkey, adding a little extra butter, to make up for the leanness of the heart. Bake about $1\frac{1}{2}$ hours.—*Mrs. A. W. Smith, Sheridan, Montana, in Blade.*

Remarks.—If this is nicely done a baked heart makes a dish of which the author is very fond. Would be glad to help eat one once each week. If any is left, slice it, and warm up, next morning, in the gravy with what stuffing there may be left; if none, some bits of bread do nicely, warmed in the gravy.

Beef’s Tongue, Potted.—Boil a tongue which has been salted, but not smoked, with nice veal, 1 lb. Remove the skin from the tongue and chop it finely with the veal; then pound it nicely with the steak pounder, adding 3 or 4 table-spoonfuls of nice butter, a little cayenne, mace, nutmeg and cloves finely

ground. Mix all thoroughly, and press into small jars, or bowls, and pour a little melted butter over the top, which helps its keeping. It does nicely without the veal, but is preferable with. May be eaten cold, or fried brown, in hot butter.—*Our Fireside Friend.*

Scotch Potted Meat.—Boil an ox cheek and 2 calves-feet, slowly, till the meat comes off the bones freely; chop fine, season with pepper and salt; mix moist with some of the gravy, or broth, in which it was cooked; put into molds. If well cooked and carefully seasoned it will keep a week. Or if covered as the tongue, above, with butter, much longer. The Scotch eat this with a fresh lemon and mustard. If the family is large, both cheeks and 4 feet may be used. The cheek is tender; meat from other parts may be used, by longer boiling to make equally tender.

Scotch Collops, With Veal.—Cut the remains of some cold roast veal into about the thickness of cutlets, rather larger than a silver dollar, flour the meat well, and fry a light brown color in butter; dredge again with flour, and add $\frac{1}{2}$ pt. of water, pouring it in by degrees; set it on the fire, and, when it boils, add an onion and a blade of powdered mace, and let it simmer very gently for $\frac{3}{4}$ of an hour; flavor the gravy with a table-spoonful of mushroom, or other catsup or Worcestershire sauce. Give one boil and serve hot.

Shoulder of Veal or Lamb, Stuffed—“Dutch Turkey.”—Take a shoulder of nice veal (and if you are buying it of the butcher have him) carefully remove the bones, cutting only at the ends, to leave the opening for the stuffing to be introduced, wash and wipe dry with a cloth by pressing it upon the meat. Grate 1 to $1\frac{1}{2}$ pts. of bread crumbs, season with salt and pepper, a tea-spoonful of sweet marjoram, sage, sweet basil, or parsley, as you have or prefer, made fine; after having been dried; and if onion is liked chop a medium sized one, and put it in a saucepan with as much butter, and stew 5 to 8 minutes, then pour over the crumbs, and mix thoroughly. Press this stuffing all through the length of the leg, from which the bone was removed, and secure the ends with skewers, or by sewing with stout, uncolored, linen thread. Season the outside with salt and pepper, dust with flour and bake about 2 hours, or till done, in a rather hot oven, basting from time to time with the water, and a little butter, put in the pan for the purpose; and if 2 or 3 sticks are put in the pan to keep the meat out of the water, so much the better. If likely to brown too much, put a piece of paper, or a flat pan over it. Keep up the supply of water—about $\frac{1}{2}$ pt.—in the pan, to make a gravy with by thickening with browned or unbrowned flour, as you prefer. A leg of young mutton, or even the hind leg, may be done in the same way; or they may be thus roasted, without the boning and stuffing, when you have not time for that. Cranberry sauce, or any tart jelly, may be served with either of these; but for lamb the following sauce is generally served.

Mint Sauce for Roast Lamb.—Finely chopped green mint, 3 table-spoonfuls; the same amount of granulated sugar, and good vinegar, 6 table-spoonfuls; make and serve hot.

Remarks.—I used to have a German butcher prepare the veal shoulder for

me in this way in Ann Arbor, Mich., and he always called it "Dutch Turkey," so I am not to be charged with a slight or any disrespect to the Germans as a class, as it originated with one of their own people.

Meat Loaf, from Beef, Veal, Mutton, or Ham, Left Over.—Chop fine all such meats as you have left over from previous meals, fat and lean together, with a chopped onion, if allowable; a few slices of dry bread which have been soaked in milk, pressing out the superfluous milk; an egg for each person, and mix all together with pepper and salt as needed. Make into a loaf and bake nicely for breakfast or tea. Mashed potatoes, or fried, sliced from raw ones, are very nice with this relish.

Minced Meat Fritters.—Regular minced meat, 2 cups (or you may mince cold beef and veal, and if a little cold ham in it, so much the better, chopping in a good-sized tart apple with these meats, to imitate "minced," and add fine bread crumbs, 1 cup; 2 eggs, well beaten, and the juice of half a lemon. Mix well, using a little spice if you get it up from left-over meats. Fry in hot lard; drain, if need be, in a colander, and serve hot. If made thin they cook quicker.

PORK.—We now come to the question of pork; and I will say that, although many, perhaps most, physicians object to the use of this article of diet, yet the author has always eaten more or less of it. People must judge largely for themselves, and from their conditions of health—eat no food that rises on the stomach, but whatever digests well will give strength. Probably the largest amount of pork is cooked by frying. I will, therefore, first direct how this should be done to be the most palatable as well as the most digestible. Of course, these remarks refer to salt, or "pickled" pork:

Salt Pork, How to Fry.—A lady who is competent to instruct in the manner of cooking this article, after saying that "None of my family like salt pork, they say, yet we manage to make a barrel of it disappear yearly. Here is one of my ways of cooking it in the spring, when I want it extra nice. I soak it for a few hours in sweet milk; ordinarily I take skim milk or fresh buttermilk; then drain it, and fry brown."

Remarks.—If it is dipped in flour first, it will be crispy and nice. Rolled cracker crumbs make it nice, too. If cut into dice and fried with eggs, as the Omelet with Ham, below, it is also remarkably nice.

Ham, to Bake, and an Omelet From the "Odds and Ends."—Take a medium sized ham—8 to 12 lbs.—and soak it 12 to 24 hours in cold water, changing once. Then put it into a suitable kettle that will allow its being covered with boiling water, adding good vinegar, 1 pt., with a little summer savory, sage, thyme, or parsley—parsley seed does well—using any two of these if you have them, and boil slowly for 2 or 3 hours, until very tender. When cool enough to handle remove it from the water, take off the rind and all fat exceeding $\frac{1}{2}$ inch in thickness, and the dark outside from the part not covered by the rind; put into the dripping pan, sprinkle on a little powdered sugar, grate over it a little bread crust, and place in a rather hot oven, about $\frac{1}{2}$ an hour, or until nicely browned. If you can bring it out just at dinner time.

it is splendid hot; and it is also "just splendid" cold. The sugar improves its taste and preserves and increases its juices.

For the omelet take the "odds and ends," chop them fine, and for each pint of the chopped ham, break in 3 eggs and fry a nice brown, makes a delicious dish for breakfast.

Remarks.—This is the proper plan to prepare a ham to chop finely, for sandwiches; but for this purpose most, or all of the fat part may be left on, and all chopped together, putting on, or mixing in, as you choose, a suitable amount of mustard, and sufficient of the water in which it was boiled, to make sufficient moist for the sandwich mince. I prefer it to those made with beef or veal. If these dishes are nicely made, I should like to see the doctor, or any other person, who would refuse to eat of them, in moderation, although, of course, they are "only pork."

Omelet With Ham, Raw or Cooked.—Cut raw ham into small dice (chopped coarsely). Put a suitable amount of nice butter into a frying pan, on the stove; beat the eggs (1 or 2 for each person to be served, as you wish), putting in a little salt. Then put the chopped raw ham into the butter, and when nearly fried turn the beaten eggs over the ham, the fire being brisk, will soon cook the omelet. Cut into suitable pieces to take up and serve. To make the omelet with boiled ham put the beaten eggs upon the ham as soon as the ham is put into the hot butter, as the ham will be nicely hot as soon as the omelet is cooked, by dipping some of the hot butter upon it, until done.

Ham Balls.—Chop fine cold cooked ham; add an egg for each person and a little flour; beat together and make into balls; fry brown in hot butter.

Ham and Eggs, Extra Nice.—A cook sends the following to the *Country Gentleman*: Cut the ham not quite $\frac{1}{2}$ inch thick, boil in plenty of water till barely cooked through; put in a pan and brown the fat part slightly; remove from the fire, take out the meat and pour off the fat into a cup; wipe the pan till it shines like a mirror. Then put in a spoonful of the clear part of the fat, break in the eggs, and set the pan in a place scarcely hotter than boiling water, cover and let the eggs cook slowly, for four or five minutes, taking them out as soon as they can be lifted. Place them around the dish of ham, but do not put the fat on the dish. Eat with mashed potatoes.

Fried Ham With Poached Eggs.—Fry the ham as usual. Poach the eggs by putting into a frying pan with boiling water, over a gentle fire; put in the eggs, which should be broken into a dish separately to avoid bad ones, cover the pan 4 to 5 minutes. Take up with a skimmer, on to the ham, or a separate plate, as you choose, sprinkling over a little pepper and salt, and a bit of butter. Serve hot.

Broiled Ham.—If the ham is very salty freshen it a little in hot water, as salt pork is freshened, except to remove from the stove as soon as it boils, and let it soak about 20 minutes. Drain nicely, and broil as beefsteak, which see. Turning 2 or 3 times; season with pepper and a little butter upon it. To be served at once, while hot.

Ham and Tongue Toast.—Cut the slices of bread rather thick. Toast

carefully, and butter well on both sides. Chop the ham or tongue pretty finely; put into a pan with a little butter and pepper (the author likes a sprinkle or two of cayenne in it), and a beaten egg for each piece of bread; and as soon as the egg is done spread upon the toast and serve at once.

Ham Cakes, Baked, for Breakfast or Tea.—Take the remnants of a boiled ham, fat and lean together. Chop fine, and pound with a steak-pounder, or, if you have one, run it through a sausage machine. Soak a large piece of bread for each person to be served in milk; a beaten egg, also, for each person, a little pepper, and all mixed together, put into a suitable pudding-dish and bake a nice brown. Call this ham pudding if you prefer. It will pass for either. Some may prefer the next one with its mixture of veal.

Ham and Veal Odds and Ends Economically Used.—Take equal quantities of cold boiled ham and veal; chop fine, separately; have some hard-boiled eggs, $\frac{1}{2}$ dozen, or more, according to the amount of meats, also chopped fine; then, in a buttered pudding-dish, put a layer of veal, with pepper and salt to suit, and moistened with a little water and a few splashes of Worcestershire sauce, or any of the catsups; then treat a layer of ham in the same way; and then of the eggs, with pepper and salt; and so keep on until all is in; when, if the ham had fat upon it, no butter will be needed, otherwise, lay a few bits of nice butter on the top, and bake slowly about 2 hours; then it may be served hot for any meal, or put away till cold, with a plate and weights upon it, so it will slice nicely.

“Scrapple” in Place of Head-Cheese.—“Lorinda,” of Anoka, Minn., gives the *Blade* the plan of using up hogs’ heads with some cornmeal, which she learned of a Dutch woman in Illinois, which she testifies to the value of from 25 years’ experience. It needs only a trial to satisfy any one of its palatableness and economy in using up hogs’ heads. She says:

“Soak the head, or heads, in water over night. In the morning clean thoroughly, cutting out the eyes and ears deeply; then boil until tender; take out and let stand till cold; remove all the bone and chop fine. Drain off all the water it was boiled in, to get out all the bits of bone; rinse out the kettle, and put back the water drained off, and put on the fire to get hot; in the meantime, season the chopped meat and put in with additional water, to about half fill the kettle, or to be quite thin, and when it begins to boil thicken with cornmeal to the consistence of mush; take out into pans while hot, make it level on the top, and when cold, pour melted lard over it to prevent the top getting dry and hard; it will also help it to keep longer. When wanted for use, cut out in slices about half an inch thick and fry in a little hot lard or butter until a nice brown; then turn, brown again, eat hot. If any one thinks this is too fat, or greasy, they can put in the heart and tongue.”

Pork Chops Fried with Apples, Very Fine.—Put the fresh chops in the frying-pan, salt, pepper, and sage, if you like it, or any other sweet herb, to be scattered over, and fried; if not fat enough to make plenty of gravy, add butter or drippings. When the chops are nicely done, having sliced the apples, fry in the same dish, and when nicely browned put them over the chops or in a

dish by themselves, as some may not like them, although the author, and probably most others, will be very fond of them. Use nice tart apples only. Chops of fresh pork, fried and seasoned the same way, are splendid, if nicely browned, even without the apples.

Remarks.—We will close the pork question with directions for properly cooking and serving pigs' feet, ears, etc., as suggested by the great showman, P. T. Barnum. He is admitted to be "the greatest showman on earth," and why should he not have learned something about good victuals? I should think he had, judging from his size and well rounded face. Being taken from the Bridgeport *Standard* (Barnum's home) it is no doubt reliable. I know "from the nature of things" he is correct.

"**Broiled Pigs' Feet, a la Barnum,**" is one of the dishes printed on the Sturtevant House bill of fare in New York. Barnum says: "Pigs' feet, properly cooked, were given to me to eat long before I was permitted to partake of any other animal food. When old and young feet are boiled together for 2½ hours, as usual, the old ones are tough and worthless. If they were boiled 3½ hours, the young feet would burst and the gelatine swim away. Now, the secret is to wrap each foot in a cotton bandage wound 2 or 3 times around it and well corded with twine. Then boil them 4 hours. Let them remain in the bandage until needed to broil, fry or pickle. The skin will hold them together while being cooked; and when you eat them you will find them all tender and delicate as possible."

Remarks.—The *Standard* said there was a hotel in their State (Connecticut) where pigs' feet were a special feature of the bill of fare; cooked as described above by Mr. Barnum. I know very well that pigs' feet as generally cooked, are a nuisance, so far as tenderness and ability to eat them are concerned. This wrapping and long cooking will make a new feature in serving them. I say, "Hurrah for Barnum!" as he has now done the public some real good, that will last, too, as long as pigs' feet grow. The 2½ hours are long enough to cook the ears, which the author has always preferred to the feet, because they were more tender and delicate, from the fact that they did not require so long boiling as the feet, and hence would be tender while the feet remained tough and gristly, for the want of the very knowledge how to cook them.

Stews of Mutton, Chicken, etc.—Take the neck, or any part of the forequarter of mutton, not so old as to be strong, cut into rather small pieces, and place in a pot having a well fitting lid, and cover the meat with cold water. boil slowly, removing scum as it rises, till perfectly tender; then set away, keeping covered. Next morning remove the fat, or tallow, from the top; then, at the proper time to get it ready for dinner, place again on the fire, adding salt and pepper to taste, and any herbs, if desired, and pour in hot water to well cover the mutton; and when boiling nicely put in dumplings made of light bread dough or biscuit dough, and fail not to keep up the boiling until the dumplings are done. Serve in a covered tureen that will hold the **gravy**, or juices, as well as the meat, dumplings, etc. If properly managed, when the meat and dumplings are taken up, there will be only juices enough left to

thicken with a trifle of flour, rubbed smooth in a little cold water, or milk for the gravy.

Very Tough Mutton, and Chickens which have worn themselves out by laying eggs and raising many broods, by longer stewing the first day can be made very tender and palatable in the same manner.

Mutton and Pork Stew.—Neck, or other cheap parts of mutton, 3 lbs.; salt pork, $\frac{1}{2}$ lb.; 1 onion; salt and pepper; and parsley, thyme or summer savory, if on hand and liked. DIRECTIONS—Cut the mutton into small pieces, $\frac{3}{4}$ or 1 inch square; the pork into small thin slices; break or slice the onion, dividing the rings if sliced. Put the mutton into a covered stew pan with cold water to cover it. Heat it gradually and stew 1 hour; then add the slices of pork, and bits of onion, the salt and pepper to taste, and continue the stewing until the meats are perfectly done, at which time, if desired, have ready some pastry, as for meat pie crust; (for 1 qt. of flour 3 table-spoonfuls of lard; $2\frac{1}{2}$ cups of milk; salt and soda, 1 tea-spoonful each; cream of tartar, 2 tea-spoonfuls, work quickly and don't get too stiff, or in these proportions;) roll out $\frac{1}{2}$ an inch thick, and cut into squares, or diamonds, and put ir just long enough before taking up to cook the pastry, 10 to 15 minutes will be enough; and just before taking up add the sweet herbs, if they are to be used—if put in at first their flavor will be too much evaporated. When done thicken a cup of milk with a table-spoonful or two of flour and stir in just before taking into the tureen. In place of the pastry, or dumplings, $\frac{1}{2}$ a can of sweet corn; or, in sweet corn time, the corn cut from $\frac{1}{2}$ a dozen ears, previously cooked, may be stirred in, as an equivalent. Either plan is excellent.

Remarks.—Lamb, veal, beef, or young pork ribs, or other lean parts, make a healthful, cheap, easily digested, and a very satisfactory dinner at any season of the year.

Value of Sweet Herbs for Stews, etc.—If the people generally knew how much nicer stews are with these herbs, parsley and thyme especially, for flavoring soups and stews, it seems to the author they would raise them for this purpose, as much as sage and summer savory are for sausages and roasts; and as pennyroyal should be, as an herb drink to promote perspiration, break up colds, etc. (See Seasoning Food, etc., after dishes.)

Irish Stew.—Mutton cutlets, or chops, 2 lbs.; potatoes, 4 lbs., or enough for the family; 1 onion; pepper and salt. DIRECTIONS—Cut the chops into small pieces, cracking the bones, if any; peel and slice the potatoes; shred, or chop the onion finely; butter the bottom of a stew pan, and place a layer of the sliced potatoes over the bottom, with a proper proportion of the onion upon them, and season each layer with salt, and a very little pepper; then a layer of the chops, etc., until all are in; then put on 1 pt. of cold water, cover the pan and simmer 2 hours, or until done. Serve hot, and keep hot as long as dinner lasts, by keeping the tureen covered.

Remarks.—Notwithstanding this is called an Irish stew, if it is done nicely it is quite good enough for an American. It is a very popular dish at hotels and boarding houses, and any kind of cold meats, not too fat, may be utilized

in this way, remembering that if made of cooked meats, only about half the time will be required, enough only to cook the potatoes.

Irish Stew from Left-Over Steak and Potatoes.—Cut the left-over steak and potatoes into squares of half an inch. Stew the steak in a covered stew-pan until very tender; cut an onion, and add the potatoes with a little of the left-over gravy from the steak; season with pepper, and a little salt if needed, thyme and summer savory.

Remarks.—Be certain to have just enough juices of the stew left, as a gravy, *i. e.*, do not cook it too dry, and it will be fit for a king. At least, the author first found a dish of it good enough for him, seasoned as above, at Florence, Kan. Try it if you like a good thing, and can get the thyme and savory. The only fault I ever found, or heard about it, was "I want a little more of that stew."

Potato Stew.—For a potato stew, lay 3 slices of salt pork—fat and lean—in the bottom of your stew kettle. Let it fry. If there is too much fat pour off a part. Slice an onion and fry with the pork. When it browns put in the potatoes sliced, not too thin, and hot water, not quite enough to cover. When nearly done, set on top of the stove to simmer. Add pepper, butter, and a cupful of sweet cream. Milk thickened with flour can be used in place of cream.

Parsnip Stew.—Salt pork, $\frac{1}{2}$ lb., cut in slices; beef or veal, 1 lb., in small pieces; stew in a saucepan with suitable amount of water. Scrape the parsnips, wash and cut into slices; also $\frac{1}{2}$ dozen medium-sized potatoes, in halves. Put all into the pan or pot together, cover closely for half an hour, or till all are tender; then add a small bit of butter, and pepper pretty freely, dredge in a little flour, and a few minutes more is needed to cook the flour into a gravy, and serve hot. (See also Parsnips Stewed in Milk, among the Vegetable Dishes.)

Escaloped Parsnips.—Mash 1 pt. of boiled parsnips. Add 2 table-spoonfuls of butter, 1 tea-spoonful of salt, a little pepper, 2 table-spoonfuls of cream or milk. Mix the ingredients. Stir on the fire until the mixture bubbles. Turn into a buttered dish, cover with crumbs, dot with butter, and brown in the oven.

Remarks.—This gives us a new way of cooking parsnips, as well as a very nice dish.

Venetian Stew.—Take 1 table-spoonful each of chopped onion, parsley, flour, and Parmesan cheese (cheese made in Parma, Italy, but the author thinks any good old American cheese will do just as well, at least good enough for Americans); a little salt, pepper, and ground mace; spread between some thin slices of veal; leave for some hours; then stew in rich broth with a goodly amount of butter.

Remarks.—If the veal had been boiled the day before in a small amount of water, it will be nice for the broth. We should not be complete in the line of stews, if we did not introduce an oyster stew, and as we have Delmonico's, to-

gether with his manner of frying and baking, we will put them all in this connection as follows:

Oyster Stew, Fried and Escaloped, According to Delmonico.

—Oysters sufficient, and their liquor; rolled crackers, salt, pepper, and milk. DIRECTIONS—Put the liquor in a stew-pan (a tea-cupful for 3), and add half as much water, salt, a good bit of pepper, and a tea-spoonful of rolled crackers to each person. Put on the stove and bring to a boil. Have your oysters in a bowl, and the moment the liquor boils pour in all your oysters, say 10 to each person, or six will do. Watch carefully, and as it boils, take out your watch, or count 30, and take your oysters from the stove. Have a big dish ready with $1\frac{1}{2}$ table-spoonfuls of milk for each person. Pour the stew upon this milk and serve immediately. Never boil oysters in milk if you wish them good.

Oysters, To Fry.—Oysters sufficient, nice light crackers, eggs, salt, pepper, and cornmeal. DIRECTIONS—Roll the crackers, and mix a little salt and pepper into them; beat the eggs; then first dip the drained oysters into the cracker crumbs, then into the egg, and then into the cornmeal, having sufficient butter pretty hot in a frying pan, put them in as quickly as you can; then, as soon as the first side is nicely browned, turn them carefully, and serve hot. If any of the cracker and egg is left, mix them together, fry, and serve with the oysters. Parsley is a nice relish with them.

Oysters, Escaloped.—Oysters, nice crackers, salt and pepper (and, if you desire, a little pulverized mace and cloves), butter, milk with the cream stirred in, else a beaten egg or two may supply the place of the cream. DIRECTIONS—Roll or pound the crackers finely; apply butter freely to the bottom of the pan in which they are to be baked; then cover it well with oysters and sprinkle them with salt and whatever seasoning you use; then a good layer of crackers, over which put pretty freely small pieces of butter, and wet slightly with the juice of the oysters, which has been mixed with the milk and cream, or egg. So fill the dish, the last layer being cracker, and double the thickness of the others, upon which put more butter and sufficient of the wetting mixture to well moisten. If the dish is deep it will require about 40 minutes to bake sufficiently; and if the dish is covered while baking remove it a few minutes before done to allow the top to be nicely browned.—“*S. E. N.*” in *Country Gentleman*.

Remarks.—To good judges, it is not necessary to say that this will be very nice, even if a glass of wine is not added to the wetting mixture, as in the original. Some prefer it with, and many, I think, without; each can suit them selves. It is well known that Delmonico led the “ton” in the city of New York for a great many years; and there are so many points—20 different—in the plans of cooking these dishes, as prepared at his restaurant, it will pay for all who like nice digest to heed well these instructions, as I have not a doubt of their origination with him, or, rather, his French cook. To follow them is to ensure success, as the author has tested the stew many times, and the others enough to know their superiority over the old way. The four following recipes for cooking oysters, and the corn oysters, are from the *Toledo Post*, and will be found very nice.

Chicken Oyster Pie.—Cut the chicken in suitable pieces for fricassee, and prepare it as for that dish. Line a deep pie dish with a rich crust, and put in a layer of chicken with its gravy, and a layer of raw oysters; sprinkle the latter with salt, pepper and bits of butter. Proceed thus till the dish is full, and cover with a crust of pastry. Bake from $\frac{1}{3}$ to $\frac{3}{4}$ of an hour. Serve with gravy, made with equal parts of chicken gravy and the oyster juice, thickened with flour and seasoned with salt and pepper.

Oyster Flitters.—Drain the liquor from the oysters, and to 1 tea-cupful add the same quantity of milk, 3 eggs, pinch of salt, and flour enough for a thin batter. Chop the oysters and stir them in the butter, and fry in half butter and lard rather hot, and send quickly to the table.

Oyster Omelet.—Twelve large oysters, 6 eggs, 1 cup of milk, 1 tea-spoonful of butter, salt and pepper, and parsley, if agreeable; chop the oysters. Beat the whites and yolks of the eggs separately, as for cake. Heat 3 table-spoonfuls of butter, pour the milk, yolks of eggs, oysters and seasoning in a dish and mix, and add the whites of eggs and 1 spoonful of melted butter, with as little stirring as possible, then cook to an appetizing brown, turning the omelet carefully.

Broiled Oysters.—Drain and wipe the oysters and dip them in melted butter; then broil them on an oiled griddle over a moderate fire. Season to taste.

Corn Oysters.—Take young sweet corn; cut from the cobs into a dish. To 1 pt. of corn add 1 well-beaten egg, small tea-cupful of flour, $\frac{1}{2}$ gill sweet cream, $\frac{1}{2}$ tea-spoonful of salt; mix it well. Fry like oysters by dropping into hot drippings or butter by spoonfuls about the size of an oyster.

DUCKS—To Bake Wild or Tame, to Avoid their Naturally Strong Flavor.—DIRECTIONS—After having prepared them for stuffing, first parboil them for 1 hour, having an onion cut into 2 or 3 pieces, according to its size; put a piece inside of each duck while parboiling, which removes their strong flavor; then stuff with bread-crumbs dressing, in which half of a common-sized onion, chopped fine, has been added for each duck. Bake in a hot oven, leaving the oven door $\frac{1}{2}$ inch ajar to carry off the strong flavor which may be left. Baste often with water and butter kept on the stove for that purpose, as the water first put in is to be poured off, to get rid of the duck-oil, which at first comes out very freely and contains much of the rancid or strong flavor of the duck, which it is our design hereby to avoid. After this the water and butter may be put into the pan for basting and for the gravy. The object is to get rid of all the oil possible.

Another Plan—and some people like them better with wholly an onion dressing—is as follows: Peel and wash 4 medium-sized onions for each duck, slice them, and have some water in a saucepan, boiling as hard as may be, throw in the sliced onions (onions can be peeled and sliced under water without affecting the eyes), with a little salt, and boil for 1 minute only after they begin to boil, which removes the acrid oil, or strong taste of the onions; remove from the fire, pouring off the water and draining nicely (this should always be done

in cooking onions, even as an onion stew in milk); chop the onions finely, and season with salt and pepper to taste and 1 tea-spoonful of powdered sage for each duck; stuff, and bake as above.

Remarks.—This instruction was obtained of a boarding-house keeper, who had many years experience besides. I have had them tried several times myself and will say that for me I prefer at least half the dressing to be bread-crumbs, although the onion dressing alone, prepared as above, is very fine. If bread is used, of course butter is also to be added in all cases. Remember this, also, that in baking ducks, or any other wild game or poultry, they should be basted every 5 to 10 minutes while baking, if you desire them to be tender and sweet. Have plenty of water in the pan, with quite a bit of butter, for the purpose, and for the gravy after the oil has been poured or dipped off.

Ducks to Roast and Stuff With Potato Stuffing.—The roasting to be the same as above; but for the stuffing, boil potatoes and mash them finely. Prepare 1 onion at least for each duck, as also above directed (by boiling 1 minute with a little salt and pouring off the water), then chopping fine and mixing with the potato sufficient for the number of ducks to be stuffed, seasoning with salt and pepper and a very little ($\frac{1}{2}$ tea-spoonful to a duck) of thyme, and when filled with this potato and onion mixture, roast as before directed; and as soon as the oil is got rid of, rub over with butter, dredge on a little flour, put in more hot water, and baste often. Put the giblets into the same pan, and when done chop fine, and put into the gravy.

Duck and Oyster Croquettes, or Balls, to Fry.—Stuff a young and tender duck with oyster dressing (4 to 6, chopped, for a duck), roast, basting well to keep moist and from burning. When cold remove the bones and chop finely, and mix with the dressing, season with cayenne (if tolerated, else black pepper) and salt. Moisten with catsup and a well beaten egg, and stiffen properly with more bread or cracker crumbs, if needed. Make into croquettes, or balls, and brown nicely in hot butter or drippings. Put a sprig or two of parsley, if you have it, with each one, in serving.

Mock Duck, With Veal or Beefsteak.—Take veal steak, or cutlets, from the round; or the round from a young tender beef, and remove the rings of bone. Make a dressing with bread crumbs or rolled cracker, seasoning with a little onion (to imitate duck dressing, proper), which is always used with duck, to help overcome their peculiar tastes, moistening with an egg; adding salt and pepper of course, and a little thyme if you have it. Spread this stuffing, good thickness, over each steak; then roll them as much into the shape of a duck as possible, tying with twine, to keep in place. Baste well, and frequently, while roasting, to prevent their drying up too much. If done nicely you have a nice dish. Of course, making a gravy as for duck. Beef is not generally quite as tender as veal, but is more tender than the general run of ducks.

Codfish, to Boil.—Codfish, as generally cooked for dinner, is left so salty that too much water is craved after eating it to be healthful. To avoid this, put to soak in plenty of water the first thing in the morning. It is said,

"skin side up," but I think this makes but little, if any, difference. When breakfast work is done, scale and clean well. Put to soak again in a warm place. About 20 minutes before dinner time, put the whole fish in a deep spider or shallow kettle with water enough to cover and boil gently for about 15 minutes, or until tender. Drain off dry and slip on a deep plate, spread thickly with butter, adding plenty of pepper, and pour over all a cupful of sweet cream, or not, as you choose. If to be prepared for breakfast, soak an hour, after supper, then scrape and clean, and soak over night. Otherwise the same. Remnants can be picked to pieces, and make a gravy with milk, or cream, for dinner, or supper; or be made into balls, as below. If codfish, or other salt fish are properly freshened, they are very healthful food.

Remarks.—The author is very fond of codfish when properly freshened, being laid on top of potatoes that are being boiled with their "jackets" on, then a gravy made of the water in which it was cooked, by adding butter and pepper only. This gives you the pure flavor of the fish.

Codfish or Other Fish Balls.—Codfish left over from dinner is just as nice for this purpose as to freshen it purposely. Remove all the bones and skin; picking it into fine pieces, or shreds (long fiber-like pieces.) Have twice as much bulk of nicely mashed potatoes as fish; making the potatoes rich with butter and milk, if you have it, as for the table, and a beaten egg or two, according to the amount being prepared; season with pepper (the author likes a sprinkle or two of cayenne in them); flour your hands and make into balls, or rather flat, more like biscuit, and fry in hot butter, or drippings, as you choose, turning carefully when the first side is nicely browned. Drain off any superfluous fat before sending to the table.

Remarks.—They may be made perfectly plain, simply fish and potatoes, and still be good; but the hotels pursue the above plan, some of them also adding some boiled or chopped onion to the mixture. Any large fresh fish, even, left over, may be made into balls for the next breakfast, in the same manner, using a little salt in the seasoning. They may be put into pork, which is about half fried, and so give a nicer flavor to the pork, and eaten together; especially nice in this way if you use potatoes a little more freely than used in making the fish balls.

Codfish and Eggs.—We have ham and eggs, why not codfish and eggs, as well? Properly soak and pick the fish to pieces, and to each cup of fish put in 2 eggs and beat well together, and drop from a spoon into hot butter, or half-and-half butter and lard, or drippings, and fry a nice brown on both sides.

Remarks.—If tried once, they will be again, and again, which is the best praise that can be given any dish.

Baked Whitefish and Shad with Dressing.—Clean, rinse and wipe dry with a napkin, a whitefish or any other good-sized fish, weighing 3 lbs. or more. Sprinkle salt and pepper inside and out; then fill with dressing, as for chicken or turkey, only having it pretty dry; sew up and lay on some sticks in the dripping-pan; put in water and butter, dredging the fish with flour before putting in; and, if you have it and like it, put a few thin slices of fat pork on

the fish—if no pork, then rub well with butter. Bake $1\frac{1}{2}$ hours, basting frequently to avoid burning. Shad will be done the same, garnishing with a few pieces of lemon, sprigs of celery, or with the lemon sauce below.

Shad or Other Fish, To Fry.—Dress nicely, cut in pieces, rinse and absorb the water with a napkin, or drain a few minutes; rub in salt and a little pepper, roll in flour or cornmeal, having fat from salt pork quite hot in the pan, lay in the fish, first the inside down; when browned nicely, turn, cooking rather slowly to avoid burning. Some persons are very fond of grated horseradish with fish. If not serve with potatoes plain, or the sauce given below.

Broiled Mackerel.—Put mackerel to soak immediately after dinner the day before they are wanted for breakfast. Always put the skin side up in the tub of water. Change the water at 3 or 4 o'clock, and at tea-time pour off and rinse; then just cover with milk, if you have it, till bed-time; then take out and hang up to dry till morning, when they will be dry enough to broil nicely, the same as beefsteak, which see. They may be fried, but are not so nice, if broiled without burning.

Stuffed and Baked Fish.—Take out the backbone of the fish, leaving the head and tail on. Chop fine 2 small onions, and fry them in a table-spoonful of butter then add sufficient soaked bread to fill the fish, the yolk of an egg, and season with salt, nutmeg and parsley chopped fine. Stuff the fish with the mixture; pour over the whole some melted butter, and bake. If the oven is very hot, lay over it a greased paper, taking it off to allow the fish to become a nice brown.

Sauce for Baked Fish.—If there is not gravy enough from the water and butter with which the basting has been done, add a little more hot water and butter, and the juice of a lemon, with a spoonful of browned flour rubbed smooth in cold water, bring to a boil and serve hot. If you have parsley, a little chopped, or a little chopped spearmint, will add relish.

Sauce for Meats, Delmonico's.—The following is Delmonico's favorite sauce: "Take an ounce of ham or bacon, cut it up in small pieces and fry in hot fat. Add an onion and carrot, cut up; thicken with flour, then add a pint or quart of broth, according to quantity desired. Season with pepper and salt, and any spice or herb that is relished (better though without the spice), and let it simmer for an hour, skim carefully and strain. A wine-glassful of any wine may be added if liked."

Remarks.—Cold roast or broiled beef or mutton may be cut into small squares, fried brown in butter, and then gently stewed in the sauce above described, and served as a stew.

The Famous Rhode Island or St. James' Chowder for Six.—The *Providence Journal* says that some of its readers will recall the late James Brown, whose social sayings have come down to the present, and shall not be gainsaid. The following is his recipe for a chowder very famous in his day, and not altogether forgotten in ours:

"Take 6 slices of good pickled pork (pig preferred), and fry them in the bottom of a good-sized dinner-pot, turning the slices until they are brown on

both sides. Take out the slices of pork, leaving the drippings in the pot. Take 7 lbs. of tautaug (a favorite fish along the New England coast) dressed (leaving the heads on) or 10 lbs. of scup (tautaug to be preferred), and cut each in 3 pieces, unless small, when cut them in two. Place in the pot, on the drippings, as many pieces of fish as will fairly cover the bottom of the pot. Throw into the pot, on the fish, 3 handfuls of onions, peeled and sliced in thin slices. Do not be afraid of the onions! Put in over this salt and pepper to taste, as in other soups. Then lay on the six slices of pork, on the top of the pork the rest of the fish; cover this with 3 handfuls more of onions peeled and sliced. (9 or 10 onions in both layers will suffice, though more will not injure it.) More pepper and salt, to taste. Then pour into the pot water enough just to come fairly even with the whole, or partly cover the same. Put the cover on the pot, place it on the fire. Let it boil gently and slowly for 30 minutes. It is to boil 30 minutes, not merely to be on the fire 30 minutes, and at all events let it boil until the onion is done soft. Pour in at this point about a quart (a common bottle) of best cider or champagne, and a tumbler full of port wine, and at the same time add about 2 lbs. of sea biscuits.

Note.—If, when the onion is done, you find there is not liquor enough in the pot, soak the sea-biscuit in water for a few moments before putting them in, I would recommend the practice generally.

“After the cider, wine and crackers are put in, there is no harm in stirring the whole with a long spoon, though it is not necessary. Then let the whole boil again (not merely to be on the fire) for about 5 minutes, and the chowder is ready for the table. Before dishing up let the cook taste it and see whether it lacks pepper and salt, when, if it does, it is a good time to add either.

Note.—Also, never boil a potato in chowder. If you want potatoes boil them in a separate pot, and serve in a separate dish.”

Chowder, the More Common, With Fish or Clams.—Slice some fat salt pork quite thin; put a layer in a suitable pudding dish, and strew over it sliced, or chopped, onions, with plenty of pepper; then cut a haddock (a species of codfish, but smaller), fresh codfish, or any other firm fish, into steaks, or slices, and put on a layer; then a layer of slightly soaked crackers; then pork, fish and crackers, until the dish is properly filled; pour over a suitable amount (a pint or more) of water, and bake in an oven, or where you have heat at bottom and top (used to bake chowder in a pit of well heated stones, all around, under and over). Clam chowder is done the same, substituting clams for the fish.

Egg Muffins.—Heat a dripping pan with as many muffin rings on it as you desire. Butter them, and break an egg into each, put on a little salt, pepper, and a bit of butter to each, and put into the oven and brown nicely. Serve hot and you will find them nice, although not original with the author, nor does he know with whom they originated, although he knows them good—a new dish.

Frogs, How to Cook.—Somebody writes to the *Blade* how to cook frogs, and does it so nicely I will use his own words for it. He says: As pot-pies, stews and chowder they are a failure. The only legitimate way to cock a frog is to fry him brown in sweet table butter. As a preliminary he must be dipped in a batter of cracker dust, which should adhere closely when cooked, forming a dainty cracknel of a golden brown color, with a crisp tang to it when submitted to the teeth. The tender juices thus retained lose none of their

delicate flavor, and the dainty morsel needs no condiments to give it an additional zest. Next to the pleasure of sitting on the borders of a frog-pond at eventide and listening to their sweet, melancholy ch-r-r-r-k is that of reviewing a plate heaped high with the mementoes of a finished feast—the bones of the “Frog that would a wooing go,” and a goodly portion of his kindred.

Remarks.—Having eaten them done thusly, I can say try them every chance you can get. They are splendid.

Roast Turkey, a Nice Way to Avoid Burning.—Having dressed him carefully, rub the inside well with salt, and hang up to drain an hour; then wipe dry with a napkin the crop and inside just as your dressing is ready to be put in; fill the place of the crop with the dressing and sew up, then the body and sew also. The dressing may be simply fine bread crumbs, seasoned with salt and pepper and a little butter, moistened with water or milk and a beaten egg, and you may add sage, onions, oysters, raisins, etc., any or all of them; or sage, thyme or marjoram or summer savory, as you like, have on hand or can get; tie the legs to the body, so that they shall not sprawl by the heat. When ready for the oven, melt a little lard and spread it over a clean white cloth and lay over the turkey; then grease a paper the same way and lay over the cloth, and a piece of thick dry brown paper over all; put a cup of water in the pan, and roast the turkey without basting, as the greased cloth and papers will keep it moist and from burning. If the top paper scorches, replace it with another until the turkey is nearly done; then remove all covering for a few minutes to allow it to brown. Having stewed the giblets (heart, liver, gizzard, etc.) in a little water while the turkey was baking, chop them fine, and with water or broth in which they were stewed added to the gravy in the pan, thicken a little with browned or unbrowned flour, as you prefer, rubbed smooth in a little cold water, seasoning to taste; serve in a “boat” or bowl, as you have.

Remarks.—If a turkey, or other fowl or meats, are not covered in this way they must be basted often to prevent burning, and you must also be more careful for the first half hour or so not to have the oven as hot as you may if covered. One-and-a-half and two hours, according to the size of the turkey and the heat of the oven, would be required to bake them nicely. Some people stew and chop the giblets before hand and mix them into the dressing. Each can suit herself in this free country; and a good many also, as well as the author, like quite a sprinkling of cayenne pepper in the dressing, as it seems to remove a peculiar fresh smell coming from the inside of the turkey.

Turkey, to Boil and to Fry, as in England.—*To Boil.*—In England turkeys are as often, if not more often, boiled than roasted, and eaten with a sauce called “Golden Rain.” Truss (tie the legs and wings firmly) as for roasting, to prevent their sprawling out by the heat, Have a kettle or boiler large enough to hold water to fully cover the turkey, in which there has been put a carrot, an onion, and a bunch of sweet herbs (if you are to do as the English do), the water being boiling. Put in the turkey, breast down. After it has boiled a minute or two, briskly, move back the boiler to simmer gently from 1 to 2 hours, according to size of the turkey.

The Sauce, or Golden Rain.—Boil 3 eggs 10 minutes, and when cold throw the whites and two of the yolks into cold water to keep their color. Melt butter, 1 table-spoonful, in a saucepan; then remove from the fire and stir in a spoonful of flour (about 1 oz.); stir, or beat with a wooden spoon, till smooth; put over the fire again and add $\frac{1}{2}$ pt. of milk and stir till it thickens, adding now a gill of cream, cutting the whites and the yolks of the eggs in the water into dice; stir in, but do not break up the dice by too hard stirring, which would spoil the golden as well as the white rain; bring to a boil after putting in the egg-dice. Take up the turkey in time to drain nicely; then rub the yolk of the other egg over the breast and in spots over the rest of the turkey, or rub it through a sieve, thus in spots, to make it more golden. Pour the same upon it, or serve it in a “boat” or bowl, as preferred.

Turkey, To Fry.—Not every one, however, knows how to fry turkey. Cut in neat pieces the remains of the turkey, make a batter of beaten eggs and fine bread crumbs, seasoned with pepper, salt, and pounded mace or nutmeg, add a few sprigs of parsley; dip the pieces into this and fry them a light brown. Take a good gravy, thickened with flour and butter, and flavored with mushroom or other catsup, and pour over them. Serve with sippets and sliced lemon. Few breakfast dishes are more delicious.—*Confectioner.*

Turkey and Other Poultry Hash or Breakfast Dish.—Cold fowl of any kind may be turned into a hot breakfast dish as follows: Chop the meat very fine; put $\frac{1}{2}$ a pt. gravy into a stew-pan with a little piece of butter rolled in flour, a tea-spoonful of catsup, some pepper and salt, the juice and peel of half a lemon shred very fine, if you like it; put in the turkey or chicken, and shake it over a clear fire until it is thoroughly hot. The above proportions are calculated for one cold turkey. It may be served with two or more poached eggs. If there are not enough eggs to allow one for each guest, they should be broken with the spoon and mixed with the hash just before serving. It should be served piping hot.

Italian Cheese, or to Prepare Veal, Chicken, Turkey, etc., for Picnics.—Take a 4 or 5 lb. piece of veal, boil it perfectly tender, then remove all the bones, and chop the meat fine; add a grated nutmeg, as much cloves, allspice, pepper and salt to suit; strain the liquor in which it was boiled, and mix all together, put over the fire and simmer till the liquor, on cooling a little of it, will jelly; then put in molds or bowls till the next day, when it may be sliced for sandwiches for the picnic or for company tea. Chicken or turkey may be done in the same way. If you like, you can line the molds, or bowls, with hard-boiled eggs, sliced, which adds to its appearance as well as its richness.

Chicken Fricassee, Upon Toast and Without.—Cut up a chicken and put on to boil in a small quantity of water. Add a seasoning of salt and pepper, and onion if you like. Stew slowly (covered) until tender; then add rich milk, $\frac{1}{2}$ pt. (cream is all the better), with a little butter; and if you have parsley, add a little of it chopped, just as ready to serve. Have the bread, which has been cut thin, nicely toasted and lightly buttered, arranged on a platter; then pour over the fricassee, and serve at once. Without the toast, it is the common fricassee.

Remarks.—A young turkey, or a nicely dressed rabbit, treated in every way the same as the chicken, will also make a nice fricassee. But our chicken dishes would hardly be complete without a chicken currie, and perhaps, also, chicken with green peas, both of which I have obtained from a book entitled "Indian Domestic Economy and Cookery," which I borrowed from a Mrs. Bronson, whose husband, Dr. Bronson, had spent over 40 years in India, as a missionary, but whose age and debility required him to return home, and he was then (1881) living at Eaton Rapids, Mich. Dr. Bronson was very anxious, if his health would allow, to return to his work; but being about 70 years old, I told him I thought he had done all that duty required of him in that far off country, and I doubted much if his health would ever allow his return. This lady was his third wife, a faithful and true helpmate in his work. I received several items of information from her in relation to the Indian customs, in cooking, etc., which helped me to understand the work above mentioned, much better than I otherwise would, their ways are so different from ours. These items I shall mention in the different places where needed, in the recipes I shall give from this work. They were married in India, where she had lived several years before their marriage. The book was printed in Madras, in 1853, at the "Christian Knowledge Society Press," and the copy she brought with her showed signs of having been much used. My acquaintance with her was, as some say, purely accidental, others, providential. I was standing in the door of the Frost House, Eaton Rapids, where I was stopping for the benefit of the mineral springs and rest, when Mrs. Bronson, in passing with a baby carriage, having twin babies in it, stopped to talk a few moments with the landlady, who, with some other ladies, were also standing about, when one of them knowing that Mrs. B. had recently come from India, asked her where the children were born, to which the answer was: "In Assam," when I at once became interested (as I had a cousin in that province of India), to know if they had met; when, on learning his name (Mason) they had been neighbors and co-workers for some years; hence my acquaintance with Mrs. B. and her husband, and I thus obtained access to the book from which I take the next recipe, and a few others which are credited as above indicated.

My cousin had then been in Assam about seven years, in the mission work. His health, and that of his wife, having already begun to fail considerably, so that during the following year (1882) he had to come home, more especially, however, on his wife's account, whose health continued to fail very fast, and although she seemed to recruit a little on her first arrival, or soon after, yet her health had been so undermined by her stay in India, she died within a few months after reaching her friends in America. But, notwithstanding the lives of American women who go out as missionaries, are short in India, yet they generally are so devoted to their work, or to their husbands, they seldom make any complaint—they give themselves, and their lives, cheerfully, for the Master's cause. Let none fail, therefore, to do their duty, although it should call them to India.

Chicken Currie, With Rice, as Made in India.—Cut the chicken into as many joints as possible. Take 1 onion and slice it finely and fry in

table-spoonful or more of *ghee* (the word used in India for butter, but drippings, or even lard, my informant, Mrs. Bronson, says is often used), sprinkling over the onion, 1 tea-spoonful of currie powder (which see). When the onion is nicely browned put in the jointed chicken, and salt sufficient, and put on a tea-spoonful more of the currie powder, and fry until nicely browned; then pour on sufficient hot water (see in remarks that milk, or the milk of coconuts may be used) to cover the chicken, and stew (covered) until perfectly tender. [Some of the native cooks boil the chicken tender before frying in the currie, but my informant says this is not the best way.] Serve with plain boiled rice, either in separate dishes, or, preferably, put the boiled rice on the platter, pushing it out around the edge, then pour the currie into the middle, the whiteness of the rice making fine contrast with the browned currie.—*Indian Domestic Economy and Cookery.*

Remarks.—Young mutton, lamb, veal, and fish, when cut into suitable pieces, Mrs. Bronson informs me, treated every way the same as chicken, makes an equally nice currie, and are more frequently used as such in India than chicken; but we Americans think there is nothing equal to chicken. This lady gives me the plan of cooking the rice in India, and the use of the water in which it is cooked, as follows:

To Boil the Rice India Fashion.—Wash it through 3 or 4 waters. Have plenty of boiling water in a large kettle, put in the rice and boil very briskly until tender; then pour in a cup of cold water, and pour into a colander; when well drained, return to the kettle to steam a short time to dry out the surplus water; then serve on the platter, or separate dish, as above.

The rice water poured off is, says this lady, the best kind of starch, and is used for that purpose by the washermen—men in India doing the washing wholly. What a blessed thing it would be for some of the over-worked women of our country if their husbands had to do the washing, instead of spending their time, and often the money their wives have earned by washing, for whiskey! How long shall it continue?

The Milk of Coconuts is often used in India, says our informant, and I think it would be very nice here, as well as there, instead of the water or milk in which, or with which, to cook the currie, whether it be chicken, veal, lamb, or fish; and they also scrape out the meat of the nut, having a tool for that purpose much like a scraper to remove letters from a box or barrel by shippers, except that the edge is rounding to fit the inside of the nut, and has sharp teeth like a saw, which makes the pulp fine and fit to mix into the gravy of the currie. Such a tool could be very easily made by an American blacksmith, taking him a coconut that he might get the shape for the toothed edge and knowing what it was to be used for.

At a subsequent time, while in Eaton Rapids, I was invited to take tea with Dr. Bronson, that I might partake of a currie prepared as above, by his wife and an Indian gentleman, who had been several years in the University at Ann Arbor, qualifying himself as a physician to go back to his country for the good of his countrymen. He understood Indian cookery, and between them they made a most excellent currie; and although it was pretty warm—I might say

hot—with the currie powder, yet I liked it very much, and should be glad to have a chance to eat of one every day in the week if not at every meal. It warmed up my stomach nicely, and it is said to be a cure of dyspepsia. I found too hot on the first trial to suit any one, use less currie powder next time, and you can soon work to suit the taste of any family. I believe it to be healthful, and they suit my taste exactly.

Chicken in Peas, as Cooked in India.—Cut the chicken into joints, as for a fricassee or currie, and put into a sauce-pan with about a quart of young shelled peas, a spoonful or two of *ghee* (butter), a small sliced onion, and a nice sprig or two of parsley, and moisten more with drippings if thought best: put on the fire, dusting with a little flour, and stew (covered) until done; and add a little salt, and a little sugar, if relished, just before serving.—*Indian Domestic Economy and Cookery.*

Remarks.—Their plan of making a fricassee is so much like ours above, I need not give it.

Young Chickens, Nice Way to Cook.—Dress and joint them as usual; place in a dripping-pan and just cover with sweet cream, season with a little salt, pepper, and a little butter; and now set in the oven to cook, and by the time the cream is almost cooked away the chicken will be done. They are splendid done in this way.—*Mrs. Wetsel, Harverville, Kan.*

Remarks.—That is just what the author says: “They are splendid done in this way.” I should like to pick such a leg, or two, every day. Have just cream enough left to put over the mashed potatoes as a gravy.

Chicken Relish, for Journeys, Picnics, or for Company.—Dress as many as the occasion will require, joint and boil tender in as little water as possible, salting nicely just before they are done; take up and remove the skin. Remove all the meat from the bones; break the bones and boil them and the skin a little while longer in the water; then strain it to have ready to moisten with. Place a layer of dark meat, then a layer of white in a bowl, seasoning with pepper and a little additional salt to each layer as put in, and moisten with the juices or water in which they were cooked, and put on weights till cold, when, with a very sharp butcher-knife, it may be cut in slices for the picnic, journey, or the tea-table when company is present—too much labor for common, as they are good enough for general use without so much labor. Chicken meat is so tender and soft it is very difficult to chop it, hence we do not advise it, unless the chopping-knife is sharper than they are usually found.

Roast Pigeons and Bread Sauce for Same.—Dress, wash and wipe dry, *i. e.*, absorb all the water you can with a napkin or towel, unless you have plenty of time to drain them dry. Truss them, secure the wings and legs to the body by skewers or twine; mix salt and pepper together and rub them well on the inside, and also put a piece of butter into each, the size of a large shell bark hickory nut. Lay upon sticks in the dripping-pan, put in hot water and butter to baste with, and put into a quick oven, covering with brown paper, if needed, to prevent burning. If the oven is hot enough, 30 to 45 minutes will do them nicely, if basted often enough.

Bread Sauce for Same, and for all Poultry, Meats, etc.—Milk, $\frac{1}{2}$ pt. to 1 pt., according to the amount needed; fine bread crumbs, 1 cup; an onion, small or large, whether you use $\frac{1}{2}$ or 1 pt. of milk; butter, 1 to 2 table-spoonfuls, as you take it out of the lump not melted; salt, pepper, mace, and parsley, if you have them and like them. **DIRECTIONS**—First boil the sliced onion 1 minute in water, then pour that off and put in the milk and cook it well; then put in your bread crumbs; or, if you wish to be very nice, strain out the onion; put in seasoning with the butter, and let the bread crumbs have time to soften; stir well, and bring to a boil, adding boiling milk or boiling water if too thick.

Remarks.—The drippings from the pigeons or other poultry may be put in place of the milk or water. The onion, of course may be left out, if not relished, and any other flavor substituted, as summer savory, thyme, marjoram, lemon peel and juice, etc., or nothing, so as to suit everybody.

But now I have an animal to introduce, the name of which I am so unfamiliar with I hardly know where to place him, whether among the meat-producing beasts, or the family of fowls; still, I know so many will like to try a few of his "rare-bits," I will give him a place among the choicest recipes I have in the nature of dishes. But as he is taken partly from the beast and partly from the fowls, we will call him the

1. GOLDEN BUCK, OR WELSH RAREBIT—English Style.

—A golden buck is, in other words, simply a Welsh rarebit, with a poached egg on his back. I will first give the true one, as directed by Warne's (English) Model Cookery: Time, 10 minutes; $\frac{1}{2}$ lb. of cheese; 3 table-spoonfuls of ale; a thin slice of toast. Grate the cheese fine, put to it the ale, and work in a small saucepan over a slow fire, until it is melted. Spread it on the toast, and send it up boiling hot. Now for the "buck" part of it:

2. Take fresh, but rather rich cheese and cut into small even-sized pieces, the amount to be regulated by the number of rarebits needed, and melt upon a rather slow fire. If the cheese be dry, add a small quantity of butter. A little—say a wine-glass full to each rarebit—sour ale; or, in its absence, fresh ale, should be added as the cheese melts. After the cheese is thoroughly melted and the above ingredients stirred in, add a small quantity of celery salt, and immediately pour upon a piece of toast previously placed upon a hot plate. By placing a poached egg upon this it immediately becomes a golden buck. The further addition of a slice of broiled bacon renders it a Yorkshire buck.—*New York Review.*

Remarks.—For those with good digestion either of the "bucks" will be found nice. For me, I should prefer not to have the ale sour, but fresh, and nice, so I think, would most others. I will give a few more recipes for a plainer, or more Americanized way of making the Welsh rarebit (generally called rabbit), which will be less troublesome to make, and also more easily digested. A young, but experienced housekeeper, of Brinton, Pa., gives the following:

Welsh Rarebit.—Chop fine, with a knife, pieces of dry cheese (sharp cheese is best), and to 1 pt. of this allow 1 pt. of milk. Have the milk boiling

hot and stir into it the cheese, stirring all the time until it becomes pretty well dissolved, then add a beaten egg, a little salt, and when it has all come to a boil your rarebit is done. Some persons prefer browning in the oven before sending to the table, but it is best eaten as soon as cooked, as the cheese is apt to separate from the milk if allowed to stand long after it is ready.

Welsh Rarebit, Plain.—Rich, crumbly cheese, $\frac{1}{2}$ lb.; butter, 1 table-spoonful; rich milk, 1 gill; toast. **DIRECTIONS**—Put the milk and butter into a frying pan, and crumble in the cheese upon the stove, constantly stirring until all is dissolved together; then pour upon thick toast that has been dipped, quickly, in and out, of boiling milk; served hot it is a rare dish for a healthy stomach. And for a healthy man a poached egg may be put upon each piece of toast, as served, which will make it a second cousin, at least, to the golden buck, given above.

Welsh Rarebit, Excellent.—Fresh cheese, the size of a tea-cup; a large cup of sweet milk; a table-spoonful of butter; a pinch of dry mustard; a little red (cayenne) pepper; 2 soda crackers; 1 egg. **DIRECTIONS**—Roll the crackers; beat the egg; cut the cheese in thin, small slices; place them in the frying pan with the milk; add beaten egg, butter, mustard and pepper; stir in the rolled cracker gradually. As soon as all is thoroughly mixed turn the mixture out, and send to the table in a covered dish. To be eaten with dry toast.

Welsh Rarebit, Delicious.—The *New York Post* says that Welsh rarebit is delicious when made after this rule: Half a pound of cheese, 3 eggs, 1 small cup of bread crumbs, 2 table-spoonfuls of melted butter, mustard and salt to taste. After beating the cheese in an earthen dish add the other ingredients, then spread on the top of slices of bread, toasted or not, as you choose, and set in the oven to melt.

Remarks.—I will close with one which is more particular in its quantities, and also has a caution or two in the use of seasoning, avoiding skim milk cheese, etc.; and although it recommends the Parmesan cheese, yet, I will say, our good, rich, new milk cheese, having some age, will be found nice enough for all common purposes. If a very nice dish is desired, get the Parmesan, as mentioned below. It is as follows:

Welsh Rarebit With Parmesan Cheese.—Boil $\frac{1}{2}$ pt. of milk; have the cheese rich enough to melt; chop $\frac{1}{2}$ tea-cupful of it to every $\frac{1}{2}$ pt. of milk; the yolk of 1 egg is lightly beaten with a fork, and have it ready when the cheese is melted; turn the cheese into the boiling milk and stir until the former dissolves. Welsh rarebit cannot be made from skim milk cheese. Parmesan cheese makes delightful dishes, but is expensive. Stir in the yolk of the egg, adding salt and pepper, and serve on toast or alone. Cheese dishes require little seasoning, and the salt and pepper should be used sparingly.

Remarks.—This Parmesan cheese is made in Parma, Italy, but I think our best American cheese is all that need be required, but each must please herself—you certainly have the opportunity of choosing, from the variety given; but, as it is the man who furnishes the largest number of the best recipes, for any given department, who makes the best receipt book, the author, in keeping

with his "First and Second Receipt Books," has endeavored, and he thinks, succeeded, in making his "Third and Last," the best even of his own writing; and far better than any with which he is acquainted, by any other author.

Minced Veal, With Poached Eggs.—Mince cold roast, boiled or broiled veal quite finely; fry a chopped shallot (a small bulbous plant much like a garlic, but if as strong as a garlic the author would prefer a small onion in its place) in plenty of butter; when it is a light straw-color, add a large pinch of flour and a little stock; then the mince meat, with chopped parsley, pepper, salt and nutmeg to taste; mix well; add more stock, if necessary, and let the mince gradually get hot by the side of the fire. When quite hot, stir into it, off the fire, the yolk of an egg and the juice of a lemon, to be strained and beaten up together. Serve with sippets of bread, fried in butter, round it, and 3 or 4 poached eggs on top.

Remarks.—The sippets of bread are first dipped into milk, or a beaten egg, before frying; and bread is a very nice thing thus fried for a breakfast dish, with fried meats of any kind, whether eggs are used or not.

Escaloped Veal.—Chop cold cooked veal fine, put a layer in a baking-dish, alternating with a layer of powdered crackers, salt, pepper and butter, until you fill the dish. Beat up 2 eggs, add a pint of milk, pour it over the veal and crackers. Cover with a plate and place in the oven until nicely heated through, then remove the plate to brown it nicely before serving.

Oysters may be treated the same way, baking longer to cook them through; the same of chicken or any other cold meats that are very tender; all make a nice dish if properly done. So, also, veal in the following manner:

Jellied Veal.—Wash a knuckle of veal and cut it into pieces. Boil it slowly until the meat will slip easily from the bones. Take it out of the liquor, remove the bones, and chop the meat fine. Season with salt and pepper, spices, and sweet herbs. Put back into the liquor and boil until almost dry. Turn into a mold and let it remain until next day. The juice of a lemon stirred in just before taken from the fire improves it. Garnish with parsley and thin slices of lemon, if you have them and like them.—*Buffalo (N. Y.) Express.*

Curried Veal or Chicken.—Nice veal cutlets, 2 lbs., or a good plump but tender chicken will require about 2 cups of milk, $1\frac{1}{2}$ cups of pounded crackers, 1 egg, butter the size of an egg, salt, dry toast, and 1 tea-spoonful, more or less, as you like it hot or not, of the cayenne and other spices in the currie powder. DIRECTIONS—Chop veal or chicken (cold from previous boiling) finely, put the milk on the fire, with the cracker-crumbs, salt and curried powder, and as soon as it boils up add the meat, and when the meat is hot the egg and butter. Serve hot on the dry buttered toast.

Remarks.—This will be found remarkably fine for lovers of currie; and it will be fine also simply to cut the veal or chicken in pieces suitable for frying, then season the same, using the milk or not; if used, seasoning it as before and stewing in it for a time, then finishing by frying in the butter and using the milk as a gravy for potatoes, etc. I am very fond of the curried chicken; the veal I have not tried, but know I should like it for the curries' sake.

Gravy or Sauce for Veal or Chicken.—Put a table-spoonful of butter into a hot frying-pan. When it begins to brown dust a table-spoonful of flour into it, stirring constantly with a spoon; add salt and pepper; then stir in 1 pint of milk—cream, if you have it—let it boil 5 minutes, and it will be ready to pour over these fried meats, or to serve with roasts. Some people think that a little stewed tomatoes in the gravy for roast or fried meats is an improvement. The author prefers them without it.

EGGS—How to Boil for Health.—The objection to the common way of boiling eggs is this: The white under three minutes rapid cooking becomes tough and indigestible, while the yolk is left soft. When properly cooked eggs are done evenly through like any food. This result may be attained by putting the eggs into a dish with a cover, and then pouring upon them boiling water, 2 quarts or more to a dozen eggs, in a covered tin pail, and set them away from the stove for 15 minutes. The heat of the water cooks the eggs slowly and evenly and sufficiently, and to a jelly-like consistency, leaving the center or yolk harder than the white, and the egg tastes as much richer and nicer as a fresh egg is nicer than a stale egg, and no person will want to eat them boiled after trying this method.

Remarks.—I have tried this writer's instructions, although I do not know who he was, and find him correct for my taste, and I think it the true way to boil eggs, and mostly of general adoption. I will also add an item from a writer in a medical journal upon the healthfulness of hard-boiled eggs in dyspepsia, hoping and believing that it is a true account of what they have done, although the writer's name is not given, nor the place the journal was published. The writer says:

Healthfulness of Hard-Boiled Eggs in Dyspepsia.—“We have seen dyspeptics who have suffered untold torments with almost every kind of food. No liquid could be taken without suffering. Bread became a burning acid. Meat and milk were solid and liquid fires. We have seen those same sufferers trying to avoid food and drink, and even going to the enema syringe for sustenance. And we have seen their torments pass away, and their hunger relieved by living upon the white of eggs which had been boiled in bubbling water for 30 minutes. At the end of a week we have given the hard yolk of the egg with the white, and upon this diet alone without fluid of any kind we have seen them begin to gain flesh and strength and refreshing sleep. After weeks of this treatment they have been able with care to begin upon other food. And all this,” the writer adds, “without taking medicine.” He says that hard-boiled eggs are not so bad as half-boiled ones, and ten times as easy to digest as raw eggs, even in egg-nog.

Remarks.—See the remarks just above, and let none who are suffering in a similar manner fail to give this a faithful trial. See, also, “Voltaire's Food for Dyspeptics” in this work.

Remarkable Use of Long Boiled Eggs, for Typhoid Fever Patients.—After having written the two above items, I was speaking of them to a homeopathic physician of our city—Toledo, O.—June 19th, 1883, when

he said : "I have given three eggs which had been boiled an hour, at one time, to a patient just recovering from typhoid fever, without the least distress or suffering, digesting well and improving the patient's strength, while those only boiled 15 minutes did give distress," etc. This to me was remarkable indeed ; but, nevertheless, I have not a doubt of its correctness. He claimed that, like cooking meats, 15 minutes only, "sets," or toughened the albumen (the white of an egg is pure albumen, much like that part of veal which will form jelly, by long boiling), and, hence, that no stomach could digest it ; while an hour's boiling cooked it done, as we say of boiling veal, or other, naturally young and tender meat, chickens, etc. The reasoning is good, and may be tried with safety, 1 egg, only at a time, at first, with weak typhoid, or other patients.

Egg Gruel, Mulled Jelly, etc., for the Sick.—Beat the yolk of 1 egg with a table-spoon of sugar till very light ; on this pour $\frac{2}{3}$ of a cup of boiling water ; on the top put the white of the egg beaten to a stiff froth, with a tea spoon of powdered sugar ; flavor with something as unlike other flavors the invalid has had as you can give him. Mulled (to mull is to soften by heat, adding hot water, spices, etc. As Gay says : "Drink new cider, mulled with ginger warm" (it is not hard to take, even if not sick); jelly is another drink which may be taken with pleasure, *i. e.*, beat a table-spoon of red or black currant jelly with the white of an egg and a little sugar ; pour over this a small cup of boiling water ; break a cracker in it, or a thin slice of toasted bread.

Remarks.—This would properly belong with drinks for the sick, which see; but it had been placed with the other egg receipts, so I give it a place here.

Eggs, Some of the More Common Ways of Cooking.—Poached.—It is now well understood that to poach an egg is to break it into boiling water and to dip some of the water, with a spoon, upon it, or them, as the case may be, until cooked to suit; then lift with a skimmer, upon a plate, or upon slices of buttered toast, or into egg cups, in which a bit of butter has just been put, and let each, otherwise, season to suit themselves.

Eggs, Scrambled.—Put a tin basin upon the stove, in which you have put a table-spoon of butter, for $\frac{1}{2}$ doz. eggs; when the butter is melted, the eggs having been broken into a dish (to see each is good) put them in, and as soon as cooked upon the bottom a little, begin to stir, or lift them with a spoon from the bottom, till all has had its turn upon the bottom, and consequently done, or thickened to suit. Serve hot, generally, for Sunday's tea, with bread and butter.

Egg Omelet.—A French writer says the "secret of an omelet is the know how!"—I wonder if that is not the secret of doing anything well? He then gives us the Bordeaux, or French fashion, which is good. He says: "Tilt the pan, to allow the eggs to run to the lower side, and scrape down from the upper half perfectly clean, pushing all the egg to the lower half. Pepper and salt. When set, turn over back on to the clean half of the pan, brown and serve. But if you do not put a table-spoonful of cold water to each egg in making an omelet, it will be leathery (tough). If you put milk or flour it is not an

omelet, but a pancake. To take up, take hold of the pan with the palm uppermost, place your plate over the pan and turn it quickly."

Remarks.—Most people have been in the habit of using milk, or flour, or both, while the Frenchman's plan leaves them tender and digestible.

Egg Omelet with Green Corn or Bread Crumbs.—Boil 1 dozen ears of nice corn 25 minutes, split the rows lengthwise with a sharp knife, then with a dull knife press out and scrape easily, to leave the hull as much on the cob as possible: add to this pulp 5 well-beaten eggs, season to taste, and fry to a nice brown in a little butter, turning over as a whole, or as the Frenchman above, on a clean half of the pan. In the absence of green corn, $1\frac{1}{2}$ cups of bread crumbs will make a good omelet.

Remarks.—Omelets should be served at once when done, as they fall if they stand after being dished up.

Egg Omelet with Oysters.—An egg omelet with oysters may be a new dish to some cooks, but I can assure them that it will be a favorite, if the family like oysters. Stew a dozen oysters in their own liquor, if possible, if not, use a very little water; roll 2 or 3 lumps of butter the size of butternuts in flour, and put in and let it come to a boil; salt it well, and add black or cayenne pepper to suit your taste. Take out the oysters and chop them, and, if necessary to make them thick, add a little flour; then put the oysters in again and set the saucepan in which they are back on the stove while the eggs are being fried. Beat 6 to 10 eggs until very light, and add to them 2 table-spoonfuls of cream or rich milk; fry in a well-buttered frying-pan. When done remove to a hot platter or deep plate and pour the oyster sauce over it. Serve while hot.—*New York Evening Post.*

Eggs-in-the-Nest—A Nice Dish for Breakfast or Tea.—Beat to a froth the whites of 6 eggs; a little pepper and salt; pour into a buttered baking tin, dip upon it 6 table-spoonfuls of nice cream, 1 only in a place; upon each spoonful of cream drop 1 of the yolks whole (being careful not to break them); place in a moderately hot oven to cook, and serve hot, as omelet should be.

Remarks.—I am very sorry I can not give credit to the originator of this dish, as her name ought to have gone with it, as it will be found especially nice, if neatly done. Where I first saw it there was no name given.

I will now close the meat and egg dishes with directions how to take care of pigs' heads, sausage, etc.; then take up the vegetable question.

Head-Cheese, Souse, etc.—For the head-cheese, take the pigs' heads, feet, ears, etc., and after soaking and cleaning nicely, cut off the lower jaw (some cut this off first, as it is very nice cooked with cabbage); boil until the bones can be easily removed; then chop fine with onions, 1 or 2 for each head, add salt and pepper, and place in molds till cold. It is usual, however, when these are cooked, to make a meal off them, and chop up the balance for the head cheese, and some persons prefer to eat it all as sauce cold, rather than take the labor of chopping, seasoning, etc. Every one can please themselves. They should all be soaked over night in salt water before cleaning them.

Remarks.—My own choice is for an ear, or some other part having plenty of skin, but not much fat. I am a great lover, also, of sage or summer savory in seasoning any kind of fresh meats, in preference to any other of the "sweet herbs," as they are called.

VEGETABLE DISHES—How to Cook.—I will first take up the sweetest (?) vegetable we have—truly, however, one of the most healthful, if not the most healthful, of all our vegetables. It is very much used, but ought to be used more extensively than it is in every family in the land. I refer to the well-known

Onion, How to Cook It with Milk or Cream, Avoiding the Strong Flavor.—Peel, wash, and slice (under water to prevent affecting the eyes), 3 to 6, according to the size of the family, put into boiling water and boil 1 to 2 minutes, and drain off the water (which removes the acrid oil in which their peculiar sweet flavor resides); then pour over them a cup of scalding milk (cream is better still), in which a pinch of soda has been dissolved; put in a table-spoonful of butter, and cook till tender; pepper and salt, and stir $\frac{1}{2}$ a tea-spoonful of corn starch or flour in a little cold milk and stir in, continuing to simmer a minute or two longer; then, if you have parsley, chop a little of it— $\frac{1}{2}$ dozen sprigs—and put in the last moment before dishing up, and if you don't say it is a sweeter and more palatable vegetable than you supposed, the author will be very much disappointed.

RICE—Its Value and How to Cook It.—Rice is being used much more, of late years, than formerly. It is very often substituted for potatoes, even at dinner, as it is much more nourishing, and more easily digested; and although it may cost a little more than potatoes generally, yet it is relatively cheaper than oatmeal, and other grain grits, and certainly more palatable. It should always be cooked in a rice kettle, (which see, described in a note following Tapioca Puddings; some people call them farina kettles, because equally valuable to cook farina, oatmeal, or any article liable to burn in an ordinary kettle. The rice, or farina, is put into an inside dish having a cover, and itself forming the cover of the outside one, which contains the water), which prevents any possibility of burning, on the same principle as a glue kettle. Only water enough is put upon the rice to moisten it nicely, which really steams it rather than boiling proper, in the usual, or large amount of water. If boiled in a common kettle, as formerly, 2 cups of water are required to every 1 cup of rice, with a little salt, in either case. When done, remove the cover, to allow the steam and water to escape—to dry it off, for a few minutes only, and the rice comes out a mass of snow white kernels, separate and distinct from each other; and as much superior to the soggy mass, of the old way, as a nice, dry and mealy potato is better than a water-soaked one. With the rice kettle to boil it in, 1 cup of water is enough for 1 cup of rice; and after it begins to boil, 20 minutes is the usual time. It should be taken, our poured into a deep dish or tureen (so it may be covered when steamed dry) and let it stand, uncovered, before the fire, in only a moderately warm oven, with the door open, a few minutes, to dry off the surplus water, sending to the table hot. To be eaten

with butter and sugar, or these to be creamed together, half as much butter as sugar, if preferred. The Chinese, or East India cooks, you will see by referring to the remarks following Chicken Currie, boil their rice in a large amount of water, drain it off to use as starch, then put the rice back into the kettle and put over the fire again, to dry off the steam, or surplus water. See next recipe for the old way of cooking rice in the south, which is much the same as the India plan, above referred to. Using so much water to boil it in, then pouring it off, would seem to me, at least, to take away much of its nourishment; but still as they use this water in place of starch, like the India washerman, they may have the best of us after all, as the southern ladies are very much in favor of stiff dress skirts, judging by the rustle of those who staid this summer in the north. This is, probably, as cheap a way as they can get their starch, as they raise the rice in the south.

Rice, Southern Mode of Cooking.—Pick over the rice and wash it in cold water; to 1 pt. of rice put 3 qts. of boiling water and $\frac{1}{2}$ tea-spoonful of salt; boil it just 17 minutes from the time it begins to boil; turn off all the water; set it over a moderate fire with the cover off, to steam 15 minutes. Take care and be accurate. The rice water first poured off is good to stiffen muslins.

Rice Merange, Baked.—Rice, 1 cup; milk, 1 qt.; 4 eggs; 2 lemons; powdered sugar, as below. DIRECTIONS—Boil the rice 10 or 15 minutes, in the milk in a rice kettle, or tin pail, as mentioned before, and pour into a buttered pudding dish; grate in the yellow of the lemons; add the yolks of the eggs, beaten slightly, with 5 table-spoonfuls of the sugar, and place in the oven to bake, $\frac{1}{2}$ to $\frac{3}{4}$ of an hour. To make the merange, or meringue, beat the whites with 7 table-spoonfuls of sugar, and the juice of 1 lemon. Place this upon the top to brown nicely, just before serving. May be served with butter, 1 spoonful, to 2 of sugar, rubbed together; or cream sauce, as preferred. The juice of the other lemon will make a nice lemonade.

Rice Muffins.—To 1 qt. of sour milk 3 well beaten eggs, a little salt, 1 tea-spoonful of soda and enough of rice flour (or cold mashed rice) to thicken to a stiff batter. Bake in rings.

Rice Snow.—Five table-spoonfuls of rice flour; 1 qt. milk; 4 eggs—the whites only—whipped light; 1 table-spoonful of butter; 1 cup powdered sugar; a pinch of cinnamon and same of nutmeg, vanilla or other extracts for flavoring; a little salt. DIRECTIONS—Wet up the flour with cold water and add to the milk when the latter is scalding hot; boil until it begins to thicken; put in the sugar and add spice; simmer 5 minutes, stirring constantly, and turn into a bowl before beating in the butter; let it get cold before flavoring it; then whip a spoonful at a time, into the beaten eggs; set to form in a wet mold; put sweet cream around it. This is delicate and wholesome fare for invalids; if you wish to have it especially nice, add $\frac{1}{2}$ pt. of cream, whipped light and beaten in at the last.

Rice Custard.—Into 1 qt. of boiling water stir 2 table-spoonfuls of rice flour, dissolved in a little cold milk; add 2 well beaten eggs to boiling mixture; sweeten and flavor to taste.

Rice Blanc Mange.—Sweet milk ($\frac{1}{4}$ cream if you have it), 1 qt.; rice flour, $\frac{2}{3}$ of a cup; vanilla or lemon extract, or rose water, to taste; cream and sugar, or raspberry or other jelly to serve with. DIRECTIONS—Heat the milk to the boiling point before stirring in the rice flour; and continue to stir constantly for $\frac{1}{2}$ an hour, or until cooked so thick that you know it will harden in the cups, or molds, to avoid burning, unless it is cooked in a rice kettle. Flavor the last thing, when a little cool.

Red Rice, a Danish Dish.—Take ripe, red currants, $1\frac{1}{2}$ pts.; very ripe raspberries, 1 pt.; water, 1 qt.; rice flour, 1 cup; sugar to taste, according to the acidity of the currants. DIRECTIONS—Stew the currants until the juice flows freely, add the raspberries just before the currants are ready to strain; then return to the sauce pan, add the sugar; then the rice flour, stirring smoothly, and pour into molds; and when cold turn out upon a glass dish. Thicken with cream and sugar if desired. It may be made with red currant jelly, and raspberry jelly, in place of the fruits, out of their season.

OATMEAL—For Bone and Muscle; or, as Food and Drink for Laborers.—Liebig has shown that oatmeal is almost as nutritious as the very best English beef, and that it is richer than wheaten bread in the elements that go to form bone and muscle. Prof. Forbes, of Edinburgh, during some 20 years, measured the breadth and height, and also tested the strength of both the arms and loins of the students of the University—a very numerous class, and of various nationalities, drawn to Edinburgh by the fame of his teaching. He found that in height, breadth of chest and shoulders, and strength of arms and loins, the Belgians were at the bottom of the list, a little above them the French, very much higher the English, and highest of all the Scotch and Scotch-Irish, from Ulster, who, like the natives of Scotland, are fed in their early years with at least one meal a day of good milk and good oatmeal porridge.

As a Drink.—Speaking of oatmeal an exchange remarks that a very good drink is made by putting about 2 spoonfuls of the meal into a tumbler of water. The western hunters and trappers consider it the best of drinks, as it is at once nourishing, stimulating and satisfying. It is popular in the Brooklyn navy yard, $2\frac{1}{2}$ lbs. of oatmeal being put into a pail of moderately cold water. It is much better than any of the ordinary mixtures of vinegar and molasses with water, which farmers use in the haying and harvest field.—*New York Mail.*

Remarks.—I know the value of oatmeal as a food; and I have not a doubt of its value as a drink; putting the meal to common water for the drinking, by laborers, when at work. My son and myself drank of it, as used by the laborers on the Brooklyn bridge, as we visited that structure, passing through there to the Centennial in 1876, and liked it very much; and the superintendent said he should not be willing to even try to do without it; though I think they only put 1 lb. to a pail of water. It would certainly be very nourishing with 2 table-spoonfuls of it to a glass of water, as spoken of by the exchange above, half the amount would meet my own ideas, as sufficient, even when the nourishment was especially needed.

Oatmeal Porridge, Scotch, and Cracknels, or “Scotch Ban-

nocks."—An Englishwoman in the Germantown (Pa.) *Telegraph* gives the following instructions to make

Oatmeal Porridge.—"Oatmeal porridge is especially suitable for children. It nourishes their bones and other tissues, and supplies them in a greater degree than most foods with the much needed element of phosphorus. If they grow weary of it, they can be tempted back with the bait of golden syrup, jam, or marmalade, to be eaten with the porridge. The Irish and Scotch make their porridge with water, and add cold milk, but the most agreeable and nutritive way is to make it entirely with milk, to use coarse oatmeal, and to see that it is not too thick." The following is a good receipt:

Bring a quart of milk to the boiling point in an enamel-lined sauce-pan, and drop in by degrees 8 oz. of coarse oatmeal; stir till it thickens, and then boil for half an hour. The mixture should not be too thick, and more milk can be added according to the taste.

For the Cracknels, or Scotch Bannocks, to Keep a Year.—Take the finest oatmeal and stir in barely enough water to wet it through; add a pinch of salt; let it stand for 10 minutes to swell; then roll it out a quarter of an inch in thickness, first flouring the board and rolling pin with wheaten flour; cut it with a biscuit cutter, and bake in a moderate oven; these cakes will burn quickly and only require to be of the lightest brown. If put in a close jar they will keep for several months. In the Highlands they preserve their bannocks in the barrels of oatmeal and keep them a year or so."

Oatmeal Mush.—The true way to make oatmeal mush is in a rice-kettle; but if you have it not, a porcelain lined one is next best; iron will do. If made in the rice or double kettle; simply water enough to cover the meal is enough; then cover the dish and cook till done, without fear of burning. To make in an open kettle, put in water sufficient to make the right quantity, and bring to a boil; adding a little salt; then stir in coarse oatmeal until it is as thick as you wish to eat it; then slip back on the stove to simmer slowly for half an hour, or till done. Eaten with meat, or served with milk, milk or sugar, or cream, as desired.

Oatmeal to Cook in an Earthen or Stone Jar.—To one cup of coarse oatmeal, add 1 qt. of cold water, in a stone jar; set it in a kettle of boiling water and boil 1 hour; do not stir it; serve with sugar and cream.—*Alice Kimball, Winfield, Iowa.*

Remarks.—This plan of cooking in an earthen crock in a kettle of water is perfectly safe, and not the least danger of scorching, whether it be oatmeal, hominy, corn, or wheat grits, cracked wheat, corn-starch, sea-moss, farina, or any of the nice breakfast dishes, mixed or cooked in milk. Even in cooking beans there is nothing better to bake them in than a stone jar. I cannot better close this subject than with a quotation from *Cassell's (Scotch) Magazine*, which says of oatmeal:

"We have called it the food for bones as well as brain; muscle as well as mind. To the laboring, or artisan class, it commends itself as an article of diet on account of cheapness, the readiness and economy with which it can be

cooked, and, while it is easily digested, it contains, as we have seen, a larger proportion than wheaten bread of the elements that go to form bone and muscle. The best Scotch oatmeal costs 2-pence a pound, and this contains far more true nourishment, in the opinion of some medical men, than the same weight of Liebig's extract. It commends itself to literary men, and all workers who earn their bread by the sweat of their brains. There are, as we happen to know, several well-known authors, who, though born and bred this side the Tweed, nevertheless swear by oatmeal porridge as a brain-inspiring compound. Then, as to its palatableness, we ourselves have long held the belief that not only is porridge rich in nutritive matter, but when nicely cooked, and eaten with new milk, is simply delicious, a dainty dish, fit, indeed, to set before any king."

Remarks.—The only objection that can possibly be raised against oatmeal in the United States is its cost. With the "Yankee" determination in this country to double our money every time we "turn" it, it costs in this city, Toledo, 1883, 5 cents per lb. which is double what it ought to cost, if millers generally would prepare it; but from the expense of machines to hull it, this will not probably be done very soon. Yet, certainly, everybody can afford to buy enough for the "porritch," and also to make a mush for breakfast. "So mote it be." Still the fact of having to pay 25 cents for 5 lbs. of oatmeal in free America is simply ridiculous, when oats can be bought for 30 to 50 cents a bushel.

Cracked Wheat Mush, Very Excellent—The Same Also if Cooked Whole.—Cracked wheat makes an excellent mush, cooked and eaten the same as oatmeal; and is, no doubt, richer and more palatable to some than oatmeal. The kernel simply needs to be cracked, or broken. If it is done too finely, the flour needs to be sifted out. The author is fond of having wheat cooked whole. It takes longer boiling, but if nicely done and eaten with cream or milk and a little sugar it makes an excellent relish at tea-time, or any time. Can be cooked either cracked or whole, without burning, in a rice-kettle (which see), or by putting into a tin pail and setting into a kettle of water, with sticks or nails under the bottom of the tin pail, so this does not touch the bottom of the kettle.

Beets, To Bake.—Beets are sweeter and nicer baked than boiled. The sugar, of which a good beet is full, is retained better by baking than by boiling, which extracts and carries off considerable of their natural sweetness. Turn, if need be, occasionally, to avoid burning. To be washed, but not peeled till after baking. Serve with butter, pepper and salt, the same as if boiled, but they will be found nicer and sweeter than if boiled.

Stewed Beets with Onions.—Pare thinly, and slice thinly, and put with some sliced onions, $\frac{1}{4}$ to $\frac{1}{2}$ as much, according to the fondness of the family for onions, putting into a stew-pan with pepper, salt, and butter rubbed with a little flour; stirr into hot water or milk enough to cover them well, and stew till the beets are tender. Young beets will require about an hour, old ones longer. Serve hot at dinner.

Beets Hashed with Potatoes, a Very Nice Dish.—The author is very fond of properly boiled or baked beets hashed with an equal amount of cold potatoes, and warmed up by putting in a bit of butter, a little water or milk, as potatoes are often done alone for breakfast. The sweetness of the beets is nicely brought out in this way. Pepper and salt, of course. Don't fail to try it.

Parsnips, Cakes or Balls.—Wash and boil in water with a little salt in it until perfectly tender. When cold, scrape off the skin, mash them, and for each cup of the mashed parsnips, put bread crumbs, $\frac{1}{2}$ cup; a beaten egg; salt and pepper, to taste; flour the hands and make into balls, brown in hot butter, and serve hot.

Parsnips Stewed in Milk.—Cut cold, boiled parsnips in slices, usually lengthwise; put into milk, with a little butter, pepper and salt, and stew a few minutes; then thicken with a little flour rubbed smoothly in a little water or milk. Parsnips are almost always served hot; but I have been very fond of them cold.

Fried Parsnips.—Cut cold, well-boiled parsnips into long, thin slices; apply salt and pepper to taste, dredge or dip in flour, or not, as you prefer, and fry in hot drippings or butter. Drain a moment over a colander before serving.

Egg Plant, Fried.—Cut in slices half an inch thick and lay in salt water 1 hour; drain, dip in beaten egg, then in cornmeal, cracker crumbs or flour, and fry until brown and nicely tender. They are good fried after ham. Pick as soon as full grown, not allowing to get ripe.—*Elise, St. Johns, Mich.*

Tomatoes, To Broil.—Take ones, not very ripe, cut in thin slices, rub a little butter, salt and pepper together and spread over the slices nicely, and broil on a gridiron or beefsteak broiler, which see. Serve hot.

Remarks.—This is the only way the author cares for them. They are very nice done thus.

Squash Baked.—Clean nicely, by cutting open and scraping out the inside with a spoon. Cut in suitable pieces, or, if a fully-ripe Hubbard, break in pieces, and place in the oven flesh side up. Allowing 1 hour for baking. It may be taken out of the shell when done, and seasoned with salt, pepper and butter, before serving; or allow each one to take a piece and season to suit himself. Even those not quite ripe are good thus, baked. Should come to the table "as hot as blazes." Boiled squash are seasoned the same, but the water must be pressed out as much as possible. Summer squash are most frequently boiled, but the water is seldom half pressed out as it ought to be.

Potatoes—General Remarks.—Although less than one-tenth of the potato is really nourishing (the rest being water), yet with us Americans, Irish-like, there are but few meals eaten in which potatoes do not form a part. Baking them, it is pretty generally known, is the most healthful way of cooking them, as it drives off much of the water and leaves them more nourishing than by steaming or boiling; steaming is next best, boiling the poorest way of all, as it so often leaves them watery and bad; yet, no one would always like them

cooked in the same manner; hence, I shall give a kind of "bill of fare," for a week, differently cooked for dinner, after which I will also give some very choice ways of cooking and serving them. Remember this, however; that the most nutritious part of the potato—the starch—is richest, next to the skin, hence when they are to be peeled, raw, pare as thin as possible. Prof. Blat, the great French cook, says the skinning process, as he calls it, is all wrong. His plan is to dig out the eyes and peel after boiling, etc., claiming that the nourishment from them is not more than 7 or 8 per cent., the balance mainly water, of which there is not a doubt. The following methods of preparing for dinner for each day in the week, will always help one to decide what, in the potato line, shall I have for dinner? And by turning to the actual bill of fare for a week, among the meat dishes, will help to decide the whole question as to what the dinner shall be. These directions, or recipes, are from a writer to the *Housekeeper*, who you will readily see, had an excellent judgment, if not an actual experience in the matter. I am sorry they did not come to me so I can give the writer's name. They were given under the head of:

"Potatoes in Seven Ways," or for Dinner Each Day of the Week.—The writer says: "*Editor Housekeeper*:—Let me give you a few little hints in regard to the different methods of cooking potatoes, so that the oft abused boiled potato may be varied during the week at dinner:

I. **"SUNDAY.**—Mashed potatoes; peel (thin), steam, place in a pan and mash, add milk, butter and salt, and then beat like cake batter, the longer the better, till they are nice and light. This steaming and beating will be found a great improvement.

II. **"MONDAY.**—Baked potatoes in their jackets. By the way, if any are left over they may be warmed over by not peeling them till cold, and then slicing.

III. **"TUESDAY.**—Peel and bake them with the roast of beef.

IV. **"WEDNESDAY.**—Prepare them in the Kentucky style, as follows: The potatoes are sliced thin, as for frying, and allowed to remain in cold water $\frac{1}{2}$ hour. The slices are then put in a pudding dish, with salt, pepper and some milk—about $\frac{1}{2}$ pt. to an ordinary pudding dish. They are then put into an oven and baked for an hour. When taken out, a lump of butter the size of a hen's egg is cut into small bits and scattered over the top. Those who have never eaten potatoes cooked thus, do not know all the capabilities of that esculent tuber. The slicing allows the interior of each potato to be examined, hence its value where potatoes are doubtful, though the poor ones are not of necessity required. The soaking in cold water hardens the slices, so that they will hold their shape. The milk serves to cook them through, and to make a nice brown on the top; the quantity can only be learned by experience; if just a little is left as a rich gravy, moistening all the slices, then it is right. In a year of small potatoes, this method of serving them will be very welcome to many a housekeeper.

V. **"THURSDAY.**—Peel, steam and serve whole.

VI. **"FRIDAY.**—'Potatoes a la pancake;' peel, cut in thin slices length wise, sprinkle with pepper and salt, and fry in butter or beef drippings, turning like griddle cakes.

VII. **SATURDAY.**—Potatoes boiled in their jackets.

"These are simple ways, but give variety. On Monday and Tuesday always prepare them in some way in the oven, as as to leave top of stove free.

Fried Potatoes (Saratoga's Secret).—It is my custom to make my items as short as possible, and have them understood, but "G. B. B." wrote the following in such a spicy manner to the *Springfield Republican*, I think it will give an additional relish to the potatoes to give it in his own words. The nicety or daintiness of the dish more than pays for the labor of preparing it. His words were as follows: "Saratoga Potatoes, the poetry of common life, and costly charm of Delmonico's and Parker's, can be made in perfection in any kitchen by the use of a very simple apparatus, consisting of a large blade set slanting into a wooden trough with a narrow slit in the bottom, two wire screens or sieves, and a common spider. Select 8 large potatoes, pare them and slice very thin with the cutting machine, soak them in cold water for 2 hours, then stir common table salt into the water, 1 tea-spoonful to a quart, and allow them to remain in the brine $\frac{1}{2}$ hour longer. Pour them upon the screen to drain, and put them on a spider with 1 lb. of clear lard over a brisk fire. When the sliced potatoes dry on a towel, wait until the lard is smoking hot, and pour a large plateful into the spider. The result is like a small sea in a white squall, and now the cook shows the artistic soul, which every votary of that noblest of the arts must possess to be worthy of the name. Patient and calm, with steady and incessant motion of the skimmer, she prevents adhesion of any two affectionate slices, and watches carefully for any tender burst of brownness to appear. Slowly it creeps and deepens until it rivals the hue of the fragrant Havana. Haste then takes the place of caution, lest any martyrs burn for the perfection of others; and they must be quickly spread upon another sieve to drain until dry and greaseless enough for the fairest fingers, then served hot to melt away like a kiss on sweet lips, with a dying crackle like the fallen leaves of autumn."

Remarks.—Of course, these may be sliced with a knife, cutting them quite thin is the only point requiring special care. Sieves are not absolutely necessary, but help the drying or draining process considerably. A very satisfactory substitute may be made by any intelligent boy of a dozen years old. A frame of wood, about a foot square, on the principle of a picture frame, of soft wood strips, half an inch thick by one inch wide, halved together at the corners and nailed; then small holes every $\frac{1}{2}$ inch and small wires woven across $\frac{1}{2}$ or $\frac{3}{4}$ inch apart each way, will answer every purpose.

Home Style.—Wash, pare, and slice, in the ordinary way, as many potatoes as required for the meal; rinse in cold water, then, having placed a skillet upon the stove, with 2 or 3 spoonfuls of meat drippings, lard, or butter in it, to become hot, put in the sliced potatoes, sprinkling a little salt and pepper upon them, and, as the bottom ones become browned, turn them till all are nicely browned, then take them up at once into a covered dish, to keep hot. This makes a nice dish while hot, but they are not relished after having become cold. Peachblows are not as good for frying as those which do not crack open while boiling—they become softer and more mussy. Raw potatoes are to be taken in both recipes.

Potato Balls, or Cakes.—When you have mashed potatoes left over at dinner, which have been seasoned with butter, salt, and milk, or cream, make them, while warm, into cakes $\frac{3}{4}$ of an inch thick, and set by till morning;

then beat an egg, into which dip the potato cakes, from whence lay them into a frying-pan, having a little butter in it, of the right heat to brown the cakes quickly. Take up in a tureen to keep hot. Potatoes may be cooked and seasoned purposely for making these cakes; but it is best to prepare them and make up the cakes in the afternoon, as they brown better for having dried out over night.

Saratoga Fried Potatoes, Short Way.—Wash the potatoes clean, pare, slice with a potato-slicer, very thin, throw into cold water long enough to take out some of the starch, then wipe dry and put into boiling lard, a few pieces at a time. Be sure and keep the lard boiling. As soon as the potatoes are of a clear, golden brown, skim them out, drain them in a colander or sieve, and serve hot.

Remarks.—If the potatoes are well covered with water, stirred up two or three times, and the water changed once, they being sliced very thin, an hour will remove much of the starch, which you must understand by the general remarks above, takes away the nourishment; hence I should prefer less soaking than given in No. 8.

Potatoes Fried With Eggs.—Slice cold boiled potatoes, and fry in butter till nicely brown, in this time heat 1 or 2 eggs, as below, and stir into the potatoes nicely, and take up at once, so as not to harden the egg, but merely to cook slightly. One egg is enough for 3 or 4 persons who are not especially fond of potatoes; if most of the family are fond of them have plenty, and use additional eggs to correspond. Choice.

Potatoes "Tip-Top."—Boil 8 large potatoes in their skins, and let them cool. When cold, peel them and cut them into thick slices. Put into a stewpan 2 oz. of butter, in a thin slice; and when it is melted add 1 tea-spoon of well seasoned stock or gravy (see gravy below), 1 tea-spoon of finely chopped parsley, chopped lemon, and 1 tea-spoon of mixed pepper and salt. Stir these well together over the fire till hot, add the potatoes, simmer 5 minutes, stir in the juice of a lemon and serve hot.

Remarks.—Of course, if you have no parsley, and do not like onions, do without either, and still it will be "tip-top."

Potatoes en Caisse (In a Case.)—Wash some large, fine potatoes of a waxy sort and bake them. When done cut a small hole in the top of each and carefully scoop out the whole of the inside; mash this fine, in a saucepan over the fire, mixing with it a large table-spoonful of butter and a generous quantity of cream. Salt and black or white pepper to taste, and stir in the whipped whites of 2 eggs. Fill up the skins of the potatoes with the mixture. Set them into the oven for a few moments and serve hot. These amounts are for 6 large potatoes. Keep the same proportion for any number.

Potatoes, Duchesse, or Potato Balls, Baked.—Boil and pass through a sieve 6 fine potatoes. There must be no lumps. Add 1 gill of cream, the yolk of 3 eggs, pepper, salt, a little chopped parsley, and a hint of nutmeg. The mixture must be thoroughly smooth and well mixed. Take a table-spoonful at a time, form into a ball, brush the top slightly with a beaten egg, place in a buttered pan, and set them in the oven until nicely browned.

Potatoes with and Without Onions for Breakfast.—Boil potatoes a little underdone; when cold peel and chop finely; have an onion or two, if several in the family, also boiled underdone, and finely minced. Put on a saucepan with milk, $1\frac{1}{2}$ cups, and bring to a boil; then add butter, a table-spoonful as lifted from the crock, and when melted, stir in the potatoes and onion, and cook about 15 minutes, or until creamy. If onions are not tolerated by anyone use the potatoes alone, or with hashed beets, in the same manner.

Remarks.—The author takes them one day with onions, the next with beets.

New Potatoes a la Creme or in Milk.—Take the small new potatoes, scrape off the skins when washed, and boil, or better, steam them not quite done, the day before needed for breakfast; in the morning chop or cut fine, with any others left over; salt and pepper to taste. One cup of milk to 2 or 3 of potato. Heat the milk with a table-spoonful of butter, and stir in the potatoes, and warm up nicely.

Remarks.—A Mrs. Deacon Warner, for whose husband I worked in haying the first half month I ever worked away from home, over 50 years ago, used to get them up in this way, and I thought them, and still think, they are the nicest I ever ate. Of course old ones may be used in the same manner, and are nice, but the new, it seems to me, at least, richer, and I know, more sweet and tender.

Potato Fritters. This receipt was given by one of those persons who more recently have been having schools of instruction in the cities in the art of cookery, Miss Parloa. She says:

One pint of boiled and mashed potato; $\frac{1}{2}$ cup of hot milk; 3 table-spoonfuls of butter; 3 of sugar; 2 eggs; a little nutmeg; 1 tea-spoonful of salt. **DIRECTIONS**—Add the milk, butter, sugar and seasoning to the mashed potato, and then add the eggs well beaten. Stir until very smooth and light. Spread about $\frac{1}{2}$ an inch deep on a buttered dish, and set away to cool. When cold, cut into squares. Dip in beaten egg and in bread-crumbs, and fry brown, in boiling fat. Serve immediately.

Remarks.—I take this to be only another name for potato balls, but they will be a nice thing to have around about mealtime.

Sliced Potatoes to Bake With Pork.—Dig out the eyes and pare very thinly, raw potatoes, and slice very thinly also, to nearly fill a 2-quart pudding dish (earthen). Season freely with salt and pepper over the top; then pour over sweet milk $\frac{2}{3}$ full, which will carry the seasoning among the slices. Cut 5 or 6 slices of pork and lay over the top, as a covering. Bake about 2 hours. If the pork is likely to get too much browned, cover with thick brown paper till the potatoes are done.

Escaloped Potatoes, or Potatoes with Cracker Crumbs.—Slice quite thin, cold boiled potatoes, to the amount of a quart or more, and roll crackers to nearly the same amount. Season the potatoes, about 2 tea-spoonfuls of salt and pepper to taste, and place half of the potatoes in a suitable baking-dish, placing bits of butter upon them; then half of the cracker crumbs, and

pour over $\frac{1}{2}$ pint of cream (milk will do, but if milk is used, use butter more freely); then the balance of the potatoes, as the first, and cover with the balance of the crumbs and cream, or milk, as before, with more butter, and bake until richly browned and well heated through. To be eaten with butter or any meat gravies for dinner or tea. The same may be done with sweet potatoes, several other plans of cooking which are given below.

Potatoes, Gravy for.—Put a table-spoonful or more of butter, according to the quantity of potatoes you have, into a frying-pan and set over the fire until brown, being careful not to scorch it. Mix a table-spoonful of flour in a cup of thin, sweet cream, or milk, if one has no cream; pour into the browned butter, boil up, season with pepper and a little salt if necessary, and turn over the potatoes.

Sweet Potatoes, to Bake—Moist and Nice.—Those with experience in baking sweet potatoes, claim them to be more moist, and sweeter, for having been half boiled, or steamed, before putting into the oven. Very small ones should not be chosen for baking. Bake in a moderate oven.

Sweet Potatoes, Broiled.—Thinly pare large, fine sweet potatoes. Cut them lengthwise into thick slices, and broil them, upon a wire griddle, over a clear hot fire. When crisp and brown, put them upon a hot platter, sprinkle pepper and salt over them and add butter cut into small pieces. Serve very hot.

Sweet Potato Cakes—Very Nice.—Remove the skin from 2 or 3 medium-sized sweet potatoes, left over, and mash them nicely, and mix in about 3 ozs. (3 small table-spoonfuls) of flour, salt and pepper to taste, a good lump of butter, and warm milk enough to make a good dough. Roll this out on the kneading board, and cut out a cake about the size of your baking tin; butter the tin well, and scatter a little flour over it; then lay in; when you think it is nearly done, turn it over. If the bottom of the oven is very hot, put a grate under the baking-tin to prevent getting too much browned. The danger of burning is lessened if instead of one cake you cut the dough in buscuit-shape about 2 inches thick. If covered while baking, the cakes will be more moist. These can be made of other potatoes as well as of the sweet ones.

Remarks.—Either of these plans not only enable one to use up cold or left over sweet potatoes, but “Irish” potatoes, too, and at the same time make a nice dish for the table—the same as though the potatoes had been cooked purposely for these uses; in fact, it is well to cook some extra ones for either of these purposes, preferred, at the time

FRUIT—How and When to be Eaten to Receive the Greatest Benefit.—*General Remarks.*—We now come to the question of fruit as eaten in its natural state—uncooked—and also in its various forms of cookery. And as apples are used throughout the year, as well as more freely than any other kinds, they will receive the greater attention; but what is said of them will apply, generally, with equal force to most other fruit, in their season. To derive the greatest benefit from the use of almost any kind of fruit, in its natural state, it should be eaten just before the meal, or at its close; then not any “nibbling” of it between meals; for this plan is a very great source, or

cause of dyspepsia. When the eating of fruit does harm, it is generally because it is eaten at improper times, in improper quantities, or when imperfectly ripened. An eminent physician recently said: "If my patients would eat a couple of oranges every morning before breakfast, from February to June, my practice would be gone." It is a simple thing to do, but it would be magical in its alterative action upon the system. And to derive the greatest benefit from the use of our common fruits, let only sufficient sugar, cream, seasoning, etc., be used to give a relish, that the pure fruit acids may have their cooling and correcting—alterative—influence upon the system.

Fruit Cooking, Suitable Vessels for.—In cooking any acid fruit (and most of them are of an acid nature), tin, brass, or porcelain vessels are the best; never cook them in glazed earthen, on account of the lead in the glazing, nor in copper without especial care to brighten it with brick-dust and flannel, and to pour out as soon as done.

Fruit as a Medicine.—Apples, peaches and strawberries, perfectly ripe and juicy, are not only some of our most delicate fruits; but they are a pleasant and alterative medicine (eaten in moderation, as suggested by the physician in speaking of oranges). These fruits, perfectly ripe, digest in $1\frac{1}{2}$ to 2 hours, while boiled cabbage requires 4 to 5 hours. Baked apples and baked peaches (which see) make as healthful a dessert as can be placed upon the table. These, and strawberries uncooked, eaten frequently at breakfast, with Graham bread and nice butter, without meat, will have the effect of removing constipation, correcting acidities, cooling and removing fever tendencies very effectually. This can be done with apples nearly all the year round; and with children, especially, would save many a doctor's bill, as well as meet their craving desires for something of an acid nature, without being obliged to give them food requiring much longer time for digestion. We will first give a receipt for baking peaches, which originated with myself, and carried into effect many times by my dear wife, since passed to her reward in the spirit world.

Peaches, To Bake for the Table, and for Canning, a Very Choice Dish—Equally Applicable to Apples.—Wash fully ripe peaches, carefully rubbing off the furze, with a suitable cloth, from the skin, which is needed to hold this luscious fruit together; cut out a little of the skin from the blossom end, to allow sugar to penetrate and the juices to escape; then place a baking tin full of them, stem-end down, pour upon them water to fill half or two-thirds up, and scatter on sugar, according to their tartness, to make them palatable. Place in a moderate oven till entirely tender. Serve hot; but if any are left over they are nice cold. The same plan is equally applicable to apples.

Remarks.—My wife, at one time, having some apples baked in the above manner, and there being also a large quantity of peaches that season, and some upon the table at that time, the thought struck me like a flash, to ask her if she ever thought of or saw peaches baked. I never had, nor had she. Then I asked her to try some for the next meal, I think, which she did, with the most

perfect satisfaction—the nicest dish of baked fruit that, I think, I ever partook of. It was repeated many, many times, and, finally, when canning-time came, more than half that was put up was done in this way, and also proved entirely satisfactory, and was continued as long as she lived. The author will guarantee satisfaction to all who try it fairly. Many people, of late years, ask: “Will you warrant this to be, or do, as you say?”—I will, hence the guarantee above.

Peach, Apple, and Berry Fritters.—Wash, pare, halve or quarter peaches or apples, according to their size, as many as you desire. Make a batter of sweet milk (if you have it, if not, water), flour, and baking powder, at the rate of 2 tea-spoonfuls to 1 qt. of flour, and a little salt, with an egg, if you have it, to each pint of milk used; when of proper consistence, stir in the pieces of fruit, and with a large spoon take up 1 or 2 pieces with some of the batter and drop into hot lard and brown nicely. Serve hot, with cream and sugar. They make an excellent substitute for pies and puddings.

For Raspberries Blackberries, Strawberries, etc.—Make the batter the same, but for each cup of berries, sprinkle upon them 1 table-spoonful of sugar; fry the same, but dust them thickly with powdered sugar to serve.

Remarks.—Thus, with a little judgment on the part of the cook, an endless variety of dishes or articles of food may be prepared to meet the varied tastes of guests or of the family. English currants, or raisins, both properly stewed in but little water, and the raisins cut into halves to prevent their bursting and scattering the hot fat when put in; or any of the home-dried fruits may be used in this manner, thus extending the variety.

Apples Dried, Their Wholesomeness as Food, and Manner of Cooking.—The *Indiana Farmer* recently made a lengthy plea for dried apples, from which I condense the necessary points to a full understanding of the subject. It says:

“Dried apples are not only a cheap article of food, but very wholesome; and if the girls will pay attention, I will tell them how to cook them,” etc. These two points being admitted, their cheapness and wholesomeness, I can now condense very much, still retaining everything essential. Cook but few at a time, as they become flat, or stale, by long standing. Take only $\frac{1}{3}$ as much bulk as you need when cooked, as they swell very much. Put them into a pan of milk warm water 10 to 15 minutes; then mash thoroughly, and carefully examine every piece to see there are no worms in them, especially so if they were dried upon strings; rinse nicely, and place in a porcelain kettle, or in a tin pan, and cover handsomely with cold water; cover tightly and slowly bring to a boil, having hot water to replenish with if more is needed. When tender, but not mushy, add sugar to taste. If stewed too long they shrink and turn dark. Have plenty of juice, and sugar to make them rich, but not to deaden the flavor of the apples, and you have a dish better than half the canned fruits in use.

The Juice of Dried Apples a Great Beverage for the Sick.—The editor closes by saying: “I must not omit to mention that the juice of nicely stewed dried apples is a delicious beverage for the sick, and possesses

a flavor that is peculiarly refreshing and grateful, especially where there is fever."

Remarks.—The author fully endorses all the points made by the editor, having always been very fond of sauce made of dried apples, having plenty of juice. For me it is preferable to most other sauces, which are often much more expensive, but not half so palatable. For the beverage for the sick, a dozen quarters will be enough for a quart of water, with simple sugar to taste, as the flavoring needs no doctoring generally. The evaporated apples are still so expensive, that most families having an orchard, should continue their practice of drying for themselves.

APPLE, PEACH AND OTHER FRUIT BUTTERS—**How to Make.**—The *American Grocer*, in giving an account of the manufacture of fruit butters, as a business in the cities, from dried apples, peaches, quinces and pears, using sugar and water in place of the juices of the fruit, closes in the following language, as to making them in the country. It says: "The same purpose that sugar subserves in the manufactories here, may be accomplished there by the use of cider. When apples are ripe make, say 3 barrels, of cider. Then pare, and core, 4 bushels of apples. Then boil down the 3 barrels of cider to $1\frac{1}{2}$ (the author would say boil down the cider first), and set it convenient to the copper kettle, in which place the 4 bushels of apples. Pour on the apples from the cider enough to answer the purpose (to nearly cover them) and fire up. As the cider boils away, add more until it is all used up and the contents of the kettle brought down to a proper consistency, of which one must be judge. A little practice will make one perfect in this process. This is for apples. It will apply equally well to any other kind of fruit from which it is practicable to obtain the juice as one would from apples."

Remarks.—Any other fruit may be made with the cider; but the flavor would not be so perfect of the kind used, as it would to use its own juices. Peaches and pears, when fully ripe and juicy, would easily supply the necessary amount of juice, or cider, removing the stones from the peaches before grinding and pressing. And even grape juice has been used to make peach butter.

Of course these ciders should be boiled down the same as apple cider, above. While cooking the butter there must be watchful care and constant stirring, to avoid burning. If cooked down pretty thick, so as to just spread nicely, and then carefully put up in stone jars, and kept in a cool, dry place, it will keep all the year around. Pour into tubs as soon as complete, to avoid creating a verdigris on the copper, by standing, which is poisonous. The cider, in boiling down, needs skimming at each addition, as it is put in. This boiled cider is nice for minced pies, apple sauce, etc.

It is claimed, however, by some, that the best apple butter is made by using sweet apples only; selecting the nicest, both for the cider and for the butter. It may be an advantage to those who have sweet apples in abundance, for, as a general thing, they are not as marketable as tart or sour ones. Most people will be satisfied to have plenty of that made from nice, juicy, tart fruit, at least, I have

always been. I have seen apple butter that was flavored with winter-green, but give me the natural flavor only. The following short plans of making peach and apple butters, from a *Blade* writer, may suit some of our readers better than the others, hence I give them a place. Grape juice makes a nice butter with peaches, treated the same as cider, *i. e.*, boiled when just pressed out. Why will it not do as nicely with apples? Those who have plenty of peaches can soon tell by trying it.

Peach Butter.—Pare ripe peaches and put them in a kettle with sufficient water to boil them soft, when sift through a colander, removing the stones. To each quart of peaches put $1\frac{1}{2}$ lbs. of sugar and boil very slowly one hour. Stir often so they will not burn. When done season with ground spice and cinnamon to taste.

Apple Butter.—Boil down a kettle of cider to $\frac{2}{3}$ of the quantity. Pare, core, and slice your apples, and put as many into the cider as you think your kettle will hold without boiling over. Let it boil slowly, stirring often. When done spice with cinnamon, and, if you like it sweet, put in some sugar.

Pumpkin Butter, as Made in the North Woods.—Take out the seeds of 1 pumpkin, cut it in small pieces and boil it soft; take 3 other pumpkins, cut them in pieces and boil them soft; put them in a coarse bag and press out the juice; add the juice to the first pumpkin and let it boil 10 hours or more to become the thickness of butter; stir often. If the pumpkins are frozen the juice will come out much easier.

Remarks.—All I have to guide me as to the "North Woods" manner of making is that on the back of the slip cut from some newspaper; there was the date of the paper—Feb. 7, 1880,—also "Sleighing fair," and "Loggers feel better," therefore, to know that "loggers felt better," they must have that class of persons among them; and hence it was from some northern paper, where loggers in the winter do congregate. It will make a good butter if boiled carefully to avoid burning. I should say boil the juice at least half away before putting in the nicely cut pieces of the 1 pumpkin, boiling it soft in the juice of the 3 other ones, after its reduction one-half. It makes a very good substitute for cow's butter, and for apple butter, too. But I must say if I used frozen pumpkins to obtain the juice from, I should not want the one frozen that was to be cut up to make the butter of. I think it would not be as good if frozen. If any of these butters are too sour add good brown sugar to make it sweet enough to suit the taste. We return to dishes made with apples.

Apple Snow.—Apples, eggs, lemon peel and powdered sugar. Take 10 good-sized apples, peel, core, and cut into quarters; put into a saucepan with the rind of 1 lemon, and water enough to keep them from burning—about $\frac{1}{2}$ a pt. Then the apples are tender, take out the lemon peel, and beat the apples to a pulp; let them cool and stir in the whites of 10 eggs, beaten to a strong froth. Add $\frac{1}{2}$ lb. of powdered sugar, and continue beating until the mixture is quite stiff. Put on a glass dish and serve either with custard made with the yolks of the eggs, or with cream; or garnish with sponge cake or lady finger cake, as you choose.

Remarks.—What is called “pulp” above is often called in these “snow” mixtures *puree*—an East Indian word, meaning gravy, or soft mixture, in connection with their curries or much-spiced dishes. The French call these pulpy mixtures “meringues,” but generally bake them into pies, having first baked the crust or pastry upon the plate or pie dish before putting in the meringue; then covering the pie, when just done, with the beaten white of an egg or two, with a table-spoonful of sugar to each egg, and browning nicely before taking from the oven, or returning them to the oven for 2 or 3 minutes for that purpose.

Apple Snow No. 2, with Roast or Baked Apples.—The apples may be roasted or nicely baked, then “pulped” or *pureed* through a colander to avoid the skins and cores. Otherwise treated the same as with the above boiled—the latter plan retaining much more of the flavor of the apples.

Remarks.—Please tell me why peaches, pears, and, perhaps, berries, will not do the same, except the “snow” part, which would be the color of the fruit used, not so white or snow-like.

Apple Compote.—Pare, halve and take out the cores of 6 large fair apples, throwing each piece into cold water to keep it from turning dark. Put loaf sugar, $\frac{1}{2}$ lb., into an enameled stew-pan with sufficient water—about 3 pts. As soon as it boils put in the apples with the juice of 2 lemons, stew gently until the apples are sufficiently cooked but not broken. Then take them out carefully and lay them in the dish in which they are to go to the table. Cut the rinds of the lemons into the thinnest possible strips and put them into the syrup; boil till tender, by which time the syrup will be much reduced. When cold pour the syrup about the apples, and also dispose the transparent strips of lemon about them. This dish looks pretty with a bit of quince jelly placed in the hollow of each apple; or with a candied cherry in the hollow, and angelica cut into lozenges and inserted around the top of each apple.—*Evening Post, Grand Rapids, Mich.*

Remarks.—The word *compote* is the French for preparing fruit with a syrup for immediate use, as Webster’s “Unabridged” puts it. It makes a nice dish.

Apples, Pears, Peaches, etc., Spiced, or Sweet Pickles.—For each pound of these fruits, after being pared and cored, or pits removed, nice sugar, about $\frac{1}{2}$ lb., and good vinegar, 1 gill, with unground spices to taste, are boiled together until the fruit is tender; then the fruit taken out and the syrup and spices cooked together until the watery parts coming out of the fruit is evaporated, and then poured over the fruit and securely covered for use. Crab apples or any very sour fruit will require more sugar.

Cherry Butter.—Boil the cherries till soft; then rub through a colander, and to each pint of the pulp add a pint of sugar. Boil carefully till thick, like other fruit butters. Can or keep in closely covered jars.

Lemon Butter.—Sugar $1\frac{1}{2}$ cups; whites of 3 eggs and yolk of 1 beaten; butter $\frac{1}{2}$ cup; grate the yellow off of 2 medium sized lemons; then squeeze in the juice and mix all, and cook 20 minutes by setting the basin containing it into a pan of boiling water. Very nice for tarts or as butter upon bread.

Dulce de Lece, or Spanish Sauce, or Butter.—Put 1 qt. of nice, sweet milk into a porcelain lined dish, with white sifted sugar, 1 lb.; flour and ground cinnamon, each, 1 teaspoonful. Simmer, stirring, occasionally 5 or 6 hours, or till of proper consistence when a little is cooled. To be eaten cold, as a pudding sauce, or on bread for children. Eaten cold. Valuable for children if at all diarrheal.

Frosted Figs for Dessert.—Beat the whites of 2, 3 or more eggs, according to the amount you wish to serve, till so stiff you can almost turn the plate upside down without the egg running off; then stir in powdered sugar, to leave the frosting soft enough to dip the figs into it, to completely cover, if need be, by re-dipping. Dry in the oven or on a shelf above the stove. If done nicely they will be nice.

Peach Figs, Very Nice.—Pare, halve and remove the stones, from nice ripe peaches; weigh and half the weight in sugar. Heat both carefully without water until the sugar is dissolved in the escaping juices; then boil till the fruit is clear or transparent; then take up with a fork, drawing off all superfluous syrup, placing on plates to dry, as next above, till there there will be no more drainage; then sift sugar over them and pack in small boxes, as figs, with plenty of sugar over and between them. It takes labor, but when peaches are plenty they are very nice indeed, eaten same as figs.

Tomatoes.—Nice ripe ones treated the same way, first squeezing out their extra juices, are also nice.

Honey, Artificial.—“Polly Anthus,” of El Dora, Ill., informs the readers of the *Blade Household* to make it as follows:

“Take water, $1\frac{1}{2}$ pts.; heat it till ready to boil; then put in pulverized alum, $\frac{1}{8}$ oz., and when that is dissolved pour in white sugar 4 lbs., stirring till dissolved; then continue to boil 2 or 3 minutes. Put 5 drops of rose oil (oil of rose) into alcohol $\frac{1}{2}$ pt., and while the syrup is hot put in 2 tea-spoonfuls of this alcohol and you have $5\frac{1}{2}$ lbs. of nice, white honey.”

Remarks.—The editor asked, “Does Polly Anthus mean 5 drops of the burning fluid known as ‘rose oil?’” Of course she did not, it was oil of rose, as I have indicated above, that she meant. For the kind of gasoline known as “rose oil” is not at all fit for such flavoring. That is referred to in *Renovating Gloves*, etc. The extract of rose, now much used in flavoring dishes, in like amount or a larger amount of rose water, a table-spoonful for a tea-spoonful will do very nicely. Oil of rose is quite expensive, still its flavor comes nearer to that of honey than any other.

Sour Apples, to Cook so as to Keep Their Shape.—Some writer upon this subject says: I always cook them in quarters; putting them into boiling water, with sugar to taste; being sure to put on water enough at first, so as not to stir, or disturb them until done; then pour into a dish, and you have a nice sauce to eat with cream as peaches. I like them better.

Remarks.—There is no doubt but what the boiling water sets, or toughens, the surface, and prevents them from coming to pieces; but, it strikes me that I, at least, would like peaches and cream best.

Apple Charlotte.—Stew apples quite soft and flavor with lemon or cinnamon; then prepare some nice bread and butter. Line the bottom of your pudding dish with it; then put a layer of the apple, and continue until filled; then pour over it a cold custard, and bake, and when cold turn out and serve with sauce made of cream and sugar.

Remarks—Charlotte is the French for a dish made of apple marmalade (a thick sauce), covered with crumbs of toasted bread, while *russe*, which is generally seen in connection with charlotte, is of Russian origination, and refers to cookery—then “Charlotte Russe” signifies a dish of custard inclosed in, or surrounded with sponge cake, etc. With this explanation you can get up either, and understand the whys and wherefores thereof.

Apple Omelette.—Take $\frac{1}{2}$ doz. large pippins, or other tart apples; butter, 1 table-spoonful; 3 eggs; a table-spoonful of sugar for each apple; nutmeg and rose water, or other flavor to suit. If rose water is used, but little—a tea-spoonful or two only will be needed. **DIRECTIONS**—Pare, core and stew as for apple sauce, and beat it into a smooth pulp, while hot, adding the butter, sugar and flavor, and let stand until cold; then the eggs, beaten separately, the whites the last, when ready to pour into a deep, warmed and buttered dish, to be delicately browned in a moderate oven. It is best not eaten too hot. A wholesome dish, especially for children.

Apple and Peach Preserve for Present Use.—Peel, halve and core, 6 large apples, selecting those of the same size; make a syrup of 1 lb. of granulated sugar and 1 pt. of water; when it boils drop in the apples with the rind and juice of a lemon. As soon as they are tender, care must be taken that they do not fall in pieces; take the halves out one by one, and arrange, concave side uppermost, in a glass dish. Drop a bit of currant jelly into each piece, boil down the syrup, and when cool pour around the apples. This makes a very nice preserve for tea. Peaches can be substituted for apples, removing the pits carefully; treated in the same manner otherwise.

Apple Jelly With the Pure Apple Flavor.—Cut nice tart apples into quarters without paring or coring. Throw each piece into a jar of cold water as quartered; then take out with the hand, when enough is done to fill another stone jar; and place in a moderate oven, with thick paper over the top, till perfectly tender (being in a stone jar they will not burn); then mash and strain off the juice, and boil with 1 lb. of granulated sugar to each pint. The result is the most perfect flavor of the apple which lies near, and in the skin, seeds, etc. Porcelain kettles should be used for boiling.

Remarks.—The usual way has been to pare and core, then mash, or grind in a cider mill, boiling the cider, then adding sugar, etc., but the flavor is not nearly so fine. Some use $\frac{1}{2}$ less sugar, and add gelatine (Coxes), or isinglass, about 1 oz. to each 3 large apples used. But the true way of baking, above given, is best.

Green Apple Jelly.—Take green apples and boil without paring, until perfectly soft; then rub through a sieve, or colander, and to each pint of the pulp add sugar $\frac{3}{4}$ lbs., by putting on one-third and letting stand a few hours,

then the rest; and to each 3 pts. add the grated peel of 2 lemons, and boil 15 or 20 minutes, or until it begins to look clear, before putting into glasses or molds.

Apple Short-Cake, Also Applicable to All Fruits.—Flour, 1 qt.; cream of tartar, 2 tea-spoonfuls; soda, 1 tea-spoonful; salt, 1 tea-spoonful; butter, $\frac{1}{2}$ cup; sweet milk to mix into rather a stiff dough. Roll out and bake nicely and split open; or bake in two thin cakes; and spread with nice butter, and cover with nicely sweetened apple-sauce, grate on some nutmeg; place the other half on this, the crust side down, if it was baked as a whole and split; then butter, etc., the other half the same way. The same if baked in two cakes; but if baked in two cakes it does not soak up so much of the butter and juices; and I think it preferable. Any of the fresh fruits in their season, or stewed properly out of season, are remarkably nice in the same manner; peaches and strawberries, however, are used more often than other kinds; but this is only from their superior delicacy of flavor. If the apple-sauces made by baking and pulping, as for jelly, above, the flavor will be more perfect.

Apple Dumplings, Baked, Delicious.—Tart, juicy apples, soda, sour milk, lard, salt and flour. DIRECTIONS—Pare the apples, cut into halves and core. Make the pastry as for biscuit, only using a little more lard or drippings to make it short, as well as light. Take sufficient dough upon the kneading-board to cover one apple. Knead as for biscuit, then roll out large enough to cover the apple, placing one of the halves upon the crust, and putting a tea-spoonful of sugar into the place of the core; then placing another upon the first, folding over the crust and pinching, or crimping, to retain the juices, the same as for boiling. Having buttered a bread-pan, put the dumplings in it as prepared, the same as you would biscuit. Make a little depression upon the top of each and put a bit of butter into it. Bake 1 hour in a moderate oven; but 10 or 15 minutes before taking up take out and sprinkle a good handful of sugar over all and return long enough to brown the top nicely. To be eaten warm, with cream or sugar, or other pudding sauce. Very nice cold; also, by grating a little nutmeg into the sauce.

Remarks.—The pastry for these dumplings may be made with sweet milk, or water, and baking powder 2 tea-spoonfuls to 1 qt. of flour, when sour milk is not at hand. Our first trial of them was made with water and baking powder, and gave us entire satisfaction. Milk is the richer, but not always to be had.

Apple Dumplings, Boiled.—One of the writers in the *Western Rural* gives the following as her plan of making them. She says: "I make the crust, or dough, as for nice short biscuit, and nothing is better for these than the top of good rich buttermilk. Sift the flour in the bread bowl, making a hole in the center. Put into it 1 tea-spoonful of pulverized saleratus, and mix with it a handful of dry flour; add 1 pt. of rich buttermilk or sour cream and a pinch of salt. Stir briskly until it foams, then stir in the flour until you have a soft dough. Knead but little, and roll out in round pieces as for pie crust, but rather thicker. Put the fruit on one-half of the crust, and dredge over it a lit-

the flour, wetting the edges of the crust, as for pies, to make it stick. Lap the crust over the fruit, fastening the edges securely. It now resembles the old-fashioned 'turnover,' and should be pricked with a fork to expel the air, and squeezed in the hand until it assumes a round form about the size of a large tea-cup. When they are all made in this way, drop them into a kettle containing about a gallon of boiling water, previously salted a little, and on the bottom an old plate, to prevent their burning. Keep them boiling briskly for $\frac{3}{4}$ of an hour, covered closely, when they will be done, which may be determined by trying with a fork. Serve hot with cream and sugar, flavored with lemon or nutmeg. Pieplant is very nice served in this way, as well as strawberries, raspberries and other fruits, and they always find a ready market at the dinner table."

Apple Dumplings, Steamed.—Pare and punch out the core of nice juicy tart apples that will cook quickly; then take light biscuit dough, roll out $\frac{1}{2}$ inch thick and fold around each apple. Put into the steamer to rise, then steam till done. Eat with cream and sugar, or butter and sugar rubbed together, or, what is very nice, maple syrup.

Apple Tapioca Pudding.—Soak 1 cup of tapioca over night in 1 qt. of water; pare, core and slice a sufficient quantity of tart cooking apples, and add sugar as needed, with a little water to prevent burning or sticking to the bottom of the pudding-dish; set in the oven to bake, and when nearly done take out the dish and pour over the tapioca and return to the oven until the tapioca jellies. To be eaten with cream and sugar or other sauce, as preferred.

Apple Custard.—Stew some tart, tender apples; sweeten and flavor to taste; then when cold pour over them a boiled custard, made of 4 eggs to 1 qt. of good milk, with sugar and nutmeg as you like. Let it be quite cold before served.

Apple Custard Pie.—Stewed apples, green or dried, 3 cups; sugar, 1 cup; 6 eggs; milk, 1 qt. Beat the eggs separately, mix the yolks with the apple and sugar, season with nutmeg, add the milk, and lastly the beaten whites of eggs. Bake like a tart without cover.—*Toledo Post.*

Apple Bird's-Nest Pudding.—Alternate layers of thinly sliced bread and butter, and good, tart cooking apples pared, cored and sliced. Sprinkle a little sugar over the apples and dust with cinnamon, nutmeg or allspice, as preferred. When the pudding-dish is filled, grate over the last layer, which should be bread, the yellow rind of a lemon, and squeeze over all the juice of the lemon. Bake 1 hour in a slow oven, taking care to avoid burning the top. It will turn out of the dish if the latter has been well buttered. Serve hot, with or without pudding sauce.—*Toledo Post.*

Remarks.—I suppose this takes the name of "Bird's-Nest" from its resemblance when turned out of the dish to the rough outside of a bird's-nest. But it is delicious, all the same, with cream and sugar or rich milk sauce.

A Delicious Dish With Sweet Apples.—Bake sweet apples and slice. Sweeten nice cream, flavor with lemon, vanilla or nutmeg, and pour over the apples.—*Old Housekeeper in Blade.*

Remarks.—I think you now have the greatest variety of nice dishes made with apples, that the author has ever seen in one connection; one idea, now, as to prevent the loss of apples by freezing, and I will close the subject. If in the house keep in a closet, or some dark place, and keep covered until thawed out, which it is claimed will save them, by preventing softening and rotting. I think this was first given in the "Household" of the *Detroit Free Press*. And when frozen they may be cooked by putting into a covered dish, and cooked with hardly a perceptible difference.

TOMATOES—Escaloped.—Peel and cut the tomatoes in slices $\frac{1}{4}$ inch thick; make a force-meat of bread crumbs, pepper, salt, butter and a little white sugar; put this in a pudding dish with alternate layers of tomatoes, having the tomatoes for the top layer (except with dry crumbs as below); put a bit of butter upon each slice and dust with salt, pepper and a little sugar; strew with dry bread crumbs and bake, covered, half an hour, then remove the lid and bake brown.

BEANS—Old, to Cook Properly, Baked or Boiled.—When beans are kept over a year or more they become rather difficult to cook tender. One way to accomplish it is to soak them over night in soft water, and in the morning put them to boil, putting $\frac{1}{4}$ tea-spoonful of soda into the water (and especially must the soda be used too when you have any time strong water to boil with). The water must be turned off as soon as it boils, and changed two or three times. Have a tea-kettle of boiling water ready to cover them when the other is poured off, as cold water hardens them again. After they begin to crack open they should be put in the oven, with a piece of pork previously freshened, and water enough to keep them from burning, and bake about two hours.

To Boil.—The only thing different is to keep them in the kettle with the pork, being a little careful that the amount of water put in is only sufficient to have them only nice and moist when done, as it leaves them richer than if too much water is used; but if there is much water left when the beans are taken up with a skimmer, it will help enrich the porridge or broth next below.

Remarks.—Beans are not only a very healthful dish, but they contain more nourishment than any of the other vegetables in use; and as they—properly cooked—are also easy of digestion, they ought to be much more frequently found on every table for the rich, as well as for the laborer, whom I do not call poor, for if he enjoys his labor as he should, he is the richer of the two. Either baked or boiled beans, warmed up, putting in sufficient hot water to keep them moist, are sweeter and nicer, to the author's taste, than when first cooked—always prepare, then, more than will be eaten at the first meal.

Bean Porridge or Broth.—When the beans are skimmed from the kettle leave a tea-cupful or more in the kettle. Set it upon top of the stove where the beans will slowly cook fine. Then season with sufficient salt, pepper, and butter to make it relish, and, with good graham bread and butter, it makes a soup fit for a king or a dyspeptic. With *'s*is, also, if more is made than needed at the first meal, it is best, the old saying is, (and it is true, too, if warmed every day), "when nine days old."

Boston Baked Beans.—An excellent and favorite dish with every New England family, if carefully prepared: Get a red, earthen jar (I believe the red ones are unglazed and, therefore, preferred). It should be 14 to 16 inches deep, with a wide mouth. Get the beans at a first-class grocery, lest they should be old or poor in quality; pick, wash and soak them over night in plenty of cold water; scald them the next day with a tea-spoonful of soda; they should not boil unless they have been long stored. Drain off the water twice, at least, to remove the taste of the soda, and to each 3 pts. of beans, before soaking, allow $1\frac{1}{2}$ lbs. of good, sweet, salt pork—a rib piece, not too fat, is best. Let the beans cover all but the top of the pork, which must have been freshened if very salty, the rind scraped and scored; adding hot water enough to cover the beans, in which half a small cup of molasses has been dissolved. They should be put in the oven at bed-time, while there is still a moderate fire remaining. They will be ready in the morning. If the pork is not very salt, add a little salt to the water in which the beans are baked.—*Boston Herald*.

Pork and Beans—Short, or Kansas Plan.—Pick the beans over carefully, and put into an earthen crock, and fill with cold soft water, and let stand over night; if the pork is too salt parboil it a short time, scrape the rind, and score it; put it, with the beans into a deep baking dish (why not bake them in the crock, the same as the Bostonians above—we know there is much less danger of burning in an earthen jar than in a tin or other metal dish), with hot water cover closely (this is certainly important at first), and set in the oven, and let them bake rather slowly until noon, or from 3 to 4 hours. Do not let them get too dry; if you can not see the water add more hot.—*Kansas City Times*.

Remarks.—Although there is, and must be, more or less sameness in all the above plans of cooking beans, yet there is sufficient difference in some things to justify the number I have given. The following will also be found valuable in cooking beans and corn together in winter, warming up, drying string beans, etc.:

Winter Succotash.—This may be made with Limas, horticulturals, garden beans, or white field beans. The latter are seldom used for succotash, but they make it very nicely. The method of proceeding in each case is the same. Boil the beans without soaking until three-fourths done. In the meantime put an equal amount (dry) of dried sweet corn with 3 qts. water, and let it steep on the stove for 2 hours without boiling, then add to it the beans, and let them cook together gently until the beans are done. Serve warm and do not break the beans.

Beans or Succotash, To Warm.—Put either beans or succotash into shallow dishes and cover with a little hot water. Heat slowly, and do not stir while warming, as that makes them mussy. If they are likely to burn put them back where there is not so much heat. Dish them up with a flat ladle so as to mash them as little as possible. An excellent dish for breakfast. In fact, baked beans, or any dish with beans in it, like bean porridge (which see), is all the better for having been warmed over—the more times the better the dish.

String Beans for Winter Use.—Some writer in the "Household"

department of the *Blade* informs us, and I have not a doubt of the fact, that string beans can be kept for winter use nicely, in the following manner: "String, but do not break them, scald a few minutes, then dry by fire heat, turning frequently so that they do not sour. When dry enough to rattle, put away in closely-tied paper sacks. To cook them, soak over night and dress the same as fresh. They taste more like green beans than dried corn does like green.

Corn, To Fry—Cut corn from the cob till there is about a quart of it, and carefully pick out all bits of stalk or silk. Beat 2 eggs very light, stir them into the corn, with 2 table-spoonfuls of flour, salt and pepper. Have some lard very hot, and drop in the corn a heaping teaspoonful (the author would say a table-spoonful) at a time. Fry a light brown. Canned corn may be used in the same way.

Corn Oysters.—Nine ears of corn, 2 eggs, 2 table-spoonfuls of flour, pepper and salt. Cut the rows of corn length-wise, and then scrape it off the cob; beat the eggs light, add the flour, pepper, and salt, and fry the cakes about the size of an oyster in butter.

Remarks.—These recipes are much the same, but make a very nice dish for breakfast.

TOAST—With or Without Milk, and to Use Bread Crusts, Dry Bread, etc.—A lady writer gives her sisters the following plans of saving bread which has been cut in larger quantities than needed, crusts, etc., which many throw away because they do not know how to use them. Her plans will prove a success, every time when followed with judgment. She says:

"There are times when bread accumulates and is thrown away. We can not make toast, for we have only just a little milk to spare. Let us tell you how to make a good-sized dish of toast with only one cup of milk—or none at all. Toast each slice of bread nicely and brown; have a basin of hot water on the stove; salt the water a little, and dip each slice of toast, 1 at a time, into it. Let it remain a moment. Then lay it on the dish you wish to serve it in. Immediately on taking it from the hot water spread a thin slice of butter on each piece of bread, and so on until your dish is full. It is good just so. But to give it the appearance of milk toast, heat your small quantity of milk, add a little lump of butter, a pinch of salt, and hot water enough to just cover the toast and no more.

Bread Crusts, for Balls, or Dressing.—If you have scraps and broken crusts which cannot be toasted, do not throw them away, but soak them until soft, with warm water. Add pepper, salt, and butter, according to taste. Mold into balls like an egg, and lay them in a pan with a roast of beef; turn them when brown and serve with a rich gravy, and you will think it a rich, nutritious dish.

Remarks.—You will not only think it a rich nutritious dish, but it will be such, in fact.

Milk Toast, No. 1.—First toast the bread and lay it in a deep dish, then put a lump of butter the size of an egg in a frying pan; add 1 heaping table-spoonful of flour, and stir until it begins to brown; then pour in 1 pt. of sweet milk and a little salt, and pour this over the bread. If you like it sweet, add sugar, to your taste.

Remarks.—The ground work of this recipe was from a Mrs. S. Bearnes, to the *Blade*, in which she also gave an endorsement of the new plan of using strong soda water on burns (which see, among the recipes for burns), but I will give her plan in her own words. She says: "I want to tell you how I cure a burn. Wet a cloth in strong soda (baking soda) water, and wrap around the burn, or lay a little soda on and dampen it and let it remain a few minutes." If she had given her post-office address, I should have given it too. I have come as near as possible to giving her full credit. The wet cloth is the best plan.

Milk Toast, No. 2.—Cut slices of bread very thin, toast quickly to a light brown; butter, while hot, and pile them in a deep dish; then cover them with rich boiling milk. Let it stand a few minutes and serve. A little salt may be added if necessary.

Milk Toast, No. 3.—The following is from a writer in the *Rural New Yorker*, and gives a new thought or two, so I give it a place. She says: "A good way to dispose of dry bread is to make it into milk toast. It is very popular with the workingmen and children, and often solves the problem that disturbs the cook when she is thinking what is to be got for supper. Toast the bread a short time before it is wanted. Set a half pan of milk on the stove and let it get scalding hot. Put in a little salt, spread the toasted slices with butter and put them into the hot milk, and in a very few minutes remove to the table. If the toast is put in too soon, the bread will fall in pieces and is not so nice to serve. There should be plenty of milk for the amount of bread."

Remarks.—I think it will be popular with everyone. I have made an entire supper of it many times.

Boston Cream Toast.—Cut stale bread in slices $\frac{1}{4}$ inch thick, and toast a nice light chestnut color. Put 1 pt. of milk to heat with $\frac{1}{2}$ cup of butter, a little pepper, and salt to suit the taste. Blend 2 large tea-spoonfuls of flour with cold milk, and when it boils, stir in and let it boil 2 or 3 minutes.—Now have ready a pan of hot water, a little salted, dip each slice quickly in the water lay in a hot dish and cover with the hot cream. Serve immediately.

II. Another nice dish is made by rolling light bread dough thin, cutting in strips and boiling in hot fat. Break each cake open as it comes from the kettle, and plunge it into the above cream.

Remarks.—As Boston claims to be the "hub" upon which the world turns, I have thought to close the toast making with the Bostonian plan of making cream toast, as given by "P." of Toledo. It will be found very nice, and the second dish, or plan, using the same cream, will undoubtedly suit many persons—try them both, if fond of nice dishes.

Bread to Fry in Batter.—One table-spoonful of sweet, light dough; make it into a thin batter by 1 cup of sweet milk; add 3 or 4 eggs, $1\frac{1}{2}$ cups of flour, and 1 tea-spoonful of salt. Cut light bread into thin slices, dip into this batter, and fry in hot lard. Sprinkle with powdered sugar and garnish with jelly, if desired.

Remarks.—When you have not the light dough on hand to make into a batter, simply beat an egg or two, according to the number of persons to fry

for, add a little salt and a very little flour, rubbed smooth in a little cold water; dip in your slices of bread and fry as above, or, I think, butter or drippings is better than lard, as the lady says in "Frying after Ham."

Fried Bread, After Ham.—After frying good smoked ham or shoulder, beat 2 eggs and $\frac{1}{2}$ cup sweet milk together, dip slices of stale bread in this, wetting both sides; fry and turn quickly.—*Mrs. M. C. Wanemaker, Newville, Ind., in Blade.*

Bread Pudding, Fried.—When you have bread pudding left over from dinner, it is very nice, next morning, to cut it into slices; then dip each side into cracker crumbs; then into beaten eggs, slightly salted, and again into the crumbs; then fry a nice brown, in hot fat to float them; take out with a skimmer or ladle, and drain a moment; serve hot, with powdered sugar over them.

French Toast.—Any meat left over from roast beef, veal, turkey or chicken is to be freed from bone, finely chopped, using the gravy left, or a beaten egg and a little butter, to moisten it; while quite hot, the toast being all ready and nicely buttered, put the mixture over each piece, and send to the table hot.

Remarks.—The French people are not only careful to save everything in the line of food, but always re-make it into some nicer dish than at first, and which you would not suppose to have been served before. In this is the secret, not only of their living well, but cheaply.

Stale Bread, to Fry, or Egg Toast.—Take 2 eggs, beat well; 1 cup of milk, and flour to make a stiff batter. Cut stale bread into thin slices, and dip into the batter, and fry a nice brown, in sweet butter. Serve hot, with butter, sugar or sauce, as you choose.

Remarks.—With coffee alone, or with other articles, this makes a nice dish for breakfast. Well, now, at the risk of being a little out of place with the following plan of cooking eggs, as it is for a breakfast dish, and as these toasts are most generally used at breakfast, I shall give a plan of cooking eggs for breakfast in this place, although it properly belongs with the egg dishes. It will be found very nice, and is as follows:

Eggs, Fried or Baked, for Breakfast.—Put a table-spoonful of butter into a tin-plate, upon the top of the stove, and break in 10, or any number of eggs needed for the meal, a little salt and pepper, allowing the eggs to cook until the whites are "set;" then slip the tin-plate into a china, or stone-ware plate, and send to the table hot. If your stove-oven is hot, they will cook in half the time, if put into the oven.

CUSTARD—How to Make.—If wanted rich with eggs, some use as many as 8 for 1 qt. of new milk, 1 cup of sugar, a little salt, and grated nutmeg to taste. Some persons use only 3 or 4 eggs to a qt. of milk—suit yourself, therefore, when they are not plenty. Vanilla or lemon extract may take the place of nutmeg for a change. DIRECTIONS—Eggs to be well beaten, and the sugar then beaten in to get it all dissolved; then the milk and seasoning; place in a pudding-dish, or in cups, which is the more tasty way, and bake in

a slow oven about $\frac{1}{2}$ hour, or until the custard is firm in the center--when it is done. Some times nutmeg and lemon-peel are grated over the top of a custard, when served, in place of mixing in when made.

Custard, Frosted.—Five eggs well beaten (reserving three whites for meringue), 1 qt. of milk, 5 table-spoonfuls of sugar, 2 tea-spoonfuls of vanilla, pinch of salt; put in a pudding-dish, which place in a pan of water in the oven and bake. When nearly baked, put upon the top the meringue made with the 3 whites and 2 table-spoonfuls brown sugar to each white, and any flavoring. Bake a light brown.—*Domestic Monthly.*

Custard, Without Eggs.—New milk, 1 qt.; flour, 4 table-spoonfuls; sugar, 2 table-spoonfuls; nutmeg or cinnamon to your liking, and a little salt. DIRECTIONS—Place the milk over a quick fire, and as soon as it boils, having rubbed the flour smooth in a little cold milk, stir it in, and as soon as scalded, add the sugar, spices and salt. Bake, of course.

St. James Custard.—Place over the stove 1 pint of milk, in which put one large handful of bitter almonds that have been blanched and broken up. Let it boil until highly flavored with the almonds; then strain and set it aside to cool. Boil 1 qt. of rich milk, and when cold, add the flavored milk, $\frac{1}{2}$ pt. of sugar and 8 eggs, the yolks and whites beaten separately, stirring all well together. Bake in cups, and, when cold, place a macaroon (a cake highly flavored with almonds) on top of each cup.

French Tapioca Custard.—Five dessert-spoonfuls of tapioca, 1 qt. of milk; 1 pt. of cold water; three eggs; one heaping cup of sugar; one tea-spoonful of vanilla, and a little salt. DIRECTIONS—Soak the tapioca in the water five hours. Let the milk boil in a farina-kettle or in a kettle set into boiling water; add the tapioca and water, and a little salt. Stir until boiling hot, then add the beaten yolks and sugar. Stir this constantly about five minutes, but do not let it get too thick, or the custard will break. Pour into a bowl, and add the whites of the eggs previously beaten to a stiff froth; stir them in gently. Flavor and set aside in a glass dish to cool. Serve with canned or brandied fruits; it is a very delicious dessert.

Remarks.—The French are celebrated for the amount of labor required or the changes to be made, but their dishes are also celebrated for their excellence. The Irish moss or *carrageen*, as called in the next, as well as tapioca, makes a nice dish.

Carrageen Custard.—Procure *carrageen* (Irish moss), 1 oz., and divide into 4 parts; 1 part is enough for 1 mess; put the moss into water and let it remain until it swells; then drain it and put it into $2\frac{1}{2}$ pts. of milk and place it over a fire; let it boil 20 minutes, stirring continually; then strain it, sweeten with loaf sugar (any white sugar will do), put into cups, and grate nutmeg over the tops.

Remarks.—This is also served cold, of course. Any of the moss that is black, or dark colored, is not fit for this use any more than it is to make a nourishing drink for invalids.

Apple Custard.—Pare and punch out the cores of 6 apples (at least 1 for each person to be at dinner); set them in a new tin bread pan with a very little water, and stew them till tender; then put them in a pudding dish without breaking; fill the centers with sugar, and pour over them a custard made of 1 qt. of milk, 5 eggs, 4 ozs. of sugar (1 cup will not be too much), and a very little nutmeg; set the pudding dish in a baking pan half full of water, and bake it $\frac{1}{2}$ hour. Serve it either hot or cold, at the dinner.

Remarks.—For the cold serving, let it be what is left over, as most people like hot dishes for dinner.

Corn Meal Custard.—Corn meal, $\frac{1}{4}$ lb.; sweet milk, 1 pt.; boil together 15 minutes; and add butter, $\frac{1}{2}$ lb.; 6 well beaten eggs; rose water, salt and sugar, to taste. Bake carefully, not to burn the top.

Remarks.—As we have corn meal puddings (which see), why not custard also? I think for the number of eggs 1 qt. of milk might be used, without detriment to the custard, making more, and still be rich enough for most people. I know it will be nice, if nicely made. Custards are generally served cold, at “tea;” but this would be nice hot for dinner, as well as cold at tea-time.

Snow, or Rock Cream, a Substitute for Custard.—“Boil a cup of rice in new milk till quite soft, sweeten with powdered sugar and pile upon a dish. Lay upon it, in different places, bits of currant jelly or preserved fruit of any kind. Beat the whites of 5 eggs with a little powdered sugar to a stiff paste, flavor with vanilla, and add to this, when beaten very stiff, a table-spoonful of rich cream and drop over the rice roughly, giving it the form of a rock of snow.”

Remarks.—Ornamental as well as a delicious dish at tea.

ESSENCES—Lemon and Others.—As lemon and other essences or flavoring extracts are called for with custards and other dishes, in this connection there can be no better place than here (between the custards and ice-creams) for them. The following is from a lady writer, no doubt—S. A. C., of Oconee, Ill.—and will be found practical and good. She says: “Best alcohol, 1 pt.; lemon oil, 1 oz.; the peel of 2 lemons; put all in a fruit jar; let it stand 1 week, shaking 2 or 3 times daily; remove the peel and bottle for use. I have used it 2 years and pronounce it much better than any I ever bought. Nearly all essences are made in the same proportion as lemon.”

Remarks.—This writer is correct as to the proportions. The peel gives lemon, orange, etc., an improved flavor. A fruit jar filled with lemon or orange peel, then filled with alcohol without the oils, makes a nice, highly-flavored extract. The author has made them for his wife, in her life-time, many times. Sliced pineapple, no doubt, will do equally well for that most delicious flavor.

Ice-Creams and Water Ices, Strawberry.—As the “Widow Bedott,” of Nettleton, Mo., gives one to the *Blade*, which is perfectly plain, I will give it first. She says: “Rub 1 pt. of ripe strawberries through a sieve, add 1 qt. of cream, $\frac{3}{4}$ lb. of white sugar and freeze.”

Remarks.—No “foolin’” with this; it is perfect, having the pure flavor of the strawberry and the richness of the cream itself, without alloy. But as some persons will want a more elaborate one, we give the following, although I do not know its originator:

Parisian Ice-Cream, the Best.—Rub well together 12 eggs and $1\frac{1}{4}$ lbs. of white sifted sugar; then add 2 qts. of perfectly fresh and pure cream; flavor as below named and cook in a farina boiler—a tin vessel set in a larger one containing hot water—stirring constantly till it thickens, but it must not curdle. Strain through a fine sieve and put on ice to cool. [The author can see no reason to strain, except it be to get the sugar all dissolved unless some of the egg curdles.] The more slowly the freezing is performed the firmer will be the product. When completed let it remain in the freezer with fresh ice and salt around it for several hours to ripen. [This is the French of it.]

For Flavors for Ice-Creams.—For 2 qts. use either 1 table-spoonful of extract of vanilla, 1 table-spoonful of extract of lemon and of lemon juice, or 1 pt. of finely strained strawberry juice with 4 ozs. of sugar, or 3 ozs. of chocolate and 4 ozs. of sugar dissolved in a little water and strained. Or the berries themselves or nice ripe peaches, as in the next recipe.

Ice Cream with Berries or Peaches.—Fruit frozen with custard may not be particularly good for the digestion, but as it is a popular dish, it is well to know how to insure success when preparing it. Take 1 qt. of milk and 1 qt. of cream, 6 eggs, 3 cups of sugar. It is a good plan when making any custard to beat the yolks of the eggs and the sugar together; then all the lumps can be crushed without difficulty and there is less danger of the eggs looking stringy. To this quantity of custard one large pint of ripe berries, or peaches cut in small pieces, is the due allowance. To my taste 1 qt. is not too many. Heat the milk and cream, then add slowly the sugar and eggs. Cook it in a farina kettle, or in a pail set in a pan of water. When thick take from the fire, remembering that it will be a good deal thicker when it is cold. When cold stir in the fruit, and freeze as you do any ice cream.

Remarks.—This was published in the *London (Ont.) Free Press*, sent me by my daughter, Mrs. Dr. Mills, living there, and I will vouch for it, and support the writer in the use of the quart instead of a pint of the berries. Strawberries, raspberries, red or black; blackberries, either should be perfectly ripe; or perfectly ripe peaches, cut into quite small pieces, may be used with satisfaction without other flavoring. Mix in well just before putting into the freezer.

Ice Cream Lemon.—Nice morning’s milk, 10 qts.; sugar 10 cups; yolks of 10 eggs; corn starch, 3 table-spoonfuls; extract of lemon, 1 table-spoonful. **DIRECTIONS**—Pour a quart or two of the milk upon the sugar, and see that the sugar is thoroughly dissolved; rub the corn starch smooth in a little of the milk and stir in with the beaten yolks of the eggs, then the extract, and freeze at once, as but little time can be given to it at hotels or picnics.

Remarks.—I have eaten it, and know it is very nice. The following is also made by the same confectionery cook, who gave me the recipes while I was

treating a sister of hers, whom she came in often to see, and hence the acquaintance and this information.

Water Ices, Lemon.—Fourteen lemons, whites of 18 eggs, sugar, 10 cups; vanilla extract, 1 tea-spoonful; water. DIRECTIONS—Pour over the sugar 3 qts. of boiling water, and boil 10 minutes; add 6 qts. of ice water and the juice of the lemons; then the beaten whites of the eggs, and vanilla, and freeze.

Remarks.—Of course, these water ices are simply the juices of any fruit you desire the flavor of, diluted with water, properly sweetened to taste, and frozen the same as ice cream. If you wish to use fruits, as oranges, berries, etc., which contain but little acid, the flavor may be heightened by the addition of the juice of a lemon or two, according to the amount being made, as the following:

Orange Ice.—To avoid the seeds, etc., press out and strain the juice of 1 dozen good-sized Florida or other sweet oranges, rubbing off the yellow zest of 4 of them with lump sugar, if obtainable, otherwise grating finely, or using an equivalent of orange tincture or extract, at least 1 or 2 table-spoonfuls; sugar, 3 lbs., upon which pour 1 gal. of boiling water, dissolving by boiling if necessary. Set in a cold place to cool before freezing.

Remarks.—It will be noticed in the first, above, vanilla extract was used, but I should use the extract of the fruit used, as the taste will be truer to nature, while the amount there given I should expect to be wholly lost from the large amount of lemons used. A pint of the juice of strawberries to each 3 qts. of water being used, would give their very nice flavor to an ice; the sugar and other treatment the same. The first time I ate of these water ices was at Cape May, where my son and myself had run down from the Centennial, at Philadelphia, to spend the Sabbath. At that time they were made very plain—all there was of the recipe I got by inquiry was “8 lemons to 3½ lbs. powdered sugar, 1 gal. of water and freeze.” But it was very nice, even as then made.

SALADS, RELISHES, ETC.—There is probably no branch in the line of made-up dishes that will show a woman's skill to better advantage than in the variety of articles to which she can apply a well made salad to give piquancy—*i. e.*, a pricking or sharp stinging, still a pleasant taste—to her salads or relishes for the dinner or tea-table. These may be eaten hot or cold, but I think that, like myself, most people prefer them made in time to get cold before serving. Sometimes the salt, sometimes the sour, and sometimes the mustard, or other spices may be made the most prominent, as she shall choose, or as the nature of the article used for the body of the salad shall require. Salads give a relish to bread and butter, and comes nearer satisfying all tastes than almost all, if not all, dishes; and if not made too piquant (too strongly spiced) are not as unwholesome as they are generally believed to be. Salad oil—pure sweet oil—which the author has a great dislike for on account of its taste, is the richest article used in making salads; but as the place of the oil can be so nicely filled with melted butter, or rich cream (the butter is considered best), in making a “salad dressing,” he recommends rather than condemns their use. Any of the salad dressings may be applied, mixed with simply chopped cabbage, chopped

r sliced potates, or any kind of chopped meat, as well as to the more elaborately mixed dishes.

Salad Dressings, to Make Cold—Which may be put upon almost any cold dish left over from dinner, as cold potatoes, beets, string beans, meats, chicken or fish, and cabbage, or uncooked cabbage or lettuce in its season; any of which should be chopped rather finely and heaped in the center of a platter or bowl of sufficient size to allow mixing with it the salad dressing, to be made as follows: Take an even tea-spoonful of ground mustard and a salt-spoonful of salt and mix into a paste with good vinegar. It is best to use a fork for this and to mix in a soup plate. Now add the yolk of 1 egg, being careful not to allow the white to follow; stir the yolk thoroughly through the mustard and begin to add the sweet oil or melted butter, as you prefer, in small portions, not more than a tea-spoonful at a time, but add continually as you mix. If the dressing becomes too hard, or looks stringy, add a tea-spoonful of vinegar from time to time, but not often. It should become a light creamy mass, and it will if it is properly stirred; and you go on adding oil or butter and vinegar until you have the necessary quantity (using more mustard and salt at the beginning and the yolk of another egg, if the quantity is known to be for a half-dozen persons or more), when you taste to see if it is sufficiently salt or sour or piquant with the mustard; and if not, add either as you wish. Now this dressing is to be placed upon the chopped cold potatoes, or other chopped cold article or raw chopped cabbage or lettuce, and properly mixed through it with the fork, or two forks may be handier, leaving "rough and rocky" in appearance, or smoothing down with a knife blade, as you choose.

Remarks—If this is used upon any cold article, a few fresh lettuce leaves may be stuck around the edge, or sliced bits of fresh tender radishes; or a few salt herrings split into fibers, and laid around, or put upon the dish, will meet with general favor. Many of these ideas I have taken from the *American Grocer*, a very reliable paper upon any class of subjects, to which it calls public attention. It is usual, when cold chicken is chopped, or other cold meats, for the ground work of the salad, to chop the white part of the celery, if you have it, to make an equal amount as there may be of chicken, or meat, and mix evenly together; then after the dressing is mixed in, garnish with, or stick around, the green tops of the celery. When cold potatoes are used for the salad, men will generally like it better; a small onion is also chopped finely, and mixed with the potatoes, ladies generally prefer it without, so a compromise might be made by using an onion half the time, or occasionally.

Salad Dressing, to Make With Heat.—Although this is particularly adapted to raw, chopped cabbage, or lettuce, in its season, it will be found nice for cold meat, chicken, etc. Cabbage, $\frac{1}{2}$ a small head; or fresh, crisp lettuce, in equal amount; vinegar, 1 cup; 1 egg; sugar, 1 table-spoonful; made mustard, 2 tea-spoonfuls; butter, 1 tea-spoonful; a little salt and pepper. **DIRECTIONS**—Chop the cabbage or lettuce finely, stirring the salt and pepper into it, and put into a bowl, or dish to await the dressing. Beat the egg, sugar and butter together, and add the mustard and vinegar, stirring well; put the mix-

ture into a stew pan upon the stove, stirring all the time, until it comes to a boil, when it is to be poured over the cabbage, or lettuce, or meat, as the case may be. The articles being all mixed cold it does not curdle; and the constant stirring while heating prevents its curdling during this process. The German girl, who first prepared this for us, brought it to the table hot, as her people prepared it; but there being some of it left over, I found that myself and family liked it better cold. So had it prepared, after this, in time to get cold by placing on ice, whether for dinner or tea. It is nice at either meal. I will also give a few others.

Salad Dressing for Tomatoes.—The author's preference for cold salads is shown to be the preference of others also, by the following: Take off the skins with a sharp knife, cut into thin slices, and lay in a salad bowl. Make a dressing by working 1 tea-spoonful each of salt and made mustard, $\frac{1}{2}$ tea-spoonful of pepper, the yolks of 2 hard boiled eggs, with 2 table-spoonfuls of melted butter; then whip in with a fork 5 table-spoonfuls of good vinegar. Pour over the tomatoes, and set on ice or where it is cool for an hour before serving.—*Rural New Yorker*.

Potato Salad.—A potato salad is easily prepared, and very nice alone; but if you have any cold fish, as called for in this recipe, it gives an additional relish. If you have no cold potatoes, boil or steam a dozen with their jackets on; when done peel and let stand till entirely cold; then slice them $\frac{1}{4}$ inch thick; mix with some flakes of cold boiled fish (halibut, cod or salmon) and pour over them a salad dressing made with 6 table-spoonfuls of melted butter or salad oil, 6 table-spoonfuls of cream or milk, 1 table-spoonful of salt, $\frac{1}{2}$ the quantity of pepper and 1 tea-spoonful of ground mustard. Into this mix 1 cupful of vinegar. Boil well, then add 3 raw eggs, beaten to a foam; remove directly from the fire and stir for 5 minutes; when thoroughly cold turn over the salad. Garnish with slices of pickled cucumber, cold beet, hard boiled eggs, celery or parsley.

Remarks.—It strikes the author that if there is no cold fish on hand that a sprinkling of cold chopped turnips would do remarkably well, for variety's sake, to mix with the potatoes. They make a nice dish mashed with potatoes, for dinner, why not in a salad also.

Cream Salad Dressing, in Place of Mayonnaise, or Salad Oil.—Rub the yolks of 2 hard boiled eggs through a sieve, 1 dessert-spoonful of dry mustard, 1 table-spoonful of butter, 1 tea-spoonful of salt, $\frac{1}{2}$ pt. of cream; either juice of 1 lemon or 2 table-spoonfuls of vinegar, and as much cayenne pepper as can be taken up on the blade of a small penknife. This is a good substitute for mayonnaise (given below), for those who like myself, do not like oil, for any dish of vegetables, chicken, or upon meats, at dinner or tea.

Mayonnaise, Real, or French Dressing for Salads.—Yolks of 2 or 3 eggs, 1 lemon, salad oil, 1 tea-spoonful each of pepper, salt, and brown or moist sugar. **DIRECTIONS**—Mix the yolks of the eggs raw with the pepper, salt and sugar (a wooden spoon is said to be best to work it with); then begin to

work in, little by little, the salad oil (the author thinks not above 1 table-spoonful for each yolk used—the amount was not given by Warne's Model Cookery (English), from which I quote, but left to depend upon its creaming with the lemon juice), mixing so thoroughly that it may appear a perfect cream. Keep by your side the lemon, cut in two. As soon as the oil and eggs begin to mix, squeeze in some of the lemon juice, adding more oil, drop by drop, (little by little, as above mentioned, I think best, as drop by drop, unless you have a helper to drop it, would be too slow for Americans), then more lemon juice, till all is finished. Let it be a perfect cream before you use it, and mix in a cool place.

Remarks.—I have no doubt the mixing in a cool place will be an important point in keeping the oil less "greasy," as we say. In case the lemon juice is not acid enough to make all of a creamy consistence, add by degrees stirring all the time, as much good vinegar as will accomplish it. It is generally used for chicken, but may be used on anything used for salad, by those who prefer the oil, in place of butter or cream. It is simple and easily made.

Lobster Salad.—Take the inside of a large lobster, boiled and cold; mince it finely; the yolks of 2 hard-boiled eggs, mashed fine, with 4 table-spoonfuls of sweet oil, or butter softened; pepper, salt, vinegar, and mustard, to taste; mix all well, and add celery or crisp lettuce, also to taste; then garnish with hard-boiled eggs, sliced, when served.

Chicken Salad.—Although there are general instructions that ought to enable any one to prepare a salad for a chicken, yet, as there are some people who can only work upon specific or positive directions, I will give one so explicit and plain that none can go amiss: Take a good-sized spring chicken, weighing 2½ or 3 lbs.; boil it till perfectly tender. When perfectly cold, pick the meat from the bones, and if the skin is at all tough remove it, and chop the meat to the size of peas; also, if you have it, chop the white part of 4 or 5 heads of celery to the same fineness, and mix together just before serving, into which the dressing which has been made in the following manner is to be mixed: Rub the yolks of 2 hard-boiled eggs smooth with 1 tea-spoonful each of mustard and salt, 2 tea-spoonfuls of sweet oil or melted butter; 3 tea-spoonfuls of good vinegar, and if you like cayenne, as much as will take up upon half the length of a penknife blade; chop the whites of the eggs finely and mix in; then mix evenly into the chicken a celery mixture, or chicken alone if you have no celery mixture, and garnish with the green leaves of the celery or other sweet herbs, as you like.

"The Salad Bowl"—The Poetic Effusion of the Rev. Sydney Smith; or, A Clerical Salad Adapted to All Dishes, Whether Meats, Fish or Vegetables.—Our salads would not be complete without this one in verse to help rivet the proportions and other points of importance to the memory of all lovers of salad dressings. He says:

"To make this condiment your poet begs
 The powdered yellow of two hard-boiled eggs,
 Two boiled potatoes passed through kitchen sieve,
 Smoothness and softness to the salad give.
 Let onion atoms lurk within the bowl,
 And half suspected animate the whole.
 Of mordant mustard, add a single spoon,
 Distrust the condiment that bites too soon.
 But deem it not, thou man of herbs, a fault,
 To add a double quantity of salt;
 Four times the spoon, with oil from Lucan crown,
 And twice with vinegar procured from town;
 And lastly o'er the flavored compound toss
 A magic *souppçon* of anchovy sauce.
 O, green and glorious! O, herbaceous treat!
 'Twould tempt the dying anchorite to eat.
 Back to the world he'd tempt his fleeting soul,
 And plunge his fingers in the salad bowl.
 Serenely full, the epicure would say,
 Fate cannot harm me, I have dined to-day."

Remarks.—You will notice here that a couple of potatoes are brought in, and the smallest proportion of onion also, and a caution against too much mustard or cayenne, if that is used, not to bite too soon, with twice as much vinegar, also of oil while some use more oil than vinegar; and, lastly, a *souppçon* only of anchovy sauce (*souppçon* being the French for the least bit), a "suspicion" only that a little has been used, as the anchovy sauce is a highly-flavored sauce, the anchovies with which it is made being a small fish of the herring tribe, having a striking flavor of their own. A bit of that, if obtained, or a small amount of any of the catsups, Worcestershire or any other sauce, may be added to this or any other salad dressing; but the anchovy nor any other need be used unless you choose.

SAUCES FOR THE TABLE.—*Worcestershire Sauce.*—The *Druggists' Circular and Chemical Gazette* gives the following recipe for making Lee & Perrin's Worcestershire sauce, which is undoubtedly the most celebrated and popular sauce in the market. It is made in such large quantities that few, unless it be those manufacturing sauces, would undertake to make it; but it may be reduced (say by 15, or any less number, if one chooses) so as to bring it down to the wants of a family or neighborhood for the year. It is as follows: "White wine vinegar, 15 gals.; walnut and mushroom catsups, of each 10 gals.; Madeira wine, 5 gals.; Canton soy, 4 gals.; table salt, 25 lbs.; allspice and coriander seed, powdered, of each 1 lb.; mace and cinnamon, powdered, of each $\frac{1}{2}$ lb.; assafetida, 4 ozs. dissolved in brandy, 1 gal. Mix together and let stand 2 weeks. Then boil 20 lbs. of hog's liver in 10 gals. of water for 12 hours, renewing the waste water from time to time; then take out the liver, chop it fine and mix it with the water in which it was boiled, and work it through a sieve and mix it thoroughly with the strained liquor which has been standing two weeks; let settle for 24 hours and carefully pour off the clear liquor and bottle for use. Prime."

Remarks.—I should think the last part, at least, would have to be filtered,

or carefully strained again, to get rid of the sediment from the liver. If for sale, it had all better be filtered. And for me, I should prefer that the *assa-fœtida* be left out; yet in this amount, about 60 gals., its distinctive taste would not be noticed.

Canton Soy, to Make.—Boil 1 gal of haricot (kidney) beans (I think any large bean will do as well) in sufficient water to soften them; add 1 gal. of bruised wheat, and keep in a warm place 24 hours; then add salt, 1 gal., and water, 2 gals. more, and keep for two or three months in a tightly bunged stone jug. After this, press out the liquor, strain and bottle for use. It is chiefly used for fish. It was originally brought from Japan, made there from a bean known as the *Dalichos soya*, hence, for short, *soy*, or Canton soy, as it was shipped largely from Canton, East Indies. Its relish must come chiefly from the salt, which adapts it more particularly, as I should judge, to fresh fish, or, as in this case, making a nice addition to the Worcestershire sauce.

Celery Sauce.—Celery, 2 to 4 large heads; veal or chicken broth, 1 or 2 cups, and cream, or rich milk, 1 or 2 cups (*i. e.*, if 2 heads of celery are used, 1 cup; if 4 heads of celery, 2 cups each of broth and milk); salt and a blade of mace, or a bit of nutmeg; flour and butter (as above explained), 1 or 2 table-spoonfuls; water. DIRECTIONS—Wash the celery carefully, cutting out all dark spots; then boil it 15 minutes in salted water; drain away the water, and cut into dice-like pieces; rub the butter and flour together in a sauce pan, adding the veal or chicken broth, cream, or milk, and the blade of mace or bit of nutmeg, and a little salt, stew gently till the celery is tender and pulpy, when it may be poured over the meat or fowl, or served in a gravy boat, or bowl, and let each person suit himself as to a free or less free use of it. Mace and nutmeg are the only spices that seem to agree with the very fine flavor of celery; but they may, or may not be used, as you choose.

Celery Sauce (or Puree), as Made in India.—Clean 3 or 4 heads of nice celery, divide and cut into small pieces, using the white part only; boil it in a sufficient amount of white stock. Season with white pepper, salt and nutmeg. When it is tender add a small piece of butter, rolled in flour, and 3 table-spoonfuls of cream. Warm it up again, but do not let it boil. Poured over turkey, chicken or wild duck.—*Indian Domestic Economy and Cookery.*

Mint Sauce (or Puree), as Made in India.—Wash nicely half a handful of young, freshly gathered green mint; pick the leaves from the stalks, mince them very fine, and put them into the sauce boat, with a spoonful of sugar, and 4 spoonfuls of vinegar. Served with hot or cold roast lamb, or mutton.—*Indian Domestic Economy and Cookery.*

Remarks.—The word *puree* is becoming so common, I will give the following explanation of it:

Puree, Explanation of.—The word comes from India, and means a soft, pulpy mass, or sauce, made from either meats or vegetables, fruit, etc., reduced by cooking, beating, mashing and, if necessary, rubbing down to a smooth pulp in a mortar, and then mixing with a sufficient amount of liquid, whether it be stock or broth, for gravies; or milk, cream, etc., for sauces. A

puree, then, signifies a sauce, taking its distinguishing name from the meat, vegetables or fruit from which it is prepared, seasoning being added to suit the kind being made. A catsup is really a puree of tomatoes. So whenever you see the word, which has now, even, become quite common in our own country, you will understand, at once, its character and manner of preparation. I have explained in other places that butter they call *ghee*; salt, with them, is *nemuck*.

Sauce for Beefsteak, or Catsup Improved.—Black pepper, whole, and salt, of each $1\frac{1}{2}$ ozs.; allspice, whole, horse-radish and small pickled onions, of each 1 oz.; ground mustard, $\frac{1}{2}$ oz.; good catsup, 1 qt. DIRECTIONS—Pound the pepper and allspice finely, then bruise the radish root and onions together, and put all into the catsup, in a jug, cork and shake daily for 2 weeks, and strain through coarse muslin and bottle for use; or moderate heat, applied to all, in a sauce pan, for 2 or 3 hours, then strained, will obtain the full strength of the spices. If too thick for use after the heat, thin suitably with good vinegar.

Remarks.—It will be found very nice for any roasted or boiled meats, as well as steak.

Chili Sauce.—Large, ripe tomatoes, 20; good sized onions, 6; large green peppers, 3; salt, 3 table-spoonfuls; brown sugar, 6 table-spoonfuls; ground cinnamon, 3 tea-spoonfuls; ground ginger, 2 small tea-spoonfuls; ground cloves, $\frac{1}{2}$ tea-spoonful; good vinegar, 6 cups. DIRECTIONS—Mash the tomatoes, chop or slice the onions and peppers, mix all in a porcelain kettle or large tin pan, and boil till perfectly soft, and when cool rub them through a colander, and cook down to a proper consistency, that of catsup, and bottle for use upon meats, chicken, turkey, etc.

Remarks.—To “bottle,” means to bottle and cork tightly. And all sauces, catsups, etc., should be kept in a cool cellar, except the one being used from.

Piccalilli, A Good Substitute for Sauces.—Green tomatoes, 1 pk.; 1 large cabbage, 1 dozen onions; chop them fine and put on $\frac{1}{2}$ pt. of salt and let them stand over night; then drain off the brine, and scald in weak vinegar and drain off again; and now add 6 good-sized green peppers chopped fine, having removed the seeds before chopping; $\frac{1}{2}$ to 1 pt. (as you like best) of grated horseradish; then season with ground spices to suit the taste, at least 1 table-spoonful of allspice and pepper, and half as much dry mustard; and also $\frac{1}{2}$ table-spoonful of cloves. Now, in packing in a jar, if 6 to 8 or 10 quite small cucumbers (whole), which have stood in salt and water over night, are put upon each layer of an inch or two in thickness, they will be found a valuable addition, putting one in each sauce dish when served at table. Then all being closely packed, just cover with good vinegar, boiling hot, and cover closely, or put up in fruit jars, if plenty, and you will have a dish, as the saying is, “nice enough for a king,” the author says nice enough for a better man than a king—nice enough for “an American citizen.”

Chow Chow With Cucumbers.—Take 6 large cucumbers just before they ripen, peel them, cut in strips, and remove the seed; 4 white onions, 6 good-sized green tomatoes, and $\frac{1}{2}$ a head of cabbage. Chop all fine, let them

stand in salt water over night, then pour off the water and add vinegar and spices to suit the taste.—*Tribune*.

Remarks.—See piccalilli to judge about the amount of spices, the principal difference being that cucumbers are in the lead in place of tomatoes and cabbage. Three or 4 green peppers can be added if desired in any case, seeded and chopped as in the piccalilli.

Chow Chow Without Cucumbers.—Take to 1 peck of green tomatoes, 6 large onions, 1 dozen green peppers, 1 large cabbage; slice the tomatoes, sprinkle over them 1 tea-cupful of salt, let them stand over night, drain off the liquor, chop fine, add the onions, cabbage and peppers, also chopped fine; put on the fire to cook, with enough cider vinegar to cover, then add black pepper, cinnamon, cloves and allspice to suit the taste. Cook till tender, then cover closely in jars, but it will keep without sealing.

Cole Slaw.—When cabbage is cut fine, seasoned with pepper, salt, vinegar, and a little sugar, it is generally called "Cold Slaw," but our heading is the right one, as it was originally made from the stalk and tops of a species of the cabbage family, but which does not head like the cabbage—kale, probably, the leaves of which curl and wrinkle, but does not head properly. For $\frac{1}{2}$ head of cabbage finely chopped, about 1 table-spoonful of sugar, a pretty free use of pepper and salt, with good vinegar, makes a nice dish with but very little trouble.

Cole Slaw With Cream.—For $\frac{1}{2}$ head of cabbage, chopped fine, take $\frac{1}{2}$ cup sweet cream, $\frac{1}{2}$ as much vinegar with a table-spoonful of sugar in it, and mix with the cream; having salted and peppered the cabbage, pour over the mixture when ready to serve. Is also very fine.

Cole Slaw With a Hot Dressing.—Slice and chop very fine 1 head (or enough for the family) of cabbage, and season with salt and pepper. Beat 3 eggs well together; mix with it 1 cup of vinegar, 1 tea-spoonful of unmixed mustard, 1 table-spoonful of sugar, and 1 table-spoonful of butter. Bring to the boiling point and pour over the cabbage.

Remarks.—If the yolks only are beat and put in at first, and the whites beat and put in after removing from the fire, there will be no danger of curdling—the whites of eggs are very liable to curdle, especially if not stirred all the time while heating with the other ingredients. If not eaten till it gets cold, I should prefer it for my use to leave the butter out, to prevent a kind of greasiness in taste and appearance.

Hot Slaw.—Butter the size of an egg, $\frac{1}{2}$ cup of milk, yellow of 2 eggs, 1 tea-spoonful of salt, $\frac{1}{4}$ tea-spoonful of pepper, small level tea-spoonful of dry mustard, and 3 table-spoonfuls of vinegar. Put the butter into the skillet with the fine cut cabbage and the other ingredients, and stir all the time until the cabbage heats well through.—*Western Rural*.

Remarks.—The following will also be found a very nice way to cook cabbage for variety's sake.

Cabbage Baked, Very Nice.—Select a firm head of white cabbage, quarter, rinse, and boil 15 minutes; pour off this water, and put on more hot

water and continue to boil until tender, drain off the water and set aside till cold; chop fine and season with salt and pepper, and a table-spoonful of butter; beat 2 eggs well, then beat them into 3 table-spoonfuls of rich milk, or cream is better; mix all well together, and bake in a moderate oven till nicely browned
—*Farmer's Wife, in Toledo Blade.*

Remarks.—I knew from the nicety of the dish that she was a wife that a farmer ought to be proud of, or, as the saying goes now, might well afford to "tie to." The same of the following:

Baked Cabbage With Grated Cheese.—Boil a firm white cabbage for 15 minutes in salted water, then change the water for more that is boiling and boil until tender. Drain and set aside until cool, then chop fine. Butter a baking-dish and lay in the chopped cabbage. Make a sauce in this way: Put 1 table-spoonful of butter in a pan; when it bubbles up well stir in 1 table-spoonful of flour, add $\frac{1}{2}$ pt. of stock and $\frac{1}{2}$ pt. of water, both boiling. Stir until smooth, season to taste with pepper and salt, and mix well with it 4 table-spoonfuls of grated cheese. Pour this over the cabbage, sprinkle rolled cracker over it, dot with lumps of butter and place in a quick oven for 10 minutes. This is almost as good as the more aristocratic cauliflower when cooked in the same manner.

Currie Powder, as Made in India.—Take coriander seeds, well roasted, 2 ozs.; tumeric, pounded, $2\frac{1}{4}$ ozs.; cummin seed, 2 ozs.; fenugreek, $\frac{1}{2}$ oz.; mustard seed, dried and cleaned of husks, $\frac{1}{2}$ oz.; ginger, dried, 2 ozs.; black pepper, 2 ozs.; dried chillies (the pod of the Guinea pepper; we use our common cayenne), $1\frac{1}{2}$ ozs.; poppy-seed, $1\frac{1}{2}$ ozs.; garlic, $1\frac{1}{2}$ ozs.; cardamons, 1 oz.; cinnamon, 1 oz.; all ground finely and mixed well and bottled.

Remarks.—As to the roasting of the coriander seeds, I should not, nor should I use the fenugreek. We use it only in horse medicines in this country, so far as I know. The poppy-seed I should not care to use, either; they may do for East Indians who eat so much opium, but should not want them "in mine." I will give a recipe from the *Detroit Tribune* which, I have no doubt, was the kind of currie powder used in making the chicken currie given in another place, of which I partook, and have explained there, as the lady there referred to told me she obtained the powder in Detroit already made. I will only say here I like it extremely well. If the amount given there to make a currie proves too hot of cayenne use less of the powder next time, It is certainly warming and comforting, even to a dyspeptic stomach, and I believe healthful for any one.

India Currie Powder Americanized.—Take of ground cinnamon, mace and cloves, each, 1 dr.; coriander seed and fresh yellow tumeric, each, 2 ozs.; black pepper and small cardamon seeds, each, $\frac{1}{2}$ oz.; cayenne, $\frac{1}{4}$ oz. Put all through a good mill and mix well; put in a closely-stopped bottle.

Remarks.—The tumeric is of no particular value, except to give color to the powder. It has slight aromatic and stimulant properties, but they are so slight it is seldom used in medicine except to color ointments, etc. So if the color (yellow) is not desired, it can be left out without detriment to the powder. If this powder is not as hot with cayenne as some may desire increase the

amount by $\frac{1}{2}$ dr. or whole dr. at the next making. It is better to add to rather than to get in too much at first to suit those who cannot bear the cayenne if too much is put in. For myself, I should prefer to add $\frac{1}{2}$, or at least $\frac{1}{4}$, oz. of ginger root to this currie powder and leave out the tumeric altogether, as the ginger is both aromatic and stimulating and a very healthful article, as well as pleasant to the taste, while the tumeric, as mentioned before, is only for its color.

Catsup, Tomato.—The editor of the *Journal of Commerce* says the following recipe for tomato catsup has been in use in his family for fifty years. Certainly it is old enough to be a good one. He says: Take 1 bushel of tomatoes, cut them in small pieces, boil until soft, then rub them through a wire sieve, add 2 qts. of the best cider vinegar, 1 pt. of salt, $\frac{1}{4}$ lb. of whole cloves, $\frac{1}{4}$ lb. of allspice, 1 table-spoonful of black pepper, 1 good-sized pod of red pepper (whole), and 5 heads of garlic. Mix together and boil until reduced to one-half the quantity. When cold strain through a colander and bottle, sealing the corks. It will keep 2 or 3 years, as fresh as when first made.

Remarks.—With the pod of red pepper in place of so much cayenne, as is generally put into catsups, it will be as strong as most people desire it; but if no red peppers are at hand, a small amount of cayenne, say $\frac{1}{2}$ a tea-spoonful, would equal it. More can be used by any one desiring it stronger, and even if 2 or 3 red peppers were put in it would not be too highly seasoned to suit my taste. Let each one suit himself. If I was making this for myself I should not use only half as much cloves as the editor does; but let each one suit his own taste. Cloves, however, as well as red pepper, or cayenne, are rather piquant (sharp and biting) to the taste.

Mushroom Catsup.—The editor, or some writer in the *London, Ont., Free Press*, in answer to an inquiry by "R," gave the following recipe for making mushroom catsup, and as it is quite a common thing with the English people, I will give it, believing it to be better than that made by our own people, who so seldom make it; and as it is called for in making the Worcestershire sauce, previously given, I give it a place. When properly made it is a nice thing, for I obtained some at one time of an English butcher, at Ann Arbor, while I was living there, which had been made by another Englishman living near (all English, you see), and it was splendid. This writer says: "Put alternate layers of mushrooms and salt in an earthen jar, using at least $\frac{1}{4}$ lb. of salt to 2 qts. of mushrooms, and in this proportion for any amount. Let them stand $\frac{1}{2}$ a day; then cut the mushrooms in small pieces and let them stand 3 days longer, stirring them well once a day; then strain them, and to every quart of juice add allspice and ginger, each ground, $\frac{1}{2}$ oz.; powdered mace, $\frac{1}{2}$ tea-spoonful; and cayenne, powdered, 1 tea-spoonful. Put all into a stone jar, set it in a kettle of boiling water, and let it boil for 5 hours, briskly; then let it simmer in a porcelain kettle for $\frac{3}{4}$ of an hour. Let it stand all night in a cool place; in the morning drain off the clear liquor and bottle it. Cork the bottles and seal tightly. The smaller bottles you use the better, as the catsup will not keep its distinctive flavor long, if exposed to the air, by opening frequently."

Currant Catsup, for Baked Beans.—"A. B. C.," in the *Massachusetts Ploughman*, gives the following plan for an excellent catsup from currants, which needs no comment of mine. He says: I send you a recipe for making currant catsup, as in my mind it cannot be beat, to any lover of baked beans, as a dressing. To 5 pts. of strained currants (the juice from 5 pts. I understand it to mean), add 3 lbs. of sugar (brown will do nicely); 1 pt. of vinegar; 1 table-spoonful, each, of cinnamon, pepper, cloves, and allspice, and $\frac{1}{2}$ table-spoonful of salt (I should not be afraid of a whole one). Scald them well $\frac{3}{4}$ of an hour, then put in bottles and cork tight; it will keep for years; and as farmers generally have a quantity of currants that go to waste, I would like them to try this, and I think they will never be sorry.

Remarks.—The author thinks so too, that no one will be sorry for trying it, although it would seem to me that $\frac{3}{4}$ of an hour only to scald, or more properly, to boil it, would hardly be sufficient, possibly it may, in all cases; but I would sooner risk it on 2 hours moderate boiling. I know it will be nice while it does not sour—the longer boiling will ensure this—still, if it will "keep for years," it is long enough. It will be as nice on other meats as on pork and beans, hence make plenty of it, if you have the currants that go to waste.

Grape Catsup.—Pick 5 pts. of catawba grapes from the stem (Concord or Delawares will do, but are not so tart); wash them and let drain; then simmer till they are so soft you can rub all but the seeds through a colander (I think grape seeds will go through an ordinary colander, a wire sieve would be better) with care. After this is done add 2 pts. of brown sugar, 1 pt. of vinegar; 2 tea-spoonfuls each of allspice and cloves, and 1 table-spoonful of cinnamon, $1\frac{1}{2}$ tea-spoonfuls of mace, 1 of salt, and $\frac{1}{3}$ a tea-spoonful of red pepper. Put all into a porcelain kettle, let them boil slowly until they are as thick as you like catsup to be. Bottle, cork and seal.—*London, Ont., Free Press.*

Remarks.—Keep these proportions for any amount desired to make, it will be found good.

Cucumber Catsup.—Cucumbers are said to make a nice relish for meat, in winter, treated as follows: Grate about 3 dozen medium sized green cucumbers and sprinkle pepper and salt to your taste (pretty strong I should say) over them; and allow a small sized white onion for each bottle. Heat enough cider vinegar to cover and pour over. Put up in large mouth bottles, and pour melted wax over the corks. If the air is kept from them, when you open a bottle in mid-winter, the odor will be delightful to the lover of the sometimes dangerous cucumber.

Remarks.—It seems to the author that if they were scalded in the vinegar, there would be a greater certainty of keeping nicely, although the cucumber flavor might be not quite so natural.

Fresh Cucumbers, How to Prepare for the Table.—Slice them into cold water having plenty of salt in it, for an hour before dinner. In this way there is but seldom any bad effects from their being used freely; and if you have not the hour for soaking, slice into a plate and sprinkle on plenty of

salt, then turn another plate over them and shake a few minutes, and drain off the salt water and serve as usual, with vinegar and pepper, and a little more salt if needed, which will also avoid the danger of colics, etc.

Catsup, When Out, How to Make a Supply.—When your catsup gets low, or is all gone, take some canned tomatoes and add vinegar and spices, as in the Chili sauce, and boil slowly about 30 minutes, and strain if you choose; it will go further without and be nicer too.

Remarks.—As we have just been giving a grape catsup, we will also give the plan of preserving grape juice by canning, as I cannot see why it may not be kept in this way sweet and nice for common service, as well as for mince pies, for which a writer says it is “better far than brandy or cider.” The writer says:

Grape Juice to Can for Common Service, etc.—Prepare the grapes as for jelly, let the juice be boiling hot, and can it in the same way you do fruit. It is excellent for mince pies, better far than brandy or cider.

Remarks.—It can be better only in that it is richer in body and flavor than cider made from a poor quality of apples. If I was going to boil it I should be careful to skim off all the scum that would arise, which would remove all pulp of the grapes, that would have a tendency, if left in the juice, to start a fermentation, although if kept air-tight and in a cool cellar I do not see how it can ferment. It will be purer and clearer, however, if the pulp is thus removed by skimming. Should it be too tart on opening for common purposes, a little sugar might be added to make it more palatable, and still it would be far more pure than much that is purchased for this purpose. Only 1 lb. of lump sugar to each gal. might be put in and dissolved by the heat to remove the scum, which would give it more spirit and also help to preserve it, bottling or canning, remember, while hot.

Canned or Bottled Wild Grape Juice.—Pick off all bad ones and scald stems and all with a very little water to start the juice, press out and strain, boil and skim, and can or bottle while hot. Makes a nice drink for the sick or well. One lb. of sugar to 1 gal. of the juice will make a nice wine, in kegs or barrels.

JELLIES—Jelly Bag, Jams and Preserves, How to Make.—

General Remarks.—Jellies have, of late years, become very popular, and are much more frequently used than formerly, and, therefore, the housewife who gets hers up the nicest, *i. e.*, the clearest or most transparent, and having the purest flavor of the fruit of which it is made, carries off the premium of the neighborhood in which she lives. We will do our best, so that all may have them equally nice. In the first place, only the choicest, ripe fruit should be used, if plentiful; if not, use such as you have, but cut out bad spots, and do not pare nor core any of the large fruits, as apples, pears, etc., as much of the flavor is contained in these parts; but they should be washed and quartered, or even cut finer if very large, making all pieces as nearly the same size as practicable; then cook perfectly tender and strain through the jelly bag, press

ing as little as possible to get all the juices and not to press the pulp through any more than you can help, nor should any more water be put in in the cooking than is absolutely necessary to prevent burning till the juices start by the heat, never more than to barely cover the fruit.

The Jelly Bag is usually made of flannel, 10 or 12 inches across the mouth, and tapering to a point, the whole being 18 or 20 inches long, unless large amounts are to be made, in which case make as large as needed; and if only very small amounts are to be made, straining through a piece of flannel will do. If a bag is made there should be a stout cord around the top to suspend it with, over a pole or some other convenience, to drain thoroughly before any pressure is applied; then, if you choose, for clearness' sake, remove this and set another dish, using the first drained off for your choicest friends. Press out then through the bag all you like, which will be more of a jam than a jelly. Jams and marmalades are much the same, thick and containing all the pulp, or substance of the fruit.

Jams and Marmalades contain the *puree* (which see for further explanation of), pulp, or substance of the fruit; while jellies contain only the juices, with 1 lb. of nice white sugar to every 1 pt. of the juice—jams, about $\frac{3}{4}$ lb. will do; while preserves contain the whole fruit, and a pound of sugar to a pound of fruit, but brown sugar may be used with the two last, as it is cheaper and they are not transparent to show the difference. Jams and marmalades (for marmalades, see Quince Marmalade,) need boiling or cooking until they are of a proper consistence, like apple butter, or nearly so; while jellies only need sufficient heat at first to raise the scum, which should be removed as it rises, after which to simply boil for a moment, or a few minutes—5 to 20, perhaps,—according to the stiffness desired; longer boiling, of course, with apples or other fruits which are most watery. Pour into jelly glasses, if you have them, which have covers, otherwise cutting white paper to fit the top of the dish used, dipping it in alcohol (some use brandy, but alcohol is purer), and laying on top of the jelly to prevent moulding; then a paper or cloth, wet in the white of an egg, over the top of the tumbler or other dish, to secure it to the top and from the air, will make all as safe as a rubber and screw-top can will do.

To Preserve Peaches, Very Nice.—Pare them, and in quartering remove from the stone. Weigh the fruit thus prepared and allow 1 lb. of sugar (white or brown, as you choose,) for each pound of peaches. Put some sugar in the bottom of the kettle, then peaches, and so on till all are in, having a little sugar left for the top. Set the kettle on the back of the stove to heat gently till the sugar is dissolved; then boil until clear and tender, being careful to break the pieces as little as possible. Take off any scum that rises, and when the fruit is clear, *i. e.*, looks transparent, skim it out and put into your jars to fill them about three-fourths full. Continue to boil the syrup until thick enough, skimming when needed; then fill the jars with the syrup while hot; and it is not amiss, even with preserves or jams, to cover the jar with paper soaked in alcohol before covering with cloths—or coarse paper. If they begin to “work,” *i. e.*, to ferment, at any time, they were not boiled enough at first, and **must now be done again.** Some people think it gives a better flavor to take

the meats from perhaps one fourth, or more, of the stones, cutting them in bits and steeping in as little water as covers them to get their flavor, and putting it in the syrup while cooking. If I did this I should subject the parings to the same process; and this should be done with pears and quinces, putting in the cores also of them, to ensure their highest flavor. This extra water, of course, will be evaporated in cooking the syrup. Treat berries and other fruits in the same manner; but, if you are not particular, continue the cooking without skimming out the fruit, it is more likely, however, to mash it up and make the preserves look mussy and more like jams or marmalades than preserves. Each one can suit herself.

In making jellies, jams or preserves from any kind of berries, currants, grapes, etc., do not do it in a way to mash the seeds, which would injure their otherwise very fine flavor. All fruit should be ripe to make good jellies. As these refer to making jelly with apples, pears, berries of all kinds, grapes, etc., I need not give special kinds, except those made or flavored with other articles, as chocolate, coffee, rice, farina, lemons, etc. Still, I will give two apple jellies from other writers, to show that the instructions above given are borne out or corroborated by others, and to show the old way of using lemons in making apple jelly, which almost, if not wholly, destroyed the fine apple flavor. The first is from a writer in the *People's Ledger*, the second I do not know from whence it came, but both plans are good for their respective ways of making them:

Apple Jelly.—Cut your apples in quarters (do not pare or core them), dip each quarter into clear water, and put them into a jar to cook in the oven until quite tender; then strain the juice as usual, and boil with 1 lb. of sugar to 1 pt. of the juice. The most delicious jelly will be the result, with the full, pure flavor of the apple heightened by the cores having been left in, and not spoiled by the objectionable addition of lemon peel and lemon juice.

Old-Fashioned Apple Jelly.—Take 20 large, juicy apples, pare and chop; put into a jar with the rind (yellow part) of 4 large lemons, pared thin in bits; cover the jar closely, and set in a pot of boiling water; keep water boiling hard all around it until the apples are dissolved; strain through a jelly bag, and mix with the liquid the juice of the four lemons; to 1 pt. of juice, 1 lb. of sugar; put in a kettle, and when the sugar is melted set it on the fire, and boil and skim about 20 minutes, or until it is a thick, fine jelly.

Remarks.—Here you see the apples were pared, and one-fifth as many lemons used as apples, which would make one think of lemons only, when eating it; but if lemon flavor is preferred, it will do very well to make it in this way. Suit yourselves, now you know both ways. Or you may like the next one better.

Lemon and Apple Jelly.—Sugar, $2\frac{1}{2}$ cups; apples, 2 large tart ones; lemons, 2 good sized ones; pare the lemons with a sharp knife to get just the thin yellow, and then peel off the white part, which is bitter, and throw away; pare the apples, then grate them and the lemons; put all into a stew pan and cook a few minutes, then strain or not, as you like.

If not strained it will be a kind of marmalade, or jam; but, if to be strained, the apples need not be pared nor cored, but chopped (the spots and specks having been removed), in which case the inside of the lemons may be chopped also, the yellow peeling being put in for chopping too. Either way it is nice; but if not strained it would be for present eating rather than long keeping, unless an equal weight of sugar was used.

Apple Cider Jelly.—Boil nice sweet cider until it becomes a firm jelly, when cold. This, says a writer, is done in a large way, in the ordinary sugar evaporators in which maple sap, or sorghum juice, is boiled; but it may be done in ordinary preserving kettles, if copper or brass. Enameled iron pots may be used, but no plain iron ones, as these give a dark color to the jelly.

Remarks.—I should think, that unless sugar was used, nearly, at least, in the proportions given for jellies, generally, they would be too sour, or tart, to please most tastes. I see one Mary, of Napa, Cal., has the knack of making the most jelly I ever heard of, or could imagine, with only 1 pint of cider. Hear her: To 1 pt. of clear, sweet cider, allow 1 pt. of cold water; 2 lbs. of sugar; 1 package of gelatine, 1 large pt. of boiling water. Soak the gelatine until it is entirely dissolved in cold water; then add to this the sugar, a spoonful of cinnamon, the juice of 2 lemons, the grated rind of 2, then the gelatine. Add the cider last; then put all in a thick flannel bag, and let it drain. Do not squeeze it at all. Put it in bowls or glasses, and set it away to cool.

Remarks.—This is no doubt the place where the saying started, “as big as a pint of cider.” It will make more jelly, notwithstanding the additions over-top the foundation, or starting point, and the taste of cider will be lost, that is all.

Chocolate Jelly.—Grate 4 table-spoonfuls, heaping, of chocolate, and put into $\frac{1}{2}$ pt. of cold, sweet milk, with $\frac{3}{4}$ of a lb. of white sugar. Soak a small package of Cox's or other nice gelatine in cold water enough, only, to cover it, and when softened put it into 1 pt. more of milk and dissolve by heat; and when it boils, pour the milk containing the chocolate and sugar into it, stirring briskly; and when it boils again pour into a mold, or cups, and set it in a cold place. Serve with sweetened cream.

Remarks.—Although called, and it will be, a jelly, yet, it is much like a blanc mange. Very nice for those who love the flavor of chocolate.

Coffee Jelly.—Mrs. W., of Eau Claire, Wis., sends the following way of making coffee jelly to the *Blade*, of Toledo. She says: Soak $\frac{1}{2}$ a box of Cox's gelatine $\frac{1}{2}$ an hour, in $\frac{1}{2}$ a teacup of cold water—as little water as possible—1 qt. of strong coffee, made as if for the table, and sweetened to taste (it will take considerable sugar); add the dissolved gelatine to the hot coffee, stir well, strain in a mold rinsed with cold water just before straining in; set on ice or in a cool place. Serve with whipped cream. This jelly is very pretty formed in a circular mold, with a tube in the center; when turned out fill the space in the center with whipped cream, heaped up a little.

Remarks.—The only objection I can find with this lady, none with the recipe, is that there may be other “Mrs. W.'s” there, so her identity is lost.

I have a sister living there now, a Mrs. Wanzer, but I am pretty sure she is not the one.

Farina Jelly.—Boil 1 qt. of new milk; whilst boiling, sprinkle in, slowly, $\frac{1}{4}$ lb. of farina (kept by grocers); continue the boiling from $\frac{1}{2}$ to a whole hour. Season with 5 ozs. of sugar and 1 tea-spoonful of vanilla. When done (this will be known by its jelling when cooled), turn into a mold and place it on ice to stiffen. Serve it with whipped cream.—*Harper's Bazar*.

Quince Jelly.—Wash and wipe, then pare and slice them (as the quince is hard and tough, and also being a dry fruit), put into a stone jar, 1 cup of water to every 4 lbs., with the peeling and cores, by which you get the pure flavor; put the jar into a pan or kettle of boiling water and boil until perfectly soft, the jar being covered; then strain through the jelly bag and use a lb. of sugar for 1 pint of juice, as with other jellies, but do not spoil its purity of flavor by adding any other flavoring. [See, also, "Quince Marmalade," following the jellies.]

Claret Wine Jelly.—Gelatin, 1 oz., soaked in cold water, $\frac{1}{2}$ pt., till soft; then boil until dissolved and add a tumblerful of currant jelly, $\frac{3}{4}$ lb. of white sugar and 1 bottle of claret wine, stirring over the fire until the sugar is dissolved; then beat the whites of 3 eggs and stir in briskly for 2 or 3 minutes, removing from the fire and still stirring 2 or 3 minutes longer, then strain through the jelly bag. If nicely done, it will be clear and of a fine red color.

Port Wine Jelly, for the Sick.—Gelatin, $\frac{1}{2}$ oz., soaked and dissolved in 1 gill of water, as in the claret above; add a tea-spoonful of thick gum arabic water, a little grated nutmeg and a table-spoonful of granulated sugar, stirring well together in a stew-pan, adding now good port wine, $\frac{1}{2}$ pt., heating to a boiling point, seeing that the sugar is dissolved, then pour into tumblers. Makes a fine jelly for the sick, to eat as a "jell" or to dissolve in a little cold water as a drink. Very nice when wine is admissible, which it generally is.

Grape Jelly.—As a more particular guide in making jelly from any of the berries, currants, etc., and to also corroborate my previous instructions, I will give the plan of a writer in the *Detroit Post and Tribune* for making from grapes. She says: "Pick the grapes from the stems (the same should be done with currants) and simmer them till soft in just enough water to cover them, pour into a jelly bag and strain. Measure the clear liquor in pts. and pour back into the kettle (a bell-metal one is best, scoured perfectly bright) and boil gently 20 minutes, skimming constantly. Then add for every pt. as measured 1 lb. of white sugar and boil until it is hard enough when cold. Heat the glasses and pour into them while hot. Cover with egg paper."

Remarks.—I would first put alcohol paper, pressed down along on the top of the jelly, as in our general remarks, to prevent a possibility of mold on the top. Treat strawberries and all other small fruits in the same manner. Raspberries are often mixed with half as many currants, when plentiful, to increase the amount of jelly, otherwise made in the same way. I have never seen any cherry jelly, but I should think it would be nice. It might need a little longer

boiling, as their juices are very watery; but the flavor and color would be "tip-top."

Grape Jam, Marmalade, etc., Remove the Seeds for.—To get rid of the seeds of grapes, with thumb and fingers press out the pulp containing the seeds and throw the skins by themselves. Put the pulps in the kettle with very little water and boil till the seeds will separate easily; then run through a sieve, which retains the seeds; then put pulp and the skins together (the skins may be boiled in a little water till quite tender before mixing); then add the sugar, $\frac{3}{4}$ to 1 lb., as you choose, to each lb. of grapes and cook as fruits till thick enough to suit. Very nice for pies or as a sauce, and if cooked down rather thick makes an excellent marmalade.

Tomato Jelly as a Meat Sauce.—Wash them carefully, if of the rough kind, cut them in pieces and stew them in only sufficient water to prevent burning, strain through the jelly bag, sugar pound for pint, as for other jellies, except boil briskly until it jells, depending upon their being very juicy or not.

Rice Jelly, or Blanc Mange.—Boil 1 cup of rice in water, 1 qt., (in the rice kettle is the best way). When perfectly tender, rub through a hair or wire sieve, or mash very smoothly, while as hot as you can work it; sweeten to taste, and flavor with vanilla or nutmeg, and put into a mold or cups to cool. Serve with cream and sugar.

True Rice Jelly.—Rice flour and white sugar, each, 1 lb.; boil in water, 1 qt., until the whole becomes glutinous; then strain or drain through the jelly bag, and put into cups, mold, or glasses, as you choose. Very light food, either of these, but also very nutritious.

Lemon Jelly for Jelly Cake.—Take 6 large lemons, grate the yellow rind and squeeze out the juice. Mix with them thoroughly, 2 lbs. of sugar. Take 12 eggs, retain the whites of 4, and beat the others thoroughly; then put all together into a saucepan, which place in a pan of boiling water, and boil 15 minutes, stirring constantly. This is very nice to lay up jelly cakes with. The whites retained come in for frosting the cakes, using powdered sugar to make pretty thick if you wish it hard. The less sugar the softer the frosting. At least 1 table-spoonful of sugar to the white of each egg.

Quince Marmalade or Jam.—Pare, core, slice, and weigh the fruit, stewing the skins and cores in a dish by themselves, with water enough to just cover. When the parings are tender, turn into a cloth bag, and squeeze out every drop of juice; put the quinces into the kettle, pour over the juice, cover, and let cook slowly, stirring and mashing with a wooden spoon (or potato masher, if very tough,) until the pieces have become a smooth paste. Now add $\frac{3}{4}$ lb. of white sugar to each pound of the fruit, boil 10 minutes longer, stirring constantly. Remove from the fire, turn into jelly jars and tie down.—*Rural New Yorker.*

Remarks.—If this was carefully cooked longer, or until quite thick like apple butter, as remarked above, there would be less requirement for absolutely excluding the air.

Quinces, A Few When Canning Apples.—When quinces are scarce I have known a lady with whom I have boarded to put a few with her apples in canning, which, for my taste, at least, made both better. Cooking together, of course, till tender, using sugar to suit the tartness of the apples.

CANNING FRUITS, CORN, ETC.—How to Avoid Breaking the Cans—General Remarks and Directions.—It is a conceded fact that if fruit is properly put up in air-tight cans and kept in a dry, cool place, it is safe from fermentation; much difficulty, however, has been experienced by breaking cans when putting in the hot fruit. This difficulty has been entirely overcome by a cousin of mine, Mrs. Joseph Sanders, living near Bear Lake, Manistee county, Michigan, by wringing a large towel out of cold water, rinsing or wetting the can with cold water also, then wrapping the can with the cold, wet towel, being also careful to have the can sit on the towel, and every part covered with two or three thicknesses, and immediately filling with the hot fruit. I have seen her doing it; and a recent letter from a daughter of hers assures me that her mother “has put up her fruit in this way for ten years without breaking a can.” Have no fears in adopting it. After the fruit is canned, and stood an hour or two to cool, re-tighten the tops, as the cooling sometimes leaves them loose enough to admit air; then it is well to turn the cans bottom up over night or long enough to see they do not leak, for, if the juice leaks out, air would leak in and spoil it. It is not necessary to put in sugar when canning, unless you choose to do so. Use enough to make it palatable for the table when used. One-fourth to $\frac{1}{2}$ lb. of sugar to 1 lb. of fruit, according to its sourness, will be found plenty to suit most tastes. For apples, pears, etc., which are not juicy, a syrup made with 1 lb. sugar to 1 qt. of water does well to heat them in and to fill the crevices among the fruit. Observe well these points and no trouble will arise. Rhubarb, it will be observed below, can be put up in jugs; tomatoes I have known to be put up in jugs and keep well; so may other things, also, no doubt, when cans can not be obtained in quantities sufficient. Small cans for small families, however, are best, as the fruits do not keep long after being opened. If a dark room is prepared in the cellar for canned fruit, strawberries and some others will not lose so much of their bright colors as they do in a room where the light is not shut out. With these general directions I need give but few recipes for samples of those out of the general lines of fruit.

Canning Strawberries.—A lady says she uses $\frac{1}{2}$ lb. of sugar to 1 lb. of the fruit sprinkling it on over night, then brings to a boil in the morning,—in porcelain or brass,—and keeping it in a dark, cool place, as the light discolors them, although it does not hurt the flavor.

Remarks.—This corroborates the author in points that she refers to.

Canning Grapes.—Take fully ripe and sound grapes (Concords and Isabellas are very nice for this purpose), pick from the stems and pulp them, by pressing slightly with thumb and finger upon each one. Put the skins in a separate dish; then heat the pulp and press through a coarse cloth, or sieve, to remove the seeds; then put juice and skins together in your kettle, and when they come to a boil they are ready for the cans (see Mrs. Sanders' plan in the general remarks and directions above, to avoid breaking cans), and secure well

from the air; it matters not whether glass cans, or jugs, if properly corked and sealed with wax.

Remarks.—Familiarize yourselves with the directions to know they will not leak the fluid out, nor the air in, before putting away, as above given. Cherries, I cannot see why, if done in the same manner, get rid of the stones, will not be nice for sauce or pies, as well as grapes, the stones, or seeds, are a nuisance, in either case. Currants, berries, or other ordinary fruits need no special instructions; except it may be proper to say that some persons, in canning peaches, boil the stones in a small amount of water to extract the flavor, then heat the peaches in this water, sprinkling in the proper amount of sugar to fit them for the table; and also put a piece of white paper dipped in brandy (alcohol is good, and cheaper) over the top before screwing on the cover.

Canning Rhubarb Plant, Tomatoes, etc.—"Pansy," in writing to one of the papers upon this subject, says: Last summer I removed the skin from a quantity of rhubarb, put it over the fire with a very little water, watching it closely to prevent it burning, boiled it 10 minutes, stirring occasionally, and filled and sealed one-gallon jugs, carefully corking them; used common sealing wax; and it is as nice now as the rhubarb we get from the garden in the summer. Grapes are just as nice this way as they are in glass jars. I put away 44 qts. of tomatoes and rhubarb in this way, and never lost 1 pint. I use glass jars, too, for preserves, peaches (canned), and sweet pickles; but I decidedly prefer jugs, for it is no trouble, and everything keeps so well in them.

Remarks.—Rhubarb makes as nice a sauce, stewed, and sweetened to taste, as it does pies; and to be able to have it in winter, put up thus cheaply, will add to the variety of side dishes, and life's comforts generally.

Canning Rhubarb in Cold Water, Without Cooking.—"S. D.," of Vernon, Mich., directs through one of the papers as follows: Cut the plant, when fully matured, and wash it; put a cup of cold water in the can, fill with the pieces, pressing it full, then fill to running over with cold water. Seal as usual, and set in a cool cellar. When wanted pour the water into the vinegar barrel. Make the pies as usual, except not quite as much sugar is needed as for the fresh plant. I have tested this and know it to be good.

Remarks.—I cannot see why this is not a good and reliable way, although it has been deemed necessary to heat everything before canning. This may not be absolutely necessary. The water excludes the air from the crevices, and keeping in a cool place prevents fermentation. Let those who have it plenty try a few cans before going into it heavily. So with everything upon which there is a possible doubt, is the way that our valuable things are found out.

Canning Sweet Corn.—It has been generally considered a very difficult thing to can corn, so it would keep well; but a writer at Walled Lake, Mich., to one of the Detroit papers, thinks she has overcome this difficulty, for she says: If these directions are strictly followed, you can enjoy the same pleasure that we have for years, of eating sweet green corn in winter. It will need only to warm when you use it out of the can. **DIRECTIONS**—Cut the raw corn off the cob and fill your cans (after thoroughly scalding them) with the corn,

take a spoon and press very hard so as to fill the can full, put on the cover loosely. Put the cans into your wash boiler after putting something under them to prevent them from breaking. I use the grate from the bottom of the oven. Fill in cold water up to the bulge of the can, put on the boiler cover and boil 4 hours, take off the stove and let stand until cool enough to handle, fasten the covers tight and set in a cool place in the cellar. I usually get mine ready in the forenoon and boil after dinner.

Remarks.—There is not a doubt but what if this plan is followed, strictly, being sure that the cans are entirely full, when the cover is screwed down, but what it will keep nicely. Tin cans are used by those who put it up for sale, in large quantities, pressing full, then soldering on the top, boiling for the 4 hours, then piercing a hole to let out the air, and soldering up the hole, at once, which makes all secure. If this long boiling is too much trouble, you must take the old way of packing with salt, as next given.

Canning or Putting Up Green Corn With Salt.—Take the corn when just right for the table, which should be the case above as well as in this, and scald it in the ear, as done for drying in the old way; then cut from the cob when cold. Place a layer of salt $\frac{1}{2}$ an inch thick on the bottom of the deep (not the flaring) kind of earthen jar or crock; then a layer of the corn about 2 inches thick, pressing tightly with a potato masher or square-ended stick; next salt again, as at first, or a little thicker, say $\frac{3}{4}$ of an inch, as you go up; and so alternate till the jar is within an inch of the top, then fill with salt and tie a cloth over all. Set in a cool, dry cellar for winter use. To use, take out as many layers as needed, free from salt as possible, and wash off all the salt sticking to it; then soak in the evening and pour off at bed-time, and renew with fresh water and soak over night; then pour off again, which will generally be sufficient to remove the excess of salt, as the corn will not take up as much salt as supposed. Now taste a kernel, and if freshened enough, stew it for dinner, if not, soak again. Adding a small amount of sugar when cooking is considered an improvement; some do this, even when cooking new corn in summer.

Remarks.—A writer says: “I have used the above recipe for three years, and find it to be most excellent, the corn coming out of the jar as good as when first put down. * * * It is such a good thing that every body should know it, and any one who tries it will not regret the experiment.” If the canning is too much trouble, or if the canned runs out before the winter is gone, you must take one of the following plans of “Hulling,” which is a great favorite with the author, otherwise fill the place with hominy.

Hulled Corn, Improved Plans of Making.—The old way was to make a weak lye from hard wood ashes to remove the hulls, but a writer in the *American Agriculturist* gives her plan as follows. She says: “Soak over night by pouring over what you wish to make, hot water. In the morning put it into an iron kettle with warm water enough to just cover it; and for each quart of corn put in baking soda 1 table-spoonful, and boil till the hulls come off readily; then wash in clear water rubbing off the hulls with the hands, soaking and washing to remove the alkaline taste thoroughly; then boil until very ten-

ner, salting towards the last to taste. Turn into a sieve and drain thoroughly. Eat hot or cold in milk."

Remarks.—I cannot see the object of drawing off the water in which it was boiled. My mother and my wife always designed to have the water pretty well cooked away when done, then lift it together as much of the nourishment would be drained off. (I see, also, that the following writer does not drain.) It is very nice warmed up after frying meat, to eat with the same, for breakfast or any other meal, as well as with milk as the above writer only suggests. The author has often wondered why people did not use more of it, and could only account for it from the objection of the women to work it from the lye with the hands to remove the hulls. This difficulty has been overcome in the following recipe by using a clean broom for that purpose, which can be done as well with the soda above as with the ashes in the next. So, now, I trust, all lovers of hulled corn may have it in abundance, as it is a very healthful dish, as well as a very cheap one, and relished by most persons if nicely done, *i. e.*, if it is freed from its alkalinity and cooked until it is perfectly soft.

Hulled Corn, or Making Hominy Without Putting the Hands Into the Lye.—Making hominy, or hulling corn, is not a big job nor one that we dread as we did "once upon a time," before we had learned this better way. This is how we make it: Take the corn of 1 doz. ears, put it in a kettle with a good bit more cold water than is required to cover it, and down in the center put a stout muslin sack long enough to contain 1 qt. of good ashes. Let it boil till all the strength is out of the ashes, then remove them and give the corn more room. Have the tea-kettle on the stove with plenty of boiling water in to pour into the pot as the other boils off. Do not boil hard, but steadily. When the outside begins to come off the grains they are done enough. Now remove from the fire, drain off and empty the corn into a tub of cold water. Instead of rinsing with the hands, as our blessed grandmothers did, take a clean broom and swash and sweep the corn about in the tub "like forty," drain off; add 2 or 3 pailfuls of clean, cold water, and go over the cleansing process about 3 or 4 times; then drain off and stand the tub of corn where it may have a chance to freeze all night. This is as good for it as boiling. In the morning take a part, or all of it, and put it on to boil in cold water, and cook slowly until done. Never stir hominy; if you begin it you must keep it up, or it will burn fast to the bottom of the pot. Put a little salt in it. Have boiling water on the stove ready to replenish. Instead of stirring, lift the kettle by the bail and give it an occasional twirl, this way and that, to keep it from settling to the bottom. Let it boil until the grains are swollen and burst and lie up loosely. Leave in the liquor when you take it off the fire, and cover it up until it is cold. Cook in meat fryings, with a little of the water in which it was boiled.—*Bonnie Doon, "Doon's Hollow," in Michigan Farmer.*

Remarks.—Although the name and place are fictitious, the plan is good and will prove satisfactory, else my name is not Dr. Chase. The freezing is not absolutely necessary; still in freezing weather it is a help. I should be glad to know, however, that every family would make it earlier, and later, too, than during the freezing months.

Hulled Corn, or Hominy, Croquettes.—To each cup of cold, soft-soiled hominy, or hulled corn, necessary for the family put 1 tea-spoonful of melted butter or drippings, mashing and stirring it well together, then stirring in a cup of milk, or sufficient to make a paste. Now beat an egg with 1 tea-spoonful of sugar to each cup of corn used, mix in and, with floured hands, roll into balls (croquettes) and fry in butter, or after the meat is fried, in the gravy. If made pretty dry, they may be dipped in beaten eggs, then in cracker crumbs and fried in hot lard, as you would doughnuts for tea; and in this case a little finely-chopped ham, veal or chicken mixed in will give them an additional relish. No comments, but simply a trial, is all that is needed.

Hulled Corn, Hominy, or "Grits," to Bake.—Milk (always sweet and nice, unless sour is called for), 1 qt.; hominy, hulled corn, "grits" (as kept by grocers), cooked tender and allowed to get cold, 1 cup; 3 eggs and a little salt; sugar, 2 table-spoonfuls. **DIRECTIONS**—Bring the milk to a boil and stir in salt and grits, or mashed hominy, or hulled corn, mashed, as the case may be. If uncooked grits are used, continue to boil slowly about 20 minutes, slowly, then remove from the fire, and when cool stir in the beaten eggs and sugar, and bake in a moderate oven, 30 to 40 minutes. The top may be glazed or meringued, with the beaten whites of a couple of eggs and a couple table-spoonfuls of powdered sugar, or not, as you choose. Serve with any pudding sauce, or simple sugar and milk, as you like best.

Remarks.—It will be seen by the foregoing recipes that hulled corn, hominy or grits can be got up in different ways, adding to the varieties of the table, which all good housekeepers like to do. Certainly the cheapness of hulled corn, which, when cooked and mashed, is as nice as the hominy, or grits, for these dishes can be no objection to the rich, while it may be a convenience to the laboring classes to use the hulled corn instead of the others, which are more expensive.

Mush, Rye and Indian, to Make.—Take rather coarse Indian meal, 2 parts; rye meal or flour, 1 part; stir in Indian first, and cook 15 or 20 minutes; then the rye, mixing thoroughly; then cook slowly for an hour, with the cover upon the kettle. Very nice and healthful with milk, or to fry, as next given.

Mush, to Fry.—Beat an egg thoroughly, and roll a few crackers finely; then slice the mush and dip in the egg, then into the cracker crumbs, and fry in drippings, or after frying meat, or if wanted extra nice, in hot lard as you would doughnuts.

Polenta, or Italian¹ Mush, How to Make and Use.—A writer says: Boil 1 lb. of yellow Indian meal ("a pint is a pound the world around") for $\frac{1}{2}$ hour, in 2 qts. of pot liquor (water in which meat has been boiled); or boiling water, salted to taste, with 1 oz. of fat in it, stirring occasionally, to prevent burning; then bake $\frac{1}{2}$ an hour in a greased baking dish, and serve it not; or when cold slice it and fry in smoking hot fat. This favorite Italian dish, she adds, is closely allied to the New England hasty pudding, and to the **mush of the south.**

Remarks.—The difference is in simply leaving the “fat” out of the salted water, using plain water instead of pot liquor. The French make the polenta by boiling the flour of chestnuts, or finely powdered chestnuts, in milk. I think this would be nice occasionally, the Italian frequently.

Baked Squash.—Boil and mash a medium sized squash in the usual way, and, when nearly cold, stir in the beaten yolks of 2 eggs; 3 or 4 table-spoonfuls of milk; 1 of butter rubbed in 1 of flour and melted in the milk; pepper and salt to taste as usual, and put into a buttered bake pan and set in a moderate oven until lightly browned; then having beaten the whites, and mixed into them the crumbs of 4 or 5 rolled crackers with a pinch of salt and a tea-spoonful of sugar, if you like, put it over the top and brown again, a few minutes; serve hot.

Remarks.—If summer squash is used, be careful to press out all the water you can, as they are much more watery than the winter varieties.

Fried Squash.—Pare the squash and cut into rather thin slices (crook necks are nice for this purpose, other rich winter varieties will do); make a thin batter of flour and water, seasoned highly with pepper and salt; dip the squash into it and fry with hot butter, or drippings, to a nice brown, each side. This may be done in a hot oven, turning in either case.

Remarks.—If nicely done, it is very nice, and makes a good substitute for sweet potatoes.

Bread Balls, or Croquettes.—Crumble stale bread or bread crusts rather finely and moisten well with warm milk or warm water. If too moist press out with the hand, season with salt and pepper, adding powdered sage or summer savory, parsley or any other sweet herb, as you prefer or have on hand, or a variety of them, as hinted in “Seasoning Fare” below, with a little softened butter and a beaten egg or two, according to quantity, to hold it in balls; make with floured hands. To be fried after meat or put into the dripping-pan in roasting beef, turkey, chicken, etc.

Remarks.—I think those who try them will say: “Most noble Festus (author), thou art not mad, but speak the words of truth and soberness,” in giving so nice a way to use up stale bread or crusts. These balls will be very nice with the roast turkey and roast pig for Thanksgiving dinner (as below), as well as for common use.

Thanksgiving Dinner, with Suitable Recipes, Bill of Fare, How to Set the Table, etc.—And now I don't think I can do better than to close the department of dishes for the table than in giving a bill of fare, with suitable recipes for a Thanksgiving dinner, which was sent to the *Detroit Post and Tribune* with the writer's plan for setting the table, etc., which will certainly be found of great assistance to new beginners and very handy to refer to by every one upon such occasions, or when quite a number of visitors are to be dined upon any occasion. If the writer's name was given I have it not at this writing; but knowing the directions to be reliable, I will let her speak for herself. She says:

Thanksgiving is almost here, and how shall we celebrate the day? I for one believe in the old-fashioned Thanksgiving dinner. The following bill of fare may be of use to some of your readers:

Oyster Soup.	Celery, Pepper Sauce.		
	Roast Turkey, with Currant Jelly.		
Baked Potatoes.	Mashed Turnips.		
Roast Pig.	Carrots with Cream.	Baked Beans.	Chopped Cabbage.
	Pumpkin Pie		Plum Pudding.
	Apples.	Nuts.	Cheese.
	Tea and Coffee.		

For the table I prefer a white cloth with fancy border, and napkins to match. A dash of color livens up the table so, in the bleak November, when flowers cannot be had in profusion. Casters in the center, of course, flanked by tall celery glasses. At each end, glass fruit dishes filled with apples and nuts. A bottle of pepper sauce near the casters, and a mold of jelly by the platter of turkey, and small side dishes of chopped cabbage garnished with rings of cold boiled eggs. The purple cabbage makes the handsomest-looking dishes. Serve the soup from tureens into soup dishes, handing around to the guests. After this comes the *pièce de resistance*, "Thanksgiving turkey." A piece of dark meat with a spoonful of gravy, and one of white with a bit of jelly and a baked potato (I should prefer a spoonful of mashed) should be served on each plate, leaving the other vegetables to be passed afterward with the roast pig. After this the salad, and then the plates should be taken away and the dessert served. Then come the apples and nuts, the tea and coffee, well seasoned with grandpa's old-time stories, grandma's quaint sayings and kind words and merry repartees from all.

Below I give some recipes for these old-fashioned dishes, hoping they may be of use to some young housekeeper, preparing, perhaps, her first Thanksgiving dinner:

Oyster Soup.—Pour the liquor from 1 qt. of oysters, set over the fire with 1 pt. of boiling water; skim when it boils up, and add 1 qt. of sweet milk; when it again boils up, stir in 2 tea-spoonfuls of butter rubbed in 1 of flour; then add the oysters, and salt and pepper to your taste; let it boil only a minute or two, and serve in a hot tureen. See, also, that the soup dishes are well warmed before sending to table.

Roast Turkey.—Make a stuffing of moistened bread-crumbs, rubbed smooth, with salt, pepper and powdered sage. Fill the breast and body, and sew it up with a needle and coarse thread. Put in the oven in a pan with a little water, basting it often. A turkey weighing 12 lbs, should roast at least 3 hours. Having washed the heart, liver and gizzard, boil them an hour or so in a saucepan; to make the gravy chop the giblets fine; put them back in the water in which they were boiled; add flour, rubbed smooth, in a little water; boil a minute or two, and serve in a gravy boat.

Roast Pig.—Sprinkle inside with fine salt an hour before it is put into the oven; cut off the feet at the first joint; fill it very full of stuffing, with plenty of sage in it; tie the legs; rub it all over with butter to keep it from blistering; baste very often while roasting. It will require about 2½ hours to roast. Make gravy as for other roasts.

Carrots with Cream.—Boil very tender with plenty of water; when done slice into a saucepan with a gill of cream; let them boil up once; salt and pepper to taste, and serve in hot nappies (side dishes).

Boston Baked Beans.—Take 1 qt. of white beans, wash and soak over night in 2 or 3 qts. of water; in the morning pick them over and boil until they begin to crack open; put them in a brown pan; pour over them enough of the water in which they have been boiled to nearly cover them. Cut the rind of a pound of salt pork into narrow strips; lay the pork upon the top of the beans and press down nearly even with them; bake some 4 or 5 hours.

Pumpkin Pie.—Stew a kettle full of pumpkin and press it through a colander. For a quart of the stewed pumpkin use about a pint or a little more of sweet milk, 2 cups of sugar, 3 eggs and a tea-spoonful of ginger; bake in a crust in a deep pie plate.

Remarks.—The plum pudding will be found in another part of the book; also salads, sauces or any other thing that may be desired upon Thanksgiving, or most other important occasions. “Always room for one more” in an omnibus or street car, so I give one on

Seasoning Food, Sweet Herbs for—How to Raise, When to Cut and Dry, and How to Preserve their Flavor, etc.—It is a mistaken idea that nicely flavored dishes are expensive. If purchased the herbs cost but a trifle per oz., and if raised at home it costs only a trifle to buy the seeds for them. The principal kinds used are sage, summer savory, thyme, parsley, sweet basil and sweet marjoram, tarragon, mint, mace, cloves, celery seed and onions. The mints grow readily along small streams and the others may be raised in boxes, even in the window or garden, wherever the sun will shine upon them. Sage need not be gathered till the last of September or first of October; summer savory, thyme and marjoram in July and August; basil in August and September; tarragon and parsley in June or July, or just before flowering; mints for winter use, when fully matured, in June and July. All should be gathered on a dry, sunny day and dried in the shade, and best if carefully dried in an open, moderate oven, or else hung up close by a stove to dry quickly. And when very dry is the time to powder and sift them, and then to bottle and cork tightly or keep in air-tight cans, which saves their flavor perfectly.

Remarks.—The reason why French dishes are superior to other cooking is that they are seasoned with a variety of herbs or spices, or both; and the flavor, although indistinct (*i. e.*, no one thing overbalancing another) from the variety used in a single dish; yet they are remarkably fine in themselves. Do the same if you wish an equally nice dish. [See, also, “Value of Sweet Herbs for Stews.” Vinegars, pickles and some of the more common dishes for the table will be found in the Miscellaneous Department.]

Roast Goose.—The goose should not be more than eight months old, and the fatter the more tender and juicy the meat. Stuff with the following mixture. Three pints of bread crumbs, 6 ounces of butter, or part butter and part salt pork, 1 tea-spoonful each of sage, black pepper, and salt, 1 chopped onion; do not stuff very full, and stitch the openings firmly together to keep the flavor in and fat out. Place in a baking-pan with a little water, and baste frequently with salt and water (some add vinegar); turn often, so that the sides and back may be nicely browned. Bake two hours or more. When done take from the pan, pour off the fat, and to the brown gravy left, add the chopped giblets, which have previously been stewed until tender, together with the water they were boiled in; thicken with a little flour and butter rubbed together, bring to a boil and serve. English style.

MISCELLANEOUS RECIPES

Borax, as Used By the Washer-Women of Holland and Belgium.—“The washer-women of Holland and Belgium, so proverbially clean, and who get up their linen so beautifully white, do it by the use of refined borax (kept by druggists) as a washing powder, instead of soda, in the proportion of a large handful of borax powder to 10 gals. of boiling water, saving in soap nearly half. All of the large washing establishments adopt the same plan.

“For laces, cambrics and lawns an extra quantity of the powder is used, and for crinolines (skirts) requiring to be made stiff, a stronger solution is necessary. Borax being a neutral salt does not in the slightest degree injure the texture of the linen. Its effect is to soften the hardest water.”—*Youman's Dictionary of Every-Day Wants.*

Flannels, To Wash and Dry, Without Shrinking.—Flannels should be washed with as little rubbing as possible; or, better still, pounding without any rubbing at all, and drying rapidly, and pulling freely, both lengthwise and across the goods, if you would avoid shrinkage.

Washing Muslins, Cambrics, and Calicoes.—Stir some of the starch, after it is prepared for use, into the water in which any of these goods are to be washed.

Or, soak them a while in water in which you have put 1 or 2 table-spoonfuls of salt to a pail of water.

For Black and White Calicoes.—A cup or two of weak lye to a pail of water is best for soaking in.

For Pink or Green.—One or 2 table-spoonfuls of good vinegar to the pail of water is best.

For Purple or Blue.—Use sal soda, or borax, in powder, 1 or 2 table-spoonfuls to a pail of water; but, now, if you use the washing fluid, above, soak them a little in that, and wash out, as usual, it saves all these troubles with the different colors.

Ribbons, to Wash.—Wash ribbons in cold suds—not very strong, and do not rinse.

Silk, Cashmere and Black Alpaca Dresses, to Cleanse.—Dissolve a

table-spoonful of powdered borax in 1 qt. of warm water (soft water), and after dusting thoroughly brush such parts as need it, or the whole, if much worn, and iron on the wrong side.

Washing or Cléansing Woolen Blankets.—It is quite as important to have the woolen blankets on our beds clean, as to have our sheets pure and white. For the emanation from our bodies are more quickly absorbed by them than by the muslin sheets; and as the women look upon the washing of a pair of blankets as a great undertaking, I will give them the easy way, recommended by the *Boston Journal of Chemistry*, which is about the same as practiced by my wife, in her lifetime. It is as follows: Put 2 heaping table-spoonfuls of powdered borax and 1 pt. of soft soap (or its equivalent of dissolved bar soap), into a tub of cold soft water. Stir well to dissolve and mix; then put in the blankets, thoroughly wetting, and let them soak over night. Next day rub (the author says pound), and drain them out, and rinse thoroughly in two waters, and hang them to dry. Do not wring them by hand, but press out the water. They may be put through a wringer.

Remarks.—This makes light work of washing blankets. It will not be amiss, however, to say the washing water and the rinsing water should always be as nearly as possible the same temperature, but only to take the chill off, so as to avoid taking cold by having the hands in cold water—no soap should ever be rubbed on the flannels, but sudsing be used; and do not hang out on a very cold day, nor hang close to a hot fire or stove; and iron with a moderately cool iron—not very hot—while damp, and there will be but little, if any shrinkage, after moderate pulling even of skirts or other woolen goods. Underskirts, etc., of wool can be washed in the fluid water, as above given, otherwise as nearly like blankets are done as you can.

Borax is the Best Roach Exterminator Yet Discovered.—This troublesome insect has a peculiar aversion to borax, and will never return where it has once been scattered. And, as this salt (chemists know all these things as a "salt") is perfectly harmless to human beings, it is much to be preferred for this purpose to the poisonous substances commonly used.

"Borax is also valuable for laundry use, instead of soda. Add a handful of it, powdered, to about ten gallons of boiling water, and you need use only half the ordinary allowance of soap. For laces, cambries, etc., use an extra quantity of the powder. It will not injure the texture of the cloth in the least.

"For cleansing the hair, nothing is better than a solution of borax water. Wash afterward with pure water, if it leaves the hair too stiff. Borax dissolved in water is also an excellent dentifrice, or tooth wash."

Remarks.—See how well this plan agrees with the Holland and Belgium washer-women above, as to the use of borax for laundry, or washing purposes. The writer says, also: “Dissolved in water, it is also an excellent dentifrice, or tooth wash, as scientists think it destroys the parasitic mite, or insect that exists in the fermenting food between the teeth.”

Borax as a Tooth Powder, or for Washing the Teeth.—I use borax in powder every morning, to cleanse my teeth. Borax in powder, $\frac{1}{2}$ oz., with precipitated chalk, 3 ozs., with a few drops of oil of wintergreen, which keeps my teeth clean and white, by rubbing the brush first on soap, then into the powder. Soap is essential once a day in cleaning teeth. Borax is, indeed, one of the most valuable salts we have for washing and cleaning purposes.

Pearline, Soapine, etc., to Make.—The *Scientific American*, which is one of our most reliable papers, informs us that these articles are made of powdered soap, and powdered sal soda, equal, or about equal parts of each. Thus you see for a few cents you can make what they ask much more for; and it shows, too, what is thought by scientific men of sal soda as an aid in washing.

Paint, Pitch, Oil, and Grease, To Remove from Silk, Linen, etc.—Benzine (purified) also called benzole, 2 ozs.; oil of lemon, $\frac{1}{4}$ oz. Mix and keep corked. DIRECTIONS—Apply with a cloth or sponge to any spots upon any of the above named kind of goods, rubbing with the fingers until removed. The colors will not be injured.—*Indian Domestic Economy*.

Remarks.—For sake of safety in using benzine, or benzole, as one kind is called, see note after Kid Glove Cleaning. The lemon is only for flavor, or to hide the odor of the benzine.

Fruit Stains, To Remove from Clothing, etc.—To remove fruit stains, hold them so you can pour boiling water through them; and if this fails in any case to remove the stain, then dip the table-cloth or other article into hot water, and place it over burning brimstone, as for bleaching flannels, below.

Bleaching Flannels.—Wet them and place upon a stick over the top of a barrel, in the bottom of which is an old pan with some burning coals, and sprinkle on the fire a little, broken bits of brimstone and cover over with a piece of carpet to retain the smoke. Particularly applicable to children's flannels which have become yellowish, and which you do not wish to wash for fear of shrinkage.

Silks, To Remove Spots, etc.—Fuller's earth, 1 oz.; saleratus, 1 even tea-spoonful (if saleratus is not obtainable, get bi-carbonate of potash of a druggist, the same amount); lemon juice. DIRECTIONS—Dry the earth thoroughly, and mix in the saleratus evenly; then moisten with the

lemon juice sufficiently to form it into a roll or stick; dry in the sun. Wet the spots with hot water and rub it with the prepared earth. Dry in the sun; then cleanse with clear water.

Ink Spots, To Remove From Clothing.—Wet the spots with milk—sour milk is best—if you have no milk, wet with water, and rub a piece of lemon on some salt, then upon the spot, a few times will always remove it. If you have no lemon, a little oxalic acid in water, rinsed out with clear water, will do it—except the cheap school inks made with chromates of potash, even oxalic acid will not dissolve them; but the better inks, which are set with iron, the above will dissolve out.

Remarks.—Remember, if oxalic acid is used, to keep it away from children, as it is poisonous, or corrosive upon the flesh, so upon clothing if left without rinsing. A drachm will be enough for any ordinary spot, the size of the hand. If rinsed out as soon as the spot disappears it will hurt no clothing.

Ink—Printer's, To Remove From Clothing.—Saturate with turpentine, let alone for 2 or 3 hours; then rub well with the hands and dust out. Saturate means to wet thoroughly.

Tar Spots, To Remove.—Tar spots may be removed by putting butter upon them for a few hours; then cleanse with soap and water to remove the grease.

Kid Gloves, To Clean.—Take purified benzine, in a bowl or suitable dish, sufficient to cover the gloves. Put the gloves into the benzine and saturate or soak to wet thoroughly; then having placed one upon a clean, smooth board, with a soft brush or soft sponge rub one way only, from the wrist towards the fingers, wherever there is any dirt, or all over is best, to make all look alike—clean, dipping them or the brush into the benzine as often as necessary to get out all the dirt; and if this can not be done with the first lot, throw it away and pour in fresh, and rinse and squeeze out in the benzine till perfectly clean. White gloves you will suppose, while cleaning, to be spoiled, as it gives them a dingy appearance. Tinted or light shades will not look quite so dingy; but, never mind, partially dry them in the sun. Now, having previously prepared a stick, a foot or more in length, carefully tapered, and rounded at one end to resemble a finger, insert it into each finger, carefully pulling the glove on by the wrist until smooth, then rubbing dry with fine soft muslin. When all is dry, polish with French powder (white), using soft white flannel in polishing. Use care on the stick, and in all the processes, to keep the gloves smooth, for if wrinkled the surface would be broken. Keep them from shrinking by putting upon the hands occasionally when nearly dry; but if you are cleaning a smaller glove, for others, than will

go upon your own hand, carefully pull them as needed to prevent shrinkage.

Or, if the gloves are not much soiled, set a saucer of sweet milk, and a piece of white soap upon the table. Fold a clean towel, 3 or 4 thicknesses, upon the table, or upon your lap, and spread the gloves smoothly upon it. Take a piece of clean white flannel and dip it in the milk; then rub it upon the soap, then upon the glove, from wrist to fingers, continuing the process until the dirt is removed, when, if a white glove it will have a yellowish tint, dark shades of gloves will be darker still. Be careful to clean every part of the glove thoroughly, else there will be spots when done. Let dry, or nearly so, then put on your hands and work soft, and polish as in No. 1 above, and the result will be very satisfactory.

Or, take a pan of white corn meal, sifted; put on the gloves and make believe washing hands in the meal, carefully, for 10 or 15 minutes, according to the extent of soiling. Fold in a clean towel, and put a weight upon them for a time. (See also white furs to clean, for the propriety of using corn meal in removing dirt.)

Kid Gloves, Black, Worn Spots, to Restore.—When black kid gloves are soiled, or turned white, in spots, from wear, wet the spots with black ink—a little poured into a sauce-plate, and apply by means of a bit of flannel upon the end of a small stick, is a good way—then, leaving a few drops of the ink in the plate, pour in a tea-spoonful of salad oil or sweet oil, and with the flannel rub the mixture over the whole glove, and dry in the sun—polish on the hand with soft flannel.

Ladies' Kid Boots—Black, to Re-Color Soiled, or Worn Spots.—First brush off all dirt, then color the spots with ink, in a little oil, as with black gloves, polish the whole uppers, so all will look alike.

Remarks—Jettine, or liquid blacking, is much used, of late years, instead of ink and oil; suit yourself.

Woolen Hoods (White), Nubias, etc., to Cleanse, or Renovate, Without Washing.—Dry nice wheat flour in a clean pan in the oven and rub it thoroughly into the hood, or nubia, until thoroughly cleaned, adding a very little bluing powder, if you have it, to the last rubbing—cleans them nicely and saves the shrinkage from washing; although our plans of washing woolens are excellent and may be followed with these articles, if preferred.

Paint Spots Upon Windows, to Remove.—Dissolve sal soda, 1 oz., in soft water, 1 pt.—in this proportion for as much as needed. Use it hot, with a piece of flannel, or sponge, on a stick, not to affect the fingers. Wash off with hot water, as soon as the paint spots are softened.

Kid Boots, or Shoes, White and Light Shades to Clean.—Use the purified benzine and sponge as for gloves, drying and polishing the same. If they are too small to admit the hand, stuff them to keep them full size.

White kid boots, or shoes, can be cleaned by dipping a perfectly clean piece of white flannel in a little ammonia, and rubbing the cloth over a cake of white soap; after which gently rub the kid diligently, until the soiled places are white again. As the flannel becomes soiled change for a clean one, or a clean place.

White Furs, to Clean or Renovate.—Half fill a stone jar with white corn meal (for a child's muff and tippet, a 2 gallon jar will be suitable), place it on the stove and heat the meal as hot as the hand can be borne in it, stirring to prevent the meal from scorching. Put one piece, at a time, in this, and rub until thoroughly clean; then beat out the meal with a stick. Heat further, if needed, for other pieces—the meal must be hot.

Finger Marks Upon Doors—To Remove.—Dissolve sal soda, 1 oz.; in soft water, 1 pt., and go over the soiled doors or other painted wood-work with it, using a sponge or cloth, following with a wiping cloth, slightly wrung out of hot, clean water.

Erasive Compound, or, Soap for Cleaning Cloths.—Sal soda, $\frac{1}{4}$ lb.; castile soap, 2 ozs.; starch 1 oz.; borax, $\frac{1}{2}$ oz.; soft water, 1 qt. DIRECTIONS.—Boil the soap in the water till dissolved, then add the other ingredients, all pulverized, and stir till all is dissolved, and pour into a square pan or box, to cool, when it can be cut into bars, of suitable pieces to wrap up for sale if that is the purpose. Used for removing grease spots, paint, tar, etc.; apply with a wet sponge by rubbing on the soap first, then on the spot till clean.

Remarks.—The friend who sent me this for insertion in my "Third and Last Receipt Book," says: "It is equal to the 'Lightning Eradicators,' which are generally sold for 25 cents a cake, and as you will know, is much cheaper."

Brocade or Broche Shawls—To Clean the White Center—Also Applicable to Fine, White Lace.—Spread a clean, white cloth upon the table and sift over it, dry, white corn-meal, as large a spot as the shawl center, and lay the shawl upon it, and cover the center also, with the meal; then roll it up closely and put it away for a week, when, by dusting out the meal, the shawl will be nice and clean," so says "Valentia," of Brockwood, Ill., in the *Blade*.

HINTS FOR THE LAUNDRY.—Washing All Colors of Calicoes, Percaloes, Muslins, Brown Linen, etc., and to Remove Paint and Wine Stains

From Silks, Woolen and Cotton Goods.—Besides the foregoing receipts on general washings, etc., I deem it best to put in a few items, or “hints,” as the above heading has it, from various sources, which are generally short, and right to the point for quick work. These first are from Mrs. E. S. Barrett, of Sing Sing, New York, July, 1882, in the *New York Examiner*, wherein she says: “Every housekeeper knows how vexatious it is to have colored fabrics ruined in the process of cleansing. A few practical hints about washing calicoes, percales and muslins will therefore be of real service to the readers of the *Examiner*.”

For Washing Black and White, Stone, Slate, or Maroon Colored Cotton Goods.—Before washing black and white, stone, slate, or maroon colored cotton goods; dip them in a solution of salt and water made by dissolving two cupfuls of salt in 10 quarts of cold water, and hang them in a shady place to dry. The salt sets the colors. When dry, wash in a light suds in the usual way. Calicoes and muslins do not require a hot suds; water moderately warm is best. Never allow them to soak in the water. Wash quickly, turn the wrong side out, and dry in the shade. A little salt in the rinsing water is an improvement. Another way is to mix two cupfuls of wheat bran in cold water, making a smooth paste; then stir it into 1 qt. of soft boiling water. Let it boil 1 hour, then strain into 5 or 6 qts. of soft warm water. No soap is necessary, for bran has cleansing properties of its own. If there is black in the dress, or any other color that is liable to “run,” add a table-spoonful of salt. Rinse thoroughly in one water. For starch, use a little white glue-water, cool and clean. Always iron on the wrong side with a moderately hot iron.

How to Fix the Above Colors Permanently.—Blue, stone, and slate-colored articles may be made to retain their color perfectly by adding sugar of lead to the water in which they are to be washed for the first time. Dissolve 1 oz. of sugar of lead in a pailful of hot water; stir carefully until it is thoroughly dissolved, and let the mixture cool. When about milk-warm put in the articles and let them remain an hour. Hang up to dry before washing. When dry, wash as directed in bran water. The sugar of lead fixes the color permanently, so that this treatment with it will not need to be repeated. Use this preparation with caution; sugar of lead is poisonous, but no danger in this way of using it.

To Wash Brown Linen.—Take enough good timothy hay to fill a 10-quart kettle two-thirds full when pressed down; cover it with soft water, and let it boil until the water assumes a dark greenish color. Make flour starch in the usual way, and strain the hay water into it after it becomes cool or tepid; let the linen soak ten or fifteen minutes—not longer—then wash without soap. I divide the preparation into two

parts, using one for rinsing. Linen dresses and dusters washed in this way will look new as long as they last.

Fruit or Wine Stains, to Remove from Silk, Woolen, or Cotton Goods.

—Fruit or wine stains can be removed from silk, woolen or cotton goods by sponging them gently with ammonia and alcohol—a teaspoonful of ammonia to a wineglass of alcohol. Finish with clear alcohol. The fumes of a lighted match will remove remnants of stains.

Washing Fine Under Clothing.—The *Germantown Telegraph* says that a leading firm of that city, importers and retailers of hosiery goods, gives the following directions for washing the above named line of goods, and also says their own experience enables them to testify to its excellence. Dissolve 1 lb. of nice soap in 4 gallons of warm soft water in which well rinse the articles to be washed, drawing them repeatedly through the hand; press them as dry as possible, to remove the soap; rinse them again briskly in clean, lukewarm water; press out or put through a wringer, if you have one, and stretch them to their proper shape, and dry in the open air if possible. The only effects of rubbing are to shrink and destroy the material; it should therefore never be resorted to with these kinds of goods. The material used in manufacturing silk underwear being an animal product, it is absolutely necessary that nothing but the best quality of soap and warm water should be used.

Washing Flannels of Any Kind, so They Will Not Turn Yellow or Shrink.—A lady signing herself “Michigan,” says she wants to tell the ladies of the *Blade* how to wash flannels of any kind, so they won't turn yellow, nor shrink up, and that sort of thing. Wash in cold water, using soap in both suds. Of course you can take the chill off if you are afraid of taking cold, but not have it a bit hot. Now don't laugh at such an idea and not give it a trial, but this spring you wash your flannel blankets, woolen stockings, baby's flannel and then report. I learned of a Scotch lady years ago and never think of using hot water; use soft water of course.

Remarks.—Certainly the water being made a little warm will not cause shrinkage. The suds should be made before putting in the flannels, and not by rubbing the soap on them.

For Washing Scarlet Flannels, etc., Without Fading or Shrinking.—

To prevent scarlet flannels or worsted goods of any kind of this color, from fading by washing, it is claimed by some washer-women that the following plan is perfectly safe: Mix flour, $\frac{1}{2}$ cup, little by little, with cold water, 1 qt.; then boiling 10 or 15 minutes and mixing with the lukewarm suds, pressing and rinsing, up and down, a number of times, then passing through the wringer, the goods will not be faded or thickened, as there is to be no rubbing.

Remarks.—Hatters make wool, or felt hats, as they are called, by

plaiting out a layer of wool upon a piece of cloth, at first, and dipping it into hot water, then rolling it with a little roller, re-dipping and rolling till they get the desired thickness, by the little hooks that are seen by the microscope only, which are upon the fibers of all good wool, to so take hold upon each other, as to make as heavy a body as desired. The same is done, to a certain extent, every time woolen goods is washed in hot water, by rubbing. Now any one can see to avoid thickening, "shrinking," as it is called, in washing flannels, simply avoid hot suds and do not rub them. (See Washing Fine Under Clothing, etc., above.) Sudsing by an up and down motion, in first and second suds, is the safest method.

Colored Silk Handkerchiefs, To Wash.—To wash colored silk handkerchiefs make a good suds in lukewarm water, in which a little bit of carbonate of ammonia has been dissolved; rub the handkerchiefs lightly in the hands till all the spots have disappeared. Then rinse them in lukewarm water, and squeeze them as dry as possible. Take hold of the two corners and shake and snap each one for a few minutes. Roll in a soft towel lightly, laying the handkerchief flat on the towel at first, squeeze tightly, and iron at once.—*Detroit Free Press.*

Old Silk Dresses, etc.—To Renovate to Look Like New.—A writer says: "A most satisfactory way to renovate old silks is to boil an old kid glove in 1 pt. of soft water until the glove shrinks to the size of a 4-years-old child's hand; the liquor will then be glutinous; when cold, having brushed out every particle of dust, sponge the silk thoroughly and smooth with a hot iron upon the wrong side."

Remarks.—If a dress, it may be well to take it to pieces, if much soiled, as recommended with "Silk Cashmere, etc., to Clean," which see.

Washing Carpets Without Taking Up.—Put a table-spoonful of ammonia in 1 gal. of moderately warm water, and with sponge or soft broom go all over the carpet, and you will be astonished to see how brightly it will look for the little labor and expense. [See "Spirits of Ammonia—Some of Its Uses, etc."]

Washing Windows.—A writer says: "Have a pail partly filled with water a little warm and dissolve in it a tea-spoonful of borax [the author thinks it would be better to use a table-spoonful of powdered borax, or else the same amount of spirits of ammonia to 1 gal. of water, as above for washing carpets], have one chamois (a cloth will do nicely) dipped into the water to wash the windows with, then with a dry chamois rub the window dry and polish. [A chamois skin is best to polish with, as it leaves no lint as a cloth will.] In this way windows may be cleaned in a very few moments and not wet the carpets nor tire the person."

Lace Veils and Other Laces—To Wash or Renovate.—Wash veils carefully in alcohol and soft water, equal parts, simply squeezing in the

hands in and out of the mixture; then lay a towel on a table and smooth out the veil and pin the edges to the towel to dry, when, if carefully done, it will look as good as new. Borax water is also used for the same purpose, drying the same way.

For Other Nice Laces.—Naomi King, in *Farm and Fireside*, says: "When you have some nice laces to wash put a little borax in warm soap suds and allow them to soak 1 hour; then shake about in it well and rinse in 2 or 3 clear waters, as you see necessary, and to the last water add a little white sugar; never use starch. Pull out well, and place between white cloths in an old book until dry."

Remarks.—She says a "little" borax and a "little" sugar, which is very indefinite. A rounding tea-spoonful of powdered borax and the same amount of sugar would be plenty for 1 pt. of water. The borax would do good in washing veils, and I think the sugar would also be good there, as with white or other laces.

Softening Hard Water for Washing Clothes, Dishes, or House Cleaning.—A writer says: "Take 2 lbs. of washing soda (sal soda), and 1 lb. of common stone lime, and boil in 5 gals. of water for 2 or 3 hours; then stand away to settle, and dip off the clear water from the top and put into a jug (pouring off carefully is better). Can be used for washing dishes or cleaning, and 1 teacup in a boiler of clothes, put in after the water is hot, will whiten the clothes, and soften the water, without injury to the hands, or clothes. I use an old iron pot to make it in."

Softening Water—Clark's Method.—By adding burnt quick-lime (quick-lime is freshly burned or unslacked lime), to hard water, which contains lime (all hard water contains lime, 'tis the lime that makes it hard), it will become soft. The added lime seizes the carbonic acid gas which held the carbonate of lime in solution, and so both the original carbonate of lime and that formed in the process, fall together as a white sediment. This method is truly homœopathic.

Remarks.—This writer is right as to the way it softens, but is tame in not giving the proper amount for a bbl. or some other measure. About 2 or 3 table-spoonfuls of this stone-lime, just slacked with a little hot water, will be enough for a barrel, just drawn from the well. Rummage it in thoroughly, that is stir it with a stick that will reach the bottom till well mixed, and let it settle over night, or 2 or 3 hours.

Ammonia, its Various Uses in House Cleaning, Washing, etc.—"A Farmer's Wife," in the *Country Gentleman*, says of it: There is no telling what a thing will do till you try it. I knew ammonia, diluted in water, could restore rusty silks and clean coat collars, but when I got a green spot on the carpet, I tried half a dozen other things before I thought of that, and that is just what did the work effectually. I put a tea-

spoonful into about a tea-cup of hot water, took a cloth and wet the spot thoroughly, just rubbing it slightly, and the ugly spot was gone. It is splendid for cleaning your silver; it makes things as bright as new without any expenditure of strength; and for looking glasses and windows it is best of all; and one day when I was tired and my dish cloths looked rather gray, I turned a few drops of the ammonia into the water and rubbed them out, and I found it acted like a charm, and I shall be sure to do so again some day. I suppose housewives have a perfect right to experiment and see what results they can produce; and if they are not on as large a scale as the farmers try, they are just as important to us, and they make our work light and brighter too. Now, I do not believe in luxuriating in a good thing all alone, and I hope all the housekeepers will send and get a 10 cent bottle of spirits of ammonia and commence a series of chemical experiments and see what they can accomplish with it. Take the boys' jackets, the girls' dresses, and when you have cleaned everything else, put a few drops in some soft water and wash the little folks' heads, and report results.

Remarks.—These items are valuable in giving new thoughts to those who have few opportunities for observation, or reading the literature of the day; but they would be more valuable if they gave the proportions for each class of work to be done. This lady speaks of restoring rusty silk, how strong? For cleaning greasy clothing, use it strong, say a table-spoonful to 1 cup of warm, soft water, washing off with pure water directly; for silks, alpacas, etc., the same strength ammonia will be strong enough, brushing off soon with pure water; for looking glasses a little put on a cloth clear, and folding some of the dry cloth on the back of the wet part, to keep it off the fingers, is best, as it takes but a moment to take off fly specks, or dirt; for windows a table-spoonful of it in 1 pt. of water will be plenty, wiping off nicely with a dry newspaper, as it leaves no lint like a cloth does; one-fourth ammonia for cleaning boys' coat collars, and greasy clothing; for cleaning silver, 1 table-spoonful to 1 pt., or a little less of water, is enough, and as she says, it is splendid for this and all other similar work; and as it is cheap it makes a great saving.

For Bee and Wasp Stings.—A little ammonia put upon bee and wasp stings, bites of spiders and all other poisonous insect bites, will neutralize the poison, preventing soreness and swelling. But mind, it only needs a very little put on, and washed off soon, to prevent its making a sore.

Iron Rust, to Remove from Clothing.—Get $\frac{1}{2}$ oz. of oxalic acid, in small pieces, in a vial and keep corked. When a spot of iron rust shows on white table-cloths, or other white clothing, dissolve $\frac{1}{2}$ tea-spoonful of the acid by pouring upon it 2 or 3 table-spoonfuls of hot water, and dip the spot in or wet it with a sponge, or bit of rag, and as soon as the

rust is bleached out wash right out with clean water, so the acid will not hurt the goods. Lemon juice and a little salt is also good for the same purpose, laying out in the sun to bleach; if one application does not wholly remove it, do the same again. Or, instead of putting out in the sun, wet with lemon juice, and holding the spot over a steaming hot tea-kettle will do it very quickly. Or, the cream of tartar plan, as given below, for removing fruit stains, will also remove rust.

Bleaching Muslin.—Mrs. "S. M. B." sends the *Blade* the following directions, which she has practiced for 12 years without injuring the cloth. She says: "Into 8 qts. of warm soft water put 1 lb. of chloride of lime; stir with a stick a few minutes, then strain through a bag of coarse muslin, working it with the hands [the author says with the stick] to dissolve thoroughly. Add to this, in a tub, 5 buckets of warm water, stir in the chloride water thoroughly and put in the muslin. [The muslin ought to be thoroughly wet first in plain water, so it shall take the lime water evenly.] Let it remain in 1 hour, turning it over occasionally, that every part may get thoroughly bleached. When taken out, wash well in two waters, to remove the lime, rinse and dry. This quantity will bleach 25 yards of yard-wide muslin. The muslin will bleach more evenly and quickly if it has been thoroughly wet and dried before bleaching."

Remarks.—This lady makes a "mighty sight" of work, more than is necessary. She wants it wet and dried before putting into the bleaching water, when simply wetting is sufficient, and one good washing and rinsing after the bleaching is enough—all you want is to get rid of specks of the lime, and this has been done largely by straining off the water from the lime sediment at the beginning. Spreading on the grass is a good way to dry it.

Mildew, to Remove from Clothing.—Take common soft soap and stir in quite a bit of salt, so the soap crumbles or grains, as it were, and rub on the spot and lay out over night, and if not effaced by morning wet it occasionally during the day. The chloride solution above is also good to remove mildew. Or, to put about $\frac{1}{2}$ a cup of chloride of lime into 2 qts. of hot water, wetting the mildewed articles first in cold water, then put into the lime water until the mildew is bleached out, then rinse well in plenty of water to remove the lime.

GLOSSY LINEN—How it is Done.—To give starched linen the appearance so much desired put a small bit of paraffine (size of a small pea for each bosom, or its equivalent of cuffs) into the hot starch, and when it comes to ironing use a small iron having a rounded point that is very smooth, and rub with great pressure and for a considerable time. A great deal of "elbow-grease" is absolutely necessary.

Scorched Linen in Ironing, To Whiten.—If a linen shirt bosom, or

any other article, has been scorched in ironing lay it in the bright sunshine, which will remove it entirely.

Flat-Irons, To Clean from Rust or Starch.—Flat-irons often have starch stick to them, and occasionally a spot of rust from a drop of water shows upon them, and I have often seen directions for cleaning them with salt, but the following plan is the only sensible way of doing it that I have seen: Have a piece of yellow beeswax in a coarse cloth; when the iron is almost hot enough to use, but not quite, rub it quickly with the beeswax cloth and then with a coarse cloth.

Oil-Cloth—To Keep Bright.—Oil-cloths should never be scrubbed with suds, but carefully swept with a soft hair brush and washed with a cloth dipped into milk and water, half-and-half, but no soap, and dry and polish with an old soft cloth. In this way they will keep their original color a long time.

Silverware, to Brighten with Little Labor.—When it is desirable to brighten silverware without a formal scouring, prepare some pieces of silver cloth, as follows: Obtain hartshorn (carbonate of ammonia), 2 ozs.; powdered or broken up finely, and boil it in 1 pt. of soft water. Dip suitable pieces of muslin in the liquor and hang up to dry without wringing. When dry, fold closely and put away for use. Simply rubbing the silver with one of these pieces will surprise you by its improved appearance. Never put soap on silverware, if you wish to keep its original lustre.

Frosted Silverware, How to Clean.—Frosted ornamentation on silverware should never be cleaned with powder, but only with a soft brush and strong lye (from wood ashes, strained, or from concentrated lye or potash) accompanied by rinsings with soft water. After the frosted parts are properly dry, the smooth parts should be rubbed carefully with powder.—*Harper's Bazar.*

Remarks.—The silver-cloth in next recipe above, will do nicely for the smooth part.

Polish for Silverware.—In place of using Paris white for a dry powder to polish the smooth parts of silverware, the following will be found better: Put 4 ozs. of Paris white into soft water, 1 pt., and boil it; when cool, bottle it, and add one oz. of aqua ammonia. Rub with a cloth wet with this mixture, shaken, and polish with chamois.

Stains from Nitrate of Silver, to Remove.—Wet nitrate of silver stains with discolored tincture of iodine in as much water as tincture. Then rub the stained spot with a piece of cyanide of potassa. It fades out, or changes at once (or the hyposulphite of soda will do, and is not poison), then wash immediately with water. Always use soft water if you can. This is from a photographer, and reliable.

Cabbage, to Destroy the Cut-worm of, and to Prevent Clubfeet.—Sprinkle a table-spoonful of salt around each plant as set out, and mix slightly with the soil. Thus, you “kill two birds with one stone,” besides it is a good fertilizer. I have seen more than half the plants set out in a garden patch, which were cut off the first night. This little trouble saves the loss, and makes them grow faster, too. [See also, cut-worms to destroy.]

Crickets, to Drive Away or Destroy.—Put Scotch snuff into their holes. It is too much for them, and I think it would be more than roaches could stand the presence of. Put into crevices with a feather.

Chimneys, How to Build to Avoid Burning Out.—When building chimneys, keep a mortar-board of mortar for the purpose of plastering them upon the inside as the work goes on, tempered up by adding one-fourth as much common salt as of mortar, which forms a glaze that soot can not stick to, and hence there is none to burn. “Prevention is better than cure.”

Chimneys, to Build to Avoid Smoking.—A builder of long experience says: “To build a chimney that will not smoke, give a large space immediately above the throat, which will cause a draft. It may then be narrowed, if desirable.” This is good logic.

Chimneys, Sky-lights, etc., to Stop Leaks.—Take fine, white sand, 20 measures; litharge, 2; freshly slacked lime 1; mix evenly together, dry; then wet to the consistence of soft putty with boiled linseed oil. It sets quickly, and forms a hard and durable cement.

Moths in Carpets, to Prevent.—Wet the floor around the edge of the room thoroughly with spirits of turpentine before laying the carpet, apply with a brush as you would paint; it kills the nits or eggs under the base, and also prevents further nesting. Salt sprinkled freely about the edge and over the whole carpet, while sweeping, is not only a preventive, but it also helps to remove dirt, and if damp, prevents dust from rising while sweeping.

Moths in Carpets, To Destroy, Without Taking Up.—On parts of a carpet where moths are suspected lay a coarse towel, slightly wrung out of clear water, spreading out smoothly; then place a piece of firm wrapping paper upon the wet towel to keep in the steam, and iron it thoroughly with a hot iron. If thoroughly done, the heat and steam kills them. Repeat at any time if satisfied more have hatched and come out from under the base or other hiding places. It does not injure the carpet, nor fade the colors, and does not need hard pressure, as it is the heat and steam that kills them.—*The Household.*

Moths in Upholstered Furniture, Certain Remedy, Also Good for Furs, Flannels, etc.—A writer in one of the Grand Rapids (Mich.) papers

says, upon these subjects: "A sort of trade secret among upholsterers for ridding upholstered furniture of moths, is the following;" and gives an example: "A set of furniture that seemed to be alive with the larvae (the insect moth in its first stage of development,) from the time it came new, and from which hundreds of these pests had been picked and brushed, was set in a room by itself. Three gallons of benzine were purchased at 30 cents a gallon, retail. Using a small watering pot with a fine rose sprinkler, the whole upholstery was saturated through and through with the benzine. Result—Every moth, larvae and egg was killed. The benzine dried out in a few hours, and its entire odor disappeared in 3 or 4 days. Not the slightest harm happened to the varnish, or wood, or fabrics, or hair stuffing. That was months ago, and not a sign of a moth has since appeared. The carpets were also well sprinkled all round the sides of the room, with equally good effect. For furs, flannels, indeed, all woolen articles containing moths, benzine is most valuable. Put them in a box; sprinkle with benzine, close the box tightly, and in a day or two the pests will be exterminated, and the benzine will evaporate on opening."

Remarks.—In using benzine, as stated in connection with cleaning gloves, remember there must be no fire nor lamp burning, as the vapor of it carries the fire to the stuff itself, which is very inflammable, and explosive. With this care it is safe.

CEMENTS.—Dr. Choris' Magic Mender, or "Boss" Cement.—Acetic acid, 4 Fs—the strongest—2 lbs.; French isinglass, 1 lb. Boil in a porcelain kettle.

Remarks.—I paid \$5 for this recipe, and the above is all there was of it. The man, however, was selling it upon the street corners of this city (Toledo), and seeing what it would do, I paid the money, but was allowed to go with him and see it made. He bought the isinglass in a 1 lb. package for \$1.25, and the acid, 2 lbs. for 50 cents, including the bottle, and he had a 1 gal. porcelain kettle with him, and first put the acid in and placed it on the stove in the hotel kitchen, where he was stopping, and when it was about boiling hot he took the package of isinglass by the end and stirring the acid with it it soon dissolved down near his fingers; then he dropped all in, and with a sliver from the wood, stirred it around a little all the time till it was dissolved; then commenced bottling it directly, by pouring some into a milk pitcher and then into the bottles, keeping the rest hot until all was poured in. He charged not to allow it to burn; and I afterwards found it would burn easily, hence he was careful of this, as it blackens and destroys it. He said the isinglass generally cost him \$1.25 per lb.; the acid, 15 to 25 cents per lb.; $\frac{1}{2}$ oz., square, flint glass bottles, \$1.25 per gross, in 6 gross lots, in Pittsburgh; and the corks, 12 cents per gross, in Cleveland,

in 5 gross lots. I have made it in those quantities and placed it on sale in the stores and know its value. It was first shown at the Centennial in Philadelphia under the name of "English Stratena," and the following rhyming, as given on some of the hand-bills wrapped around the bottles, will show

What it is Good for.—

For the carpenter putting his frame together,
 For the shoemaker working on fancy leather,
 For putting patches on boots so nice,
 And it holds them on as tight as a vise;
 For splicing belts and mending harness,
 Lamps, chimneys, or looking-glasses;
 For the clerk at his desk pronounces it safer
 Than any description of wax or wafer;
 For mending sugar bowls or ladles,
 For mending canes, clocks, or babies' cradles;
 For mending all dishes with ease,
 On which you can put bread, butter, and cheese;
 And every housewife, too, declares
 It beats the world on broken chairs;
 For fancy boxes, chessboards, stands;
 For picture frames and ivory fans;
 For broken tables writing cases;
 For fractured lamps, Bohemian vases.

All articles of glass or bone;
 For marble porcelain, or stone.
 For fancy figures, busts of plaster;
 For images in alabaster.
 For meerschaum pipes it can't be beat—
 It's all the better for the heat.
 In billiard halls it's largely used
 For putting tips upon the cues.
 For hobby-horses, wood or skates,
 Dolls hoops, and broken slates;
 For parasol handles, tips and hooks;
 For fastening loosened leaves in books.
 In fact 'twould take too long to mention
 All uses of this new invention;
 Whatever else there is about it,
 Whoever tries it ne'er does without it.

Coffee-Pots, Tea-Pots, Tin Saucepans, Etc., to Clean Inside.—When the inside of a coffee or tea-pot has become black from long use, fill it with soft water; throw in a small piece of hard soap, and boil it from $\frac{1}{2}$ to 1 hour; and it will be as "bright as a new button," without labor or expense. When tin sauce-pans become "grimmy" or dark from use, do the same with them, and you will be pleased with the result. Cover while boiling. Then scald out well and all is complete.

Rust, to Remove from Stovepipe.—Rub a very little raw linseed oil upon it, which stops its further eating; then dry it with a moderate

fire, after which polish may be used if desired; but polish does not stop the deeper corrosion, or eating into the pipe; hence, after a little, it will again show through the polish, unless the oil is first used.

Barrels and Other Wooden Vessels, to Cleanse.—Barrels for wine, or cider, also vessels for culinary purposes, holding food, etc., are rendered fit for immediate use by a solution of sal-soda, says the *Journal of Chemistry*, thus: "An ordinary barrel should be filled half full of water, and a solution of about 2 lbs. of the soda in as much water as will dissolve it, poured in, and the liquids thoroughly mixed by shaking the barrel, which should then be filled to the bung with water, and allowed to remain from 12 to 14 hours; then, after withdrawing the discolored liquid, it should be well rinsed and filled with pure water, and should remain a few hours more, when it will be fit for use. Other wooden utensils may be similarly treated.

Remarks.—The soda should be fully dissolved in 3 or 4 qts. of water, by heat, before putting in. If not much musty, 1 lb. of soda will do.

EGGS—How to Preserve Them.—Whatever excludes the air prevents the decay of the egg. What I have found to be the most successful method of doing so, is to place a small quantity of salt butter in the palm of the left hand and turn the egg around in it, so that every pore of the shell is closed; then dry a sufficient quantity of bran in an oven (be sure you have the bran well dried). Then pack them with the small ends down in a layer of bran and another of eggs until your box is full; then place in a cold, dry place. If done when newly-laid, they will retain the sweet milk and curd of a new laid egg for at least 8 or 10 months. Any oil will do, but salt butter never becomes rancid, and a very small quantity of butter will do a very large quantity of eggs. To insure freshness, I rub them when gathered in from the nests; then pack when there is a sufficient quantity.—*E. Alexander.*

Grafting Wax.—A cousin of mine, Jerry Lawrence, of Strykersville, N. Y., who has followed grafting over 25 years, uses rosin, 1 lb.; bees-wax 6 ozs., and mutton tallow 4 ozs., claiming that, with the mutton tallow it is a good salve for cuts and bruises, which are often received in climbing and sawing among the trees. Using these proportions, and keeping a ball or two of the wax in a covered pail with blood-warm water during the coldest part of the spring, when the wax would otherwise crack in spreading, saves the trouble of making two kinds. He keeps a little lard on the back of the hand to use occasionally to prevent the wax from sticking to the fingers. Make into balls of $\frac{1}{2}$ to $\frac{3}{4}$ lbs., pouring from the kettle into the water only so much of the wax mixture as can be worked at a time, keeping the balance warm until all is worked, or pulled to whiteness. Melt the rosin first, then add the others.

Sealingwax, Red, for Bottling Medicine.—Rosin, $1\frac{1}{4}$ lbs.; tallow, lard and beeswax, each, 1 oz. Melt together and add American vermilion, 1 oz.

Remarks.—Dip while hot. It is nice for druggists, who dip their vial corks, to have ready for use, or for bottles after the cork is cut off closely.

Sealingwax for Fruit Jars.—Best orange (gum) shellac and beeswax, each, 1 lb.; rosin, 4 lbs. Melt and dip or paint the corks with a brush. 'Tis a red shade, but may be colored more if desired, any color.—*Druggists' Circular.*

DOGS—Mange Upon—Sure Remedy.—Powdered aloes, $\frac{1}{2}$ oz.; flour of sulphur, 1 oz. Mix to a consistence of porridge, with spirits of turpentine, and apply with a brush or swab.

Remarks.—“Cures every time,” said a citizen of Ann Arbor to me, who had tested it. The word “mange” undoubtedly comes from the French *demanger*, to itch, as it causes such a degree of itching as to cause dogs and other animals to rub themselves almost constantly against whatever they can find. What will cure it in one animal will do the same with others. Probably arises from the *acarus scabies*, or itch mite, affecting children, and is, therefore, “catching,” or contagious.

Dogs Poisoned by Strychnia Antidote for.—Salad oil (which is pure sweet or olive oil), $\frac{1}{2}$ pt., has saved them; so, also, has lard.—*Journal of Applied Chemistry.*

Remarks.—The lard was used by the late James F. Reed, of San Jose, Cal., as they use strychnia there largely to kill gophers; hence the dogs are often poisoned. And as my books have always sold as readily in California as in the East, I deem it an important recipe, and add: 'Tis very important to give the oil when a person is thus poisoned, or warm lard if no oil is at hand— $\frac{1}{2}$ pt. at least, strong coffee, etc., as directed under that head.

Dogs, Cats, Hogs and Horses, To Drive Off Fleas on.—The *Scientific American* gives us the following for this purpose. The pennyroyal flavor is very strong and offensive to these “gentry,” although many people, of which I am one, are very fond of it. The herb makes an effective tea, drank hot, to break-up colds, by starting perspiration. It says, under the head of “Pennyroyal for Fleas:” “The oil of pennyroyal will drive these insects off; but a cheaper method, where the herb flourishes, is to throw your dogs and cats into a decoction of it once a week. Mow the herb, and scatter it in beds of pigs once a month. I have seen this done for many years in succession. Where the herb cannot be got, the oil may be procured. In this case, saturate strings with it, and tie them around the necks of dogs and cats; pour a little on the back and about the ears

of hogs troubled with fleas, which you can do while they are feeding, without touching them. By repeating this application every 12 or 15 days the fleas will flee from every quadruped, to their relief and improvement, and your relief and comfort in the house. Strings saturated with the oil of pennyroyal, and tied around the necks and tails of horses, will drive off lice; the string should be saturated once a day."

FENCE POSTS, TELEGRAPH AND TELEPHONE POLES, ETC.—

To Prevent Decay.—Among the various methods heretofore practiced for preserving the ends of fence posts, telegraph poles, ties and other timber to be placed in the ground, has been charring, or coating with coal tar, but it is said that while neither of these modes is sufficient alone, the two combined answers every purpose. The tar filling the pores of the charred surface, which in itself is indestructible, prevents absorption of moisture from the ground into the interior unaltered portion of the wood. In time the tar is converted into a kind of rosin, which is very durable.—*Harpers' Weekly*.

The Science, Best and Cheapest Way of Preserving Wood.—The *Journal of Forestry* thus explains what is necessary to preserve wood: "The primary cause of decay in wood is the fermentation and the decomposition of the sap that is within the pores. Wood, pure and by itself, is not easily destroyed by the ordinary agencies of nature, namely, wet and dry weather, heat and cold, etc. If the sap within the pores can either be removed or rendered inactive, the wood may be preserved. There are several methods of doing this, such as saturating the wood with mineral salts, creosote, etc. The cheapest, easiest and therefore the best method seems to be to charge the wood with crude petroleum. Pine (if seasoned), for example, is made almost waterproof by saturating it with this simple material, and therefore, made much more lasting. Crude petroleum is very cheap, and may be applied with a brush until the wood will soak up no more. In the application care should be taken to avoid accidents by fire, and not approach the work with a flame until it is dry. An application of petroleum is especially valuable to much exposed woodwork."

Remarks.—For fence posts, it is well known to be important to place the butt end of the timber upwards, from the greater difficulty that water finds in ascending against the natural course of sap, in the pores. This done, then, and the posts painted with the crude petroleum, or by the charring and painting with the coal tar, it would appear they should become almost everlasting; and why our railroad men do not try this on sections of their ties, is almost unaccountable. With the great destruction of our forests, yearly, for this and all other purposes for which timber is used, must soon compel them to resort to this practice, else to be compelled to use iron or steel ties, at a much greater ex-

pense. Of course this is a free country, and they have a right to use unpainted and unprotected timber, so long as they can buy it; still, the painting with the petroleum would be far cheaper than such constant changing, as is now the necessary custom. Were not only the whole of the posts, but also fence boards, petroleumed thoroughly, it would pay big. Try it a few times, as the fellow said about cedar rails, they would last a thousand years, for he had tried it several times! Of course this man's disregard to truth was very great; but not so great as these railroad men and timber speculators disregard to the destruction of our forests. In some parts of Europe, iron ties have already been tested, hence correct information could easily be obtained upon this important subject. Probably, in the United States, with the improvements in the manufacture of steel, this would take the place of iron for ties; but the importance of protecting fence posts is too great to be so generally neglected as it is.

Feather Beds, Old, to Renovate Without Steam.—Old feather beds may be renovated or cleaned very satisfactorily by putting them out during a heavy shower, turning, to give both sides a good soaking. [And the author can't see, if it does not rain when and as hard or as long as it is desired for this purpose, why a woman can't get up a good "heavy shower" of her own by means of plenty of warm water and the ordinary house or garden sprinkler; she certainly could, and I think be better than the natural cold shower.] Dry thoroughly in the sun, beating with a stick to loosen up the feathers, as you do a carpet to get out the dust. The bed may lay upon the ground to receive the water, but should be placed upon slats or sticks across chairs, or something of this character, while drying.

Remarks.—On boards or poles, one end on the fence sloping towards the sun, is the better way. If there are stains on the tick they can be cleaned at the same time in the following manner:

Feather Bed Tick, to Remove the Stains.—Pulverize some starch and stir it into sufficient soft soap to make quite a thick paste, enough to cover the spots caused by children's wetting it. When dry, brush off and wash with clean water by means of a wash-cloth or sponge. Dry again in the sun, and whip to lighten up the feathers.

CODLING MOTH. Remedy.—Dr. Hull, a leading horticulturist of Illinois, says that his lime remedy for the codling moth has proved completely effectual. The freshly slacked lime is thrown into the trees when the dew is on, or just after a rain, and after the fruit is set. A dipper or a large spoon may be used; but best of all, is a bellows made for the purpose (the author would say, with a long nose or nozzle to reach

well up into the trees). The insects will not go where the lime is scattered; he says, "they go away."

Remarks.—The author has not a doubt but what the lime will prove effective, for the item given in his first recipe book, for destroying the curculio on plum trees, wherein sulphur and gunpowder with the lime was effectual; but it seems that lime alone does equally well, and is much less expensive. "Codling" means an immature or small apple, but so far as the moth is concerned, it is applied to plums or any other fruit. But the curculio, a species of weevil, is most destructive to the plum, as you will see by referring to them.

Borers in Peach and Apple Trees, Remedy for, and for Bark Lice on the Trees.—Mr. M. B. Batchman, of Ohio (residence not given), writing to the *Fruit Recorder*, of Palmyra, N. Y., gives the following valuable remedy to prevent the borers getting into the peach and apple trees. He says: "Take a tight barrel and put in 4 or 5 gallons of soft-soap with as much hot water to thin it, then stir in 1 pt. of crude carbolic acid and let stand over night, or longer, to combine. Then add 12 gallons of rain-water, and stir well; apply to the base of the tree with a short broom or old paint brush, taking pains to wet inside of all crevices. This will prevent both peach and apple borers. It should be applied the latter part of June in this climate, when the moths and beetles usually appear. The odor is so pungent and lasting that no eggs will be deposited where it has been applied, and the effect will continue till after the insects have done flying. If the crude acid cannot be obtained, $\frac{1}{3}$ of the pure will answer, but it is more expensive." [Crude carbolic acid is a black and dirty looking fluid, and if not kept by small druggists they can obtain it in the cities; but, mind you, it is a strong acid, and it will destroy the skin or clothing if you get it on them by breaking the bottle or otherwise, so be careful. The crude is what is used in washes for lice about poultry, horses, etc.]

Remarks.—To the above, the editor of the *Recorder* added: "We believe the above remedy for borers would also exterminate grubs from strawberry, raspberry and blackberry roots—only that for strawberries dilute it with double the amount of water." To this I may add: I think 6 or 8 qts. of fine soot dissolved in a barrel of water and thoroughly sprinkled about the roots of these berry plants will kill the borers or grubs that trouble them, and probably 2 lbs. of potash in the same water would also destroy them, sprinkled on in the same way.

Forcing Plants.—For forcing plants that you wish to hurry forward for any reason, 6 or 8 qts. of fine soot dissolved in a hogshead of water and sprinkled upon them and about the roots freely, is said, by the *American Gardener*, to do as well for plants as for bulbs, flowering plants, shrubs, etc.

Bark Lice, or Scale Bugs on Trees, Shrubs, Plants, etc.—Positive Remedies.—Prof. J. H. Comstock says that in fighting scale insects (scale bugs, bark lice) on trees and shrubs that poisonous fumes nor powdered substances have done any good, and that “they cannot be destroyed otherwise than by actual contact. Lye and solutions of soap have been eminently successful. Common or whale oil soap, $\frac{3}{4}$ lb., to water, 1 gal. (dissolve by heat); or lye (concentrated, in lb. cans), 1 lb. to 1 gal. of water, applied when the trees are dormant (not growing—fall or very early spring), has been found to work equally well. Apply with a stiff brush, which reaches the scale under the bark and sweeps off others, but cannot be used on the small branches, and on these Whitman’s fountain pump syringe may be employed for spraying.”

Remarks.—Charles Downing, through the *Rural New Yorker*, says he uses “1 lb. of the lye to 6 qts. of water, just as the buds begin to swell in the spring.” This is undoubtedly strong enough to kill every one it touches.

For Lice on Plants.—Prof. A. J. Cook, in the *New York Tribune*, says that one application of the following mixture is a complete cure for lice on plants: Soft-soap, 1 qt.; water, 1 gal., and kerosene, 1 pt. The soap and water are heated to the boiling point, the kerosene added and all well stirred. The mixture is thus made permanent. It is also used on trees, killing the lice and restoring the vigor of the trees.

Curculios on Plum Trees—Description of and How to Destroy Them.—Mr. A. R. Markham, of Mayville, wrote to Prof. A. J. Cook, of the Agricultural College, Lansing, asking as follows: “Will you kindly describe, through the columns of the *Post and Tribune*, or otherwise, the plum curculio so that an amateur grower can find him? There are many among our farmers who don’t know the pest. I have hunted with great care but have not yet found a sufficient description for me or my friends to identify him. Please make the description sharp and decisive so we can find the terror.”

To this Prof. Cook made the following answer through the *Post and Tribune*: “The plum curculio, which has now for more than a week been making its destructive punctures and characteristic crescents in our plums, and which will continue its ruinous work for a month to come, is a little weevil—that is a beetle, with a prolonged snout or proboscis—not more than $\frac{1}{8}$ of an inch long. It is dark in color, marked with indistinct gray and buff. When at rest its snout or trunk is bent under the body. To surely find it at this season place a white sheet or table spread under a plum tree which is bearing plums and then give the trunk of the tree or the branches, if the tree is large, a sharp blow. The curculios will fall to the sheet. If early in the morning or late in the afternoon they will remain in their humped up condition, by which they feign death, and in

which they resemble small dried buds so closely that they must be carefully inspected to remove the deception. If in the hot sunshine, in the middle of the day, they will soon crawl, or often at once take wing. In this way any one will be able to identify the pests. Very soon their appearance is learned, and one has no trouble to see them at once, when they may be grasped between the thumb and finger and crushed. I have four plum trees. It takes me about 10 minutes each day to catch and destroy the curculios, and by this slight trouble we shall have a fine quantity of beautiful fruit. If we should neglect to fight the 'little Turk' we would get not a plum."

Remarks.—On May 25th Prof. Cook had given, in answer to a Mrs. O. L. Morgan, of Hillsdale, Mich., a more full direction as to the sheet, which should cover all the space under the tree, or such part of the tree as was being jarred; and also of the mallet, etc., which should have a handle at least 6 or 8 feet long, and the ends of the mallet to be well padded with cloth, so as not to bark the tree, nor the large limbs, which must be hit quite hard to fetch them down. But I think a strip of board, 2 or 3 inches wide, 6 to 10 feet long, one end padded, will do as well, and white sheets enough laid down to cover the ground under the tree; and the curculios are then, of course, to be mashed, or destroyed, as you like, and all green and other worms, which also eat into apples, pears, cherries, plums, etc., which, when they shake down should also be destroyed. The shaking, or jarring down should be done just at dusk of the evening, and at early dawn, as long as they are found. It is said that corn cobs saturated with kerosene, and hung by strings to the branches, keeps the curculios away from the trees. This lady also made the following inquiry in relation to

CURRENT WORMS.—"Is London purple as good a remedy for currant worms as white hellebore, and in what proportion is it to be used in small quantities?"

To which Prof. Cook gave this answer: "I should prefer white hellebore to London purple in fighting the currant worms, as it is just as effectual and not so poisonous. If it is thought best to use London purple, and it is safe with the requisite precautions, use 1 oz. of the purple to 5 or 6 gals. of water." Knowing the ability of this gentleman to answer all such questions correctly, I have given them most cheerfully.

Dust of Coal Ashes, Destructive to Currant, Cucumber and Cabbage Worms.—The *Fruit Recorder* says it has for three or four years saved their currants by dusting on fine sifted ashes, and adds: "They are as effective to keep the striped bug off the cucumber vines," and it thinks also effective against the cabbage worm. Certainly coal ashes are an excellent fertilizer for currants and all other small

fruits, as given next below, and I have not a doubt, equally valuable for the orchard generally.

CABBAGE WORM—Successful Remedy.—A correspondent of the *New York Tribune* makes the following statement as to the destruction of this late pest of the garden, not in the least injuring the cabbage, as anyone can judge. He says: "I have used salt for the cabbage worm—at the rate of a large tea-cupful to a pail of water—for the last two years with perfect success. Two applications have been all that were needed. It killed the worms (or at least they died) without hurting the cabbage at all."

Remarks.—The cabbage worm being a soft-skinned thing, I think the salt will destroy them; if it does not in any case, try the copperas water, as given for destroying the currant worm above. The copperas will not injure the cabbage, and, I think, either might be used double the strength given, if needed.

Cabbage Worm, the Best Remedy, as Shown by the New York Experiment Station.—Common yellow hard soap, 1 oz.; kerosene, 1 pt.; water, 1½ gals.; well mixed and stirred and applied by means of a watering-pot, proved the best of anything tried at the above station in 1883. They state that "it kills all the worms it thoroughly wets, and does not injure the plant." They say "it must be kept thoroughly stirred while applying. Several applications may be needed."

Remarks.—But if they will bring the soap and water to the boiling point, then stir in the kerosene, it will make a permanent mixture, like Prof. Cook's in reference to nearly the same for lice or scale bugs on trees.

Cabbage Plants, Best Manner of Setting Out.—In setting out cabbage plants it has been found best to pull off the largest leaves, leaving only the center, as they are then more certain to live and to do better, from the fact that the large leaves often wither and die for want of a ready support from the transplanting.

ANTS, ROACHES, LITTLE SPIDERS, ETC.—To Destroy.—"Hot alum water," says a recent practical woman writer, "is the latest suggestion as an insecticide (insect killer). It will destroy red ants, black ants, roaches, spiders, chintz bugs and all other crawling pests which infest our houses."

Remarks.—This writer does not say how much alum to use. I should say ½ lb. to 1 pail of water, sprinkled about their haunts boiling hot, would do the work well.

Roaches.—I have seen it stated that a pound of powdered borax scattered around their haunts would clear any house of roaches. I have scat-

tered it upon them where they nested in drawers, etc., and have seen them scatter with the dust upon them, like leaves before an autumn wind—like the leaves, never to return. Yet I have heard others say it did no good; but with some of these plans, perseverance must conquer.

Bed Bugs, to Get Rid of.—Spirits of turpentine, $\frac{1}{2}$ pt.; corrosive sublimate, $\frac{1}{4}$ oz. When dissolved apply with brush or feather to every crevice. Go over every 2 weeks till all nits are hatched out and killed—2 or 3 times will do it every time. It is poisonous. These poisonous things are more certain to prevent a return than the others.

Another and better plan is to use carbolic acid, 2 drs., to water, $\frac{1}{2}$ pt., and apply as the others.

Molasses Taffy.—Molasses, 2 cups (Porto Rico is best); sugar, 1 cup; butter, size of a Guinea hen's egg; nuts, a cup or two, if you like; soda, $\frac{1}{2}$ tea-spoonful. DIRECTIONS—Put molasses, sugar and butter together, and boil to nearly the brittle point; add the nuts, if used, then the soda and if not brittle when dropped into cold water, boil until it is. Pour into buttered plates to cool.

Chocolate Creams and Caramels.—These Creams and Caramels were sent to the New York *Examiner*, by "Nula" of Clyde, Wayne Co., N. Y., with the following explanation, also vouching for their reliability. It says: "Candies made at home are so much purer than those made by confectioners that reliable recipes for making them are really valuable. We have used the following ones long enough to know that they can be depended upon."

Chocolate Creams.—Take 2 cups of granulated sugar, and $\frac{1}{2}$ cup of sweet cream, and boil them together for just 5 minutes from the time they begin to boil. Remove from the stove, add a tea-spoonful of vanilla, and stir constantly until cool enough to work with the hands. Roll into little balls, and lay on buttered papers to cool. Put $\frac{1}{4}$ of a cake of Baker's chocolate in a bowl, and set the bowl in hot water to melt. Do not add water. When the chocolate is melted, roll the balls in the melted chocolate with a fork, and replace them on the buttered papers. I never ate richer or more delicious chocolate creams. When the white mixture has partly cooled, it may be dropped on buttered papers, and nut meats be put on top, making it a pleasing variety.

Chocolate Caramels.—Molasses 1 cup, 2 cups sugar, 1 cup rich milk or cream, and $\frac{1}{2}$ a cake of Baker's chocolate. Boil 20 minutes and turn into buttered tins. Cut into squares when partly cool. Flavor with vanilla as you remove it from the stove. The flavoring for any candy ought not to be put in until it is a little cool, to save evaporation of the fine aroma or flavor.

Putty (Old), To Remove Easily.—It is quite difficult to remove the

old putty from the sash when a glass is broken; but if you apply a hot soldering iron to the putty and pass it slowly over all that you desire to remove, it softens it quickly so it can be removed nearly as readily as if just put on. Any iron that is of such shape as to allow its close contact with the putty will do as well as a regular soldering iron, but one of these would be very convenient in every family—especially in the country—for purposes of soldering tinware, to save taking it to town to get it done, or otherwise stuffing a rag into the hole. Soft soap will do the same, but takes much longer.

PICKLES—Very Fine for Present Use and Keeping Over.—Elma, of Hancock, N. Y., in the *Blade*, gives the following plans, and as I know they are good, I adopt them:

I. *For Present Use.*—I will give them in her own words; she says: “I want to give the best recipe for pickles I ever used. I found it 2 years ago in an old book and I do wish you could all have one of the pickles, now about a year old. Pick the cucumbers, being careful to leave on the stems. Small cucumbers make the nicest pickles. [I always prefer a medium sized pickle.] Wash them, sprinkle on enough salt to nearly cover, then pour boiling water over them. Let them stand till cold, or over night. Drain off the salt and water, and put them into cold, spiced vinegar. Repeat this whenever the cucumbers are picked, or until you have made pickles enough.”

II. *To Keep Over Winter.*—“Now for those wanted to keep all winter, take them out of the first vinegar, and cover them with some more, in which put spices to suit the taste. Be sure to have it scalding hot, and put a piece of alum in; also, a dozen slices of horse-radish. A piece of alum the size of a large hickory nut for every 3 gallons of pickles. If you try this recipe, I don't believe you will make them any other way. I do hope this will be published before it is time to pickle. Every one that has ever eaten any of mine says, ‘How do you make them? I never ate such pickles before.’”

Remarks.—The putting on salt, and the water boiling hot, causes the cucumbers to shrink, *i. e.*, they part with their own superabundance of water, so they do not reduce the strength of the vinegar; not only this, but it also extracts a gummy, or resinous juice, making them more palatable and more healthful. Still if it is seen at any time the vinegar is not as strong as it should be, rescaled, or throw away if very weak and flat, and put on new spiced vinegar, or good plain vinegar, as you choose. The alum sets, or helps to retain, the green color; and in the amount she uses, it will be no objection. Of course pickles, or cucumbers for making them, can be put up with salt, covering fairly, each well placed layer, with salt, as filled in, and weighted to keep them close and thus they part with water enough to cover them, without any being added; then fresh-

ened, and treated as fresh, when desired to prepare them. No danger of getting on too much salt, if soaked about 3 days, changing the water daily, when put into vinegar.

French Pickles, Delicious.—Mrs. E. S. Swartsy, in the *Housekeeper*, of Minneapolis, Minn., gives us her recipe, which she says is delicious. “One colander of sliced, green tomatoes; 1 qt. sliced onions; 1 colander of pared and sliced cucumbers; 2 handfuls of salt; let stand 24 hours. (I should think over night was long enough.) Then drain and add celery seed and allspice, each $\frac{1}{2}$ oz.; 1 tea-spoonful of pepper; 1 table-spoonful of tumeric (this is only for color—a yellow shade); 1 lb. of brown sugar; 2 table-spoonfuls of mustard, and 1 gallon of vinegar.

Remarks.—I should think a small head of cabbage and 1 of cauliflower might be added also, with satisfaction; and it would be more Yankeeified, if all were chopped, and the vinegar put on hot.

Drying Fruit at the Manufactories, and Home-Drying.—At a recent meeting of the Ohio State Horticultural Society, at Canton, Mr. James Edgerton read a paper upon the modern methods of drying or evaporating fruits. Mr. S. B. Mann, of Adrian, Mich., in response to requests from the members, gave an account of a fruit-drying establishment in his town, in which five large Alden machines were used. It had cost \$10,000, and had paid for itself in five years. Its capacity was 400 bushels every 24 hours. It gave employment to 50 or 60 hands, chiefly girls, working in 2 sets, day and night, paring and cutting the fruit. The benefit to the community from the establishment was great, and the neighboring farmers would be sorry to lose it from among them. Mr. Mann said, for the benefit of the ladies, that if they would slice fruit across, in thin slices, place it on trays in the sun, covered with thin muslin cloth they could dry fruit which would closely resemble that prepared by the Alden process. Mosquito netting was not so good for covering as thin cloth. In the Alden process, the white color was obtained by driving the fumes of sulphur through the dryer.

These thin sliced apples ought to be dried on wooden trays, not on old tin, by any means. Wooden trays might be easily made about 2 feet long and 15 to 20 inches wide, by nailing pieces of lath, slit up to $\frac{1}{4}$ or $\frac{3}{8}$ square, nailed on end cleats, with a lath of full width on the ends of the cleats running the whole length, to form sides, to prevent the apples from slipping off—the square bits of lath forming the bottom, nailed about $\frac{1}{4}$ inch apart, to allow air to pass up through; the side lath going down a little, say $\frac{1}{4}$ inch below the bottom ones, which would thus allow the free passage of air under and up through the bottom. The thin, or cheap muslin covering preventing the sun from turning the fruit dark colored, and the wood has no tendency, either, to darken the shade of the apples, or other fruit. When once made they last for years, with proper care.

Canning Fruit.—The Manchester *Mirror* gives the following tables for time to boil, and the amount of sugar to each quart jar:

	Minutes.		Ounces.
Boil cherries moderately.....	5	For cherries	6
“ raspberries “	6	“ raspberries	4
“ blackberries “	6	“ Lawton blackberries.....	6
“ plums “	10	“ field blackberries.....	6
“ strawberries “	8	“ strawberries	8
“ whortleberries “	5	“ whortleberries	4
“ pie plant, sliced.....	10	“ quince	10
“ small sour pears, whole....	30	“ small sour pears, whole....	8
“ Bartlett pears, in halves..	20	“ wild grapes	8
“ peaches	8	“ peaches	4
“ peaches, whole	15	“ Bartlett pears	6
“ pineapple, sliced ½ in. thick	15	“ pineapples	6
“ Siberian crab-apple, whole.	25	“ crab-apples	8
“ sour apples, quartered....	10	“ plums	8
“ ripe currants.....	6	“ pie plant	10
“ wild grapes.....	10	“ sour apples, quartered....	6
“ tomatoes.....	20	“ ripe currants	8

Remarks.—The plan of preparing fruit for canning is so well understood, generally, it is not deemed necessary to give any more instruction than is found in the tables. The sugar and the juices are calculated to make syrup enough to fill the crevices. If there is no juice, in any case, a very little water must be put in to start the juice and prevent the sugar from burning at first.

RATS—To Destroy or Drive Away.—Arsenic, bread, butter and sugar. **DIRECTIONS**—If arsenic is to be used get ¼ or ½ oz., and label poison, and keep it away from children. To use it, first spread some slices of bread lightly with butter; then sprinkle on rather freely of the arsenic, and over this with a little sugar, and with a case-knife press the sugar and arsenic well into the butter, so they will not fall off. Now, cut the slices of bread into squares of half an inch or so, and drop into the rat-holes, out of the way of children, chickens, and other animals which you do not wish to kill.

Remarks.—The rats will eat enough of it to kill some of them, and as soon as they begin to die the others will go away and remain a long time; but as soon as they begin to show again repeat the dose, and this generally makes a clear riddance of them.

Rats, To Get Rid of Without Poison, German Method.—A German paper gives the following plan of doing this: “Having first for some

days placed pieces of cheese in a part of the premises, so as to induce the rats to come in great numbers to their accustomed feeding-place, a piece of cheese is fixed on a fish-hook about a foot above the floor. One rat leaps at this, and of course remains suspended. Hereat all the other rats take sudden flight and at once quit the house in a body.”

RATS, ROACHES, ANTS AND MOSQUITOES—Pennyroyal, Potash and Cayenne too much for them.—The *Scientific American* says:

Against Mosquitoes.—If mosquitoes or other bloodsuckers infest our sleeping rooms at night, we uncork a bottle of the oil of pennyroyal, and these animals leave in great haste, nor will they return so long as the room is loaded with the fumes of that aromatic herb.

Rats, to Drive Away.—If rats enter the cellar, a little powdered potash thrown in their holes, or mixed with meal and scattered in their runways, never fails to drive them away.

Roaches, Ants, etc., to keep from the Buttery.—Cayenne pepper will keep the buttery and store room free from ants and cockroaches. If a mouse makes an entrance into any part of your dwelling, saturate a rag with cayenne, in solution, and stuff it into the hole, which can then be repaired with either wood or mortar. No mouse or rat will cut that rag for the purpose of opening communication with a depot of supplies.

Rose-Bugs Killed in Air-Slacked Lime.—Air-slacked lime, S. P. M. in the *Rural New Yorker*, says will kill rose-bugs on grape-vines, blown on in the same way as the pyrethrum powder; then why not kill them when at home, on the rose? I know it must, if applied thoroughly to reach them all. I should, however, not want the lime to lose its strength by very long standing before using. If, however, put on too freely, it may turn the leaves yellow, which is the only objection to its use.

Bugs, on Squash, Cucumber and Melon Vines—Kept off with Cayenne; also the Worm from Cabbage.—A farmer by the name of Lynn, writes to one of the papers, that he has succeeded for many years in driving away cucumber and squash bugs from his vines, by dusting cayenne pepper upon them while wet with dew in the morning. He repeats the operation once a week, and finds 5 cents worth sufficient to keep his cucumber, melon and squash vines free during the season. He recently tried it upon the cabbage worm with success. I have no doubt a few tastes of the cayenne would be enough for them.

Striped Bugs, to Destroy.—Another farmer says: “Saturating ashes with kerosene, and applying a handful in a hill, will keep the striped bugs from cucumbers. It is not the bugs that recommend the recipe, but the people who have tried it. It is said to be more effective than a legislative enactment.”

Remarks.—If it is good for cucumbers, I will also warrant it as good for melons and squashes.

PASTE.—Cement or Mucilage for Labels, Postage and Revenue Stamps, etc.—Soak good glue, 5 oz., in water, 20 oz., for one day; after which add rock candy or loaf sugar, 9 oz. and gum arabic, 3 oz.; and when these are dissolved it is ready to be spread on paper. It keeps well; does not get brittle nor wrinkled, and does not make the sheets stick when they are piled upon each other.—*Dingler's Polytechnic Journal.*

Remarks.—This paper said "parts" instead of oz. The author has made it plain for anyone to understand; drachms or pounds can be substituted for ozs., just as well, according to the amount needed. It will be found reliable.

Mucilage, for Fancy Work.—Gum tragacanth, 1 oz., corrosive sublimate, a thimbleful, and soft water, 1½ pts. Put into a bottle and let dissolve corking tightly. Stir occasionally with a stick. As it is poisonous, it should be kept out of the reach of children. The mucilage will keep for months.—*Toledo Post.*

Remarks.—The sublimate being poisonous prevents insects from eating the fancy work put together with it. If it is too thin to suit any one, which I should think it would be, add more powdered tragacanth to suit.

CEMENT, OR PASTE—New and Strong, That Sticks to Leather, Wood, Stone, Glass, Porcelain Ivory Parchment, Paper, Feathers, Wool, Cotton, Linen, and Even to Varnish.—A new cement which is well spoken of is made by melting in an iron vessel equal parts of common pitch and gutta-percha; it is not attacked by water, and adheres firmly to leather, wood, stone, glass, porcelain, ivory, parchment, paper, feathers, wool, cotton, linen, and even to varnish.—*Pansy, Stryker, Ohio, in Blade.*

Cut Worms, to Destroy.—By accident I have discovered a means and time by which to destroy the great garden pest, the cut or collar worm. On picking up a piece of board that lay in my walk-way, a few days ago, I discovered several worms. Curiosity led me to turn other boards that lay near. To my great astonishment, when I had turned nearly a dozen, in different parts of the garden, I found that I had killed 76 worms and destroyed scores of eggs, which look like little bits of lint cotton rolled up. The next day I searched the same boards, which I had carefully replaced, and killed 78 worms. The third search I found a small collar-head (small cabbage) that had been cut for cows and left by being overlooked. On examining it, there were found under it and on it 26 worms. My suggestion is to lay boards (pine is the best) about for traps, in the spring, and watch them closely; the saving in young vegetables will be immense.—*Southern Plantation.*

Remarks.—Let this destruction of these worms commence as early

as the spring opens, and you may consider your cucumbers, cabbages, etc., quite safe.

CONCRETE—Proportions of Cement, Sand and Granite Used in Foundations.—A gentleman of Kansas made inquiry of the *Blade* for the process of making concrete, or artificial stone; to which the answer was: "There are various processes. The immense masses of concrete that form the foundations of the great East River bridge, between New York and Brooklyn, are composed of Rosendale cement, 1 part (say bushels), 2 of sharp, clean sand, and coarse beach gravel, 4 parts. The gravel was from 1 inch to 2½ in diameter. The cement and sand were first mixed with water in a mill, and afterwards mixed with the gravel by means of shovels used by hand. This concrete, it is expected, will last for centuries."

PAPERING.—Making the Paste, etc.—As many people desire to do their own papering, a few hints will not be amiss:

I. Walls that have been white-washed may be papered by first wetting the walls well with alum water, 1 lb. to 2 gals. of water, and letting dry before papering.

II. Trim one edge off with the shears, and match the pattern as you cut off the lengths.

III. Make the paste the day before it is wanted to have it cold when applied to the paper. A gal. or 5 qts. will be needed for a room requiring 12 to 14 rolls. Mix a little over 1 qt. of flour into a thin dough, and thin down to avoid lumps; put then 1 gal. of water into a kettle, and when it boils, pour in the thin hot batter and stir to avoid burning until it boils again; then pour into a tin pail or pan, and let stand till next day, and if lumpy, strain and press through a coarse muslin, and proceed with the papering. Rub out carefully with a towel all wind puffs, to avoid wrinkles when dry.

PLANTAINS, Etc.—To Destroy on the Lawns.—The country gentleman tells us to destroy these pests by dropping carefully a simple drop of sulphuric acid into the center of the plant. One drop will do the business; more will be likely to do harm.

Remarks.—The harm would be in its spreading to kill grass. The best way to do it carefully is to get what druggists call a "dropper." A small glass tube, having one end small and bent, while at the other end is a small rubber bulb; but you must be careful, also, not to take up acid enough to reach the bulb, as it would destroy that as well as the plants, and your clothes or fingers too, if you get it upon them. I like to see the dandelions in blossom; but they spread so fast 'tis well to destroy them. It must be done as soon after they come up as possible, lest they get too large for a single drop.

Toothache Drops, Japanese, Magical.—To quiet the pains in an aching tooth, nothing can excel Japanese Drops. The formula (recipe) is: "Put together equal parts of creosote, chloroform, carbolic acid (liquid), oil of peppermint, oil of cloves, and oil of camphor (camphorated oil, kept by druggists). The result is a liquid that will give almost instant relief, if applied on a bit of cotton to the cavity of an aching tooth, and yet is no more fiery in the mouth than oil of cloves would be. The drops smell most strongly of creosote, while peppermint predominates in the taste. It is best to swallow as little as possible of the mixture."—*Country Gentleman.*

Remarks.—This properly belongs to the Medical Department, but it is too good to lose, and hence I put it here. A little of it might be rubbed on the gum, but if you get too much about the mouth it will irritate it and make it sore. So only wet a small bit of cotton to put in the tooth, not to have an overplus to run out. See also "Headache Cure, Magical." I have found it the most magical of anything I ever tried for the headache.

FLY STICKUMFAST—Not Poisonous.—Melt rosin, 6 ozs., in a tin cup, then put in lard, 1 rounding table-spoonful, as a woman takes it up for shortening, or about 2 ozs., which should make it like very thick molasses when cold. Spread upon rather stiff paper with a little flat piece of wood or a knife, and place about the shelves, rooms, etc. If a knife is used to spread it, heat the knife over the fire when it will all wipe off with a piece of newspaper or cloth. It will hold all that light upon it, and the more that light the more will come, thinking something good has been found. It holds them fast. Place a paper over the cup to keep flies out when it is set away.

Cesspools Disinfected Instantly.—Prof. Thos. Taylor reports that 1 table-spoonful of spirits of turpentine in 1 pail of water will disinfect an ordinary cesspool instantly, and that in the sick chamber it will prove a powerful auxiliary against germs and bad odors.

Remarks.—Then, I think, 2 or 3 spoonfuls to the pail of water would be equally effective for the water-closet—privy.

CIDER, GRAPE JUICE, ETC.—To Keep from Fermentation.—I. A writer in the *Prairie Farmer* says "that M. Pasteur, the great French scientist, has discovered that any fruit juice which is liable to ferment, can be kept any length of time by heating to 140° F., and then sealing it up, while hot, in air-tight vessels," and continues:

II. "This is nothing new. Cider brought to a boil, skimmed, and then put into tight 10-gallon kegs will keep as long as wanted in cool cellars. Those who are fond of sweet cider can in this way provide to have it all times. If a slight fermentation is desired, a gallon or two

may be drawn into a common jug and exposed to the air for a day or two, to give it a slight sparkle on the tongue. Cider should be boiled in brass, copper or iron, not in tin or galvanized iron pans."

Boiled Cider—How to Do It, and Its Uses.—This is prepared by boiling sweet cider down in the proportion of 4 gals. to 1 (I have always bottled only 3 to 1). Skim it well during boiling, and at the last take especial care that it does not scorch. A brass kettle, well cleansed with salt and vinegar, and washed with clear water, is the best thing to boil it in. For tart pies for summer use it is excellent; and for mince pies it is superior to brandy or any distilled liquor, and in fruit cake it is preferable to brandy, and also nice to stew dried apples in for sauce. It is a very convenient article in a family.—*Country Gentleman*.

WINE—Wild Grape, to Make.—I had occasion at one time, in Ann Arbor, to use some wine, and a neighbor woman told me she had some very nice of her own make. I obtained some, and proved it to be as she said, I found it was made of wild grape juice—half-and-half—with water. First having mashed the grapes and let it stand 2 or 3 days, then press out and strain, adding the water and white sugar 16 lbs. to each 5 gallon keg, and let work 2 weeks, filling up full with more of the same, and bung tight. In February, when I obtained it, it was very nice indeed. Almost, if not quite, equal to port—better than half the port we buy.

Blackberry Wine, to Make Properly.—Take, of course, clean kegs or casks; let the berries be ripe; extract the juice with a small wine or cider press, or it can be done through coarse cotton cloths; then pass the juice through a strainer; let the juice stand for 2 or 3 days in the tub until the first fermentation is over, then skim off the top carefully, and add to every quart of juice 3 lbs. of the best yellow sugar, and water enough to make 1 gallon. Put all in a kettle and let it come to a boil, and then skim again. When cool put in a keg, fill up to the bung, place in the cellar and let it remain there with the bung off until after the second fermentation, which will be in 4 or 5 days. Meantime keep the cask full by pouring in wine that has been reserved for the purpose. After the second fermentation put in the bung tight and let it remain in the cask several months, say to the following February or March, when it should be carefully drawn off and put in bottles, or, what is better, demijohns of from 1 to 5 gallons. It will keep for any length of time without the addition of a drop of whisky or brandy, and will prove a very agreeable and wholesome drink.—"*Sophia B.*" in *German-town Telegraph*.

Remarks.—Mostly used as a medicine in looseness of the bowels, de-

bility, etc.; taken immediately after meals, as a tonic, in quantities of a wine-glassful or more, as needed.

Unfermented Wines, to Make.—The juice of grapes, blackberries, raspberries, etc., pressed out without mashing the seeds, adding water, 1 pt., and sugar, $\frac{1}{2}$ lb., for each pint of the juice; then boil a few minutes skimming if any sediment or scum rises, and bottling while hot, corking tightly, cutting off the corks, and dipping the tops into wax, and keeping in a dry, cool place, gives a wine that no one would object to, if iced when drunk. They are nourishing, satisfying to the thirst, and not intoxicating because there has been no fermentation. Made of grapes, this wine is in every way suitable for communion.

BEERS—Ginger, English.—Loaf sugar $2\frac{1}{4}$ lbs.; cream of tartar, $1\frac{1}{2}$ ozs.; ginger root, $1\frac{1}{2}$ ozs.; 2 lemons; fresh brewer's yeast, 2 table-spoonfuls; water, 3 gals. **DIRECTIONS**—Bruise the ginger, and put into a large earthenware pan, with the sugar and cream of tartar; peel the lemons, squeeze out the juice, strain it, and add, with the peel, to the other ingredients; then pour over the water boiling hot. When it has stood until it is only just warm, add the yeast, stir the contents of the pan, cover with a cloth, and let it remain near the fire for 12 hours. Then skim off the yeast and pour the liquor off into another vessel, taking care not to shake it, so as to leave the sediment; bottle it immediately, cork it tightly; in 3 or 4 days it will be fit for use.

Ginger Pop.—White sugar, $\frac{3}{4}$ lb.; cream of tartar and ginger root, bruised, each $\frac{3}{4}$ oz.; juice and grated yellow of 1 lemon; water, 1 gal.; fresh yeast, 1 table-spoonful; ess. of wintergreen or sassafras as you prefer, or half as much of each, if a mixed flavor is liked. **DIRECTIONS**—Put all into a jar, except the yeast and ess.; and pour out over the water, boiling hot; cover, and let stand until it is only luke-warm, and add the yeast and ess., and let stand in a cool place 24 hours, strain and bottle, securing the corks tightly. It will be ready in about 3 days. More or less flavor may be used to suit different tastes.

Cream Beer or Soda, any Flavor.—Sugar, $2\frac{1}{4}$ lbs.; citric acid, 2 ozs.; juice of 1 lemon; water, 3 pts. **DIRECTIONS**—Dissolve by heat, and boil 5 minutes; when cold add the beaten whites of 3 eggs, beaten into a small cup of flour; and then stir in the ex. of lemon, or the ex. of any other flavor you desire; bottle and keep cool; put 2 table-spoonfuls more or less as you prefer into a tumbler of cold water, and stir in $\frac{1}{8}$ to $\frac{1}{2}$ tea-spoonful of soda, and drink at your leisure, as the eggs and flavor holds a cream on top.

Summer Drink, Pleasant for Sick or Well Persons.—Mash a few currants, and pour on them a little water, strain, sweeten, and add sufficient cold water to suit the taste, though it is best to use the currants

pretty freely, and sugar accordingly as the acid of the currant makes this drink peculiarly grateful to the sick as well as those in health, satisfying the thirst of either. Currant jelly in cold water makes a good substitute for currants; and is next to that of tamarinds, which is undoubtedly the best to allay the thirst of fever patients of anything known. Lemons do very well. See next receipt.

Lemon Syrup, to Prepare When Lemons are Cheap.—A very handy way of supplying summer drinks, or even for winter, when lemons are at a low figure, is to take any quantity, press the hand upon each, and roll it back and forth briskly, to break the cells, and make the juice press out more easily into the bowl, never into tin, as it gives a bad taste from the action of the acid upon the tin. Remove all the pulp from the peels, leaving the rind thin, cut them up, and boil a few minutes in water, 1 pt. to a doz. peels; strain the water, and add the juice to it by measure, and put nice white sugar, 1 lb. to each pt. there was of the juice; leave in, boil for 10 to 20 minutes to form the syrup, then bottle and cork tightly. One to 2 table-spoonfuls to a glass of cold water gives you a cool, very healthful and very pleasant drink, for sick or well, at any time of the year; and a currant syrup may be made in the same way, using about half as much more sugar to each pint.

Lemon, and Other Syrups, for Fountains, Home Use, or the Sick.—Put in 4 ozs. of citric acid in a bottle with soft water, $\frac{1}{2}$ pt. To make lemon, pineapple, orange, or any of the acid berry syrups, put $\frac{1}{2}$ oz. of the above solution into 1 pt. bottle, add 2 drs. of ex. of lemon, or any of the others named and fill with simple syrup, shake and 'tis ready for use. One table-spoonful of this syrup to a glass of water makes a very satisfactory drink for the sick or well. When made in a glass, if effervescence is desired, stir in $\frac{1}{2}$ tea-spoonful or a little less soda.

For Sarsaparilla, Vanilla, Etc.—That have no acids in their composition no acids should be put in—still they will not effervesce with soda unless the acid is used.

Remarks.—I have used the lemon syrup made as above, 1 tea-spoonful, and 1 tea-spoonful of sugar put in $\frac{3}{4}$ pt. of hot water, which makes it very palatable. When taken an hour before meals it has no injurious effect upon the stomach or other parts of the system. See Hot Water for Dyspepsia for example.

Lemonade—Portable, Convenient and Excellent.—Powdered tartaric, or citric acid (the latter is preferable), 1 oz.; powdered sugar, 6 ozs.; extract of lemon, 2 drs. DIRECTIONS—Mix thoroughly and let dry in the sun. Rub thoroughly together after drying, divide into 23 powders. One makes a glass of good sweet lemonade. Handy to have when going hunting or picnicing.—*San Francisco Cook.*

SUMMER DRINKS—For the Field or Workshop, Nourishing as well as Allaying Thirst.—Make oatmeal into a thin gruel; then add a little salt, and sugar to taste, with a little grated nutmeg and one well-beaten egg to each gallon, well stirred in while yet warm. This was first suggested by the Church of England leaflets put out among the farmers and others to discourage them from carrying whiskey into the field.

If the above plan is too much trouble, although it is, indeed, very nourishing and satisfactory, take the Scotch plan of stirring raw oatmeal into the bucket of cold water and stir when dipped up to drink. I drank of this at the building of the New York and Brooklyn bridge, which I visited with my son while in New York in the Centennial year of 1876, on our way from Philadelphia, and we were highly pleased with it. As near as I could judge, $\frac{1}{2}$ to 1 pint was stirred into a common 12-quart pail. The workmen drank of it freely preferring it to plain water very much.

Home-Made Filter, Cheap and Very Satisfactory.—Take a large flower-pot, put a piece of sponge over the hole in the bottom, fill $\frac{3}{4}$ full of equal parts of clean sand and charcoal the size of a pea; over this lay a woolen cloth large enough to hang over the sides of the pot. Pour water into the cloth and it will come out pure after the dust from the coal has been run off by a few fillings. When it works too slow take off the woolen cloth and wash it thoroughly and replace it again is all that will be required for a long time.

Farmer Boy's Water-Proofing for Boots.—"Farmer Boy," of Buchanan, Mich., gave one of the papers the following water-proofing for boots, which will be found good. He says: "Melt together beef tallow, 4 ozs.; rosin and beeswax, each, 1 oz., and when nearly cooled add as much neat's-foot oil as the above mixture measures (6 ozs. will be near enough). It is to be applied with a soft rag, both to the soles and uppers. The leather should be warmed meanwhile before the fire, and the application well rubbed in. It requires two applications to make the leather thoroughly water-proof."

Allen's Excelsior Axle Grease.—Castor oil and linseed oil, each, 1 qt.; tallow and rosin, each, 2 lbs.; beeswax, 1 lb. DIRECTIONS—Heat all well together, stirring to incorporate, and stir till cool.

Remarks.—"If either of these are too hard," he said, "add a little Neat's-foot oil; if too soft, a little more tallow." They will prove valuable.

1. **RECIPES FOR BAKING POWDER.**—Tartaric acid, 1 oz.; cream of tartar, 10 ozs.; bicarbonate of soda, 5 ozs. Mix thoroughly. This is improved by the addition of 4 ozs. of flour.

2. Cream of tartar, 6 ozs.; bicarbonate of soda, $2\frac{2}{3}$ ozs.; flour, $4\frac{1}{2}$ ozs.

Remarks.—This receipt was procured from a chemist, and is a receipt for one of the best brands of baking powder sold by the trade.

BOB HEATER'S SHAMPOO—Hair Tonic—Very Strong. First put oil of sweet almonds, 4 ozs., into alcohol, 1 pt., and put in oil of bergamot, 2 drs., or 1 dr., with oil citronella, 1 dr., when it can be had; then add aqua ammonia, 4 ozs.; rye whiskey, 8 ozs.; gum camphor, $\frac{1}{2}$ oz.; mix. Shake before applying, and rub it in thoroughly.

Remarks.—“Bob” Heater, a barber of Dresden, Ohio, where I married, and afterwards lived 14 years. obtained the first part of this receipt from a Mr. Squires, and put to it what we call the *addenda* or added portion, which makes it a strong and efficient tonic, to be used in cases where there is much falling out of the hair, or if considerable dandruff is present. He used it upon my own hair during the winter of '74, which myself, wife and son spent in the “old home.” It eradicated the dandruff and stopped the falling hair, and I still have an excellent head of hair at nearly 68 years of age, while at that time I thought it was all going. He had equal success with some others in a similar condition.

HAIR OIL, OR DRESSING—Very Fine.—Castor oil and cologne alcohol, each $\frac{1}{2}$ pt.; oil of lemon-grass, 1 dr.; oil of bergamot, 1 dr.; mix.

Remarks.—When in Detroit a year or two ago, a barber applied some oil to my hair, after asking, “some oil, sir?” and the perfume being superior to what my home barber used, I inquired its composition; and being referred to his druggist, the above was the result. I have never smelled a nicer perfume. Barbers often use 2 ozs. of castor oil to 1 oz. of alcohol, when they desire an oil to help keep the hair in position. Even 2 to 1, like this, it is not gummy or sticky. But for ladies to keep their hair crimped, see “Crimps in damp weather.”

COLOGNE—Exceedingly Fine.—Oils of bergamot and lemon (oil of lemon-grass would be nicer), each 2 drs.; orange, 1 dr.; rosemary $\frac{1}{2}$ dr.; neroli, $\frac{3}{4}$ dr.; essence ambergris and musk, each 4 drops; cologne alcohol, 1 pt. Shaken occasionally.

Remarks.—Cologne alcohol has been purified to remove all of the flavor of the corn spirits, and should always be used for all purposes where a fine perfume is desired, the difference in expense should be very trifling only. I could give more colognes, but if the oil of lemon-grass is used in this there can be none nicer. I will give a cheaper one which will be quite fine in flavor.

Cologne—Cheap.—Cologne alcohol, 1 pt.; oils of English lavender and bergamot, each $1\frac{1}{2}$ drs.; oil of rosemary, $\frac{1}{2}$ dr.; oil of cinnamon, 2 drops; essence of lemon, $1\frac{1}{2}$ drs.; mix.

PERFUME BAGS—To be Put in Among Clothing—Also a Preventive Against Moths.—Cloves, nutmegs, mace, carraway seeds, cinnamon, and Tanguine leaves, each $\frac{1}{2}$ oz.; Florentine orris root, 3 ozs. DIRECTIONS.—Have all ground to a fine powder, nicely mixed, and put up in small bags to place among clothing. It gives them a fine perfume which the moths protest against, and hence the clothing is saved from their destruction.

BANDOLINE—For the Hair—As Used in India.—Quince seed (which, in India, is called behdana), $\frac{1}{2}$ oz.; essence of bitter almonds, or any perfuming oil, a few drops only; water 1 pt.; alcohol 3 ozs. DIRECTIONS.—Pour the water, hot, upon the behdana, and let stand over night; strain; put the essence of perfuming oil in the alcohol, and add; then bottle, and keep corked.

The ladies know that the miscellaneous properties of the behdana (quince seed) enables them to maintain any desired position of the hair, by first wetting with it and keeping the hair as desired until dry; but probably are not so well aware that the alcohol prevents it from spoiling by keeping it corked.

Remarks.—The word, bandoline, comes from the French word *bande* or *bandeau*, meaning a band or belt, because the hair has to be kept in position by a band of thin cloth, or better, a bit of old lace, to allow the air to come in contact with the hair until dry. When quince seed are not obtainable, the following makes a good substitute:

Crimps in Damp Weather—To Keep in Place.—A very good bandoline is made by the use of gum Arabic or gum tragacanth (the Arabic is most used while the tragacanth is the best), say $\frac{1}{2}$ oz. powdered, pouring on just enough boiling water to dissolve it; then adding alcohol enough to make it rather thin (about 1 oz.). Let stand open all night, then bottle for use. DIRECTIONS.—Wet the bangs with this mixture at bed time, and twist or curl the bangs upon the forehead, as desired; then put over a bit of lace, or a gauze band (French *bandeau*), to keep it in position till dry, or rather, till morning; then remove the *bandeau*, and pull the crimps out with the fingers until they are soft and fluffy." It does not injure the hair, nor will the bandoline of quince seed above. It will not come out, even in damp weather. If there is any gum on the hair, rub it off with the fingers, and if it looks dull, touch the fingers to a little glycerine and rose-water dressing, and pass them lightly over the hair to give it a shiny appearance.

Hair Curling Liquid.—Salt of tartar (which is carbonate of potassa), $\frac{1}{4}$ oz., aqua ammonia and cologne, each, 1 dr.; glycerine, $\frac{1}{4}$ oz.; alcohol, $1\frac{1}{2}$ ozs., distilled or pure soft water, 1 pt. If you wish it to have color, add $\frac{1}{2}$ dr. of powdered cochineal. Shake daily for a week, and filter, or strain. DIRECTIONS.—To use it, moisten the hair with it and adjust it

loosely, as it dries it shows its tendency to curl; then run the fingers through it to lighten it up, as you desire.

COSMETICS FOR THE FACE.—For a very fine one (see face wash), Mrs. Chase's following treatment of pimpled face, etc.: Put flake white, $\frac{1}{2}$ oz., in bay rum and water, each 2 ozs., and applied after shaking, to the face, with a piece of soft flannel, and when dry, wiped or rubbed off where too much white shows, is excellent. But I have much faith in the old lady's only cosmetic, given next below:

An Old Lady's Only Cosmetic.—"The only cosmetic I have used," said an old lady, "is a flannel wash-cloth. For forty years I have bathed my face every night and morning with clear water as hot as I can bear it, using for the purpose a small square of flannel, renewed as often as it grows thick and felt-like. My mother taught me to do this, as her mother had done before her. No soap nor powder, nor glycerine even, has touched my face, and this is what my skin is at 60," she finished, touching with pardonable pride a cheek whose peachy bloom and fine soft texture gave effective emphasis to the recipe.—*Harper's Bazar*.

Remarks.—This bathing of the face and neck with the hot water every night and morning, with a good rubbing with the flannel, certainly brings the blood to the surface, and what is there so nice as the beautiful carnation of a lady's cheek and lips, who has never spoiled God's beautiful arrangement for this beauty with pinky powders, or the swarthy liquids, in her attempt to outdo nature's handiwork. The pale and sickly may be excused for trying to imitate it, but the healthy and naturally beautiful, cannot be excused in their attempts to beat it. It cannot be done, no matter how skillfully it may be tried.

Hair to Bleach, or Color a Blonde.—"A. L. B." of Paragon, Ind., says to the *Blade*: Please give a recipe for coloring the hair a blonde. I have tried a good many things and have not succeeded; to which they gave the following: Mix in 10 ozs. of distilled water (pure rain water will do; but druggists keep distilled water, and it costs but little), acetate of iron and nitrate of silver, each 1 oz., with nitrate of bismuth, 2 ozs. Moisten the hair with this mixture and, 1 hour after touch it with a mixture of equal parts of sulphide of potassium and distilled water.

Remarks.—From my knowledge of the nature of the articles, I haven't a doubt of its success; but not wishing to change my white locks to a beautiful blonde, I have not tried it. To give the hair a glossiness after its use, apply some of the dressings before mentioned.

1. POMADE—For the Hair, Lips, Chapped Hands, etc.—Oil of sweet almonds, 4 ozs.; spermaceti, 1 oz.; oil of lemon-grass, or oil of neroli (which is oil of orange flowers), $\frac{1}{2}$ dr. DIRECTIONS—Use sufficient heat to melt the spermaceti in the oil of almonds, and when cool stir

in the perfuming oil, and put into a large mouth bottle, to reach it with the finger. Of course, all flavored, or perfumed, or alcoholic mixtures, should be kept corked.

2. Pomade, Very Fine.—White wax, $1\frac{1}{2}$ ozs.; pure glycerine, 2 fl. ozs.; castor oil, 12 fl. ozs.; oil of lemon (I would say lemon-grass), 5 drops; oil of bergamot, 2 drops; oil of lavender, 1 drop; oil of cloves, 10 drops; annatto, 10 grs.; alcohol and water as below. **DIRECTIONS**—Dissolve the wax in $\frac{1}{4}$ of the castor oil, with as little heat as possible, then titurate, or rub in the balance of the castor oil and glycerine, and stir till cool, and add the perfuming oils. Rub the annatto in 1 dr. (teaspoonful) of water until smoothly mixed, then add the same amount of alcohol to it, and stir it into the pomade. Do not use too much heat, and use the bandest (nicest) castor oil.—*American Magazine of Pharmacy.*

Remarks.—This makes a very fine pomade. The annatto is only to give it color. The same amount of cochineal would give it a reddish shade, instead of a yellowish, with the annatto. Tumeric would give a yellowish shade, and carmine a carnation, all fine in themselves, to choose from. But it is just as good without either.

Depilatory, Our Own Druggist's.—Powdered, unslacked lime, 8 drs.; carbonate of potash (which is salts of tartar), and sulphuret of potassium, each 1 dr. Mix and keep dry as the first above. **DIRECTIONS**—Mix only to cover a small space at a time, leaving on only 5 to 10 minutes; then scrape off, which fetches the hair.

Remarks.—I have had this prepared and sent to various persons, on their application to me for such preparation. I tell all, however, better let the hair grow, than to try to destroy the follicles, as this would require to keep on the mixture till it would make a sore, equal to a bad burn. If in any case this is done by accident, or to destroy the hair follicles, treat the sore the same as a burn.

Camphor Ice, for Rough Face, Lips, Chapped Hands, etc.—Benzoated suet, $\frac{1}{2}$ lb.; white wax, 2 ozs.; powdered camphor, 1 oz.; English oil lavender, 1 dr. **DIRECTIONS**—To make the benzoated suet, it is rendered and strained and 2 drs. of powdered benzoin, or benzoic acid, stirred in; the wax is melted in it by gentle heat; the camphor gum has to be powdered by putting a few drops of alcohol upon it (best let the druggist do this), then stirred into the wax and suet mixture, and when quite cool, the lavender added, and poured into boxes or large mouthed bottles. Apply as often as needed to keep soft.

Remarks.—I think vaseline, as now kept by druggists, equal, if not better, than the suet (lamb suet is used).

1. **Bay Rum, Barbers'.**—Magnesia and powdered borax, each, 30 grs.; oil of bay, $\frac{1}{2}$ to 1 dr., alcohol, 2 ozs.; dilute alcohol, 1 qt. DIRECTIONS—First, rub the magnesia, borax, and oil of bay in the 2 ozs. of strong alcohol, in a mortar; then put into a filter and gradually pour on the dilute alcohol to percolate through the magnesia.—*Mt. Vernon (O.) Barber.*

Remarks.—The more oil of bay the more it is like bay rum. It will prove very satisfactory for the hair or to use about the person when sick, by washing with a sponge and putting on the handkerchief, the same as cologne may be used, then passing over the face, smelling, etc. It is a grateful relief to the sick, thus used as freely as they desire.

Wash for Ladies' Hands.—This very appropriately comes in here, as it is really a toilet wash. Put powdered borax, 5 ozs., into a bottle with water, 1 pt. If this all dissolves, put in enough to always keep some borax, undissolved, at the bottom. When the garden work is done for the day, put enough into the water in which the hands are to be washed to make it soft or slippery as suds. "It is very cleansing," says Prof. Beal, of the Michigan Agricultural College, Lansing, "and by this use of it the hands will be kept in excellent condition, smooth and soft and white." Of course, a little of this in water to wash the head will cleanse the scalp as nicely as the hands.

Wash for the Hands When Roughened by Cold or Labor.—Wash the hands in vinegar in which a handful of Indian meal is put, rubbing thoroughly, then wash off and apply some hair dressing, made of equal parts of glycerine and rose water, which will soften and heal them, and be found very grateful to their irritated, or even chapped condition, in the cold wintry winds.

Wheat bran, in the water, is also considered excellent, so is oatmeal also good for the same purpose, but the following, perhaps, is a better way to use the last.

Oatmeal Soap to Keep the Hands Soft in Winter.—Take the white castile soap (the white is the mildest), $\frac{1}{4}$ lb., and melt it with very gentle heat, in sweet almond oil, 1 oz.; then remove from the fire and stir in oatmeal, $1\frac{1}{2}$ ozs.

Remarks.—"Rosemary" says this is the only soap ladies should use in the winter; I will add if 1 dr. of Rosemary's oil were put in, it would make them think of her peculiar flavor, every time they used the soap.

DANDRUFF—To Remove.—Cleanse the scalp thoroughly. Take as much boracic acid as you can dissolve in a cup or pint of water, and apply the solution 3 times a day.

Remarks.—There is nothing better than the white of an egg, well beaten, to cleanse the scalp.

Mr. E. Wilson recommends the following wash for dandruff: Take of caustic potash, in solution, 2 drs.; rose water, 8 ozs. Mix, and apply.

1. BRASS, TO CLEAN.—Nitric acid, 1 part; sulphuric acid, $\frac{1}{2}$ part; (half as much) in a stone jar. **DIRECTIONS.**—“Have ready a pail of fresh water, and a box of sawdust. Dip into the acid (or swab on), then into the water (or swab on), and rub with the sawdust. A brilliant color is immediate. If things are greasy, first dip into a strong solution of potash or soda (or swab on), to cut the grease. It is used at the U. S. arsenals, and considered the best in the world.

2. How to Clean Brass, Copper, Tin, etc.—The following mixture will be found the best thing for cleaning brass, copper, tin, stair-rods, taps, and even windows, and it is quite worth the trouble of making: Whiting, pulverized rotten stone, and soft soap, each 1 lb.; vinegar, 1 cup, and as much water as makes it a thick paste; spirits of turpentine $\frac{1}{2}$ pint. **DIRECTIONS.**—Let it boil fully 10 minutes, and when nearly cold, add the turpentine, and store in wide-mouthed pickle jars of glass or stoneware. When to be used, put a very little of it on a rag, and rub the article until it becomes bright. Polish with a soft leather dipped in powdered bath-brick. Unless bath-brick is used, it soon tarnishes.

3. Brass, the Dirtiest, to Clean Very Quickly.—Finely rubbed bichromate of potassa, mixed with twice its bulk of sulphuric acid, and an equal quantity of water, will clean the dirtiest brass very quickly.

4. Another.—Clean brass with a paste made of oxalic acid, 1 oz.; rotten stone, 6 oz.; and enough whale oil and spirits of turpentine, in equal quantities to mix.

5. Stained Brass, Silver, etc., to Clean.—Whiting wet with aqua ammonia will clean stains from brass and silver, and is excellent for polishing door knobs, of brass, or silver, faucets, fenders, rods, etc.

Remarks.—All the foregoing are good, so take your choice of such as you can obtain the handiest.

1. Steam Pipes to Cover, to Prevent Loss of Heat.—Coal ashes 4 parts (qts. or bushels, no matter what the measure), sifted through a riddle 4 meshes to the inch; calcined plaster (of Paris), wheat flour, and fine dry clay, each 1 part (1 measure of each of these are used to 4 of ashes.)

DIRECTIONS.—Mix ashes and fine clay together (with water), to the thickness of thin mortar, in a mortar-trough; mix the calcined plaster and flour together dry, and add to the ashes and clay mortar, as you want to use it; put it on the pipes in two coats, according to the size of the pipe. For a 6-inch pipe, 1st coat $1\frac{1}{4}$ inches thick, the 2d coat about $\frac{1}{2}$ inch. Afterwards finish with a

hard finish, same as for a room. About $2\frac{1}{2}$ hours will be required to set, on a hot pipe.

2. Steam Pipes, Protection Efficient and Cheap.—A mechanic reports through the *Detroit Post and Tribune*, a little different from the above, you will see, using hair and leaving out the flour. He says: "One hundred lbs. of clay are mixed with water, and 100 lbs. of fine ashes added and well kneaded, then mix with 1 lb. of hair. This mixture is well incorporated and allowed to stand until needed to use. Just before using, 10 lbs. of ground plaster of Paris are mixed with it. The mixture, of course, soon sets, and cannot be kept over 12 hours after the plaster is added."

Remarks.—The clay should, no doubt, be dry, then made fine, else allowance made for the moisture in it; and this latter make no distinction as to ashes, whether wood or coal. I think cleanly sifted coal ashes preferable. The plaster of Paris, it will be seen too, is not calcined (dried in a hot kettle.) If so done, it sets quicker, which is its only advantage, and it may be an advantage, sometimes, not to have it set too quick. The hair, I think, a decided advantage, but it should be thoroughly whipped. If good for pipes, it must be equally good for boilers.

"Zincing Iron"—Without a Battery.—"The following" is an excellent and cheap method for preventing iron articles, exposed to the air, from rust. They are to be first cleaned by placing them in open wooden vessels, in water, containing $\frac{3}{4}$ to 1 per cent. (" $\frac{3}{4}$ to 1 per cent.," means $\frac{3}{4}$ to 1 pt., or part, to 100 pts. or parts, in the "wooden vessel" of water), of common sulphuric acid, and allow them to remain in it until the surface appears clean, (bright) or may be rendered so by scouring with a rag or wet sand. [This may be done in a revolving cylinder by machinery.] According to the amount of acid, they may require to remain in from 6 to 24 hours. [Then, if time is of any account, use more acid, up 5 or 6 per cent.] Fresh acid must be added according to the extent of use, and the amount of liquid; and when this is saturated with the sulphate of iron (the rust of iron from the articles being cleaned) it must be renewed. After removal from this bath ("wooden vessels,") the articles are rinsed in fresh water and scoured until they acquire a clean metallic surface (become "bright," as above remarked); and then they are to be placed in water, in which a little slacked lime has been stirred, and kept there until the next afternoon. When thus freed from rust, they are to be coated with a thin film of zinc, while cold, by means of chloride (more commonly called muriate) of zinc, which is made by filling three-fourths full a glazed earthen vessel with muriatic acid, then adding zinc clippings (little pieces of zinc) until effervescence ceases.

[Effervescence is shown by the rising of bubbles; when these stop rising, it has dissolved all the zinc it will cut, is saturated, as chemists say, and is then called muriate of zinc, and is the same as tanners use upon their seams before applying solder.]

"This liquid (muriate of zinc) is now to be turned off from the undissolved zinc and preserved in glass vessels.

"For use, it is poured into a sheet zinc vessel, of suitable size and shape for the objects or articles to be zined, and about 1-30th part of its weight of finely powdered sal ammoniac is to be added. The articles are to be immersed in this ("cold," as above mentioned), and a scum of fine bubbles forming on their surface in from one to two minutes, indicates the completion of this part of the operation. The articles are next drained so the excess may flow back into the vessel. The iron articles are thus coated with a thin film of zinc, and are to be placed on clean sheet-iron plates, heated from beneath, until perfectly dry, and then dipped piece by piece, with tongs, or other means, into very hot, though not glowing molten zinc, for a short time, until they acquire the temperature of the melted zinc, into which they are being dipped. They are then removed and beaten, or tapped lightly, to cause any excess of zinc to fall off, while yet hot."

Nickel Plating, Without Battery.—"To a dilute solution of the chloride of zinc—5 to 10 per cent.—(5 to 10 lbs. to 100 lbs. of water)—enough sulphate of nickel is to be added to give the solution a decidedly green color, and it is then to be heated to boiling in a porcelain vessel. The heating makes the solution cloudy, but does not injure it. The articles to be nickel plated are to be carefully cleaned of rust or grease, (see 1st receipt above for cleaning brass), and then suspended in the solution from 30 to 60 minutes, the bath being kept at a boiling temperature. When the articles are observed to be uniformly coated, they may be removed, washed in water, in which a little chalk is suspended, dried, and finally polished with chalk, or other suitable material."

Remarks.—This discovery is credited to a Prof. Slatba, and will be found valuable. Precipitated chalk is very fine, but rotten stone, as in some of the above receipts for polishing brass may be found preferable. Zincing is done mostly on small cast-iron articles, while this nickel-plating is used on a finer class of goods.

Silver Plating, With a Battery.—1. Dissolve 1 oz. of pure silver (like old coin) in nitric acid, by pouring the acid upon the silver until all is dissolved—perhaps 4 ozs. of acid to cut 1 of silver—then dissolve salt in soft water until very strong; now pour of this salt water into the acid and silver until all the silver sinks to the bottom, scientists say, until all is "thrown down;" then fill the jar or bottle with soft water, shake up, and let settle; then pour off carefully, and fill again and again, for three times, shaking well each time, or until there is no acid or taste of acid left. This, if carefully done, without waste, gives you 1 oz. of silver in fine powder.

2. In a suitable jar or dish, dissolve cyanide of potassium, 6 ozs. in soft rain water, 2 qts., into which put the silver powder, which will be dissolved therein, and this constitutes the plating solution.

3. In this solution the articles to be plated are to be suspended upon a silver hook. And in this solution must also be suspended a plate (generally in sheet form) or piece of pure silver, with about as much surface as there is surface to the articles to be plated, as it is necessary to keep the strength of

the solution up to this standard—the silver, therefore, that is deposited upon the articles being plated, dissolved off of the “plate, sheet, or piece of pure silver,” as it is deposited upon the articles—the solution remaining full strength and ready for continued use. Of course the “battery” is connected with this “plating solution.”

Remarks.—The battery used is the same as used by telegraphers, who will instruct one how to prepare and “connect” it. All articles to be plated must be freed from grease with a solution of potash or soda, as in the above processes. This is from a friend in Ann Arbor, whom I know to be reliable from over 25 years acquaintance.

Steel—To Temper Very Hard.—“Take water, 2 measures—no matter what size—wheat flour, $\frac{1}{2}$ measure, and 1 of common salt.

DIRECTIONS.—Mix into a paste; heat the steel to be hardened enough to coat with the paste—by immersing it in the composition—after which heat it to a cherry red and plunge it in cold, soft water. If properly done, the steel will come out with a beautiful white surface, and very hard.”

Remarks.—It is said this is the process by which Stubbs’ files are tempered, which are recommended below, for drilling glass.

1. Steel and Iron Machinery—To Keep From Rusting.—Powdered camphor gum, $\frac{1}{2}$ oz.; lard, 1 lb.; a little black lead.

DIRECTIONS.—Dissolve the gum in the lard by heat; remove the scum, stir in just black lead enough to give an iron shade. Rub this over cleaned steel or iron machinery of any kind, and leave on 24 hours; then rub with a soft linen cloth, and it is safe from rust for a long time.

Iron or Steel Varnish—To Prevent Rust.—Rosin, 120 parts (drs., ozs. or lbs.); gum sandarach, 180; gum lac (shellac), 60; spirits of turpentine, 120; and alcohol, 180 parts.

DIRECTIONS.—Pulverize the three first articles and melt together; and gradually (and carefully, to avoid taking fire), add the turpentine, continuing the heat until all are again dissolved (if they harden) in the turpentine; then add the alcohol, and filter through a fine cloth (muslin) or thick filtering paper, bottle and cork for use.—*Manufacturer and Builder.*

Remarks.—The straining or filtering indicates its intention for fine articles; without it, it would do for outside railings, or ornamentation; and if desired black, for iron balustrades, fence, etc., add a little fine lamp-black, which will adapt it to such work, and look very nicely. See also Black Paint. How to Make for Iron Work.

3. Steel—Rust Upon—To Remove.—Cover the steel for a couple of days with sweet oil; then with finely powdered unslacked lime (known as “quick” lime), rub the steel until all the rust is removed; re-oil to prevent further rust.—*Indian Domestic Economy.*

2. Another plan, is, to place the rusty article in a bowl of kerosene, else to wrap the steel in a cloth well wet with kerosene, and let it remain 24 hours, or more; then scour the rusty spots with brick dust.

Remarks.—If brick-dust is used, bath or bristol brick would be best, but the powdered unslacked lime would be better than either, as it has an active power in itself of removing rust, and if time cannot be given, this powdered quick-lime, and the sweet oil or the kerosene, will remove it in a few minutes, by thorough rubbing; so will it with ammonia. Always apply oil, or some of the oily mixtures, at the last, to prevent the rust from deeper penetration.

4. Steel Dinner Knives, Rust to Remove.—Cover the steel with sweet oil, well rubbed in; let them remain 48 hours, and then using unslacked lime, finely powdered, rub the knife till all the rust has disappeared.

Remarks.—I should not like to go without my meals while this process was going on; hence I should let them lie over night only, and risk the job at that.

5. Steel Apparatus, and Fine Instruments, to Preserve Their Polish, by Preventing Rust.—Prof. Olmsford, of Yale College, says: "This is done effectually, by melting slowly together, lard, 6 or 8 oz., and rosin, 1 oz.; and stirring till cool. It can be wiped off nearly clean, if desired as in a case of knife blades, or it can be thinned with coal oil, or benzine. The surface should be bright and dry, when applied, as it does not prevent oxidation (rusting) already commenced."

Remarks.—If any spots of rust, remove first with the sweet oil and piece of quick lime, as below. And remember there must be no salt in the lard.

6. Steel, or Iron Buckles, Jewelry, etc., to Clean.—Take a piece of unslacked lime, free from grit, or hard specks, and touch it to sweet oil, then rub them with it, and finish with chamois or buckskin. For ornamental jewelry, see next below.

1. Jewelry, Ornaments, Gold Chains, etc., to Clean.—Wash in soap suds; rinse in dilute alcohol (half water, half alcohol), and lay in a box of dry sawdust to dry; then rubbing with the sawdust, is a nice way to clean such goods.

2. Gilded Washed, or Plated Jewelry, to Clean.—Henry M. Morrison, of Wis., says: "The work of cleansing gilt articles is a delicate task, but they may be cleaned by rubbing them very gently with a soft sponge or brush, dipped in a solution of borax, $\frac{1}{2}$ oz., to water, 1 lb., (a pt. is a lb. the world around); then rinsing in pure water and drying with a soft linen rag."

3. Another.—To clean gilt jewelry, put cyanide of potassium, 1 oz. to boiling water $\frac{1}{2}$ pt., and when cold, add aqua ammonia, $\frac{1}{2}$ oz., and alcohol, 1 oz., brush gently the articles with this compound. Rinse and dry with a cloth, chamois, buckskin, or sawdust as in No. 1, above.

Remarks.—Cyanide of potash is poison, so don't let children drink it nor get it into a sore spot in using it.

4. Silverware, to Keep it's Original Luster.—The proprietor of one of the oldest silverware houses in Philadelphia says: "Housekeepers

ruin their silverware by washing it in soapsuds, which destroys the original luster, and makes it look like pewter. When it needs polishing, he says: take a piece of soft leather (chamois) and whiting and rub hard.

Remarks.—When, of course, never use soap in cleaning it, but take the following:

5. Silverware, to Wash.—“Put aqua ammonia, 1 tea-spoonful to very hot water, 1 pt., and wash quickly with a small soft brush, kept for the purpose only, and dry with a clean linen towel; then rub very dry with chamois. Washed in this manner silverware becomes again brilliant, and requires no polishing with any of the powders, or whiting usually employed, and lasts much longer.

Remarks.—Nothing could be more sensible, still the following is also sensible:

6. Silverware, Knives and Forks, Tin, etc., to Brighten after Cleaning.—Put the finishing touch to them by rubbing with old, dry newspaper. It is a fine polisher. Some of these receipts are quite domestic, but still they are equally mechanical.

Silvering Powder.—Chloride of silver, 1 dr.; potassa alum, 2 drs.; common salt and cream of tartar, each, 1 oz.

DIRECTIONS.—First dip the article to be silvered into a strong solution of salt in water, then rub with the powder; wash and dry with a soft cloth, and polish with any of the above plans.

Remarks.—Druggists in small places may say there is no “potassa alum,” but there is, and also “ammonia alum.”

Zinc, to Clean.—Take sulphuric acid, 1 oz.; water, 2 ozs.

DIRECTIONS.—Wash quickly with the mixture, rinse immediately with warm water, wipe dry with a cloth, and polish with whiting, brightens it nearly equal to new.

Soldering German Silver.—To solder German silver, pour out some spirits of salt into an earthen dish, and put a piece of zinc in it. Then scrape the parts clean that are to be soldered, and paint over with the spirits of salt. Next put a piece of pewter solder on the joint and apply the blow-pipe to it. Melt five parts of German silver and four parts of zinc into thin cakes, then powder it for solder.—*Rural New Yorker.*

Remarks.—The phrase, “spirits of salt,” is the old name for muriatic acid, as now called; and all the zinc should be put in that the acid will dissolve; then it is called “muriate of zinc,” which is what is to be put on. Where he says, “Then scrape the parts clean that are to be soldered, and paint over with the spirits of salt.” This “muriate of zinc” is the proper “flux,” or solution for all soldering. See Soldering Cast Iron, next below, calling for the “muriatic acid.” It should be kept corked and away from children, as it is poisonous—eats or destroys clothing, as well as flesh, hence apply with a swab.

2. Soldering Cast Iron. A paper called the *Engineer* says that Soldering cast iron is generally considered to be very difficult, but it is only

a question of thoroughly making bright the surface to be soldered, and using good solder and a clean swab, with muriatic acid.

Remarks.—The muriate of zinc is the article to use in this, as in all other solderings.

Glass Globes, to Clean.—If the globes are much stained by smoke, soak them in tolerably hot water with a little washing soda dissolved in it, then put a tea-spoonful of powdered carbonate of ammonia into a pan of lukewarm water, and with a tolerably hard brush wash the globes till the smoke stain disappears; rinse in clean, cold water, and let them drain till dry. They will be quite white and clear.

Remarks.—Aqua ammonia, which is more likely to be in the house, will do as well, but a tea-spoonful of either is not enough for a "pan of water," but only for a pint of water or one quart at most.

1. White Paint, to Clean.—Take a small quantity of fine whiting on a damp piece of flannel; rub gently over the soiled surface and the effect will almost equal the original purity.

Remarks.—See the next receipt for washing off, if needed.

2. Oil-Painted Surfaces, to Clean.—Take a piece of soft flannel, put it in warm water, and squeeze it till it feels dry; next dip gently on to some very finely pulverized French chalk, and rub the painted surface with the flannel; the effect will be the removal of all dust, greasy matter, and dirt; the surface is next washed with a clean sponge and water, and dried with a piece of wash-leather. This method does not injure the paint like soap, and produces a very good result.

Remarks.—Wash-leather is split sheepskin, prepared as chamois, and used for the same purposes, very properly, too, because much cheaper.

Tracing Paper, to Make.—To wet common drawing paper, or any other kind, with benzine, it becomes transparent immediately, and can be placed over a drawing, or picture, to be transferred, by tracing with a pencil, ink, or water-colors, which will not spread nor run upon its surface. This is condensed from the *Engineering and Mining Journal*, and may be relied upon. If the work is not completed before the paper loses its transparency by evaporation of the benzine, you can dampen that part again, to complete it. This is a new discovery, and valuable.

I. Glass, to Break as You Like.—File a little notch in the edge, at the point you wish to break from; then put a suitably shaped red-hot iron upon the notch, and draw, slowly, in the direction you wish. A crack will follow the iron, caused by the heat, if not drawn too fast.

2. Glass, to Drill.—To drill glass, use a file drill, and keep it wet with a mixture of camphene and spirits of turpentine. Heretofore turpentine has been used alone. The camphene helps to give the drill a better bite.—*Scientific American.*

Remarks.—It is claimed that a Stubb's triangular, or 3-square file, ground to a proper shape, makes the best drill for glass, and some have claimed that

water only or turpentine, do equally well to keep the glass wet with. Again turpentine with garlic juice in it, is claimed to be the best. The file must be ground so that the edge is sharp, and the width that the hole is to be. The file perhaps, had best not be heated, as the temper can seldom be made equal to that of the maker, (if Stubbs tempers his files as given previously, why can not any good blacksmith do it?) but if heated, while hot shape it to suit, then re-temper as Stubbs is said to do? A MAN in Jackson, Mich., claimed, in writing to the *Scientific American*, that he had drilled 4 holes through $\frac{1}{4}$ inch plate glass in 15 minutes, and that water was equally as good as turpentine to keep wet with.

1. **Furniture, Black Walnut Stain.**—Take 1 pt. of very thin glue, its adhesiveness being just perceptible between the thumb and fingers. Put into it 1 tea-spoonful of raw umber, stir it well, and put on warm with a sponge or brush. When dry, brush off and varnish, or,

2. Take 1 tea-spoonful of Venetian red and $\frac{1}{2}$ tea-spoonful of lampblack, mix into a paste and then dilute with 1 pt. of glue-water, as before.—*Journal of Chemistry.*

3. **Ebony, or Black Stain Upon Pine, or Other Soft Woods.**—Make a strong decoction of logwood by boiling, and apply boiling hot, 3 or 4 times according to the shade desired, allowing it to dry between applications; then apply a solution of acetate of iron. This is made by putting iron filings into good vinegar. These penetrate the wood deeply, and are very black, or less deep, according to the number of applications.

4. **Polish, Fine For Furniture.**—Linseed oil, and old ale, each $\frac{1}{2}$ pt.; the white of 1 egg, beaten; alcohol, and muriatic acid, each 1 oz., mix.

DIRECTIONS.—Dust the furniture, shake the polish, and apply with a wad of batting or cotton flannel, and finish with an old silk handkerchief.

Remarks.—This, and any of the others, will keep any length of time, if corked.

5. **Polish to Brighten Old Furniture, Pianos, etc.**—Dissolve orange shade, gum shellac, 4 oz. in 95 per cent. alcohol, 1 qt.; then add linseed oil, 1 qt.; spirits of turpentine, 1 pt.; shake and also add sulphuric ether, and aqua ammonia, each 4 oz. Shake well when used, rubbing until a polish appears.—*Good Cheer.*

6. **Polish, Simple.**—Equal parts of spirits of turpentine, linseed oil, and good vinegar, mixed, and rubbed on with flannel, until polished, is excellent. Some persons prefer sweet-oil instead of the linseed.—*Moore's Rural New Yorker.*

Remarks.—For the sweet-oil plan, see the next receipt.

7. **Polish, Excellent and Good.**—To make a good polish for furniture, take alcohol, good vinegar and sweet-oil, equal parts of each, or a little more of the last. Shake the bottle well, daily, for three weeks, when it is fit for use, but the longer it stands, the better it is. The furniture must be rubbed **until the polish is dry.** Apply every 2 or 3 months; and rub the furniture with

A dry cloth every time it is dusted. For dining-room tables and sideboards, use the polish every week, as it makes them beautifully bright.

Remarks.—White-wine vinegar, when it can be got, is considered the best

8. **Polish for Pianos, etc.**—Raw linseed oil (raw, which is unboiled oil, the kind intended in all, except the last one given), 1 qt.; spirits of turpentine, $\frac{1}{2}$ pt.; alcohol, benzine, and aqua ammonia, each, 4 oz. Shake when applied, and rub well.

9. **Polish, Cheap and Good.**—Gum shellac and rosin, each 2 oz.; alcohol, 1 pt.; mix and let stand 24 hours, or until dissolved, shaking occasionally; then add spirits of turpentine, 3 pts.; boiled linseed oil, 2 qts.; red analine, 15 grs.; oil of citronella, $\frac{1}{2}$ oz. Shake well when used. Apply with cotton flannel.

Remarks.—This is given in large quantities, as it has been made and sold extensively. The analine is only to color, and the citronella to flavor.

Furniture, Upholstered, Carpets, Furs, Fannels, Etc.—**The Trade Secret for Ridding of Moths.**—A trade secret among upholsterers for ridding furniture, etc., of moths, is the following: "A set of furniture that seemed to be alive with the larvæ, and from which hundreds of these pests had been picked and brushed, was set into a room by itself. Three gallons of benzine was purchased, at 30 cents a gallon, retail. Using a small watering pot, with a fine rose-sprinkler, the whole upholstery was saturated through and through with the benzine. Result: Every moth, larvæ and egg was killed. The benzine dried out in a few hours, and its entire odor disappeared in 3 or 4 days. Not the slightest harm happened to the varnish, or wood, or fabric, or hair-stuffing. That was months ago, and not a sign of a moth has since appeared. The carpets were also sprinkled all around the sides of the room, with equally good effect. For furs, fannels—indeed, all woolen articles containing moths,—benzine is most valuable. Put them in a box, sprinkle them with benzine, close the box tightly, and in a day or two the pests will be exterminated, and the benzine will all evaporate on opening. In using benzine great care should be taken that no fire is near by, as it is very inflammable.—*Tecumseh* (Mich.) *Herald*."

Remarks.—There is not a doubt of this fact, for I know that benzine is "death to bed-bugs," and so is gasoline, which may be equally good for moths, and being much cheaper, is worthy of trial. It will evaporate, too, as quickly as the benzine.

1. **Paint—Cheap, as Used at Iowa College, Suitable for Fences, Cheap Buildings, Tenement Houses, Etc.**—Crude petroleum, 3 parts—qts. or gals.—boiled linseed oil, 1 part, with "mineral paint," for body.

Remarks.—A report having got into some of the papers, that such a paint had been used on some of the college buildings, an inquiry about its value led Prof. S. A. Knapp to make the following explanation. He says:

"Five buildings and considerable fence upon the Iowa Agricultural College Farm, have been painted with this preparation. Upon some of them it has been one year, and thus far it has appeared to be fully equal to more expensive paints, in body, durability and in retention of color. It is especially adapted to cheap out-buildings, covered with rough boards. If 25 lbs. of white lead be added to each 100 lbs. of mineral paint, the mixture answers a very excellent purpose for tenement houses. [I see another writer claims that 1 lb. of lead to 4 lbs. of mineral paint, is sufficient.] Many experienced painters have examined the buildings covered with this paint, and affirmed that it made a better covering than pure lead and oil. This is doubtless an extreme view. It may, however, fairly be considered as a reliable paint for protection of the fences and cheaper farm buildings."

2. Black Paint—How to Make for Iron Fences, Balustrades, Farm Implements, Etc.—Coal-tar, 2 qts.; benzine, or benzole, 1 pt., or a little more, to thin it, to lay on nicely with a brush. As the benzine is very evaporative, make no more than is to be used at the time.—*Industrial Monthly.*

Remarks.—This is claimed to be more durable than oil and lamp-black paints, even where that was varnished, having been in use three years when the report was made.

3. Paint for Floors.—A writer claims there "is but one paint suitable for floors, and this is French ochre. And, 1st, if the boards have shrunk, clean out the cracks, and, with a small brush, give them a heavy coat of boiled linseed oil, then putty them solid and smooth. 2d. Paint the whole floor with a mixture of much boiled oil and little ochre for the first coat; then after it is well dried, give two more coats of much ochre and little oil; and finally finish with a coat of first-rate copal varnish. It is extremely durable for floors, windows, or outside, such as verandas, porticoes and the like. A floor stain, he continues, is best mixed in oil, and finally varnished."

Remarks.—If "a floor stain is best mixed in oil and varnished," take the following:

4. Floor Stain.—"Boiled linseed oil, 1 gal.; 5 cts. worth, or 2 heaping table-spoonfuls of burnt umber; heat the oil hot in an iron kettle—soap will clean it easily—then stir in the finely powdered umber, and with an old paint brush apply it as hot as you can; then, says a lady in the *Blade*, farewell scrubbing. A mop, wrung out of warm water, will clean it nicely."

Remarks.—This amount was given for a floor of 14 to 16 feet square; but it is about twice as much as needed if only one coat is to be given. The following receipt may be liked better, as it has spirits of turpentine in it, which causes it to penetrate the wood more deeply; and it has some "dryer" also, which makes it dry quicker than without it. It was given in the *Detroit Post and Tribune*, coming from a painter, as follows:

5. Stain Black Walnut for a Pine Floor, Light Shade.—"For an ordinary sized room, boiled oil and spirits of turpentine, each 1 qt.; dryer, 1 gill (4 ozs.); burnt umber, $\frac{1}{4}$ lb. Mix thoroughly and thin, or your floor

will be black as your shoe nearly. [Then put in only sufficient of the umber to give the shade desired.] If the floor is not to be varnished, use turpentine, 1 pt. only, and boiled oil, 3 pts., to make it more glossy."

6. Paint, Flexible, for Canvas.—Yellow soap, thinly sliced, 2½ ozs.; boiling water, 1½ gals. Dissolve the soap by more heat, if necessary, and grind the whole solution, while hot, with 125 lbs. of good oil-paint. Keep same proportions for any amount needed.

7. Paint, Old, to Remove.—Stone lime, 3 ozs.; pearlash, or saleratus, 1 oz.

DIRECTIONS.—Slack the lime with water, and mix in the pearlash, or saleratus, using only water enough to make a paste. Spread this upon the paint to be removed, and let it remain over night, or until soft, when it can all be scraped off.—*Scientific American*.

Remarks.—Where pearlash or saleratus cannot be obtained, sal soda may take their place.

Fire-Proof Wash for Shingle Roofs.—Freshly slacked lime, salt and fine sand, or wood ashes, equal parts, made into a wash and put on freely as any ordinary whitewash is done, is said to render shingles fifty-fold more safe against taking fire from falling cinders, or otherwise, in case of a fire in the vicinity.—*Fireman's Journal*.

1. Cement, Crystal, or Liquid Glue for General Purposes.—“Hard water, 3 qts.; white glue, 3 lbs.; dry white lead, ½ lb.; aqua ammonia, 1 oz.; spirits of camphor, 2 ozs.; salt, 1 heaping table-spoonful; alcohol, 1 qt.; gum shellac, ½ lb.

DIRECTIONS.—Put the shellac into the alcohol until dissolved. Dissolve the glue in the water by putting into a tin dish and setting into a pan of hot water to prevent burning the glue, till dissolved; then put the glue water and shellac, dissolved in the alcohol, together in a pan or kettle, to allow all to be brought to a boiling heat, stir in the powdered white lead; then the ammonia and spirits of camphor, and lastly the salt; stir and boil a few minutes, and bottle while hot.

Remarks.—This receipt was sent to me by Albert Stockwell, of Flint, Mich., who, in canvassing for my receipt books, always carried this cement with him, for sale, to help in his expenses. He spoke very highly of its great strength as a cement.

2. Cement for Iron Works.—It is sometimes advisable to fix two pieces of iron, as pipes for water or steam, firmly together as a permanency. A rust cement is frequently used, and the materials are sal-ammoniac, sulphur and iron borings. If the cement is desired to act quickly, the proportions should be: Sal-ammoniac, 1 part by weight; sulphur, 2 parts; iron borings, 200 parts. The sal-ammoniac and sulphur should be pulverized, and the borings of iron tolerably fine and free from oil. The mixture should be made with water to a conveniently handled paste. The theory of its action is simply union by oxidation.

3. Cement for Leather.—Sulphide of carbon, 10 parts; spirits of turpentine, 1 part; into which, in a suitable bottle, put finely cut shreds of pure gutta percha, to make a thickly-flowing liquid. To remove grease from the belts or leather to be joined, put a cloth upon it, and apply a hot iron for a while; then apply the cement to both surfaces, put together and apply pressure until dry.

4. Cement for Rubber, and to Fasten Rubber to Metal, Glass and Other Smooth Surfaces.—“Powdered shellac is softened to ten times its weight of strong water of ammonia, whereby a transparent mass is obtained, which becomes fluid after keeping some little time, without the use of hot water. In three or four weeks the mixture is perfectly liquid, and when applied it will be found to soften the rubber. As soon as the ammonia evaporates the rubber hardens again—it is said quite firmly—and thus becomes impervious both to gases and to liquids. For cementing sheet rubber or rubber material in any shape to metal, glass or other smooth surfaces the cement is highly recommended.”

II. Cement for Rubber Goods, Fastening Rubber Soles, Leather Patches, Straps, etc.—Fill a bottle one-tenth full of native Indian rubber (gutta-percha) cut in minute shreds; pour in benzole till the bottle is three-quarters full; shake every few days until the mixture is as thick as honey. This dries quickly. It is useful to mend rubber shoes or any other rubber goods, as a water and air-tight cement for bottles—simply dipping the corks into it, and for a hundred other purposes. Three coats of this will unite leather straps, patches and rubber soles with firmness. To make a patch invisible, shave the edge of the leather quite thin.

5. Cement, Similar to that upon Postage Stamps, Gummed Labels, etc., Good for Scrap Books, Labeling on Tin, Glass, etc.—Dextrine, 2 ozs.; acetic acid and alcohol, each, $\frac{1}{2}$ oz.; water, $2\frac{1}{2}$ ozs.

DIRECTIONS.—Mix the dextrine, acetic acid and water, stirring until thoroughly mixed; then add the alcohol. For attaching labels to tin, first rub the surface with a mixture of equal parts of muriatic acid and alcohol; then apply the label gummed with a very thin coating of the cement, and it will adhere almost as well as on glass. A thin coat only is needed on “scraps,” for scrap books.

Remarks.—Knowing the value of a paste, or cement, somewhat similar to this, where the adhesion depended upon the dextrine, I have every confidence in this for all the purposes named.

6. Cement for Small Leaks in Steam Boilers.—Experiments have shown the following to be effectual for stopping small leaks from the seams of boilers, pipes, etc. Mix equal parts of air-slacked lime and fine sand; and finely powdered litharge equal to both the first. Keep the powder dry, in a bottle, or a covered box. When wanted to apply, mix, as much as needed, to a paste, with boiled linseed oil, and apply quickly, as it soon hardens.

II. Cement. Steam-Tight, and Water-Tight for Joints.—Pure white, and red leads, equal parts mixed with boiled linseed oil, to the consistency required, has been extensively used for this purpose.

Steam Boilers, to Prevent Incrustation from Becoming Hard.—A bar of zinc having accidentally been left in a steam boiler, when under repairs, it was afterwards found to have disappeared, or dissolved, by which the incrustations, instead of becoming hard, were muddy and soft, and hence easily removed. This proves that the zinc, and iron of the boiler, forms a battery, the zinc being consumed, while the iron is protected, which is claimed to be a valuable discovery in engineering. The size of the bar of zinc would necessarily depend upon the size of the boiler, and how long the run was to be between cleanings.

Nails, to Drive Into Hard Seasoned Timber.—The editor of the *New Genesee Farmer* gives the following account of witnessing an experiment of driving nails into hard seasoned timber, fairly dried. "The first two nails, after passing through a pine board, entered about an inch, only, into the hard wood, then doubled down under the hammer; but on dipping the points of six or eight nails into lard, every one was driven home without the least difficulty."

Remarks.—Carpenters who are engaged in repairing old buildings sometimes carry a small lump of tallow for the purpose on one of their boots or shoes.

Calcimining.—Take four lbs. of Paris white, put it in a pail, cover it with cold water and let it stand over night. Put into a kettle 4 oz. of glue, and cover it also with cold water. In the morning set the glue on the stove, and add enough warm water to make 1 qt.; stir it until dissolved. Add the glue to the Paris white, and pour in warm water till the pail is three-quarters full. Then add bluing, a little at a time, stirring it well until the mixture is slightly bluish. Use a good brush, and go over one spot on the wall till it is thoroughly wet. If your brush dries quickly, add more warm water, as the mixture is too thick. The brush must be kept wet. This mixture costs thirty-eight cents.—*Scientific American.*

Sewing Machine Oil, to Make, and How to Use.—Take the best paraffine oil, and the best sperm oil, equal parts. Mix.

To Use.—Clean off the old oil with benzine, or kerosene, then apply. This I obtained from a sewing-machine agent who said he had manufactured and sold much of this oil, having been in the business over 14 years. Machines should be cleaned and re-oiled as often as they become the least gummy.



F. P. Dickerson

A Practical
Law and Business
Guide

FOR HOME AND OFFICE

CONTAINING

Legal Advice on Common Subjects

A Practical Business Guide

Maxims of Successful Business Men

A Department on Business Efficiency
and Lessons in Simple Accounts and
Bookkeeping

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PUBLISHER'S PREFACE

The editor of this book, Freeman B. Dickerson, was for over thirty-five years the head of the large publishing house which bore his name and which published Dr. Chase's Receipt Book and many others of the best selling subscription books in this country. He has held many positions of trust and honor under several governors of his own state and Presidents of the United States. He was for fourteen years president of the Michigan State Fish Commission; for over eight years he was Postmaster at Detroit, Mich.; and he was also for several years President of the Association of First Class Postmasters of the United States.

During Mr. Dickerson's active business career the company of which he was president employed and trained for business over twenty thousand young men. Many of these men are now among the most successful business men of this country, while many have become successful lawyers, judges and legislators. We trust the material herein contained will aid many more young men to achieve success.

To gather from practical and successful men has been the object of the editor. To do this many special authorities have been consulted and liberally paid to give the results of their years of experience. Problems arise in the life of every man about which he would like to ask other men who have met the same problems and achieved success. Knowledge of a few of the underlying principles of the law has saved many a man a long and costly law-suit. Many men have lost their farms or their fortunes because they were ignorant of common business customs and legal forms. We have purposely avoided technical terms and this book will be found to be written in simple plain language that can easily be understood by all. The book is intended for the masses.

A successful business man keeps accounts with every man with whom he does business. He knows on what things he makes a profit and on which he is losing money. It is becoming more and more apparent each year that in the future the successful farmer and mechanic must also keep accounts. They must also be business-like if they would achieve success. Many men have found that the simple form of accounts herein explained have

PREFACE

saved them hundreds of dollars and the old saying is that a dollar saved is a dollar earned.

In order to make this work thoroughly up-to-date as well as practical we have also included a department on "Business Efficiency" that we know will be appreciated by every business man who reads it. This department is divided into chapters containing extracts from men who are at the heads of some of the largest business and selling organizations in the country. In the preparation of this department we have had access to "The Library of Business Practice" published by A. W. Shaw Co. of Chicago, New York and London. This set of ten volumes should be in the hands of every business man. We have also referred to "Salesmanship and Business Efficiency," published by the Knox School of Salesmanship, of Cleveland, Ohio. This volume should be read by every young man in the country. We are also indebted to "System" the Magazine of Business. In the Business Efficiency department we have quoted from such men as: Andrew Carnegie, Marshall Field, John D. Rockefeller, Montgomery Ward, R. W. Sears of Sears-Roebuck & Co., Hugh Chalmers, John Wanamaker, Wm. C. Redfield, Secretary of Commerce, and dozens of other big men of the business world. The business principles which guided these men to success should be of value to every reader of this book. We trust this volume will prove a handy business guide in every home and office which it enters.

THE PUBLISHERS.

LEGAL DEPARTMENT

BY

I. T. COWLES

In giving this department here, it is by no means the intention that it shall be a complete and exhaustive treatise upon law, or instruct every man how to be his own lawyer. To advise any man to become his own lawyer, is to advise him to buy thousands of books—a complete law library, and to become a learned attorney. Books professing to give a man complete legal knowledge and enable him to transact all of his own affairs, have cost many a man his fortune. The object of this department is to treat upon those common forms and legal facts which are of the utmost importance to the average citizen, and of which there is no excuse for being ignorant. It is entirely useless for a man, in many cases, to pay a lawyer five or ten dollars for drawing up an ordinary contract with a laborer or farm hand, or bill of sale, or to ask questions about the laws regarding fences, roads, etc. We give here those common law points which it is perfectly safe for any citizen to consult and depend upon, our advice being that on any strictly technical point a man should consult, not a poor lawyer, but always a good one. Our aim is to give those legal points, contracts, blanks, etc., that shall cover the probable wants of the average citizen.

CONTRACTS

The subject of contracts is a limitless one, for our life is spent in making them. The simplest agreement with our neighbor is a contract; yet, for all their variety, all must be governed by a very few general rules.

A contract, in common acceptation, is an agreement made by and between two or more parties, founded upon a good and valid consideration, for the doing or not doing of some stated thing.

It is not necessary that all contracts should be in writing; indeed, the great majority are not.

What is Necessary in a Contract.—1st. **COMPETENT PARTIES.**—A contract with a minor, an idiot, or a drunken man, is not necessarily binding upon him. But if any such person makes a contract for necessities, such as food, clothes, habitation, etc., it may be held good.

But, in general every one should be extremely careful in entering into any contract with such incapacitated persons; for what might at first thought seem to be a necessity, may, by reason of the circumstances and surroundings of such persons, be held by the court not to fall within such class.

2d. **MUTUAL ASSENT OF THE PARTIES.**—That is, they must agree at the same time upon the same thing. Great care should be taken to see that there is a thorough understanding of the terms of the contract, and, that there may be no mistake in the matter, it is always well to write out contracts of any importance and have them signed by both parties. By taking a little care in this matter much vexation and many a lawsuit will be avoided.

When writing a contract you are likely to get it in legal and valid form if you just put down, in the first place, all that you agree to do, and then follow it by setting down what the other party agrees to do in return.

Some contracts must be in writing, such as agreements for the sale of real estate, leases for more than a year, promises to pay another person's debt, agreements not to be performed within one year from date of making, and contracts for the purchase or sale of goods, the price of which amounts to \$50 or more. But if money be paid on the purchase price of the goods, or part of the goods be delivered and accepted, then such contract may be valid and enforced although not written.

3d. **A CONTRACT MUST BE A LEGAL CONTRACT.**—That is, one which does not violate the public laws, and is not against public policy. It must also be one which is possible of execution. That is, one which it is possible for some one to execute, although not necessarily one which the parties to the contract can carry out. If a party undertakes to do a thing which he cannot do, and some one else can, he is not excused from his undertaking on the ground of impossible performance. A man has no right to undertake to do that which he is unable to perform.

4th. **CONSIDERATION.**—There must be something of value promised or given. How little or how great the consideration, in the absence of fraud, does not necessarily matter; for the law

does not undertake to say how little or how much a person shall give. (See pages 1092-1098.)

PROPERTY—WHAT IS IT?

It is divided into two classes—*realty* and *personalty*.

REALTY consists of the land and, generally, all that grows upon or is affixed to it, such as houses, barns, fences, crops and trees. But it must be borne in mind that buildings are not always a part of the realty. As for instance, when a tenant, with the permission of his landlord, erects a barn on the leased premises with the intent to move it away when his lease expires.

The owner in fee of realty owns to the centre of the earth, and his rights also extend indefinitely into the heavens. His neighbor must not dig under nor build over him.

PERSONAL PROPERTY may be described as goods, chattels, money, etc.—things movable. Though what might be personal property today may, by the use to which its owner puts it, become a part of the realty tomorrow. That is, it may become a fixture, so called. And here it is well to note that the question whether a thing is a fixture or not, and so a part of the realty, is not necessarily determined by the way it is fastened to the realty, but is often governed by the intent of the person erecting the same.

Title to Things Real—in General.—A title is a means whereby a man has the just possession of his property.

Title to realty is acquired in two ways, by descent or inheritance, and by purchase.

In purchasing real estate, look well to your title. Require the grantor to furnish you a complete abstract to date. Even should you know the title to be perfect, it is well to require the abstract, for although you may not care for it when you buy, you will, in all probability, be required to furnish one when you sell. In such case, if your grantor has furnished you one, you will be saved much cost and bother. Be mindful of this. It is a matter which is often overlooked.

An Estate in Land is the degree, quantity, nature and extent of interest which a person has in real property.

Classification of Estates.—An estate in lands signifies the interest a person has therein. The various interests are classified as follows; Estate in Fee Simple, or an Absolute Estate; Estate Tail; Estate for Life; Estate for Years; Estate at Will; Estate in Dower; Estate by Courtesy.

ESTATE IN FEE.—Estate in Fee—or as it is more usually termed, Fee Simple Estate, or Estate Absolute—is the largest estate in land known to the law, and it is by far the most common estate in this country. The owner has absolute power over such an estate.

It was formerly an absolute rule of law that a deed did not convey an estate in fee simple unless it expressly stated that the conveyance was made to the grantee and his heirs; without the word heirs, only a life estate was created. But in some States this requirement has been done away with by statute, while in others the courts have, by their decisions, repudiated the rule, saying that when the intention of the grantor to create a title in fee simple is shown by other words in the instrument, such title was created, although the word heirs was not used.

When the estate is conveyed by will, any word which may be construed to mean heirs will carry the fee.

ESTATE TAIL.—This is a conditional fee, and is an estate limited to the heirs of the grantee's body, or, sometimes, to the heirs of a particular wife. It was formerly quite common in England, but in this country never found much favor, and has been generally done away with by statute.

ESTATE FOR LIFE.—Technically, an estate for life is an interest to continue during the owner's life or the lives of some other persons. Such estate ends with the death of that person. But the term has been extended so that an estate for life, in its broadest sense, is every estate not of inheritance, without a fixed limit.

There are two ways in which life estates may be created: 1st. By operation of law. Estates embraced in this class are, Estates in Dower, Estate by Courtesy, Tenancy in Tail after the possibility of issue is extinct, and Homestead Estate. 2d. By act of the parties, as when one conveys lands to another to use during his life.

The owner of a life estate is entitled to estovers and emblements.

The term *Estovers* is applied to wood that the tenant for life or owner of a life estate is allowed to cut on the land for his own use, as for fuel and for necessary repairs to buildings and fences on the premises. But such tenant is not permitted to cut wood for the purpose of selling it, although the proceeds of such sale are to be used to purchase other fuel or wood for use on said place. And in any event, only a reasonable amount can be cut.

Emblements are the profits from the crops raised by the tenant for life or owner of the life estate, and not gathered when

such estate is terminated. They are such crops as are produced by the work of such tenant in planting and cultivating them. The term does not apply to such products as do not require annual planting, as for instance, fruit and grasses. The reason for this rule is found in the desire to foster the cultivation of the lands of such estate. For, unless such life tenant had the right to the crops he had planted, and which were not yet harvested when his estate might be terminated, he would be in constant danger of loss, and would often fail to cultivate the land in a husband-like manner.

A tenant for life must not commit waste.

In other words, he must not do, or allow to be done, anything which would tend to permanently injure the place and render it less valuable. He should make only such use of it as would a prudent owner of the fee.

ESTATE FOR YEARS.—This is an estate created by a contract called a lease, as when one person lets to another lands or tenements for a period of time agreed upon by them. Such period is not necessarily for a year or more, but may be of any length. The essential feature is the fixing of a definite time when such tenancy shall cease.

ESTATES AT WILL AND ESTATES FROM YEAR TO YEAR.—An estate at will is an interest in land which may be terminated at the option of either party, and arises only on actual possession by the tenant.

Such estates usually arise under parol or verbal leases, but may be created by operation of law, as when a tenant for years holds over after the expiration of his term, with the consent of his lessor. If the lessor terminates the tenancy before the crops are harvested, the lessee is entitled to enter upon the lands and take them away. In other words, he has the same right to the emblements that a tenant for life has, but should the lessee terminate the tenancy, he loses such right, and the crops remain the property of the lessor.

The death of either party determinates an estate at will.

ESTATES FROM YEAR TO YEAR.—On account of the hardships which often fell upon the lessee by reason of the sudden termination of the estate by the lessor, the courts refused to sustain such arbitrary termination when rent had been reserved and paid, unless the lessor had given due notice to the lessee to quit. And as a result, certain interests in lands arose called estates from year to year. The length of time required in a notice

to terminate such tenancy is fixed by statute, and varies in the several States.

DOWER is the interest which the law gives a widow in the estate of which her husband dies seized. The amount of such interest is regulated by statute in the several states, but is very generally a third interest.

COURTESY is an estate for life which a man takes in the real estate of his wife of which she died seized, she having left children, heirs of his body.

To establish this estate four things are requisite :

- 1st. A legal marriage.
- 2d. Possession of real estate by the wife during marriage.
- 3d. Issue capable of inheriting the estate.
- 4th. The death of the wife.

But the estate by courtesy has in many States been abolished by statute, or materially modified.

Title to Real Estate, How Obtained.—The ways are classified in two general divisions :

- 1st. By Descent.
- 2d. By Purchase.

Under the first class is found the inherited estate. That is, the real estate which a person receives as heir at law, upon the death of an ancestor.

The second class includes every lawful method of acquiring real estate in contradistinction to the operation of law.

That is, technically speaking, purchase includes every mode of acquisition other than that of descent. But generally the word is used to simply describe the way land is acquired by contract between the parties.

There are a number of ways of acquiring land which, in the eyes of the law, are classed under the head of purchase, the more common of which are the following: *Deed, Devise, Possession or Occupancy, and Accretion.*

DEED.—A deed is a written instrument, signed, sealed and delivered, by which lands, tenements and hereditaments are conveyed. The title conveyed by such instrument is generally one in fee simple.

It must not have been made under unlawful duress or fraud, but must be the free act and deed of the grantor. If a grantor desires to avoid a deed executed under duress or fraud, let him act at the first possible opportunity. A long delay might be fatal.

The Requisites of a Deed are as follows: A *Written Instrument, Proper Parties, Grantor and Grantee, Something to be Conveyed or Granted, a Consideration, Proper Execution*, which includes signing, sealing, witnessing and acknowledgement, and finally, *Delivery and Acceptance*.

TERM—WRITTEN DEFINITION OF—It seems to be definitely determined that a deed should be written on paper or parchment. But a deed printed, or partly written and partly printed, is equally valid. The only reason for limiting the material upon which it should be written to paper or parchment is, doubtless, because of the convenience, and because such material is more easily obtained and kept.

The deed should be carefully drawn, containing in clear terms all that is necessary to make it comply with the requisites of such instrument. It should be free from erasures and interlineations, not that erasures and interlineations necessarily invalidate a deed. Indeed, the general rule is to the effect that such changes, in the absence of circumstances which would point to the contrary, are presumed to have been made before delivery, and properly made. But, after all, keep your deed as free from such changes as possible. If made at all, it would be well, as a precaution, to insert a line before the attestation clause to the effect that all erasures or interlineations were made before signing.

PROPER PARTIES—THE GRANTOR.—To make a deed valid there must be a competent grantor or maker. In general, all owners of property are capable of making a valid deed, except such as are legally incompetent. Under this class are minors, infants, idiots and insane persons, and married women. But in the case of infants and insane persons, it is generally held that their deeds are not absolutely void, but only voidable.

Just what degree of mental unbalance on the part of a grantor is sufficient to render his deed voidable, is a question which cannot be definitely answered. But it must be such that he is unable to understand the import of his act.

However, intending purchasers should always act with great caution in dealing with a person suspected of mental unbalance. And should such person have a guardian, remember that the ward's deed in such case would be absolutely invalid.

An infant, on coming of age, may affirm his deed by, in some way, clearly showing his intention so to do. So, likewise, may an insane person upon regaining his reason.

MARRIED WOMEN.—At the common law, the deed of a married woman was void, unless also executed by her husband.

In the United States, the wife must join in her husband's deed in order to cut off the right of dower which she may have. Her name should appear with his in the body of the instrument, and she must also sign and acknowledge it.

But in some of the States the wife has absolute control over her own realty, and may deed it away without the consent of her husband, and without his joining in the deed, and so, in such States, the married woman is more independent than her husband in respect to her estate. She is regarded as having the same power to sell and dispose of her land as she would have if single.

A CORPORATION may give a deed; but in such cases, see to it that such deed is executed by the officers of the corporation empowered to execute such instrument.

GRANTEE.—Any person may be a proper grantee, even an infant or insane person. But care should be taken to correctly describe them in the deed. That is, that their identity should be definitely fixed. Usually this is done by giving their names, but so long as their identity is fully established the person's name is not absolutely essential. Let us here call attention to the need of care in seeing to it that the name or names of the grantee or grantees in the body of the instrument are spelled the same as the signature. Very often the draftsman of a deed misspells the grantor's name, thus giving opportunity, in after years, when the claim of title is looked up, for the query to arise as to whether the person who signed the deed was really the grantor. Such misspelling does not render the deed invalid, but may occasion serious trouble in showing an unbroken chain of title. Let the first name as well as the last be written in full. It tends to more certain identification.

Another requisite of a deed is *something to be conveyed*.

What has been said as to the need of certain identification of the parties to a deed, holds equally true of the property conveyed. Much confusion is caused by careless descriptions of realty in deeds. If mistakes in descriptions are discovered at once there may be no harm done, but not infrequently much expense has been incurred in taking the legal steps necessary to correct such errors.

The grantee should be particularly careful to see to it that the description of the property which he believes himself to be purchasing be put in the deed. Especially is this the case when the property consists of several distinct parcels.

THE QUANTITY OF LAND CONVEYED.—The grantee should see to it that he is not deceived as to the quantity of land he is

getting, as described in his deed. Not infrequently farming lands are described in a deed by meets and bounds, that is, as being bounded by a line beginning at a certain point, and running in a certain direction a certain distance; thence in some other direction a certain distance, and so on to the place of beginning, containing a certain number of acres. When land is so described, the grantee gets the land as bounded, and not necessarily the number of acres as set forth. That is to say, the boundary lines govern, be the number of acres contained within such lines more or less than the number specified.

Many a man has purchased land so described in the deed, and afterwards found to his sorrow that he has got far less acreage than he supposed, and without redress, in the absence of warranty as to quantity on the part of the grantor. An exception to the rule may occur when the land is purchased at so much an acre. The actual acreage would then govern the purchase price.

THE CONSIDERATION.—It is usual to set up some consideration in a deed, such as money or property, but it is not absolutely necessary, and a deed may be good although no consideration is named.

When the purchase price is inserted in a deed and, as is the usual custom, the receipt thereof acknowledged by the grantor, such receipt is not conclusive, for if the grantee has not actually paid the grantor, he may proceed to collect the price. But the failure to pay on the part of the grantee does not render the deed invalid.

PROPER EXECUTION.—A deed may be executed by the grantor in person, or he may delegate to another the legal power to execute such instrument in his behalf. The agent so appointed is termed an *attorney in fact*, and holds his authority by virtue of an instrument executed by such grantor, called a *power of attorney*, and which must be under seal. If a deed be executed by such agent, he should put his power of attorney on record in the register's office for the county wherein the land conveyed is situated, so that when, at a later period, the title may be examined, there will be found the proper record showing by what right the agent executed such deed.

SIGNING.—The grantor must, if able to write, sign his name

to the deed, but if unable to write, may sign by making his mark. This is usually done in the following way:

HIS
JOHN X SMITH
MARK

SEALING.—In early times the seal placed upon a deed was of wax, upon which, while warm, some insignia was impressed; later colored bits of parchment or paper were affixed, and this style of seal is still required in some of the States. But in the majority, a simple scroll with *L. S.*, or the word, seal, written in it, is sufficient; as in the printed word, seal, in the printed forms. In a few States the seal has been done away with by statute.

WITNESSING.—It is, in most States, necessary that there should be one or two witnesses to a deed. Generally two are required. They need not, however, be present when the deed is signed, provided the grantor acknowledges to them that the signature is his when they sign as witnesses. In this respect the witnessing of a deed differs from that of a will.

ACKNOWLEDGMENT OF A DEED.—The validity of a deed is not, in most States, affected by the failure to attach the proper certificate of acknowledgment on the part of the grantor. But the statutes governing the recording of deeds do, in most, if not all of the States, require that the deed shall have such certificate attached. The form of a certificate of acknowledgment is regulated by statute in the respective States, and such statute should always be closely followed.

DELIVERY AND ACCEPTANCE.—Before a deed becomes effective it must be delivered and accepted. Such delivery must be made by the grantor or his duly empowered agent, and the acceptance must likewise be by the grantee, or some one authorized to make such acceptance for him. If the grantor tenders the deed and the same is not accepted by the grantee, the title remains absolute in the grantor.

And, again, if a deed comes into the hands of the grantee without the consent of the grantor, such possession does not pass the title.

To constitute a good and legal delivery, the grantor must have intended that the deed should pass into the grantee's hands, at the time he received it. But of course a grantor may ratify the delivery of a deed by giving his assent afterwards.

Escrow.—A deed may be delivered into the hands of a

third person in escrow, to be delivered by said third person to the grantee named in the deed, upon the happening of some certain event. If such event does not happen, then the deed is void.

The most frequent instance of this is when a grantor places the deed in the hands of a third party, awaiting the payment by the grantee of a part or whole of the purchase price, upon which payment said third party is to deliver the deed. Should said deed be delivered by such party before the performance of the condition to be performed, no title will pass to the grantee.

Recording Deeds.—A grantee cannot be too careful in the matter of putting his deed on record. There are statutes in all the States providing for the recording of deeds. As between grantor and grantee, a deed is valid although not recorded. Yet should the grantor give a second deed of the same property to a person who was ignorant of the prior unrecorded deed, and who gave a valuable consideration therefor, such second deed might take precedence over the first. A recorded deed is constructive notice to the world of the grantee's title. Do not fail to place your deed on record as soon as possible after receiving it. The recording fee is but small, yet many a grantee, for the sake of saving this small sum, has subjected himself to large loss.

Title by Accretion and Possession.—Under the ways of acquiring land by purchase, there are two other methods to which it may be well to call attention.

TITLE BY ACCRETION applies to lands which lie along the bank of a river. The current not infrequently wears away the bank on one side and gradually adds to the land on the other side. The owner of the wearing bank cannot complain, and the land so added to his neighbor's farm belongs to that neighbor. This rule of law only applies when the loss or gain is caused by a gradual wearing process, and would not apply when, by chance, some freshet should cut through a bend in the stream and so slice off a parcel of land; such land would still belong to the owner of the farm from which it had been cut off. In case of the formation of islands in a stream, such land will usually be held to belong to the owner of land on the same side of the stream as that upon which the island is formed. But if in the center of the stream, it would be divided between the owners on each side. The theory being that a man owns to the middle of the stream which bounds his lands.

TITLE BY POSSESSION.—When a man has continuous and

undisputed possession of land for a term of years, the length of which period is fixed by statute, he is held to have acquired the legal title thereto. This is true, although such person held in the beginning absolutely no title. The number of years required to establish such title varies in the several States, but is usually twenty years, though in some States it is only ten, and in others fifteen. That is to say, after a man has so occupied the land for such a time, it is too late for the real owner to bring an action to recover the possession. Statutes fixing this time are called Statutes of Limitation.

Such occupancy as is required in such case must be actual, open and notorious; and the occupant must have treated it as if he had a good title to it. But it must be kept in mind that these statutes do not run against the government, so that title to public lands cannot be acquired in this manner, and it is, at the best, a precarious way of attempting to obtain a good title to land.

MORTGAGES

What is a Mortgage?—It is a conveyance of property to secure the payment of a debt due or to become due, or the repayment of a sum borrowed.

The maker of a mortgage is called the *Mortgagor*, and the person to whom the mortgage is given, the *Mortgagee*.

Requisites of a Mortgage.—There must be competent parties, both to make and to take the mortgage, property to be mortgaged, and a valid consideration. An infant's mortgage is voidable but not necessarily void. In general, the same capacity is required to make a valid mortgage that is required in the making of a deed.

If the mortgagor is married, his wife should join in the mortgage, unless the mortgage is what is termed a purchase money mortgage. That is, in the case where a man buys land and, as a part of the purchase price, gives a mortgage back. In such instance, the wife is held not to have acquired such right in the realty as to necessitate making her a party to the mortgage. In purchase money mortgages, when the wife does not join, a clause should be inserted showing that it is given for purchase money.

Equitable Mortgage.—In general, it may be defined as an instrument intended to be a mortgage, but which, on account of

some defect is not upon its face a legal mortgage and can only be given such effect in equity. Perhaps the most common instance of such mortgage is found in absolute deeds given to secure the payment of money. When it can be shown that such deed was given only as security, equity will hold it to be only a mortgage.

Mortgagor's Covenant.—INTEREST.—The mortgagee should see to it that the mortgagor agrees in the mortgage to pay a legal rate of interest at such times as may be determined upon, and that in default of such payment the principal as well as the interest shall become due and payable. If no mention of interest is made in the mortgage, or in the note or bond, to secure the payment of which it is given, it will draw no interest until after it becomes due, and then only at the rate of interest provided by statute. And if payment of interest is provided for, but the rate not named, such mortgage will draw interest only at the statutory rate.

COMPOUND INTEREST.—In most States it is not allowed, but it is a matter regulated by statute. The law governing the payment of interest upon installments of interest vary in the several States. The reader is referred to the statutes of his respective State.

USURY.—This also is a matter regulated by statute. In some States there are no usury laws, and any rate of interest may be charged in a mortgage. In others all interest above a certain per cent., fixed by statute, is forfeited and uncollectable. While in still others if usurious interest is charged, the whole interest is declared forfeited. In a few States the charging of an illegal rate of interest renders the security or mortgage void.

INSURANCE.—If there are buildings upon the premises, not insured, the mortgagee should require that the mortgagor insure the same for his benefit, and see to it that the policies of insurance contain a clause setting forth the fact that in case of loss the insurance is payable to said mortgagee, as his mortgage interest may appear. When a mortgage is given on premises upon which the buildings are already insured, the mortgagor, for his own protection, should at once notify the insurance companies, lest under the terms contained in his policy of insurance the insurance company should hold itself absolved from all liability.

The greater the value of the buildings in proportion to the total value of the premises, the more important becomes the insurance clause. It is not only an added security to the mort-

gagee, but in case of loss by fire the mortgagor will find his mortgage debt less heavy.

TAX CLAUSE.—Since mortgaged property, in common with all others, must pay taxes, it is usual to insert in the mortgage an agreement on the part of the mortgagor to pay all taxes, both ordinary and extraordinary or special. This works no hardship on the mortgagor, for if he does not agree to pay them the mortgagee must to protect his security, and he will always charge a sufficiently high rate of interest to cover the added cost of paying the taxes; or if the mortgagor objects to this, the mortgagee will probably refuse to make the loan or take the mortgage as security for his debt.

Execution, Delivery and Recording.—It is essential to a legal mortgage that it be properly executed and delivered. In general, the rules governing the execution and delivery of deeds apply equally to mortgages. (See execution and delivery of deeds.)

If a mortgagee desires to protect himself from loss in the matter of his security he should at once place his mortgage on record. It is quite as important as it is to record a deed.

Assignment of Mortgages.—It frequently happens that the owner of a mortgage finds it desirable to raise some ready money, and for that purpose would like to get his money out of the mortgage before the mortgage is due, or if due and the maker not able to pay, does not care to foreclose. In such case, the simplest way out of the difficulty is to sell the mortgage to some one who has money to invest. In making such sale, the mortgagee or owner of the mortgage must execute an instrument called an assignment of mortgage. It should carefully and exactly describe the mortgage, setting out the maker of it, the date, and when and where recorded, and should be duly acknowledged and placed on record. The person to whom the assignment is given is called the assignee, and stands in the place of the original mortgagee, having the same rights. He, in turn, if he please, may also assign the mortgage to some other party. Mortgages are often assigned a number of times. The note or bond accompanying the mortgage should also be assigned with the mortgage.

Mortgages—How Paid, and When.—A mortgage cannot be paid until due, unless the mortgagee consents to such payment. It is, therefore, well in giving a mortgage, if the mortgagee will allow, to insert a clause giving you the right to pay on or before a certain time. It may be possible that you will

wish to pay at an early date and so be relieved from continuing to pay interest. If no place of payment is specified, the mortgagor must hunt up the mortgagee wherever he can find him.

If, by any chance, the mortgagee should refuse to receive the payment when legally tendered, interest will cease from that date on such sum. But, in such case, the tender must be kept good, for if the mortgagee should afterwards decide to accept the payment, it must be ready for him, for the mortgagor will not be released from payment because of such refusal to accept. Should he not be ready to pay when payment is demanded, interest would again begin to run.

Purchasing Mortgaged Land.—When a person buys land upon which there is a mortgage, he may either buy subject to the mortgage, or he may buy and assume and agree to pay the mortgage. In the first place, the purchaser assumes no personal liability. That is, if the land is insufficient to pay the sum due on the mortgage, he is not liable to make up any deficiency. But in the second case, where the purchaser assumes and agrees to pay the mortgage, he would be personally liable to make up any balance due the mortgagee if the land should not sell, upon foreclosure, for enough to pay the mortgage debt in full.

It will be readily seen that the safe way to purchase land incumbered by a mortgage, is the first. The intending purchaser of such property should look closely to his deed, to see that he is not assuming a personal liability. Many a man has bought, thinking that he was assuming no liability whatever, and, when too late, has found that the property will not satisfy the mortgage, and that he not only loses his land, but must pay something additional. Of course, generally, mortgaged premises are ample to pay the debt, but one can never be certain that there will not be such a shrinkage in values as to cut the security below the amount due on the mortgage.

An agreement that the amount of the mortgage shall be a part of the purchase price, is a personal assumption of the mortgage debt.

Discharge of Mortgage.—After a mortgage has been paid, it should be discharged of record. The statutes of the several States provide how this shall be done. The usual way is either to record an instrument made by the mortgagee or his assignee, if the mortgage has been assigned, called a Satisfaction of the Mortgage, or to have the proper party discharge the mortgage on its face, as it is termed, which consists of writing upon

the face of the recorded mortgage in the public records a statement that the mortgage has been fully satisfied, and signing the same in the presence of the proper official.

Liability for Refusing to Discharge Mortgage.—Inasmuch as it is essential to the perfecting of the recorded title that a mortgage, when paid, should be discharged, the several States have enacted laws inflicting some penalty upon any mortgagee or holder of a mortgage who refuses to discharge the same when paid.

Foreclosure of Mortgage—Two Ways of Foreclosing.—

1st. **FORECLOSURE BY ADVERTISEMENT.**—This is a strict statutory method which is provided for in most States, but which requires the greatest accuracy in complying with all the requirements of the statutes, and is, on that account, not generally employed where foreclosure in equity is allowed.

2d. **FORECLOSURE IN EQUITY.**—This is by far the more usual method of procedure, and is the safest and best. It consists of filing a bill of complaint in a court of equity, or chancery, as it is often called in which all the necessary facts are set up, such as the description of the property, the failure of the mortgagor to pay, and the necessary parties, and further demanding that the mortgagor and all persons interested in the mortgaged premises shall come into court and pay the sum due or be forever barred from all right of redemption of the mortgaged premises. Great care should be taken to bring all persons into court who may have any interest in the subject matter, so that the decree of the court may be binding on all parties who have any rights in the premises.

Mortgages are usually so drawn that foreclosure proceedings may be instituted if the mortgagor fails to pay his interest when due, or keep good the insurance (if any be stipulated for in the mortgage), or pay the taxes assessed on the property. In case the property does not sell for enough to pay the debt, the mortgagee may take judgment for the deficiency upon the bond or note, to secure which the mortgage was given. The care and skill required in foreclosing a mortgage in either of the ways mentioned are such that it should not be attempted by anyone not well versed in legal knowledge.

Equity of Redemption.—It is assumed that no person will willingly allow his property to go in payment of his mortgage, and that if he does, it is because he is forced to. To, in some measure, save him from such loss, laws have been generally

enacted giving him a right to redeem, within a stated time, upon payment of the sum due, including interest and taxed costs, if foreclosure has been had. So carefully do the courts guard a mortgagor's interests in his right to redeem, that even when he has waived such right in the mortgage itself, such waiver has been held invalid and inoperative. The period of time allowed for redemption varies in the several States.

THINGS THAT ARE PART OF THE REALTY

A great many controversies and not a few lawsuits have arisen out of the misunderstanding between buyer and seller as to what things are included in the realty. It is most desirable, then, that when a man sells a farm he should thoroughly understand what he is selling, and what the purchaser has a right to believe he is purchasing. In an earlier section, this subject has been touched upon, but it is well to go into it more fully and explain as clearly as possible, in a few lines, what ordinarily will be conveyed by a man when he gives a deed of his farm.

FIXTURES.—It is impossible to give a definition of the word fixture which will apply to all cases. It has been defined as an article which was a chattel, but which, by being physically annexed to the realty, has become a part of it. In former times, the way a chattel was affixed largely governed in determining whether it was a fixture or not, and everything which was substantially affixed to the soil was regarded in law as a fixture. But in recent years, the courts have held that the question of intent must be largely considered in determining the character of the thing. What did a man intend when he attached the chattel to the realty, is the question asked, and since the intentions of men differ, even when apparently doing the same thing, a chattel may become a fixture in one case and not in another. As a result there is no definite rule to go by. All we can do is to determine, as best we can, what the intention was, and this we may do by taking into consideration the nature of the article, the way it is annexed and the purpose for which the annexation was made.

BUILDINGS.—Under this head are included all the buildings belonging to the owner, standing upon the premises, no matter how they are affixed to the ground. And this is true al-

though the buildings may not have been mentioned in the deed. If a building has been torn down and the material put away for future use upon the place, such material will still be regarded as a part of the realty and will go with the place. But if, on the other hand, it has been gathered together by the owner, prior to his contract of sale, with the intention of removing the same from the premises, it would become personal property and would not be conveyed in the deed. That is, in such case, the intention of the owner would be a large factor in determining the status of the material, whether it be personal or real property. Before purchasing, it would be well for the purchaser to have a clear understanding as to what the owner intended doing with it.

Again, it is possible that there may be buildings on the place which do not belong to the owner of the land; as, for instance buildings erected thereon by some person under the permission of the owner of the realty, with the understanding that such person may remove them. In that case, such buildings would not be held to be fixtures, and the purchaser of the place would not acquire them in his purchase. However, if his grantor had led or allowed him to believe that such buildings were a part of the realty, he, the grantee, would have, upon removal of the buildings, a right of action against his grantor for damages. To protect himself in such case, the grantor should always see to it that the grantee is informed of every claim any person may have to any building so erected on the place.

It is needless to say that whatever is a part of the building always goes with it such as doors, blinds, keys, furnaces, etc.

GAS FIXTURES.—Sometimes they are regarded as fixtures and sometimes as simply personal property. Each case seems to be determined by its own circumstances. No certain rule can be given. In thus speaking of gas fixtures we do not include gas pipes which are built into the walls, floor or ceiling of a house. Such pipes would be classed as fixtures, since their removal could not be accomplished without serious injury to the building and because of the presumption that it was intended that they should be permanent.

Pumps, sinks and water pipes, when affixed to a building, are fixtures. In general, all those things which a man puts into a house with the intention that they shall be a part thereof, are held to be fixtures, but it does not necessarily follow that because a piece of furniture is fastened to the floor or wall of a house it is therefore a fixture and goes with it.

Whether an article be a fixture or not may be determined by the intention of the person placing it there.

FURNITURE.—It is equally true that the ordinary furnishings of a house are not fixtures, and do not become a part of the realty. Such as carpets, curtains, stoves and the usual furniture of a house.

FENCES.—Of course fences are a part of the realty; so is fence material which has once been used and is kept for use again.

TREES AND CROPS.—Standing timber is part of the realty; so are growing crops.

MANURE.—All manure which has accumulated upon the farm is held to be a part of the realty. It does not matter whether it has been spread upon the fields or still remains in the barn-yard. It is regarded as a necessity to keeping of the land in good condition, which seems to be the main reason for classing it as a part of the realty.

HOP-POLES.—When in use, hop-poles are regarded as fixtures and go with the land, and the same is true of them if they have been stored away after the crop has been gathered, with the intention of again using them the following season.

But it has been held that if they were put upon the farm by a tenant for his own temporary use, with the intention of removing them, he will have the right to do so on or before the expiration of his lease.

NURSERY TREES planted by the owner of the soil are considered a part of it, and go to the grantee of the farm, or to the mortgagee, if the place be sold under foreclosure.

But a tenant who has put them on the place is allowed to remove them, if he does so in proper time. That is, on or before his lease expires.

AGRICULTURAL IMPLEMENTS, such as wagons, plows, reapers, harvesters, mowing machines and similar articles, are always regarded as chattels. But there is certain machinery sometimes used on a farm which in some cases may be regarded as a chattel and in others as fixtures, its nature being determined by the circumstances under which it was affixed. A *cider mill* has been held to be a fixture when erected by the owner of the land, but not when put up by a tenant. The same distinction has been held regarding *saw mills* and *grist mills*, *steam engines* and *boilers*, although erected upon solid foundations, have sometimes been held to come under the head of chattels, or removable fix-

tures. But the converse is generally true. It follows that the character of a thing depends upon all the circumstances attending its annexation to the soil.

REMOVABLE FIXTURES.—We have seen that oftentimes a thing, although affixed in a substantial manner to the realty, has been regarded as not a part of the realty. Such things are called removable fixtures. Under this head are classed many chattels annexed to a place by the tenant and it is important for a tenant to understand that, as a general rule, if he would remove such fixtures, he must do so before his lease expires, unless he has some agreement with his landlord allowing him to remove them at a later date. If a tenant, in the absence of such agreement, go upon the premises after he has surrendered them, for the purpose of removing such fixtures, he will be held to be a trespasser. But when the period of a tenancy is of uncertain duration, as when the time of its ending depends on an uncertain contingency, or when the tenancy is one for life or at will, a reasonable time is allowed such tenant, after termination of his tenancy, to move his fixtures.

BOUNDARIES AND WAYS

How Located.—When land is described in a deed by meets and bounds, it sometimes happens that some uncertainty arises as to the identity of the various points from which the boundary lines are run. As when a course starts from some tree or stone, and there is more than one tree or stone which would seem to answer the description in the deed. In such cases it is proper to go outside the deed itself, and establish by parol evidence which tree or stone is the correct boundary; and in case such tree or stone has disappeared, it is also allowable to show by oral evidence the places where they had stood.

Rivers and Streams as Boundaries.—It is a general rule that land bounded by a river extends to the centre of the river, or, as it is termed, to the thread of the stream, subject to the rights of navigation. But in streams where the tide rises and falls the boundary of the land has been held to be the high-water mark.

Highways.—Land bounded by a highway extends to the middle of the way and the owner has the right to the use of such land as lies within such boundaries in the highway in any

manner not inconsistent with the right of the public to use it as a highway. That is, such owner may cut the grass or trees which are on such part of the highway; if he please may cultivate it, but if he do so, he must do so at his own risk of damage to crops arising from the public use of the way. In case the highway should be abandoned the land would revert to the adjacent owners.

Easements.—An easement proper is a privilege which the owner of one parcel of land has to use the land of another for some special purpose.

Rights of Way.—There are many kinds of easements. But, perhaps, the most important of them all is what is commonly called *Right of Way*.

When a person owning a piece of land has, on that account, the right to cross the land of his neighbor in going to and from his own land, he has an easement in said neighbor's land. If such owner sell his land, his grantee may have the same right of crossing.

Classification of Ways.—Rights of way may be divided into several classes: Those arising from *Necessity*; those *Created by Grant*, and those acquired by *Prescription* or long adverse use.

WAYS OF NECESSITY.—A way of necessity arises when the owner of land sells a parcel of it which is wholly surrounded by his own land, or partly by his land and partly by land belonging to some one other than the grantee. In such case, the grantee would have the right of way over the grantor's land to the land he purchased.

That is to say, the law assumes that when a man sells land, the way to which is across the land he retains, he also grants the necessary way, although no mention is made of such right in the deed.

The same rule applies when a man sells all his surrounding land and retains an interior piece, for the law will not presume that he intended to cut himself off from access to the land which he retains.

But to give such a right of way, the necessity must be absolute, not merely a convenience, as, for instance, when such right of way would be shorter.

A way of necessity ceases when the necessity for such way no longer exists. If the owner of such a right should obtain, by buying other land, or in some other manner, a way from the highway over his own land to such shut in land, the right of way

would then cease. Such right of way would also cease if a new highway was opened by or through such enclosed piece.

It should be thoroughly understood that such right of way is confined to one line or direction. That is to say, a man has no right to drive all over his neighbor's land.

The owner of the land over which such right of way is to run should, at once, when requested by the owner of the right, point out where he wishes such way to run, and in doing so he must not select an impossible place, but should make a reasonable location. If he fails or refuses to point out a way, then the owner of the right may select for himself, but after making such selection, must abide by it, unless allowed to change by the owner of the land.

WAYS CREATED BY GRANT OR BY RESERVATIONS.—A way created by grant, is one which is expressly mentioned in a deed of conveyance. But such way need not necessarily be exactly located by the terms of the deed. If it is not, the grantee may select a reasonable way, and one which, at the same time, will put the owner of the land over which it runs to as little inconvenience as possible.

When a person sells a parcel of land, he may, if he please, reserve in his deed a right of way over the land sold, and in doing this, he should particularly describe the way he desires to retain. By so doing, possible controversies will be avoided.

WAYS ACQUIRED BY PRESCRIPTION OR ADVERSE USE.—A right of way is sometimes acquired by long continued adverse use: that is, a way used continually over the land of a neighbor, without his permission, for a long period of time. The length of time for which a way must be so used before it becomes an actual right, is the same length of time required to secure title to land by adverse possession, and this is regulated by statute, but is generally twenty years. The use must have been an open use, and one enjoyed without effective interruption on the part of the owner of the land so used.

How Ways May be Used.—There has been much litigation arising from disputes as to how rights of way may be used. It is, then, important that all persons owning, or who are likely to acquire rights of way, should consider with care what their rights may be. In the first place, if the way is one created by grant, the terms and conditions contained in such grant should be carefully examined, for the use would be limited to such conditions and can not be extended. That is, if a right of way is given for a special purpose, it can not be used for some other purpose; but if

the grant was a general one, such way may be used in any manner and for any purpose reasonably necessary, and in such case its use will not be restricted because, for a long term of years, the owner has simply used it for some particular purpose. The owner of a right of way has the right to keep such way in repair. In the absence of covenants on the part of the owner of the land to repair, if out of repair, he must not, on that account, go outside of its limits and use the land on the side, but, if he still wishes to use the way, he must put it in repair.

The way in respect to width and height, if not limited in the terms of the deed or grant, is always such as is reasonably necessary for the purposes for which it is granted. But the owner of such right must so use it as not to unnecessarily interfere with the proper use or cultivation of the land over which it runs, always keeping in mind that the owner of the land has the right to use the same in any way which will not injure the right of way.

GATES AND BARS.—The courts have held that in the absence of an express provision granting an open way, the owner of the land may build fences across it, provided he put in suitable gates or bars, and in such case it would be the duty of the owner of the right of way to open and close such gates or bars whenever he has occasion to pass through them.

Obstruction of Ways.—If the owner of the land across which the way extends, unlawfully closes it up or obstructs it, the owner of the right may, if he can do so peaceably, open it or remove such obstruction, or he has a right to sue said owner for any damages he may have suffered because of such unlawful action. If the owner continues to maintain such obstruction, he may be enjoined by proper application to the courts.

Right to Go Outside the Way.—In case of unlawful obstructions to such way on the part of the owner of the land, the owner of the right of way may go outside the usual lines of the way, upon other parts of the land, but must be careful to do no unnecessary damage in so doing. In general, if the way becomes impassable through the fault of the owner of the land, he cannot complain if, in the necessary use, the owner of the right of way goes outside said way and over other parts of the owner's land.

Public Drains or Ditches.—In flat or low lying country there are often found swamps and marshes which, for the safety of the public health, need to be drained, and there are often large tracts of land too wet for cultivation, and for the purpose of

draining such swamps and reclaiming such land, States have enacted laws authorizing the constructing of public drains, specifying the necessary steps to be taken to such end, how the money for such purposes shall be raised, etc. It is impossible here to set forth the statutes governing the matter. If a person desires such a public drain, he should examine the public statutes of his State. He will find that it is not difficult to set the necessary machinery at work.

Private Drains.—A farmer has a right to drain for agricultural purposes, the surface water upon his land, but in so doing must see to it that he does not drain such waters in such a way that their discharge upon his neighbor's land results in injury to such neighbor's property.

But injuries by flowing surface water, done to a neighbor as the result of ordinary farming operations, such as plow furrows, have been held not to be such injuries as would give right of action for damages.

The distinction seems to be between injuries occasioned by strictly agricultural operations, and those occasioned by works intended to reclaim or improve the land. But, perhaps, the safe rule for a farmer to go on, is to always lay out and construct his drains as he would wish his neighbor to do were they to exchange places. By keeping this rule in mind, many a lawsuit will be avoided.

HIGHWAYS

A Highway is a road or street maintained by the public which every citizen has a right to use. The term highway also applies to railroads and turnpikes, and includes public ways of all classes. But in ordinary use, the word is limited to the country road, or village or city street.

Lawful Use of Highways.—All persons have a right to travel along a road or street so long as they do so in an orderly manner. But the right to pass along a highway does not give the right to stand unnecessarily in the street, and so obstruct the passage of other persons. Since the fee to the road, and this is particularly true of country roads, remains in the owners of the land adjacent, the public right to use is limited to the simple necessities of ordinary travel, together with the right to keep the road in repair.

In villages and cities, the public has more extended rights of use, such as the right to lay pipes for gas, water, electric wire, drains, etc.

In earlier days, the public could only travel along the highways either on foot, on horseback, or in some conveyance drawn by domestic animals, but as civilization advanced and new methods of propelling conveyances were invented, the courts found it necessary, for the public convenience, to extend the public's rights to the use of other power, such as steam and electricity, holding that the question always to be determined in the use of a road or street was the reasonableness of such use.

Law of the Road.—It is not necessary to state that people on foot may pass each other either to the right or left, whichever side may be the more convenient. Men usually pass to the right, but there is no law governing the subject, since the danger from collision is very slight. *Not* so, however, in respect to *teams*. And in most, if not all the States, laws have been enacted, specifying that teams upon meeting shall turn to the right. Of course, many instances will arise where this rule cannot safely be carried out, and under such circumstances, the driver should turn in such direction as prudence and regard for the safety, not only of his own but of the other conveyance, dictate.

Roads at Right Angles.—When crossing another road or street, it behooves the traveler to exercise all necessary care. Particularly is this the case, when, by reason of trees or buildings, the view of such other road is obstructed.

Driving By.—There is no particular law to be observed in driving by a team ahead. But care should be taken to go on the side where there seems to be the most room. This is particularly true in cities, where there is curbing along the side of the driveway. In such cases, it is generally safer to pass on the side nearest the center of the street. By taking the other side, there is danger of being caught between the team which you are attempting to pass and the curb, resulting in possible injury to your conveyance. If there is not room to pass on either side of the team ahead, it is the duty of such team, if possible, to turn to one side or the other, so that sufficient passage way may be given.

Travelers on Foot.—A person has the same right to go on foot in the road or street that he has to drive there; just the same right that he has to walk in the path at the side. But he is bound to use due care, which means a higher degree of care and watchfulness than would be required while walking on the sidewalk. It stands to reason that if he is in the way of a team which is heavily

loaded, he ought to turn out for it, and not compel it to leave the beaten path for him. This observation applies with equal force to horseback riders. In other words, strict legal rights should, in such case, yield to the dictates of courtesy and kindly action.

Speed.—The rate of speed at which a conveyance may lawfully be allowed to go, is governed by the circumstances. What might not be too fast on a country road, where there is little travel, might be altogether too rapid on a village street. The rate of speed should never exceed that which is consistent with safety. In cities there are generally ordinances limiting the speed at which a conveyance may go.

Harness and Wagon Must be in Good Repair.—A majority of the accidents which occur in driving are due to the imperfect condition of the harness or wagon. In case injury happens to another by reason of the imperfect condition of a traveler's outfit, such person will be held liable for damages.

Right to Stop by Wayside.—While a road or street is for the purpose of travel, and must not be blocked up or obstructed, yet it is allowable that the traveler should stop his conveyance by the wayside, when necessary. He has the right to load and unload goods, and to make such stop for any purpose which is properly incident to the use of the road or street. But such use must not obstruct the right of passage in an unreasonable manner.

Hitch Your Team.—If the traveler wishes to avoid the risk of liability for damage, should his team run away and injure another when left by the side of the street or road, he should see to it that such team is properly hitched. If he leaves it unhitched, and it should run away, he would be liable for any damage it might do to another.

Unbroken or Vicious Horses.—If a man knows his horse to be unbroken or given to running away, he should not drive it in roads or streets where there is likely to be much travel. Should he do so, and the horse get away from him, despite his care, and do damage to other people, such owner would be liable for damages. It has been held that to drive such a horse upon any highway was negligence.

Rights of Adjacent Owners.—The adjacent owners of land along a highway own to the center of such way, and have a right to the use and enjoyment of such land in the highway as is not inconsistent with its use as a road or street, and if any traveler make use of such land, or the thing growing thereon, in any way not necessary to the legal enjoyment of the road or street, he

becomes a trespasser and is liable under the law for any damages such adjacent owner may have suffered at his hands. Such owner may mine under the road and carry drains or pipes under it.

Highways Originate, How?—A road or street comes into existence in one of three ways. They are either laid out by statutory process, or are given by the adjacent land owners, which is called *dedication*, or else arise from long continued public use.

Condition of Highways.—Highways must be kept in a state of good repair. If not so kept, the township or city may be liable for large damages on account of any injury received by some traveler, through some defect in such road or street. There is no certain definition as to what constitutes a state of good repair. But the road should be kept in a reasonably safe condition for the travel to which it may be subjected. Greater care should be given to a much-used highway than to an unfrequented country road; and the same care which would be reasonable in a village street might be insufficient in a city avenue.

Whether a highway has been kept in a reasonably safe condition of repair depends upon all the circumstances of the case.

TRESPASS

Rights of Land Owner.—The owner of land has the right of exclusive possession. No one has a right to even step upon it without the owner's permission, express or implied. In the country, people frequently take short cuts across the fields of their neighbors, without stopping to think that in so doing they are trespassers. But such they technically are. Of course, in such cases the damages would, ordinarily, be small. But it is none the less a trespass, so sacredly are the rights in realty protected.

Ways of Committing Trespass.—It is not necessary that a person should personally go upon the land of another to be guilty of trespass. He may commit trespass by sending his employee upon the land, or by allowing his animals to go on it; or by causing things, either intentionally or negligently, to fall or be placed upon it. As when he fells trees which fall over his boundary line.

Trespass by Employer.—If a man order his employee to enter upon the land of another, without permission, he is liable for such trespass. He is also liable for any trespass which his employee, without such orders, may commit while engaged in the proper carrying on of the business with which he has been intrusted.

But an employer is not liable for any trespass committed by his employee on his own account, and outside the scope of his business.

Trespass by Domestic Animals.—A man is liable for all damage done by his cattle, horses, sheep, etc., by going on his neighbor's land, and his liability does not depend upon the condition of the fences. Indeed, he may be so liable, even if there is no fence. He is charged with keeping his animals in their proper place. A possible exception arises when such animals are being driven along a highway, and, through no fault of the persons in charge, break away and enter the adjacent fields; provided, of course, that they are removed within a reasonable time.

Trespass by Fowls.—A person has no more right to allow his fowls to roam over his neighbor's garden than he has to permit his cattle to do so. But, on the other hand, if they are trespassing on a neighbor's premises, such neighbor has no more right to use unnecessarily dangerous means to repel them than he would have were they cattle. No matter how troublesome they may be, or how often a man has warned their owner to keep them at home, yet there is no excuse for shooting or poisoning them. The proper remedy for damages is an action at law.

Trespass by Dogs.—At common law, the owner of a dog was not held liable for his trespasses. But if a dog is vicious and is in the habit of doing injury to persons or property, then as soon as the owner has reason to know of such disposition on the part of the dog, he must keep him under restraint, or be liable for the harm he may do. In some States there are statutes provided, specifying the liability of the owners of dogs for injuries done by them.

Trespass by Hunters or Fishermen.—From what has already been said on the right of the land owner to the exclusive possession, it follows, that to go upon the premises of another for the purpose of hunting or fishing, is to commit a trespass. In many sections of the country it is the universal custom to go hunting and fishing wherever there is prospect of success. And

sometimes hunters and fishermen seem to assume that they have a right to pursue their sport wherever they please. But such is not the case, and in going upon land not their own, they are liable in an action of trespass.

FENCES

Who Bound to Fence.—At common law, a land owner was not obliged to fence against the cattle of his neighbor. He was not obliged to take any precaution to prevent his neighbor's cattle from trespassing on his lands. This doctrine of the common law has been recognized in many of the States, more particularly, the Northern and Eastern, while in some of the Southern and Western it has been held not to be in force. And in these the owner of cattle is not obliged to keep them at home, but the occupant of land must, at his own peril, keep them out.

Division Fences.—When owners of adjacent lands wish to improve them, of course it becomes necessary to have fences between them. The expense of such fences should be shared equally between such parties. If one owner be unwilling to pay his share or build his part of such fence, he may be compelled to do so by law.

Division Fence Not Always Necessary.—If an owner does not care to improve or cultivate his land, then he is not required to pay anything for the construction of a division fence. But in case a division fence is not built, then it is incumbent upon such adjacent owner to see to it that his domestic animals do not stray over the boundary line into his neighbor's fields, and thereby render their owner liable for trespasses committed by them.

Fences on Highways.—At common law, a man was not obliged to fence his land along the highway, but if he did not, he had no right of action against the owners of any domestic animals which might stray from such highway upon his fields, and damage the crops growing thereon.

But when cattle are prohibited, by statute or ordinance, from running at large, the owner permitting them to so run is liable for their trespass, whether lands upon which they trespass are sufficiently fenced or not.

Railway Fences.—At common law, railway companies were not bound to fence their road, make cattle guards, or in any way protect their road from the trespass of cattle.

But in many States, statutes have been enacted requiring railways to fence their road in, and holding them liable for injuries arising by reason of their failure to do so. But if a fence gets out of repair, without fault of the company, and injury results before it has had reasonable time to repair it, it is not liable.

If cattle get on the track wrongfully, that is no excuse for the engineer to run them down, and if he does so intentionally or wantonly, the railway company will be held liable.

Lawful Fences.—The purpose of a fence is to guard against damage caused by or to domestic animals. The statutes of the several States generally define what shall constitute a lawful fence. Their provisions vary, and the reader is referred to the statutes of his respective State.

It has been held that when the law prescribes the height of the fence, a land owner cannot recover for damages by animals without showing that his fence was of the statutory height.

A fence such as farmers of practical knowledge and experience would consider sufficient to protect crops, has been held to be a sufficient and legal substitute for the statutory fence.

OWNER'S LIABILITY FOR THE ACTS OF HIS ANIMALS

Injuries by Vicious Animals.—At common law, an owner of domestic animals was held responsible for their ordinary trespasses on the field of his neighbor, and this for the reason that he must know that if they were allowed to run at large, they would surely injure crops, etc., it being their nature to feed upon anything that might please their taste.

But there are other injuries which may be committed by such animals, which their owner may have no reason to anticipate, because they are not due to any usual habit or taste, but are done, if at all, by some peculiarly vicious animal. While every one knows that horses and cows will wander into neighboring fields, unless restrained, yet it is extremely unusual for such animals to attack any person. Therefore, the owner is not, in general, held responsible for any injury which his animals may do, which is of a kind such as he had no reason to expect them to do.

Liability of Owner.—If an animal commits an injury such as the owner had no reason to anticipate, he may not be liable for

damages. But if such injury be done by a vicious animal, known to the owner to be vicious and likely to do the injury committed, he will be liable. When he has notice of such propensity, he is bound to take all necessary care to keep such animal from doing harm. The notice necessary to fix such liability on the owner must be such as would put a prudent man on his guard, lest the animal should commit the very kind of injury which has happened. Notice that a dog will worry or kill sheep is not notice that he will bite a person. Neither is notice that a horse is in the habit of running away, notice that he will kick or bite.

The duty to protect against vicious animals is incumbent upon the person in whose charge they happen to be, whether he be their owner or not.

The owner or keeper may be liable although the person injured was a trespasser at the time of the injury, for a man has no right to defend his premises against mere trespassers by means of savage animals whose attack might be dangerous to life or limb. However, if the person injured has been guilty of contributory negligence, as when he recklessly goes on to the premises where he knows there is a ferocious animal at large, he will have no lawful claim for any damages which he may suffer. In the eyes of the law, he is bound to guard against such danger as he had reason to anticipate.

Injuries by Dogs.—Under the common law an owner of a dog is not held liable for any of the injuries it may do, however vicious, unless he has knowledge of the dog's vicious propensities. In other words, a dog was regarded as a tame and harmless animal, and, to charge the owner, he must be shown to have known that the dog was dangerous.

In many States, however, laws have been enacted holding the owner of a dog to a much higher degree of responsibility, holding him liable for all injuries whether he knew of the dog's vicious habits or not.

But a man may keep a dog for the necessary defense of his house or his premises, and may cautiously use him for that purpose at night time, but if he allows a vicious dog to be at large on his premises in the day time, and he then bite a person, although such person was committing some trifling trespass, such owner or keeper will be liable for damages.

Vicious Animals Lawfully Killed.—Sometimes it is lawful to kill a vicious animal, and whether it is lawful to kill such animal does not necessarily depend on the question of its owner's liability for the injury done. Thus, if a savage dog is found

engaged in doing injury, he may be killed, whether the owner know of his dangerous propensity or not. So a mad dog, or one which there is good reason to believe mad, or one bitten by a mad dog, may be killed. But domestic animals that, under the common law, are held to be property, cannot thus be killed, unless it is necessary for the protection of more valuable property, or human life.

NUISANCES

What is a Nuisance?—A nuisance has been said to be anything wrongfully done, or permitted, which causes injury or annoyance to another in the enjoyment of his legal rights. "Anything constructed on a person's premises, which, of itself, or by its intended use, directly injures a neighbor in the proper use and enjoyment of his property, is a nuisance."

But what amount of annoyance or inconvenience will constitute a nuisance cannot be precisely defined for it is a question of degree depending upon varying circumstances.

Public Nuisances.—*Public* or *common* nuisances are those which affect the community at large, and for which a civil action does not generally lie, but which are punishable by a criminal proceeding brought in the name of the people.

A nuisance, to be a public nuisance, must be in a public locality, and where the people generally will feel its influence. Not everything which affects the community unpleasantly is a public nuisance. It must be something which causes substantial injury. What might be a public or common nuisance in one place might not be in another, as, for instance, a slaughter house might be a public nuisance if located in the midst of a populous neighborhood, while it might not be if situated in a sparsely settled section. So a blacksmith shop has been held a public nuisance in certain localities in a city, but not on a side street. Each case is governed by the circumstances surrounding it.

Private Nuisances.—A private nuisance is one which injures only one or a very limited number of persons, and for damages arising from which, a private action may be brought.

Mixed Nuisances.—Some nuisances, although public in their nature, are, nevertheless, such as may especially annoy an individual, and for which he may bring a personal action. An instance of this kind may be found in the obstructing of a

highway when a traveler is trying to make use of the same. Nuisances of this class are termed mixed nuisances.

Who is Liable for a Nuisance.—Any one who either creates or maintains a nuisance is liable to any person who is injured thereby; or, if the nuisance be a public or common one, he may be liable in a criminal action.

The person in possession of the premises, whether he be the owner or not, is generally the one to be held liable. If a man move into premises upon which there is a nuisance, his attention must be called to it and he must be requested to abate it before he can be held liable. And in any case before bringing suit, request must be made for the abatement of the nuisance. Damages cannot be recovered for injuries arising from a nuisance the existence of which the defendant is ignorant.

Diseased Animals.—It is a nuisance to keep animals afflicted with contagious disease in such a way as to expose the animals of a neighbor. If a farmer has animals so diseased, he must so keep them that there is no danger of the contagion spreading. If he is negligent in this matter, he may be liable for damages caused by his carelessness. The care which he is required to exercise is that which a prudent man, mindful of his duty to his neighbor, would exercise. Diseased animals should be kept at home. On no account should they be allowed to go at large upon the highway, or drink from watering troughs which are used as drinking places for healthy animals. Neither should they be turned into fields where they may come in contact, through the boundary fence or otherwise with the animals of his neighbor. In many States laws have been enacted prohibiting the driving of diseased animals along the highways, or the transporting of them on the railroads.

Careless Setting of Fires.—Under proper conditions, the starting of a fire may not be unlawful. But it is such a dangerous element that a person must exercise a high degree of care. It is not enough that he is careful in the way, time and place he starts the fire, but he must also watch it, lest it get away from him and damage his neighbor. If, on account of his negligence, damage is done to his neighbor, he will be held liable. He will also be held liable for the negligence of his employees if they are acting under his direction, or within the scope of his business. The courts have quite generally held that all the damages which can be directly traced to the man who sets the fire no matter whether he intentionally sets the fire or

not, are chargeable to him. This, at first thought, may seem to be a harsh rule since the person who so started such fire may be a large loser himself from the fire. But while in some instances the enforcement of such a rule may be a hardship, yet, since it must tend to bring about greater watchfulness and carefulness on the part of every one, the result must be beneficial.

EMPLOYING HELP

The employment of help on a farm is an important matter. Trifling misunderstandings as to the terms of the agreement entered into between the employer and employee have often given rise to expensive lawsuits. Most of such misunderstandings are due to the thoughtlessness of one or the other of the parties as to what may be their respective rights. While the subject is an exhaustive one, yet there are a few legal principles which, if kept in mind, will, in most instances result in the making of valid contracts in the eyes of the law and, at the same time, contracts satisfactory to the makers.

Express Contracts of Hiring.—These need not be in writing, unless for more than a year, or not to be performed within a year from the time of making. But it would always be well to put them in writing; for, by so doing, there is likely to be less chance of any misunderstanding. Such a contract can usually be put in a very few words; and the fewer, the better, generally. Simply set down what the employee agrees to do, and how long he agrees to work and what the employer is to give. Both parties should sign. Witnesses to such contracts are not necessary. Such contracts are called express contracts.

Implied Contracts.—There are many cases where services are performed by one person for another, under no express agreement as to payment, yet under such circumstances that it must be presumed that the one rendering such services rightfully expects payment. In such case, the courts might assume that there was an implied promise to pay for such services, and hold, therefore, that there was an implied contract. In such cases, the wages to be paid would be what the work was reasonably worth. Whenever work is done or services rendered by one person at the request of another, unless requested and done as a favor, there is an implied contract to pay.

Employer and Employee.—What has heretofore been said as to the necessary parties to a contract, their capacity to make contracts, etc., of course will apply in contracts of hiring.

Hiring of Minors.—A large proportion of the help employed in this country are under twenty-one years of age. That is, they are minors, and as has already been said, are incapable of making legal contracts except in certain cases. A minor may hire out for a certain length of time, yet not be bound to live up to his agreement, and may leave at any time. Yet the employer would be liable to pay for the time he worked, and has no right to deduct from such wages any damage he may have suffered because of such minor's leaving.

If a person employs a minor, he should ascertain whether or no such minor has a right to receive his pay or whether it should be paid to his father. This is important, for, unless his father has given him his time, his earnings belong to him. But if the minor is a married man, he has been generally held entitled to his wages, on the ground that he needs them to support his wife.

Duties of Employers.—As a general rule, an employer is liable for damages if his employee is injured through his negligence. This is the ground upon which suits for damages are so often brought by an employee against an employer. An employer is bound to use due care in selecting his employees. That is, he must employ only such persons as are competent to perform the work for which they are employed; and if an employee is known by his employer to be incompetent, he should not be kept, lest through his incompetence he should cause injury to another, and thus render the employer liable in damages.

If an employer makes use of machinery in his business, he must keep it in a good condition of repair, lest by its imperfection his employee be injured.

He must also keep in good and safe condition his premises upon which his employees are required to work. And he must not expose them to any unusual risks; that is, such dangers as are not properly incident to their employment.

Injuries by Fellow Employees.—When a man hires out he assumes all risks of injury which may arise through the negligence of his fellow employees, and so he has no claim against his employer, if he is hurt, unless he can show that such em-

ployer was negligent in employing such fellow employee or knowingly keeping him in his employment.

Injuries Caused by Defective Machinery.—A great many suits for damages have been brought against employers on the ground that the injury complained of was caused by defective and unsafe machinery about which the injured person was employed. If an employer would guard against such suits, he must see to it that his machinery is kept in good repair. This applies as well to farm machinery as to the machinery in mills and factories. An employee is bound to exercise such care in the matter as would be expected of an ordinarily prudent man under similar circumstances.

Injuries From Defective Premises.—A man has no right to put employees at work in buildings which he knows or ought to know are unsafe, and if an employee is injured by reason of such building falling, the employer is liable. But if the defect or unsafe condition is such that the employee has knowledge of its condition, and still continues, without complaint, in such employment, then the employer will not be liable.

Injuries Arising From Unusual Employment.—When a man enters another's employ, he is supposed to know how to properly perform the duties which he undertakes, and to be familiar with the usual risks in such employment. He is therefore held to assume such risks. But it not infrequently happens that his employer puts him at work at something totally different, and for which he did not hire. In such case, if he is injured through no fault of his own, his employer will be liable for damages. As, for instance, hiring a man for plowman and setting him to run a threshing machine.

Contributory Negligence.—While it is an employer's duty to exercise much care in protecting his employees from injury, and he may be liable for damages if he does not, yet the employee must also exercise care. If his negligence has caused the accident through which he has suffered injury, his employer will not be liable. How much an employee's negligence may have contributed to the cause of the injury is a question for a jury.

Responsibility of Employers for Employee's Acts.—It is evident that an employer can not be held responsible for every wrongful act of his employee. If such were the rule, no one

would dare to employ help. But he is liable for all the acts of his employees expressly directed by him, and also for all that they may do in the proper conduct of the business at which he has employed them. But if an employee goes outside of the apparent or real scope of his master's business and commits a wrongful act, he alone will be liable.

Of course, if an employee is left in general charge of his employer's affairs, and allowed to manage them as his judgment dictates, the employer is responsible for any wrongful acts performed by the employee, whether they be done intentionally or unintentionally. This is a just rule, for otherwise a man might intentionally hire cheap, incompetent and irresponsible employees who would endanger the safety of his neighbors or, it may be, the whole community, and from whom no adequate redress could be secured.

TAXES

Taxes may be divided into two classes: ordinary and extraordinary. Everyone is familiar with the ordinary tax which is levied for the purpose of carrying on the State and municipal government. That some form of government is necessary, and that there must be funds at hand out of which the expenses attending the same may be paid, is recognized by every citizen. Under the head of extraordinary taxes may be classed what are termed special assessments, such as paving and sewer taxes.

Limitation on Taxation.—While it is essential to the carrying on of the various departments of the State and municipal government that a tax should be levied, yet limitations have been very properly placed upon the power to tax. In the first place, a tax must always be for a public purpose and not for private interests. This is a just principle, for otherwise a whole community might be taxed to reimburse the loss which one member of it might have suffered. Again, in levying taxes it is necessary that due regard should be had to the relative benefits accruing to the property taxed. That is, there must be a just and equal apportionment of the taxes.

Invalid Taxes.—Taxation being an arbitrary system of collecting money for the public good, the courts, mindful of the danger of illegal encroachment upon individual rights, have

very properly held that the statutes authorizing the levying of a tax must be carefully complied with. Every provision of such laws must be closely followed. In general, if any part of the tax assessed is illegal, the whole tax will be invalid.

Paying Taxes Under Protest.—If a taxpayer has reason to believe that, for any reason, the tax assessed is invalid or illegal, he may pay the same under protest, and then take the necessary steps under the statute for recovering it. It is doubtless true that often errors creep into a tax levy sufficient to invalidate the tax, yet, as a general thing, the tax redounds to the public good, and every individual is proportionately benefited thereby. It follows, that while the payment of such tax might be successfully avoided or, if paid, recovered in the majority of cases, the cost and trouble would amount to more than the tax. It does not always pay to stand on one's technical rights in the matter of taxation.

Methods of Collecting Taxes.—Since the State has the right to sell the property for the taxes. But when such sale is force their collection. A tax, therefore, is a lien upon the property, and the State, when other means of collection fail, has a right to sell the property for the taxes. But when such sale is made, the State does not give a warranty deed, but gives simply a quit claim deed, ordinarily called a tax deed.

Validity of Tax Deeds.—The courts look carefully to the interests of individuals, lest they be deprived of their property without due process of law. As a result, they look very critically at all the steps leading up to the tax sale, and rightfully require that the statute shall have been complied with in all its provisions. Inasmuch as mistakes are frequently made in some stage of the proceeding, due to the lack of information on the part of the officials authorized to collect the tax as to the provisions of the statute, it is safe to say that a large proportion of tax deeds would be held invalid by the courts. It is, however, a cloud on the title to a man's land, and at any reasonable price short of the cost of litigation, should be bought up.

WARRANTIES

Warranty of Things Sold.—A warranty is a representation on the part of the seller, intentionally made, upon which the buyer relies, that the goods sold possess certain qualities. Such warranties may be either *express* or *implied*.

Express Warranties.—No special form of words is required to create a warranty. Any assertion made by the seller with the intention of inducing a person to purchase, and, relying upon which, such person does purchase, is an express warranty. But a mere expression of opinion on the part of the seller will not constitute a warranty.

The buyer should see to it that he gets something more from the seller than simply an opinion as to the condition or quality of the thing purchased.

In the absence of express warranty, the law, in general, implies none. The purchaser must be on his guard. If he does not require a warranty while it is in his power, he must not complain afterwards. If he has been negligent in the matter, he ought not to be allowed to seek indemnity through the aid of the law.

Implied Warranty.—When anything is ordered for a special purpose, and is furnished for that purpose, there is an implied warranty that it is suitable for such purpose. As, if a person should say to another, "sell me a horse suitable to carry me," and the other sell him one which he knew to be unfit, such seller would be liable on his implied warranty. But if, on the other hand, the purchaser should simply point out a horse and say, "sell me that horse to ride," there would then be no implied warranty that such horse was fit to ride.

When the things sold are not subject to the inspection of the purchaser, there is an implied warranty that they are salable and merchantable.

And it has been held that in all sales there is an implied warranty that the article corresponds in species with the commodity sold.

Purchase of Trees and Shrubs from a Nursery.—Every farmer has probably, at some time, been urged to buy young fruit trees or ornamental shrubs by some agent of a nursery. The representations made by such agent are generally the basis on which a purchase is made. Every person contemplating the purchase of anything in the line of nursery stock, should see to it that the agent does not exceed his authority in the representations he makes. He should also ascertain the responsibility of the nursery which the agent claims to represent. These precautions are necessary if the purchaser wishes to be reimbursed for any loss he may incur by reason of the worthlessness of the goods which may be delivered. If the contract of purchase is made with a properly appointed

agent, and one acting within the scope of his authority, and representing a reliable house, then, in case the trees or shrubs furnished fail to answer the kind and quality ordered, the purchaser will have a remedy in an action for damages.

DOMESTIC ANIMALS AND THE LAWS REGULATING THEIR KEEPING

Horses.—Among the more useful animals on a farm is the horse; and over no animal has there been so much litigation. His property value has always been recognized by the courts.

Horse Trainers.—When a man advertises himself as a trainer or breeder of horses, the law will presume that he has the requisite knowledge and skill to practice the profession he has chosen, and will hold him liable for any negligence or lack of skill whereby the animal may have been injured. On the other hand, the employer is bound to inform such trainer of any defects or vicious tendencies in the horse put in his charge. But such trainer, of course, will not be liable for any injury resulting from an accident which could not be avoided.

Lien for Services.—In general, if a horse is turned over to the possession of a trainer or veterinary surgeon, they have a lien for their reasonable services. This continues so long as the horse is kept in such possession, but would cease upon voluntary surrender.

The Law Regulating the Keeping of Stallions.—If a man keeps a stallion for public service, he is bound to exercise all the care and skill required in such business; and, failing in this, will be answerable in damages for any injury which may be brought upon any mares by reason of negligence or improper handling.

Cattle.—To protect cattle as much as possible from the diseases to which they are subject, it has been found necessary to pass laws regulating the importation and transportation of diseased cattle. These laws have very properly been sustained by the highest courts. In many States, commissions have been appointed invested with the necessary powers to enforce these laws. Their powers are, to a certain extent, arbitrary. They may order diseased animals killed and, in general, do whatever is reasonable for guarding against the spread of contagious diseases.

Diseased Cattle, Sale of.—Whenever any one knowingly sells, for food purposes, diseased cattle, he renders himself liable in damages for any and all consequences which properly follow from such sale. There are also statutes making it a misdemeanor to sell unhealthy cattle for such purpose, such statutes being enacted in the interest of the public health.

Branding Cattle.—In the far West, where it is impossible to securely fence in one's cattle and thereby keep them from becoming mingled with the cattle of another, it has been found necessary to mark them with some brand which might identify them as belonging to a certain ranch. The law recognizes such mark or brand, and when the same has been duly registered it becomes evidence of proprietorship. Penalties have been enacted for the improperly changing or obliterating of such brands.

Sheep.—Sheep being defenseless animals, are peculiarly subject to the attacks of vicious dogs, and for their better protection laws have been enacted allowing the killing of any dogs found attacking sheep, and the owners of such dogs are also liable in damages. In some States, in case the damage is done by several dogs, the owners of such dogs are held to be severally liable for the entire damages. In other States, it is a question for a jury to determine the amount of damage done by each dog, for which its owner is liable.

Diseased Sheep.—As in the case of cattle, laws have been passed for the purpose of guarding against the sale and transportation of diseased sheep. A farmer must not knowingly sell diseased sheep. If he does, he is liable for all the damage which may result from such sale, in the way of spreading the contagion, etc.

Hogs.—What has been said about the laws applicable to guarding against the selling and transportation of diseased cattle and sheep, applies with equal force in the case of hogs. The hog entering so largely into the food supply of this country, public health demands that all needful laws for the purpose of keeping such food pure and healthy should be strictly enforced, and such is the view taken by the courts.

Pasturing Animals.—When any one takes animals to pasture, he is held responsible for their proper care. What is proper care depends upon the value and character of the animals. The care which might be all sufficient in the case of a young steer, might fall far short of what would be the proper care of a fine blooded colt.

The general rule is, that in all cases the degree of care required of one who takes animals to pasture is such care as a prudent person would give to his own animals under similar circumstances. He must also possess the skill and knowledge necessary for the proper care of the animals which he undertakes to keep.

If such pastured animals are allowed to break out of their enclosures through such keeper's negligence, and do damage, he will be liable therefor. If action be brought against the owner of the animal so trespassing, such owner will have his remedy against the keeper.

It is hardly necessary to say that, with the exception of giving horses proper and needful exercise, they are not to be used by the one into whose hands their keeping has so been entrusted.

Hiring of Animals.—**DUTY OF THE OWNER.**—It is the duty of the owner of animals which he lets for hire to see to it that they are suitable for the service for which they are required. He must not let horses known to be vicious. If he does, he is liable for any damages resulting from the action of such animals. He is also liable if he loan such an animal, although not expecting or requiring compensation.

DUTY OF HIRER.—A person who hires a horse is bound to use it in a reasonable manner, and return it to its owner free from injury resulting from any carelessness or abuse on his part. In case the owner should discover the hirer abusing such horse and thereby tending to its injury, he may thereupon terminate the contract of letting, and take his horse. Statutes have also been enacted for the purpose of preventing cruelty to animals. Under such statutes the hirer as well as the owner may be punished for ill treating a horse.

Borrowing Animals.—Among neighbors it is nothing unusual to borrow horses from one another. The one who borrows is held to a somewhat higher degree of care than is the one who hires. He must exercise the highest degree of care in their use and keeping.

LANDLORD AND TENANT

In this country, fortunately, the land is largely divided into small parcels, and generally the farmer owns the land he cultivates, or at least a large proportion of it, yet the relation of

landlord and tenant is not infrequent, and the subject is one of much importance.

Leases.—As we have heretofore seen, a lease is but a contract and may be oral or written. An oral lease is valid only for a short period. If made for more than one year, it cannot be enforced at law. But it is best that all leases should be in writing, and this is so, whether the term be for more than one year or less. Perhaps nothing is more fruitful of contentions than oral or verbal leases. When the lease is written and simply sets forth the terms and conditions, it is not difficult to ascertain what the respective duties or obligations of the landlord and tenant are.

Landlord's Duties.—First of all, when a man lets a place, he implicitly covenants that he has the right to so let it and that his tenant shall have quiet and peaceful possession. By such possession it is not meant that he may not be disturbed by trespassers, but that he shall hold such premises free from disturbances on the part of any one who has a superior title to that of the landlord. So long as the tenant is in peaceable possession of the premises, he is bound to pay the rent stipulated.

Repairs on the Farm.—In general, the tenant is bound to keep the house in repair, but not the out-buildings and barns, nor fences. He must, however, use the property in what is termed a husbandlike manner. If damage result by reason of his failure so to do, he would be liable.

Repair of Fences.—While the general rule is as above stated, viz.: the landlord must repair fences, yet, in some States, statutes have been enacted providing that in the case of what are called division fences, the occupants, whether tenant or owner of the adjacent lands, so long as they continue to use and improve them, must, according to their respective shares, keep such fences in repair. But a tenant, unless by the terms of the lease he has agreed to repair the fences, would have a claim against his landlord for the cost of such repairs.

Duties of Tenant.—In the absence of any special agreements in the lease, it is the duty of the tenant to use the premises in a husbandlike manner; that is to say, he must use them in the way most suited to the character of the soil, etc., or in other words, in such manner as a prudent man would use them if he was owner. It is, however, frequently stipulated in the lease how the premises shall be used. In which case it becomes the tenant's duty to abide by the terms as set forth. It would be wise for a tenant to see that in the terms of his lease there is a stipulation

that he shall be released from such lease in case the premises are rendered valueless by reason of fire or other unavoidable accident. Otherwise he will be held bound to pay the rent, although deprived of the use and enjoyment of the premises.

Right to Make Alterations.—A tenant may make needed alterations, but he must be careful to make no changes in the buildings, fences, etc., which will tend to render the premises less desirable, or impair their rental value.

Collection of Rent.—The statutes of most States provide what steps shall be taken for the collection of rent. In general, if a tenant refuse to pay the rent or surrender up possession for a stated time after receiving the requisite notice from his landlord, such landlord may proceed to recover possession of the premises and obtain a judgment for the rent due. This is a statutory proceeding, and reference should be had to the statutes of the several States.

Protection of Leased Property.—Since a landlord, after leasing his premises, ceases to have possession or control of them, it very properly follows that the tenant is held bound to protect them from injury. And the tenant is held to the same degree of care as if they were his own. But he is excused from injuries resulting from the act of God, such as storms, and from the damages which may be caused by public enemies.

What May Tenant Take Away?—The law has always looked carefully after the preservation of the agricultural interests, and has discouraged the removal of anything from farming properties which might tend to impair their value. Therefore, the lessee of a farm has not the same right to remove things placed upon such premises, as a tenant who has leased a place for trade purposes might have. If, therefore, a tenant desire to erect any structure upon the rented premises, which he may want to take with him on the expiration of his tenancy, he should enter into the necessary agreement with his landlord to that end.

Farming on Shares.—Sometimes a man lets out his farm, stipulating that as rent he shall receive a certain proportion of the crops raised. In such case, if the lessee is to have absolute possession of premises, the relation of landlord and tenant is as fully established as if the rent was to be paid in money. But it frequently happens that land is simply let out on shares for the purpose of having some given crop raised, and without the intent to give the lessee absolute possession. In such case, there is no letting in the ordinary sense of the term, but both parties to such

agreement are, so far as the crop is concerned, tenants in common.

Duties of the Farmer on Shares.—When a man undertakes to raise a crop on shares, he is bound to carry on such farming in a prudent and careful manner. The crop, so far as its cultivation goes, is in his care and keeping. If he does not properly attend to his duties in the matter, he may be held liable for breach of contract.

Division of Crop.—That all contention may be avoided, there should always be an express stipulation as to how, when and where, the crop should be divided. A little forethought in this matter may prevent much vexation. If, however, this has been overlooked, the usual custom obtaining in respect to such crop in the locality where it was grown will govern.

Landlords Must Pay Taxes.—Unless the tenant, by the terms of his lease, agrees to pay the taxes, the landlord is bound to pay them. If he fail to do this and the tenant is obliged to pay them to protect his quiet enjoyment of the premises, the tenant may apply the amount of such payment upon the rent.

INSURANCE

Insurance.—Insurance is simply a contract, by the terms of which one party undertakes to indemnify another if he suffer loss in certain specified particulars. There are several classes of insurance, such as fire, life, accident and marine.

In effecting insurance, the main thing to be observed is to see to it that the company seeking the policy is a reliable one, and to be careful not to misrepresent, whether intentionally or not, any material facts upon which the insurance is based. Such misrepresentation may vitiate the policy. Agents, anxious to effect insurance, not infrequently exceed their authority in making oral representations and promises. Care should be taken not to place too much reliance upon such statements.

Rights of the Insured.—Since a policy of insurance is simply a contract between the company issuing the same and the insured, it follows, that so long as the insured faithfully performs his part of the contract, he has the right to call upon the company to fulfill its agreements. In case of loss, the insured should take immediate steps to notify the company through its proper agent. If it fails to respond within the time limited by the terms of the policy, the insured has his remedy at law. But lest the insured should be mistaken in respect to

what his rights may be, he should, at the time of taking out such policy, carefully study all its terms, and not rely simply upon the statement of the agent. Too great care cannot be taken in this matter. (See pages 1126, 1127.)

DISPOSITION OF PROPERTY AT DEATH

There are three ways of disposing of one's property at death:

1st. *By deed*; to become effective at his death.

2nd. *By gift* (personal property only), made in apprehension of death.

3d. *By will*. This is by far the most frequent, as well as the best method.

A Will or Testament is generally a written instrument by which a person disposes of his property, real and personal, to take effect at his death. There may be, however, oral wills, termed nuncupative wills. But such will can only be good and valid when made by a person in danger of immediate death, when there is no time or opportunity for executing a written instrument. We should advise every one who wishes his property, or any part thereof, to go to friends and persons who are not his heirs at law, to see to it that his intentions are at once put in the form of a will. It is an instrument into which many fatal defects may creep, unless drawn by an experienced lawyer. Especially is this true, if there be many bequests. There is an old saying that the man who draws his own will is the lawyer's best friend, which, of course, has reference to the great frequency of mistakes in wills so drawn. If you wish to keep your estate out of litigation, either make no will, and allow your property to be divided among your heirs as the statutes provide, or else employ a competent attorney to draft it for you. There may, however, be occasions when it may be impossible to obtain such service; as when, by the urgency of the circumstances, a will, if made at all, must be executed at once. To cover such cases, it is desirable that every one should be familiar with the usual requirements of such an instrument, and we will therefore briefly state the legal principles governing the proper construction of a will.

1st. The testator must be of legal age. This is regulated

by statute in the various States, but is usually the age of twenty-one.

2d. He must be of sound mind at the time of the execution of his will.

3d. It must be his free act. That is, he must not have made it when under undue, or improper, influence.

The term "sound mind" does not necessarily mean a strong mind. It is only needful that the testator shall be possessed of sufficient mental power to be able to understand the nature and value of the property which he is devising, into what parts he wishes it divided, and to whom he wishes the several parcels to go. The courts have frequently held that the same degree of mental capacity was not requisite for the valid execution of a will that might be required in the execution of a deed or contract.

It follows that one who has the capacity to make a contract is competent to make a will.

Derangement of the mental faculties does not incapacitate one from making his will, unless it renders him incapable of acting in the ordinary affairs of life, or manifests itself in the testamentary provisions.

Intoxication of the testator does not of itself avoid his will, if it does not prevent him from knowing what he is about.

But no definite rule can be laid down as to what constitutes the necessary mental capacity.

Undue Influence.—The courts have construed undue influence to be such influence as to destroy freedom of action at the time of making the will; but it may have been exercised before, and be operative in subsequent effects.

"But influence obtained by modest persuasion and arguments addressed to the understanding, or by mere appeal to the affections, cannot properly be termed undue influence in a legal sense."

The line between due and undue influence must be drawn with full recognition of the liberty due every owner to obey the voice of justice, the dictates of friendship, of gratitude and benevolence, as well as the claims of kindred; and, when not prevented by personal incapacity or particular regulations, to dispose of his property according to his own free choice.

In drawing a will, the maker or testator should always state that it is his *last will*. It is well to do this to guard against the danger of having forgotten some will which may have been made long years before, and also as, to some extent, a protec-

tion against possible forged wills, which might be brought forward by dissatisfied heirs. If a prior will has been made, it would be well to state that testator "hereby revokes every will by him heretofore made." But this is not absolutely necessary, for the making of a new will implies the revoking of the old.

The words "devise and bequeath" are usually employed, as for instance:

"I devise and bequeath all my real and personal property, wheresoever situated, of which I may die possessed, as follows:" Then clearly, and as briefly as possible, describe the property you desire to go to each person or object. Make your will as short and simple as possible. By so doing you are less likely to make any fatal errors.

The Form of Execution or Signing of a will, in the matter of witness, varies in the several States, but it would always be well to have at least two witnesses signing "in the presence of the testator, at his request, and in the presence of each other."

The following is the usual form of attestation clause:

"In witness whereof I have signed this instrument and published and declared the same to be my last will and testament, on the — day of —, 19—." Under which the testator should sign his name.

Codicils.—A codicil is simply a clause added to a will for the purpose of making some change in the distribution of the testator's property. It should be signed and executed in the same manner as a will. A person may add as many codicils as he likes, but should see to it that such codicils or additions to his will are clear in the terms of their provisions. Lest, when construed with the will proper, some contradiction should be found of such a nature as to render void the grantor's intention.

Revocation or Cancellation of Wills.—There are several ways in which this may be done, the two most usual of which are:

- 1st. By destroying a will; and in doing this it is well to completely destroy the instrument. If only partially destroyed, as by tearing in two, it might happen that after the testator's death such mutilated will would be found, and it is possible some parties interested might try to establish this as the will,

claiming that the testator did not intend to destroy it. If you destroy your will, see to it that its destruction is complete.

2d. By making a subsequent will, inconsistent with the earlier one; and, as we have before said, that no question may arise as to the intent of the testator in this matter, it is well to insert a clause expressly revoking all former wills.

By keeping in mind the above suggestions and carefully following the same, a person would be reasonably safe in attempting to draw his will, but it is always best, when possible, to employ an attorney, whose business it is to know the laws applicable, and who is familiar with all the provisions of the statutes in his respective State.

ALL ABOUT LEGAL AND COMMERCIAL FORMS

Importance of Correct Forms.—There are blank forms for a great variety of instruments, such as leases, deeds, contracts, etc. Many are based on particular statutes, and since statutes are not infrequently rescinded and new ones enacted in their place, it often happens that blank forms, good when first published, become, sooner or later, useless. It therefore follows that when it is convenient to make use of some blank form, care should be used to see to it that such form is still a good and legal one.

A prominent attorney once said to the writer that there was nothing of greater benefit to lawyers, and to the legal profession in general, than books professing to be "Every man his own lawyer." It is true that there are many legal points concerning contracts, and both legal and commercial forms, that should be drawn up by no one but a careful lawyer. There are, however, many points of common law, and many common forms, that will no doubt save a great many of our readers several times the price of this book, as in many cases lawyers' fees are paid when it is unnecessary.

It is not the aim to give a long list of legal and technical forms in this department in order to take up space and confound the reader, but to give those common forms that will enable many of our readers to safely draw up their own contracts, bills of sale, etc., without getting themselves into a lawsuit. We wish to avoid leading the reader into danger by having him attempt to

draw intricate contracts and legal papers that should be submitted only to a good attorney.

Legal Points Concerning Contracts, and How to Write Them.—A contract is a mutual agreement between two or more parties, for a consideration, in which the parties agree to do, or not to do, certain things. The contract must first have two parties, usually designated “party of the first part” and “party of the second part.” It must also have a subject matter, a consideration, and the assent of both parties. The parties in a contract are usually taken in the order in which they are written, and after the names of both parties appear in the beginning they are designated as “party (or parties) of the first part,” and “party (or parties) of the second part,” without again repeating their names.

No particular form or legal language is necessary in a contract. Any one who can express himself in written language in an intelligent manner, can write a contract.

How to Write a Contract.—First, write the date. Next write the names of the parties and their places of residence. For example: “J. Y. Smith, of Peoria, Illinois, party of the first part, and H. J. Woodruff, of Chicago, Illinois, party of the second part.” Then state all that the first party agrees to do, and then all that the second party agrees to do, in as plain terms and language as possible. If there are any penalties or forfeitures in case either party does not faithfully perform his part of the contract, state them plainly, so that they will be thoroughly understood.

No contract can be made partly in writing and partly orally. The contract must all be in writing and must be signed by both parties. Two or more parties may be designated as first or second parties of a contract. It is always best to sign full name.

Legal Points of a Contract.—The consideration mentioned in the contract is the thing which induces the person to enter into the contract. For instance: I make a contract with Walter Johnson to work for me for one year. The consideration is what I agree to pay him for his services.

A contract is not binding when entered into to carry out something which the law forbids, or which is illegal.

Neither is a contract with a minor, lunatic, idiot or intoxicated person binding upon him except for necessaries of life.

Neither is a contract legal or lawful if made for fraudulent or immoral purposes. The contract may be binding upon the party guilty of fraud, although not bringing obligations upon the party who is acting in good faith.

A contract must not be altered after it has been signed except by consent of both parties.

A contract made in violation of the statutes of the State in which it is made is illegal.

A contract made under compulsion, induced by threats of personal violence, is illegal.

A contract that is impossible in its nature is not binding.

A contract made by two persons with intent of injuring a third is illegal.

A contract in which there are misrepresentations or concealments of a material fact is illegal.

If a person has been induced to sign a contract which is ambiguous, or has been led to believe that the contract means what it does not really mean, or if it requires him to perform impossibilities, he is under no obligations to respect such contract.

An agreement made with a thief not to prosecute him if he returns the goods is not legal.

Contract for Hiring a Farm Hand.—

Know All Men by These Presents: That Jerry Edwards hereby agrees to enter the service of Robert Smith for a term of eight months, beginning March 15th, 1915, as a general laborer on his farm, and to do any work he may be called upon to do in connection therewith, in Independence Township, Oakland County, Michigan.

In consideration of the above mentioned services to be performed, the said Robert Smith agrees to pay the said Jerry Edwards Twenty Dollars per month and board.

In witness whereof, the said parties have hereunto set their hands this 20th day of February, 1915.

JERRY EDWARDS.
ROBERT SMITH.

Contract for Sale of Wheat, Corn or Oats.—

This agreement, made this 25th day of May, A. D. 1915, by and between Henry Houseman, of Wilson Township, How-

ard County, Indiana, a farmer, and J. Y. Joslyn & Company, of the City of Kokomo, Howard County, Indiana, merchants, witnesseth:

That said Henry Houseman, in consideration of the agreement hereinafter contained, to be performed by said J. Y. Joslyn & Company, agrees to deliver and sell to the said second parties, delivered at their store-house in the above named city, one thousand (1,000) bushels of white wheat of good, first-class, merchantable quality, on or before the 15th day of October of this year.

That said second parties, in consideration thereof, agree to pay to said first party the sum of Ninety-seven (97) cents per bushel for said wheat immediately upon the completion of the delivery thereof.

Witness our hands the day and year first above written.

HENRY HOUSEMAN.

J. Y. JOSLYN & COMPANY.

Contract and Warranty for Sale of Stock.—

This agreement, made this 30th day of September, A. D. 1915, witnesseth:

That Charles Brown shall sell to Charles Hicks, and said Charles Hicks shall purchase of said Charles Brown, his dark bay horse, with white face and two white hind feet, known as "Foxy," and warrant said horse to be well broken, kind and gentle, both in single and double harness, sound in every respect, and free from every vice; for the sum of One Hundred and Seventy-five (\$175.00) Dollars, to be paid by said Charles Hicks on the 15th day of next month (October), for such horse, which shall be delivered to said second party.

In witness whereof we have hereunto set our hands this 30th day of September, 1915.

CHARLES BROWN.

CHARLES HICKS.

Contract for Building a House.—

This agreement, made this first day of January, A.D. 1915, by and between Morris Fordyce, party of the first part, and Thomas White, party of the second part, witnesseth:

That said party of the second part agrees to and with said party of the first part, to make, erect, build and finish, in a good, substantial, and workmanlike manner, on Lot 27, in

Street A, in Gibson City, County of Ford, State of Illinois, one frame house, agreeable and according to the plan, draft and explanation hereto annexed, (plans and specifications should be annexed to contracts), of such materials as said party of the first part may furnish therefor, on or before the first day of September, 1915.

That the said party of the first part agrees to pay unto the said party of the second part for the same the sum of One Thousand, Five Hundred Dollars, (\$1,500.00) as follows: Five Hundred Dollars (\$500.00) when the excavation shall have been completed and the walls laid; Five Hundred Dollars (\$500.00) when the frame shall have been erected; and Five Hundred Dollars (\$500.00) on the completion of the job, on or before the first day of September, 1915. And also that he will furnish the necessary materials for said work in such reasonable quantities, and at such reasonable times as said party of the second part shall require.

And for the performance of the above covenants, the said parties bind themselves, each to the other, in the sum of Three Hundred Dollars (\$300.00), as liquidated damages to be paid by the failing party.

In witness whereof, the said parties have hereunto set their hands, the day and year first above written.

Witnesses: { MARY FORDYCE. MORRIS FORDYCE.
 { EDWARD WHITE. THOMAS WHITE.

Bill of Sale.—

Know all men by these presents, that in consideration of Four Hundred and Seven and $\frac{59}{100}$ Dollars (\$407.59), the receipt of which is hereby acknowledged, I do hereby grant, sell, transfer, and deliver unto L. C. Wright, his heirs, executors, administrators, and assigns, the following goods and chattels, viz.:

One Horse.....	\$125.00
One Set Single Harness.....	20.00
One Carriage (Phaeton).....	130.00
One Light Open Buggy.....	100.00
One Black Wolf Robe.....	30.00
One Blanket.....	2.50

To have and to hold all and singular the said goods and chattels forever. And the said grantor hereby covenants with said grantee that he is the lawful owner of said goods and chattels; that they are free from all incumbrances; that he has good right to sell the same, as aforesaid; and that he will warrant and

defend the same against the lawful claims and demands of all persons whomsoever.

In witness whereof, the said grantor has hereunto set his hand this 5th day of August, 1915.

Witness,

ALBERT STEVENS.

WM. LESLIE.

PAUL WEISS.

Common Form of Contract or Agreement.—

This agreement, made this 15th day of January, A.D. 1915, by and between Thomas Johnson, of Ann Arbor, County of Washtenaw, State of Michigan, party of the first part, and Henry W. Walworth, of Coldwater, County of Branch, State of Michigan, party of the second part,

Witnesseth, That said party of the first part agrees

(Here write all that first party agrees to do.)

And the said party of the second part, in consideration of the agreements above made by the said party of the first part, agrees

(Here write all that the second party agrees to do.)

In case of failure of either party to this contract to make good his promises, it is hereby stipulated and mutually agreed that the party so failing shall forfeit to the other the sum of One Hundred (\$100.00) Dollars, as fixed and settled damages.

In witness whereof, the parties hereto have hereunto set their hands and affixed their seals the day and year first above written.

Signed, sealed and delivered in presence of

RANDOLPH TUCKER,
GEORGE WASHINGTON.

THOMAS JOHNSON, [SEAL]
HENRY W. WALWORTH, [SEAL]

Witness to a contract is not necessary, and not required by law, yet in many cases it is desirable to have a contract witnessed.

Short Form of Lease for Renting a Store, House, or Building of any Kind.—

This is to certify that I have, this 14th day of May, 1915, leased and rented to W. W. Houseman, my house and lot, No. 381 Canfield avenue, in the City of Columbus, Ohio, with the sole use and occupancy thereof, for one year, beginning the first day

of June of this year, at Twenty-Seven (\$27.00) Dollars per month, payable monthly in advance.

SILAS JOHNSON.

Another Form.—

I, Silas Johnson, hereby lease to W. W. Houseman, my house and lot, No. 281 Canfield avenue, City of Columbus, Ohio, for a term of one year, on the payment of Twenty-Seven (\$27.00) dollars per month in advance.

Strangers renting houses are often required to give security, and to the person renting the house security is in many cases very desirable. The following form will answer:

Security for Rent.—

I hereby bind myself as surety for the full payment of the rent for the above premises by W. W. Houseman.

FRED BULLOCK, Surety.

Agreement to Cultivate Land on Shares.—

This agreement, made this 15th day of July, 1915, by and between John Wooster, party of the first part, and Andrew McLellan, party of the second part, both of the Town of Warren, County of Trumbull, State of Ohio.

Witnesseth, That the said second party will, before the first day of October, of this year, plow and properly sow with wheat all of the twenty-seven-acre field lying on the west side of the road directly opposite the dwelling house of said first party, in the town, county and state above mentioned.

It is agreed that each shall furnish one-half of the seed wheat for sowing said above lot; that said second party shall timely cut, harvest and put in the barn of said first party said wheat when in ripe condition; that he will properly thresh and clean said wheat, and deliver one-half of the same, being the product thereof, to said John Wooster, within ten days after said wheat has been threshed, the straw to be equally divided between both parties; it being understood that the said second party shall perform all work necessary for planting, reaping and threshing the wheat raised upon the above described field.

Witness our hands and seals the day and year first above written.

JOHN WOOSTER. [SEAL.]
ANDREW MCLELLAN. [SEAL.]

Contract for Renting a Farm for Cash Rent.—

Know all men by these presents, that I, John Doe, of Milton, Mahoning County, Ohio, do rent, lease and convey unto Thomas H. Fisher the W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of Section 16, Town 1 North, Range 5 West, County of Mahoning, State of Ohio, together with buildings and improvements pertaining and belonging to the same, for a term of three years, beginning the first day of May next.

That the rent of said premises shall be Three Hundred and Fifty Dollars (\$350.00) per annum, payable as follows: One Hundred and Seventy-five Dollars (\$175.00) upon the signing, sealing and delivering of these papers, and One Hundred and Seventy-five Dollars (\$175.00) on the first day of November and the first day of May thereafter.

That said tenant shall keep all gates, fences and buildings in good repair.

That he shall not cut any wood or timber from the premises for sale; and only cut such as he may actually need for his own use, or for necessary repairs on the premises.

That he shall harvest, thresh and possess the twenty (20) acres of wheat now on said premises, and that he shall leave the same amount of wheat on said premises at the expiration of his term.

That he shall not crop the same ground with wheat, barley or oats more than twice in his period of three years.

That he shall use and consume on said premises all straw made thereon, and that he shall not sell off the farm more than one-half the hay raised each year.

That said tenant shall endeavor to prevent any injury by person, cattle, or animals of any kind, to the hedges, trees or fences.

That he shall not sublet any of the premises without consent of the first party hereto.

And said second party hereby agrees to leave said farm at the expiration of this lease in as good condition as when he takes it. If tenant makes default in performing any of the above agreements by him to be performed, the landlord may, at his option, notify the tenant that his lease is terminated, and may then re-enter and remove the tenant from possession.

In witness whereof, we have hereunto subscribed our names this 15th day of April, A.D. 1915.

JOHN DOE. [SEAL.]
THOMAS H. FISHER. [SEAL.]

Landlord's Notice to Quit for Non-Payment of Rent.—

STATE OF OHIO, }
 City of Youngstown. }ss.

December 1st, 1915.

To *Thomas H. Fisher* :

You, being in possession of the following described premises, to wit: the W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of Section 16, Town 1 N., Range 5 W., County of Mahoning, State of Ohio, which you occupy as my tenant, are hereby notified to quit and deliver up to me the premises aforesaid, in fourteen days from this date, according to law, your rent being due and unpaid. Hereof fail not, or due course of law will be taken to eject you from the same.

Witness,

JOHN DOE.

HENRY MILLER.

Partnership Agreement.—A contract of co-partnership may be made verbally or in writing.

Partnership is an arrangement a good deal easier to get into than to get out of, and people should be especially cautious about entering into partnership. They should study the habits and dispositions of each other, and seriously contemplate the matter before entering into a partnership agreement. This applies to marriage as well as business relations.

We give no form here for drawing articles of partnership, or partnership agreements, because a business partnership extensive enough to require a written agreement should be drawn up by a safe and careful attorney after all details and agreements of said partnership shall have been explained to him.

Dissolution of Partnership.—Notice of dissolution of partnership should always be published in some prominent newspaper, otherwise both parties to the partnership may be held responsible for debts contracted after the dissolution.

Form for Dissolution of Partnership.—

The partnership heretofore existing under the name of Brown & Duncan, of Pontiac, County of Oakland, State of Michigan, is this day dissolved by mutual consent.

The affairs of the firm will be adjusted by Silas Duncan.

J. H. BROWN.

SILAS DUNCAN.

Power of Attorney—Short and Simple Form.—

Know all men by these presents, that I, the undersigned, of

Des Moines, State of Iowa, do hereby make, constitute and appoint Albert Beebe of Iowa City, State of Iowa, my true and lawful attorney, for me, and in my name and stead

(Here insert the subject matter of the power you wish to confer upon him.)

to do and perform all the necessary acts in the execution and prosecution of the aforesaid business, and in as full and ample a manner as I might do it if I were personally present.

Executed in presence of
THOMAS WOODWARD.

}

HORACE FIELDING.

How to Revoke Power of Attorney.—

Know all men, that I, Horace Fielding, of Des Moines, State of Iowa, in and by my letter of attorney, bearing date of —— day of ——, did make, constitute and appoint Albert Beebe, of Iowa City, State of Iowa, my attorney, as by said letter more fully appears.

That I, said Horace Fielding, do by these presents, annul, countermand, revoke and make void said letter of attorney and all authority and power thereby given to the said Albert Beebe.

Executed in presence of
J. EDWARD SMITH.

}

HORACE FIELDING.

Short Form of Will.—

I, John Avery, of the City of Toledo, County of Lucas, State of Ohio, being of sound mind, memory and understanding, do make my last will and testament in the manner and form following:

First, I give and bequeath to my daughter, Imogene, Two Thousand Dollars when she shall have attained the age of twenty-one years.

Second, I give and bequeath to my wife, Harriet Jane, all my household furniture and all the rest of my personal property, after paying from the same the legacy I have already named, to be hers forever; but if there shall not be at my decease sufficient property to pay the aforesaid legacy, then such of my real estate shall be sold as shall be sufficient to pay the same.

Third, I also give, devise and bequeath to my wife, Harriet Jane, all the rest and residue of my real estate as long as she

shall remain unmarried, and my widow, but on her decease or marriage, the remainder thereof I give and devise to my said child and her heirs.

I appoint my wife, Harriet Jane, sole executrix, of this my last will and testament.

In testimony whereof, I hereunto set my hand and seal, and publish and decree this to be my last will and testament, in presence of witnesses named below, this eighth day of March, in the year of our Lord, one thousand, nine hundred and fifteen.

ALLAN GILLES.

Signed, sealed, declared and published by the said Allen Gilleo as and for his last will and testament, in presence of us, who, at his request and in his presence, and in the presence of each other, have subscribed our names as witnesses hereto.

HOWARD FREEMAN, residing at Toledo, Lucas County, O.
HORACE LUCE, " " " " " "

Employment Contract—Clerk, Laborer or Workman.—

This agreement, made this 26th day of March, A. D. 1915, witnesseth:

That Albert Bowman, party of the first part, shall enter the services of Charles Dickinson & Company, parties of the second part, as clerk (or laborer, workman, journeyman).

Said first party shall faithfully, honestly and diligently perform the duties of clerk (laborer, workman, journeyman, as the case may be), in the store of the said second parties, and shall cheerfully obey all the reasonable commands and wishes of said second parties, during a period of one year from this date; that he will guard the interests and keep the secrets of his employers; and that he will absent himself only upon said employers' consent.

Said second parties, in consideration of said services, will board said first party and pay him Five Hundred (\$500.00) Dollars in equal quarterly payments.

It witness whereof, we have hereunto subscribed our names the day and year above written.

ALBERT BOWMAN.
CHARLES DICKINSON & COMPANY,
Per CHARLES DICKINSON.

Contract for Sale of Land. —

This agreement, made this 15th day of April, A. D. 1915, witnesseth:

That Alfred Harsen, of Oskaloosa, Iowa, party of the first part, for a consideration hereinafter mentioned, shall sell and convey to Charles Donahue, of Oskaloosa, Iowa, party of the second part, all that parcel of land situate in said City of Oskaloosa, Iowa, known and described as follows:

(Here describe land according to the records.)

The said first party shall execute and deliver to said second party a warranty deed, containing the usual conveyances of warranty, that said premises are free and clear of all and any incumbrances whatsoever.

That said second party, for and in consideration thereof, shall pay to said first party the sum of One Thousand Dollars (\$1,000.00), at Oskaloosa, Iowa, as follows: Two Hundred and Fifty Dollars (\$250.00) upon the execution and delivery of said deed; Two Hundred and Fifty Dollars (\$250.00) on the first day of January, 1916; Two Hundred and Fifty Dollars (\$250.00) on the first day of January, 1917; and Two Hundred and Fifty Dollars (\$250.00) on the first day of January, 1918; said payments to be secured by promissory notes for same, bearing interest at the rate of seven (7) per cent per annum, which notes shall be secured by mortgage on said premises.

That if any default be made in fulfilling this agreement, or any part thereof, said first party, or his legal representatives, may consider this agreement of no effect and annulled and dispose of said land or otherwise as though this agreement had never been executed.

In witness whereof, we have hereunto set our hands and affixed our seals this 15th day of April, 1915.

Witnesses } EDMUND FOSTER.
 } ELIZA DONAHUE.

ALFRED HARSEN.
CHARLES DONAHUE.

Agreements by Arbitration.—It would be a glorious thing for the country, and for the people living in it, if all matters of controversy could be settled by arbitration. If it could be done, hundreds of thousands, even millions, of dollars annually expended in expensive litigation would be saved.

Arbitrators are private judges to whose decisions matters in controversy are referred by consent of both parties, and the various forms of arbitration must correspond with the differences to be settled. The following form, however, will suit almost all cases, and if this book, which counsels arbitration in all matters,

shall be the means of bringing about an adjustment of quarrels, difficulties and differences by this method, the writer will feel amply repaid for his efforts.

Arbitration, or Submission, Agreement—General Form.—

Know all men by these presents: That differences have for a long time existed, and are now existing and pending between two neighbors, Perry Mason and Seward Fifield, of Monroe, Indiana, in relation to divers subjects of controversy and dispute;

That we, the said Perry Mason and Seward Fifield, do hereby submit said differences to the arbitrament of Homer Elwood, James McGregor and C. T. Venor, or any two of them, to arbitrate, award, order, judge and determine of and concerning all manner of actions, suits, bills, bonds specialties, executions, quarrels, controversies, damages, debts demands, and all and every other subject of difference whatsoever at any time heretofore had, possessed, instituted, prosecuted, made, begun, pending, existing, done, or suffered to be done or pending, by and between said parties, directly or indirectly;

That said award shall be made in writing under the hands of said arbitrators, or any two of them, ready to be delivered to said parties, or such of them as shall desire the same, on or before the _____day of _____;

That said award shall in all things by us, and each of us, be well and faithfully kept, observed and performed.

Witness our hands and seals this _____day of _____,
A. D. 19____.

Witnesses { HENRY BLACK.
 } JAY GREENLY.

PERRY MASON.
SEWARD FIFIELD.

BUSINESS DEPARTMENT

COMMON SENSE TALKS ABOUT BUSINESS

The Start in Business.—You may not hit the right trade or profession the first time trying. Justice Miller of the United States Supreme Court was a doctor till past thirty; Joshua R. Giddings was rolling logs in Ohio at the age of forty, and became celebrated as a congressman. But when you do start in business, start right. Make up your mind that certain principles control success; lay down some definite line of action and follow it; success is not an accident. People will go out of their way to deal with men who handle good articles, who make friends, and who realize that the world was made for others to live in as well as themselves. These men are successful.

The old, homely maxims, "Honesty is the best policy," and "Be friendly and you will make friends," are not thread-bare; they are real. They are the genuine currency that buys success, and success is not bought with spurious money. An honorable business career will last longer than your monument. It pays to be known as upright seven days in the week. You will live longer, better, happier, and be more contented if you do as the best do, and as the sanction of the ages shows to be the road to success. Don't scorn this wisdom; it is capital, and it will raise your rating in the commercial agencies, where character is capital and habits count as cash.

Securing a Situation.—Young men in the country and in small country towns nearly all have an ambition, of late years, to go to large cities. As far as possible we would discourage young men from going to cities. Better stay on the farm. There is no other class of business men to-day so highly respected as the intelligent, industrious farmer. Not long since, the writer heard one of the most highly respected and successful business men in a large city say: "I would rather my boys would be farmers than anything else, and shall encourage them in that direction all I can." But to those young men who may want to obtain situations in the city, I will endeavor to give some practical information gathered from conversations with many business men in different lines of business.

1. Make up your mind what kind of a situation you desire.
2. Prepare yourself thoroughly to fill the situation.
3. Don't apply for any situation you are not prepared to fill.

Don't apply for a position as clerk in a dry goods house in a city unless you have had experience in that line. Don't apply for a position as corresponding clerk in an office unless you can write a good hand, and express in a letter, in the fewest words possible, just what you mean. Don't apply for a position as book-keeper unless you thoroughly understand the science of accounts. Become an expert—an intelligent workman in some particular line. Read everything you can get hold of on that line.

If you have had experience in a country town and have taken an interest in your employer's business, he will not only recommend you, but will aid you in getting recommendations from other prominent men of the town. This done, secure the names of some of the leading houses in the city you desire to go to—some firm that your old employer has done business with, if possible. Armed with these letters of recommendation and a personal letter of introduction to the head of the firm, go in person, if possible, and seek the situation, and in doing so *let the matter of your wages be the last thing considered*. If I were seeking a situation and was asked "What wages do you want?" I should reply: "I haven't considered that, sir. I desire the situation, and when I have demonstrated what I am worth to you, the matter of wages can be decided." The situation secured, I would endeavor to make myself so useful and valuable that I would command the best wages.

Here is an actual case that was related to me in my search for information for young men on this subject. I asked a gentleman who is to-day a president of a national bank, a director in several other institutions, and the owner of seven immense mercantile establishments, "How did you obtain your first situation?" He replied: "My first position was sweeping out a clothing store and running errands. I made no bargain as to wages, but was paid two dollars a week for the first three months. I remember, I was always afraid I wasn't earning my salary. At the end of three months I was paid sixteen dollars a month. My salary was increased from time to time, but I never had to ask it to be raised. I worked just as hard for two dollars a week as I afterwards did for ten thousand a year." The secret of this man's success can easily be seen. Young

man, if you accept a situation, be as much interested in your work and work as faithfully for two dollars a week as you would for one hundred.

A leading publisher in one of our great cities on being asked what his advice would be on "How to get a situation," said: "First, be able to do something and do it well. Hardly a day passes that we do not have applications from young men asking for situations in our office. Not one in fifty of these applicants has the remotest idea of what his duties would be, and not one in fifty writes a letter that would recommend him to us even if we had a vacancy. Nine out of ten show *carelessness*, not only in their writing, but in the form of their letters, and nine out of ten do not themselves know what they desire to do, or can do. They simply want a job and a salary, without knowing whether or not they can fill the one and earn the other."

Skilled labor, whether as a mechanic, a salesman, a correspondent, an agent, or in whatever line of business, is always in demand. Learn to do some particular thing and do it *well*, then arm yourself with proper letters of introduction and recommendations from business men who know you and know what you can do, and you will have no trouble in getting a situation. If you happen to be among strangers and have no one to recommend you to firms in your line, then personally apply for a situation and demonstrate your ability to do the thing you apply for before mentioning the matter of wages.

If you have a situation and are doing moderately well, the best advice I can give is to stay where you are.

The Habit of Industry.—This is a life habit and becomes a controlling force; it brings business and a good name. If a stringency ever comes (and it will come), your customers will know you are reliable. A man's good-will in trade is soon worth more than his entire stock of merchandise; work for the good-will, the integrity, the reputation and permanency of your business.

Personal Industry.—You cannot trust your success to others; paddle your own canoe. Pay as you go, if possible, but if you cannot pay according to agreement, get an extension; but it would be better to discount your paper and pay. If you will watch the successful man you will find him ingenious, apt, persuasive, always attending to details, posted in his line of business, ready to work and self-reliant. Business does not come without invitation; customers have to be brought in, persuaded,

satisfied and pleased. Make business by deserving it. Be in earnest and be brave.

If not well posted in your business or trade, learn of some one who is. Some people have a "knack" of doing things right. If you are in the mercantile business and will talk awhile with old merchants, they will tell you this: when a new store is started there is a certain lot of customers who will swarm around it; they have no credit at the old places, they are known there. Sometimes they will buy and pay one bill for the purpose of establishing their credit, so as to be able to buy a larger one, later on, which they will not pay. Try to avoid being swindled by this kind of confidence game.

There is a world of advantage in the right kind of customers; if you cater to the richer trade you can get some of it, but the great middle class are the most ready paymasters. Get into the procession of fair and honorable dealers and your lines will soon be in pleasant places. Don't slight the aged or humbler people.

Benefits of Literary Societies.—The good old name for these gatherings is "debates." They reach their highest value on ocean voyages, or in country villages, at district schools and small academies, and sometimes they find a small following in cities. Strange that they are not more popular; they surely deserve to be. No school, with the same amount of attention and study, equals the benefits conferred by three months' practice in a debating society. For young men who wish to command and lead in the affairs of life, preside at public meetings, or engage in legislation, this is, of all schools, the one never to be neglected.

In my boyhood I attended a convention where a State senator was nominated. After the convention was organized, some one moved that the candidates state their views on the State bank question, as that was one of the prominent issues of the campaign, and "Grosvenor!" "Grosvenor!" was called for. As he came forward I noticed that he was neat and handsome, but his words were lacking. He said he had come from New York while too young to remember their law, but would, if elected, study it; he stammered and sat down. "Beaman!" "Beaman!" was called, and out came a plain miller with flour all over his clothing. He spoke earnestly and fluently; he was able to think and to express his thoughts; applause greeted nearly every sentence. He was promptly nominated. He had evidently learned the speaker's art in a debating society, while the rival candidate had not had the benefit of such an experience.

Good Nature.—"If you knew the value of an enemy, you would buy him at any price."

Friends are not made by loaning money nor by refusing it. "A soft answer" may save you a friend, while "grievous words" would make an enemy.

We have started on the journey of life to have a pleasant sail together, and the oftener we meet, the more we oblige each other, the better we appear, the more agreeable we all make ourselves, the happier, merrier and more pleasant will be the whole company.

Genius in Dress.—Why do men choose horses, carriages or houses for looks, if looks have no part in pleasing? The fact is, many men go through life worse clad than their fancy teams are harnessed. They dress the team for sale or beauty, and forget the owner and his wife, as though the horses were better than themselves. A dress that is becoming will make a man feel at home in business and society; if about to look for work, his best investment to start with is an appropriate suit of business clothes. His dress should be easy, well-chosen and adapted to the business or occasion of wearing it. It should be of such a color and figure as not to attract unfavorable notice; it should be of good texture and colors, blended as nature would blend them, in even shades, which are pleasing to the wearer and observer. Dress marks the business of a man; it should make a mark that will not offend good taste. The ill-dressed man is watched as one running down; the well-kept suit denotes order, care, and pride of character. As a man is judged by his looks and behavior, and few ever find out his inner thoughts, so his first appearance may attract or repel a further acquaintance. If any one finds it difficult to make a suitable selection, he can observe the cut, make and prevailing color of clothes worn by good business men.

Perseverance.—What you undertake to do, do with all your might. By continuous toil, little by little, stone by stone, the pyramids were built; and they now stand a source of wonder, an eternal monument to the mechanical skill and perseverance of an age almost devoid of other history. Will to do, and the difficulty is half surmounted.

Others have succeeded; others have risen from obscurity and surmounted obstacles greater than those in your path. They had resolved on accomplishment and would not be discouraged; the greater the obstacles, the stronger was the effort they made, and they succeeded.

See that splendid mansion. Its owner was the son of poor and ignorant parents; he began life a poor boy, but by perseverance he rose to his present position. His advantages are yours. The way is open to all.

Politeness.—A cross, surly or peevish fellow will surely be turned out of all decent society. Though he may be of this disposition naturally, he should endeavor to overcome and control such tendencies.

Politeness is in business what stratagem is in war; it gives power to weakness; it supplies great deficiencies. It is generally invincible, either in attack or defense.

Politeness, with industry and perseverance, may successfully measure lances with capital which is unadorned by this virtue.

Though you may not possess politeness as a natural gift, you may cultivate it. Many are born with a peevish disposition, but time and patience will trim them into symmetry.

Resolve to secure this art before engaging in business. Those who neglect this charm of the business relation resemble the unwise captain who deserts his ship for the whale-boat and leaves his proud craft to go to pieces on the rocks.

Be Kind to All.—"Good-nature, like the bee, extracts honey from every herb; ill-nature, like the spider, sucks poison from every flower. It is like the blue sky of the soul in which every talent will shine more clearly."

Be kind to the beggar who troubles you for alms, for though many may deceive, this poor creature may be really pressed by want. Be kind to the urchins who annoy you with their boisterous play; you were once a boy yourself; you are but an older boy now, and if you do not like amusement, you ought to do so.

Be kind to both poor and rich. You may be poor some day; you would be rich if you could. Despise not, then, what you may be, and envy not what you aspire to yourself. Don't grumble at the world; it is a very good world when rightly viewed.

Here is an actual case: A young man received from the Illinois Steel Company, on Christmas day, at the end of his first year with them, the following letter: "Dear Sir:—We hand you herewith our check for five hundred dollars, in addition to your salary, in remembrance of your prompt, accurate and excellent services during your first year."

Less than twelve years ago this young man was cleaning this office at \$2.50 a week and he now gets over eight dollars a day, and why? For the reason shown in the letter; for prompt,

accurate and excellent service. That is the whole story. Men cheerfully pay for accuracy, promptness and excellent work.

The way is open. The richest young man is often the poorest at the start. The poorest boy is the rich man's son. Standing alone, he would starve. The secret of it all is locked up in the foregoing letter; the key to the lock is within the reach of all.

Be Cheerful.—"As a man thinketh in his heart, so is he." If despondent, others catch it. If happy and cheerful, others enjoy his feelings, and go out of their way to take in and enjoy a share of his happiness.

Keep Out of Debt.—Discount your bills and double your credit by prompt payments. I know of a drug house that takes in over \$100 a day, on a good margin, and always buys for spot cash on nearly 8 per cent. discount, which is, alone, a good quarter profit. I know another house that has grown rich and made a silent partner wealthy by discounts. Taking trade as it runs, four discounts are a good half-year's profits. By all means, discount bills.

Select a Good Location.—In selecting a business location, choose a good city; don't get fastened in a "dead" town; get where trade is; seek a business corner. Then stick to your business. Keep at it. Don't change often, and don't pull up and go west or south or to new sections of the country. Be a fixture and wait for the market, and let others do the moving.

Do a Safe Business.—Buy fresh goods and buy near home. Local wholesalers have an eye to business and will tide you over difficulties, while distant wholesale dealers will often oversell you and close you out. Better out of goods than over-stocked.

Don't Sell on Credit.—Sell for cash. Often, goods sold on credit are worse than not sold, as the cost of collection may eat up the profits. A Detroit retail house failed with \$30,000 in goods, \$9,000 in accounts due, \$40,000 of debts, and \$16,000 due on contracts for goods sold. Of course they would fail. Their expenses of \$93 per day ate up the profits, and the stock ran down. Another house failed on \$9 a day expenses, but started in again on \$4 a day expenses, and it is now rich and prosperous. Reckon both ways; count out the expenses and base the profits on what is left over from all outlays.

Avoid Speculation.—Do a safe business and buy what people must have. Goods well bought are half sold. Employ

good help; keep clean quarters; make your place of business attractive. Notice the successful hotel-keepers. They attract trade by the excellence of their table and by kind treatment of customers; in short, by knowing how to run their business. If you work with eyes open, the trade will be easily learned. Don't grow too old to learn arts in business. Avoid speculation. Trying to get rich too fast by speculating with boards of trade or similar institutions, ruins nine out of ten.

Politics in Business.—Don't argue in trade. Vote right and vote for good government. Every citizen should do what he can to promote good government. Don't run into all parties; make a wise selection, an honest one, and stick to it. Don't give too much time to politics, or become what is termed a politician. The poorest of poor people are broken-down politicians. Be a good business man, lawyer, doctor, builder, or whatever you start out to be, and keep strictly in the line of your calling.

Farmers' Boys in Business.—Many a boy starts out from college too proud to work—wants to start breast high—is top-heavy. He gets his father to set him up in business. It looks easy. He soon finds where farm mortgages come from. The old people tie up their home with mortgages to help him in his business, and soon learn that "Debt is a monster that binds a man in irons till interest eats out his vitals."

Experience is useful, but be careful not to buy it too dear. How many blacksmiths can build a house? How many carpenters can shoe horses? How many sailors can drive a four-horse team? Rev. H. W. Beecher said, when at the White Mountains, that he thought he could; it looked easy enough. He mounted on the driver's seat, whipped up the horses, and tried to turn around gracefully; he soon found one horse on the hotel steps and the others floundering, when the driver called out, "Pull on the off rein, you old fool!" He found he was a fool at four-horse driving.

Keep Your Credit Good.—Nothing is more valuable than good credit; with it a man having \$5,000 cash can control \$10,000 in stock, easily. But let him endorse a note that goes to protest, drive fast horses, embark in various kinds of business, or speculative enterprises, and then look at Bradstreet's or Dun's Agency Reports and see the effect on his rating. Avoid speculation, and especially gambling in grain. It brings ruin and heart-ache. A reputation for industry and strict attention to business will bring you better credit than a "barrel of money" and a poor reputation.

Be Liberal and Just.—To hold the half-penny on all purchases is unwise; it is often better to let the customer have the benefit of it, as it indicates an interest in his welfare. Of course, you lose a fraction of your direct profits by doing so, but you win customers. Competition is not alone in prices, it is in fairness and quality. A reputation for liberality and public spirit is an important factor of success. The man who gives a portion of his income to charity each year is seldom unsuccessful in his business. Be charitable to the poor and unfortunate.

Occupations Open to Women.—The occupations now open to women are many. We may mention clerks, typewriters, stenographers, teachers, telegraphers, doctors, lawyers, milliners, housekeepers, etc. They can carry on mercantile and other enterprises, if trained for it. Select the business you wish to follow as early in life as possible, so as to begin the proper training; there is a hopefulness about youth and an energy and enthusiasm, that makes learning a pleasure, and things learned early in life become almost a second nature, and it is a great advantage to begin the preparation for your life work as early in life as possible.

Business Training.—Business training begins at home at an early age. The basis of business success, as in success in any line of useful endeavor, is the formation of habits of industry, perseverance, thoroughness and method, and the possession of a pleasant and agreeable manner and those nameless graces that distinguish the gentleman from the uncultivated boor. The foundation for these things is laid in childhood and cultivated and strengthened through youth and manhood. A thorough common school education is also an important factor in future success; if this can be supplemented by a higher education, so much the better, but it is not essential; many of our most successful business men, those who have become leaders among their fellows, have had no educational advantages except the common school. But a good, solid, common school education is very important; this, with the qualities mentioned above and the experience that comes from practical business life, will bring success.

Learn from Others.—While one should think for himself and learn to depend on himself, yet if he is wise he will gain all the benefits possible from what he can learn from the experience of others. He can learn a great deal by watching the business methods of successful men in his own line of work and noting,

so far as possible, their successes and failures, and studying the causes that led to these different results. By doing this he will be better able to determine his own course. He can also learn a good deal from his intercourse with other business men. It will pay him to keep every avenue of improvement open and gain a knowledge of his business and the best means of obtaining success in it, from every available source. He will not blindly imitate any one, however successful, but use his experience for the aid it may give him in determining his own course. He may, also, if he has a taste for such things, gain much information that will be of advantage to him, and be encouraged in his work, by reading the biographies of other successful men, especially of those who were engaged in his own line of work.

Be Careful of Strangers.—Don't form acquaintances too readily when traveling. Avoid the stranger who takes a sudden and unlooked for interest in you and liking for you, and is willing to give you great chances (?) for making money; who is surprised (?) to find that he is going to the same town you are, or that he knows some near relative of prominent people in your town, or for some plausible reason asks you to favor him with a temporary loan, offering as security what seem to be large drafts or other valuable security. Don't be taken in by sharpers in this way. Attend strictly to your own business; don't be too confiding with strangers, but always be a gentleman, as some of the best men in the world are strangers to you.

Take Care of Your Money.—Take wise counsel in lending your money. You need this caution rung in your ears so often that it will be a "chestnut bell." Beware of borrowers who offer big interest or who offer shares in business or stock companies. A lady put her whole fortune in bank stock that appeared solvent and it was gone before she had time to realize it; another bought bridge stock and sunk a fortune by it; another bought street railway stock; all lost by it.

How to Invest Your Surplus Money?—One of three ways: Buy an annuity in a safe company. Ask your banker as to what companies are safe. Or better yet, loan on first mortgages in the heart of a large city. Or buy city bonds of rich cities. Don't loan too much on western farm lands—lands too far from the richer districts, and don't loan on land or other property without first learning its value.

Don't Put All Your Eggs in One Basket.—Have more than one bank as security. Divide up your estate and let different

places—not too widely scattered—be responsible. Don't be in too big a hurry to make an investment. In a savings bank four per cent. is about the usual interest, but you can get six or seven per cent. on it on safe real estate mortgages.

An empty mill or factory or machine-shop, etc., is a poor place to put your money, no matter who owns it. There seems to be a fate in business; some win and many lose. Keep with the successful ones and have little to do with the unsuccessful; they know how to lose, but never how to make money. Avoid mines; they are often a delusion. Buy productive things; buy an income, not an absorber of incomes. One thing you will do—after a few losses you will turn to your business book with a newer interest. Many a man loses a fortune or so before learning prudence; he experiments too much—buys “white elephants,” money absorbers and not money incomes.

Count Money Before Leaving the Bank.—Money must be counted in the bank to bind any one; don't go out till you have counted what you have drawn; speak up if it is wrong, and have the error corrected promptly. If any one pays you money, count it over in his presence. Do everything promptly. A name for promptness is a valuable business possession.

Don't Count Money in Public Places.—Some one may watch you and have an evil eye on you; keep your money as private as possible. Never be careless about money; don't handle it as rags, but as something valuable. This will lead you to selecting a safe bank of deposit, a safe insurance company or a safe place of investment. “If you would learn the value of money try to borrow some.” It is harder to save money than to earn it; be on the alert in both ways.

Money Used for Traveling.—Always, when traveling, keep your money out of sight. Better divide it up and carry it in different pockets or places. Then, if you have your pocket picked, or are cornered in a train robbery, you will not be apt to be left penniless. Carry small change in a separate pocket for incidental expenses.

Cash no checks for strangers; it is not business. You are under no obligations to do so and will very likely lose by it.

Things Needed when Traveling.—Five things, in traveling, you should never forget. (1) Handy change. (2) Handy clothing. (3) Handy luggage. (4) Handy list of stopping places. (5) Clear means of identity. A card in your pocket, with accurate address, in case of accident, convenience in pocket

money, clothing to match all kinds of climate, and to know what hotels to stop at, will be a great convenience and save lots of trouble. In inland towns it is cheapest in the long run to go to the best hotels. In large towns perfectly comfortable and reputable hotels can be found where rates are reasonable. But unless you intend to stop at a first class hotel it is best to learn beforehand the reputation and respectability of the hotel; you can generally get information of this kind from the hotel keeper in your own town, the landlord of the hotel where you stop last, or from some man you know to be reliable who is acquainted with the city you are going to. In traveling it is a great convenience to take with you soap, brushes, railroad guides, etc. These are but little trouble, can be carried in your hand valise, and are often very handy to have along.

Letter Writing.—The first thing is to know what you wish to say, and then to express the thought clearly and concisely. It is useless to ponder over beginnings. Start in with a thought of general interest, and let topics follow each other in the order of their connection, and clear up each topic before beginning with another. Use simple English; don't seek for large words or foreign words. Don't hunt for high-sounding adjectives; remember that strong words are often little ones. Man is the highest title for man and woman the noblest name for woman.

Be respectful in correspondence. Mr., Mrs. or Miss, at the beginning of letters, and Respectfully, Very Truly, or Sincerely are enough to start and end with. Address members of congress and high officials as "Hon.," as Hon. Chas. Sumner, for instance. Any common book of forms will show the proper address and its form. In business letters aim to be direct and say what you mean and say it in as few words as possible. Write a hand that can be read easily. Be sure to sign your name at the end, and state plainly your address. If you live in a city always give your street address, or box number, if you have one. If you have not, tell your correspondent to address you "General Delivery." Be particular in giving your address correctly. Remember that men in business have not time to read long essays. Make your letters brief, direct and to the point, write a plain hand, give your address plainly, and your letters will always receive attention.

Write to officials under their titles; that is, never address letters to officials, or banks, etc., without adding the official title; if writing a bank official, address, for example, "Cashier First National Bank, Detroit." The advantage of this is that

any proper bank official can open the letter and attend to the business, while if a personal letter is sent no one but the person addressed could open it, and there might be delay on account of his absence, etc. Of course, in sending personal letters, you would not address him by his official title, or if you do, write the word "Personal" plainly across the face of the envelope.

Being Your Own Lawyer, etc.—Every man can be his own lawyer to a certain extent; he should learn and know the law relating to the ordinary transaction of his business. But for special and unusual matters, such as making wills, or carrying on suits in court, or in any important concerns which he is not *sure* he thoroughly understands, it is best to employ a good, reliable lawyer. It has been said that "the man who undertakes to be his own lawyer generally has a fool for a client." They usually make fortunes for wiser heads of more experience. The same is true as to doctors. By the aid of some good, reliable, medical book, not written for professional physicians, but for the people, a person will be able to take care of his health and cure ordinary cases of sickness without calling for a doctor. But in severe sickness and dangerous cases, it is best to consult a competent physician if one can be procured.

Keep Good Company.—"Keep with the good and you will be one of them; go with the bad and you will soon be one of them," said Cervantes. To be known as the friend of vile men, of dishonest men, soon unrank you with good men. Be brave enough to cut bad companions; keep good company or none.

Don't be a "crank" in anything; it pays better to keep in the general procession. Cranks are despised and seldom prosper. Be one of the regular kind of men. Don't engage in enterprises with those who have proved to be failures; who are habitually unfortunate in their business; choose those who are "lucky."

Pay as You Go.—Pay as you go, especially in small matters; not necessarily in large transactions, but for living, clothing and luxuries. Wear your clothing thread-bare rather than get the name of cheating tailors.

Forming Partnerships.—Be cautious in whom you place confidence. Partnership is a business marriage, and once entered into, it can only be dissolved by expiration of time,

by the death of a partner, by mutual consent, or in a court of chancery. Look well to him who is to handle the keys and the safe-combination. You would hardly trust your own sons with free access to the money-drawer, yet a partner may buy, sell, and handle the bank account with great freedom. This is right where all are honest, but risky if they are not; in choosing a partner, his character should be carefully considered; his name and reputation will help or hinder your success.

Dissolving Partnership.—When persons dissolve partnership it is very important that legal notice of dissolution be published in one or more leading newspapers. It is also important that you send notice to the persons your firm has had dealings with. The laws of different states vary, and it is therefore best to consult an attorney in such cases. (See common form of dissolution, under the head Legal and Commercial Forms, elsewhere in this book.)

Lending to Relatives.—It is best, when it can be honorably avoided, not to engage in or transact business with relatives, or lend them money; from a business point of view it is poor policy to do so. A young man or woman may get on well as a teacher, or in some other occupation, be industrious and economical and save a little sum of money, and lend it to a brother or some near relative only to have it lost in business or speculation; to the loss of the money is added the loss of those kindly feelings which should exist between the members of a family; besides, though relatives may mean well, they are almost invariably more careless in meeting their obligations than they would be with strangers. In this way brothers and sisters and parents and children are divided and involved in disputes. "Borrow of a stranger and, when paid, you hear no more of it," says Chesterfield.

Don't Deed the Farm Away.—You will all remember cases of favorite sons who, by a few years attention to parents, have won the farm away from the old folks, who have deeded it to him on condition that he is to support them. Not one case in twenty will turn out as hoped for. Age brings its trials and pains, and with them many days of uneasiness and fretfulness, and the "old folks" finally come to seem like a burden to the younger. Then comes the day of disappointment; the son's wife may complain; the son's family may not like the "old folks'" notions; a conflict is the result and a life of sorrow in old age follows.

This can be avoided by care in making out the deed. Let it be drawn up by a lawyer, so as to *reserve* to the old people a full life-ownership in the premises—the home to be theirs with no power to sell, deeded to son, who is thereby compelled to maintain the parents to the end of life, and cannot treat them as dependants or turn them out of doors.

Deeding Property to a Wife.—“Can I deed my property to my wife?” is a frequent question. Certainly you can, and may deliver the deed in the presence of witnesses; it may be made to take effect after your death, and may be saved, as a will; you may convey, for a few dollars, what might cost many thousands in litigation. The deed need not be recorded.

A lady lost her husband and wired her brother, a judge in an inland city, to come and settle the estate. The papers were examined, and, instead of a will, a joint deed was found, giving to the one living the longest the entire property, personal and real. This was recorded for a dollar, and the estate stood settled in the wife's name, without litigation. I have never seen a more simple settlement; it is a splendid object lesson to the people.

Make a Will.—(See forms under Wills.)—A will never hastens one's end, but should, on the contrary, make him live longer. It will cut off anxiety and prevent worry. Let the will be brief and simple; don't complicate it with too many conditions. Make it your own will, not that of the trustees; they will not be able to make a new will for you. Mention in it each near relative, even if what they are to receive be but a trifle; being noticed, they will feel morally bound to respect the will. Make it while well, or make deeds in lieu of it; don't leave it for a death-bed accident. Deposit your will, for safe keeping, either in a bank or safe, and if you do not wish it generally known that you have made a will, leave a memorandum among your papers, where it will easily be found, stating where the will is deposited.

A Wife's Property.—In most of the states a wife can buy, sell, and own real and personal property independently of her husband. By a late Michigan case, she can release her dower right, sell it to her husband and get back money or mortgages for it, and permit him to will away the balance.

In the line of business a wife can buy, sell, and deal entirely the same as though a single woman; this rule will not apply in all states, but in many. She can replevy her house-

hold goods, taken on her husband's debts or family debts. She can hold her third in divorce matters.

Avoid Lotteries.—Avoid lotteries, games of chance and other gambling devices which are gotten up for the sole purpose of swindling you. No matter who their promoters are, or who patronizes them, you will save money, will save your business reputation, will preserve a higher rating with the commercial agencies, and be better off both morally and financially, if you avoid them entirely; even if they are gotten up, ostensibly, in aid of charity, it will generally be better to have nothing to do with them; you would far better give what you can afford for that purpose directly than to contribute through any such methods.

Pay no attention to letters you may receive from strangers who offer, on certain conditions, to make you rich. You are not likely to get something for nothing. People who have fortunes to give away do not need to advertise for takers.

Endorser for a Friend.—Don't endorse notes and drafts for every one who may ask you to do so; many a man has been ruined by his inability to say no to such requests. Of course, there are times when it is necessary and right to accommodate a friend in this way, but be prudent about it and think what you are doing. Of course, the friend expects to pay, and in many cases will do so. In some cases he will not, and the chances that he will not, and the effect it will have on you if he does not do so, should be carefully considered. If the amount you are asked to endorse for is more than you can stand to lose, refuse your signature unless there be very strong reasons for giving the accommodation. Don't be careless about it and endorse for people here and there, even in small sums, and lose track of your liabilities of this kind; while the payment of one such small note or draft might not seriously embarrass you, yet many such liabilities might prove your ruin. Before endorsing for any one, consider the reasons why you should do so; the probabilities of your having to pay it if you do; and whether, in case you do have to pay it, you can lose the amount without crippling or ruining your business. This last consideration is of very great importance.

Style of Signature.—Adopt a certain way of writing your name and always write it the same. If your name, for instance, were John Morgan Smith, don't write it one time in full, another time John M. Smith, another time J. Morgan Smith, or John Smith, or J. M. Smith. Write it always the

same way, and form such a habit of doing so that you will not be liable to forget and write it in some other way. The best way would be to write your first name in full, the initial of the second name, and the surname in full (John M. Smith), Or J. M. Smith would be a very good form. But have one way of writing it and sign it always the same way. The reason why John M. Smith would be the best form to adopt is, that in deeds, mortgages, wills, and all documents of a permanent nature, it is necessary to write your first name in full, and it is best to adopt a style of signature that will do for all purposes.

A married woman, in handling her own money and doing business for herself, had better use her own name instead of her husband's. Thus, Mrs. Smith should sign "Mary J. Smith," instead of "Mrs. J. M. Smith." Adopt one style of handwriting for your signature, making the same kind of capitals and joining letters in the same way. Business men should be able to recognize your signature anywhere as quickly as they would your face, if they knew you. However your penmanship may vary, always write your signature the same.

Be careful how you write your signature on pieces of paper and scatter them around, or leave them lying around carelessly. Some dishonest person may get hold of it and use it for purposes of his own, as some men have learned to their cost.

Never use anything but pen and ink in filling up checks, notes, etc., or in signing your name to important documents.

Keeping Accounts.—Keep regular accounts. Keep a house account, and see that with fair deductions for waste and expenses, you are gaining something. The farmer should keep accounts with his farm and stock, and with the hired man, and the hired man should keep accounts with the farmer. Don't leave these matters to memory, and don't leave it to guess-work. By keeping regular accounts you will *know* where your profits and losses are coming from and how much they are. The habit of being methodical in this way will grow on you; try it, and try it long enough to see how it pays. You can adopt some simple style of keeping your accounts, and can find forms that will suit you, by a few changes, in ordinary works on book-keeping. Adopt some simple form, one you can thoroughly understand.

Make Contracts in Writing.—It is always safest and best to make contracts and personal agreements in writing. This

will prevent frequent misunderstandings; trouble often arises from verbal contracts, not because the parties to them are dishonest, but because they forget. Often a good deal of conversation and bargaining goes on before the agreement is concluded, and the memory cannot be depended on for what the final agreement really is. Have some memorandum of the agreement in writing, signed by the opposite party.

Give and Take Receipts.—While a receipt may be explained and is not absolutely conclusive, it is very convenient, and it takes very strong proof to deny it; it will outlast memory. In all cases of rent, wages and larger transactions, put it in writing, and make a tally of it on 'the "stub."

Make notes on clear blank forms; the cost is trifling, and they beget a style of business that will form a useful habit. Carefully file away notes and receipts and all other valuable papers and documents; they may some day prove of great value to you; form the habit of being methodical. Habit is stronger than reason and is a second nature.

Handling Other People's Money.—If you are an agent, trustee, executor, etc., keep the funds entrusted to your care entirely separate from your own. Deposit in different banks, or make separate deposits in the same bank. Designate the bank book and account as "John Smith, Agent, or John Smith, Trustee," for example, in dealing with the trust funds. Don't handle them under your own name alone, but add the word, trustee, guardian, agent, etc., as the case may be. In this way the trust funds will not become mixed up with your own, and the banker becomes your book-keeper. He will balance up your account for you, and save you all needless worry.

In signing checks, as guardian or agent, sign the principal's name first and then sign your own, as guardian or agent. For instance, suppose your name is James Jones and you are agent for John Smith: You will sign "John Smith, by James Jones, his agent."

Sending Money Away.—In the vicinity of your own home, pay by check. If sending any distance, send N. Y. draft, or if sending it to any point west of Chicago, you can send draft on Chicago or some large western city; but N. Y. drafts are good anywhere in the United States. In sending a draft, have the bank make it payable to you, and then on the back of it endorse it over to the person to whom you wish it paid or that you are sending the money to. (See sample drafts,

etc.) These will be returned to you and can be saved as receipts.

Money can also be sent safely by post office money order and by express. Smaller sums may be sent by postal note or registered letter. In cases of emergency, where haste is required, money can be sent by telegraph. The telegraph office will furnish the required blanks and explain how to fill them out. The other day a man sent me a post office order and *registered* the letter; this was unnecessary and cost him ten cents extra. P. O. orders, drafts, checks, etc., need not necessarily be registered. Currency sent in a letter should always be registered.

Paying Notes and Drafts.—If it can be avoided never overdraw your bank account. If notes fall due on Sunday, pay or renew them the preceding Saturday. If on holidays, pay or renew the previous day. This is the law, and is true of protests as well as renewals. When a note is due, pay it or renew it promptly. It is not enough that you are “good for it.” Bank business depends on promptness. I know a man worth half a million, but his credit is very poor because he is so careless and negligent in paying his bills. A bank business depends on promptness; they loan to some men and receive from others. They must meet their checks promptly or close up business, and you must meet yours, to aid them. Be ready to do your part and they will extend favors and, best of all, your bank will be your best reference. Without it you are always crippled.

Don't Be Your Own Banker.—A rich farmer in Ohio tried it. He bought a safe and bought U. S. bonds, and told of it. One day two men came from Cleveland, detectives (?) in search of lost bonds—stolen bonds. He was confident his were not stolen, but they examined them; went to the window to test a bright light on them; then gagged and bound the farmer and ran off with the bonds. This was the reward for “every man his own banker.”

There is another benefit in a bank account. It is a book account, balanced monthly and kept for you free of charge. And, most important of all, if you collect money for another, and place it in charge of a reputable bank, and deposit it in your employer's name, and failure happens, you will not be held responsible. The employer must lose it, not you. This is true of lodge funds, trust funds and all estates. But to clear yourself, deposit in the name of the owner with a right

to check out as agent, trustee or attorney, and in no case mingle your own money with it. Don't speculate with funds held in trust. This trifling with trust or bank funds is criminal.

Don't Employ a Poor Lawyer.—The advice so far given is to keep you out of litigation. But if you do get into litigation, employ a good lawyer; don't try to be your own lawyer; and if you have any business matter of importance which you have any doubts about, employ a good attorney. An old farmer at a grange meeting hinted that education only made knaves of children, and that he had little use for lawyers. But think a moment; who would draw up the deeds, wills and contracts, and do many other things needed, if all were ignorant? The ordinary man thinks he is a good lawyer, but he is not. You often need counsel in deeds, sales, contracts, etc., and in other complications of your business. Select a lawyer in whom you can confide; honesty should be his first qualification. He should also possess shrewdness, experience and common sense. Get one who has a reputation for being successful also; then be advised by him.

Taking Mortgages.—I do not intend to advise that you should consult a lawyer about every little transaction. Never take a mortgage on property till after you have inspected the property and had the title examined. In case you do not thoroughly understand how to look up the title, employ some lawyer or competent person to do it for you. Take no chances on it. Get some one you know to be competent and reliable—never a stranger.

Loaning Money.—Be careful about loaning money on hotels, factories, frame houses or perishable property. In loaning money on a house and lot, if the lot is worth one-third or more of the amount of money loaned and the house the balance, it will answer; but it should be worth, at a forced sale, and any possible depreciation it may suffer, the full amount of the money loaned. The safest financiers loan only on real estate, and then only up to about one-half its value.

Buildings, even if well insured, are not the best security; they wear out, run down and grow dilapidated. If you do loan money on buildings, as an extra precaution keep up a good insurance on them. Then, if they are destroyed by fire, you have the insurance to fall back on as security. Keep your own buildings well insured also.

Investigate Title, Etc., Before Buying Real Estate.—Before buying land examine the abstract and compare titles. If you are not well posted on how to do this yourself, get some safe counsellor to do it for you. Better not try to do it yourself; it is too risky; even lawyers dread real estate complications. Get a lawyer who is posted—one who is in that line of business—and one that you know can be trusted. See that you buy what you pay for. See that paving taxes, and all other kinds of taxes are not left unpaid, to become a lien on your property. Don't take the seller's word for it; have your lawyer look it up; and make sure of one thing; in buying the property don't buy a lawsuit. Record the deed promptly. Deeds take effect in the order of their date—even the hour and minute of their recording. This is also true of mortgages and assignments of mortgages. Get them on record; this may seem a trifle, but it repays many times the outlay.

Settle by Arbitration.—Over a high archway on a main road leading to Boston, near a run-down farm, was painted the figure of a farmer on a stunning gray horse, and under him the inscription: "My name is Upham, from Boston. I'm going to law!" On the other side, a seedy-looking man on a broken-down horse, and under that picture: "My name is Upham, from Boston. *I've been to law!*" Daniel Webster said it was a correct picture. Let it be an object lesson forever!

Many disputes can be settled without lawsuits—by arbitration, in this way: Let each choose one and the two chosen agree on another. If a building matter, select builders, or fair, good-tempered men. This is a little hard on the lawyers, but they can live without it.

Before you start a lawsuit be careful how you enter on it. Lincoln was a man of great forecast, and often advised settlements by arbitration. Chief Justice Waite would never engage in a case till he knew both sides of it. "You may be all wrong in *proof* when you think you are all right in *belief*," he would say. So he advised arbitration, and think of the wonderful feat he accomplished in the Geneva Award.

The finding of arbitrators is called the *award*, and is in writing. If signed by all parties, it is final, and any one should abide by so just a conclusion. It can be appealed from, but usually remains as settled.

Agreement for Arbitration.—A clear stipulation should be entered into before any proof is taken by arbitrators, some-

thing like this: We, Ralph Adams and James Burns, do hereby agree to submit all our matters now in dispute over a building contract between us on a house, 83 Edmund street, Boston, to Wm. Meyers, J. A. Donaldson and Caleb Ives, arbitrators (we having mutually agreed upon these men as such), to abide and stand by their findings, hearing to begin on January 14, 1915, and continue one day, at which date we are to present vouchers, contracts and books and exhibits, for the use of said arbitrators, and we pledge ourselves mutually—a promise for a promise—to prevent litigation and abide by said finding. (In case each one selects one and the two select a third, that can be so stated.)

Arbitrators need not be sworn, but witnesses should be, as follows: "You do solemnly swear that the testimony you shall give in the matter now pending in this settlement by arbitration before this board, wherein Adams and Burns are parties, shall be the truth, the whole truth, and nothing but the truth, so help you God."

Arbitration Best for Farmers.—As an inexpensive and friendly method for farmers this is decidedly better than a lawsuit. Once ended, the friendship remains unbroken. It puts each upon his honor. It saves nights of worry and days of anxiety. I knew a farmer, Mr. Baker, who sued Farmer Patton, and they followed it till M. & B. owned one farm and K. & K. the other—one a firm of brokers on mortgages, one a firm of lawyers. The warning is, "Don't go to law!" While litigation is a result of civil liberty and must often be used in disputes, still let it be a last resort. Let it be over frauds and criminal matters. Let it be of rare occurrence. *Think many times before you sue your neighbor.*

Past Due Notes.—Never buy a note that is past due without first making strict inquiry as to *why it has not been paid*. The note may have been procured by some kind of fraud, and its not being paid when due is a notice to purchasers to be on their guard, and a failure in this respect would be construed, in law, as negligence. Even if the note be perfectly valid, yet its being past due and unpaid would indicate carelessness, or inability to pay on the part of its maker, and a shrewd business man would not purchase such a note.

Deeds and Mortgages.—Always have every deed and mortgage you take promptly recorded. If you neglect to do so, it may, sometime, result in a great deal of expense to your-

self or your heirs; have it recorded promptly or it may be neglected or entirely forgotten.

When you purchase a mortgage it is always best to have the record of its assignment to you made at the office where the mortgage itself is recorded.

When all the notes secured by a mortgage have been paid and the mortgage discharged, the discharge should at once be taken to the office where the mortgage is recorded, and entered on the records. Until this is done the records will continue to show it as a lien on the property. Neglect to attend to this matter promptly has caused many lawsuits.

Be sure that all the notes secured by the mortgage are paid before you cancel the mortgage. A mortgage is often given to secure several notes, and these notes may be held by different persons. The mortgage is security for all the notes, and the person holding the mortgage must know that each and every note has been paid, and all liabilities under the mortgage settled, before cancelling and surrendering it. A person holding one or more of the notes and not having the mortgage in his possession should look after the matter and see that the mortgage is not cancelled till his notes are paid.

Fire Insurance.—Every prudent man will have his buildings insured against loss by fire; many a man has lost everything and been rendered penniless by neglecting this; the contents, if valuable, should also be insured. It is a false economy that would risk the loss of all for the sake of saving the comparatively small sum required for insurance. A business man's credit, who carries no fire insurance, is not as good as it would be if he kept well insured.

As the object of insurance is security, the main question in choosing a company should be its responsibility and financial standing, and its reputation for promptitude in paying just claims. This is much more important than a few dollars more or less, in the cost of policy or premiums.

When you take out insurance, read your policy carefully and learn just what its conditions are; don't take the mere statements of the agent. The insurance company is bound only by its written agreement, which is the policy.

If your building is insured and you wish to alter or repair it, first go to the agent of your insurance company and get his written consent. The company has a legal right to know of any material changes made in the building after it is insured, and if made without its consent you may be unable to collect anything on your policy.

If a building becomes vacant, after being insured, notify the agent of the company promptly.

Policies should be made out in the name of the legal owner of the property. If the deed is in the wife's name, the policy should be in her name; if the deed is in the husband's name, the policy should be in his name.

Life Insurance.—Life insurance is needed by the majority of men, as there are few who do not have a family or friends more or less dependent on them for support. The poor man needs it as a provision for his family in the event of his death; the rich man needs it for the same purpose, as he cannot tell what changes of fortune he may meet with during life.

As the main object of life insurance is to lay by a secure fund, not to be drawn on perhaps till after the lapse of many years, it is evident that the stability and reliability of the company is more important than its cheapness. Select a good, reliable company, one that is likely to endure at least as long as yourself. If you choose a company simply because its rates for insuring are low, you may find yourself some years afterward with a worthless policy, no insurance, and health too much impaired to be accepted as a risk by any other company. Of course, the reliability of a company cannot be determined by the price it charges for insurance; some first-class companies charge less rates than other, inferior companies. The point is to make the standing and responsibility of the company, not its rates, the first consideration.

Read your insurance policy and learn what its conditions are; the company is bound only by the agreements and conditions in the policy, and verbal promises made by the agent are worthless.

Accident Insurance.—Nowadays nearly every business man carries more or less accident insurance. This kind of insurance is not expensive, and should be carried by not only business men, but by mechanics, laborers and farmers. If you meet with an accident, it is a nice thing to receive \$25.00 or \$50.00 a week while you are laid up. I know of a man only recently who, going to Chicago, paid but a few dollars for an accident policy. That night he was killed in a railroad accident and his family received \$10,000.

THE FOUNDATION OF A SUCCESSFUL BUSINESS CAREER

THERE is only one true way to health and a successful life and business career, and that is the way common sense dictates to man. Live within the bounds of reason: eat moderately, drink temperately, sleep regularly, avoid excess in everything, and preserve a conscience "void of offense." Some men eat themselves to death, some drink themselves to death, some wear out their lives by indolence, and some by over-exertion, while not a few sink into the grave under the effects of vicious practices. All the medicines in creation are not worth a farthing to a man who is constantly and habitually violating the laws of his own nature. All the medical science in the world cannot save him from a premature grave. With a suicidal course of conduct he is planting the seeds of decay in his own constitution, and hastening the destruction of his own life.

Not only does a man's health and happiness depend upon the manner of his living, but his success in business, whatever that business may be, also depends largely upon his mode of life. Good health is as essential to cheerfulness and a good disposition, as the air we breathe is essential to life; and a cheerful disposition has made the fortune of many a man. Once I heard an old physician remark that a young, very successful and popular merchant of the town he lived in (Terre Haute, Ind.), depended more upon his cheerful disposition than on his business ability. Why, said the old doctor, let him come into a room and the whole atmosphere lights up and everybody smiles. I would give half I am worth for his disposition. In long years of experience, I find that the people who pay little attention to, and are generally ignorant on, the subject of "right living" are the ones who are least fitted to cope with the world, mentally, morally and physically, and are, as a rule, the least successful in the undertakings of life.

The following pages are gathered from my own observations and long years of practice in my profession, which have taught me that it is not the physician nor his medicines that cause good health, but the formation of right habits. A

shoemaker can repair the old shoe, patch it up here and there, and make it wear considerably longer; so the doctor can patch up a shattered body that has given out in places, caused by neglect and bad habits. The old shoe, though repaired, is never as good. The health once impaired by incorrect habits, can never be made perfect. It is my aim in the following pages to aid in laying the foundation of a healthy body and a contented mind, rather than to give recipes and remedies for the afflicted. We all seek and wish for a sound body, cheerfulness and a contented mind, and I consider that attention to the following subjects of this Department are absolutely essential to the attainment of these, as well as to a successful business, of whatever nature.

The Effects of Mental Disturbance.—The influence of mental states on the general health has long been recognized.

It is admitted that arterial strain, an undue pressure of the blood on the walls of the arteries, tends to produce a fatty degeneration of their inner coat, and thus gives rise to arterial tumors and to cerebral hemorrhage, which sometimes cause paralysis, apoplexy and softening of the brain, and it is certain that such tension may result from continued domestic anxiety.

That mental disturbance gives rise to indigestion is well known. Experiments show that anger and other emotions arrest the secretion of the gastric juice.

The connection of simple jaundice with sudden mental emotion is generally admitted.

Even cancer may have a like origin. Sir James Paget says, "Too often cancer quickly follows deep anxiety, deferred hope, or disappointment."

What has been said is certainly enough to emphasize the importance of habitual self-control. One should not make one's trials worse by letting them become the cause of permanent, perhaps fatal, organic derangement.

Be Short.—Long visits, long stories, long essays, long exhortations and long prayers seldom profit those who have to do with them. Life is short. Time is short. Moments are precious. Learn to condense, abridge and intensify. We can bear many things that are dull if they are only short. We can endure many an ache and ill if it is over soon, while even pleasures grow insipid and pain intolerable, if they be protracted beyond the limits of reason and convenience. Learn

to be short. Lop off branches; stick to the main fact in your case. If you pray, ask for what you would receive, and get through; if you would speak, tell your message and hold your peace; boil down two words into one, and three into two. Always learn to be short.

Cheerfulness.—It has been said that men succeed in life quite as much by their temper as by their talents. However this may be, it is certain that their happiness in life, as well as their good health, depends mainly upon their equanimity of disposition, their patience and forbearance, their kindness and thoughtfulness for those about them. In seeking the good of others we find our own. There are some natures so happily constituted that they can find good in every thing. There is no calamity so great but they can educe consolation from it, no sky so black but they can see somewhere in it a gleam of brightness; or, if the sun be not visible to their eyes, they at least comfort themselves with the thought that it is there, though veiled from them for some good, inscrutable purpose. Though cheerfulness is much a matter of inborn temperament, it may be cultivated like any other habit. We may make the best of life or the worst of it, and it depends much upon ourselves whether we extract from it joy or misery. Encourage the disposition of looking at the bright side of things rather than the dark; and while you see the cloud, do not shut your eyes to the silver lining. Cheerfulness is the bright weather of the heart. How is it that we see such men as Palmerton growing old in harness, working on vigorously to the end? The reason is, they preserve their cheerfulness and equanimity of temper. They have educated themselves to the habit of endurance, of not being easily provoked, of bearing and forbearing, of hearing harsh and unjust things said of them without indulging in unprofitable resentment.

Patience and Good Temper.—The captain of one of the great transatlantic steamers said, not long ago, "My experience is that among men, clergymen usually have the best intentions, lawyers the best use of their minds, and soldiers and commercial travelers the best tempers.

"How do I explain the last fact? Simply because those two classes are forced to jostle most with other men. Their peculiarities are rubbed off by friction. They learn at every step the value of patience and good-humor."

The same idea, in a different shape, must have occurred to every thoughtful observer. It is the great man of a small village, who when he travels, is apt to quarrel with hotel and railway service and to feel himself aggrieved by imagined neglect at every turn; it is the boy or girl who has never been in a large school that does not willingly yield to the will of the majority; it is the man who really knows no church or no party or no community but his own, who is bitter and contemptuous of strange creeds or policies or social customs.

Good-humor and courtesy grow out of tolerance, and we must be familiar with different kinds of men and opinions before we are tolerant of them.

The American traveler, more than any other, puts up with annoyances with cheerful indifference, and is only amused at new and eccentric types of men; not because he is naturally more liberal or good-humored than a man of another race, but because he has had more friction with the world.

This truth concerning a race gives a useful hint to individuals.

When a boy or a man shuts himself up too long with his books and his ambition, or his conscience, or even his bible or his prayers, he is apt to become gloomy, irritable and sick in both body and mind. He does not need physic nor self-examination. He needs his fellow-men and the work which God gave him to do for them.

Many a woman of fine, unselfish nature and strong brain is lying now useless and invalid, a victim of nervous prostration, who could be cured by hearty contact with her kind and the necessity of labor with and for them.

Remember that it is "Hand in hand," not alone, "the blessed souls ascend toward God."

Smile.—Without disparagement of any of the other arts, to attain proficiency in which people make such long and valiant struggles, it may be truly said that the one art of smiling warms more hearts than all others together. Most children, in fact, all happy children, have an unconscious mastery of this beautiful art; but unfortunately they often lose it as they grow older. Children are the best judges of smiles in the world. "Her lips smile," said a child, speaking of a hard-faced woman, "but *she* doesn't."

A widening of the mouth in a vain endeavor to look pleasant is not a smile. It deceives nobody. A smile, to be

worthy of the name, must come from the heart. It is the result of an honest willingness and readiness to be pleased with little as well as great things.

"I can tell more about a man from his smile," said the chaplain of a prison, "than from his promises or his regrets."

A crooked smile shows that there is something wrong behind it, just as a sarcastic or a cynical smile shows a warp in the nature of the person who wears it. But when the heart is right the smile will be of the right kind, and should be cultivated.

"You look very much pleased about something," said a gentleman on a suburban train to the conductor, who was ordinarily a somewhat grim and stern-faced personage.

"I presume so," replied the conductor. "I've just seen a little girl who takes this train to go into school every morning, and she always smiles up at me when I punch her ticket. I declare it makes me good-natured for the rest of the trip!"

Yet all she did was to smile.

The Secret of Fascination.—The secret of fascination is one which many a woman would sacrifice a good deal to learn. To cultivate a charming and attractive manner one must begin at home, and surely a better school could not be devised, for the training is, in its way, perfection. Here you are sure to find each day little rubs which must be soothed with skillful touch; there is a constant mind friction going on among even the most devoted members of the household. It is a painful fact, though none the less true, that one's family acts as a constant counter-irritant.

Now, a steady effort to smooth over the rough places, minister to wounded hearts, and with deft touches erase unpleasant memories, is called for, and the woman who obeys the summons is pretty sure to find herself fully able to cope in the most agreeable fashion with the outside world.

Few women, however, realize that a fascination of manners is not born, but cultivated. It begins to bud in the nursery, develops under the skillful training of painstaking instructors and blossoms forth into complete beauty in the society of well-bred women.

Self-Control.—No human power can be so strengthened by practice as this power of self-control. Every successful moral conflict leaves the victor so much stronger—with so much more good—for the next time. The way to conquer

temptation is to fix the mind upon some other object. It is a bad policy to keep saying over, "I will not yield to this," for then the object is kept before the mind, but the mind should resolutely be turned to some other thing. Instead of brooding over wrongs and the slights inflicted upon us by friends, the remedy is not to say, "I will not think about it," but to turn the mind to some other channel. Frequently the morose feelings are the result of some bodily derangement, often the liver. Nothing is worse than brooding.

Be Forgetful of Self.—Nature has given some fortunate persons a charm of manner that is irresistible; it wins them friends at once. If we analyze it we will often find that its secret is a pleasant smile and a habit of being, or seeming to be, profoundly interested in the companion of the moment. When they talk to others there is no wandering attention, no absorption in their own affairs. For the time being all their thoughts seem to centre in the subject under discussion and they are ready to give of their best fully and freely. In short, they are, for the time at least, forgetful of self.

Malign Passions.—The most prominent of the malign passions are anger, hatred, envy, jealousy, moroseness, selfishness and avarice. All of them tend to social disorder and individual demoralization. The seat of the affections is in the brain, and the harm done by evil passions is first upon the brain itself. It is not confined there, however, since the brain controls the other organs.

Outbursts of anger disturb the action of the heart. Many an angry person has fallen dead in his rage, as did one of the greatest medical experts of England. The character of the secretions may be changed under its influence so that the mother's milk may become poisonous; or the process of secretion may be arrested, causing the stomach to lose its digestive power.

Envy and jealousy often give rise to anger with all its bad physical results. They kill out the healthful influence of the benign affections, and permanently disfigure the "human face divine."

Avarice, long indulged, destroys the normal balance of the brain, and at length shrivels it up by concentrating nourishment on the part which is concerned with getting and holding. Its final result is that wretched being, a miser.

Moroseness is often worse in the home than an occasional outburst of violent anger. The one expends itself in the act;

the other tends to perpetuate its evil influence indefinitely. Its effects on others reacts on itself.

A home with a morose mother is worse than one with a morose father. The father may get rid of his ill-humor in the outdoor sunshine, or in the excitement of business, or under the influence of his associates. At all events, he takes it away with him. A morose mother, on the other hand, enshrouds the whole house in gloom from morning till night.

Such moroseness is often the effect of disease, but when it is not, it tends directly to produce disease, especially by its action upon the liver and digestive tract.

All the passions are strengthened by indulgence, and at a late stage are exceedingly hard to overcome. Hence it is very important to begin gaining mastery over them early. A strong will, backed by a strong moral purpose, is equal to the task. Mothers should seek to cultivate in their children the opposites of the malign emotions—patience, cheerfulness, charity and beneficence.

Habitual Hurry.—A habit which keeps the nervous system at a perpetual tension leads to excessive vital waste, undue susceptibility to disease, and, in extreme cases, to nervous exhaustion. Under its influence persons naturally amiable are transformed into petulant and noisy scolds.

The woman who is a wife and mother is peculiarly liable to this habit, she has so much to do and so little time in which to do it, in these days when so many outside things crowd upon her domestic duties. There is no doubt that hurry claims ten victims where hard work kills one.

The man of business suffers in much the same manner. The hurried breakfast and the hurried skimming of the morning paper are but the beginnings of a hurried day. Yet it is unsafe for him to act in a hurry, or in the spirit generated by it. The uncertainties of his calling make entire self-control of prime importance.

School children are victims of the same evil. They must be at school exactly on time. But in thousands of cases the family arrangements are not such as to favor punctuality. The child is allowed to sit up late, and so is late at breakfast; or the breakfast itself is late, and the child must hurry through it, and then hurry off, half-fed and fully fretted, dreading tardiness and the teacher's displeasure. Robust children may work off the effect amid the sports of the day, but many others are injured for life.

Occasional hurry is hardly to be avoided, society being

what it is; but the habit of hurry should be guarded against as one of the surest promoters of ill-temper and ill-health.

If necessary, less work should be done; but in many cases nothing is needed but a wiser economy of time. Some of the worst victims of hurry are men who dally with their work until time presses, and then crowd themselves into a fever, pitying themselves meanwhile because they are so sadly driven.

Irritability.—Some people are naturally calm and not easily disturbed. Others are quick to feel and strong in the expression of their feelings. The difference is constitutional.

But every one, whatever his natural temperament, is liable to become irritable as a result of physical disturbance. Marked irritability is often the first symptom of undue brain-work. A man who may have been remarkable for his self-control is surprised to find himself disturbed at trifles. Annoyances such as he had hardly noticed now fairly unnerve him. He is impatient, and expresses himself in tones, if not in words, of which he is soon ashamed.

Overwork of the brain is not confined to professional men. Merchants, the uncertainties of whose business often involve the keenest anxiety, are at least equally liable to it, and in this case the trouble is often aggravated by a luxuriousness of social and personal habits.

Nor are the wives and mothers free from the same danger. Woman's work is never done. For her, care seldom ceases while she is awake, and too often it pursues her even in her sleep. Fashion and social life sometimes make large demands upon her, while the petty annoyances of home fall to her lot almost exclusively. At length unwonted impatience, fretfulness and severity with her children give warning of nervous prostration, and her husband may perhaps precipitate the crisis by his unjust reproaches.

Irritability may have its source in the stomach. The dyspeptic is notoriously fretful and low spirited. What a difference between him and the well-fed man who knows only from books that he has any digestive apparatus!

In softening of the brain, one of the first indications of something wrong is increasing irritability which, however, is seldom referred to the true cause. If the patient is a mother, she finds fault with her children on the slightest provocation and punishes them with unwonted severity.

Irritability and general feebleness of the nervous centres are frequently due to a lack of suitable nerve-food just as the

muscles may be enfeebled through lack of the food essential to their proper nourishment.

Friends of the morbidly irritable should guard against increasing the evil by their own conduct, and generally should take counsel with a physician.

Overwork and Underwork.—Every one has heard of the danger of overwork, yet few understand just where the danger lies. A man can hardly overwork himself if he takes care of himself in other respects—secures a normal amount of sleep, breathes pure air, takes exercise, and eats food moderately.

The main trouble is that the man who is overworking is violating fundamental conditions of health. He burns his candle at both ends. With due care, a man of good heredity is capable of safely doing an almost incredible amount of solid work. Much of the so-called overwork is the overwork of worry, care, anxiety and haste. These make the severest draft on the vitality of the system. The fact is, work, and plenty of it, is healthy in a high degree.

And this leads us to say that a lack of work with brain or hand is highly injurious. Underwork may be as harmful as overwork to the brain if not to the body. Nations living in conditions in which the means of livelihood come almost without effort are in every way feeble. Close confinement in prison tends to idiocy.

Further, where the mental faculties are not called into action, the moral also lie dormant, and the lower propensities become all-controlling. In all ages the corruptions of the higher classes are due to this fact. Few worse things can befall one than to have nothing to do.

The Secret of Success.—To be successful means to do something that everyone wants done and to do it to perfection. No matter how humble the employment may have been originally, perfect mastery of it ennobles it and makes success in it certain. This can only be attained by patient, hard work.

Knowledge of One's Self.—Always remember that no one can debase you but yourself. Slander, satire, falsehood, injustice—these can never rob you of your manhood. Men may lie about you, they may denounce you, they may cherish suspicions manifold, they may make your feelings the target of their wit or cruelty—never be alarmed, never swerve an inch from the line your judgment and conscience have marked out for you. They cannot by their efforts take away your knowledge of yourself, the purity of your motives, the integrity of

your character, and the generosity of your nature. While these are left, you are, in point of fact, unharmed.

Do Not Shirk Your Work.—This is the age when young men think they must rush things through in a hurry. Americans hurry too much. We have time enough if we will only use it judiciously. It is the little things that count in this world. When Stevenson, or Black, or Kipling write stories they do not misuse words and rattle their chapters off steam-engine fashion, simply because they are in a hurry. If they did this their novels would soon become weak and tiresome and unprofitable. People would not read them. On the contrary, these authors do their work carefully. If they have not the right word at their pen's point, they hunt for it in the dictionary. If they are not sure of their facts, they verify them by reference to encyclopedias. When Sir Frederick Leighton wants to paint a great portrait, he devotes days to study the lines of the face he is to paint. If he varied a hair's breadth the portrait would not be life-like and truthful. When William M. Evarts, or any other great lawyer, proceeds to draw a contract or make a person's will, he does not leave anything to chance. Every word, every sentence, and even the most unimportant detail is studied carefully and judiciously weighed. When Mr. Dana wanted to say something sharp and caustic in the *Sun*, he usually did it in a five-line paragraph that might have been written in a moment, but he devoted hours to it, oftentimes, so that it might cut like a Damascus blade, and shine like a star in the night. And so it goes. The successful men are the ones who do everything well. There is no work so trivial that it may be done in a slovenly manner. You may make your labor grand by the way you go about it. It was Emerson who said that "nothing great was ever achieved without enthusiasm!"

Have a Purpose in Mind.—The president of Yale once gave the following advice to the students of that institution: "Young men, you are architects of your own fortunes. Rely upon your own strength of body and soul. Take for your star, self-reliance, faith, honesty and industry. Inscribe on your banner, 'Luck is a fool, pluck is a hero.' Don't take too much advice—keep at your helm and steer your own ship, and remember that the great art of commanding is to take a fair share of the work. Don't practice too much humility. Think well of yourself. Strike out. Assume your own position. Put potatoes into a cart, over a rough road, small ones will go

to the bottom. Rise above the envious and jealous. Fire above the mark you intend to hit. Energy, invincible determination with a right motive, are the levers that move the world. Don't drink. Don't chew. Don't smoke. Don't swear. Don't deceive. Don't marry until you can support a wife. Be in earnest. Be self-reliant. Be generous. Be civil. Read the papers. Advertise your business. Make money and do good with it. Love your God and fellow-men. Love truth and virtue. Love your country and obey its laws." If this advice is implicitly followed by the young men of the country the millenium is near at hand.

Bad Habits.—Nothing has a greater influence in determining a person's success in life than the habits he has formed. Habit has been described as "second nature." An act is performed the first time, perhaps, with difficulty; every time it is repeated it becomes easier, until finally a point is reached where it is easier to perform the act than to refrain from doing so. As soon as this point is reached a habit is formed—weak at first, but becoming stronger with each repetition until it finally becomes his master. Every one has made for himself a myriad of such masters, and nearly every act of his life is done at their bidding. Forming a bad habit is simply making one's self the slave of a bad master.

The evil effects of a bad habit may be felt in many different directions, affecting the health, reputation and business standing of its possessor and, indirectly, of his family and friends. A person's various interests are so intimately interwoven with each other that he can seldom be injured in one without an evil effect resulting to all the others. For instance, if he indulges in the intemperate use of intoxicants, the direct effects are loss of health, of reputation, a waste of his money and a greater or less neglect of his business. Besides these direct results, there are indirect or secondary ones, caused by the dependence of each of his interests upon all of the others. Impaired health, for instance, lessens his ability to work and thus injures him financially, and makes him low-spirited and less companionable and thus injures him socially. So with each of the others; and we cannot classify bad habits by their results and say that this injures a person financially, that injures his reputation, etc., but that any bad habit, in a greater or less degree, is injurious to him in all that makes his life of value to himself or others.

They destroy his health.
They injure his reputation.
They waste his money.
They dishonor himself and, perhaps, his family.
They take away his self-respect and self-control.
They are offensive to his friends and associates.

Handsome Is as Handsome Does.—No person ever told plainer truths than did Ella Wheeler Wilcox in an article not long since published in the *Queen of Fashion*: It is the manner of the day to scoff at old-fashioned proverbs and sayings. No phrase of them all has met with more ridicule from most of us than the one which serves as my text. Yes, under it lies a hidden truth, and those who care to seek may find it.

Physical beauty in woman is to me a pleasure so keen that I have often chided myself for my admiration of so perishable a thing. A plain woman affects my nerves like a discord in music.

Beauty and grace soothe me like harmonious chords.

Analyzing these emotions I have come to the belief that all beauty is an expression of right thoughts and right living in former existences.

The woman who is born with a beautiful complexion and fair features has, in some life before this, dwelt in harmony with truth. Instead of feeling that her beauty entitles her to license of conduct, she should feel the obligation of living up to her soul's former record, and making that beauty an heirloom for future lives.

The woman who is born with any physical blemish is suffering from broken laws in past existences. It behooves her to remedy these defects by living close to truth. "Thoughts are things," and they are hourly forming our features and working away on our complexions.

I have seen a beautiful girl become absolutely plain in two years' time through ill-temper and selfishness, which utterly changed her features.

I have seen, too, a plain girl, with shapeless features, a bad complexion and lustreless eyes, blossom into positive beauty by being taken out of herself—away from her petty thoughts and aims, and given broad ambitions and intellectual pleasures for her mental food.

A lady physician, who has been a regular practitioner for more than thirty years, told me some interesting and startling facts which had come under her notice recently.

"I have discovered," she said, "that tumors never attack women who are frank, demonstrative and open-hearted. In every case which has come under my notice, the woman has been secretive and repressed by nature and given to hiding and harboring her sorrows and angers. I have become convinced that such feelings, which find no expression, reflect upon the body and do much towards causing tumors. I have noticed how blindness and affections of the eyes befall people who are inclined to look upon the dark side of life. If you will observe for yourself you will see that the pessimistic people, those who believe that the world is all wrong and is going from bad to worse, are very frequently afflicted with some disease of the eyes."

I followed the physician's advice and observed for myself, and in almost every instance I found my observations corroborating her theory.

Melancholy, selfishness and lack of ambition will cause eruptions upon the skin I feel confident, and we all know that worry and fretfulness will take the life out of the eyes and wear furrows in the face.

It is impossible to be permanently beautiful with an ill-fitting soul. It is impossible to be plain or repulsive if the soul is in harmony with light, hope, unselfishness and noble ambitions, for all these elements work on the face.

In these days no woman can afford to sit down and depend upon her beauty to take her through life. Men are becoming, unconsciously to themselves, more spiritualized, and they demand a higher order of woman than they demanded one hundred years ago.

Not only is the idle, selfish beauty of to-day sure to mar her charms and deprive her soul of its original inheritance in future lives, but she is liable to lose the regard and interest of the man she desires to win in this life; for man always wants the best that is going, and the world is full of women who realize that the only way to be permanently beautiful is to live beautiful lives.

There were never so many lovely and noble women in the world as at the present time. There was never a time when the idle, ambitionless, selfish beauty was so out of place. There was never a time when the old saying held more truth, "Handsome is as handsome does."

BUSINESS EFFICIENCY

THE BUSINESS WORLD IS ONE VAST LABORATORY

The Business World is one vast laboratory. In this country alone there are more than a million experiment stations—stores, factories and offices, where countless practical tests are being made under millions of watchful eyes.

Awaken your imagination and lean out of your window. Hear the mighty diapason of sound—the clang and the clamor, the deafening whirr and whizz of a nation's myriad industries. Every time the solemn clock ticks off a second, some momentous experiment is concluded—some astounding business result is secured—some miracle of achievement is accomplished.

Why, man, Edison has been working today; John Wanamaker has kept office hours; Giants of invention, creative geniuses of merchandising, wizards of manufacturing, have been concentrating their tense minds upon the same problems which you are called upon to solve. Armies of lesser thinkers have been on the job from sun-up to sunset. Millions of shrewd brains have been experimenting in the world's workshop—vast numbers of them upon the very questions that are of vital importance in your work. Are you stupid enough to believe that this mighty aggregate of thinking—concentrated, high-power thinking—has produced nothing which it would be of advantage for you to know?

The pendulum of time swings back and forth. Tick! A man in Chicago has reached a conclusion that will dismantle a hundred factories now making an accessory that you buy and build into your product. Tick! Another man in Detroit has materialized an idea into something you could use that will create an industry employing more men than Napoleon ever commanded. Tick! A New York man has evolved a selling method which, during the coming year, will swamp with tidal waves of trade every concern that finds it out and adopts it. And your concern may be one that could adopt it, perhaps, with hardly a change.

Tick! Tick! Sixty seconds gone! But sixty new ways, some of greater, some of lesser importance, have been learned for shortening just such operations as are per-

formed in your plant. Sixty ways for saving time and effort—increasing results—making the day yield a larger profit! Sixty new methods for cutting costs, stopping leaks, straightening out snarls, ending deadlocks, speeding up production, increasing collections, multiplying sales. And many of them are methods, remember, that could be adapted to your own day's work.

A minute has gone! An hour! Ten hours! And in every minute of every hour some new result-getting secret has been unearthed by some human unit in the nation's vast business fabric.

A busy day in the world's laboratories! How have you employed your time? Have you been alert, watchful, alive to the important activities going on all about you?

Remember, in thinking of your competitors, that men with the minds of little fishes, by adopting the ideas of bigger men, can swim in the business sea like whales.

Mere hard work won't save you. Faithfulness to daily routine duties—honesty, uttermost manhood—supreme endeavor—the reddest of fighting blood—equipped with these alone you will be helpless. The business battle of today is a battle of ideas, plans, strategy, methods. The competitor with money alone, you can ignore as harmless. But the competitor with the keen, creative brain—the genius whose mind continually is giving birth to constructive plans, whose sagacity leads him constantly to seek out such plans elsewhere and adapt these to his business—he is the dangerous man. Every minute of his business existence is either a menace or a spur to yours.

The discoveries of value in your field—any field—succeed each other faster than the shots from a saluting battleship. Bang! There goes an exploded manufacturing process—to be replaced by a far more effective one just learned. You used the old process. If you continue to use it henceforth, you will labor under a staggering handicap. Crash! A whole floorful of machinery has been scrapped! You used that machinery. If you use it from this time forth, you will work against desperate odds. Smash! A distribution mechanism extending over forty states has been ruthlessly ripped up and thrown aside to make way for something better, more direct, more efficient. You must find out what that "something better" is, or the days of your prosperity are numbered.

Whish! As with giant brooms, your competitors are sweeping out a whole litter of office methods which yesterday were the ultimate of business efficiency, but which today, be-

cause of new facts learned, are as obsolete as Egyptian hieroglyphics. Learn what those better methods are, what that new system is, or you, too, as a business man will be as obsolete as the oldest Pharaoh.

If you have been asleep, wake up! Follow the example of your competitors. What is free to them is free to you. Learn the best ideas of the best men in your field. See that all the methods throughout your entire business are kept constantly revised and up to date. Use the product of the brains of other men to make your business grow.

—System.

BUSINESS MAXIMS

Maxims of Marshall Field.

- "Never give a note."
- "Never buy a share of stock on margin."
- "Never borrow."
- "Never place a mortgage on your holdings."
- "Never speculate."
- "Hold all customers to a strict meeting of their obligations."

Maxims of Baron Rothschild.

- "Carefully examine every detail of your business."
- "Be prompt in everything."
- "Take time to consider, then decide quickly."
- "Dare to go forward."
- "Bear troubles patiently."
- "Be brave in the struggles of life."
- "Maintain your integrity as a sacred thing."
- "Never tell business lies."
- "Make no useless acquaintances."
- "Never try to appear something more than you are."
- "Pay your debts promptly."
- "Shun strong liquors."
- "Employ your time well."
- "Do not reckon upon chance."
- "Be polite to everybody."
- "Never be discouraged."
- "Then work hard and you will be certain to succeed."

Maxims of Butler Brothers.

"Handle many lines."

"Make every dollar of your capital turn as frequently as possible."

"Seek the trade of all classes of buyers."

"Buy in small lots and often."

"Buy, through man or catalogue, by value and not by favor."

"Discount your bills."

"Give good values in worthy goods."

"Offer bargains and make them, always, actual bargains."

"Cheerfully exchange goods, or refund money paid whenever a customer is dissatisfied with a purchase."

"Get rid of stickers by cutting their prices until they do sell."

"Maintain your stock in a clean and orderly condition."

"Treat your clerks in a way to insure their interest in your welfare."

"Create and jealously guard a reputation for absolute squareness in all your dealings."

"Advertise by printer's ink, special sales, show windows, and every other legitimate means."

"Recognize no dull season as a necessity, but push for trade all the time."

BUSINESS PRINCIPLES

"Use your difficulties."

"Don't work overtime watching the clock."

Resolve slowly, act swiftly.—*M. Tupper.*

"Boldness in business is the first, second, and third thing."

Wealth is an intellectual achievement.—*Gage Tarbell.*

"Nothing is so foolish or wretched as to anticipate misfortunes."

"The best merchants never best each other."

In business, three things are necessary: knowledge, temper and time.—*Feltham.*

"Keep your eyes open and your mouth shut."

I would not ask any privilege or right for myself that I would not cheerfully accord to the humblest man. I have always stood right there.—*John D. Rockefeller.*

"Doing business with a good house is like making love to a widow—you can't over do it."

Avoid multiplicity of business; the man of one thing is the man of success.—*Tyron Edwards.*

“Whenever you buy or sell, let or hire, make a definite bargain, and never trust to the flattering lie, ‘We shan’t disagree about trifles’.”

Rare almost as great poets, rarer perhaps than veritable saints and martyrs, are consummate men of business.—*Helps.*

No man ever received a big promotion because he demanded it,—he got it because he was worthy, and for no other reason.
—*Elbert Hubbard.*

There is no better ballast for keeping the mind steady on its keel, and saving it from all risk of crankiness, than business.
—*J. R. Lowell.*

Sleep sound, eat light and work hard and you’ll be in a condition to manage what money you have and make plenty more.
—*Hetty Green.*

Stick to your legitimate business. Do not go into outside operations. Few men have brains enough for more than one thing.—*Beecher.*

Not because of any extraordinary talents did he succeed, but because he had a capacity on a level for business and not above it.—*Tacitus.*

Merchants who keep their business well in hand, sell for cash and pay for goods at short time, taking advantage of all cash discounts, and give strict attention to business, rarely fail.
—*Marshall Field.*

Never shrink from doing anything your business calls you to do. The man who is above his business, may one day find his business above him.—*Drew.*

Business is a fight—a continual struggle—just as life is. Man has reached his present degree of development through struggle. Struggle there must be and always will be.—*Anon.*

“There is nothing for you in the universe but that which is in yourself.”

“Drop the subject when you cannot agree; there is no need to be bitter because you know you are right.”

Call on a business man only at business times and on business; transact your business and go about your business, in order to give him time to finish his business.—*Wellington.*

The mark of a man of the world is absence of pretension; he does not make a speech, he takes a low business tone, avoids all brag; promises not at all, performs much.—*Emerson.*

We shall one day all recognize capital, labor and business as a three-legged stool, each necessary for the other—neither first, second or third in rank; all equal. That is to be the solution of the problem of capital and labor.—*Andrew Carnegie.*

A justly discontented force can cost you more directly and indirectly than the most expert and costly supervision can ever find out.—*Wm. C. Redfield, Secretary of Commerce.*

Too many men are paying too much attention to the things they make and not enough attention to the people who make them, the people who sell them and the people who use them.—*Walter H. Cottingham, President, The Sherwin-Williams Co.*

To get business, you must know how to tell your story in a way that will convince your reader to the buying point. For this, plain, simple language has proved to be most effective. Educated minds admire and respond to forceful, straightforward talk. Simple minds cannot understand anything else.

—*Geo. B. Spencer.*

Business men are more and more “putting themselves in their customers’ places” and trying to treat them as they would like themselves to be treated, were conditions reversed. That is the Golden Rule of business.

—*Henry B. Joy, President, Packard Motor Car Co.*

Recognize merit. Promote from the ranks. Help your men keep out of a rut. Many of our executives have grown up in our service. At heart most men are fair. They quickly respond to fair treatment and reflect it by their pride in their work.—*E. P. Ripley, President, Atchison, Topeka and Santa Fe Railway.*

GETTING PLEASURE FROM BUSINESS

Train yourself to like your business, to concentrate yourself upon it, and success will follow as naturally as crops follow seeding.—*Edward P. Hatch, President, Lord and Taylor.*

We are all carrying bricks. I say to the young man, carry your bricks with enthusiasm. Try to make your work the best job of carrying bricks ever done, so that people will say: “Why, he carries those bricks as though he enjoyed it!”—*Thos. W. Lawson.*

If a young man does not find romance in his business, it is not the fault of the business, but the fault of the young man. Consider the wonders, the mysteries, connected with the recent development in that most spiritual of all agents—electricity, with

its unknown, and perhaps, even unguessed powers. He must indeed be a dull and prosaic young man who, being connected with electricity in any of its forms, is not lifted from humdrum business to the region of the mysterious. Business is not all dollars. These are but the shell—the kernel lies within, and is to be enjoyed later, as the higher faculties of the business man, so constantly called into play, develop and mature.

—*Andrew Carnegie, Founder, Carnegie Steel Company.*

BUSINESS LETTERS

Show me the correspondence of a man, and I will show you the man himself.—*Wilbur.*

Business letters should be short and convey just what is meant without a superfluous word.—*Hinds.*

Let your letter be written as accurately as you are able. It is an index of yourself, and, when once written, cannot be recalled.—*Chesterfield.*

In any line of business, it is of the utmost importance that correspondence should be answered promptly and specifically, for the good will and oftentimes the trade of the customer depend on the prompt reply to his letter.—*Leslie D. Knowlton, Assistant Auditor, New England Telephone and Telegraph Co.*

I impress upon every one who writes a letter or meets a customer the fact that we are doing business with people personally and not impersonally. We want every letter that goes out to be personally written. We want it to have the personality of the firm in it and the personality of the writer. We would like to have the stenographers and typewriters take a personal interest in these letters. Perhaps, if they did, they would not so frequently make us feel that they regard themselves as machines instead of personalities.—*A. Montgomery Ward, Founder, Montgomery Ward & Co.*

CREDIT

Creditors have better memories than debtors; they are a superstitious sect, great observers of set days and times.

—*Franklin.*

A creditor knows that you ask for credit because you need it. He doesn't expect your business statement to show a great

cash surplus; if you had one, you would discount his bills. All he asks is to know how you stand—just what chance he and you together are taking.—*Henry Clews, Founder, Henry Clews Co.*

One often hears the complaint that the bank measures every business with the same yard stick. But take the trouble to discuss your affairs freely and frankly and intelligently with your banker, and perhaps he will know what kind of a measure to use in your case.—*F. B. Anderson, President, The Bank of California.*

Trifling actions affect a man's credit. The sound of your hammer at five in the morning or nine at night heard by a creditor makes him easy six months longer.—*Benjamin Franklin.*

“Credit starts enterprises, moves wheels, builds railroads, wages wars, makes civilization. The modern business world lives, moves and has its being in credit.”

Character lies at the very foundation of modern business and no business can long endure that is not built on that foundation.—*David R. Forgan, President National City Bank of Chicago; Vice-President Chicago Clearing House Association.*

Credit is like a looking-glass, which, when once sullied by a breath, may be wiped clear again; but if once cracked can never be repaired.—*Walter Scott.*

COURAGE

Screw your courage to the sticking place, and you will *not* fail.—*Shakespeare.*

Courage is the chief attribute of manliness.—*Webster.*

“Many a man fails because he does not dare to take risks, to take the initiative.

“When do you expect to do anything distinctive in life? When do you expect to get out of the ranks of mediocrity? The men who do original things are fearless. There is a lot of dare in their make-up, a great deal of boldness. They are not afraid to take chances, to shoulder responsibility, to endure inconvenience and privation.

“There never was a time when the quality of courage was so absolutely indispensable in the business world as it is today. It does not matter how many success qualities you possess, young man, if you lack courage you will never get anywhere. Not

even honesty or perseverance will take its place. There is no substitute for courage.

"It does not matter how well educated you may be, or how good a training you may have had for your vocation, if you are a hesitator, if you lack that courage which dares to risk all on your judgment, you will never get above mediocrity.

"The men who stand at the top of their line of endeavor stand there because they have the courage of their convictions. They had the courage to climb, and the nerve to undertake, even against the advice of others."—*Success*.

THE CAUSES OF FAILURE

Many a one has failed because he was not a man before he was a merchant, or a lawyer, or a manufacturer, or a statesman,—because character was not the dominating influence of his life. If you are not a man first,—if there is not a man behind your book, behind your sermon, behind your law brief, or your business transaction,—if you are not larger than the money you make, the world will expose and despise your pretense and discount your success; history will cover up your memory, no matter how much money you may have.—*Orison Swett Marden*.

"To rest content with results achieved is the first sign of business decay."

There are men who are set on a hair trigger,—always ready to make demands when there is a rush of work, and they threaten to "walk out" if their demands are not acceded to. The demands may be acceded to, but this kind of help is always marked on the time-book for dismissal when work shall get scarce and business dull. Such men are out of employment about half the time; and, the curious part of it is, they never know why.—*Elbert Hubbard*.

Every time you fail to induce a man to buy, leave him with a smile; but go out and sit down for a serious think by yourself. There has been a reason for your failure. Find it, therefore, before you risk another prospect's "No." If the fault was your own, correct it—forget the failure—but hang onto the lesson it has taught.—*W. C. Holman, Former Director and Advertising Manager, National Cash Register Co.*

"Times are hard," you say. "Well, what are you going to do about it? It is partly your own fault. Others are busy making money, why not you? Will you longer despair and make

times harder for yourself, or will you show the grit of a live, wide-awake business man by hustling so much the harder for business and dollars? Times are largely what we make them, so far as our individuality is concerned. You can't make business any better by sitting down and mourning over 'hard times.' An hour's despondency saps one's energies more than a week's hustling after business. The man who drops by the wayside and gives up the battle without a struggle was never built for success. He doesn't deserve it."

Two main reasons may be assigned for the failure of business men: First, they over-reach themselves in times of prosperity. Second, they take advantage of cheap credit in good times and thus involve themselves in obligations which are difficult or impossible to meet when money is tight.

When credit is cheap, business men are quick to borrow money where they can get the lowest rates of interest, and they disregard the personal element. In times of financial contraction, cash naturally goes at a premium and notes are not so readily renewed. The business man who raises a loan from a local bank where he is personally acquainted is much more likely to receive the renewal of his note than if the loan were made by a bank in a distant town where cash is needed more than promises to pay and where the personal element does not enter. Such forced payments often lead to the downfall of the borrower.

—Henry Ollesheimer.

BAD HABITS

Under no circumstances will I hire a man who smokes cigarettes.—*Superintendent of the Lindell Street Railway, of St. Louis.*

We might as well go to a lunatic asylum for our employes as to hire cigarette smokers.—*E. H. Harriman, late head of the Union Pacific Railroad System.*

As a close observer of men and an employer of labor for over twenty-five years, I give you this: Never advance the pay of a cigarette smoker—never promote him—never depend upon him to carry a roll to Gomez, unless you do not care for Gomez and are willing to lose the roll.—*Elbert Hubbard.*

I leave it to others to discuss the moral side of cigarette smoking. I denounce it simply because of its blighting, blasting effect upon one's success in life. The whole tendency of cigar-

ette nicotine poison in youth is to arrest development. It is fatal to all normal functions. It blights and blasts both health and morals. It not only ruins the faculties, but it unbalances the mind as well. Many of the most pitiable cases of insanity in our asylums are cigarette fiends.—*Orison Swett Marden.*

I am aware there is a prejudice against any man engaged in the manufacture of alcohol. I believe that from the time it issues from the coiled and poisonous worm in the distillery until it empties into the stream of death, dishonor and crime, that it demoralizes everyone who touches it, from its source to where it ends. I do not believe anyone can contemplate the subject without becoming prejudiced against the liquor crime. All we have to do, gentlemen, is to think of the wrecks on either bank of the stream of death, of the suicides, of the insanity, of the poverty, of the ignorance, of the destitution, of the little children tugging at the faded and weary breasts of weeping and despairing wives asking for bread, of the talented men of genius it has wrecked, men struggling with imaginary serpents, produced by this devilish thing; and when you think of the jails, of the almshouses, of the asylums, of the prisons, of the scaffolds on either bank, I do not wonder that every thoughtful man is prejudiced against this stuff called alcohol.—*Col. Ingersoll.*

FEAR

“Fear kills more than the physician.”

“All forms of fear, and all passions in which fear is an essential element, such as anxiety, worry, grief, envy, jealousy, anger, hatred, revenge, remorse, despondency and despair, are mental emotions of such a nature that their nerve vibrations or messages, flowing out upon the sympathetic system, necessarily derange its action. Every form of fear tends to depress organic energy, derange the nutritive processes, produce disease and shorten life; hence, fear is the natural and constant foe of vitality, health, longevity and efficiency of everyone who experiences it!”—*Lyman B. Sperry, M. D.*

Knowledge is the antidote for fear as surely as light is the antidote for darkness. Courage and self-confidence are the results of knowledge. Fear is the result of ignorance. We are afraid of the darkening shadows in a room, but turn on the light and fear vanishes. Fear, if we will permit it, makes cowards of us all. There are multitudes of men who could increase their earning capacity, in a better position, but they are afraid to try

it. They are afraid to leave the position they have, even though it is not worthy of their best efforts, for fear they will not get a better one. Isn't that so? Hasn't it been true in your own case during some period of your life? Stop and think! Isn't it true right now? It is fear, fear, fear all the time. Fear is based upon ignorance as courage is based upon knowledge. Eliminate ignorance and fear will vanish. Acquire the right kind of knowledge, then courage and self-confidence become a possession.

What are you going to do about it? I know what you are going to do, you are going to summon your will power, throw off this slimy incubus and fight life's battles like the real man God intended you to be. The developed positive qualities will help you do it. They will become a real mental battery of invincible personal power.—*J. S. Knox in "Salesmanship and Business Efficiency."*

THOROUGHNESS

Be thorough in your work, whatever it may be. Believe there is nothing too small to do well.—*Thos. W. Lawson.*

The one word which best embodies the elements of success in business is thoroughness.—*Henry R. Townie.*

"What is worth doing is worth doing well."

It is a wise man who knows his own business, and it is a wiser man who thoroughly attends to it.—*H. L. Wayland.*

LABOR AND WAGES

An employee who drives a sharp bargain and is fearful that he will not get all he earns never will.—*Elbert Hubbard.*

As a matter of pure worldly wisdom,—just cold blooded expediency,—if I were an employee I would never mention wages. I would focus right on my work and do it.—*Elbert Hubbard.*

A man who makes a strike to have his wages raised from fifteen to eighteen dollars a week may get the raise, and then his wages will stay there. Had he kept quiet and just been intent on making himself a five-thousand dollar man, he might have gravitated straight to a five-thousand dollar desk.

—*Elbert Hubbard.*

"The man who clings to steady work for wages all his life, when he might make something of himself independently, is a

fool. So is the man who, believing the foregoing statement to be true, throws up a good job and fails to make a success of the independent venture. So take your choice."

Intelligent labor, or intelligent direction or organization of labor, is that which enables you or others to produce greater results with less or at least the same amount of labor.—*Theo. N. Vail, President, American Telephone and Telegraph Co. President the Western Union Telegraph Co.*

I believe the best way to help the laboring man is to give him steady work and fair wages; that is better than all of the charities, and I believe the good laboring man would prefer to have the labor and his honorable position rather than any charity.
—*John D. Rockefeller.*

One or two of our partners considered me foolish in always yielding to labor. I am satisfied that for every dollar so spent we had entirely ample reward. Frankly, I consider that folly one of my best virtues.—*Andrew Carnegie.*

Brain and muscle, the same elements which have produced business success in the past, will produce it now and will always produce it.—*John Wanamaker.*

I wish to preach, not the doctrine of ignoble ease, but the doctrine of the strenuous life—the life of toil and effort, of labor and strife; to preach that highest form of success which comes, not to the man who desires mere easy peace, but to the man who does not shrink from danger, from hardship, or from bitter toil, and who out of these wins the splendid ultimate triumph.—*Theodore Roosevelt.*

I would be very happy to see the laborers gradually become the owners of these prosperous businesses. I should be very glad to have them thus share the profits and feel that we were partners. The process is simple. The man who has the money to pay for a share receives his share and he is then one of the firm and entitled too participate in the profits and know all the ins and outs of the enterprise.—*John D. Rockefeller.*

We had one rule as to labor—come what may, we would never think of running our works with new men. Able, sober, well behaved workmen—total abstainers such as ours were—are not to be picked up on the streets and we wished no others. We were very particular as to drinking: First offense, men were excluded for thirty days; second offense, sixty days; third offense, we parted company.—*Andrew Carnegie.*

ORGANIZATION

Take away all our factories, our trade, our avenues of transportation, our money, but leave me our organization and in four years I shall have re-established myself.—*Andrew Carnegie.*

I would accord to all men the right to organize for their betterment—working men and business men as well—with the proper limitations with respect to safeguarding the rights of the public.—*John D. Rockefeller.*

Without organization and system, business would still be done on the small scale of olden days and the business man would still be an insignificant trader or small individual manufacturer instead of the great captain of industry of today.—*Walter H. Cottingham, President, Sherwin-Williams Co.*

Industrial organization has outgrown the one-man stage. Business is too big, interests are too varied, one man cannot do or give enough to contain a whole business in himself. The corporation—which signifies the resources, the brains, the work of many men merged for one purpose—is now the business unit.—*Clarence M. Woolley, President, American Radiator Co.*

INITIATIVE

“One of the qualities most highly valued and most highly paid for by the business world is initiative. Initiative is going ahead and doing the thing that needs to be done without being told. Hubbard says, ‘The world reserves its big prizes for but one thing and that is “initiative”.’ Initiative is the result of constructive thinking. In fact, constructive thinking plus initiative gets results.

“Initiative consists in working six days a week when you are your own boss, instead of loafing two or three days a week.”
—*Salesmanship and Business Efficiency.*

Men learn only by the mistakes they make. An employer should expect and should encourage his men to take the initiative and make mistakes. Only in this way can they gain experience. This method of handling employees may be expensive in its early stages, but it is the only proper schooling for a position.—*Richard W. Sears, Founder, Sears Roebuck and Company.*

MENTAL ATTITUDE

Banish fear, worry, blues, jealousy, hatred, depression, etc. These are to you what salt is to iron. They corrode and kill both you and your business.—*J. S. Knox in "Salesmanship and Business Efficiency."*

"If you take on the actions and bearing of a tramp or a clown, your mind will almost immediately gravitate toward your bearing. If, on the other hand, you draw in the chin, expand the chest, and attempt to look the part of a successful business man, your mind will immediately respond to the auto-suggestion. A man's mental attitude determines his dress and appearance, his environment and his success. I cannot emphasize this thought too vigorously.

"A man's personality does not come by accident; it is a natural gift, just as his mind and muscle are natural gifts, and, like them, it must be cultivated. Develop it by eliminating everything that is bad and cultivating everything that is good. Cut out the blues, and worry, and jealousy, and envy, and all their relatives; they are man's worst enemies. Fill your mind and lips with energy, hope, and sunshine and an invincible determination to *do things*. Feel every minute of the day that it is the best day you ever had. Like thoughts are always attracted to each other. To think and feel enthusiasm, confidence and success, will develop in you a splendid personality and set in motion the forces that will bring prosperity and power. Every man carries the price of a splendid, noble and successful life within himself. Be in dead earnest and your prize can be the world."—*Salesmanship and Business Efficiency*.

APPLYING FOR A POSITION

In seeking a position I would never approach an employer with a cigar or cigarette in my hand. I would never want an employer to see the color from a cigarette on my fingers. I wouldn't say, "I reckon you don't want another man, do you?" I would be dressed like a prosperous business man, not at all flashy, but neat and clean, and have my shoes shined. I would see that my clothing harmonized. I wouldn't match blue eyes with a red necktie, a spotted vest, black coat and gray trousers. I would not offer to shake hands with the man from whom I sought a position. I would not be egotistical and put up a bigger talk than my past record justified, especially if he knew my record.

Neither would I be backward or diffident. I would state my case clearly and vigorously. I would make a great deal bigger hit by saying my "long suit" was hard work rather than by saying I was a little brighter than the average fellow. I would never exhibit pessimism or any of the negative qualities. They are not good selling points unless you want to get turned down. If you are asked if you can do the work don't say you *think* you can. Be sure to say you *can* and say it positively, if you think you can. Many a man has gotten a position through sheer nerve and made good after he got it. That possibility is easier when your record to the contrary is not known. Getting a position is easy, but making good, "that's the rub."—*J. S. Knox in "Salesmanship and Business Efficiency."*

EXECUTIVE ABILITY AND MANAGEMENT

The secret of successful management may be summed up as follows: Organize, Deputize and Supervise.—*William A. Field, Supt., Illinois Steel Co., South Works.*

"Not to oversee workmen is to leave them your purse open."

The architect and executive who design and direct and yet strive to do the bricklaying, will advance not far and will quickly wear out.—*John Wanamaker.*

I look back upon the conferences with my employees as the chief joy of my life. I knew them all by name. Behind my back they called me Andy. I liked that. I never liked to be called Andrew or Mr. Carnegie. There was no sympathy in that relation. If you want to get on with your men have them call you Andy.—*Andrew Carnegie.*

I believe one of the greatest assets in the successful management of a large institution is the ability of the manager to surround himself with competent and loyal lieutenants, who will work in harmony and carry out the policy determined upon by the head.—*Frederick Robinson, Vice-President, The J. I. Case Threshing Machine Company.*

EFFICIENCY

Efficiency.—Rendering the greatest service with the least fuss.—*G. Messelink.*

The pay roll is usually an index to efficiency. Pay a man

what he is worth, and he will work for his wages; give him more, and he will work for you. As a rule, an employee is as valuable to the business as the business is to him.—*C. S. Funk, Formerly General Manager, International Harvester Company.*

You know we sometimes get the wrong conception; that the way of increased efficiency is to speed up and go a whole lot faster, but, really, increased efficiency is going to be the careful, thoughtful, systematic working out of these things and the avoidance of waste.—*E. A. Deeds, Vice-President, National Cash Register Co.*

Efficiency means self-criticism. It means to go out into the shop and find nothing there that is sacred or fixed. It means that in that shop six months ago shall be ancient history. It means the dropping of tradition, the forgetting of ghosts, the questioning of everything. It means the old Scripture doctrine, "Prove all things. Hold fast that which is good," and only that.—*Wm. C. Redfield, Secretary of Commerce.*

SUCCESS

You can't keep a determined, gritty youth from success. Put stumbling blocks in his way and he takes them for stepping stones. Take away his money and he will make spurs of his poverty. Put him in a log cabin in the wilderness, and we may still find him in the White House.—*Orison Swett Marden.*

I think I could succeed as well now as in the past. It seems to me that the conditions of today are even more favorable to success than when I was a boy.—*John Wanamaker.*

The way for a young man to rise is to improve himself every way he can never suspecting that any one wishes to hinder.

—*Abraham Lincoln.*

I have never known of a great business success without a personality. I have never known of a great personality in business without a system.—*Henry C. Lytton, President, The Hub, Chicago.*

For young men starting upon their life work it is best to begin as I did, at the beginning and occupy the most subordinate positions, then climb.—*Andrew Carnegie.*

Succeed? Of course we shall succeed! How can success fail to come to a race of masterful energy and resoluteness which has a continent for the base of its domain, and which feels within its veins the thrill that comes to generous souls when

their strength stirs in them, and they know that the future is theirs?—*Theodore Roosevelt.*

If a young man makes a success of small things, he will of great things when they come his way; and they'll come his way, for great things are only combinations of little things well done. If he does not make a success of small things, the great things never will come his way.—*Thos. W. Lawson.*

“The secret of many a man's success is an affable manner, which makes everybody feel easy in his presence, dispels fear and timidity, and calls out the finest qualities in one's nature.”

“Success doesn't come to those who wait—and it doesn't wait for anyone to come to it.”

The secret of success when we get down to the bottom principle is: Make the work you are doing the greatest thing in the world while you are doing it. Give it your whole thought and your whole strength. Leave it only when you feel that nobody could improve on it.—*Thos. W. Lawson.*

“There is an open door to the temple of success. Every man who enters forges his own key. He cannot effect an entrance for anyone else. Not even his own children can pass where he passes. The key that will unlock your great opportunity to you must be forged by yourself.”

If a man can write a better book, preach a better sermon, or make a better mouse-trap than his neighbor, though he builds his house in the woods the world will make a beaten path to his door.—*Ralph Waldo Emerson.*

In business the earning of profit is something more than an incident of success. It is an essential condition of success, because the continued absence of profit itself spells failure. But while loss spells failure, large profits do not connote success. Success must be sought in business also in excellence of performance; and in business, excellence of performance manifests itself, among other things, in the advancing of methods and processes; in the improvement of products; in more perfect organization, eliminating friction as well as waste; in bettering the condition of the working men, developing their facilities and promoting their happiness; and in the establishment of right relations with customers and with the community.

—*Louis D. Brandeis.*

PERSONALITY

"Personality in business!" Those three words spell, to my mind, the most powerful factor in business today. Financial resource, of course, is necessary in the business field; foresight and the ability to grasp opportunities as they arise achieve much. But, it is only when these elements are combined with that peculiar characteristic of the individual which we call personality—that faculty of personal power, personal impression and personal understanding—that they attain the best and most permanent results.—*Geo. H. Barbour, Vice-President and General Manager, Michigan Stove Co.*

Personality furnishes the keynote to every business proposition. More than that, it is the cardinal element in every enterprise. Men, not money, are the determining factors in commercial and industrial undertakings.—*Frederick W. Upham, President, The Consumers Co.*

We believe that our customers and employees feel that our business is as much a matter of personality today as it was in the beginning. Behind each transaction is a personal guarantee, and we trust that behind each customer is personal interest in the growth and the perfecting of a system that seeks to interpret the personal desires of each man, woman and child who deals with us.—*A. Montgomery Ward, Founder, Montgomery Ward & Co.*

Successful founders of business have been those men who have radiated their personalities through the structures of trade which they built. Their policies and their methods thus were given additional momentum and their personal magnetism became an instrument unifying employees and attracting customers. This power has caused every employee in such an establishment to give to the business and to his particular work the best there was in him. And the man who can secure that individual effort, general team work and loyalty from those he employes is the man who wins. For a great machine is more nearly perfect as its every part, even the smallest wheel or rod, moves in unison and with the least possible friction.—*Geo. H. Barbour, First Vice-President, Michigan Stove Co.*

So important do I consider the temperamental qualifications of a man that I employ no one for a position of responsibility in our organization until I know him personally, and can establish the sort of personal relationship which alone can lead to an adequate understanding of an individual.—*J. W. Earle, President, Remington Typewriter Co.*

"A pleasing personality is of untold value. It is a perpetual delight and inspiration to everyone who comes in contact with it. Such a personality is capital. Very few people ever come into your home, or see your stocks or bonds, or lands, or interest in steamship lines, or corporations, but your personality you carry everywhere. It is your letter of credit. You stand or fall by it.—*Success.*

CHARACTER

Instill in the minds of our young the necessity of building a character that will win respect of all; this is vastly more important than a great fortune.—*Marshall Field.*

I don't care a fig what the young men and women I aid think about the future. My duty is with this life. The future will be alright if you obey the voice within.—*Andrew Carnegie.*

Character is power—is influence: it makes friends, creates funds, draws patronage and support and opens an easy way to wealth, honor and happiness.—*J. Hawes.*

The most essential possession of any person seeking credit, or anything else worth while, is character. Having this, one may not only seek but readily achieve success.

The late J. Pierpont Morgan, who was a masterful judge of men, said a short time before his death, that integrity is the one essential thing in business; that he would lend a million dollars to a man of integrity without collateral, when he would not lend, on government bonds, a dollar to a man without character.

With no other asset but integrity of character any man of business may gain the confidence of his banker. And confidence is the basis of all credit. The word itself means faith or belief.—*J. T. Talbert, Vice-President, National City Bank of New York.*

MODERN METHODS

Obsolete machinery is the foe of profits, the brother of high cost and the friend of bad methods.—*Wm. C. Redfield, Secretary of Commerce.*

Standardization of methods, equipment and production is the ultimate end and aim of practically every American factory management.—*R. E. Carpenter, of the Taft-Pierce Manufacturing Co.*

"Keep apace with your day and generation. The man who does not avail himself of modern methods is right at the outset giving himself a handicap that scarcely the wit of a Mark Twain or the genius of an Edison or ability of a Rockefeller can overcome."

"Be up-to-date. The time has gone by when past success is considered an element of strength. In this day and age, experience counts for far less than it formerly did. This is an age of great progress—of rapid change. Experience is not needed so much as is courage to break away from old methods."

SYSTEM

You can never accomplish anything permanent in business by loose tactics that are grounded on chance. You must have system. You must aim at a definite target. You must shoot straight and not in the air. Every part of a business machine must fit perfectly. It must be adjusted according to a set plan.—*A. Montgomery Ward, Founder, Montgomery Ward & Company.*

There is probably no other single word in the language that better describes success than "system." The larger the business, the better must be the system by which it is conducted; yet whatever its size, system is the most essential factor.—*Leon Mandel, Mandel Brothers.*

He that would know his own business must know system.
—*Barnard.*

I so systematize my work that the weak spot is quickly evident. This leaves me the strength that some men put into a losing fight and expend on the defensive, to devote to the initiative.—*Edward D. Easton, President Columbia Phonograph Co.*

Let all your things have their place; let each part of your business have its time.—*B. Franklin.*

A successful man must know his business. He must apply this knowledge—he must work, and he must work to the best advantage. And to work to the best advantage he must work with system.—*John H. Converse.*

System is to modern business what lubrication is to machinery; the better the means of lubrication, the smoother and more efficient the running; the better the system, the greater

ease and dispatch in managing small details, and the more time for following out the main paths that lead to success.

—*John Younger.*

A man who aims at business success must become a master of system. A business man without system is like a ship without a rudder. System not only helps you to steer your business craft on a straight course, but increases its speed. It saves time, it saves waste, it insures accuracy and dispatch. With system there is almost no end to what a man may do; without it he is a slave to detail confined to the narrow limits of his own hands.

—*Walter H. Cottingham, President, Sherwin-Williams Co.*

Method facilitates every kind of business and by making it easy makes it agreeable, and also successful.—*C. Simmons.*

CHEERFULNESS

“Cheerfulness and perseverance are nine-tenths of success.”

“A cheerful spirit moveth quick—

A grumbler in the mud will stick.”

“Be always as cheerful as ever you can,

For few will delight in a sorrowful man.”

A cheerful worker who goes ahead and makes himself a necessity to a business—never adding to the burden of his superiors,—will sooner or later get all that is his due, and more. He will not only get pay for his work, but he will also get a bonus for his patience and another for his good cheer.

—*Elbert Hubbard.*

'Tis easy enough to be pleasant,

When life flows by like a song;

But the man worth while,

Is the man with a smile,

When everything goes dead wrong.—*Ella Wheeler Wilcox.*

SERVICE

Men are rich only as they give—

He who gives great service gets great returns.

Elbert Hubbard.

To serve the public means much more in the public mind than it did a few years ago. Continued success in manufacturing and selling comes from simply this—successful public service.—*Walter Davidson, Pres. and Gen'l. Mgr. Harley Davidson Motor Co.*

The girl in the employ of business people who attempts to do the least possible work for her salary is going down the ladder, not up. If she wants to reach the top round she will have to make up her mind to give the best work she is capable of, to study the interests of her employers and to make them her own for the time being.—*Hetty Green.*

CONCENTRATION

“Success in life is not so much a matter of talent or opportunity as of concentration and perseverance.”

Concentrate all your thoughts upon the work in hand. The sun’s rays do not burn until brought to a focus.—*Alexander C. Bell.*

Begin immediately to concentrate upon what you are going to do. Concentration means success, while “scatteration” means failure.—*J. S. Knox in “Salesmanship and Business Efficiency.”*

Concentration in its every sense is becoming more and more essential, not alone to the large business man who must consider every infinitesimal detail in these days of keen competition, but to the smaller business man as well, who is being brought each succeeding day in contact with the fact that it is the economies of business that make the profits.—*A. D. Brown, President, Hamilton, Brown Shoe Co.*

CONFIDENCE

“He who loses money loses much; he who loses a friend loses more; but he who loses courage loses all.”

“It is an equal failing to trust everybody and to trust nobody.”

The whole business world rests on a foundation of confidence. When confidence is gone, business is gone.—*Hugh Chalmers, President, Chalmers Motor Co.*

The only genuine power which an individual, or a group of individuals, can gain is that arising from the confidence reposed in him or them by the community.—*H. P. Davison, of J. P. Morgan & Co.*

Successful salesmanship depends upon the confidence men may place in your talk. Like every other line of business, to foster confidence is to build success. If a man takes confidence in you from your conversation you can sell him. You cannot make sales where confidence is lacking.—*Hugh Chalmers, President, Chalmers Motor Co.*

SALESMANSHIP

Next to the importance of what you say, is the way in which you say it. It is so in talking. It is so in advertising. It is so in salesmanship.—*Hugh Chalmers.*

Find out the chief task of your talk. Concentrate your arguments upon it. Only that will bring you success. Scatter the seed of selling talk throughout your conversation. Till it with diplomacy. A crop of success is sure to follow.—*Edward P. Patch, General Manager, Lord & Taylor.*

The biggest men in the world today are sellers. You may not know them as such. They may call themselves bankers, engineers, lawyers, or ministers. In reality they are selling something; maybe their own or another's services. As they succeed so are they paid. The best salesman commands the highest price.—*Edwin W. Moore, President, The Electric Cable Co.*

A sale does not take place in a man's pocket, or in his pocket-book, or his check book, but it first takes place in his mind. In order to make a sale you must convince a man's mind.—*Hugh Chalmers.*

A salesman always meets an argument and a lot of objections in opposition to his own. A strong salesman always batters down these objections and overcomes the arguments. The weak salesman listens to them and forgets his own. Instead of influencing his prospect he permits his prospect to influence him. When two men come together to consider a proposition the best man usually wins. *Be that best man.*—*J. S. Knox in "Salesmanship and Business Efficiency."*

Almost every large concern that started twenty years ago and is successful today, could today duplicate that success. You can be a Wanamaker, a Marshall Field, or an Altman, if you personally attend to your store, look after your window displays, watch your business and study it thoroughly. You can become successful just as these big men have done before. It depends upon how you study your business and how much you love your business.—*Samuel Brill, President, Brill Brothers.*

System and organization are the controlling elements of any large selling enterprise—the two reins by which the business is guided. Skill must be directed along proper channels; enthusiasm must be directed to specific ends; enterprise must be organized to meet certain conditions and to attain designated results. And in this cooperation—this working together for the benefit of

all concerned—selling reaches its highest function.—*Henry Siegel, President, Siegel, Cooper & Co.*

ENDURANCE

“Noah was six hundred years old before he learned to build the ark; don’t lose your grip.”

Attempt the end and never stand to doubt;

Nothing’s so hard but search will find it out.—*Herrich.*

The man that endures is the man who wins. I never would harass my employer by inopportune propositions—I would give him peace, and I would lighten his burden. Personally, I would never be in evidence, unless it were positively necessary,—my work should tell its own story.—*Elbert Hubbard.*

Nothing short of concentration and constancy of purpose will make a man successful in any pursuit.—“*Science of Selling.*”

“Grit makes the man,

Want of it the chump;

The men who win

Lay hold, hang on and hump.”

HONESTY

The test of a man in business is whether he is honest or not, conscientiously, broadly honest, not alone legally honest.—*Thos. W. Lawson.*

The sure-enough saint is a business man who sticks to the one-price system and tells the truth.—*Elbert Hubbard.*

He who freely praises what he means to purchase, and he who enumerates the faults of what he means to sell, may set up a partnership with honesty.—*Lavater.*

If honesty did not exist, we ought to invent it as the best means of getting rich.—*Mirabeau.*

He who says there is no such thing as an honest man, is himself a knave.—*Berkeley.*

SINCERITY

Be sincere. Don’t try to fool the world, for it will not be fooled. It can tell the difference every time between an honest man and a fakir.—*Thos. W. Lawson.*

There is no substitute for thorough-going, ardent and sincere earnestness.—*Dickens.*

Sincerity is to speak as we think, to do as we pretend and profess, to perform what we promise, and really to be what we would seem and appear to be.—*Tillotson*.

COURTESY AND POLITENESS

There is no policy like politeness; and a good manner is the best thing in the world, either to get a good name, or supply the want of it.—*Bulwer*.

I believe in courtesy, in generosity, in good cheer, in kindness, in friendship, and in honest competition.—“*Men Who Sell Things*.”

There is no other one thing which costs so little and is worth so much as courtesy. It is an outward expression of an inward kindness. It is an indication that the heart is right and that we delight to serve.—Does it pay to be courteous? It pays bigger dividends in proportion to the investment than anything else I know of.—*Salesmanship and Business Efficiency*.

ADVERTISING

Advertising is merely this: clapping your hands, getting attention, making your talk, showing your goods, closing the sale. You must make a noise—you must gather a crowd, get attention and make yourself heard—you must show people what you have and why they should buy. Advertising is in this respect merely the peddler on the corner—merely the drummer out for trade.—*Edward B. Butler, President, Butler Brothers*.

Advertising is today the mightiest factor in the business world. It is an evolution of modern industrial competition. It is a business builder, with a potency that goes beyond human desire. It is a positive creative force in business. It builds factories, skyscrapers and railroads. It makes two blades of grass grow in the business world where only one grew before. It multiplies human wants and intensifies human desires.—*Truman A. DeWeese, Advertising Director, The Natural Food Co.*

Community advertising is now a tested business, known to be productive of results in permanent additions to population both in the town and country, and in larger production and buying power. A merchant can add to his profits by joining heartily in the work of those who are trying to develop the whole State. Every business man has a deep interest in the good of his community, which is not visionary or sentimental, but measureable in dollars and cents. To credit him with prudence is but to express in other words the thought that his duty is to join in such

work and assist it.—*Howard Elliott, President, The New York, New Haven and Hartford Railroad Company.*

PROMPTNESS—PUNCTUALITY

Promptness is the soul of business.—*Chesterfield.*

Unfaithfulness in the keeping of an appointment is an act of clear dishonesty. You may as well borrow a person's money as his time.—*Horace Mann.*

Now, is the watchword of the wise;
Now, is on the banner of the prudent.—*M. Tupper.*

Dispatch is the life of business, and method is the soul of dispatch.—*Pope.*

I give it as my deliberate and solemn conviction that the individual who is habitually tardy in meeting an appointment, will never be respected or successful in life.—*W. Fisk.*

Nothing inspires confidence in a business man sooner than punctuality, nor is there any habit which sooner saps his reputation than that of being always behind time.—*W. Mathews.*

Punctuality is the stern virtue of men of business, and the graceful courtesy of princes.—*Bulwer.*

DEBT

“A hundred years of fretting will not pay a single cent of debt.”

Do not accustom yourself to consider debt as an inconvenience; you will find it a calamity.—*Johnson.*

I have discovered the philosopher's stone that turns everything into gold: it is, “Pay as you go.”—*John Randolph.*

Debt is to a man what the serpent is to the bird; its eye fascinates, its breath poisons, its coil crushes sinew and bone, its jaw is the pitiless grave.—*Bulwer.*

Debt is the secret foe of thrift, as vice and idleness are its open foes. The debt habit is the twin brother of poverty.—*T. T. Munger.*

Youth is in danger until it learns to look upon debts as furies.—*Bulwer.*

ECONOMY

"The most important element in success is economy—economy of money and time."

Frugality may be termed the daughter of prudence, the sister of temperance, the parent of liberty. He that is extravagant will quickly become poor.—*Johnson*.

"If you lay aside ten cents each day and invest it at six per cent compound interest in forty years you will have six thousand dollars. Then what excuse has a man for being poor in his old age?"

If you know how to spend less than you get, you have the philosopher's stone.—*Franklin*.

Without economy none can be rich, and with it few will be poor.—*Johnson*.

A man may, if he knows not how to save as he gets, keep his nose all his life to the grindstone and die not worth a groat after all.—*Franklin*.

EXPERIENCE

No man can learn to be a "crack shot" unless he wastes some ammunition. The sales manager should stand the expense of the experiments made by a new man who shows ability; it will pay in the long run. If mistakes continue and positive results do not come, the man must go. But, on the other hand, if after a trial of this kind a man's caliber is determined, then the time for promotion and increase of salary is at hand.—*Richard W. Sears, Founder, Sears, Roebuck & Co.*

Cultivate the company of successful men. Choose particularly, the men who have made their mark in the business which you have undertaken. By rubbing shoulders with them you will absorb ideas which will help you up and by the light of their experience you will be able to avoid many of the pitfalls about you.—*Henry Hewitt, President, Hewitt Land Co.*

That man is wise to some purpose who gains his wisdom at the expense and from the experience of another.—*Plautus*.

Experience is a jewel, and it had need be so, for it is often purchased at an infinite rate.—*Shakespeare*.

He hazardeth much who depends for his learning on experience.—An unhappy master is he who is made wise only by many shipwrecks; a miserable merchant, who is neither rich nor wise till he has been bankrupt.—By experience we find out a short way by long wandering.—*Roger Ascham*.

RESPONSIBILITY

Responsibility is what develops men and makes them broad and strong. It is a great creator of executive ability. When entrusted with it, candidates for promotion will show what is in them. Throw men on their own resources and see what they do. It is the petty cramping of the man that keeps down his abilities. Therefore, when you have faith that a man has sufficient knowledge of his business, begin by slipping out from under this or that responsibility and let it fall on the pupil.—*Clarence M. Woolley, American Radiator Co.*

Responsibility walks hand in hand with capacity and power.
J. G. Holland.

Responsibility educates.—*Wendell Phillips.*

DECISION

Deliberate with caution, but in all business matters act with decision and promptness.—*Coulter.*

Cultivate the habit of quick deliberation and prompt decision. (J. P. Morgan makes decisions amounting to millions in a few minutes.)

Decision marks the strong man from the weak man. "Indecision is the paralysis of usefulness." Get what information you can get, or need to get, upon the subject, and then decide, once for all, either yes or no. Entirely too large a per cent. of the average man's life is wasted through continually putting off the moment of decision. Failure to decide promptly, and then execute immediately the thing they are convinced ought to be done, robs men of opportunity and time which would mean fortune. Vacillation will not do, you must decide one way or the other after the evidence is all in. Decision is the mark of strong men, men of courage. In making a decision, add up every point in favor of the proposition and every point against it, just as you would two rows of figures. Put them under two heads, affirmative and negative, just the same as a jury does in an important case. After you have the reasons all down, add up the two columns, and if the affirmative has one more point in its favor than the negative, you are mathematically compelled to make your decision accordingly. This is the method followed by Senator Elihu Root. Don't think for a minute that you can reconsider it, or that sentiment has anything to do with it. It has not, except with a weakling, and you, my reader, are no weakling, or you wouldn't be studying this lesson.—*J. S. Knox in "Salesmanship and Business Efficiency."*

LOYALTY

"If put to the pinch, an ounce of loyalty is worth a pound of cleverness."

Loyalty consists in giving faithful allegiance to your employer; it consists in giving whole hearted untiring service to the concern that furnishes you with bread and butter. Loyalty consists in working during business hours and after business hours and before business hours for the best interests of the concern. Loyalty consists in doing everything within your power to figure out some new idea or some new method that will in some way advance the interests of your concern.—*J. S. Knox in "Salesmanship and Business Efficiency."*

MAKING NOTES AND KEEPING RECORDS

A man who cannot keep a record of his own business is not fit to be trusted with that of the king.—*Saville.*

I never let an idea escape me, but write it on a piece of paper and put it in a drawer. In that way I sometimes save my best thoughts on a subject.—*Abraham Lincoln.*

By keeping a yearly record of our business transactions, the mistakes of one year may be avoided the next.—*Waldron.*

Bad memory causes many a dispute. A record of facts has saved many a lawyer's fee.—*Mathews.*

The successful business of today in any line of endeavor has been built by men who have accurate knowledge of their affairs secured from keeping true records of their experiences and using them in guiding the business to a profitable showing.—*A. M. Glossbrenner, President, United Typothetae of America.*

Every time you hear a sermon or lecture, or get an idea from a newspaper or magazine which will help you in your business, take out your note-book then and there, no matter where you are, and jot it down. If you wait you will forget it. Talk that point at your first opportunity. It will be fresh and you can use it enthusiastically.—*J. S. Knox in "Salesmanship and Business Efficiency."*

DRESS

The power of dress is very great in commanding respect.—*Steele.*

To dress well as becomes one in his profession is an important factor in success; and to dress well requires good sense, good taste and refinement.—*Chesterfield*.

“Costly thy habit as thy purse can buy,
But not express’d in fancy; rich, not gaudy:
For the apparel oft proclaims the man.”

—*Shakespeare*.

The dress does make the man to a certain extent. People judge of your success in a measure by the quality of your dress. The solid plain dress indicates both good taste and prosperity; loud, inappropriate dress, no less than shabby and slovenly attire, indicate poor taste, and either ill success or sporadic success.—*Science of Selling*.

PERSEVERANCE

“Perseverance is the main thing in life. To hold on and hold out to the end, is the chief matter. If the race could be won by a spurt, thousands would wear the blue ribbon; but they are short winded, and pull up after the first gallop. They begin with flying and end in crawling backward. When it comes to the collar work, many take to jibing.

“If the apple does not fall at the first shake of the tree, your hasty folks are too lazy to fetch a ladder, and in too much of a hurry to wait until the fruit is ripe enough to fall of itself. The hasty man is hot as fire at the onset, and as cold as ice at the end. He is like the Irishman’s saucepan, which had many good points about it, but it had no bottom. He who cannot bear the burden and heat of the day is not worth the salt, much less his potatoes.

“We ought not to be put out of heart by difficulties; they are sent on purpose to try the stuff we are made of, and depend upon it, they do us a world of good. There’s reason why there are bones in our meat, and stones in our land. A world where everything was easy would be a nursery for babies, but not at all a fit place for men. Celery is not sweet till it has felt a frost and men don’t come to their perfection till disappointment has dropped a half a hundred weight or two on their toes.”

One element of strength is the constant, determined purpose to stick to the particular work in hand until success is attained.—“*Men Who Sell Things*.”

SELF-CONFIDENCE

Lack of confidence has been the millstone around the neck of nine people out of every ten.—*J. S. Knox* in "*Salesmanship and Business Efficiency*."

You've got to believe in yourself and make your buyers take stock in you at par and accrued interest. Get the grip of a bull dog on a customer. Feel the same personal solicitude over a bill of goods that strays off to a competitor as a parson over a backslider.—*Geo. H. Lorimer*.

Every great man had a beginning of his career sometime—usually a humble one. No man should admit even to himself that he has not the makings of a future captain of industry.—*Harlow E. Bundy, General Manager, International Time Recorder Co.*

"Confidence is victory, timidity is defeat."

"He can who thinks he can."

LEADERSHIP

The leader who can imbue an army of workers with a spirit of earnest fidelity to duty, an unswerving desire to do the necessary thing, and to do it always with animation, kindness, courtesy and good cheer, is entitled to rank with the large men of earth.—*James Logan, Chairman Executive Board, United States Envelope Co.*

Leadership consists in the ability to lead and control thought and action. It consists in the ability to influence people to think as we think, feel as we feel and act as we would like to have them act.—*Salesmanship and Business Efficiency*.

OPPORTUNITY

There are better facilities for doing business today, more business to be done, and the young man now has two opportunities where he formerly had one.—*John Wanamaker*.

While ten men watch *chances* one man *makes chances*. While ten men wait for something to *turn up* one man *turns something up*. So, while ten men *fail* one succeeds, and is called a man of *luck*, the favorite of fortune. There is no luck like *pluck*, and fortune favors those most who are most indifferent to fortune.—*Anon.*

"Make your own opportunities."

ENTHUSIASM

Next to honesty, enthusiasm is the most essential quality in successful salesmanship.

Enthusiasm is a soul quality springing from knowledge and confidence. The more knowledge you have, the greater becomes your confidence, and your enthusiasm increases in the same proportion.

A good salesman must know more about his goods than the man he is selling to knows about them. Knowledge and enthusiasm beat oratory every time. Enthusiasm in a salesman begets enthusiasm in a customer.

The energetic dead-in-earnest man creates confidence and success.

Arguments are of no avail, and tact is worse than wasted, if you do not present your subject with all the enthusiasm you can muster.

What the world of salesmanship wants is educated enthusiasm.

Nothing great is ever accomplished without trained enthusiasm, persistent energy, and a determination to win.

There is no such thing as good salesmanship without enthusiasm.

—*Selections from "Men Who Sell Things."*

MAXIMS OF HENRY FORD

We believe it is better, wiser, and more just to make many men comfortable than to make a few men rich.

I have very little use for charities or philanthropies as such. My idea is, aid men to help themselves.

If corporations are over capitalized, they must necessarily oppress labor to make a showing. But if they grow from small beginning, naturally, and stick to one legitimate product, balanced conditions are bound to follow.

Our experience leads us to conclude beyond doubt, that the interest taken in employes as to their individual welfare is most desirable from every standpoint, not only of that of the employe and his family, but of the business itself.

Any manufacturing institution that is successfully making a single product, should increase the business and its plant, and make more work to employ more men.

The sooner men can be taught that labor is just as much of an asset, and more, than machinery and buildings, the sooner labor will be properly recognized.

SELF-HELPS IN BUSINESS

"It takes a great deal of caution and a great deal of boldness to make a fortune; and when made it takes ten times as much wit to keep it as it did to make it."—*Lord Rothchild.*

Educate Yourself.—Young man, there is no royal road to wealth or learning. Money cannot buy an education. The boy who is born in the rural districts away from the city and all the so-called advantages of the city, has an equal chance with the boy who is born within hearing distance of the university bell. We learn to climb the hill by climbing it. The greatest benefits come from surmounting difficulties. The greater the difficulties, the greater the effort should be to surmount them. One boy may have ten times as many opportunities as you have for gathering information, but the information is not gathered. The most successful teacher in the world cannot force an education upon a boy. The boy who has ambition and a love for study will become an educated man, no matter where he lives or what the obstacles are. Never before in the history of our country were there so many advantages, so many sources of information, and so many paths to an education, as now.

One need not go to a business college to obtain a business education; in fact the most successful business men in our country to-day are men who never saw the inside of a business college. One who is really anxious to obtain information and become proficient in any one thing can do so if he endeavors to educate himself.

Intelligent labor, of whatever kind, is always in demand. Can you write a good business letter? Can you convey just the meaning you want to, and clothe your thoughts in courteous, brief, business-like language, write neatly, spell your words correctly, and dash off a letter in a few moments? If you can, you will have no difficulty in securing a situation. The men who are doing the longest day's work for the smallest daily wages, and who are the slaves of their employers, are the uneducated. If you can do your work properly, if you can dash off a business letter correctly as above stated, there

are hundreds of business houses looking for just such a fellow as you are. The uneducated do not know how to do many things. They must do the one thing or starve. The largest proportion of them spent their evenings and spare hours, years ago, in whittling boxes on the street corners, and otherwise idling their time away. In business learn one thing, and that is to be clear, explicit, concise, especially in your business correspondence.

The young man who takes a systematic course of study in a college, graduates and receives his diploma, is the educated man, so far as book-learning is concerned, but he lacks a great deal of being an educated man so far as a practical education is concerned. We often see men who have graduated and received their diplomas, whose lives or whose success, in the best sense, is a failure. The reason of this is that they have not studied the practical side of the question of the day. They have not entered into the realities of daily life. This is the reason why a much greater majority of those young men who have to *educate themselves*, who have to *earn their own money* with which to carry themselves through college, are the ones who become, in the future, the successful men. This is the reason why you can take, for instance, a graduating class of fifteen years ago and find to-day every one of the self-educated boys successful men, while the same is not true of those who were not self-educated, or who had rich parents to aid them.

Growing minds are measured by the number of original ideas which they produce rather than by the quantity of facts which they contain. Rubbing up against the world as self-made men have to do is what gives them original ideas. "Necessity is the mother of invention." It is the growing mind, the mind of original ideas, that there is always a vacancy for. The fact that there is an opportunity for all, cannot be better illustrated than by an article by Robert J. Burdette, entitled, "Give the Poor Boy a Chance." When one stops to consider that nearly all the great and wealthy men of our country to-day were poor boys, one can hardly help agreeing with Mr. Burdette's saying: "The poor boy monopolizes about all the chances there are."

Mr. Burdette says: "Give the poor man a chance! My son, the poor man takes about all the chances without waiting to have one given him. If you give him any more chances than he takes, he will soon own everything and run the Texas man out of the country. The fact is, we must curtail the poor man's chances a little. We must sit down on him, and hold

him down, and give the rich man a chance. The poor man has had things his own way too long. He has crowded the rich man out. But for the poor man, this old world would have cast anchor 6,000 years ago, and be covered with moss and lichens to-day, like a United States man-of-war. Edgar Allan Poe was the son of a strolling player; George Peabody was a boy in a small grocery; Benjamin Franklin, the printer, was the son of a tallow chandler; John Adams was the son of a poor farmer; Gifford, the first editor of the *Quarterly Review*, was a common sailor; Ben Johnson, rare Ben Johnson, was a brick layer; the father of Shakespeare couldn't spell and couldn't write his own name; neither can you; even his illustrious son couldn't spell it twice alike; Robert Burns was a child of poverty, the eldest son of seven children, the family of a poor bankrupt; John Milton was the son of a scrivener; Andrew Jackson was the son of a poor Irishman; Andrew Johnson was a tailor; Garfield was a boy of all work, too poor even to have a regular trade; Grant was a tanner; Lincoln a keel boatman and common farm hand. True, a poor lawyer, a poor doctor, a poor printer, a poor workman of any kind has no chance; he deserves to have none; but the poor man monopolizes about all the chances there are."

Not long since the writer heard one of the largest and most successful merchants in the United States say: "The first four months I worked in a store I got \$2.00 a week, but at the end of four months my wages were increased to eight dollars a week. I remember I was always afraid I was not earning my wages, and used to wonder to myself whether I gave satisfaction and was going to keep my job. I worked just as hard for two dollars a week as I ever did afterwards. My wages were increased from time to time during the several years I was with the firm, but I never asked for an increase." This same "poor boy" is to-day president of a National bank and the owner of several large mercantile establishments. This is the kind of a chance a *poor boy* has. If you accept a position work just as hard for two dollars a month as you would for two hundred dollars a month. Don't think about the wages you are getting, but think about how you can be of greatest service to your employer, and he will not be long in seeing the value you are to him and will reward you accordingly.

HOW TO DO BUSINESS WITH A BANK

As stated in preceding pages on this subject, always be prompt, open and frank with your bankers. If you wish to

open a deposit account with a bank and are not acquainted with any member of it, provide yourself with proper introduction, as well regulated banks do not open accounts with strangers.

It is customary with all properly conducted banks to ask a customer who desires to open an account to make a statement of what he is worth. When asked for, a statement should be made promptly and accurately, showing exactly what your resources and liabilities are.

Do not draw a check on a bank unless you have the money on deposit, or in your possession to deposit, with which to make that check good. If you desire to send a check to some distant city, do not send it expecting to make it good before the check can get back by mail. Persons to whom such checks are sent sometimes telegraph to ask if they are good, and if you have not sufficient money in the bank to cover the amount of the check, your bankers will have to say no, and this will injure your credit.

Never exchange checks with anybody. Business men sometimes gain one day by exchanging checks, but it is a bad practice.

It is stated that ninety per cent. of the business of the present day is done without the exchange of a single dollar in currency. It is all done by checks, drafts and notes. Wholesale houses sell goods on thirty, sixty and ninety days' time, and take notes from the retail merchants in payment. These notes are not often for a longer time than three months, as banks do not like to discount notes for a longer time than this. When a wholesale merchant needs money, he takes these notes which he has received from the retailer to the bank to have them discounted and the money placed to his credit. When the note is discounted at the bank, the wholesale merchant, or payee, writes his name on the back of it—endorses it—when both the maker and the payee are responsible to the bank for its payment. Most notes discounted at banks do not draw interest.

The time in bank discount is always the number of days from the date of discounting the note to the date it is due. For example: A note of \$1,000, dated January 7, payable in ninety days, is due in ninety-three days from January 7, there being always three days of grace allowed, and the banker deducts the interest from the note for ninety-three days, that is, if the note is discounted the day it is given. This is called bank discount.

Paying Bills by Checks.—Many business firms make it a rule never to pay bills except by check. This is a good practice, and for the following reasons:

1. Parties whom you have paid cannot claim that you have paid an improper amount, or that you have not paid them at all, or that you paid them a bad bill, as the check itself shows the amount paid, and is evidence that the bill has been paid.

2. The check itself is a receipt for payment when it comes back to you through your bank, as it will in the course of time.

For the above reasons we would advise paying all bills in your vicinity by check. If you have not the money in the bank, put it in and check against it; or if you have but one or two bills to pay, deposit the necessary amount in the bank and take a certificate of deposit in your name (see form Certificate of Deposit) and endorse it over, payable to the order of the person or firm you wish to pay.

Filling Up Printed Forms of Checks, Notes, Etc.—When filling out a printed form of note, draft, or check, always begin at the extreme left hand of the blank and draw a heavy line through the unused space between the amount you write and the word "Dollars." (See forms of Checks filled out.)

Notes, Checks and Drafts Payable to Bearer or Order.—Papers made payable to *bearer* can be collected by any one into whose hands they may fall, hence it is a bad practice to make them payable to bearer. If made payable to your own order or the order of the person you wish to pay, they cannot be used until you or the person to whom they are made payable has endorsed them across the back.

Presenting Checks for Payment.—Checks drawn upon banks are not intended to be held any length of time, and as a rule should be promptly presented to the bank for payment. The check may be good when given to you, but the person may die or fail in business soon after.

Paying Bills by Check to Persons Living at a Distance.—Persons not in business and those not having creditable financial rating in the commercial agencies, should never order goods and send their personal check in payment, as the chances are that the firm from whom you order goods will delay shipment until they have found out whether your check is good or not. Business houses prefer New York or Chicago drafts from persons or firms, however strong their financial rating may be, living at a distance.

How to Endorse Checks, Drafts, Notes, Etc.—The top of a check, draft or note, is the left end as the printed face of it, right side up, lies before you. Endorse your name *across* the top, on the back side, about an inch and a half from the end—never lengthwise.

In filing away papers or letters of any kind, your notes for reference should always be made at the top.

Buying Drafts for Remittances.—In buying drafts, have them made payable to your order and then indorse them payable to the person to whom you wish to send money. For example: If your name is Samuel Jones and you wish to order \$100.00 worth of books of The F. B. Dickerson Company, buy a draft for \$100.00 payable to yourself, and indorse on the back of it, "Pay to the order of The F. B. Dickerson Company." (See example Indorsement on Copy of Draft.) This draft is good only to The F. B. Dickerson Company, and they will have to indorse their name on the back of it before they can get the money; whereas, if you indorse your name only, "Samuel Jones," on the back, it will be good to any one who may come in possession of it. A draft, when paid, is cancelled and returned to the bank from whom you bought it, and is as good as a receipt. When returned, it is kept on file in the bank, so that you can see it again if necessary.

ALL ABOUT NOTES, RECEIPTS, ETC.

A Promissory Note.—A promissory note is a written promise to pay a certain sum of money at a future time, unconditionally. The signer of a note is called the maker. The following are some of the common forms of notes used throughout the various States. In drawing up or filling out notes, be very careful that the terms and conditions are plainly expressed, and that your writing is plain, so that no disputes or misunderstandings may arise. Write the date, the amount and the rate of interest so plainly that there can be no question as to the conditions. Observe the following points:

1. Never sign a note or paper of any kind without first carefully reading it.

2. Notes are liable to fall into the hands of other parties, and no matter how familiar you are with the person's address, it is best to write the address of the signer or signers opposite their names; then there will be no difficulty in locating them.

3. Have notes drawn payable at some particular place—at your office, your house, or some commercial business house or bank (a bank is the best place, as they are provided with files for this purpose). A short time before a note comes due (if made payable at a bank), leave it at the bank for collection. It is the duty of the bank to notify the maker, if desired, that the note is there. If you are a customer, or do business with the bank, they will charge you nothing for collection. When a note is made payable at a bank it saves the trouble of either party hunting up the other.

4. In taking a note from a person who cannot write his name, always have him make his mark. Any person may write the name, but the maker of the note must make his own mark. Notes of this kind should be witnessed by at least one disinterested person. (See form.)

Collateral for Security to Note.—When a collateral note is given (see form of Collateral Note), and stock or bonds are accepted as security, it is best to notify the corporation issuing them, telling them the numbers of the shares or bonds and to whom they were issued. This is not *always* necessary, as the person who gives them to you as security may be known to you as perfectly reliable and trustworthy.

How to Indorse a Note.—Never write your name lengthwise of a note. As the printed face of a note lies right side before you, the left end is the top; turn the note over and indorse your name across the top about an inch and a half from the end.

Indorsements and Consent of Indorsers.—Never agree to extend the time of payment of a note, or anything that is indorsed or secured, without first getting the consent of the surety in writing. If you hold a note of Mr. Brown which is indorsed by Mr. Smith, and Mr. Brown wants a little more time, be sure that you do not agree with Mr. Brown that you will extend the time, without the written consent of the indorser, Mr. Smith. It is best to have the consent of Mr. Smith written on the back of the note, something like the following:

I hereby consent to the extension of payment sixty days.

JOHN SMITH.

Or, a new note may be made, both parties signing it, and the old one destroyed. Verbal notice to the indorser that the

note was presented for payment and refused would hold him responsible, but in case of a lawsuit it might be difficult to prove that verbal notice had been given. My advice is to protest an indorsed note.

Responsibility of Indorser.—If an indorsed note is not paid by the maker on the day it is due, the indorser cannot be held responsible unless the note is duly presented for payment and notice given to the indorser that the note has not been paid. This, however, does not necessarily mean that the note must be protested. Protest is the official act of a notary public, which is absolutely required only when the indorser whom it is desired to hold responsible resides in a different State than the one in which the note is made payable. Banks generally have one of their employees appointed a notary to protest all indorsed notes, if not paid.

It is important that any one holding indorsed notes should keep a strict record of the dates they are due, and if not paid on those dates, to take the necessary steps to hold the indorser liable, as previously mentioned.

There are several forms of protest, but the following is a short and common form :

[COMMON FORM OF PROTEST.]

Columbus, O., Feb. 15, 1915.

TO SAMUEL JONES:

A promissory note made by John Jones in favor of Cyrus White, for One Hundred Dollars, dated the 12th day of December, 1914, indorsed by you, was delivered to me for protest by Cyrus White, the holder. Being this day due, its payment was demanded and refused. You will be held for its payment.

NATHAN POTTER,
Notary Public.

Notice of Non-Payment.—The holder of a note may hold the indorser by giving him immediate notice in writing, on the day the note is due, that the note has been presented for payment and refused, except when the indorser resides out of the

State, in which case a notary must be employed and the note protested. It is best, however, to always entrust this to a notary who is familiar with such matters. The following form will answer :

Columbus, O., Feb. 15, 1915.

TO SAMUEL JONES

DEAR SIR:—*Please take notice that the note of One Thousand Dollars and interest, made by John Jones and indorsed by you, due this day, remains unpaid.*

CYRUS WHITE.

Waiving Protest.—It sometimes happens that the maker of a note is perfectly responsible and able to pay his note, but may be unable to do so on the particular day it is due. In such a case the steps above mentioned must be taken, unless the indorser waives them. Business men of good standing do not like to have their notes go to protest, as it injures their credit. In such a case the indorser can waive presentment, notice and protest, and still be held responsible by writing on the back of the note the following, and signing his name under it:

For value received, I hereby waive presentment, demand for payment, and notice of non-payment on within note.

SAMUEL JOHNSON.

Best Notes for Farmers.—It is not convenient for farmers or persons living in rural districts and small villages where there are no banks, to have notes protested; therefore, when a farmer takes a note of John Jones, and Cyrus White goes his security, it is best to take a joint and several note (see form), and thus avoid the trouble and inconvenience of notice or protest if not paid the day it is due.

How to Avoid Responsibility.—If a note is given to you, made payable to your order, you must indorse your name on the back of it if you wish to transfer it to another, and if the

person who gave the note does not pay it when due, you are responsible for the payment of it. You can, however, avoid responsibility by writing the words "Without Recourse" on the back, and signing your name underneath.

Worth Twenty Thousand Dollars to a Man.—I know of a recent case where an indorsed note for twenty thousand dollars was given to a bank. In addition to the indorsement there was collateral, that is, its payment was secured by a deposit of corporate stock. Either through carelessness or assurance that the maker and collateral were perfectly good, the bank neglected to protest the note or notify the indorser of non-payment. Shortly after the note was due the maker failed, and the collateral, which proved to be stock in two or three corporations, proved to be worth only about twenty-five cents on the dollar. The indorser was not held responsible because the note was not protested, and the bank was the loser.

Indorsing Payments on a Note.—1st. When making a partial payment on a note, examine the note. See that it is the right one, and also see that the indorsement is made on the back of it.

2nd. If the circumstances are such that you cannot see the indorsement made, then take a receipt for the payment you make and see that the receipt states the name of the party the note was given to, the date and amount.

[FORM OF RECEIPT FOR PARTIAL PAYMENT ON A NOTE.]

\$50.00

Springfield, Ohio, Sept. 14, 1915.

Received of John Wood, Fifty Dollars, partial payment on a note of Three Hundred Dollars, dated Sept. 14, 1913, made payable to my order.

RICHARD SUNDERLIN.

The most reliable men sometimes receive money as partial payment and forget to indorse it on the note. The note may afterwards pass into the hands of a third person, who, not finding payments indorsed on the back, insists on the full amount.

If some man living at a distance holds your note on which payments are due, or soon to become due, request him to forward it to some bank convenient to you, where you can call and pay the amount due on it and see it indorsed by the bank. After you have made the payment, the bank will return the note and money to the owner; or you can send the money to a bank in the town where the owner of the note lives, instructing them to indorse the amount on the back of the note when presented.

Forms for All Kinds of Notes.—

[NOTE PAYABLE AT THE BANK.]

\$349.30

Woodstock, Ontario, Feb. 3, 1915.

Ninety days after date, I promise to pay to the order of Jacob Young, Cashier, Three Hundred and Forty-nine $\frac{30}{100}$ Dollars, at the Imperial Bank of Canada. Value received. Interest at seven per cent. per annum.

JOHN B. JOHNSON.

[INDORSED NOTE.]

\$500.00

Omaha, Neb., Dec. 14, 1915.

Ninety days after date I promise to pay to the order of Daniel Thomson Five Hundred Dollars at the Omaha Savings Bank. Value received. Interest at 7% per annum.

SAMUEL STEVENSON.

The above is a regular indorsed note. Daniel Thomson must indorse his name on the back of it before it can be deposited and the money got on it. If Samuel Stevenson does not pay the note on the day it is due, the bank must protest the note (unless Mr. Thomson waives protest), otherwise Mr. Thomson cannot be held responsible.

\$500.00*Omaha, Neb., Dec. 14, 1915.*

Ninety days after date I promise to pay to the order of the Omaha Savings Bank Five Hundred Dollars, at their office. Value received. Interest at eight per cent. per annum.

SAMUEL STEVENSON.

The above is a different form, and the difference is understood by but few business men. If Daniel Thomson should indorse this note by writing his name on the back of it, a protest would not be necessary, as the note on the face is not made payable to his order. It would really be a joint note, the same as if Daniel Thomson had signed his name on the face under that of Mr. Stevenson.

[DEMAND NOTE.]

\$90.00*Toronto, Ontario, July 6, 1915.*

On demand I promise to pay to the Canadian Bank of Commerce Ninety Dollars, with interest at seven per cent. per annum.

JOHN M. MORGAN.

Note.—A demand note is due the day it is given, and payment may be demanded upon the same at any time. Demand notes are frequently given by business houses in large cities, and are given with the understanding that they are to be paid by the bank whenever called upon. Demand notes are sometimes written "One day after date," instead of "On demand."

[JOINT NOTE.]

\$100.00*Austin, Texas, Jan. 25, 1915.*

Two years after date, for value received, we jointly and severally promise to pay to X. Y. Collier One Hundred Dollars, with interest at eight per cent. per annum.

SAMUEL STEVENSON.**DANIEL THOMPSON.**

Note.—A joint note is one made by two or more persons, any one of whom is responsible for the note.

[JUDGMENT NOTE—COMMON FORM, WITH WAIVER.]

\$2,800*Albany, N. Y., Jan. 6, 1915.*

One year after date I promise to pay to Morris Elwood, or bearer, Two Thousand, Eight Hundred Dollars, with interest at the rate of six per cent. per annum, from maturity until paid, and without defalcation. And I do hereby confess judgment for the above sum, with interest and costs of suit, a release of all errors and waiver of all rights to inquisition and appeal, and to the benefit all laws exempting real and personal property from levy and sale.

A. B. SEELEY.

A judgment note is a promissory note given in the usual form, and containing, in addition, a power of attorney for any attorney of any court of record to appear and confess judgment for the sum therein named. It usually contains a great number of stipulations as to the time of confessing the judgment, against appeal and other remedies for setting the judgment aside, and other conditions.

[PRINCIPAL AND SURETY NOTE.]

\$400.00*Toronto, Ontario, March 21, 1915.*

For value received, on or before one year from date, I promise to pay to the order of John Cleveland, Four Hundred Dollars. Interest at seven per cent.

SAMUEL WATERS.

Note.—In a note of this kind, the principal should sign the note as above, and if the surety be James Brown, he should indorse the note on the back; or, it may be signed on the face as follows: Samuel Waters, Principal, James Brown, Surety.

[COLLATERAL NOTE.]

\$1,200*Detroit, Mich., June 3, 1915.*

Four months after date, I promise to pay Isaac Cornell, or order, Twelve Hundred Dollars, with interest at the rate of seven per cent. per annum, value received; having deposited or pledged with him as collateral security, with authority to sell the same at public or private sale, or otherwise, at his option, on the non-performance of this promise, and without notice, fifty shares of the Wyandotte Wire Company stock, of the par value of One Hundred Dollars each.

S. W. BOWTELL.

Note.—A collateral note is one where some security is deposited with the note as a guaranty for the payment of the same.

[NOTE BY A MARRIED WOMAN.]

\$220.00*Peoria, Ill., Nov. 22, 1915.*

Six months after date, I promise to pay to S. B. Anthony, or order, Two Hundred and Twenty Dollars, value received, with interest at seven per cent.

MRS. HANNAH WARREN.

Note.—In former years a married woman could incur no liability, but now the statutes of nearly, if not quite, all the States, give her more or less liberty in this direction. She can thus enter into contracts and incur liabilities; consequently notes can be collected against her.

[CHATTEL NOTE.]

\$400.00*Lakeview, Mich., Aug. 17, 1915.*

Ten days after date, for value received, I promise to pay to A. B. Dickerson, Four Hundred Dollars, in potatoes, at the then market rate, the same to be delivered at the depot in Lakeview, Mich., at the option of the owner.

C. C. COMSTOCK.

Note.—It sometimes happens that one person desires to sell another something to be delivered at some future time, and is to be paid the amount at whatever the price of the article at that time.

[CORPORATION NOTE.]

\$1,900.00

Detroit, Mich., Jan. 1, 1915.

Seven months after date we promise to pay to Joseph Hudson, or order, Nineteen Hundred Dollars, with interest at seven per cent. Value received.

THE UNION PAPER COMPANY,
By C. F. BUCHER, President.

Note.—A corporation note is given by a firm incorporated under the laws of some State, and when the corporate name is signed by the president or secretary, as above, neither is individually responsible for the payment of the note. As a rule, it is safest in doing business with a corporation to take the note of the corporation, but have it indorsed on the back by some of the individual members of the corporation, in which case the corporation and the individual member are liable. A corporation note may be signed either by the president or secretary or such other members of the firm as are authorized to sign the name of the company.

[NOTE BY ONE WHO CANNOT WRITE.]

\$111.00

Hamilton, Ontario, Nov. 12, 1915.

One year after date, for value received, I promise to pay A. Ward, or order, One Hundred and Eleven Dollars, with interest at six per cent.

WITNESS TO CROSS:
HENRY STONER.

HIS
JOHN X SNOW
MARK

Note.—The person giving the note, and who cannot write, makes his mark. A note of this kind should, as a matter of caution, be witnessed.

Caution.—Never sign a note, in fact a paper of any kind, for a stranger with whom you are doing business, without first carefully reading it.

If the note is made payable to your order and you desire to sell that note to the bank, or to some person, without making yourself responsible for it, write on the back the words, "Without recourse," and sign your name underneath.

Never give a neighbor or friend an "accommodation note," or lend him your note. I know of a case that happened only this season, where a man went to a firm with whom he had done business for a good many years, and not desiring to ask them to indorse his note, for some reason, asked them for their note for \$3,000 for an accommodation, giving them a written statement that the note was for him to pay, and that he would pay it. Before the note came due the person borrowing it had failed, and thus the firm that was kind enough to loan him their note had \$3,000 to pay without receiving a cent of benefit. Never loan a note, and it is best never to indorse a note unless you are given security for the indorsement.

FORMS FOR DUE BILLS

\$38.42

Montreal, Quebec, Jan. 1, 1915.

Due Stephen Wilson, or order, on demand, Thirty-eight

$\frac{42}{100}$ *Dollars.*

C. H. OYSTERBANKS.

[DUE BILL PAYABLE IN GOODS.]

\$200.00

Williamsburgh, Pa., Jan. 1, 1915.

Due on demand to William Barber, or bearer, Two Hundred Dollars, to be paid in goods from my store, value received.

JOHN DAVIS.

[ANOTHER FORM.]

\$111.00*McLennan, Pa., Sept. 1, 1915.**Due S. H. Upton, One Hundred and Eleven Dollars, to be paid in wheat at the market price when delivered.***SAMUEL M. ADAMS.**

[ANOTHER FORM.]

\$11.50*Pontiac, Mich., Dec. 3, 1915.**Received from Mrs. Henry Holmes, 20 doz. eggs, at 20 cts. a doz., and 30 lbs. of butter at 25 cts. a pound; total Eleven $\frac{50}{100}$ Dollars, to be paid for in dry goods from my store on demand.***L. V. CROFOOT.**

FORMS FOR ORDERS

An order is a written request by one person to another to do an act for the writer's benefit or accommodation, or that of a third party. It is, of course, of no value unless the person to whom it is addressed accepts the order and is willing to perform the act designated.

\$25.00*Toledo, O., Dec. 3, 1915.***JOHNSON, WHEELER & CO.***Please pay to bearer, Fred Smith, Twenty-five Dollars and charge to my account.***D. B. FREEMAN.**

\$43.00*Buffalo, N. Y., Apr. 3, 1915.***STONE, BROWN & STONE.**

Please deliver to bearer, Walter Gresham, Thirty-eight Dollars in merchandise and Five Dollars in cash, and charge to my account.

H. H. HOUSTON.**ALL KINDS OF RECEIPTS**

A receipt is not always conclusive evidence of payment, but it throws the burden of proof upon him who attempts to impeach it. A receipt may be in full of all demands for a special account, in part payment of an account, or for a special purpose. A general receipt in full of all demands is a discharge of all debts prior to the date of the receipt.

The arrangement or wording of a receipt is not important. The object and time, however, must be distinctly stated.

[RECEIPT FOR BILL OF GOODS.]

*Washington, D. C., July 5, 1915.***J. G. THOMPSON,***Bought of JOHN SMITH, SON & CO.*

<i>1 Bedroom Set.....</i>	<i>\$40.00</i>	
<i>6 Dining Room Chairs, at \$1.50</i>	<i>9.00</i>	
		<i>———— \$49.00</i>

*Received payment,***JOHN SMITH, SONS & CO.**

[RECEIPT ON ACCOUNT.]

\$25.00*Detroit, Mich., Apr. 4, 1915.*

Received of Jeff G. Morris Twenty-five Dollars on account.

THE F. B. DICKERSON CO.

[ANOTHER FORM.]

\$23.00

St. Louis, Mo., Oct. 2, 1915.

Received of Henry Hart Twenty-three Dollars on account for repairs made on his house.

H. C. WATKINS.

[RECEIPT IN FULL.]

\$75.00

Windsor, Ont., Feb. 2, 1915.

Received of Sanford T. Wheeler Seventy-five Dollars in full of all accounts.

JARVIS E. SANDS.

Note.—This form of receipt is good against accounts only.

[RECEIPT IN FULL OF ALL DEMANDS.]

\$80.00

Omaha, Neb., Nov. 3, 1915.

Received of G. W. Hookenspleischer & Co. Eighty Dollars in full of all demands to date.

WM. W. WILKINS, SONS & CO.

[RECEIPT OF PART PAYMENT.]

\$21.00

Little Rock, Ark., July 3, 1915.

Received of C. G. Miller Twenty-one Dollars in part payment for services in his shop.

JAS. MILLS.

[RECEIPT FOR MONEY RECEIVED TO MAKE PAYMENT FOR ANOTHER.]

\$50.00

Guelph, Ont., Sept. 6, 1915.

Received of Samuel Strong Fifty Dollars to pay on his account with John H. Jones & Co.

D. S. GRAY.

[A RECEIPT FOR PAPERS, OR ANY ARTICLE.]

Kalamazoo, Mich., March 2, 1915.

Received of George Bardeen, sundry papers, as follows: (Here describe papers, or whatever you have received), which I promise to return to him on demand.

S. W. TURNER.

LEGAL POINTS CONCERNING NOTES

A note made payable at some future time is not due, by the law of nearly all States, until three days after the specified day of payment. These three days are known as "days of grace." If the last day of grace is a Sunday or holiday, demand for payment must be made on the previous day.

A note made in one State and made payable in another must be governed by the laws of the State in which it is made payable.

Notes made by idiotic or intoxicated persons, or minors, are void.

A signature written with a lead pencil is valid.

If a note is drawn and no time of payment specified, the note is payable on demand.

A note lost or destroyed can be collected upon sufficient proof.

Changing or altering a note in any manner after it has been signed is forgery, and a forged instrument is not commercial paper. The one whose name is forged cannot be held responsible.

One receiving a note knowing it has defects or knowing it is void through fraud or upon any legal ground, cannot collect it.

A note given to a person as a present or without consideration, cannot, by law, be collected by that person, but in the hands of an innocent third person it may be collected.

If a note is given by several persons and written, "we promise to pay," it is a joint liability and all the signers must be sued. But if the note reads, "we, or either of us promise to pay, or we jointly and severally promise to pay," then any one of the persons signing it may be sued.

A note is not transferable if the words, "order" or "bearer," are omitted from the face of it.

If a young man gives a note before he becomes of age, the note cannot be collected from him unless he accepts it after becoming of age.

ALL ABOUT CHECKS, CERTIFICATES OF DEPOSIT, DRAFTS, ETC.

About Checks.—A check is a simple order on a bank, from a person having money in the bank, for the payment of a certain sum of money on presentation of the check to the bank. A check is not due until presented.

Giving a check in payment of an indebtedness is not the payment of that indebtedness unless the check is paid when presented at the bank.

If a check has been given and passed from the maker's hands, he may stop payment on it by notifying the bank not to pay it.

The safest rule is always to deposit a check for payment promptly, as the death of the maker before presenting it to the bank renders a check void.



Nearly all large firms have their own bound books of checks, and usually have some special design of their own. The wording of checks, however, varies but little.

Common Form of Check.—The check on this page is a good form of check and is payable to order.

Before the firm to whom the check is made payable can collect the money on it, they must write their name across the back.

Indorsing a Check.—In indorsing a check, note the following directions: Write name *across* the back, not lengthwise of it.

Checks Payable to Yourself.—If you wish to draw money out of your bank on your own account, make the check payable to yourself. For example, if in the check, on page 1199, C. J. Landon wished to draw money he would write "myself" in place of W. W. Warren. He would then indorse his name on the back of it and draw the money from his bank.


 B. F. JOHNSON & CO.,  Dealers in Agricultural Implements.	
<p style="text-align: center;">Pay to the Order of</p> <p style="text-align: center;"><i>Cable Manufacturing Co Boston Mass \$2000</i></p> <p style="text-align: center;"><i>Wm W Landon</i></p> <p style="text-align: center;"><i>C. J. Landon</i></p> <p style="text-align: center;">DOLLARS</p>	<p style="text-align: center; font-size: 2em; font-weight: bold;">First National Bank.</p> <p style="text-align: center;">Buffalo, N. Y. No 27-1892</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">No 202</p>

Making Checks Payable to Some Other Person.—If you wish to make a check payable to some other person, indorse on it "Pay to (person's name) or order," and sign your name.

The person to whom it is made payable must then indorse it before he can draw the money.

Checks in Full of Account.—The check on this page is one made to order of Mr. Warren, and is given in full settlement of his account to date. This check, when paid, answers the same as a receipt in full.

Keep Stubs and Memorandum of Checks.—Be careful to keep an accurate record of all checks on the stubs prepared for that purpose. The \$340.00 on the stub of this check is the amount brought forward from the preceding check. The \$100.50 is the amount deposited in the bank this day, which makes \$440.90 in the bank before this check (No. 193) is drawn. Deduct this check, \$18.49, and there is left \$421.40 which carry over to the next check, and so on.

<p>For the full of acct to date no. 193.</p>	<p>DATE <i>Oct 3^d</i> 1891 to <i>J. H. Warren</i></p>	<p>1891 340 40 100 50 440 90</p>
<p>18 49 421 41</p>	 <p>STATE SAVINGS BANK</p> <p>CLEVELAND, O. <i>Oct 3^d</i> 1891</p>	
<p>NO. 193</p> <p>PAID TO <i>J. H. Warren</i> OR ORDER \$ <i>18 49</i></p> <p><i>Eighteen & 49/100</i> DOLLARS</p> <p><i>in full of acct to date</i></p> <p><i>J. H. Warren</i></p>		

Corporation Check.
 —This is a sample of a check from one corporation to another. Checks are sometimes signed by the president or secretary and treasurer, or whoever is authorized by the corporation to sign checks. Some firms, as in this case, take the precaution of having their checks countersigned by the president or vice-president, when signed by the secretary or treasurer. In the absence of the president they are countersigned by the vice-president, in which case the bank has previous instructions to pay no checks unless signed or countersigned by the president or vice-president. If, in the case of this particular check, the bank were to pay it, being signed by the name of the company by its secretary only, the bank would be the loser in case the payment was disputed.

F. B. Dickerson Company,
MANUFACTURERS AND PUBLISHERS OF
STANDARD SUBSCRIPTION BOOKS
AND
HISTORICAL CHARTS.

COUNTERSIGNED BY *F. B. Dickerson* President.

Chicago National Bank. No. 793

Detroit, Mich. Jan. 2, 1897. \$76.00⁵²

Pay to The Standard Subscription Company on order
 Seven Hundred and Fifty Two Dollars

F. B. Dickerson Company,
Albert H. Smith
Secretary

Certified Check.

—In sending your check off to some distant city, it is always best to send a certified check. Draw your check payable to the order of the person to whom you desire to send the money, but before mailing it, take it to the president or cashier of the bank, and have them certify to it, which the bank will do, provided you have the money in the bank.

When a bank certifies to a check, they are responsible to the holder for the amount.

In sending checks to another city, it is always best to write the name and address of the person in the check. For example make out your check, "Payable to W. W. Warren, St. Paul, Minn."

C. J. LANDON,
DEALER IN
THOROUGHbred CATTLE, HOGS AND SHEEP.

Pay to the order of
W. W. Warren

The Chase National Bank,
Indianapolis, Ind. Aug 23 1897 No. 87

Ind. City, Ind.

CERTIFIED.
The Chase National Bank
OF INDIANAPOLIS. 1897
Telephone or order, \$ 20
Dollars.

W. W. Warren

F. B. DICKERSON.

NO. *72*

PAY TO THE ORDER OF *Wm. & Wm. Co.*

Wm. & Wm. Co.

Wm. & Wm. Co.

189*4*

DETROIT, MICH. *Aug 4th* 189*4*

THE AMERICAN BANKING & SAVINGS ASS'N,

NO. *72* 189*4* *Aug 4th*

PAY TO ORDER OF *Wm. & Wm. Co.*

ON WHAT ACCT. *Spending Account*

BALANCE.	372
DEPOSIT.	100
TOTAL.	472
LESS CHECK.	1800
FORWARD.	45475

Ladies' Check-Book and Personal Accounts.—Keep a separate check-book for your household and personal expenses. I have used the above form as a pocket check-book for many years, and recommend it. The cover, or case, is of flexible leather (from which the check-book, when used up, can be removed and another replaced), and also answers for a pocket-book.—F. B. D.

Certificates of Deposit.—A certificate of deposit is practically a receipt given by a bank to a person who deposits money in the bank. It often occurs that a person desires to deposit money in a bank for a short time. Traveling men or agents often collect money while on the road, and, not wishing to take the risk of carrying it on their persons, deposit it in a bank for safe keeping. In such cases they usually take from the bank a certificate of deposit like the one on this page, and as the money is to remain in the bank but a short time, it draws no interest. Any one making collections should deposit their money each day, and not take the risk of carrying it around.

A certificate of deposit cannot be checked against.



The Farmer's Savings Bank

OF DES MOINES.

No 4444

Des Moines, Ia. Dec 9 1892 \$100

Mrs. Mary M. Watson had deposited in this Bank.

Five Hundred Dollars

Payable to the order of herself
on the return of this Certificate purchase of

Wm. H. Garrison

Cashier.

Certificates of Deposit Drawing Interest.—Nearly all banks pay a small rate of interest on money left with them on certificate of deposit if left for any length of time; but when money is left in a bank on deposit with the understanding that it should draw interest, the certificate of deposit should so state.

If the money is taken from the bank before the time specified in the certificate of deposit, the one depositing the money will not be entitled to receive interest thereon.

There is no particular law as to what official of the bank shall sign certificates of deposit. Sometimes the cashier only signs them, and sometimes the cashier and teller, or the cashier and some other official of the bank.



Home Savings Bank

No. 92.....
\$ 1000 ⁰⁰/₁₀₀

Columbus, Ohio.

Wm. A. Howard Deposited in this Bank

One thousand Dollars

payable to his or order

in current funds, on the return of this Certificate properly endorsed, with interest at the rate of 4 per cent per annum, if left for 12 months

This deposit made subject to the rules and regulations of our savings department.

E. H. Hance

Teller.

J. B. Menden

Cashier.

The Clearing House—What It Means.—During the trying times of the summer of 1893, the clearing house was an important factor in aiding many banks to withstand the drain upon them, and the publishers think it advisable to explain in this connection what the clearing house is.

The clearing house is organized entirely to facilitate business between the different banks located in a city, and it is ordinarily used for no other purpose than to collect the large number of checks which each bank holds on all other banks. This is accomplished by meeting promptly at a certain hour every business day and delivering to the other banks the checks one bank holds on them, and all of the other banks to each bank the checks held on that particular bank.

Each bank when it goes into the clearing house daily is *credited* with the total amount of checks it has on all other banks, and it is *charged* with the total amount of checks all the other banks have on it. The difference between the credit and the charge above referred to constitutes the balance, which it has to settle in the clearing house.

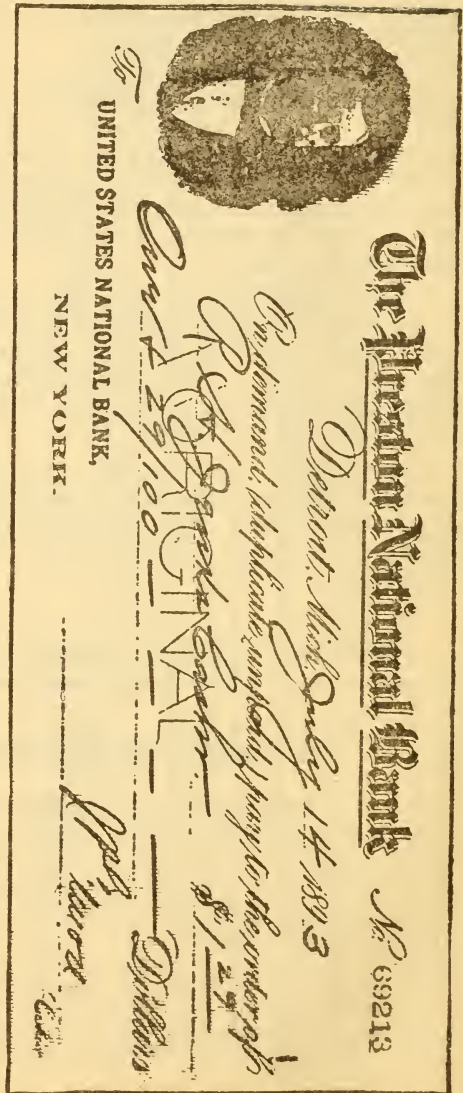
In times of panic, or for other reasons, members of the clearing house meet together and unite in some uniform action to protect each other's interests, as in 1893, when they issued certificates and loaned them to banks with which to pay their balances.

[COPY OF A CLEARING HOUSE LOAN CERTIFICATE.]

TEN THOUSAND DOLLARS	No.....	\$10,000
	Loan Committee of the Detroit Clearing House Association	
	<i>Detroit, May 1, 1906.</i>	
	<p>This Certifies that the PEOPLE'S NATIONAL BANK has deposited with this Committee securities in accordance with the proceedings of a meeting of the Association held April 14, 1906, upon which this Certificate is issued. This Certificate will be received at the Clearing House for the sum of</p>	
	<p>TEN THOUSAND DOLLARS from any member of the Clearing House Association.</p>	
	<p>On the surrender of this Certificate by the depositing Bank above named, the Committee will indorse the amount as a payment on the obligation of said Bank, held by them, and surrender a proportionate share of the Collateral Security held therefor.....</p>	<p>..... (Signed by each member of the Committee.) Committee.</p>
	\$10,000	

ALL ABOUT BANK DRAFTS

A bank draft is the written order of one bank on another, specifying a certain amount to be paid to the order of some particular person or firm. Such drafts can be cashed at any bank. New York City and Chicago are the great banking centers of the United States, and most of the leading banks throughout the country have money on deposit in these places, or in some other large city. When the cashier of one bank issues his draft on another bank, the draft is considered absolutely safe, and after being indorsed by the person in whose favor it is drawn can be cashed almost anywhere. For example: F. B. Dickerson Company have money on deposit at the Preston National Bank, Detroit, Mich. If they owe the Barden Paper Company of Kalamazoo, Mich., say five thousand dollars, they may remit by sending their own personal check, (see form, page 1198), or



had been mailed, it would be worthless, provided the firm sending it had failed. Hence, bank drafts are always preferable to private or personal checks.

Parties to a Draft.—There are, ordinarily, three parties to a draft—*drawer*, *drawee* and *payee*. The *drawer* is the party who makes the demand; the *drawee*, the party upon whom the demand is made, and the *payee*, the party to whom payment is to be made, or in whose favor the draft is drawn. If the drawee agrees to the draft, he is the *acceptor*, and when he writes his name on it the draft is called an *acceptance*. Besides these, there are the indorser, indorsee, etc., as on notes.

Drafts, like notes, may be negotiable or non-negotiable, and are subject to the same laws as notes in that respect.

Drafts are drawn by merchants upon each other to raise money or settle accounts. A merchant shipping a large quantity of goods to another to sell on commission, usually draws on the party for a part of the costs and discounts it at the bank, or passes it to another merchant in the course of business. This kind of paper is called a *mercantile draft*, to distinguish it from one issued by a bank, which is called an *exchange* or a bank check or draft, and is not so available for transmission as the bank draft or exchange. It is a part of the business of a banking house or exchange office to buy this mercantile paper, send it home for collection, and in the meantime sell exchange on the banks to which they transmit it for such sums as may be demanded.

Drafts with Bill of Lading.—Frequently a consignor, after shipping his goods to a party to sell for him on commission, desires a portion of the money at once, and not to be compelled to wait until either the goods arrive at their destination or until they are disposed of. To meet his requirements or wishes, he makes an arrangement with the party to whom the goods are shipped as to the amount to be advanced, and draws on him accordingly. The time of the draft is also to be agreed upon—at sight, three, ten or more days—but the time must be stated in the draft. He then attaches the draft to the bill of lading (see Bills of Lading) and deposits the same in the bank for collection. Of course, it is unnecessary to say that a merchant will require the best of references as to the reliability of the shipper before he will accept and pay the draft, as the bill of lading is only evidence that certain freight has been sent, but no evidence that it is what has been represented.

Drafts Drawn.—A draft on a party who has received proper notice of the intention of a firm to draw, is usually made payable to the order of the bank with which the firm does its business.

Note.—The form on page 1205 is the usual form of a mercantile draft. Thompson Bros. & Co. are the drawers; A. B. Bowen the drawee; and the Commercial Savings Bank the payee.

Drafts Accepted.—When a bank messenger or express agent presents a draft for acceptance, the person on whom it is drawn should examine his account, and if the amount of the draft is found to correspond with the amount due, he should accept the draft by writing his name and the date across the face of it. If, by any means, the draft is found to be for a larger sum than is really due, acceptance may be refused, and at the same time, so as not to inconvenience the creditor, it is best to send him an accepted draft filled up for the amount really due him, and he should be notified by the first mail of the reason why his draft was dishonored. The acceptance should always be written by the drawee himself, or, if the book-keeper or other party has been made the legal representative of the drawee, he is competent to do so, but must always add his own name, after the words, "by his or their attorney."

The person on whom the draft is made should also make sure that the signature of the drawer is genuine, as it is presumed that he is acquainted with the writing of his correspondent, and can recognize his signature. For this reason, all drafts on parties should in every case be signed by the same party in the firm, as frequently the only proof of genuineness is the handwriting, unless the draft has been presented by a bank messenger, who is supposed to be acquainted with the acceptor and his signature.

Caution—Corporations and Societies—If a person is agent or treasurer for a corporation or society, he should use great care when he gives a note or accepts a draft in behalf of the corporation or society, *to sign the name of the corporation first*, then add his own name as treasurer or agent, or whatever his office may be termed. If he only adds the title to his own name, and does not state what he was officer of, he is personally liable for the amount as though he actually intended to become responsible.

There are Three Different Kinds of Drafts—Time, Sight and Demand.—A time draft is one which is not payable until a

certain number of days, mentioned in the draft, has elapsed, in addition to which it is customary in most commercial centers to claim and be allowed three additional days of grace. A sight draft is payable at sight, though, as with time drafts, the party on whom it is drawn is generally entitled and is allowed the three days of grace. A demand draft must be paid by the party on presentation, without days of grace. In regard to days of grace, the statutes of Canada give a legal right to them, while the statutes of the different States vary, some allowing it as a right, while in a few others the claim is not allowed.

Bank Notice.—Banks usually have messengers whose duty, among other things, it is to deliver printed notices, duly filled out, advising the recipients of the date of maturity of their mercantile paper, either notes or drafts. These notices are, however, sometimes sent by mail, and should always be kept in sight as reminders. If the draft or note that the notice advises about is not paid before the close of banking hours on the day that it falls due, it will go to protest, and be returned to the party who made it. This is considered a business catastrophe reflecting very great dishonor upon the payor, and will have the effect of utterly destroying a merchant's credit if allowed to occur many times, aside from the law expenses which it entails upon the defaulter. Don't, however, trust to bank notices as much as to your own bill-book—keep that correct, and don't dishonor your acceptances.

Acceptances.—Very often a draft is sent to a party on whom it is drawn for his acceptance before the same is deposited in the bank for collection, as by first getting it accepted it facilitates its being cashed or discounted at the bank where it is deposited. The acceptance is made by the party on whom the draft is drawn, by his writing the word accepted, and signing his name, with date either above or below the signature, across the face of the draft.

Drafts or Checks Payable to Yourself.—If a draft or check is made payable to you, or your order, and your name is spelled wrong on the face of it, first indorse your name on the back the way it appears on the *face*, under that write your name correctly.

Draft Sent to Foreign Countries.—Drafts on foreign countries or distant places are sometimes drawn in duplicate or triplicate, that is, in sets of two or three, each draft referring to the others of the set. They are then sent by different routes or conveyances. The object is to lessen the chances of loss in transmission, as some one of the set is likely to reach its destination. When one of the set is paid the others are cancelled.

How to Indorse Checks. — Nowadays nearly everyone who transacts any business keeps a bank account, and checks are the most common commercial paper in use. It is astonishing to see how ignorant many intelligent people are as to the proper way of indorsing checks.

Simply writing your name on the back of a check, as No. 1, makes it payable to any person into whose hands it may fall. Indorsing a check as No. 2, makes it payable to that particular person who must himself indorse it before he can collect the money. In indorsing

a check made payable to yourself over to some other person, it is always best to use No. 2 indorsement. If a check or note is made payable to yourself, and you wish to indorse it over to some other person, without making yourself responsible, indorse it "without recourse," like No. 3. (See Laws of Checks.)

Indorsing Partial Payments on Notes.—Payments on notes should always be promptly indorsed on the back. Neglect of this may cause unnecessary litigation. No. 4 is the proper form of indorsement.

(No. 1.) INDORSEMENT OF CHECKS.

W. W. Warren

(No. 2.)

*Pay to the order of
James Calahan
W. W. Warren*

(No. 3.)

*Pay to the order of
James Calahan
without recourse
W. W. Warren*

(No. 4.) HOW TO INDORSE PARTIAL PAYMENTS ON A NOTE.

*Received on the within note
Oct. 3^d 1892,
Fifty Dollars (\$50⁰⁰)
March 9th 1893
Seventy five (\$75⁰⁰)*

BUSINESS CORRESPONDENCE

To every man this is a matter to which too much importance cannot be attached. The correspondence of all business houses is of value, while to many, it is practically their stock in trade, as almost their entire business is done through correspondence. Every year the amount of business done through the mails is increasing, and the demand for young men of business ability constantly growing.

This part of this book is not intended for the already practical business man, but is intended for mechanics, the farmer, and the young man. From this department any one can learn all the principles of business and business correspondence. The examples, the *why* and *wherefore*, are purposely made so simple and plain, that what to do and what not to do may be thoroughly understood by all. A woman cannot profit herself more than by becoming familiar with the ordinary laws of business. The time may some day come when the knowledge gained from this department will be of the greatest value to her and hers.

A business letter should be brief and to the point, yet clearness should never be sacrificed in order to secure brevity. Endeavor to make your meaning perfectly clear, and use as few words as possible to do it. In penmanship, avoid everything in the nature of flourishes, and, as well, a careless style of writing, that renders words indistinct and liable to be mistaken for others. Mistakes are expensive—they cost both time and money—and one-half that are made in business transactions might be avoided by a very little care.

It is a most excellent rule in business to copy every letter in which anything is said that there is the least possibility of being referred to in future. It not only enables one to be sure of *just exactly what he said*, but affords a current history of a man's business that is useful in many ways.

In answering letters, follow the same order that is observed therein, discussing each subject thoroughly before proceeding to the next.

If one's business correspondence is at all extensive, the letters

should be filed away in alphabetical order as soon as answered, so that any letter may be readily found when reference is desired to be made to it. For fifty or seventy-five cents a letter-file can be purchased that will last the average person a lifetime, and in which all letters, bills, receipts, etc., can be kept in systematic, alphabetical order. By all means, have one, and begin now to keep your correspondence and your business matter in a systematic shape.

Don't write a letter like the one on the following page. Such a letter disgusts any firm, as this one (which is an actual letter) disgusted me, yet many of them are received from apparently educated, intelligent, but careless, shiftless persons. The writer of this careless letter was a college-bred man—but a careless man. At least, such a letter indicates carelessness. No business house would, for a moment, entertain the idea of employing a young man who would write them such a letter. Young men and young women, be neat and tidy about your letters. Write them plain and readable, and in proper form, even if you do write a fine hand; and if you cannot say all you desire on one sheet without scribbling all over it, take another. Get your letters up in proper form, no matter what sort of a penman you are. (See forms for beginning and closing letters.)

Note the difference in the slovenly, carelessly written letter, by a young, intelligent, educated, but careless man on the following page, and the school-boy letter on another page. The latter is evidently a copy of some form, but carefully and neatly written and arranged. The only criticism on the school-boy letter is that the beginning of the lines on the left-hand side should be straight up and down, and he has spelled "merits" wrong. The form is correct, the letter neat and readable.

Don't write any house with which you are doing business a great, long letter about nothing.

Don't annoy a business man or firm with any of your private or family matters, but state your business in as few words as possible, and close your letter.

Don't write anything pertaining to money matters, or anything of importance, on a postal-card.

Don't order goods, or anything of any description, on a postal-card; use a sheet of paper, and make out your order in a clear, business-like manner. (See forms for orders.)

Don't write all over a sheet of paper, like sample (which is a copy of a real letter) on next page. If you cannot get all you want to say on one page, use another sheet. Time is valu-

able, and you have no right to take up the time of any one by compelling him to decipher such a mixed-up, slovenly and unintelligibly written letter as the specimen.

Don't court the bad opinion of any firm by being guilty of writing a letter in poor form. Write a letter over half a dozen times, if necessary, to get it right and readable.

Don't use flourishes in a letter, nor write all over an envelope when directing it.

Don't use a postal-card when you have more to say than can be said on it without writing all over the margin.

Don't delay answering a business letter. Be prompt.

Don't neglect to date your letter, and to give name of post-office and state; if a small place, give the county, also.

Don't neglect to copy all important letters.

Don't neglect to enclose a stamp when writing for information benefiting yourself only.

Don't get into the habit of putting a postscript to your letters, as it indicates thoughtlessness.

Don't send a letter having erasures and blots—write it over again.

Don't write a letter of a social nature on a half sheet. Business letters may be written on a half sheet, but social letters, never.

Don't neglect, in sending money in a letter, to state the amount, and whether by draft, check, express order, etc.

Don't seal a letter of introduction, or recommendation, as the bearer, to whom it is given, should know its contents.

Don't address a person in a letter, or on an envelope, by using both "Mr." and "Esq." "Mr. Peter Smith," or "Peter Smith, Esq.," is correct.

Don't leave a margin on the right-hand side of the sheet, but *always* leave a margin of about half an inch on the left-hand side.

Don't write on both sides of the sheet, if you are writing for a paper, or writing anything to be printed.

Don't apply to a business house for a position as correspondent or clerk if you are a poor and slovenly writer. Even a poorly written letter, if neatly and properly arranged, as to form, etc., will command more attention from a business house than fine penmanship, if carelessly and slovenly arranged. Business houses do not desire the discredit or inconvenience of careless writing.

Don't neglect to keep a letter-file, and file away all letters, bills and receipts. Never destroy a receipt, and never a letter of any importance.

Denver Colorado,

May 3^d 1886.

W. W. Barton & Co.;

Omaha Nebraska;

Gentlemen:

The bearer, Mr. Walter Beard
being about to leave our employ, it
gives pleasure to testify to his merits
as a clerk, the capacity in which
he served us. He has been with us
the past four years, and during
this time has discharged his
duty with skill and ability. He
has been punctual at his work,
courteous in his manners, and by
care and attention to our business
has made himself especially val-
uable.

He bears a good character as a
gentleman, as well as a man of business.

Yours very truly
Brown Bros.

WRITTEN BY A SCHOOL-BOY.

PROPER FORMS FOR BEGINNING LETTERS

Columbus, Ohio.

July 15, 1915.

Mrs. Susan Waterman,

Dear Madam:—

Please accept my, etc.

Kalamazoo, Mich.,

May 14, 1915.

Messrs. Orr & Lembowen,

116 Liberty St.,

New York City.

Gentlemen:—Please ship, etc.,

Warren, Trumbull Co., Ohio.

January 8, 1915.

F. B. Dickerson Co.,

Detroit, Mich.,

Gentlemen:—

Enclosed please find \$87.00, etc.

Detroit, Mich., Jan. 12th, 1915.

Mrs. Jennie Donovan,

Kansas City, Mo.

Dear Madam:—We have just received your favor of the 8th, enclosing draft for \$87.00, etc., etc.

It is also proper to write the place and date, only, at the top, and the name and address of the person written to, at the lower left-hand corner; but the above forms are preferable.

PROPER FORMS FOR CLOSING LETTERS

SOCIAL FORMS.

The dotted line represents the last line of the letter.

.....
Sincerely yours,
Lucy M. Marlin.

.....
Very sincerely yours,
Bayard Woodward.

.....
Yours, My Dear Friend,
Affectionately and faithfully,
Wm. J. Cowden.

BUSINESS FORMS.

.....
Yours truly,
Joseph A. Wheeler.

.....
Very respectfully yours,
Bardeen Paper Co.

.....
**I remain, Gentlemen,*
Yours very truly,
Simeon Westover.

*"Remain" implies previous correspondence, and must not be written unless you have previously written the person.

FRAUD AND SWINDLING SCHEMES

It would seem that in this day and age, when every form of fraud and swindle is promptly reported in the newspapers, and when every intelligent man takes one or two papers, that it would be a waste of space to give in this book some of the schemes that swindlers resort to; yet the same old frauds and swindles are perpetrated almost every day, and it is thought a page or two, devoted to some of them, may be of value to many purchasers of this volume. New schemes are being constantly invented by the swindling fraternity. Beware! they are everywhere and in all sorts of enterprises. In doing business with a stranger, satisfy yourself that he is engaged in a legitimate business, and *sign no paper without carefully reading it.*

At places of public gatherings such as county fairs, etc., there are card swindlers, cane schemes, dice, wheels of fortune, etc., and all sorts of schemes to show how you can get *twenty* dollars for *one*. *Let them alone.* Never bet or gamble or try to get something for nothing. *You can never beat a man at his own game.* Never try to get the best of a sharper, who, when he thinks you are looking, slips a *twenty dollar* bill into a box, a package, or an envelope, and then offers the box or package for sale; you will get stuck every time. Don't buy any article that is not worth the price, and when you do buy, buy of some person engaged in a legitimate business.

The Most Prominent Swindling Schemes.—THE AUCTIONEER of cheap jewelry, who pretends to put a large bill into a watch and offers it for sale.

THE COUNTERFEIT MONEY SWINDLE, which is usually conducted through the mails, and by circulars. For a small sum, the victim gets a greater sum of counterfeit money, and is liable to be sent to the penitentiary if he uses it. Never bite when you are offered more than a dollar in cash for a dollar. Counterfeit money is dear if it is to be had for nothing.

THE LIGHTNING ROD SWINDLE.—The scheme is to sell the lightning rods, and to take pay, usually in the form of a swindling note or contract, which is placed in the hands of an *innocent third party*, and can be collected. My advice is never to buy a lightning rod; I think they are a humbug; but if you do buy one, deal with some responsible house.

THE WIRE FENCE SWINDLE.—Buy your wire and build your own fence; you can do it much cheaper; avoid dealing with the agent who pretends to supply you with a better fence at a lower price than you can build it for yourself.

PATENT FENCES, PATENT GATES, ETC.—The sleek, well-dressed young fellow calls, shows you fine samples, offers you a dooryard or garden fence, or gate, at a very low figure, and finally offers you a *special discount*, provided you will take the agency for your township, for which you are to give your note for a certain amount of the goods; when the goods are shipped, you find that it costs you twice as much to build as was represented to you, and are swindled.

FARMING UTENSILS SWINDLE.—A slick scheme to catch the farmer it is too. A fellow comes along with a wagon-load of fanning-mills, or some sort of farm machinery; claims that he must go off to some other place, and will return in a few days; and asks the privilege of storing his machinery in your barn. The unsuspecting farmer (farmers being the most accommodating class of people in the world), gives his permission. After the machines are stored away, the sharper casually remarks: "This is the last of a large lot that I ordered for this county, and I have got to go over to Ottawa and take care of a car-load that has just arrived for that county," and says to the farmer: "If you will sell a couple or so of those machines while I am gone, I will give you half." The offer is a big and tempting one; the farmer is asked to sign his name to a document just to show how many machines are left with him, and what the agreement is, if he sells two or three. Without reading it, or perhaps not understanding it, if he does read it, Mr. Farmer signs his name. Thirty or sixty days afterward he is astonished when called upon by some other

Indianapolis, Ind., Feb 16th 1884—

One year after date I promise to pay to James Brown or X leaves four 85.00 Dollars, when I shall by order, Four Hundred Fifty Dollars, with of his Patent Gray Bonds, for value received, at seven per cent. per annum sixtyfour 50 Dollars when due & payable at the Indianapolis Savings Bank.

W. D. SIMMONSON X Name. J. B. Munson Agent.

C.R.-78

man to pay a large amount for the machinery which is stored in his barn.

A Swindling Contract or Note.— This form of a swindling note is old and has many times been exposed, still it catches many victims yet. The slick man, as represented in the opposite cut, for the sum of \$4.50, pretends to give his victim an agency, the \$4.50 to be paid when a certain amount of goods have been sold. By cutting off the right-hand end, where indicated by X, it becomes a promissory note for a large amount. No wonder the farmer is astonished when he is called upon to pay *four hundred and fifty dollars*.

Never sign any paper for a stranger without carefully reading it; especially if he claims to offer a big thing for a trifling amount of money, or if he pretends to guarantee you, by some catch contract, what you do not earn.

Purchasing or Wholesale Agencies.—In a number of large cities there are so-called “Purchasing or Wholesale Agencies.” The plan is for agents to sell “Memberships,” the usual price being \$5.00. By becoming a member, you are told that you can buy anything, from a paper of needles up to a mowing machine, at wholesale prices. Anything that you can buy of a “Purchasing Agency,” you can buy just as cheap in any city, and you are out what you pay for your “Membership.” There are reliable institutions that sometimes furnish dry goods, etc., at a discount and sell by catalogue, but they do not go around the country selling “Memberships.” As a sample, there was a concern under the name of the “Farmers’ Alliance Wholesale Association,” which claimed that they represented the Farmers’ Alliance, and sold a good many memberships for \$5.00 before they were exposed. On investigation it was found that all they had was invested in the highly printed and showy membership certificates.

All Kinds of Agents.—Never pay an agent, no matter what he is selling, or how legitimate his business may be, in advance, or before the article is delivered to you, and found to be the article you ordered. If, for instance, you subscribe for this book, do not pay the agent until he delivers the book to you. Never pay cash or give a note to a stranger for an article to be sent to you or delivered to you at some future time. *Don't try to get something for nothing*, unless you expect to be swindled.

HOW TO CALL, ORGANIZE AND CONDUCT PUBLIC MEETINGS

This, perhaps, does not properly belong in the "Business Department," yet no man can consider himself familiar with *business matters* who does not know the simple methods of conducting public meetings.

In calling the people together in any public meeting, and introducing resolutions that shall embody the sense of a meeting, much written business is required that may properly be considered here.

To show the manner in which a meeting is convened, called to order, organized and conducted, we will take a political gathering as an example.

Fred Sampson, who lives in the town of Bushnell, being a zealous prohibitionist, is desirous of having a prohibition meeting in his town just before election. He, therefore, consults with Wm. Hammond, John Boynton, George Wallace, and others who have a certain influence in the township, as to time and place of holding the meeting. Arrangements are also made with two or three persons, accustomed to public speaking, to address the meeting.

Notice is then given, by written placards or printed posters, somewhat as follows:

PROHIBITION MEETING

All citizens of Bushnell who favor the principles of PROHIBITION are requested to meet on Thursday evening, October 1, at the JOHNSON SCHOOL HOUSE, at 7 o'clock, to take such action as may be deemed best to promote the *success of the party* in the COMING ELECTION. The meeting will be addressed by the REV. G. W. WHEELER, HON. F. S. WATSON, and others.

The projectors assemble at the place of meeting early, and decide, from an examination of those present, upon some person who will make a suitable presiding officer, and secretary, or these persons may be selected previous to the meeting, with the understanding that they will be present.

Selection of Chairman.—Half or three-quarters of an hour is usually given from the time the meeting is appointed, for general conversation, while the audience is assembling. At the proper time Fred Sampson steps forward and says:

“The meeting will please come to order.”

As soon as the audience becomes still, he continues:

“I move that John Boynton act as president of this meeting.”

George Wallace says:

“I second the motion.”

Mr. Sampson then puts the question as follows:

“It has been moved and seconded that Mr. John Boynton act as president of this meeting. All in favor of this motion will manifest it by saying ‘Aye.’”

As soon as the affirmative vote has been expressed, he will say:

“Those who are opposed will say, ‘No.’”

If the “Ayes” predominate, he will say:

“The ‘Ayes’ have it. Mr. Boynton will please take the chair.”

If, however, the majority say “No,” he will say:

“The ‘Noes’ have it; the motion is lost.”

Thereupon he, or some other gentleman, will nominate another person, or put the question upon the nomination of some one else, as above.

As soon as the chairman, or president, is chosen, he will take his place.

Appointment of Secretary.—Henry Gleason then says:

“I move that Mr. Harvey Wood act as secretary of this meeting.”

This motion being seconded, the chairman puts the question, and declares the result as above.

The meeting is now organized. The chairman will direct the secretary to read the call or object of the meeting, or, if a copy of the call is not to be obtained, he will ask one of the projectors to state the object of the meeting.

Order of Business.—The call being read, or stated, the president will say:

“You have heard the call, and understand its object; what is the further pleasure of the meeting?”

Mr. Hammond thereupon says:

"I move that a committee of three be appointed by the chair to draft resolutions expressive of the sense of the meeting."

This being seconded by some one present, the chairman then says:

"Gentlemen, you have heard the motion; are you ready for the question?"

If any one desires to speak against the motion, or has any remark to make, he arises, and says:

"Mr. Chairman."

The chairman turns toward the speaker, and listens to him, and to each in succession. When they are all done, or in case no one responds to the call, he puts the question in the previous form, and declares the result.

Committee on Resolutions.—The resolution being adopted, the chairman says:

"I will appoint as such committee, Arthur Brown, John Worden and Peter Anderson."

Where a motion is made moving the appointment of a committee, it is parliamentary usage to appoint, as the first person selected on such committee, the mover of the resolution, and the custom is that the first named acts as chairman of the committee.

The committee withdraws to prepare the resolutions, or to examine those previously prepared for the purpose.

Upon the retirement of the committee, the audience will call for the leading speakers of the evening to address the meeting. When the speeches are concluded, the chairman of the committee comes forward, and says:

"Mr. Chairman, the committee report the following resolutions."

He then reads the resolutions, and gives them to the secretary.

The chairman now says:

"You have heard the resolutions, gentlemen. What shall be done with them?"

Wilbur Holder says:

"I move they be adopted."

The motion is seconded.

The chairman then says:

"The question on the passage of these resolutions is now before the house. Are there any remarks to be made on the subject?"

If there is considerable business to be transacted, the chair-

man may dispatch such business more rapidly by immediately putting the question without inviting remarks.

If no objections are made, the president will put the question, and declare the result. The formality of appointing a committee may be avoided by the resolutions being introduced and read by one of the projectors of the meeting.

The resolutions adopted, and the speeches concluded, the chairman will ask:

“What is the further pleasure of the meeting?”

Adjournment.—If there be no further business, some one moves an adjournment. As the question of adjournment is not debatable, the chairman puts it direct. If carried, he says:

“The meeting is adjourned.”

If thought best to call another meeting, and a time is specified in the motion to adjourn, the chairman will declare:

“The meeting is adjourned to the time fixed upon.”

The foregoing, it will be seen, by varying the call, and changing the business to suit, will answer for most political gatherings, or any public meeting.

If it is desirable to make the proceedings public, it is the duty of the secretary to fully write up the business of the meeting, and transmit the same to the nearest newspaper favorable to the cause. If the meeting be of sufficient importance, it may be well for him immediately after being chosen to fill the position, to move the appointment of one or more assistant secretaries, who will aid him in writing up the proceedings for two or three newspapers.

The Secretary's Report.—The secretary's report of a meeting will, of course, vary according to circumstances. In the record of the foregoing meeting, it would read as follows:

“Pursuant to call, a meeting of the citizens of Bushnell, favorable to prohibition principles, was held in the Johnson school house on Thursday evening, October 1, John Boynton being chosen president of the meeting, and Harvey Wood appointed secretary.

“On motion of Mr. Hammond, the chairman appointed as a committee on resolutions, Messrs. Arthur Brown, John Worden and Peter Henderson.

“During the absence of the committee, the meeting was very ably addressed by the Rev. Wheeler, of Amsden, Hon. F. S. Watson, and others, who urged upon their listeners the importance of earnest and vigorous work in the coming campaign. The

meeting was a harmonious and enthusiastic one, and the cause of prohibition will triumph in the county if the people but awake to the importance of earnest, effective work.

"The committee on resolutions reported the following which were unanimously adopted.

(Here the secretary inserts the resolutions.)

"On motion, the meeting was adjourned to meet in the town hall the first Tuesday of next month (November), at 7:30 P. M."

Complete parliamentary rules are not given here, as they can be obtained in convenient pocket form at very small cost, and the aim here is to give only the usual forms for calling and conducting ordinary meetings.

BOOK-KEEPING AND LEDGER ACCOUNTS

"Book-keeping is the science of accounts, and the art of recording business transactions." A business transaction is an exchange of values. The debtor is the person who receives value and the creditor is the one from whom value is received. "Debits are entries against debtors; credits are entries in favor of creditors."

Ledger Account.—An account is the record of one or more business transactions, arranged under some title, so as to show the proper debits and credits. There are two methods of book-keeping—single entry and double entry. We will consider single entry only because it is more simple and practical for ordinary use. We will also consider only the simplest form of the single entry method and in this form the ledger is the only book used. In the ledger the results of business transactions are arranged under suitable titles, and the debits are separated from the credits. Two pages of the ledger are used for an account and credit entries are placed on the right hand page while debit entries are placed on the left hand page. In the keeping of simple accounts both the entries and the rulings of the pages may be in black ink only but when colors are used in the ledger the horizontal lines are as follows: First, single blue line; second, double red line; all other horizontal lines, single blue lines. The vertical lines are then as follows: First, single red line; second, single red line; third, double red line; fourth, single red line. The number of the page should be written at the upper outside corner far enough from the top to look well and as far from the side as from the top. The page number should be written in black ink. Spaces extend across the page and columns extend vertically. The name of the account and "Dr." should be written on the first line of the debit side and the name of the account and "Cr." should be written on the credit side. The name of the account should be in the center of the page and "Dr." and "Cr." should be over the money columns. Black ink should be used on the first lines. The year and month is written in the first column on either side and the day of the month is written in the second column. In the third column on the debit side is written a record of the transactions producing debits and in the third column on the credit side is written a record of the transactions producing credits. On the debit side in the fourth and fifth columns are written debit dollars and debit cents and in the fourth and fifth columns on the credit side

are written credit dollars and credit cents respectively. Black ink is used in all columns except for closing entries which are made in red. Black ink is always used when an entry is made in its proper place and red ink is used when an entry is made out of its proper place.

To close a ledger account:—"Add each of the money columns;* take the less amount from the greater; place the difference on the smaller side with red ink; draw a single red line across the money columns; foot the money columns; draw a double red line across the date and money columns. The difference is entered on the smaller side in order to balance the account and it is entered in red ink because not in its proper place. Of course if the balance were paid then the entry would be made in the proper place and with black ink. If the balance is not paid it should then be written in black ink below the balance lines on the opposite side of the account from the red ink entry. There will be no red ink entry, of course, when the debit and credit sides are equal. When there is only one amount on each side of the account of course the footings of the money columns and the single red lines will be omitted in balancing the account.

Cash Account.—

On the debit side of the cash account should be entered the amount of money on hand at commencing, and all money afterward received. All money paid out is entered on the credit side. To close the cash account first add the debit amounts which in this case is \$130.00. This is the total amount of receipts for the month. Then add the credit amounts which is found to be \$79.80. This is the total disbursements or money paid out. Next subtract the less amount from the greater, and enter the difference on the credit side with red ink. This difference is found to be \$50.20 which is the amount of cash on hand. This difference is called a balance because it serves to balance the account. The balance is entered in red ink because it is not in its proper place. Next draw single lines under the figures opposite each other across the money columns. Then foot the money columns and draw double lines across the date and money columns. Then bring down the red ink balance on the opposite side, below the balance lines, with black ink. This is the amount on hand at the beginning of the next month.

*Note:—For convenience, single blue horizontal lines are omitted in ruling the accounts given in this book.

KEEPING ACCOUNTS

Everybody should keep an account of his receipts and expenditures. The first thing parents should do, is to teach their children the value of a dollar by requiring them to keep an account of what they get with it. In any business, the value of money is the first important thing to learn. It can be learned in no better way than by keeping strict account of where the money comes from and where it goes. The farmer should keep an account with the hired man; the hired man with the farmer. The wife should keep an account with the hired help in the house; and the help with her. Every business man keeps an account with his help; so let the farmer, the mechanic, the laborer, be a business man, and also keep an account with the persons he has to deal with. Husbands, teach your wives and children business by teaching them, also, to keep accounts. In some cases I know of, the wife is the best business head of the family.

It is not intended that this work shall be, in any sense, a systematic treatise on book-keeping. I give one or two simple and easy forms for keeping accounts, easily followed by any one who can write. I advise farmers to keep an account with each field, as well as with his stock, so that at the end of the year he can tell how much each field of corn, wheat or oats has profited him, as well as his stock. The fields could be named or numbered, and an account kept with them the same as if they were persons.

In keeping accounts, there are two principles involved—the debtor and the creditor. Dr. stands for debtor, and Cr. for creditor. The *left*-hand side of an account is the *debit*, and the *right*-hand side the *credit*. If you sell John Jones a bushel of potatoes, he credits you with them, and you debit him. If you are working for a man, you debit (charge) him with the price of your labor each day, or at the close of each week or month, and credit him with what he pays you, or whatever he buys for you. Or, accounts may be designated by *receipts* (credits), or by *payments* (debits).

Account Books.—The number and kind of books required for a business depend on its extent, the method of book-keeping adopted, or the knowledge or taste of the merchant or book-keeper. Some kinds of business, such as manufacturing or commission, require many books. As stated before, my aim is only to

aid those people not engaged in regular manufacturing or mercantile business, and a limited cash business may be conducted in a common memorandum or pocket cash-book. The front part of book can be used as a private cash-book, and the back part as a ledger, as no person does business on a strictly cash basis, and it is a great convenience to have a few pages that can be used to keep account of transactions where cash is not paid the day of the transaction. If used as a combination cash-book and ledger, it will be necessary to have the part used as a ledger paged, and on either the first or last page, a small index might be made. That is, you would write down the names of the persons you have an account with, and opposite the names, the pages the account is on; this will be a great convenience in looking up an account or making a charge or giving credit for payment.

Every young man and every young lady should be taught early to keep a careful account of their expenditures. They should be able to tell at any time where their money came from and what became of it.

The first account is with a merchant. On the left-hand page he is debited with everything you have let him have, and on the right-hand page he is credited for everything you have purchased of him. On the 31st day of December, 1915, you wish to settle this account, which is done in the following manner.

In the first place, you add the sums in the money columns of the debit side of the account, and find they amount to forty-six dollars and fifty-nine cents, which is the sum total of all that you have let him have. You next add the sums in the money columns of the credit side, and find they amount to seventy-eight dollars and eighty-three cents, which is the value of all the articles you have purchased of him. You then subtract the forty-six dollars and fifty-nine cents, the amount you have let him have, from the seventy-eight dollars and eighty-three cents, the amount purchased of him, and find the difference to be thirty two dollars and twenty-four cents, which is the amount you owe him. You then pay him the amount, and enter it on the debit side of his account, "To Cash to Balance." The debit and credit sides will now foot up alike. You next draw single lines opposite each other under these columns, and after adding and placing the amount under them, you draw double lines to signify that the two sides are balanced and closed.

Farmer's Account with Merchant.—

SAMUEL JACKSON, Merchant

Cr.

1915					
Jan.	5	By 2 Yds. Broadcloth	5.00	10	00
"	"	" Trimmings for Coat		2	12
"	11	" 2 Brooms	.18		36
Feb.	4	" 40 lbs. Sugar	.05	2	00
"	"	" 1 lb. Young Hyson Tea			88
Mar.	18	" 1 " Saleratus			06
"	"	" 1 " Ginger			12
"	"	" ¼ " Cloves	.50		13
Apr.	1	" 17 Yds. Sheeting	.13	2	21
"	"	" 2 " Linen	.75	1	50
"	29	" 20 lbs. Candles	.12	2	40
May	4	" 2¾ Yds. Cassimere	2.00	5	50
"	"	" Bill of Goods for James		31	81
June	3	" 36 lbs. Sugar	.06	2	16
Sept.	14	" 2 " Tea	.75	1	50
Oct.	16	" 10 " Coffee	.12	1	20
Dec.	4	" Bill of Crockery		14	88
				78	83

Farmer's Account with Day Laborer.—

FRANK SWIFT.

Cr.

1915					
Feb.	8	By Cutting 8 Cords Wood,	.38	3	04
Mar.	1	" 3 Days' Labor, Sawing Wood,	.75	2	25
Apr.	8	" 4 " " Drawing Manure,	.75	3	00
"	24	" 6 " " Building Wall,	.75	4	50
May	29	" 2 " " Hoeing Corn,	.75	1	50
July	24	" 3 " " Haying,	1.00	3	00
Aug.	12	" 5 " " Harvesting,	1.50	7	50
Oct.	9	" 2 " " Threshing,	.88	1	76
Nov.	11	" 3 " " Husking Corn,	.75	2	25
1916				28	80
Jan.	1	By balance due		15	02

Wheat-Field Account.—

		TEN ACRE LOT.	Dr.	
1915				
June	16	To 7 Days' Labor Plowing	2.00	14 00
"	19	" 2 " " Harrowing	2.00	4 00
Sept.	6	" 6 " " Cultivating	2.00	12 00
"	"	" 47½ Bush. Seed Wheat	1.25	21 88
"	"	" 1 Day's Labor Sowing		1 00
"	"	" Labor Furrowing and Ditching		4 00
1916				
Aug.	9	" Harvesting 10 Acres	1.50	15 00
"	15	" Labor Drawing into Barn		6 00
Sept.	28	" Threshing 200 Bush. Wheat	.07	14 00
Oct.	15	" Marketing 200 " "	.03	6 00
"	"	" Wear of Implements		2 00
"	"	" Int. on 10 acres @ \$50 per acre = \$500	.07	35 00
"	"	" Profit on 10 acres Wheat		70 22
				205 10

Potato-Field Account.—

		ONE ACRE LOT.	Dr.	
1915				
May	1	To 1 Day's Labor Plowing and Harrowing		2 00
"	2	" 12 Bush. Potatoes for Seed	.37½	4 50
"	"	" 2 Days' Labor Planting	1.00	2 00
June	20	" 1 " " Plowing		1 50
"	"	" 2 " " Hoeing	1.00	2 00
July	7	" 1 " " Plowing		1 50
Sept.	15	" Digging and Covering		5 00
1916				
Mar.	17	" 3 Days' Labor Marketing	2.00	6 00
"	"	" Profit on one Acre of Potatoes		88 50
				113 00

Corn-Field Account.—

		FIVE ACRE LOT,		Dr.
1915				
May	1	Manuring 5 Acres	2.00	10 00
"	3	To 3 Days' Labor Plowing	2.00	6 00
"	4	" 1 " " Harrowing	2.00	2 00
"	5	" 1½ " " Furrowing	1.50	2 25
"	6	" ¾ Bush. Seed Corn	1.00	75
"	"	" 4 Days' Labor Planting	.75	3 00
June	6	" 4 " " Cultivating	1.50	6 00
"	"	" 5 " " Hoeing first time	.75	3 75
July	8	" 3 " " Plowing	1.50	4 50
"	"	" 5 " " Hoeing second time	.75	3 75
Sept	5	" 4 " " Cutting up Corn	.75	3 00
Nov.	1	" 16 " " Husking	.75	12 00
"	"	" " " Drawing in	2.00	4 00
Dec.	14	" 3 " " Threshing, etc.	.75	2 25
"	"	" 2 " " Marketing	2.00	4 00
"	15	" Int. on Land, 5 acres @ \$50 = \$250	.07	17 50
"	"	" Profit on Crop		47 50
				<u>132 25</u>

Pork Account.—

				Dr.
1915				
Oct.	15	To 5 Hogs, weight 1,187 lbs.	.03	35 61
"	"	" 75 Bush. Corn	.50	37 50
Nov.	13	" Cash paid for grinding 30 Bush.	.05	1 50
Dec.	17	" Butchering and marketing		5 00
"	"	" Profit on fattening Pork		12 34
				<u>91 95</u>

Farmer's Account with Hired Man.—

JAMES HORNER.

Dr.

1915				
Feb.	12	To 1 Pair Stoga Boots,	Rogers,	2 50
Mar.	27	“ Mending Boots,	“	75
April	15	“ Cash,		5 00
May	4	“ Bill of Goods from Hovey's,		31 81
“	15	“ Making Suit of Clothes by Wilder,		8 00
July	3	“ Cash,		20 00
“	3	“ Horse and Carriage, 1 day,		1 50
Oct.	9	“ 1 Pair Fine Boots,	Rogers,	4 00
“	9	“ 1 Overcoat,	Wilder,	14 00
Nov.	30	“ 1 Leather Trunk,	Foster,	8 00
Dec.	25	“ 1 Pair Pumps,	Rogers,	1 75
“	30	“ Cash,		15 69
“	30	“ My Note at 3 months to Balance,		37 00
				150 00

Private Cash Account.—

CASH.

Receipts.

Dr.

1915				
Jan.	1	Commenced work for J. Beyster, at \$40 per mo.		
“	3	Amount of cash on hand,		80 00
“	10	Received from J. Williams the money lent,		10 00
“	13	Received half month's wages, to date,		20 00
“	30	Received half month's wages, to date,		20 00
				130 00
Feb.	1	To balance brought down,		50 20

INDEX

Medical Department

(Index Domestic Science Dept., Page 1260. Index Law and Business Dept., Page 1279)

A	Page		Page
ABDOMINAL DROPSY	2	Fracture of the Leg.....	480
ABORTION:		Fracture of the Ribs.....	479
422, 423, 730, 732, 753, 754	754	Fracture of the Spinal Column	481
Dangers of	423	Freezing	482
During Pregnancy, Treatment		Frostbite	482
for	753, 754	Heat Stroke	482
To Prevent	423	How to Manage	565
ABRASIONS, PLIABLE COLLODION FOR	614	Insensibility	475
ABSCCESS:	108, 661	Nose, Things in	483
Of the Mastoid Process.....	108	Poisoning by	565, 566
ABSCESSSES	1	Scalds	468
ACCIDENTS AND EMERGEN-		Shock	483
CIES:	463	Snake Bites	484, 566
Asphyxia	464	Splints	463
Bandages	463	Sprains	485
Bleeding from an Artery	464	Stings	486
Bleeding from Cuts, Small....	466	Strangulation	487
Bleeding from Injury	464	Suffocation from Gas	464
Bleeding from the Nose	435	Sunstroke	482
Bleeding from the Teeth.....	467	Throat, Things in	487
Blows	467	Windpipe, Things in.....	487
Bruises	467	Wounds	487
Burns	468	Wounds, Contused	487
Chloroform	567	Wounds, Gunshot	487
Choking	467	Wounds, Incised	487
Collapse	467	Wounds, Open	487
Collapse from Apoplexy	471	Wounds, Penetrating	487
Collapse from Concussion of		Wounds, Poisoned	487
the Brain	471	Wounds, Subcutaneous	487
Collapse from Compression of		ACETATE, OF COPPER, POISONING	
the Brain	471	BY	492
Collapse from Epilepsy	471	Of Lead, Poisoning by.....	492
Collapse from Hemorrhage	471	ACID:	507, 535, 590, 723, 786
Collapse from Injury	470	Chronic, in Cancer	507
Collapse from Intoxication....	470	Drinks	786
Collapse from Opium	471	Gallic, in Consumption	590
Collapse from Uraemia	471	Gallic, in Liquid Form.....	590
Contusions	472	In Stomach	723
Crushed Limbs	472	Sulphurous	535
Cuts, Small, Bleeding from....	466	ACIDITY OF THE STOMACH.....	330
Dislocations	472	ACNE	303
Dislocation of the Ankle	473	ACONITE, POISONING BY.....	492
Dislocation, Complicated	473	ACUTE: INFLAMMATION OF BLAD-	
Dislocation, Compound	473	DER	725
Dislocation of the Elbow	473	Inflammation of Eyes	628
Dislocation of the Finger.....	473	Rheumatism	510
Dislocation of the Hip	473	ADDISON'S DISEASE	57
Dislocation of the Jaw	473	ADDITION'S AND CORRECTIONS 790,	792
Dislocation of the Knee	473	ADULTS, COLIC IN	669
Dislocation, Simple	473	ADVICE TO YOUNG MOTHERS.....	381
Dislocation of the Thumb....	473	AGUE:	
Drowning	473	2, 151, 560, 561, 562, 563, 564,	595
Ear, Things in	474	Cake	151
Eyeball, Injuries to	475	Chinoidine, How to Give it... 562	
Eye, Black	475	Cure Without Quinine	560
Eye, Things in	475	German Cure for	563
Fainting	475	How to Avoid	564
Falls	476	Liniment Without Quinine for	560
Fire in One's Clothing	476	Pills for	563
Foreign Bodies in the Eye	476	Pills Without Quinine for 560,	561
Foreign Bodies in the Larynx. 477		Positive Cure with Quinine... 561	
Foreign Bodies in the Oesopha-		Tonics for	563
gus	477	To Ward off	595
Fractures	478	AIR CELLS	240
Fracture of the Arm	480	AIR, FRESH	389
Fracture of the Collar Bone.. 479		AIR TUBES	239
Fracture of the Kneecap..... 480		ALABAMA RESORTS FOR CONSUMP-	
		TION	587

	Page	B	Page
ALBUMINURIA	215		
ALCOHOL:	6	BABY:	402, 622, 749
Poisoning by	492	Care of	402
ALCOHOLISM:	2	Diarrhea in	749
Chronic	3	Food for	749
ALIMENTARY CANAL	90	Food for Weakly	622
ALLOPATHIC: TREATMENT FOR		Fretful	749
JAUNDICE	675	Nursing, Colic in	749
Treatment for Diphtheria....	527	BACK:	516, 681
Vermifuge for Worms	616	Weak from Gleet	681
ALTERATIVE: OR BLOOD PURI-		BACKACHE	516
FIER	634	BAKED RICE PUDDING FOR THE SICK	787
Pill for Neuralgia	547	BALDNES	30
Relaxing Anodyne for Asthma	673	BALM OF GILEAD:	570, 687
For Rheumatism	510	Buds for Cuts, Etc.....	687
For Stomach	609	Ointment or Oil	570
For Syphills	676	BALSAM:	570, 625, 668
Tincture for Rheumatism....	510	Blackberry, for Children	668
AMENORRHEA	417	For Cracks	570
AMMONIA:	492, 514,	For Internal Pains	570
Giles Liniment of Iodide of...	514	For Coughs, Peckham's Genuine	625
Poisoning by	492	For Wounds	570
Saline Treatment for Diabetes	649	BANDAGES	463
AMYLOID DEGENERATION	228	BANDAGING BROKEN LIMBS	554
ANAEMIA:	9	BARBER'S ITCH	316
Pernicious	11	BARLEY WATER FOR THE SICK	782
ANASARCA	103	BATHS:	384, 603
ANEURISM	13	About	384
ANGINA PECTORIS	174	Hot Vapor, for Hydrophobia..	603
ANKLE, DISLOCATION OF	473	Hot Vapor, for Mad Dog Bites	603
ANIMATION, SUSPENDED, FROM COLD	713	BED:	32, 670, 704
ANODYNE, RELAXING, FOR ASTHMA.	673	Sores	32, 704
ANTRAX	282	Wetting	670
ANTIDOTE:	534, 652	BEE STINGS, SURE CURE FOR.....	681
Milk, in Lead Poisoning	534	BEEF AND OTHER MEAT TEAS FOR	
Tobacco Chewer's Weak Stom-		THE SICK	776, 777
ach	652	BEEF BROTH, OF WATER	780
'ANTIDOTES, POISONS AND (See		BEEF, ESSENCE OF	777
Poisons and Antidotes.)		BEEFSTEAK, BROILED FOR THE SICK	789
ANTI-FAT	518	BELLADONNA, POISONING BY	494
ANTIMONY, POISONING BY	493	BELLYACHE	33, 724
ANTIPEPTICS FOR TYPHOID FEVER..	133	BILIOUS: COLIC	75
ANTI-VACCINATION	141	Fever	152
ANUS: DISEASES OF	14	Remittent Fever	559
Fissure of	14	Tonic, Cholagogue or	558
Fistula	15	Typhoid Fever	154
Hemorrhoids or Piles	15	BILIOUSNESS:	231, 558
Prolapsus Ani	17	Cholagogue or Billious Tonic for	558
APHASIS, LOSS OF SPEECH	18	BIRTH MARKS	301
APHONIA, LOSS OF VOICE	18	BISMUTH, POISONING BY	494
APOPLEXY:	18, 603	BITES:	484, 486, 603
How to Cure	603	By Dogs, to Cure	603
APPENDICITIS	20	By Insects	486, 682
APPETITE	624	By Poisonous Reptiles	484
APTHAE	454	BITTERS:	609, 682, 745
AQUA FORTIS, POISONING BY	493	Hop, without Spirits for any	
ARGYL-ROBERTSON SIGN	238	Kind	682
ARM, FRACTURE OF	480	Stomach or Alterative	609
ARROWROOT FOR THE SICK	788	Tonic, Mrs. Chase's Magic, for	
ARSENIC, POISONING BY	493	Weak and Debilitated Fe-	
ARTERIAL SCLEROSIS	28	males	745
ARTERY, BLEEDING FROM	464	BLACKBERRY: BALSAM FOR	
ARTIFICIAL SKIN FOR BURNS,		CHILDREN	668
SORES, ETC.	614	Tea for the Sick	787
'ASCITES	103	BLACK EYE	475
ASIATIC CHOLERA	70	BLACKENED SPOTS	568
ASPHYXIA	464	BLACKHEADS	304
ASTHMA	23, 672	BLADDER:	35, 36, 38, 668, 787
ATHEROMA, ARTERY DEGENERATION	28	Diseases of the	35, 36, 38
ATROPHY:	28, 229, 662	Dysuria	35
Acute Yellow	229	Gravel in	38
AYER'S CHERRY PECTORAL	597	Inflammation of	36
		Stone in the	38

	Page		Page
BLEBS	40	Hardening of	56
BLEEDER'S DISEASE	169	Hemorrhage of, Apoplexy	18
BLEEDING: 464-467, 520, 522,		Inflammation of, or Concussion	
556, 602, 657, 659, 660		of	718, 719
From an Artery	464	Meningitis	49
From Flesh Wounds and Fresh		Meningitis, Cerebro-Spinal ...	50
Cuts, to Prevent	556	Meningitis, Tubercular	52
From Injury	464	Softening of	53
From Lungs, Womb and Rec-		Tumors on	57
tum	520	Water on	57
From Nose	465, 556,	BREASTS: DISEASES OF	
From Small Cuts	466, 522,	432, 571, 596, 747, 752, 765	
From the Teeth	467	Cold in, Deep-Seated	596
Of Womb	660	Gathered, Salve for	571
Of Wounds	660	Of Infants, Milk in	434
Piles	657, 659,	Sore	747, 752
Piles, Valuable Laxative for ..	659	Swelling of, in New Born Child	765
Styptic for	602	BRIGHT'S DISEASE	211, 212, 626
BLEPHARITIS	122	BRISTER'S SPANISH DESTROYER FOR	
BLINDNESS:	629	BUNIONS, CORNS, WARTS... ..	631
Films on the Eye	629	BROILED BEEFSTEAK FOR THE SICK	789
BLISTERING FLIES, POISONING ..	494	BROKEN BONES	451, 478
BLISTERING FOR DIPHThERIA	527	BROKEN BREASTS	432
BLISTERS, BLOOD, TO PREVENT ..	530	BROKEN LIMBS	554
BLOOD:	40, 530, 609, 634,	BRONCHIAL INFLAMMATION, SUB-	
656		STITUTE FOR CALOMEL IN... ..	633
Blister	40	BRONCHITIS:	
Blisters, to Prevent	530	241, 243, 244, 595, 726-728	
Poisoning	40	Capillary	244
Purifiers or Alteratives	634	Chronic	243, 595, 728
Purifying, Safest Way	609	BRONCHOCLE:	166, 516
Spitting, Valuable Remedy for	656	Goitre, or Swelled Neck... ..	516
BLOODY: FLUX	91, 706	Mason's, Dr., Internal and Ex-	
Urine	43	ternal Remedy	516
BLOWS	467	Or Swelled Neck, Alternative	
BLUE VITROL, POISONING BY	494	Pill for	516
BOILS:	43, 530, 532, 569,	BRONZED SKIN	57
532		BROTH: BEEF, OF WATER	780
Alternative Syrup for	569	Chicken, for the Sick	779
Head	609	Mutton, for the Sick	779
Onion Poultice for	530	Veal, for the Sick	779
Painless Treatment for	532	Vegetable, for the Sick	780
To Relieve Pain of	532	BRUISES:	516, 555, 568
To Scatter	532	Balm of Gilead Buds, Tincture	
Treatment for	531	of, for	687
BONE:	44-48, 467, 613,	Liniment for	516
615		St. Johns Wort and Stramo-	
Abscess of	45	num, Ointment for	568
And Nerve Liniment	513	To Prevent Lockjaw After... ..	555
And Nerve Liniment, White's ..	515	BUCHAN'S, DR., PREVENTATIVE FOR	
Atrophy of	48	AGUE	564
Death of	47	BUNIONS:	58, 630, 631
Diseases of	43	Brister's Spanish Destroyer for	631
Hypertrophy of	48	BURNS:	468, 551, 570, 573, 635
Inflammation of	44	Carbolic Salve for	570
Softening of	46	Instantaneous Relief for	551
Ulceration of	45	Ointments for	573
BONES, BROKEN—FRACTURES	467	Prof. Gunn's Treatment for... ..	571
BORAX: VALUE OF IN CATARRH ..	655	Salve, Black, for	573
In Dandruff	655	BURSA, ENLARGED	58
In Inflamed Eyes	655	BUTTERMILK, VALUE OF, IN HEART	
In Throat Difficulties	655	DISEASE	580
BOWEL AFTER CHILD BIRTH... ..	769-772	BUTTERNUT PILLS	607
BOWELS: 48, 385, 609, 610, 665,			
724, 752			
About Keeping Regular	385		
Action of During Pregnancy... ..	752		
Inflammation of	48, 609,		
724			
Inflammation of, Onion Poul-			
tice in	609		
Loose, Simple Remedy for	610		
Of Children, to Keep Regular ..	665		
BRAIN: DISEASES OF			
18, 49, 50, 52, 53, 56, 57, 718,			
719			
Abscess of	57		
Concussion of	56		

C

CAKES, CORNMEAL, BROWNEED, FOR		SUMMER COMPLAINT	780
CALOMEL, SUBSTITUTE FOR		CAMP FEVER	135
CAMP FEVER		CAMPBOR: AND SOAP LINI-	
CAMPBOR: AND SOAP LINI-		MENT	748
MENT		For Mumps	695

	Page		Page
Liniment, Dr. Chase's	512	Falling of Womb	760, 764
Poisoning by	494	Flooding After	772
CANCER: 59, 505, 507-571, 743		Food for the Patient	759
Chronic	507	Labor, Its Three Stages	755, 756
Dr. White's Liniment for	505	Management of Mother	
Esmarch's or German Treatment	506	After	769, 772
In Ear	507	Preparation of the Bed, Etc	758
Of Womb	743	Process of Natural Labor	755
Ointment, Green, for	571	Treatment of Mother After	
Powder, to Sprinkle on, to Relieve Pain	506	Birth of Still Born Child	773
Relief of Pain in	507	Tying the Cord	760, 764
Salve for	505, 571	What to do in Absence of Medical Attendant	313, 760, 764
CANCERUM ORIS	456	CHILDREN, DISEASES OF: 73,	
CANKER SORE MOUTH	454, 592	244, 256, 294, 313, 448, 450-	
CAPILLARY BRONCHITIS	244	454, 456, 459-462, 557, 596,	
CARBOLIC ACID: POISONING BY	494	608, 615, 616, 622, 628, 651,	
Salve	570	668, 670, 674, 687, 704, 749,	
CARBONATE OF LEAD, POISONING BY	495	780, 788	
CARBONIC ACID GAS, POISONING BY	495	Bed-Wetting and Urinary	670
CARBUNCLE	63, 530, 531	Blackberry Balsam for	668
CARE OF BABY	402	Browned Cornmeal Gruel for	
CARE OF YOUNG GIRLS	380	Diarrhea in	780
CARIES	45	Capillary Bronchitis	244
CASTOR OIL: CUSTARD TO MAKE	581	Cholera Infantum	73
To Overcome Nauseous Taste	580	Colds	596
CATALEPSY	65	Deformities	450
CATARACT	124	Eyes, Sore at Birth	450
CATARRH: 66, 108, 529, 636, 637,	655	Eye-Water for	628
Borax in	655	Fits or Convulsions in	704
Chronic Nasal	66	Fractures of	451
Of the Ear	108	French Ointment for Scald	
CATARRHAL OPHTHALMIA	627	Head	670
CATHARTIC PILLS:	607	French Remedy for Hiccough	557
Dr. Chase's	717	Hair Lip	451
CATNIP TEA, TO MAKE	787	Healing Salve	670
CEREBRO-SPINAL MENINGITIS	50	Hernia	669
CERVICO-BRACHIAL NEURALGIA	263	Hernia Inguinal	451
CERVICO-OCCIPITAL NEURALGIA	263	Hernia Umbilical	452
CESSEATION OF MENSES	739	Incontinence of Urine	452
CHAFES	569, 574	Jaundice	674
CHAFING	574	Jaundice Pernicious	453
CHANCRE	369	La Grippe in	637
CHANCROID	369	Liquid Physic for Constipation	608
CHANGE OF LIFE	410	Management of	665, 666
CHAPPED HANDS 68, 568, 569,	574	Milk Scab	670
CHAPS	568	Mother's Mark	454
CHASE'S, MRS., MAGIC TONIC FOR		Mouth, Aphthae, Thrush, Canker Sore, Cancrum Oris, Gangreen of	454, 456
WOMEN	745	Mumps	256
Liniment for Ladies	512	Night Terror	457
CHASE'S, DR.: CATHARTIC AND		Oil of Eggs for Hernia	669
LIVER PILL	717	Pap of Boiled Flour for Diarrhea	788
Erysipelas Treatment	648	Paralysis, Infantile	458
Golden Oil or Camphor Liniment	512	Phimosis	459
Toothache Drops	550	Prickly Heat	313, 667
CHEST, SORE	625	Rickets	294
CHICKEN:	779, 782	Spasms	460, 749
Broth	779	Stomach and Bowel Difficulties	460
Panada	782	Summer Complaint	651, 668
Water, for the Sick	782	Teething	668
CHICKEN POX	136, 696	Tongue-Tie	461
CHILBLAINS	69, 614, 615	Urine, Incontinence of	452
CHILD-BED FEVER	429	Urine, Retention of	453
CHILD-BIRTH:	755-773	Weakly, Food for	622
Approach of Labor Pains	755	Worms, Round	461
Assisting at	760-764	Worms, Thread or Seat	462
Convulsions	760, 764	Worms	615, 616
Cord, Thread, or Worsted for Tying	758	CHILDREN: MANAGEMENT OF 665, 666	
Duties of Nurse	757	Newly Born, Management of	765-768
Fainting	760, 764		

	Page		Page
Rice Coffee for	783	Alabama Resorts for	587
Small Drinks for	622	Ayer's Cherry Pectoral	597
CHILLS	69, 595	Climatic Changes in	585
CHILLS AND FEVER	560, 561	Crude Petroleum for	584
CHINOIDINE FOR AGUE	562	Cured After Twelve Years Suffering	582
CHIONANTHUS IN JAUNDICE	574	Florida Resorts for	508
CHLORINE WATER	525	French Remedy for	583
CHLOROFORM: ACCIDENT FROM	567	Gallic Acid in	590
Liniment	515, 567	Hot Water for	590
CHLOROSIS	420	Where to Go	586
CHOKING	469	CONTAGIOUS DISEASES, DISINFECTANTS FOR	540
CHOLERA: . . . 70, 599, 600, 613, 708		CONTUSIONS	472
Asiatic	70	CONVALESCENCE	784
Incipient	532, 611	CONVULSIONS	82, 704
Infantum	73, 698	CORDIAL	667, 668
CHOLERA MORBUS	72, 697	CORDS, CONTRACTED	509
CHORDEE	375	CORN:	782, 783
CHOREA	296	Coffee for the Sick	782
CHROMIC ACID	507	Tea for the Sick	783
CHRONIC BRONCHITIS	595, 728	CORNMEAL GRUEL	780
CHRONIC DIARRHEA	600	CORNS: . . . 82, 630, 632	
CHRONIC DISEASES, SALT WASHINGS FOR	685	Brister's Spanish Destroyer for	631
CHRONIC INFLAMMATION OF BLADDER	725	CORPULENCE	268
CINDERS IN THE EYE	564	CORRECTIONS AND ADDITIONS	790-792
CIRRHOISIS	7, 75, 211, 233	CORROSIVE SUBLIMATE, POISONING BY	495
CLARET, FOR THE SICK	785	COSMETICS, ABOUT	387
CLEANLINESS OF CHILDREN	666	COSTIVENESS (See Constipation)	81
CLIMATE, CHANGES IN, CONSUMPTION	585	COUGHS: . . . 77, 581, 593-598, 688	
CLOTHING OF CHILDREN	666	Attending Slight Hemorrhage of Lungs	522
COBALT, POISONING BY	495	Ayer's Cherry Pectoral	597
COD LIVER OIL	584	Indian Syrup for	595
COFFEE: . . . 539, 579		Indian Vegetable Syrup for	594
Corn	782	Irritable, Flaxseed Lemonade for	594
Rice	783	Peckham's Genuine Balsam for	625
COLDS: . . . 77, 593-597, 686, 713		COUNTER-IRRITANT, CROTON OIL AS	572
Ayer's Cherry Pectoral for	597	CRACKS	568, 570
General Washington's Cure	595	CRAMPS: . . . 83, 665, 760	
Health Rules for	595	During Labor	760
Onion Syrup for Children, in	596	In the Stomach	665
COLD FEET, OINTMENT FOR	573	CREAM TAPIOCA PUDDING FOR THE SICK	788
COLIC: . . . 516, 518, 599, 669, 749		CREOSOTE, POISONING BY	496
Bilious	75	CRISIS, THE FIRST	382
Flatulent or Wind	75	CROTON OIL	572
Lead	77	CROUP: . . . 84, 103, 577, 578, 579, 682	
Nursing Baby's	749	Membranous	103
Painters	702, 703	Onion Cure for	578
Quinine Cure for	518	Spasmodic	84
Renal	217	CRUSHED LIMBS	472
Robinson's Liniment	513	CURE-ALL LINIMENT	515
COLLAPSE	469	CURRENT SHRUB, FOR THE SICK	785
COLLAR BONE, FRACTURE OF	479	CUSTARD, CASTOR OIL, TO MAKE	581
COLLOIDION FOR BURNS, SORES, ETC.	614	CUTS: . . . 466, 522, 556, 569, 635	
COLOR BLINDNESS	117	Balm of Gilead Buds for	687
COMMON TEAS FOR THE SICK	783	Bleeding from Small	466
COMPLAINT OF LIVER	607	Hot Water Poultice for	636
COMPOUND: DIARRHEA	610	Magnetic Ointment for	573
Pills, Cathartic and Liver	607	CYANOSIS	24
CONCUSSION OF BRAIN	718		
CONFINEMENT:	421		
To Calculate Time of	421		
Preparations for	398		
CONGESTION: OF THE KIDNEYS	215		
Of the Liver	231		
Of the Lungs	247, 723		
CONGESTIVE: CHILL	156		
Fever	156		
CONJUNCTIVITIS	119		
CONSTIPATION . . . 81, 518, 519, 607, 608			
CONSUMPTION: 351, 358, 573, 581, 584, 585, 593, 656			

D

DANDRUFF: . . . 85, 655	
Value of Borax in	655
DEADLY NIGHTSHADE, POISONING BY	496
DEAFNESS: . . . 85, 549	
And Earache, Valuable Remedy for	549

	Page		Page
DEBILITY, NERVOUS, STIMULATING TONIC FOR	741	DISEASES OF WOMEN: (See also Women, Diseases of.)	
DEEP WATER, FALLING INTO, WHAT TO DO	568	574, 651, 652, 679, 681, 733-749	
DEFICIENT MENSTRUATION, REMEDY FOR	740	Bearing Down or Falling Down of Womb	742
DEFORMITIES OF CHILDREN	450	Cancer of the Womb	743
DELIRIUM: Tremens	5, 87	Cessation of the Menses or Turn of Life	739
DIABETES: Ammonia, Saline Treatment for	648-650, 656	Deficient or Painful Menstruation and Other Pains	740
Ergot in	649	Diseases of the Womb	741
Incontinence and Dribbling of Urine, Remedy for	650	Diseases of the Uterus	741
Inspidus	90	Female Debility	745
Mellitus	87	Flooding	749
DIARRHEA: 90, 93, 532, 599, 600		Inflammation of the Womb	744
610, 611, 622, 623, 667, 749,	788	Itching of the External Genital Organs	748
Baby's	749	Leucorrhœa 574, 651, 652, 679, 681, 738, 739,	749
Chronic	93, 600	Menses, to Restore	737
Chronic, Muscovite or Raw Beef Cure for	600	Milk to Dry up	748
Compound for	610	Milk, Suppression of While Nursing	746
Drops and Powder for	599	Monthly Turns or Menses	734, 735
Exhaustive, Dr. T. B. King's Remedy for	610	Offensive Urine	749
Home Remedy for	611	Painful Menstruation and Other Pains	741
In Children	667	Painful Menstruation and Nervous Debility	740
In Small Children, Drink for	622	Profuse Menstruation	737
Infantile	610	Retention of the Menses	735
Milk in Treatment of	532, 611	Sore Breasts, to Prevent Breaking	747
Pain Killer for	600	Sore Nipples, Breasts, Etc., to Avoid	746
Pap of Boiled Flour for, in Children	788	Sore Nipples	746
Powder for	623	Suppression of the Menses	736
Simple Remedy for	610	Tumors or Polypi in the Womb and Vagina	742
DIET: 385, 528, 533, 648, 665, 769, 772		Vomiting During Pregnancy	749
As to	385	Whites (Fluor Albus)	738
For Patient, After Child Birth	769, 772	DISINFECTANT, NITRATE OF LEAD IN SMALLPOX	543
Milk with Lime Water	533	DISINFECTANTS, HOW TO USE FOR CONTAGIOUS DISEASES	540
Of Children	665	DISINFECTION	391
To Avoid Diphtheria	528	DISLOCATIONS	472
Valuable for Diabetes	648	DISPLACEMENTS OF THE WOMB	436
DIGESTION	324	DIURETICS, VALUABLE	638
DIGITALIS, POISONING BY	496	DOGWOOD, POISONING BY	504
DILATION OF THE HEART	180	DR. A. B. MASON'S LINIMENT	513
DIPHTHERIA: 99, 103, 522, 528, 579		DRESS: FOR YOUNG GIRLS	383
Blistering in	527	For Young Women	387
Chlorine Water for	525	DRIBBLING OF THE URINE	651
Cure for	523	DRINKS: Acid, Nourishing, Etc.	622, 786
Dr. Scott's Treatment for	526	For Great Thirst of Fever Patients	786
French Remedy for	527	For Small Children Having Dyspeptic or Diarrhea Tendency	622
Homeopathic Remedy for	525	Pectoral, for the Sick	786
Ice a Successful Remedy for	523	Raw Egg, for the Sick	786
Laryngeal	103	DROPS: Cholera	550, 599
Latest Allopathic Treatment for	527	Colic	599
Remedy for	523	Diarrhea	599
Specific for	524	Toothache, Dr. Chase's	550
Successful Remedy for	525	DROPSY: ABDOMINAL	2
Sulphur Treatment for	523	Anasarca	103
To Avert	579	And Anti-Fat Medicne	518
To Avoid by Diet	528	Ascites	103
DISEASE: BRIGHT'S	626	Hepatic, Substitute for Calomel in	633
Heart, Value of Buttermilk in	580		
DISEASES: OF CHILDREN (See Children, Diseases of).			
Of the Heart (See Heart Diseases).			
Of the Womb, Symptoms of	741		
Of Women (See Diseases of Women Below).			
Urinary, of Children, Remedies for	670		

	Page		Page
Hydrocele	103	EXCELLENT FOOD FOR DYSPEPTICS.	620
Hydrocephalus	103	EXERCISE: ABOUT	386
Hydronephrosis	220	Important for Children	666
Hydropericarditis	103	EXTERNAL APPLICATION FOR RHEU-	
Hydrothorax	103	MATISM	509
Syrup for	517	EYEBALL, INJURIES TO	476
Vedema	103	EYES: DISEASES OF THE 112, 113,	
DROWNED PERSONS: 473, 552,	553	116, 117, 119-125, 450, 475,	
A Case in Hand	553	564, 627-630, 655	
Resuscitation	552	Acute Inflammation	628
DRUNKENNESS	2	Blepharitis	122
DYSENTERY:	91, 532, 611, 667	Borax for Inflamed	655
In Children	667	Cataract	124
Milk in Treatment for	532, 611	Catarrhal Ophthalmia, Water	
DYSMENORRHEA	418	for	627
DYSPEPSIA:	327, 607, 620-624	Cinder or Dust in	564
Gaseous	623	Color Blindness	117
Hot Water for	624	Conjunctivitis, Inflammation of	
Liquid Food for	620	the Lids	119
Liquid Remedy for	607	Conjunctivitis, Diphtheritic	122
Milk and Lime Water for	621	Conjunctivitis, Granular	120
Powder for	623	Conjunctivitis, Muco-Purulent	119
Valuable Treatment in	623	Conjunctivitis, Purulent	121
DYSPEPTICS:	619, 621, 781	Films on	629
Food for	621, 622	Far-Sightedness	116
Invalids, Oatmeal Gruel for	621	Far-Sightedness of Old Age	117
Small Children, Drinks for	622	Granulation of	629
Tamarind Water to Allay		Iritis	123
Thirst in	781	Near-Sightedness	117
DYSURIA (See Children, Urinary		Ophthalmia	117
Diseases)	35, 670, 671	Pterygium	125
		Sore, at Birth	450
E		Strabismus	117
EAR:	105	Stye	125, 630
Abscess of the Mastoid Process	108	Things in	475
Cancer in	507	To Remove Iron and Steel from	628
Catarrh of the	108	Weak, Waters for	628
Things in	474		
Ulcerations in	549	F	
EARACHE	107, 548, 549	FACE: 546, 548, 569, 575, 606, 647, 648	
EARTH CURE	688	Erysipelas	647, 648
ECCLECTIC TREATMENTS	615, 694, 698	Neuralgia in	546, 548
ECZEMA	305, 699	Ointment, Glycerine	569
EGGNOG	783	Toilet Wash for the	575
EGG TOAST FOR THE SICK	788	Worms	606
EGGS: OIL OF FOR HERNIA IN		FADING	126, 475, 663
CHILDREN	669, 788	FALLING INTO DEEP WATER, WHAT	
Raw, and Milk, for Conval-		TO DO	568
cents	784	FALLING SICKNESS	108
Raw, Drink for the Sick	786	FALLS	476
ELBOW, DISLOCATION OF	473	FAMINE FEVER	154
ELECTRICITY: IN PARALYSIS	272	FARCY	165
In Sciatica	508	FAR-SIGHTEDNESS	116, 117
ELIXIR, GERMAN, FOR AGUE	563	FAT PEOPLE (Obesity)	268, 638
EMERGENCIES, ACCIDENTS AND	463-	FATIGUE	534
487, 565-567		FATTY DEGENERATION	176
EMETICS	491, 565, 578, 652	FEEDING THE BABY	406
ENURESIS (See Children, Urinary		FEET	685, 694
Diseases)	670, 671	FEIGNED SICKNESS	255
ENDOCARDITIS	178	FELON	126, 602, 636
ENGLISH SHRUB, FOR THE SICK	785	FEMALES, MRS. CHASE'S MAGIC	
ENLARGED VEINS	707	TONIC BITTERS	745
ENTERIC FEVER	108	FEMALE DEBILITY	745
EPILEPSY	108, 637, 684	FEVER AND AGUE	150, 564
ERGOT	427, 650	FEVER AND CHILLS	560, 561
ERUCTIONS	110	FEVERS: 128, 130, 135-137, 142,	
ERYSIPELAS: AUTHOR'S REM-		144, 149, 150, 152, 154, 156,	
EDY FOR	648	159, 532, 535, 536, 538, 539,	
Facial	647	559, 562, 564, 696, 707, 708,	
In Nose	530	728-730, 781, 786	
Phlegmonous	112	Billous	152, 559
ESMARCH'S TREATMENT FOR CANCER	506	Buchan's, Dr., Preventative for	564
ESSENCE: BEEF FOR THE SICK.	777		
Oyster for the Sick	779		

	Page		Page
Dr. Mason's Internal and Ex- ternal Remedy for	516	Remedy for	580
To Cure without Coloring the Skin or Clothing	516	Sick	170, 579
GOLDEN OIL, DR. CHASE'S	512	To Cure	579
GOLDEN OIL LINIMENT	514	HEALING SALVE FOR HERNIA IN CHILDREN	670
GOLDEN OIL FOR RHEUMATISM	509	HEALTH:	547, 554, 597, 642
GONORRHEA:	373, 677-681	Average Beat of Pulse in	642
Cured without Injections	679	Ill, Indicated by Neuralgia	547
Great French Remedy for	680	Rules for Winter	595
Injections for	678, 679	True Way, the	554
Its Commencement, Cure with- out Injections	680	HEALTHY FOOD FOR DYSPEPTICS	622
Latest and Most Simple Treat- ment for	680	HEART DISEASES: 103, 174, 176-178, 180, 580, 662, 717	717
Other Treatment Necessary for Remedy for	678, 677	Angina Pectoris	174
Specific for	681	Buttermilk, Value of, in	580
GOUT CURED BY GARLIC	167, 608	Dilatation	180
GRAHAM PUDDING STEWED FOR THE SICK	788	Endocarditis	178
GRANDMOTHER'S, GOOD OLD, GARGLE FOR SORE THROAT	528	Fatty Degeneration	176
GRANULATION OF THE EYES, REM- EDY FOR	629	Fluttering	580
GRAVEL OR STONES	38, 217, 520	Hydropericardium	103
GREEN OINTMENT OR SALVE FOR OLD SORES, ULCERS, ETC.	571	Hypertrophy	178
GREEN SICKNESS	420	Palpitation	174, 557, 580
GRUEL:	621, 780, 781	Pericarditis	177
Burned Cornmeal or Cakes, for Weak Stomach, Etc.	780	Pseudo-Angina	176
Cornmeal, or Porridge for the Sick	780	Regurgitation	180
Milk and Rice for the Sick	781	Shrinking of Heart	662
Oatmeal	621, 780	Stenosis	180
GUMS, SORE, DR. MASON'S REMEDY FOR	612	Treatment for	717
GUNPOWDER BURNS, REMEDY	551	HEARTBURN	181, 580, 716
GUNSHOT WOUNDS	487	HEAT, PRICKLY, IN CHILDREN, REMEDY FOR	667
GURGLING OF INTESTINES	169	HEAT STROKE	482
		HELLEBORE, POISONING BY	497
		HEMICRANIA	262
		HEMIPLEGIA	269
		HEMLOCK, POISONING BY	497
		HEMORRHAGE: 182-184, 520, 521, 522, 556, 602, 652, 661, 749, 753	667
		Cuts, Slight, and Wounds	522, 556
		Injury from	184
		Intestinal	183
		Kidneys, from	652
		Nose, from	661
		Lungs, of	183, 520, 522, 661
		Lungs, Womb and Rectum, of	520
		Pill, for Flooding	749
		Stomach, from	183
		Styptic for, of Largest Blood Vessels	602
		Uterine, During Pregnancy	753
		Uterine, Remedies for	651
		Uterine, Specifics	520
		Womb, of	521, 661
		Wounds, from	522
		HEMORRHOIDS OR PILES: 15, 569, 633, 659	659
		Glycerine Ointment for	569
		Substitute for Calomel in	633
		HENBANE, POISON BY	497, 566
		HEPATIC, SUBSTITUTE FOR CALO- MEL IN DROPSY	633
		HERB TEAS FOR THE SICK ROOM	787
		HERNIA: (Rupture) 184, 451, 452, 669, 706	706
		Inguinal	451
		Irreducible	184
		Of Children, to Cure	669
		Oil of Eggs for, in Children	669
		Strangulated	184
		Umbilical	452
		HERPES (Shingles)	318

H

HACKING COUGH, FLAXSEED LEMONADE FOR	594
HAEMOPHILIA—BLEEDER'S DISEASE	169
HAIR: CARE OF	384
Lip	451
HANDS: CHAPPED, COLD CREAM OF GLYCERINE AND ROSE FOR Chapped, Glycerine Ointment for	574
To Soften, Remove Tan, Etc.	569
HANDY REMEDY FOR BITES AND STINGS	574
HANGING, SUFFOCATION FROM, TREATMENT	682
HAY FEVER	713
HEAD BOILS	707
HEAD, SCALD:	569
French Ointment to Cure	670, 699
Tar Plaster for	670
Treatment for	670, 699
HEADACHE: 170, 171, 516, 546, 579, 611, 680, 687	687
English Remedy for	546
Liniment for	516
Nervous	171, 611
Periodical	172
Powder, to Relieve in La Grippe	687

	Page		Page
HICCOUGH:	185, 556, 557	INFLAMMATION: 44, 49, 91, 119,	
French Cure for, by Pressure	557	123, 177, 178, 211, 212, 233,	
French Remedy for, in Children	557	248, 258, 432, 440, 447, 573,	
Mrs. Harlan's Cure for.....	557	595, 609, 628, 633, 636, 655,	
HIP, DISLOCATION OF	473	685, 717, 725, 744	
HIP JOINT DISEASE	205	Black Salve for	573
HIVES	308, 592	Bronchial, Substitute for Calomel in	633
HOARSENESS: SINGERS AND SPEAKERS	592	Health Rules for Winter.....	595
Syrup for	593	Hot Water Poultice for	636
HOMEOPATHIC REMEDIES FOR SORE THROAT, SWOLLEN TONSILS, ETC.	525	Of Bladder	725
HOP: BITTERS, WITHOUT SPIRITS OF ANY KIND	682	Of Bone	44
Fomentations	694	Of Bowels	91, 724
HOT FLASHES	411	Of Bowels, Onion Poultice in	609
HOT FOMENTATIONS FOR MANY DISEASES	694	Of Brain (Meningitis) 49, 718,	719
HOT MUSTARD FOOT BATH	694	Of Breasts	432
HOT WATER:		Of Eyes	119, 123, 628, 655
590, 624, 636, 688-691, 636		Of Eyes, Acute, Valuable Remedy for	628
Cure	688-691	Of Eyes, Borax in	655
Cure for Consumption	590	Of Heart (Endocarditis and Pericarditis)	177, 178
In Dyspepsia	624	Of Kidneys (Bright's Disease)	177, 178
Poultice for Cuts	636	211, 212, 724	
Poultice for Felon	636	Of Liver	233, 717
Poultice for Inflammations..	636	Of Liver, Dr. Chase's Cathartic and Liver Pill for	717
Poultice for Wounds	636	Of Lungs (Pneumonia) ..	248, 721
HOT VAPOR BATHS:	603	Of Ovaries	447
For Hydrophobia	603	Of Spinal Cord	258
For Mad Dog Bites	603	Of Stomach	723
HOUSE SANITATION	388	Of Throat	633, 720
HUMPBACK	295	Of Throat, Substitute for Calomel in	633
HYDROCELE	103	Of Womb	440, 744
HYDROCEPHALUS	103	Ointment, Healing for	573
HYDRONEPHROSIS	226	Salt Washing and Dry Rubbing, Good for	685
HYDROPERICARDIUM	103	INFLAMMATORY RHEUMATISM	510, 511
HYDROPHOBIA: ..	187, 189, 603, 715	INFLUENZA	191, 686
Hot Vapor Baths for	603	INFUSION AND TONIC PILL FOR DEBILITY	745
Hysterical	189	INGROWING TOE NAILS	708
Portuguese Cure for	603	INJECTION:	678, 679, 739
HYDROTHORAX	103	For Gonorrhoea	678, 679
HYGIENE AND MORAL TREATMENT FOR HYSTERIA	705	For Leucorrhoea	679, 739
HYPOCHONDRIA	190	Gonorrhoea Cured without ..	679
HYPOCHONDRIOSIS, SUBSTITUTE FOR CALOMEL IN	633	INJURY, BLEEDING FROM	464
HYSTERIA	190, 705	INSANITY	194
		INSENSIBILITY	475
		INSOMNIA	198
		INTERCOSTAL NEURALGIA	263
		INTERMITTENT FEVER	150
		INTERNAL REMEDY FOR PILES ..	659
		INTERNAL RHEUMATISM	511
		INTERNAL PAIN, BALSAM FOR ..	570
		INTERNAL PAINS, SALVE	570
		INTERSUSCEPTION	200
		INTESTINAL OBSTRUCTION	198
		INVALIDS: DYSEPPTIC, OATMEAL GRUEL FOR	621
		452, 650, 651, 671	
INDIAN COUGH SYRUP	595	Texas Resorts for	586
INDIAN VEGETABLE SYRUP	594	IRITIS	123
INDIGESTION:	331, 619, 623	IRON, TO REMOVE FROM THE EYE..	628
Catarrhal	331	IRRITABLE COUGH, FLAXSEED LEMONADE FOR	594
Chronic	331	IRRITABLE ULCERS	710
Valuable Treatment in	623	ITCH:	516, 569, 573, 574
Voltaire's Food for	619	Barbers', Ointment for	574
INDOLENT ULCERS	710	Barbers', Salve for	574
INFANT FEEDING	448	Ointments for	569, 573
INFANTILE DIARRHEA	610	Winter	516
INFANTS, COLIC IN, QUICK RELIEF AND CURE FOR	669		
INFANTUM, CHOLERA	698		

I

	Page		Page
ITCHING:	574, 748	Management of Child if Still-	
Magical Cure for	574	Born	773
Of External Genital Organs..	748	Management of Mother After.	769
Ointment for	574	Pains	755
IVY, POISONING BY	504, 566	Preparation of Bed	757
		Second Stage	760
		Third Stage	764
		Three Stages	755
		Tying the Cord	760
		LADIES' CURE FOR NEURALGIA...	548
		LADIES, MRS. CHASE'S LINIMENT	
		FOR	512
		LA GRIPPE (Russian Influenza)	
		191,	687
		In Children	687
		Powders for	687
		LAMB CHOPS FOR THE SICK.....	789
		LARYNGITIS	220
		LARYNX, OEDEMA OF	222
		LAUDANUM, POISONING BY	497
		LAUREL, MOUNTAIN, POISONING BY	
		LAXATIVE FOR PILES	658, 659
		LEAD: NITRATE OF, AS A DISIN-	
		FECTANT IN SMALLPOX.....	543
		Ointment for Piles	659
		Poison, Milk as an Antidote..	534
		Poisoning	223, 534
		LEG, FRACTURE OF	480
		LEMONADE, FLAXSEED, FOR COUGHS	594
		LEMONADE, WARM, FOR SCARLET	
		FEVER	535
		LEMONS AS MEDICINE	647
		LEMONS, VALUE OF, IN SICKNESS	
		AND HEALTH	646
		LENGTH OF LIFE	641
		LEPROSY (Fluor Albus)	309
		LEUCAEMIA—WHITE BLOOD	224
		LEUCORRHEA: 445, 574, 651,	
		652, 679, 681, 738, 739,	749
		Injection, Valuable in	679
		Itching in, Ointment for.....	574
		Specific for	681
		Valuable Infection for	739
		LIFE: HOW TO LENGTHEN	640
		Table of Expectation of	641
		Turn of, Treatment for	739
		LIGHTNING LINIMENT	515
		LIME, BANDAGING FOR BROKEN...	554
		LIME, POISONING BY	498
		LIME WATER WITH MILK: 533,	
		For Dyspepsia	621
		For Weak Stomach	621
		LINIMENT: 505, 509, 511-516, 518,	748
		Camphor and Soap, to Dry up	
		Milk	748
		Chloroform, Especially for	
		Strains, Etc.	515
		Cure, All	515
		Dr. Chase's Golden Oil or	
		Strong Camphor	512
		Dr. White's	505
		For Colic or Internal Pain...	518
		For Inflammatory Rheumatism	511
		For Man or Beast, Dr. A. B.	
		Mason's	513
		For Sciatica, Lumbago, Stiff	
		Joints, Contracted Cords,	
		Rheumatism, Etc.	509
		For Sick Headache, Rheuma-	
		tism, Colic, Etc.	513
		For Strains, Bruises, Pains,	
		Colic, Headache, Backache,	
		Etc.	516

J

JAIL FEVER	135
JALAP, POWDER OF, IN GONORRHEA	678
JAUNDICE:	

203, 229, 453, 671, 673-675	674
Acetate of Potash in.....	674
Allopathic Treatment in.....	675
Chionanthus Used in.....	674
In Children	671, 674
Malignant	229
Pernicious	453
Substitute for Calomel in.....	633
Successive Remedies for	673
JAW, DISLOCATION OF	473
JELLY, RASPBERRY VINEGAR,	
DRINKS FROM, FOR THE SICK	786
JELLY, WINE, FOR THE SICK.....	788
JOINTS: DISEASES OF	
204, 205, 207, 208	208
Hip Joint Diseases	205
Stiff Joint	208
White Swelling	207

K

KIDNEYS: DISEASES OF 210, 212,	
215, 217, 220, 625, 626, 652,	
681, 724	
Abscess of	210
Affection of, Specific for	681
Albuminuria	215
Amloid Degeneration of	210
Bright's Disease	211, 212, 626
Cirrhosis of	211
Congestion of	215
Floating Kidney	216
Gravel	217
Hemorrhage of	652
Hydronephrosis	220
Inflammation of	724
Peckham's Genuine Balsam for	625
Stone in	217
KING'S, DR. T. B., REMEDY FOR	
DIARRHEA	610
KING'S EVIL	220
KNEE, DISLOCATION OF	473
KNEECAP, FRACTURE OF	480

L

LABOR IN CHILD-BIRTH: 399,	
425, 755-757, 760, 764, 765,	
769, 773	
After it is Over	399
Articles Needed	757
Assisting at Birth	760
Attention to State of Bladder	757
Bag of Waters, the	755
Clothing of Patient	757
Convulsions	764
Cramps During	757
Duties of Nurse During.....	760
Fainting	764
First Stage	757
Management of Child	765

	Page		Page
Golden Oil	512, 514	Scarlet Fever, with Putrid Sore Throat	730
Lightning	515	MALINGERING—FEIGNED SICKNESS	255
Mrs. Chase's, for Ladies.....	512	MANAGEMENT OF CHILDREN	665, 666, 765-768
Mustang	514	MARRIAGE, ABOUT	387
Nerve and Bone	513, 515	MARRIAGE, CHANCES OF WOMEN FOR	641
Nerve and Bone, Dr. White's	515	MASON'S, DR. A. B., LINIMENT	513, 516, 612
Opodeloc	515	Remedy for Sore Gums	612
Patent or Proprietary, Perry Davis' Pain Killer	514	MEASLES:	142, 144, 692-694
Rheumatic, and for Pain in the Stomach	514	Eclectic or Herbal Treatment for	694
To Reduce Swelling	505	False	144
LIPS: CHAPPED, COLD CREAM OF GLYCERINE AND ROSE FOR	574	Malignant	693
Chapped, Glycerine Ointment for	569	Striking in	693
LIQUID FOOD FOR DYSPEPSIA.....	620	To Distinguish	691, 692
LIQUID PHYSIC FOR CONSTIPATION	608	To Bring Out	693
LIQUID REMEDY FOR LIVER COMPLAINT, DYSPEPSIA, ETC.....	607	MEDICINES: FOR BABY	409
LIQUOR, CURE FOR THE LOVE OF	639	Patent or Proprietary	514, 597, 625
LIQUOR, USE OF, LEAVES PERMANENT INJURY	639	MEGRIN (Neuralgia in One Side of Face)	262
LIVER: DISEASES OF 225-234, 607, Abscess of	227	MENINGITIS: CEREBRO-SPINAL	50
Amyloid Degeneration of	228	Tubercular	52
Atrophy, Acute Yellow	229	MONORRHAGIA	419, 651
Cirrhosis	233	MENSES:	734-737, 739
Congestion of	231	Cessation of	739
Complaint	231, 607	Retention of	735
Gin Drinker's	233	Suppression of	736
Inactive, Syrup for	607	To Restore	737
Inflammation of	717	MENSTRUATION:	415
Inflammation, Chronic	233	Between Periods (Metorrhagia)	420
LIVER PILLS, COMPOUND FOR	607	Deficient and Painful	740
LIVER REGULATOR, LIQUID REMEDY	607	Diminished	416
LIVER SPOTS	311	Painful (Dysmenorrhœa)	418, 740, 741
LOCKJAW:	234, 555	Profuse (Menorrhagia)	419, 737
Preventatives	555	Suppressed (Amenorrhœa)	417
Quickly Relieved	555	METORRHAGIA	420
LOCOMOTOR ATAXIA	236	MIDWIFERY—NURSING:	750-752
LOOSE BOWELS	610	Calculation and Probable Date of Confinement	751
LORDOSIS (Hip Joint Disease).....	205	Cessation of Menses	750
LUMBAGO	283, 509	Changes in Breasts	752
LUNAR CAUSTIC, POISONING BY	498	Early Signs of Pregnancy... ..	750
LUNGS: 183, 239, 241, 243, 244, 247, 248, 351, 354, 358, 520, 661, 688, 721-723		Morning Sickness	750
Bronchitis	241	MILK: AND RAW EGG FOR CONVALESCENTS	784
Bronchitis, Capillary	244	And Rice Gruel for the Sick	781
Bronchitis, Chronic	243	As a Diet with Lime Water	533
Cirrhosis	358	As a Food	534
Congestion of	247, 723	As a Medicine	533
Cough of the, Hemorrhage with	520	As an Antidote for Lead Poisoning	534
Gangrene of	251	Fever	431
Hemorrhage of	183, 520, 661	Hot as a Restorative After Fatigue	534
Inflammation of	721	In Diarrhea, Dysentary and Cholera, Etc.	532, 611
Pleuro-Pneumonia	254	In Incipient Cholera	532
Pneumonia	248	In Typhoid Fever	532
Pulmonary Tuberculosis	351	Leg	431
Sore	638	Porridge with Raisins	780
LYMPHATIC VESSELS AND GLANDS	359	Punch with Eggs	784
		Punch for the Sick	784
		Scab of Children, Cure for	670
		Sickness	256
		Sour, Whey for the Sick	782
		Suppression, While Nursing	746
		To Dry up	748

M

MAGNETIC OINTMENT FOR BURNS, CUTS, ETC.	573
MALARIAL FEVERS:	149
Intermittent	150
Pernicious	156
Relapsing	154
Remittent	152
MALIGNANT:	693, 730
Measles	693

	Page		Page
With Lime Water for Dyspepsia	621	Simple Home Remedy for....	546
With Lime Water for Weak Stomach	621	The Ladies' Cure	548
MINT: TEA	787	Tonic Pill for	547
Tea, Juleped	787	Warning of Poor Health....	547
MISCARRIAGE: 422, 730-732, 753, 754	730-732	NIGHTMARE	457
Symptoms of	730-732	NIGHT SWEATS	266, 656
MISCELLANEOUS RECEIPTS FOR FEMALE COMPLAINTS IN GENERAL (See Diseases of Women Also)	733-749	NIGHT TERROR	457
MOLE	302, 604	NIPPLES, SORE	433, 746, 747, 749
MOLLITES OSSIUM	46	NITRATE OF SILVER, POISONING BY	499
MONK'S HEAD, POISONING BY	498	NITRE, POISONING BY	499
MONTHLY ILLNESS	386	NITRIC ACID, POISONING BY	499
MONTHLY TURNS (MENSES)	734	NOCTURNAL EMISSIONS	267
MORAL TREATMENT FOR CHILDREN	666	NORTON'S OINTMENT AND SALVE FOR GENERAL PURPOSES	569
MORBUS, CHOLERA	697, 698	NOSE: BLEEDING FROM 465, 556, 660	660
MORPHINE, POISONING BY	498	Hemorrhage of	661
MORTIFICATION	163	Bleeding, Mrs. Harlan's Cure for	557
MOTHERS, ADVICE TO YOUNG	381	Polypus in	550
MOTHER'S MARK	454	Things in	483
MOUTH: DISEASES OF	454	NURSING:	402, 592, 746
Apthae	454	Baby, the	402
Cancrum Oris	456	Sore Mouth	592
Canker Sore Mouth	454	Suppression of Milk While	746
Gangrene of the Mouth	456	NUX VOMICA, POISONING BY	499, 519
Sore, Baby's	749		
Trush	454, 700, 765	O	
MUCILAGINOUS DRINKS	492	OATMEAL: GRUEL FOR DYSPEPTIC INVALIDS	621
MUMPS:	256, 695	Gruel for Weakly Children	621
Camphor for	695	Porridge or Gruel for the Sick	780
MUSCOVITE REMEDY FOR DIARRHEA	600	OBESITY	268
MURIATIC ACID, POISONING BY	498	OEDEMA	103
MUSHROOMS, POISONING BY	498	OESOPHAGUS, FOREIGN BODIES IN	477
MUSTARD, HOT FOR FOOT BATH	694	OFFENSIVE URINE	749
MUSTANG LINIMENT	514	OIL: BALM OF GILEAD	570
MUTTON BROTH FOR THE SICK	779	Castor, Custard, to Make	581
MUTTON CHOPS FOR THE SICK	789	Castor, Nauseous Taste, to Overcome	580
		Cod Liver, a Recent Substitute	584
N		Croton, Counter Irritant for	572
NAIL, INGROWING TOE	708	Golden	514
NASAL CATARRH	636	Golden, Dr. Chase's	512
NAUSEA:	259, 573, 580, 782	Hamlin Wizard	514
Corn Coffee for	782	Of Almonds, Poisoning by	499
Spiced Plaster for	573	Of Cedar, Poisoning by	499
To Overcome When Taking Castor Oil	580	Of Eggs, for Hernia, in Children	669
NEAR-SIGHTEDNESS	117	Of Rue, Poisoning by	499
NECROSIS	47	Of Tansy, Poisoning by	500
NERVE AND BONE LINIMENT	513	Of Tar, Poisoning by	500
NERVE AND BONE, WHITE'S	515	Of Vitrol, Poisoning by	500
NERVOUS DEBILITY, STIMULATING TONIC FOR	741	OINTMENT:	
NERVOUS HEADACHE	611	568-571, 573, 574, 615, 637, 659	
NERVOUSNESS:	260, 575	Balm of Gilead	570
New and Successful Remedy for	575	For Barber's Itch	574
NETTLE RASH	308	For Burns, Healing	573
NEURALGIA:	262, 263, 545-548	For Burns, Magnetic	573
English Remedy for	546	For Cancer, Green	571
German Cure for	545	For Catarrh	637
Of the Face	262, 546, 548	For Chafes	569
Of the Head	547	For Chafing	574
Of the Loins	263	For Chapped Hands, Glycerine	569
Of the Neck and Arm	263	For Chapped Lips or Face, Glycerine	569
Of the Neck and Head	263	For Cold Feet, Stimulating	573
Of the Side	263	For Cuts	569, 573
Of the Thigh	263	For Frost Bites, Chilblains, Etc.	615
		For General Purposes, Norton's	569
		For Head Boils	569

	Page		Page
For Hemorrhoids, Glycerine...	569	PATENT OR PROPRIETARY	
For Inflammation, Healing...	573	MEDICINES:	514, 597, 625
For Itch	569, 573	Ayer's Cherry Pectoral	597
For Itching	574	Davis', Perry, Pain Killer.	514
For Old Sores, Green	571	Giles' Liniment of Iodide of	
For Piles, Lead	659	Ammonia	514
For Prurigo	574	Hamlin's Wizard Oil	514
For Salt Rheum	569	Peckham's Genuine Balsam.	625
For Scald Head	670	Radway's Ready Relief	514
For Scurvey	569	PECKHAM'S GENUINE BALSAM FOR	
For Sores and Cracks Made in		COUGHS, ETC.	625
Husking	569	PECTORAL DRINK FOR THE SICK.	786
For Sores, Magnetic	573	PEMPHIGUS	312
For Tumors, Bruises, Etc.	568	PENNYROYAL	787
For Ulcers	571, 573	PEOPLE, FOOD TO REDUCE FAT.	638
For Wounds, Healing	573	PERICARDITIS	177
St. John's Wort and Stramonium	568	PERIOSTITIS	44
ONION POULTICE IN DYSENTERY,		PERITONITIS	273
DIARRHEA, ETC.	667	PERNICIOUS FEVER	156
ONION SYRUP FOR COLDS IN CHILDREN	596	PETROLEUM, CRUDE, A CURE FOR CONSUMPTION	584
ONIONS: A SURE REMEDY FOR CROUP	578	PHIMOSIS	459
For Purifying the Blood.	609	PHOSPHOROUS, POISONING BY	501
Roasted, as a Poulitce for Boils	609	PHTHISIS	351
Roasted, as a Poulitce for Inflammation of the Bowels.	609	PHYSIC, LIQUID FOR CONSTIPATION	608
Value of, as a Food.	609	PIGEON BREST	295
OPHTHALMIA:	117, 627	PILES: BLEEDING	
Catarrhal, Wash for	627	15, 569, 613, 658-660	
OPIMUM, POISONING BY	500	Ointment, Glycerine, for	569
OPODELOC LINIMENT	515	Ointment, Lead, for	659
ORIENTAL BALM	514	Simple Laxative for	659
OSTEO-MALATIA	46	Simple Remedy for Tumors in	658
OSTEO-MYELITIS	44	Suppository for	660
OSTITIS	44	PILLS: ALTERNATIVE	516
OVARIAN TUMORS	448	Compound Cathartic and Liver	607
OVARIES, INFLAMMATION OF	447	Dr. Chase's Cathartic and	
OXALIC ACID, POISONING BY	501	Liver	717
OYSTER, ESSENCE FOR THE SICK.	779	For Ague	562, 563
		For Ague, Chills, Etc.	562
		For Ague, Obstinate Cases.	563
		For Constipation	608
		For Constipation or Costiveness, Valuable	518
		For Epileptic Fits	684
		For Female Debility, Tonic.	745
		For Hemorrhage	749
		For Neuralgia	547
		For Sexual Debility	655
		PIMPLES:	315, 604-606
		Bad and Long Standing	606
		To Remove	604
		Valuable Remedy for	605
		PIN WORMS	616, 617
		PITTING OF SMALLPOX, TO PREVENT	542
		PLACENTA PRAEVI	424
		PLAIN PANADA FOR THE SICK.	782
		PLASTERS: FOR CHAPS, CRACKS, ETC.	568
		For Nausea, Spiced	573
		For Scald Head, Tar	670
		For Vomiting, Spiced	573
		For Weak Back	572
		Substitute for Mustard.	601
		PLEURISY:	275, 279, 663
		Chronic	279
		PLEURO-PNEUMONIA	254
		PLIABLE COLLODION FOR BURNS, SORES, ABRASIONS, ETC.	614
		PNEUMONIA	248
		PNEUMONIA TYPHOID	665

P

PAINS, INTERNAL OF COLIC, GERMAN REMEDY	518
PAINFUL INFLAMMATIONS	571
PAINFUL MENSTRUATION	740
PAINFUL MENSTRUATION, STIMULATING TONIC FOR	741
PAIN KILLER: FOR CHOLERA.	600
For Diarrhea	600
In Place of Mustard Plaster.	601
Perry Davis'	514
Truly Magical for all Purposes	601
PAINS	516, 740
PAINTER'S COLIC	77, 702, 703
PALPITATION OF THE HEART	174, 557, 580
Mrs. Harlan's Cure for.	557
PALSY:	271, 602, 271
Numb	271
Shaking	602
PANADA, RECIPES FOR	782
PAP OF BOILED FLOUR FOR DIARRHEA OF CHILDREN	788
PARALYSIS: AGITANS	269
Infantile	458
PARAPLEGIA	269
PAREGORIC	34
PARIS GREEN, POISONING BY.	501

	Page		Page
POISONS AND ANTIDOTES:		Thorn Apple	503
489-504, 519, 565, 566	566	Tobacco	503, 566
Accidental or Intentional—		Verdigris	503
What to do	565, 566	White Lead	503
Accidental, How to Manage...	565	White Vitrol	503
Accidental, Quick Emetics for	565	Wild Vine, Earth Cure for...	588
Acetate of Copper	492	Wolfs Bane	504
Acetate of Lead	492	POISONS:	490, 491
Aconite	492	Acid	490
Alcohol	492	Alkali	491
Ammonia	492	Mineral	490
Antimony	493	Vegetable	490
Acqua Fortis	493	POLYPI IN THE WOMB	742
Arsenic	493	POLYPUS:	279, 445, 550, 742
Belladonna	494	In the Nose	550
Bismuth	494	FORRIDGE: CORNMEAL FOR THE	
Blistering Flies	494	Sick	780
Blue Vitrol	494	Milk, with Raisins	780
Camphor	494	Oatmeal or Gruel for the Sick	780
Carbolic Acid	494	PORTUGUESE CURE FOR HYDRO-	
Carbonate of Lead	495	PHOBIA	603
Carbonic Acid Gas	495	POTASH, ACETATE OF, FOR JAUNDICE	674
Cobalt	495	POTASH, HYDRATE OF, POISONING	
Corrosive Sublimate	495	BY	501
Creosote	496	POTT'S DISEASE	361
Deadly Nightshade	496	POULTICES:	
Digitalis	496	505, 571, 573, 609, 636, 694,	695
Dogwood	504	Hot, for Many Diseases.....	694
Fish	496	Hot Water, for Cuts, Wounds,	
Fool's Parsley	496	Felon, Etc.	636
Foxglove	496	Onion, for Boils	609
Hellebore	497	Onion, for Inflammation of the	
Hemlock	497	Bowels	609
Henbane, Tobacco or Stra-		Pumpkin, for Inflammations,	
monium and Bites of		Swelling, Etc.	571
Snakes	497, 566	Robinson's, for Inflammation	
Ivy	504, 566	and for Sores	571
Laudanum	497	Slippery Elm, Valuable.....	695
Laurel, Mountain	497	Spiced, for Nausea and Vomit-	
Lead, Milk an Antidote for..	534	ing	573
Lime	498	To Use in Cancer	505
Lunar Caustic	498	Yeast, for Sores and Indolent	
Monk's Head	498	Ulcers	695
Morphine	498	POWDER: COMPOUND, OF JALAP,	
Muriatic Acid	498	IN GONORRHEA	678
Mushrooms	498	For Cholera	599
Nitrate of Silver	499	For Colic	599
Nitre	499	For Diarrhea	599, 623
Nitric Acid	499	For Dyspepsia	623
Nux Vomica	499, 519	To Relieve Headache in La	
Oak	566	Grippe	987
Oil of Almonds	499	To Sprinkle on Cancer	506
Oil of Cedar	499	PREGNANCY: ABORTION	
Oil of Rue	499	422, 423, 730, 732, 753,	754
Oil of Savin	499	Action of Bowels in	752
Oil of Tansy	500	Changes in the Breasts in...	750
Oil of Tar	500	Enlargement of the Abdomen	
Oil of Vitrol	500	in	750
Opium	500	First Signs of	750
Oxalic Acid	501	Management of	751
Paris Green	501	Miscarriage	753
Phosphorous	501	Morning Sickness in	750
Potash, Hydrate of	501	Movement of Fœtus in	751
Prussic Acid	502	Probable Date of Confinement	
Rhus	566	in	751
Rough on Rats	502	Proper Treatment of	751
Stramonium	502, 566	Signs of	421
Strychnine	502	Sore Breasts in	752
Sugar of Lead	502	State, About	393
Sulphate of Copper	503	Urine, The, in	753
Sulphate of Zinc	503	Uterine, Hemorrhage During..	753
Sulphuric Acid	503	Vomiting During	749
Tartar Emetic	503		

	Page		Page
PREPARATIONS FOR CONFINEMENT.	398	RESUSCITATION OF DROWNED PER-	
PREVENTION: OF CHILLS,		SONS	552
FEVER AND AGUE	564	RETENTION OF THE MENSES	735
Of Consumption	581	RHEUMATIC LINIMENT	514
Of Croup	578	RHEUMATIC ALTERNATIVE	510
Of Diphtheria	524	RHEUMATISM: 283, 287, 291,	
Of Hemorrhage from Wounds	522	505, 508-511, 613	613
Of Pitting in Smallpox.....	543	Acute or Inflammatory	510, 511
Of Scarlet Fever	524, 537	Chronic	288
Of Sore Breasts and Remedy.	747	External Application for	509
PRICKLY HEAT	313, 667	Golden Oil for	509
PRINTERS' SORE FINGERS, TO CURE	530	Gonorrheal	291
PROFUSE MENSTRUATION	737	Inflammatory	287, 510
PROLAPSE OF THE WOMB	438	Muscular	283
PROLAPSUS ANI	17	Robinson's Liniment for	513
PROPRIETARY MEDICINES, PATENT		Sciatic	292, 508
OR	514, 597,	RIBS, FRACTURE OF	479
625		RICE: AND MILK GRUEL FOR THE	
PROSTATE GLAND, ENLARGEMENT		SICK	781
OF	280	Coffee for Children or Weakly	
PROSTATE, SUPPOSITORY FOR EN-		Patients	783
LARGED	660	Pudding, Baked, for the Sick	787
PROUD FLESH	704	RICKETS	294, 664
PRURIGO	574	RINGWORM:	315, 316, 635, 701
PRUSSIC ACID, POISONING BY.....	502	Of the Beard	316
PSORIASIS	314	Of the Body	315
PTERYGIUM	125	Honeycombed	316
PUBLIC SPEAKER'S LOSS OF VOICE.	592	Of the Scalp	316
PUDDINGS FOR THE SICK: 787-789		ROASTED: ONIONS FOR BOILS..	609
Cream	788	Onions for Inflammation of the	
Graham, Steamed	788	Bowels	609
Rice, Baked	787	ROBINSON'S: LINIMENT FOR	
Toast, Pap, Jellies, Etc.....	787-789	SORES, ETC.	571
PURPERAL CONVULSIONS	430	Poultice	571
PURPERAL FEVER	429	Salve for Inflammation	571
PULMONARY CONSUMPTION, TO		ROMBERG'S SIGN	238
PREVENT	581	ROOM WHERE BABY IS KEPT	409
PULSE, AVERAGE BEAT OF, IN		ROSE RASH	318
HEALTH	642	ROUGH ON RATS	502
PUMPKIN POULTICES	571	RUBBINGS, DRY, FOR CHRONIC DIS-	
PUNCH, CLARET, FOR THE SICK..	785	EASES	685
PUNCH, MILK	784	RUBEFACIENT IN PLACE OF MUS-	
PURIFICATION OF THE BLOOD	240	TARD PLASTER	601
PURULENT ULCER, SIMPLE TREAT-		RULES: RESUSCITATING THE	
MENT	709	DROWNED	552
PUSTULE, MALIGNANT	282	Way to Health	554
PUTRID SORE THROAT	730	RUPTURE: (Hernia)	184, 669, 706
PUTRID SORE THROAT, WITH MALIG-		Of Children	669
NANT SCARLET FEVER	730		
PTAEMIA	41		

Q

QUININE: IN AGUE AND CHILLS	561
To Cure Colic	518
QUINSY:	346, 626
Salve for	571

R

RABIES	283
RADWAY'S READY RELIEF	514
RASPBERRY VINEGAR JELLY FOR THE	
SICK	786
RATTLESNAKE BITE	484
RECTUM, HEMORRHAGE OF THE	520
RECTUM, STRICTURE OF THE	713, 714
RED DROPS, SPECIFIC FOR GLEET,	
GONORRHEA, ETC.	681
REGULATOR, LIVER	607
RELAPSING FEVER	154
REMAINING IN BED	401
REMITTENT FEVER	152

S

SAGE TEA FOR THE SICK	787
SAINT ANTHONY'S FIRE	296
SAINT JOHN'S WORT AND STRA-	
MONIUM OINTMENT	568
SAINT VITUS'S DANCE	296, 602
SALICYLATE OF SODA FOR TONSIL-	
ITIS	612
SALT RHEUM:	305, 699
Ointment for	569
Salve for	569
SALT WASHINGS, IMPORTANT IN	
CHRONIC DISEASES	685
SALVES:	
506, 568-574, 602, 614, 632,	670
Black, for Burns, Inflamma-	
tion, Ulcers, Wounds, Etc..	573
Barber's Itch, for	574
Carbolic, for Sores.....	570
Carbolic, for Burns	570
Esmarch's or German	506

	Page		Page
For Cracks, Chaps, Etc.	568, 570	SICK ROOM:	774-776
For Corns	632	Cleanliness of	775
For Cuts	569	Food, Drink and Delicacies for	776
For Head Boils	569	Good Nurse for	774
For Inflamed Wounds	570	Its Location, Etc.	774
For Internal Pains	570	Light of	775
For Felon	602	Quiet of	775
For Quinsy	571	Temperature of	775
For Salt Rheum	569	Ventilation of	774
For Scrofula	614	SIDE, STITCH IN, REMEDY FOR	704
For Scurvey	569	SIMPLE PURULENT ULCER	709
For Sores and Cracks Made in		SINGERS, LOSS OF VOICE	592
Husking	569	SKIN, ARTIFICIAL, FOR BURNS,	
For White Swelling	614	SORES, ABRASIONS, ETC.	614
For Wounds	570	SKIN DISEASES:	
For Gathered Breasts	571	300-305, 307-316, 318,	605
Green, for Ulcers, Cancers, Old		Acne	303
Sores	571	Barber's Itch	316
Healing, for Hernia in Children	670	Birth Marks	301
Norton's, for General Purposes	569	Blackheads	304
New Painless Remedy for Cancer	506	Eczema	305
Robinson's, for Inflammation	571	Fish-Skin Disease	307
Robinson's, for Sores	571	Freckles	307
SCAB, MILK OF CHILDREN	670	Herpes	318
SAPRAEMIA	41	Hives	308
SCALD HEAD:	670	Itch	309
French Ointment for	670	Leprosy	309
Tar Plaster for	670	Liver Spots	311
SCALDS	468, 551	Mole	302
SCARLATINA:	145, 728, 729	Nettle Rash	308
With Severe Fever	728, 729	Pemphigus	312
SCARLET FEVER:		Pimples	313
145, 534, 535, 536,	730	Prickly Heat	313
Length of Time Dangerous to		Psoriasis	314
Others	536	Ringworm of the Beard	316
Malignant, with Putrid Sore		Ringworm of the Body	315
Throat	730	Ringworm, Honeycombed—	
Prevention of	524, 537	Scald-Head	316
Specific for	524	Ringworm of the Scalp	316
Sulphurous Acid Treatment in	535	Rose Rash	318
Warm Lemonade in	535	Salt Rheum	305
SCIATICA: . . . 263, 292, 508, 509,	546	Shingles	318
Cured by Electricity	508	Tetter	305
Liniment for	509	Wart	302
Simple Home Remedy	546	SLEEP: ABOUT	385
SCORBUTUS	298	Amount Needed	576
SCOTT'S, DR., REMEDY FOR DIPH-		As a Medicine	576
THERIA	526	For Children	666
SCROFULA:	359, 613, 614	SLEEP-WALKING	320
Salve for	614	SLEEPLESSNESS	575, 576
SCURVEY:	298	SLIPPERY ELM POULTICE	695
Ointment for	569	SMALL CHILDREN, HAVING DYS-	
Salve for	569	PEPSIA, DIARRHEA, DRINK FOR	622
SEASICKNESS, ENGLISH REMEDY		SMALL CUTS, BLEEDING FROM	466
AND CURE FOR	633	SMALLPOX: 137, 536, 542, 543,	544
SEAT WORMS	462	Nitrate of Lead as a Disin-	
SEPTICÆMIA	41, 429	fectant in	543
SEXUAL DEBILITY: STIMU-		Pittings, to Prevent	542
LENT FOR	653	Pitting, to Prevent, as Prac-	
Tincture for	653	ticed in the English Army	543
Tonic for	653	in China	544
Tonic Pill for	655	Vaccination in	544
SHAKING PALSY	269, 602	SNAKE BITES:	484, 566
SHINGLES (HERPES)	318, 664	Antidote for	566
SHOCK	483	SNUFF FOR CATARRH	637
SHRUB, CURRANT AND ENGLISH,		SODA, SALICYLATE OF, FOR TONSIL-	
FOR THE SICK	785	ITIS	612
SICK HEADACHE:	170	SOLIDIFIED CREOSOTE FOR TOOTH-	
Cause of	579	ACHE FROM DECAYING TEETH	550
Robinson's Liniment for	513	SOMNAMBULISM	320

	Page		Page
SORE: BREASTS, TO PREVENT		SPRAINS:	485, 515, 635, 632
BREAKING, ETC.	747	Capital Remedy for	635
Chest, Peckham's Genuine Balsam for	625	Liniment for	515
Eyes	627	STAMMERING	323
Fingers of Printers to Cure and to Prevent Blood Blisters	530	STEAMED GRAHAM PUDDING FOR THE SICK	788
Gums, Dr. Mason's Remedy for	612	STEEL, TO REMOVE FROM THE EYE	628
Lungs	688	STENOSIS	180
Mouth, Canker	592	STIFF JOINTS, LINIMENT FOR.	509
Mouth, Baby's	749	STILL-BORN CHILD, TREATMENT OF MOTHER AFTER BIRTH OF.	773
Nipples	746	STIMULENT FOR SEXUAL DEBILITY	653
Nipples, Efficient Remedy for.	746	STINGS:	486, 681, 682
Nipples, Breasts, Etc., to Avoid and Cure	747, 749	Bee and Wasp	681
Nose	530	Wasps, Quick and Certain Cure for	682
SORE THROAT:		STITCH:	284, 704
343, 525, 528, 529, 579, 625, 730	730	In the Side	704
Common Gargle for	529	STOMACH AND BOWEL DIFFICULTIES OF CHILDREN	460
Gargle for	529	STOMACH: DISEASES OF 183, 324, 338, 514, 609, 621, 652, 665, 723, 780, 782	
Good Old Grandmother's Gargle for	528	Acid in	723
Homeopathic Remedy for	525	Acidity of	330
New Gargle for	528	Bitters or Alterative for the.	609
Peckham's Genuine Balsam for Putrid, with Malignant Scarlet Fever	730	Cancer of	335
Simple Remedies for	529	Catarrhal Indigestion	331
Strong Tea as a Gargle.	529	Chronic Indigestion	331
To Avert	579	Cramps in the	665
SORES: BED, TREATMENT FOR	704	Dilatation of	331
Carbolic Salve for	570	Dyspepsia or Indigestion.	327
Fever	708	Hemorrhage of	183
Made in Husking, Salve and Ointment for	569	Inflammation of	723
Magnetic Ointment for	573	Nauseous, Corn Coffee for.	782
Green Salve for	571	Neuralgia of	333
Green Ointment for	571	Pain in, Liniment for	514
Pliable Collodion in.	614	Ulcer of	334
Salve for	574	Weak, Browned Cornmeal Gruel for	780
SOUR MILK WHEY, FOR THE SICK 782		Weak, Tobacco Chewers' Cure for	652
SPASMS:	321, 460, 665, 749	Weak, Value of Milk and Lime Water for	621
Of Children	749	STONE: IN THE BLADDER.	38
Of the Stomach	665	In the Kidney	217
SPECIFIC: CHLORINE WATER IN DIPHTHERIA	525	STONES, GALL, REMEDY FOR.	663
For Hemorrhages	520	STRABISMUS	117
For Diphtheria	524	STRAINS	515, 516
For Diarrhea, Dysentary and Incipient Cholera	611	STRAMONIUM: POISONING BY	502, 566
Red Drops for Gleet, Gonorrhoea, Leucorrhoea, Kidneys, Etc.	681	St. John's Wort and Ointment of	568
Remedy for Carbuncles	531	STRANGULATION	487
SPEECH, LOSS OF	18	STRANGURY	338
SPERMATORRHEA (See Sexual Debility)	267, 654	STRAWBERRY LEAF TEA FOR THE SICK	787
SPICED PLASTER FOR NAUSEA, ETC. 573		STRICTURE:	338, 375, 713, 714
SPINAL: AFFECTIONS, CANCER, RHEUMATISM, ETC.	258, 321, 481, 505	Of the Rectum	713, 714
Column, Fracture of	481	STRYCHNINE, POISONING BY	519
Cord, Inflammation of	258	STUPOR (COLLAPSE)	469
Meningitis	321	STUTTERING	323
SPINE CLEFT	321	STYE	125, 630
SPIRILLUM FEVER	154	STYPTIC COLLOID, BLEEDING FROM WOUNDS	522
SPIRITS OF TURPENTINE FOR FROST BITES, ETC.	614	STYPTIC FOR BLEEDING OF LARGEST VESSELS	602
SPLEEN, ENLARGEMENT OF	322	SUFFOCATION:	464, 712, 713
SPLINTS	463	From Gas and Other Noxious Vapors	464, 713
SPOTTED FEVER	51	From Hanging	713
		SUGAR OF LEAD, POISONING BY.	502

	Page		Page
SULPHATE OF COPPER, POISONING BY	503	Pennyroyal, for the Sick	787
SULPHATE OF ZINC, POISONING BY	503	Sage, for the Sick	787
SULPHUR TREATMENT FOR DIPHTHERIA	523	Strawberry Leaf, for the Sick	787
SULPHURIC ACID POISONING BY	503	Strong, as a Remedy for Sore Throat	529
SUMMER COMPLAINT	339, 651, 668	TEETH: BLEEDING FROM	437
SUNBURN	339, 605	Care of	342
SUNSTROKE	482, 603	Solidified Creosote for Decaying	550
SUPPRESSION OF THE MENSES	736	Ulcerating	612
SUSPENDED ANIMATION FROM COLD	713	TEETHING	404, 668
SWEAT GLANDS, DISORDER OF	339	In Children, Summer Complaint from	668
SWEATING PROCESS, VALUABLE	722	TEMPERATURE IN SICK ROOM, HOW TO REDUCE AND KEEP COOL	789
SWEATING AT NIGHT	656	TETANUS:	234, 555
SWELLED NECK: ALTERNATIVE PILL FOR	516	Preventative and Quick Relief for	555
Dr. Mason's Internal and External Remedy for	516	TETTER	305, 605, 606
To Cure without Coloring the Skin	516	TEXAS, RESORTS IN, FOR CONSUMPTION	586
SWELLINGS:	505, 571, 614, 682	TEXAS, WHERE TO GO IN, FOR CONSUMPTION	587
Pumpkin Poultice for	571	THORN APPLE, POISONING BY	503
To Reduce, Liniment for	505	THREAD WORMS	462
White, Salve for	614	THROAT: INFLAMMATIONS, 633, 720	
SWOLLEN TONSILS, HOMEOPATHIC REMEDY FOR	525	Inflammations, Substitute for Calamel in	633
SYPHILIS	368, 676	Putrid, Sore, Malignant Scarlet Fever with	730
SYRUP: ALTERNATIVE FOR GOITRE	517	Sore	343, 525, 528, 529
Alternative for Boils	532	Sore, Grandmother's Gargle for	525
Cough, Valuable in Recent Colds	597	Sore, Homeopathic Remedy for	528
Cough, for Consumption	581	Sore, New Gargle for	528
Cough, Best to Break up Colds	593	Sore, Peckham's Genuine Balsam for	625
Cough, for Coughs, Colds, Hoarseness, Etc.	593	Sore, Strong Tea for	529
For Dropsy	517	Sore, Value of Borax in	655
For Whooping Cough	598	Things in	487
Indian, for Cough	595	THRUSH	454, 700, 765
Indian, Vegetable, for Coughs	594	THRUSH IN NEW-BORN CHILD	765
Liver, for Constipation	607	THUMB, DISLOCATION OF	473
Liver, Regulator for Inactive Liver	607	TIC-DOULOUREUX	263
Onion, for Children in Colds	596	TIME OF CONFINEMENT, TO CALCULATE	421
T			
TAMARIND WATER FOR FEVER PATIENTS AND DYSPEPTICS	781	TINCTURE: ALTERNATIVE FOR RHEUMATISM	510
TAMARIND WHEY, COOLING AND LAXATIVE, FOR THE SICK	731	Balm of Gilead Buds, of, for Cuts, Etc.	687
TAN, TO REMOVE	574	Cough, for Consumption	581
TAPEWORM:	340, 617, 618	For Whooping Cough	598
Dr. Turnbull's Remedy for	617	Tonic, for Impotency	654
Latest, Most Successful Remedy for	618	Tonic, for Sexual Debility	653
TAPIOCA CREAM PUDDING FOR THE SICK	788	Tonic, for Spermatorrhoea	654
TAR PLASTER FOR SCALD HEAD	670	TOAST, EGG, FOR THE SICK	788
TARTAR EMETIC, POISONING BY	503	TOAST WATER FOR THE SICK	786
TEA: BEEF AND OTHER MEATS FOR THE SICK	777	TOBACCO: CHEWERS' WEAK STOMACH, ANTIDOTE FOR	652
Beef for the Sick	776, 777	Injurious Effects of Its Use	683
Beef, Improved Flavor	776	Poisoning by	503, 566
Beef, New Process	777	TOE NAIL, INGROWING	344, 708
Blackberry, for the Sick	787	TOILET WASH FOR FACE	575
Catnip, to Make	787	TONGUE:	344
Cause of Sick Headache	579	Condition of System Shown by	643, 646
Common, for the Sick	783	Inflammation of	345
Corn, for the Sick	783	What it Tells	642
Gentian Root, for the Sick	787	TONGUE-TIED	461, 705
Herb, for the Sick Room	787	TONIC: BITTERS, MRS. CHASE'S MAGIC, FOR WEAK AND DEBILITATED FEMALES	745
Mint, for the Sick	787	Cholagogue or Bilious	558
Mint, Julaped	787	Febrifuge for Ague	563

	Page
For Ague	563
For Ague, Pills	563
For Female Debility, Pill and Effusion	745
For Impotency	652
For Impotency, Tincture	654
For Nervous Debility, Stimulating	741
For Painful Menstruation	741
For Sexual Debility	653
For Sexual Debility, Pill	655
For Spermatorrhea	654
TONSILITIS:	345, 612
Salicylate of Soda for	612
TONSILS, ENLARGED	349
TOOTHACHE:	342
Common Cures for	549
Dr. Chase's Drops for	550
Immediate Cure for	547
Solidified Creosote for	550
To Cure, So it Will Never Ache Again	550
TORTICOLLIS	284
TRANCE:	349
Coma	349
Death	349
Sleep	349
TREMENS, DELIRIUM	662
TRICHINA WORM	350
TRUE WAY TO HEALTH	554
TUBERCULAR MENINGITIS	52
TUBERCULOSIS	351
TUBERCULOSIS OF THE LYMPHATIC GLANDS	359
TUMORS: 363, 444, 448, 568, 657, 658, 688,	742
Earth Cure for	688
In the Womb	742
Piles	657, 658
St. John's Wort and Stramonium, Ointment for	568
TURN OF LIFE	739
TURNBULL'S, DR., REMEDY FOR TAPE WORM	617
TURPENTINE, SPIRITS OF, FOR FROST BITES, CHILBLAINS, ETC.	614
TYPHOID FEVER:	
130, 133, 532, 538,	539
Internal Antiseptics for	133
Milk in Treatment of	532
More Malignant form	538
Value of Coffee in	539
TYPHO-MALARIAL FEVER	154
TYPHOID PNEUMONIA	248
TYPHUS FEVER	135

U

ULCER OF THE STOMACH	334
ULCERATING TEETH OR SORE GUMS, DR. MASON'S REMEDY	612
ULCERS:	373
Bandaging for	554
Black Salve for	573
Green Ointment for	571
Green Salve for	571
Healing Ointment for	573
In Weakened Parts	710
Indolent	710
Indolent, Yeast Poultice for	695
Irritable	710
Simple Purulent	709
URAEMIA	364
URIC ACID	365

	Page
URINARY DISEASES OF CHILDREN ..	670
URINATION, PAINFUL	35
URINE: BLOODY	43
During Pregnancy	753
Incontinence of	452, 650, 671
Incontinence of, and Dribbling of, Diabetes in	650
Offensive	749
Retention of the	35, 366, 453
UTERINE HEMORRHAGES:	
During Pregnancy	520, 651, 753
Specifics in	753
Specifics in	520
UTERUS, DISEASES OF	741

V

VACCINATION	141, 544
VAGINA: DISEASES OF	445, 742
Tumors or Polypi in	742
VAPORS, NOXIOUS, SUFFOCATION FROM	713
VARICOCELE	366
VARICOSE VEINS	366, 707
VARIOLOID	140
VEAL BROTH FOR THE SICK	779
VEGETABLE BROTH FOR THE SICK ..	780
VEGETABLE SOUP, INDIAN	594
VEINS, ENLARGED OR VARICOSE ..	707
VENEREAL DISEASES:	
368, 373, 375, 608, 677-681	
Chancre	369
Chancroid	369
Chordee	375
Gleet	375
Gonorrhoea	373, 608, 677-681
Syphilis	368
VENTILATION OF SICK ROOMS	789
VERDIGRIS, POISONING BY	503
VERMIFUGE: ALLOPATHIC, FOR: ..	
WORMS	616
Electric, for Worms	615
Remedy for Tape Worm	618
VINE, WILD, EARTH CURE FOR POISONING BY	688
VINEGAR, RASPBERRY, DRINK FOR THE SICK	786
VISION, DEFECTS OF	116
VOICE, LOSS OF	18, 592
VOICE, LOSS OF, AND PUBLIC SPEAKER'S	592
VOLTAIRE'S FOOD FOR DYSPEPSIA AND INDIGESTION	619
VOLVULUS	200
VOMITING: DURING PREGNANCY ..	
376, 573, 612, 613,	749
In Cholera, to Check	613
Spiced Plaster for	573
To Eject Money	612

W

WARTS:	302, 630, 631, 632, 633
Brister's Spanish Destroyer for ..	631
On Hands (or Cow's Teats) ..	633
Simple and Easy Cure	632
WASH FOR THE FACE	575
WASH FOR WEAK EYES	628
WASHINGS, SALT, IMPORTANT IN CHRONIC DISEASES	685
WASP STINGS	681, 682

	Page		Page
WATER: BARLEY, FOR THE SICK	782	Marriage, About	387
Brash	376	Medicines for Baby	409
Chicken, for the Sick	782	Monthly Illness	386
Deep, Falling Into—What to do for Those Who Can't Swim	563	Mothers, Advice to Young	381
Eye, Remedy	627	Nervous Disturbances	412
Eye, Mild, for Children	623	Nursing the Baby	402
Hot, Cure	688-691	Pregnant State, About	393
Hot, for Consumption	590	Remaining in Bed	401
Hot, for Cuts	636	Room Where Baby is Kept	409
Hot, for Dyspepsia	624	Sleep, About	385
Hot, for Felon	636	Teething	404
Hot, for Inflammations	636	Weaning, Time of	405
Hot, for Wounds	636	What a Woman of Forty-five Ought to Know	410
Milk and Lime, for Weak Stomach and Dyspepsia	621	What a Young Wife and Mother Ought to Know	388
Tamarind, for Fever Patients and Dyspeptics	781	What a Young Woman Ought to Know	384
Toast, for the Sick	786	WHEY: SOUR MILK, FOR THE SICK	782
WATERBRASH	701	Tamarind, Cooling and Laxative for the Sick	781
WATERY DISCHARGES IN CHOLERA, TO CHECK	613	Wine for the Sick	781
WEAK: BACK FROM GLEET	681	WHITE: LEAD, POISONING BY	503
Back, Valuable Plaster for	572	Swelling	207, 614
Eyes, Mild Remedy for	628	Swelling, Salve for	614
Eyes, Wash for	628	Vitrol, Poisoning by	503
Patients, Milk Punch with Eggs, for	784	WHITELOW	377
WEAK STOMACH: BROWNED CORNMEAL GRUEL FOR	780	WHITE'S NERVE AND BONE LINIMENT	515
Tobacco Chewer's, Antidote for	652	WHITE'S, DR., REMEDY OR LINIMENT FOR RHEUMATISM, SPINAL AFFECTIONS, CANCERS, ETC.	505
Value of Milk and Lime Water for	621	WHITES (LEUCORRHEA)	738, 749
WEAK WOMEN, LIQUID PHYSIC FOR CONSTIPATION IN	608	WHOOPIING COUGH: Efficient Remedy for	377, 597, 598
WEAKENED PARTS, TREATMENT FOR ULCERS IN	710	Help for	598
WEAKLY: BABES, FOOD FOR	622	Syrup for	598
Children, Oatmeal Gruel for	621	Tincture for	598
Patients, Rice Coffee Especially Nice for	783	WILD VINE, POISONING BY, EARTH CURE FOR	688
WEANING, TIME OF	405	WIND COLIC	75
WENS	377	WINDPIPE, THINGS IN	487
WESTPHAL'S SIGN	238	WINE: JELLY FOR THE SICK	788
WETTING THE BED	670	Why for the Sick	781
WHAT GIRLS AND MOTHERS OUGHT TO KNOW:	380-414	WINTER: COUGH	80, 595
Air, Fresh	389	Health Rules for	595
Apprehension, Feeling of	411	Itch	516
Baby, Care of the	402	WOLF'S BANE, POISONING BY	504
Bath, About	384	WOMB: DISEASES OF 435-445, 520, 521, 660, 661, 741-744,	760
Bowels, About Keeping Regular	385	Atrophy of	443
Caution	414	Bearing or Falling Down of	742
Clothing for Baby	409	Bleeding of	660
Confinement, Preparations for	393	Cancer of	743
Cosmetics, Etc., About	387	Displacements of	436
Crisis, the First	382	Erosion of	441
Diet, As to	385	Falling Forward, After Child-Birth	760
Disinfection, About	391	Hemorrhage of	520, 521, 661
Dress for Young Girls	383	Hypertrophy of	443
Dress for Young Women	387	Inflammations of	440, 744
Exercise, About	386	Inversion of	438
Feeding the Baby	406	Polypus in	445
Food for Babies Who Cannot Be Nursed	407	Prolapse of	438
Foods, About	392	Retroflexion of	436
Girls, Care of Young	380	Retroversion of	437
Hair, Care of	384	Subinvolution of	439
Hot Flashes	411	Symptoms of	741
House Sanitation	388	Tumors of	444, 742
Labor, After it is Over	399	WOMEN, CHANCES OF MARRIAGE FOR	641

	Page		Page
WOMEN, DISEASES OF: 415-		Puerperal Convulsions	430
448, 520, 521, 574, 608, 651,		Puerperal Fever	429
652, 660, 679, 681, 733-749,	760	Retention of the Menses	735
Abortion	422	Vagina, Diseases of	445
Amenorrhea or Suppression of		Vomiting During Pregnancy ..	749
the Menses	417, 736	Weakly, Liquid Physic for	
Bearing Down or Failing		Constipation in	608
Down of Womb	742	Womb, Diseases of (See Womb	
Breasts, Abscess of	432	Above.)	
Breasts, Broken	432	WOOL SORTER'S DISEASE	282
Breasts, Diseases of	432	WORMS: ALLOPATHIC VERMI-	
Breasts, Milk Fever	432, 746, 747	FUGE FOR	616
Breasts, Nipples, Sore, Etc....	433	Electric Vermifuge for	615
Cessation of the Menses or		Face, to Remove	606
Turn of Life	739	Long Round	615
Change of Life	410	Pin	616
Child-Bed Fever	429	Round	461
Chlorosis	420	Tape	340, 461, 616-618
Confinement	421	Tape, Dr. Turnbull's Remedy	
Diseases of the Uterus	741	for	617
Dysmenorrhea, Deficient or		Tape, Latest, Most Successful	
Painful Menstruation and		Remedy for	618
Other Pains	418, 740	Tape, Vermifuge or Vermicide,	
Female Debility	745	Extraordinary, for	616
Flooding	428, 749	Thread or Seat	462
Green Sickness	420	Trichina	350
Itching of the External Geni-		WOUNDS: 487, 555, 556, 560, 570,	
tal Organs	748	573, 625, 636, 655, 688	
Labor	425	Balsam for	570
Leucorrhœa or Whites 445, 574,		Balsam, Peckham's Genuine	
651, 652, 679, 681, 738, 739,	749	for	625
Menorrhagia	419	Black Salve for	573
Menses, to Restore	737	Bleeding from	556, 660
Menstruation	415	Flesh, to Prevent Bleeding	
Menstruation, Diminished	416	from	556
Metorrhagia	420	Healing Ointment for	573
Milk, to Dry up	748	Hemorrhage from	522, 556
Milk, Suppression of While		Hot Water Poultice for.....	636
Nursing	746	Inflamed, Salve for	570
Milk Leg	431	Poisoned, Earth Cure for....	688
Miscarriage	422	Punctured	555
Monthly Turns or Menses 734,	735	Salve for	570
Offensive Urine	749	WRITER'S PARALYSIS	269
Ovarian Tumor	448	WRY NECK	284
Ovaries, Inflammation of	447		
Painful Menstruation and			
Other Pains	741		
Painful Menstruation and Ner-			
vous Debility	740		
Placenta Prævia	424		
Profuse Menstruation	737		

Y

YEAST POULTICE FOR SORES AND	
INDOLENT ULCERS	695
YELLOW FEVER	135, 696

INDEX

Domestic Science Dept.

(Index Medical Dept., Page 1238. Index Law and Business Dept., Page 1279)

A

	Page		Page
ADDITIONAL RECIPES. 804, 838, 883,	891	Tapioca, Pudding with....	812, 955
Bread	804	Tart, Bread Pudding with....	816
Cake	883	To Bake and Can.....	947
Meats	891	"ARF AND ARF" BUCK WHEAT	
Pies	838	CAKES	881
ALICE'S GINGERBREAD	853	ARTIFICIAL HONEY	952
ALLEN'S EXCELSIOR AXLE GREASE..	1024	ASHES, COAL, FOR CURRANT WORMS..	1011
ALMOND: BLANCHING, FOR CAKE	840	ASPARAGUS SOUP OF INDIA	899
Icing for Cake	843	AUNT ESSEY'S GRIDDLE CAKES....	880
Pudding, or Chester.....	817	AUNT LUCY'S SPICE CAKE.....	866
ALPACA, CARE OF, AND DOING		AUNT RACHEL'S BREAD PUDDING..	823
OVER	989	AUTHOR'S FAVORITE SAUCE FOR	
AMERICAN: BOLOGNA SAUSAGE.	890	PUDDINGS	811
Green Pea Soup	899	AXLE GREASE, ALLEN'S EXCELSIOR..	1024
AMMONIA: COOKIES WITH..	855, 867		
For Bee and Wasp Stings....	999		
For Housecleaning, Etc.....	998		
ANIMALS, FLEAS ON, TO DRIVE			
AWAY	1006		
AN OLD LADY'S ONLY COSMETIC..	1027		
ANTS, TO DESTROY	1012, 1017		
APES, OR CAKE WITHOUT EGGS OR			
YEAST	867		
APPARATUS, STEEL, TO KEEP POL-			
ISHED	1034		
APPLE: AND OTHER FRUIT PUD-			
DINGS	815		
Bird's-nest Pudding	815, 955		
Bread, to make	803		
Butter	949, 950		
Charlotte	815, 953		
Cider Jelly	978		
Compote	951		
Custard	955, 962		
Custard Pie	835, 955		
Custard Pudding	815		
Dumplings	954, 955		
Fritters	860, 948		
Fruit Cake	859		
Jelly	953, 977, 978		
Jelly, with Pure Apple Flavor	953		
Omelet	953		
Pie, Grandmother's	835		
Pie, Peach and Other Fruit....	835		
Pickles, Spiced or Sweet.....	951		
Preserve for Present Use....	953		
Pudding, Dutch Style	813		
Pudding, Yankee Style	814		
Shortcake	873, 954		
Shortcake Pudding	814		
Snow	950, 951		
Sweet, Pudding	814		
Tapioca Pudding	955		
Trees, Borers in, Remedy....	1009		
Turnover Pudding	838		
Turnovers, Fried or Baked....	838		
APPLES: CANNING OF	981		
Cheese and, Fritters.....	880		
Dried	948		
Mock Minced Pies with	832		
Pork Chops Fried with.....	915		
Sour, to Cook Nicely.....	952		
Sweet, Delicious Dish with....	955		
Sweet, Indian Pudding with....	827		
		BAKED: APPLE DUMPLINGS.....	954
		Apples	947
		Apple Turnovers	838
		Batter Puddings	821
		Beans, Boston	956, 957, 987
		Beef's Heart with Dressing....	911
		Beets	940
		Blackberry Pudding	824
		Boston Brown Bread.....	801
		Cabbage, Very Nice.....	971
		Cabbage with Grated Cheese..	972
		Eggs	960
		Fish, Sauce for	923
		Grits	985
		Ham Cakes, for Breakfast or	
		Tea	915
		Hominy or "Grits"	985
		Indian Bread, for Tea.....	801
		Indian Puddings	826, 827
		Meat and Rusk Pudding.....	825
		Or Cottage Pudding	809
		Or Steamed Graham Bread....	799
		Peaches	947
		Potato Balls	944
		Potato Pudding	825, 826
		Potatoes, Sliced	945
		Quick Pudding	820, 824
		Rice Merange	937
		Rye and Indian or Brown	
		Bread	800
		Sliced Potatoes with Pork....	945
		Squash	941, 986
		Suet Pudding	823
		Whitefish and Shad.....	922
		BAKING, HEATING OVEN FOR, ETC.	
		841,	871
		BAKING POWDER: HOW TO	
		USE IN MAKING CAKE.....	841
		Biscuit with	874
		Receipts	1024
		BALLS: BISCUIT	906
		Bread Crust for	958
		Bread, or Croquettes	986
		Duck and Oyster	921
		Fish	922
		Ham	914
		Meat	905, 908
		Potato	943, 944

	Page		Page
BANDOLINE, AS USED IN INDIA FOR THE HAIR.....	1026	Whortle (Huckle), Pudding..	825
BANNOCKS, SCOTCH.....	938, 939	BERWICK SPONGE CAKE, IMPROVED	862
BARBERS' BAY RUM, TO MAKE.....	1029	BEST YEAST, THE.....	797
BARK-LICE, REMEDY.....	1009, 1010	BILL OF FARE: FOR A WEEK..	902
BARLEY SOUP.....	896	For Thanksgiving Dinner...	986
BARON BRISSE'S RICE PUDDING.....	818	BIRD'S-NEST PUDDING.....	815, 955
BATTER: BUCKWHEAT TO KEEP SWEET.....	882	BISCUIT: BALLS.....	906
Puddings.....	820, 821	Breakfast.....	874
To Fry Bread in.....	959	From Bread Dough, to Make.	795
BAY RUM, BARBERS' RECIPE.....	1029	Naples.....	798
BEAN SOUP.....	893	Plain and Light.....	873
BEANS: BAKED, CURRANT CAT-SUP FOR.....	974	Quick.....	874
Boston Baked.....	957, 987	Southern.....	875
Old, to Cook Properly.....	956	Sweet.....	874
Pork and, Kansas Plan.....	957	Tea Cake, Instead of.....	857
Porridge or Broth.....	956	With Baking Powder, Quick..	874
String, for Winter Use.....	957	With Soda, Cream of Tartar and Sweet Milk.....	874
Winter Succotash.....	957	BLACKBERRY: CORDIAL FOR CHILDREN.....	824
BED-BUGS, TO DESTROY.....	1013	Fritters.....	943
BEEF: A LA MODE.....	891	Jam.....	824
Balls, with Uncooked Meat... ..	905	Jelly.....	824
Balls, with Left-Over Meat... ..	905	Pudding.....	824
Cold Roast, Broiled.....	911	Wine, to Make.....	1021
Corned, to Boil with Cabbage. . .	910	BLACK WALNUT STAIN.....	1037, 1039
Cold, to Economize.....	906	BLANC MANGE: CORN STARCH RICE.....	938, 980
Curing of, Pennsylvania Method Dr. Warner's Recipe for Cur- ing.....	888	BLANKETS, CLEANSING.....	990
Dried, with Eggs.....	907	BLEACHING: FLANNELS.....	991
Flank of, Rolled and Corned.. .	911	Muslin.....	1000
Fresh, to Cook to Eat Cold.. .	911	The Hair to Blonde Color....	1027
For Farmers, Fresh in Hot Weather.....	885	BOB, THE SEA COOK, HIS RECIPE FOR MOCK TURTLE SOUP.....	898
Head Cheese, from Bony Pieces	908	BOILED: APPLE DUMPLINGS....	954
Heart, to Bake with Dressing	911	Batter Pudding.....	820
Liver, to Fry.....	909	Beefsteak Pudding.....	825
Loaf.....	913	Blackberry Pudding.....	824
Pickle for.....	884, 887	Eggs.....	933
Pot Roast, or Stew.....	909	Codfish.....	921
Pressed.....	888	Custard Pie.....	834
Roast, or Baked.....	909	Dinner, How to Get Up.....	892
Savory, or Mock Tongue.....	910	Fig Pudding.....	813
Soup.....	896	Hunters' Pudding.....	816
Steaks, to Keep Fresh a Long Time.....	886	Icing for Cakes.....	842
Tongue, Potted.....	911	Meats, Hints for.....	903
With Dumplings.....	891	Poor Man's Pudding.....	819
BEEFSTEAK: AND SALT PORK WITH ONIONS.....	907	Rice, India Fashion.....	928
Broiler, to Make.....	904	Turkey, English.....	925
Broiling in Spider.....	906	Whortleberry Pudding.....	825
Fried, in Cracker Crumbs....	907	BOLOGNA SAUSAGE, TO MAKE..	889, 890
How to Cook.....	904	BOOTS, LADIES' KID, TO RE-COLOR.	993
Mock Duck with.....	921	BOOTS AND SHOES, WATER-PROOF- ING FOR.....	1024
Pudding, Boiled.....	825	BORAX: FOR TOOTH POWDER..	991
Sauce for.....	970	For Washing.....	989
Smothered with Onions.....	907	For Washing Clothes.....	989, 990
To Keep Fresh a Long Time..	886	To Exterminate Roaches....	990
BEER: CREAM.....	1022	BORERS, IN FRUIT TREES, REMEDY FOR.....	1009
Ginger, English.....	1022	"BOSS" CEMENT.....	1003
BEETS: HASHED WITH POTATOES	941	BOSTON: BAKED BEANS.....	957, 987
Stewed with Onions.....	940	Brown Bread.....	801
To Bake.....	940	Cake.....	865
BELGIAN METHOD OF WASHING CLOTHES.....	989	Cream Cakes.....	856
BERRIES, ICE CREAM WITH.....	963	Cream Toast.....	959
BERRY: BLACK, PUDDING, JAM, JELLY, AND CORDIAL.....	824	BRASS, TO CLEAN.....	1030
Fritters.....	943	BREAD:.....	793-804
		Additional Recipe for.....	804
		Apple.....	803
		Balls.....	986
		Boston Brown.....	801

	Page		Page
Breakfast Loaf	796	BROILER, BEEFSTEAK, TO MAKE...	904
Brown	800, 801	BROTH: AS MADE IN INDIA....	900
Corn	878	Bean	956
Crumbs, Egg Omelet with....	935	Scotch	897
Crumbs, Mock Minced Pie with	832	Mutton	897
Crumb Pudding	825	BROWN: BOSTON, BREAD, BAKED	801
Crumbs, Queen of Puddings	818	Bread, Baked and Steamed.800,	801
with	818	Bread, New England Style....	800
Crust of, to Make Soft and		BUCKEYE CAKE	865
Delicate	795	BUCKWHEAT: BATTER, TO KEEP	
Currant, Sweet Loaf	798	SWEET	882
Dough, Biscuit from.....	795	Cakes, Mock	881
Dry, and Cold Beef, Balls...	906	Griddle Cakes	880, 882
Dry, to Use	958	BUFFALO CAKE	865
Fried	960	BUGS: BED, TO DESTROY.....	1013
Ginger	853, 854	On Squash or Cucumber Vines,	
Good, How to Make.....	793	to Kill	1017
Graham	798, 799	Rose, Remedy for.....	1017
Griddle Cakes	882	Striped, to Destroy	1017
Hop Yeast Potato.....	797	To Prevent, on Vines	1017
Indian	801	BUNS: BETTER THAN BAKER'S..	869
Kind of Flour to Use	794	Breakfast	869
Kneading	795	Easter, or "Hot Cross".....	869
Meaning of	793	BURNING, TO AVOID IN ROASTING	
Minnesota Corn	801	TURKEY	925
Naples, or Biscuit	798	BURNS AND SCALDS, REMEDY FOR.	903
Old-Fashioned Indian	801	BUTTER: APPLE	949
Potato	797	Cherry	951
Pudding, Aunt Rachel's	823	Fruit	949, 950
Pudding, Fried	960	Ill Smelling, to Correct....	903
Pudding, St. James'	818	In Making Cake	839
Pudding, with Tart Apples...	815	Lemon	951
Pumpkin	803	Spanish, or Sauce	952
Quick	874	Sponge Cake	863
Rice	798	BUTTERMILK: GRAHAM GEMS	
Rye	800	WITH	877
Rye and Indian	800	White Cake with.....	857
Salt Rising, How to Make 802,	803		
Sauce for Roast Pigeons....	929	C	
Setting the Sponge.....	794, 797	CABBAGE: BAKED, VERY NICE..	971
Southern Corn	801, 802	Baked with Grated Cheese....	972
Stale, Pudding of	823	Corned Beef with	910
To Fry	959, 960	Plants, Best Way to Set Out..	1012
Vienna Bread or Yeast...796,	797	To Destroy Cut Worms.....	1002
Wheat and Indian, Steamed...	800	To Prevent Club Feet.....	1002
Yeast for, to Make	794	Worms, Remedy	1012
Bread Crusts for Balls, Dress-		CAKE: ADDITIONAL RECIPES FOR..	883
ing, etc.....	958	Apees, or Without Eggs or	
BREAKFAST: BISCUITS	874	Yeast	867
Buns	869	Apple Fruit	859
Cake, Corn	878	Apple Fritters	860
Cake, Norwegian	879	Baking—Heat of Oven, Etc.	
Eggs-in-the-Nest, a Nice Dish		841,	871
for	935	Biscuit	873, 875
Ham Cakes for	915	Boston	865
Muffins	875	Boston Cream	856
Potatoes for	945	Buckeye	865
Turkey Hash for	926	Buffalo	865
Waffles	875	Buns and Rolls, Various...869-871	
BREAKING GLASS	1036	Caraway Cookies	867
BRISSE'S, BARON, RICE PUDDING.	818	Charity	864
BROCADE SHAWLS, TO CLEAN....	994	Cheese, or Pie	838
BROCHE SHAWLS, TO CLEAN....	994	Chocolate	845, 847, 848
BROILED: BEEFSTEAK.904, 906,	907	Chocolate Jelly	847, 848
Cold Roast Beef	911	Charlotte Polonaise	851
Ham	914	Choice	865
Mackerel	923	Cider	865
Oysters	920	Cocoa Cones	849
Pigs Feet, "a la Barnum"....	916	Cocoanut	848, 849
Tomatoes	941	Cocoanut Drops	849
Venison Steak	908	Coffee	860, 861

	Page		Page
Cold Water	866	Rolls	870
Common	866	Rose Flavored Cookies	867
Cookies855, 867, 868,	883	Rusk, Various	870, 875
Corn	877, 878	Rye and Indian	880
Cornstarch	850, 852	Rye Drops	868
Cream	856, 867	"Sally Long" or Tea	867
Crullers	879	Sally Lunn	866
Currant	860	Saratoga Tea	856
Currants, Preparing for.....	840	Scotch	878
Custard Jelly	855	Scotch Oat	873
Dark	863	Shortcake, Various	871-873
Delicate, Various	853	Snow	856
Delicious Filling for Layer.....	846	Spanish Fritter Puffs	864
Drop	868	Spiced, Various	866
Farmers' Gems	868	Sponge Pudding	817
Fig Pound	860	Sponge, Various	862, 863
French Cream	856	Sugar Cookies	855
French Loaf	858	Sweet Potato	946
Fried, or Doughnuts, etc.....	879	Tea, Various	856, 857
Fritters, Various	880	To Stand in Cook-Room till	
Fruit, Various	860, 861	Cool	796
General Remarks and Explanations	839, 841, 842	Vanilla	865
German Crisps	866	Velvet Cream	875
Gingerbread	853, 854	Vermont Johnny	877
Ginger Cookies	855, 868	Waffles	875, 878
Ginger Drop	853	Watermelon	845
Ginger Snaps	852, 853	Wedding	861
Graham Drop Cookies	883	Weights and Measures for	842
Griddle, Various	880-882	White	857
Ham, for Breakfast or Tea.....	915	White Mountain	857
Hermit's	859	Without Eggs	865
Iced	851	CALCIMINING, HOW DONE	1042
Icing for	842, 843	CALF'S LIVER HEAD-CHEESE	909
Imperial	863	CALICOES, WASHING OF	989
Jelly	849, 850, 855	CAMBRICS, WASHING OF	989
Jumbles	858, 859	CAMPHOR ICE, TO MAKE	1028
Kansas Puffs	852	CANDIED PEEL, WITH DUKE OF	
Keeping	842	CAMBRIDGE PUDDING	817
Lady	850	CANDIES: CHOCOLATE CARAMELS	1013
Lady Fingers, as made in		Chocolate Creams	1013
India	850	Molasses Taffy	1013
Lemon	845	CANNING: Fruit	981
Lemon Jelly	845, 846	Corn	981
Lemon Jelly for	980	General Remarks	981
Loaf	857	Grapes	981
Love Knots for Tea	850	Rhubarb Plant, Etc.	982
Macaroons	868	Sausage	889
Making up of	839, 841	Strawberries	981
Marble	844, 845	Sweet Corn	982, 983
Martha's	843	Tomatoes	982
Materials for	839-841	To Avoid Breaking Cans	981
Molasses	861	CANTON SOY, TO MAKE	969
Muffins	859, 875, 876	CANVAS, FLEXIBLE PAINT FOR	1040
National	851	CARAMELS, CHOCOLATE, TO MAKE	1013
Norwegian Breakfast	879	CARAWAY COOKIES	867
Nutmeg	865	CARPETS: MOTHS IN, TO PREVENT	1002
Orange Jelly	846, 847	To Remove Moths	1038
Prince of Wales	852	To Wash Without Taking up	997
Palmetto Flannel	875	CARRAGEEN CUSTARD	961
Philadelphia Cream Puffs	864	CARROT SOUP	960
Poor Man's	864	CARROTS, WITH CREAM	987
Pop Overs, Wheat	877	CAST IRON, TO SOLDER	1035
Pork	869	CATS, FLEES ON, TO DRIVE AWAY	1006
Potato	864	CATSUP: CUCUMBER	974
Potato Puffs	864	Currant, for Baked Beans	974
Pound	863	Grape	974
Raised	866	Improved	970
Raisin	860	Mushroom	973
Ribbon	844	Tomato	973
Rock	865	When out, to Make a Supply	975
Roll, Jelly	849, 850		

	Page		Page
CAYENNE PEPPER, FOR RATS, BUGS, ETC.	1017	To Keep	1020
CELERY: SAUCE, TO MAKE	969	Cake, Without Eggs or Milk..	865
Soup, Rich and Creamy.....	895	CITRON, PREPARATION OF, FOR CAKE	840
CEMENT: DR. CHORIS' MAGIC		CLAMS, CHOWDER WITH	924
MENDER	1003	CLARET, WINE JELLY	979
For General Purposes	1040	CLEANING: BRASS	1030
For Iron Work	1040	Coffee Pots, Etc., Inside	1004
For Labels, Etc.	1018	Dresses	989
For Leaks in Steam Boilers..	1041	Flat Irons	1001
For Leather	1041	Glass Globes	1036
For Leather, Wood, Glass, Etc.	1018	Oil Cloth	1001
For Patching Boots, Etc.	1041	Painted Surfaces	1036
For Rubbers	1041	Silverware	1001
Proportion of, in Concrete....	1019	White Paint	1036
Steam and Water Tight, for		Zinc	1035
Joints	1042	(See Washing)	
CESSE POOLS, TO DISINFECT IN- STANTLY	1020	CLEANSING, BARRELS, ETC.	1005
CHAPPED HANDS, CAMPHOR ICE FOR	1023	(See Washing)	
CHARITY CAKE	864	CLOTH: FRUIT STAINS, TO RE- MOVE FROM	991
CHARLOTTE: APPLE	815, 953	To Remove Iron Rust from... 999	
Polonaise	851	To Remove Grease, Etc., from	991
CHEESE: AND APPLE FRITTERS.	880	To Remove Mildew from	1000
Baked Cabbage with	972	CLOTHES-CLEANING:	989
Italian	926	Soap for	994
Parmesan, with Welsh Rarebit	931	(See Washing)	
Pie or Cake	838	COAL ASHES FOR CURRANTS, ETC. .	1011
CHERRY BUTTER	951	COCA CONES	849
CHESTER PUDDING, ENGLISH	817	COCOANUT: CAKE	848, 849
CHESTNUT PUDDING, TO MAKE....	813	Drops	849
CHICKEN: BEEF OR VEAL HEAD- CHEESE WITH	908	Milk in Cooking Rice	928
Currie, with Rice	927	CODFISH: AND EGGS	922
Curried	895, 932	Balls	922
Fricasseed	926	To Boil	921
Hash	909	COLLING MOTH, REMEDY FOR... 1008	
In Peas	929	COFFEE: CAKE	860, 861
Oyster Pie	920	Jelly	978
Pies	836	COFFEE-POTS, TO CLEAN INSIDE... 1004	
Relish	929	COLD BEEF: AND DRY BREAD OR BISCUIT BALLS	906
Salad	967	Roast, Broiled	911
Soup	895	To Use Economically	906
Stew	916	COLD WATER CAKE	866
To Prepare for Picnics	926	COLE (COLD) SLAW, TO MAKE... 971	
Young, Nice Way to Cook	929	COLLOPS, SCOTCH, WITH VEAL .. 912	
CHILDREN, OATMEAL GRUEL FOR... 901		COLOGNE, FINE AND CHEAP	1025
CHILI SAUCE	970	COLORED: COTTON GOODS TO WASH	995
CHIMNEYS: How to BUILD	1002	Silk Handkerchiefs, to Wash... 997	
To Avoid Smoking	1002	COLORS OF COTTON GOODS, TO FIX. 995	
To Stop Leaks	1002	COMPOTE, APPLE	951
CHOCOLATE: CARAMELS, TO MAKE	1013	COMMON CAKE	866
Creams, to Make	1013	CONCRETE, PROPORTIONS OF MATE- RIALS FOR	1019
Icing for Cake	843	CONDY'S FLUID FOR DISINFECTING, ETC.	903
Jelly	978	COOKIES: CARAWAY	867
Jelly Cakes	847, 848	Excellent	855
Marble Cake	845	Ginger	855
Polonaise-Iced Cake	851	Ginger, with Molasses	868
CHOICE CAKE	865	Graham Drop	883
CHOPPED EGGS, WITH PUDDING, A LA CREME	810	Plain	867, 868
CHOPS, PORK, FRIED WITH APPLES	915	Rose Flavor	867
CHOW CHOW, TO MAKE	970, 971	Spiced	868
CHOWDER: FAMOUS RHODE IS- LAND, OR ST. JAMES'	923	Sugar	855
With Fish or Clams	924	With Ammonia	855, 867
CHRISTMAS PLUM PUDDING, OLD STYLE	809	COOK-ROOM, BREAD, CAKE AND PIE TO STAND IN TILL COOL ... 796	
CIDER: APPLE, JELLY	978	COOLING OF BREAD, CAKE AND PIE 796	
Boiled	1021	COPPER, TO CLEAN	1030
		CORDIAL, BLACKBERRY, FOR THE CHILDREN	824

	Page		Page
DELMONICO'S: RECIPE FOR		DUTCH APPLE PUDDING	813
COOKING OYSTERS	919	"DUTCH TURKEY"	912
Substitute for Hash	906	DYSPEPSIA, HEALTHFULNESS OF	
DENTIFRICE (SEE TOOTH-POWDER; BORAX).		HARD-BOILED EGGS IN	933
DEPILATORY TO REMOVE SUPER- FLUOUS HAIR	1028	E	
DINNER: BOILED, HOW TO GET UP	892	EASTER, OR "HOT CROSS" BUNS	869
Graham Bread for	799	EBONY STAIN FOR WOOD	1037
Potatoes for, Each Day in the Week	942	EGG: MUFFINS, TO MAKE	924
Thanksgiving Bill of Fare, Etc.	986	Plant, Fried	941
DISH OF SCRAPS, A	908	Preservatives	1005
DISINFECTANT FOR CESS POOLS, QUICK	1020	Toast	960
DODGERS: KENTUCKY CORN	878	EGGS: BATTER PUDDING WITH	821
White Corn	802	Cake, without	865, 867
DOGS: FLEAS ON, TO DRIVE AWAY	1006	Chopped, with Pudding, a la Creme	810
Poisoned by Strychnine, Anti- dote	1006	Codfish and	922
Mange Upon, Sure Remedy	1006	Dried Beef with	907
DOUGH, BREAD, TO MAKE BISCUIT FROM	795	Fried or Baked, for Breakfast	960
DOUGHNUTS: OR FRIED CAKES	879	Fried Potatoes with	944
Raised	879	Gruel of, for the Sick	934
DR. CHORIS' MAGIC MENDER	1003	Ham and	914
DR. WARNER'S RECIPE FOR CURING BEEF	888	Hard-Boiled, in Dyspepsia	933
DRESSING: BAKED FISH WITH	922	How to Boil	933
Beef's Heart, to Bake with	911	How to Preserve	1005
Bread Crust for	958	Indian Puddings without	826
Salads	966	In Making Cake	840
Salad, for Any Kind of Meats, Etc.	910	In-the-Nest	935
(See also Salad; Sauce.)		Minced Veal with	932
DRIED: APPLES	948	Muffins	924
Apple Shortcake	873	Muffins with and without	876
Beef with Eggs	907	Omelets	913, 914, 934, 935
Fruit for Cakes	840	Poached	934
Peach Pudding	815	Poached with Fried Ham	914
DRIED APPLES: JUICE OF, AS BEVERAGE FOR THE SICK	948	Potato Cake without	864
Manner of Cooking	948	Potatoes, Fried with	944
Wholesomeness of, as Food	948	Rusk, without	870
DRILLING GLASS	1036	Scrambled	934
DRINK, SUMMER, PLEASANT	1022	Tapioca Pudding without	812
DRIPPINGS IN MAKING CAKE	839	Toast	960
DROP CAKES: GINGER	853	ENGLISH: CHESTER OR ALMOND FLAVORED PUDDING	817
Or Macaroons	868	Currants, for Cake	840
Rye, Cup	868	Ginger Beer, to Make	1022
Rye and Indian	880	Method of Boiling and Frying Turkey	925
DROP COOKIES, GRAHAM	883	Plum Pudding	806, 808
DROPS, JAPANESE TOOTHACHE	1020	Welsh Rarebit	930, 931
DR. WARNER'S RECIPE FOR CURING BEEF	888	Yorkshire Pudding	815
DRY BREAD AND COLD BEEF BALLS	906	ENGLISHMEN'S TASTE, PLUM PUD- DING TO	808
DRYING OF FRUIT	1015	ERASIVE COMPOUND	994
DRY BREAD, TO USE	958	ESCALLOPED: OYSTERS	837, 919
DUCHESS POTATOES	944	Parsnips	918
DUCK: AND OYSTER CROQUETTES	921	Potatoes	945
Mock, with Veal or Beefsteak	921	Tomatoes	956
Roast, with Potato Stuffing	921	Veal	932
To Bake, Wild or Tame	920	ESSENCES, FLAVORING, TO MAKE	962
DUKE OF CAMBRIDGE PUDDING, WITH CANDIED PEEL	817	EVANGELINE'S GINGERSNAPS	852
DULCE DE LECHE, OR SPANISH SAUCE	952	EXTRA: BATTER-PUDDING	821
DUMPLINGS: APPLE	954, 955	Brown Bread, Steamed	801
Beef with	891	Lemon Custard Pie	832
		EXTRACTS: FLAVORING, FOR CAKES	840
		Flavoring, to Make	962
		Lemon and Orange, to Make	962
		F	
		FACE: COSMETICS FOR	1027
		Rough, Camphor Ice for	1028
		FAMOUS RHODE ISLAND CHOWDER	923

	Page		Page
FARINA JELLY	979	FRICASSEED: CHICKEN	926
FARMERS' GEMS TO MAKE	868	Rabbit Pie	837
FAST OR SPIRITUOUS SAUCE FOR		FRIED: AND BOILED TURKEY	925, 926
PUDDINGS	808	Apple Turn-Overs	838
FEATHER BED: TICK, TO RE-		Beef Balls	905
MOVE STAINS	1008	Beefsteak in Cracker Crumbs	907
To Renovate	1008	Bread	959, 960
FEET, PIGS', BROILED "A LA		Bread Pudding	960
BARNUM"	916	Cakes	879, 880
FENCE POSTS, TO PRESERVE	1007	Cakes, Rye and Indian	880
FERMENTATION, TO KEEP FRUIT		Corn	958
JUICES FROM	1020	Eggs	960
FIG: POUND CAKE	860	Egg Plant	941
Pudding, Boiled to Make	813	Fish	903, 923
FIGS: FROSTED FOR DESSERT	952	Ham	913, 914
Peach, very nice	952	Minced Turn-Over	837
Tomatoes, Prepared as	952	Mush	985
FILLING, DELICIOUS FOR LAYER		Norwegian Breakfast Cake	879
Cake	846	Oysters, According to Delmonico	919
FILTER, HOME-MADE, CHEAP	1024	Parsnips	941
FINGERS, LADY, TO MAKE	850	Pork Chops, with Apples	915
FINGER MARKS ON DOORS	994	Potatoes, Saratoga	943, 944
FIRE-PROOF WASH FOR SHINGLES	1040	Potatoes, with Eggs	944
FISH: BAKED AND STUFFED	922, 923	Salt Pork	913
Balls	922	Squash	986
Chowder with	924	Turkey	925
Hints for Cooking	903	FRITTER PUFFS, SPANISH	864
Potato Pudding with	826	FRITTERS: APPLE	860
To Fry	923	Corn	880
FLANK OF BEEF, ROLLED AND		Cream	880
CORNED	911	Cheese and Apples	880
FLANNEL CAKES, PALMETTO	875	Fruit and Berry	948
FLANNELS: MOTHS, TO REMOVE		Minced Meat	913
1002, 1038		Orange	880
To Wash	996	Oyster	920
To Wash and Dry	989	Plain, and Quick	880
FLAT-IRONS: TO CLEAN	1001	Potato	945
FLAVORS: ALMOND, IN PUDDING	817	Sweet	880
Essences for	962	FROGS, HOW TO COOK	924
For Ice Cream	963	FROSTED: CUSTARD, TO MAKE	961
Of Herbs, How to Preserve	988	Figs, for Dessert	952
Strawberry, for Pudding Sauce	811	Silverware, to Clean	1001
FLAVORING EXTRACTS: FOR		FROSTING (see Icing).	
CAKES	840	FRUIT: AS A MEDICINE	947
To make	962	Batter Puddings	821
FLEAS, TO DRIVE AWAY	1006	Butters	949
FLEXIBLE PAINT FOR CANVAS	1040	Cake, Apple	859
FLIES, TO DRIVE AWAY	904	Cake, Plain	860
FLOAT: STRAWBERRY	820	Cake, Premium	860
With Corn Starch or Flour	820	Cake that will keep for months	861
FLOATING ISLAND PUDDING	819	Cake, Very Nice	861
FLOOR, PAINT AND STAIN FOR	1039	Canning of	981
FLOUR: GOOD, ESSENTIAL TO		Dried	948
GOOD BREAD	794	Drying of	1015
To Prepare for Making Cake	839	Home Dried, For Cake	840
Graham, Pumpkin Shortcake		How and When to be Eaten	946
with	872	Pickles, Spiced or Sweet	951
FLY STICK-UM-FAST	1020	Pies	835
FORKS, TO BRIGHTEN	1035	Preserved	953
FRENCH: CHOCOLATE JELLY		Selection of, for Cake	840
CAKE	847	Shortcakes	954
Cream Cake	856	Stains, to Remove	996
Depilatory	1028	Stale Bread Pudding with	823
Dressing	966	Suitable Vessels for Cooking	947
Loaf Cake	858	Various, Puddings of	814
Pickles	1015	(See also Apple; Peach; To-	
Salad	965	mato.)	
Tapioca Custard	961	FURNITURE: POLISH FOR 1037, 1038	
Toast	960	Stain for	1037
FRESH BEEF, TO COOK FOR USE		Upholstered, Moths in	1002
WHEN COLD	911	FURS: MOTHS TO REMOVE FROM	1002
		White, to Clean	994

G	Page	Page	
GAME SOUPS	899	Oatmeal	882
GELATINE: ICING FOR CAKES		Rice	882
WITH	843	"GRITS," TO MAKE.....	985
Snow Pudding with	811	GRUEL, EGG	934
Queen Mab's Pudding with.....	818	GRUEL, OATMEAL, FOR INVALIDS	
GEMS: GRAHAM, TO MAKE...876, 877		AND CHILDREN.....	901
Farmers'	868		
GENERAL REMARKS: ON		H	
MAKING BREAD.....	793	HAIR: POMADE FOR.....1027, 1028	
On Making Cake	839	To Bleach	1027
On Making Pies	823	HAIR OIL, VERY FINE.....	1025
On Making Pudding	805	HAIR TONIC, BOB HEATER'S SHAM-	
GERMAN: CRISPS, TO MAKE... 866		POO	1025
Method of Getting Rid of Rats.1016		HAM: AND EGGS, EXTRA NICE... 914	
Silver, to Solder	1035	And Tongue Toast	914
GILDED SILVER, TO CLEAN.....1034		And Veal Odds and Ends Eco-	
GINGER: BEER, TO MAKE.....1022		nomically used	915
Bread	853, 854	Balls	914
Bread, Poor Man's	854	Broiled	914
Cookies	855, 863	Cakes, Baked	915
Drop Cakes	853	Curing of	884, 887
Pop, to Make	1022	Fried, with Poached Eggs....	914
Snaps	852, 853	Loaf	913
GLASS: CEMENT FOR	1018	Omelet with	914
Globes, to Clean	1036	Pies, Chicken and	836
To Break as You Like.....	1036	To Bake, and Omelet from	
To Drill	1036	"Odds and Ends".....	913
GLAZE, PIE CRUST, TO PREVENT		To Keep After Being Smoked..	886
ESCAPE OF JUICES.....	830	To Keep the Year Round.....	889
GLOBES, GLASS, TO CLEAN.....1036		HANDS: To Keep Soft in	
GLOVES, KID, TO CLEAN.....992, 993		Winter	1029
GOLD CHAINS, TO CLEAN.....1034		Wash for Ladies'	1029
GOLDEN BUCK OR WELSH RAREBIT		Wash for, When Rough From	
.....930, 931		Cold	1029
GOOD BREAD: GOOD FLOUR ES-		HANDKERCHIEFS, COLORED SILK TO	
SENTIAL TO	794	WASH	997
How to Make	793	HANDS, CHAPPED, POMADE FOR...1027	
GOOSE, ROAST	988	HARD BOILED EGGS: IN DYS-	
GRAFTING WAX, TO MAKE.....1005		PEPSIA	933
GRAHAM: BREAD, ONE LOAF... 799		In Typhoid Fever	933
Bread, to Make	798, 799	HARD WATER, TO SOFTEN.....998	
Bread, with Soda, Baked or		HASH: CHICKEN	909
Steamed	799	Delmonico's Substitute for... 906	
Flour, Pumpkin Shortcake with	872	Liver	909
Griddle Cakes	882, 883	Poultry	926
Gems	876, 877	HEAD CHEESE: BEEF OR VEAL	
Muffins	876	WITH CHICKEN.....	908
Pop-Overs	877	Calf's Liver	909
GRANDMOTHER'S APPLE PIE.....835		"Scrapple" in Place of.....	915
GRAPE: CATSUP, TO MAKE..... 974		To Make	935
Jam or Marmalade	980	HEART, BEEP'S, TO BAKE WITH	
Jelly, to Make	979	DRESSING.....	911
Juice, to Can or Bottle.....	975	HEAT OF OVEN FOR BAKING	
Juice, to Keep.....	1020	CAKE	841, 871
GRAPES, TO CAN	981	HERBS: SWEET, FOR SEASONING	
GRAVY FOR POTATOES	946	FOOD	988
(See also Sauce.)		How to Raise, Etc.....	988
GREEN APPLE JELLY, TO MAKE.... 953		Value of, for Stews, Etc....	917
GREEN CORN: SOUP.....	895	HERMITS	859
To Can	983	HOLLAND METHOD OF WASHING	
(See Corn.)		CLOTHES	989
GRIDDLE CAKES: "ARF AND		HOME-MADE FILTER, TO MAKE...1024	
ARF"	881	HOME STYLE OF COOKING POTATOES 943	
Batter for, to Keep Sweet....	882	HOMINY, TO MAKE.....983-985	
Bread	882	HONEY: ARTIFICIAL	952
Buckwheat	880	Pudding	824
Graham	882, 883	HOP YEAST, POTATO BREAD..... 797	
Indian	883	"HOT CROSS" BUNS, TO MAKE.... 869	
Mock Buckwheat	881	HOT SLAW, TO MAKE.....	971

	Page	J	Page
HOT WEATHER, TO HAVE FRESH			
MEAT IN.....	885	JAM: BLACKBERRY	824
HUCKLEBERRY PUDDING, BOILED...	825	GRAPE	980
HULLED CORN: CROQUETTES, TO		Quince	980
MAKE	985	JAMES', ST., STALE BREAD PUD-	
"Grits," to Make	985	DING	818
To Make	983-985	JAMS AND MARMALADES, TO MAKE.	976
HUNTER'S PUDDING, BOILED.....	816	JAPANESE, TOOTHACHE DROPS.....	1020
		JELLY: APPLE	953, 977, 978
I		Apple Cider	978
ICE: CAMPHOR, FOR CHAPPED		Apple, With Pure Flavor.....	953
HANDS, ETC.....	1028	Bag, to Make	975
Cream, Flavors for	963	Blackberry	824
Cream, Lemon	963	Cake	850
Cream, Parisian	963	Cake, Chocolate	847, 848
Cream, Various, to Make	962, 963	Cake, Lemon	845, 846
ICED CAKE	851	Cake, Orange	846, 847
ICED MOUNTAIN CAKE.....	857	Chocolate	978
ICES, WATER, TO MAKE.....	962-964	Claret Wine	979
ICING: ALMOND	843	Coffee	978
Boiled, for Cakes	842	Custard Cake	855
Chocolate	843	Delicious for Any Layer Cake	846
Colored	843	Farina	979
With Gelatine	843	Grape	979
Without Boiling	843	Lemon and Apple	977
ILL-SMELLING MEATS, TO CORRECT.	903	Lemon, for Cake	980
IMPERIAL CAKE.....	863	Mulled	934
IMPROVED BERWICK SPONGE CAKE.	862	Port Wine, for the Sick.....	979
IMPROVED CATSUP	970	Quince	979
IMPROVED SOUTHERN CORN BREAD.	802	Rice	980
INDIAN: AND RYE BREAD.....	800	Rolls	849, 850
Asparagus Soup	899	Tomato	980
Boiled Rice	928	Veal	932
Bread, Extra, Steamed.....	801	JEWELRY, TO CLEAN.....	1034
Bread, for Tea, Baked.....	801	JOHNNY CAKE, VERMONT.....	877
Bread, Old-Fashioned	801	JUMBLES: OR SAND TARTS..	858, 859
Broths, Veal and Lamb.....	900	Rich	859
Brown Bread	800	Soft	859
Chicken Currie	895, 927		
Currie Powder	972	K	
Drop Cakes	880	KANSAS PORK AND BEANS.....	957
Green Pea Soup	899	KANSAS PUFFS, TO MAKE.....	852
Griddle Cakes	882	KEEPING CAKES, HINTS FOR.....	842
Meal, Johnny Cake, Etc.....	877, 878	KENTUCKY CORN DODGERS.....	878
Method of Making Lady Fingers	850	KEROSENE TO KEEP OFF STRIPED	
Method of Making Prussian		BUGS	1017
Soup	898	KID: BOOTS TO RECOLOR.....	993
Mush, to Make	985	Gloves, to Restore Worn Spots	993
Puddings, Various	826, 827	Gloves, to Clean	992
Puree, to Make	969	KNEADING OF BREAD.....	795
Rusk	875	KNIVES, TO CLEAN FROM RUST....	1034
Wheat and, Bread	800		
INK: PRINTER'S TO REMOVE FROM		L	
CLOTHING	992	LABELS, CEMENT FOR.....	1041
To remove from Clothing	992	LACE: FINE WHITE TO CLEAN..	994
INVALIDS, OATMEAL GRUEL FOR.....	901	To Renovate	997
IRISH MOSS CUSTARD.....	961	LADIES' HANDS, WASH FOR.....	1029
IRISH STEW, TO MAKE.....	917, 918	LADY: CAKE	850
IRON: CEMENT FOR.....	1040	Fingers, as Made in India.....	850
Flat, to Clean	1001	LAMB: BROTH AS MADE IN INDIA	900
To Prevent Rust	1033	Roast, Mint Sauce For.....	912
To Solder	1035	Shoulder of, Stuffed	912
Zincing	1031	LARD, IN MAKING CAKE.....	839
IRON RUST, TO REMOVE FROM		LAUNDRY, HINTS FOR.....	994-998
CLOTHING	999	(See Washing).	
ISLAND, FLOATING, PUDDING.....	819	LAWNS, PLANTAINS ON, TO DE-	
ITALIAN: CHEESE	926	STROY	1019
Mush, to Make	985	LAYER STRAWBERRY SHORTCAKE..	871
Or Macaroni Soup	896		

	Page		Page
LEAKS: IN CHIMNEY'S, ETC., TO STOP	1002	Curing, Various Methods...	884-888
In Steam Boilers, Cement for	1041	Fritters, Minced	913
LEATHER, CEMENT FOR	1018, 1041	General Remarks for Cooking	902, 903
LEMON: AND APPLE JELLY	977	Hints for Cooking	903
Butter	951	Loaf	913
Cake	845, 846	Minced, for Pies	890
Custard Pie, Extra	832	Pies	836
Essence of, to Make	962	Potato Pudding with	826
Ice Cream	963	Potted, Scotch	912
Jelly, for Cake	980	Putrid or Ill-Smelling, to Correct	903
Pie, Quickly Made	832	Salad Dressing for	910
Pie, with Raisins	833	Sauce for, Delmonico's	923
Sponge Cake	863	Sausage	888
Syrup, to Prepare	1023	Scotch Potted	912
Water Ices	964	MECHANICAL DEPARTMENT	1030-1042
LEMONADE, EXCELLENT, TO MAKE	1023	MEDICINE, FRUIT AS	947
LICE, BARK, REMEDY FOR	1009, 1010	MELONS, BUGS ON, TO PREVENT	1017
LIGHT: BISCUIT, TO MAKE	873, 874	MERANGE, RICE, BAKED	937
Fritters	880	MICE, TO EXTERMINATE	1016, 1017
Muffins, Very Nice	876	MILDEW, TO REMOVE FROM CLOTHING	1000
LIME, AIR SLACKED, TO DESTROY ROSE-BUGS	1017	MILK: BATTER PUDDING, WITH AND WITHOUT	820, 821
LINEN: BROWN, TO WASH	995	Butter, White Cake with	857
Glossy, How Done	1000	Cocoanut, for Cooking Rice	928
Scorched, to Whiten	1000	Lemon Cake, With and Without	845
To Remove Paint, Etc., from	991	New Potatoes in	945
LIPS: CHAPPED, CAMPHOR ICE FOR	1028	Parsnips Stewed in	941
Chapped, Pomade for	1028	Soup	894
LIQUID: FOR CURLING HAIR	1026, 1027	Sour, Batter Puddings with	821
Glue	1040	Sour, Suet Pudding with	822
LIVER: BEEF, TO FRY	909	Sweet, Biscuit with	874
Calf's, Head Cheese	909	Sweet, Suet Pudding with	823
Hash, to Make	909	Sweet, White Cake with	857
LOAF: CAKE	857	Tapioca Pudding Without	812
Cake, French	858	Toast	958, 959
Currant, Sweet	798	To Clean Kid Gloves	992, 993
Meat, Various	913	MINCED: MEAT FOR PIES	890
One, of Graham Bread	799	Meat Fritters	913
Vienna, Breakfast	796	Pies, Crust for	829
LOBSTER SALAD	967	Pies, Various	828, 831, 832
LONDON "HOT CROSS" BUNS	869	Turn-Over Pies	837
LOVE KNOTS FOR TEA	850	Veal, with Poached Eggs	932
LUCY'S, AUNT, SPICED CAKE	866	MINT: SAUCE MADE IN INDIA	969
		Sauce for Roast Lamb	912
		MOCK: BEEF TONGUE, OR SAVORY BEEF	910
		Buckwheat Cakes	881
		Duck, with Veal or Beefsteak	921
		Minced Pies	832
		Turtle Soup	893
		MOLASSES: CAKE	861
		Cake with, How to Bake	839
		Ginger Cookies with	868
		Sponge Cake	862
		Taffy, to Make	1013
		MOSQUITOES, TO EXTERMINATE	1017
		MOTH, CODLING, REMEDY FOR	1008
		MOTHER'S STRAWBERRY SHORTCAKE	872
		MOTHS: IN CARPETS, TO PREVENT	1002
		In Upholstered Furniture, Etc.	1002
		To Prevent	1026
		MRS. CHASE'S SPONGE CAKE	862
		MRS. RICE'S GINGERBREAD	854
		MUCILAGE, TO MAKE	1018
		MUFFINS: BREAKFAST	875
		Corn Meal	876
		Egg	924
		Graham	876

M

MAB'S, QUEEN, PUDDING WITH GELATINE	818
MACARONI SOUP, ITALIAN	896
MACARONS, OR DROP CAKE	868
MACHINERY, TO KEEP FROM RUSTING	1033
MACKEREL, BROILED	923
MAGICAL TOOTHACHE DROPS	1020
MAKE-BELIEVE TERRAFIN SOUP	898
MANGE IN DOGS, REMEDY FOR	1006
MARBLE CAKE, TO MAKE	844, 845
MARMALADE: GRAPE	980
Quince	980
To Make	976
MARTHA'S CAKE	843
MAYONNAISE OR FRENCH DRESSING	966
MEAT: ADDITIONAL RECIPES FOR	891
And Rusk Pudding, Baked	825
Balls, from Left-Over	905
Balls, Nice	906, 908
Beefsteaks	886
Boiled	903
Cold, Economical Use of	906

	Page
Mush	859
Rice	937
MULLED JELLY	934
MUSH: CRACKED WHEAT.....	940
Italian or Polenta	985
Muffins	859
Oatmeal	939
Rye and Indian	985
To Fry	985
MUSHROOM CATSUP, TO MAKE.....	973
MUSLIN: BLEACHING OF	1000
Washing of	989
MUTTON: LOAF	913
Soup, or Scotch	897
Stews	916, 917

N

NAILS, TO DRIVE IN HARD TIMBER.....	1042
NAPLES: BREAD OR BISCUIT.....	798
Pudding, with Candied Peel.....	817
NATIONAL CAKE, TO MAKE.....	851
NEW ENGLAND STYLE OF BROWN BREAD	800
NEW POTATOES, A LA CREME.....	945
NICKEL PLATING	1032
NIGHT, SETTING BREAD SPONGE OVER	797
NOODLE SOUP, TO MAKE.....	897
NOODLES, FOR SOUP, TO MAKE.....	897
NORWEGIAN BREAKFAST CAKES, FRIED	879
NUT CAKES, OR DOUGHNUTS.....	879
NUTMEG CAKE	865

O

OAT-CAKES, SCOTCH	873
OATMEAL: CRACKNELS	939
Griddle Cakes	882
Gruel for Invalids and Children	901
Or Scotch Cake	878
Mush	939
Porridge	938, 939
Scotch Bannocks	939
Value of	938
ODDS AND ENDS: HAM, OMELET FROM	913
Ham and Veal, to Economize.....	915
OILCLOTH, TO KEEP BRIGHT.....	1001
OIL: SALAD	966
Sewing Machine, to Make and Use	1042
Painted Surfaces	1036
OLD-FASHIONED: APPLE JELLY	977
Christmas Plum Pudding	809
Corn Bread	801
Indian Pudding	827
Strawberry Shortcake	872
OLD PUTTY, TO REMOVE EASILY.....	1013
OLD SILK DRESSES, TO RENOVATE.....	997
OMELET: APPLE	953
EGG	934, 935
From "Odds and Ends" of Ham	913
Oyster	920
With Ham	914
ONION: BEEFSTEAK AND SALT PORK WITH	907
How to Cook to Avoid Strong Flavor	936

	Page
Soup	901
Potatoes with	945
ORANGE: CAKE	846, 847
Fritters	880
Ice, to Make	964
Pie	833
Pudding, to Make	813
ORNAMENTS, TO CLEAN.....	1034
OVEN, HEATING OF, FOR BAKING	841, 871
OYSTER: BROILED	920
Corn	920, 958
Croquettes, Duck and	921
Egg Omelet with	935
Escaloped	837
Escaloped, According to Del- monico	919
Fried, According to Delmonico	919
Fritters	920
Omelet	920
Pie	837
Pie, with Chicken	920
Soup	987
Stew, According to Delmonico.....	919

P

PAIN'T: BLACK, FOR IRON FENCES, ETC.	1039
Cheap, to Make	1038
Flexible, for Canvas	1040
For Floors	1039
Old, to Remove	1040
Spots on Windows, to Remove To Clean	993
To Remove from Clothing.....	1036
.....	991
PALMETTO FLANNEL CAKES.....	875
PAN CAKES (See Griddle Cakes.)	
PANS, PREPARATION OF, TO BAKE CAKE	841
PAPER, TRACING, TO MAKE.....	1035
PAPERING, HOW TO DO IT.....	1019
PARADISE PUDDING, TO MAKE.....	809
PARISIAN ICE CREAM, TO MAKE.....	963
PARKER HOUSE BREAKFAST ROLLS	871
PARSNIP: CAKES OR BALLS.....	941
Escaloped	918
Fried	941
Stew	918, 941
Stewed in Milk	941
PASTE: FOR PAPERING, TO MAKE	1019
To Make	1018
PASTRY: BAKING FOR PIES, BEFORE FILLING.....	831
Or Crust for Pies.....	829, 830, 836
PEA: GREEN, SOUP	899, 900
Piecrust	830
PEACH: BUTTERS	949, 950
Dried, Pudding	815
Figs, Very Nice	952
Fritters	948
Ice Cream	963
Pickles, Spiced or Sweet.....	951
Preserve, to Make	953, 976
Pudding	814
Pie	835
To Bake and to Can.....	947
Trees, Borers in, Remedy.....	1009
PEARLINE, TO MAKE.....	991
PEARS, PICKLED, SPICED OR SWEET	951
PEAS, CHICKEN COOKED IN.....	929

	Page		Page
PEEL, CANDIED, WITH PUDDING....	817	PLAIN: COOKIES	867, 868
"PEGGY SHORTCAKE," DOUGHNUTS		Fritters	880
AS MADE BY	879	Fruit Cake	860
PENNSYLVANIA METHOD OF CURING		Shortcake	871
MEAT	884	PLANTAINS, TO DESTROY ON	
PENNYROYAL FOR RATS, BUGS, ETC.	1017	LAWNS	1019
PERFUME BAGS TO SCENT CLOTH-		PLANTS: LICE ON, REMEDY....	1010
ING	1026	Forcing	1009
PERMANGANATE OF POTASH, TO		PLATED JEWELRY, TO CLEAN....	1034
CORRECT PUTRID MEATS, ETC.	903	PLATING, NICKEL AND SILVER....	1032
PHILADELPHIA CREAM PUFFS....	864	PLUM PUDDING: CHRISTMAS,	
PIANOS, POLISH FOR.....1037, 1038		OLD STYLE	809
PICALILLI, TO MAKE.....970		English	806, 808
PICKLE, FOR CURING MEAT....884, 887		Other Recipes for	807, 808
PICKLES: FRENCH, DELICIOUS..1015		Sauce for	807, 808
Very Fine for Present and		PLUM TREES, CURCULIOS ON,	
Future Use	1014	REMEDY	1010
Fruit, Spiced or Sweet....	951	POACHED: EGGS	934
PIES: ADDITIONAL RECIPE FOR	338	Eggs, Ham with	914
Apple and Other Fruits	835	POISON, BED-BUGS, FOR.....1013	
Apple Custard	835	POLENTA MUSH, TO MAKE.....985	
Apple Turn-Over	838	POLISH: FOR FURNITURE.1037, 1038	
Baking Pastry Before Filling.	831	For Silverware	1001
Bolled Custard	834	Of Steel Instruments, to Pre-	
Cheese Cake or	838	serve	1034
Chicken and Ham.....836		POLONAISE, CHARLOTTE, TO MAKE.	851
Chicken and Other Meat	836	POMADE FOR HAIR, ETC.....1027	
Chicken, Oyster	920	POP, GINGER, TO MAKE.....1022	
Cream	834	POPCORN PUDDING, TO MAKE....813	
Cream, Crust Baked First....	833	POP-OVERS, GRAHAM AND WHEAT	877
Cream Pastry or Crust	830	POOR MAN'S: CAKE	864
Crust, Glaze of.....830		Ginger Bread	854
Crust, Pea	830	Pudding, Bolied	819
Grandmother's Apple	835	PORK: AND BEANS.....957	
General Remarks	828	Batter Pudding with	820
Lemon and Raisin	833	Cake	869
Lemon Custard	832	Chops, Fried, with Apples....	915
Lemon, Quickly Made	832	Ham, to Bake	913
Minced	828, 831	Salt, and Beefsteak with	
Minced Meat for.....890		Smothered Onions	907
Minced, Turn-Over, Fried or		Salt, How to Fry.....913	
Baked	837	Salt, Pudding, to Make....	813
Mock Minced	832	Sliced Potatoes Baked with...	945
Orange	833	Stew with Mutton	917
Oyster	837	To Keep Fresh in Hot Weather	885
Pastry or Crust for.....829, 836		PORRIDGE: BEAN	956
Potato Custard	835	Oatmeal	939
Pumpkin	834	Scotch	897
Pumpkin and Squash	834	PORT WINE JELLY.....979	
Rabbit, Fricasseed and Roast.	837	POSTS, TO PRESERVE.....1007	
Squash, Very Rich	834	POTASH: FOR RATS, BUGS, ETC.1017	
Sweet Potato	835	Permanganate of, to Correct	
To Stand in Cook-Room Till		Putrid Meats, Etc.....905	
Cool	796	POTATO BREAD, TO MAKE.....797	
PIECRUST:	829	POTATOES: BALLS	943, 944
Baking Before Filling.....	836	Cake	864
Cream	830	Cake, Without Eggs, Quick	
For Mince Pie	831	Process	864
Glaze of, to Prevent the Escape		Custard Pie	835
of Juices	830	Duchesse	944
Pea	830	En Calsse	944
PIE-PLANT, TO CAN.....982		Escalloped	945
PIE-PUDDING, OF VARIOUS FRUITS.	814	Fried with EGGS	944
PIG, ROAST	987	Fried, Saratoga	943, 944
PIGEONS, ROAST, AND SAUCE FOR..	929	Fritters	945
PIGS' FEET, BROILED, "A LA		General Remarks	941
BARNUM"	916	Gravy for	946
PINE, STAINS FOR.....1037		Hashed, with Beets	941
PIPES, STEAM, TO COVER....1030, 1031		Home Style	943
PITCH, TO REMOVE FROM CLOTHING	991	Hop Yeast, Bread	797
		In Seven Ways	942
		New, a la Creme	945

	Page		Page
Pudding	825	General Remarks and Direc-	
Pudding, with Meat or Fish..	826	tions	805
Puffs	864	Honey	824
Salad	966	Hunters' Boiled	816
Sliced, to Bake with Pork...	945	Indian, Various	826, 827
Soup	894	Meat and Rusk	825
Stewed	918	Naples	817
Stuffing, Roast Duck with...	921	Orange	813
Sweet, Cakes of.....	946	Paradise	809
Sweet, Pie	835	Pie	814
Sweet, Pudding	826	Plum, and Sauce for.....	807,
Sweet, to Bake or Broil	946	Plum, to Englishman's Taste,	808
"Tip-Top"	944	in Rhyme	808
With Onions for Breakfast...	945	Poor Man's Boiled	819
POTTED: BEEF TONGUE	911	Pop Corn	813
Meat, Scotch	912	Potato	825, 826
Pot Roast, Beef	909	Prune	813
POULTRY, HINTS FOR COOKING.902, 903		Queen Mab's, with Gelatine..	818
POUND CAKE: FIG	860	Queen of, the, with Bread	
Plain	863	Crumbs	818
POWDER: BAKING, RECIPE FOR.1024		Quick, Baked	820, 824
Baking, Use of, in Cake.....	841	St. James' Stale Bread.....	813
Currie	972	Sago	812
Silvering, to Make	1035	Salt Pork	813
Tooth, Borax for	991	Sauce, Fast or Spirituous....	808
PREMIUM FRUIT CAKE	860	Sauce for, Snow or White....	811
PRESERVE: APPLE AND PEACH,		Sauce for, Author's Favorite..	811
FOR PRESENT USE	953	Snow, with Gelatine	811
Peach, Very Nice	976	Sponge Cake	817
PRESERVING EGGS	1005	Stale Bread, with or without	
PRESSED BEEF	888	Fruit	823
PRINCE OF WALES CAKE	852	Strawberry Float, a Substitute	
PRINTERS' INK, TO REMOVE FROM		for	820
CLOTHING	992	Suet	822, 823
PRUNE PUDDING, TO MAKE	813	Sweet Apple	814
PRUSSIA SOUP, AS MADE IN INDIA	898	Sweet Potato	826
PUDDING: ALMOND FLAVORED..	817	Tapioca, Various	812, 816
Apple Charlotte	815	Whortleberry, or Huckleberry.	825
Apple Custard	815	With Chopped Eggs, a la Creme	810
Apple, Dutch Style	813	Yorkshire, English	815
Apple Pie, or Yankee Style..	814	PUFFS: KANSAS	852
Apple Shortcake	814	Philadelphia Cream	864
Apple Tapioca	955	Potato	864
Apple Turn-Over	838	Spanish Fritter	864
Baked as Cake	809	PUMPKIN: BREAD TO MAKE...	803
Batter, Boiled or Steamed, Va-		Butter	950
rious	820, 821	Pie	834
Baron Brisses' Rice	818	Shortcake, with Graham Flour	872
Beefsteak, Boiled	825	PUREE, AS MADE IN INDIA.....	969
Bird's-Nest	815, 955	PUTRID, OR ILL-SMELLING MEATS,	
Blackberry, Baked or Boiled..	824	ETC., TO CORRECT	903
Blanc Mange, or Substitute for	820	PUTTY, OLD, TO REMOVE EASILY..	1013
Bread, Aunt Rachel's	823		
Bread Crumb	825		
Bread, Fried	960		
Bread, with Tart Apples.....	815		
Chester, English	817		
Chestnut	813		
Christmas Plum, Old Style... 809			
Corn Starch	827		
Cottage, and Sauce	809, 810		
Cracked Wheat	819		
Cream	810, 827		
Cream or Custard	810		
"Dandy" Custard	810		
Danish, or Tapioca	816		
Dried Peach	815		
Duke of Cambridge	817		
English Plum	806, 807		
Fig, Boiled	813		
Floating Island	819		
Fruit Batter, Baked or Boiled	821		

Q

QUEEN MAB'S PUDDING, WITH GEL-	
ATINE	818
QUICK PUDDING, BAKED	820, 824
QUEEN OF PUDDINGS, THE, WITH	
BREAD-CRUMBS	818
QUINCE: JELLY	979
Marmalade or Jam	980
Use in Canning Apples	981

R

RABBIT: CUTLETS	908
Pie, Fricassee and Roast...	837
RACHEL'S, AUNT, BREAD PUDDING.	823
RAISED CAKE, TO MAKE	866
RAISED DOUGHNUTS	879
RAISIN CAKE, TO MAKE	860
RAISIN PIE, LEMON AND	833

	Page		Page
For Meats, Delmonico's	923	SHORTCAKE: APPLE	873
For Plum Puddings	807, 808	Apple and Other Fruits	954
For Potatoes	946	Apple Pudding	814
For Cottage Pudding	809, 810	Dried Apple	873
Lemon, for Puddings	822	Mother's Strawberry	872
Mint, for Roast Lamb	912	Plain	871
Spanish	952	Pumpkin, with Graham Flour	872
Strawberry Flavor, for Puddings	811	Strawberry	871, 872
Sweet, for Puddings	807	Sweet, with Soda	871
Tomato Jelly, for Meats	980	SHOULDER OF LAMB, STUFFED	912
(See Also Salad; Sauce for the Table.)		SHRINKING, TO AVOID IN WASHING	
SAUCES FOR TABLE: CANTON		FLANNELS	989, 996
Soy	969	SILK: TO REMOVE SPOTS FROM	991
Celery	969	To Remove Paint, Etc., from	991
Chili	970	SILK DRESSES, OLD, TO RENOVATE	
Chow-Chow	970, 971	LIKE NEW	997
Cole (Cold) Slaw	971	SILK HANDKERCHIEFS, TO WASH	997
Cucumber Catsup	974	SILVER: GERMAN, TO SOLDER	1035
Currant Catsup	974	Nitrate of, Stains to Remove	1001
Currie Powder, American	972	Stained, to Clean	1030
Currie Powder, as Made in India	972	SILVER PLATING	1032
Grape Catsup	974	SILVERING POWDER, TO MAKE	1035
Grape Juice, Canned	975	SILVERWARE: POLISH FOR	1001
Hot Slaw	971	To Clean	1001, 1034, 1035
Improved Catsup	970	SKY-LIGHTS, TO STOP LEAKS IN	1002
Mint, as Made in India	969	SLAW: COLE OR COLD, TO MAKE	971
Mushroom Catsup	973	Hot, to Make	971
Picalilli	970	SLICED POTATOES, BAKED WITH PORK	945
Puree, Explanation of	969	SMOKING: MEATS	884
Tomato Catsup	973	Of Chimneys, to Avoid	1002
Worcestershire	968	To Keep Hams After	886
(See Also Salad; Sauce.)		SNAPS, GINGER	852, 853
SAUSAGE: BOLOGNA, AMERICANIZED	890	SNOW: APPLE	950, 951
Bologna, as Made in Germany	889	Cake	856
Seasoning Required	888	Or Rock Cream, for Custard	962
To Can or Preserve	889	Pudding, with Corn Starch	811
SAVORY BEEF, OR MOCK TONGUE	910	Pudding, with Gelatine	811
SCALDS AND BURNS, REMEDY FOR	903	Rice, to Make	937
SCALE-BUGS, REMEDY	1010	Sauce, for Puddings	811
SCOTCH: BANNOCKS, OR CRACKNELS	939	SOAP: ERASIVE COMPOUND	994
Broth, or Soup	897	Oatmeal, to Keep Hands Soft	1029
Cake	865	Pearline	991
Collops, with Veal	912	SOAPINE, TO MAKE	991
Mutton Soup	897	SODA: BISCUIT WITH	874
Oat-Cakes	873	Corn Cake with	877
Porridge	897, 938, 939	Graham Bread with, Baked or Steamed	799
Potted Meat	912	How to Use, in Making	
SCRAMBLED EGGS	934	Cake	840, 841
"SCRAPPLE," IN PLACE OF HEAD CHEESE	915	Sweet Shortcake with	871
SCRAPS, A DISH OF	908	SOFT: BREAD CRUST, TO MAKE	795
SEALING WAX, FOR BOTTLING, ETC.	1006	Ginger Bread	854
SEASONING: AMOUNT OF, FOR SAUSAGE	888	Jumbles	859
Food, Sweet Herbs for	988	Molasses Cake	861
For Soups	896	SOFTENING HARD WATER	998
SEEDS, GRAPE, TO REMOVE	980	SOLDERING: CAST IRON	1035
SETTING: OUT CABBAGE PLANTS	1012	German Silver	1035
Sponge for Bread	794, 797	SOUPS: ASPARAGUS OF INDIA	899
The Table	986	Barley	896
SEWING MACHINE OIL, TO MAKE	1042	Bean	893
SHAD: BAKED, AND SAUCE FOR	922, 923	Beef	896
To Fry	923	Carrot	900
SHAMPOO, BOB HEATER'S	1025	Celery, Rich and Creamy	895
SHINGLES, FIRE-PROOF, WASH FOR	1040	Chicken	895
SHOES (SEE BOOTS AND SHOES.)		Chicken Cream	895
		Chicken Currie	895
		Corn and Bean	893
		Game	899
		General Remarks	892
		Green Corn	895
		Green Pea	899, 900
		Green Pea, American	899

	Page		Page
Hints for Cooking	903	STARCH, TO REMOVE FROM FLAT- IRONS	1001
Macaroni, Italian	896	STEAKS: BEEF, BROILED AND FRIED	904, 906, 907
Milk	894	Venison, Broiled	908
Mock-Turtle	898	STEAM BOILERS: CEMENT FOR LEAKS IN	1041
Noodle	897	To Prevent Incrustation	1042
Onion	901	STEAMED: APPLE DUMPLINGS ..	955
Oyster	987	Batter Pudding	820, 821
Potato	894	Brown Bread	800, 801
Prussian, as Made in India ..	898	Cottage Pudding	810
Rice	896	Graham Bread, with Soda ..	799
Scotch Broth	897	Indian Pudding	827
Scotch, or Mutton	897	Suet Pudding	822
Scotch Porridge	897	Wheat and Indian Bread ..	800
Seasoning for	896	STEAM PIPE TO COVER	1030, 1031
Split Pea	900	STEAM-TIGHT CEMENT	1042
"Stock" Explanation and How to Make	901	STEEL: APPARATUS, TO PREVENT RUST OF	1034
Tomato	894	Knives, to Clean	1034
Turkey, from Waste	899	To Keep from Rusting	1033
Veal or Lamb Broths, India ..	900	To Remove Rust from	1033
SOUR APPLES, TO COOK NICELY ..	952	To Temper	1033
SOUR MILK: BATTER PUDDINGS WITH	821	STEW: BEEF	909
Graham Gems with	877	Beets, with Onions	940
Suet Pudding	822	Irish	917, 918
SOUSE (SEE HEAD CHEESE.)		Mutton and Pork	917
SOUTHERN: BISCUIT	875	Mutton, Chicken, Etc.	916
Corn Bread	801	Parsnips	918
Method of Cooking Rice	937	Potato	918
SPANISH: FRITTER PUFFS	864	Oyster, According to Delmonico	919
Sauce, or Butter	952	Value of Sweet Herbs for ..	917
SPICED: CAKE	866, 868	Venetian	918
Cookies	868	STICK-UM-FAST, FOR FLIES ..	1020
Fruit Pickles	951	STINGS OF BEES AND WASPS, AM- MONIA FOR	999
SPICES, HOW TO USE IN MAKING CAKE	840	ST. JAMES': CHOWDER	923
SPIDERS, TO DESTROY	1012	Custard	961
SPIRITUOUS SAUCE FOR PUDDINGS.	808	Stale Bread Pudding	818
SPLIT PEA SOUP	900	"Stock" FOR SOUP, HOW TO MAKE	901
SPONGE: CAKE PUDDING	317	STOVE PIPE, TO REMOVE RUST FROM	1004
Setting the, for Bread	794	STRAINING OF SOUP NOT NECESSARY	892
Setting the, for Bread Over Night	797	STRAWBERRY: FLOAT	820
SPONGE CAKE: BUTTER	863	Fritters	948
Cream	863	Ice, to Make	962
Improved Berwick, or Custard.	862	Sauce for Pudding	811
Lemon	863	Shortcake	871, 872
Molasses	862	STRAWBERRIES, TO CAN	981
Mrs. Chase's	862	STRING BEANS FOR WINTER USE ..	957
Orange Jelly	847	STRYCHNIA, DOGS POISONED BY, ANTIDOTE FOR	1006
Plain	862, 863	STUFFED: FISH	923
Pudding	817	Shoulder of Veal or Lamb ..	912
SPOTS: GREASE, ETC., TO REMOVE	991	SUBSTITUTE: FOR CUSTARD ..	962
Paint, on Windows, to Remove	993	For Hash, Delmonico's	906
Worn, on Black Kid Gloves, to Restore	993	For Pudding, or Blanc Mange	820
SQUASH: BAKED	941, 986	For Pudding or Strawberry Float	820
Bugs in, to Kill	1017	SUCCOTASH, WINTER	957
Fried	986	SUET: PUDDING WITH SOUR MILK, STEAMED	822
Pies	834	Pudding with Sweet Milk, Baked	823
STAIN: BLACK-WALNUT	1037, 1039	SUGAR: BATTER PUDDING WITH- OUT	821
Ebony	1037	Cookies	855
For Floors	1039	For Cake, Kind of	839
Fruit, to Remove	991, 996	Raisin Cake without	860
Nitrate of Silver, to Remove ..	1001	Tea Cake without	857
On Brass, Etc., to Remove ..	1030	SUMMER DRINKS, PLEASANT ..	1022
To Remove from Feather Bed Tick	1008		
STALE: BREAD PUDDING, ST. JAMES'	818		
Bread Pudding, with Fruit ..	823		
Bread, to Fry	860		

	Page
SWEET: APPLE PUDDINGS	814
Apples, Delicious Dish with	955
Apples, Indian Pudding with	827
Biscuit	874
Corn, to Can	982, 983
Currant Loaf	798
Fruit Pickles	951
Herbs, for Seasoning Food	988
Herbs, Value of, for Stews, Etc	917
Milk, Biscuit with	874
Milk, Batter Puddings with	820, 821
Milk, Suet Pudding with	823
Pickles	951
Potato Pie	835
Potato Pudding	826
Potatoes, Broiled	946
Potatoes, Cakes	946
Potatoes, to Bake	946
Sauce for Puddings	807
Shortcake with Soda	871
SYRUPS, LEMON, AND OTHERS TO MAKE	1023

T

TABLE: HOW TO SET FOR DINNER	986
Of Comparative Weights and Measures for Culinary Purposes	842
Sauces, for	968-975
TAFFY, MOLASSES, TO MAKE	1013
TAPIOCA CUSTARD, FRENCH	961
TAPIOCA PUDDING: APPLE	955
Custard, French	961
Danish	816
Various	812
Without Milk or Eggs	812
TAR, SPOTS TO REMOVE	992
TART APPLES, BREAD PUDDING WITH	815
TARTAR: CREAM OF, BISCUIT WITH	874
How to Use in Cake	840
TEA: CAKES	856, 857, 867
Ham Cakes for	915
Love Knots for	850
TEA-POTS, TO CLEAN INSIDE	1004
TEETH, WASHING WITH BORAX	991
TEMPERING STEEL	1033
TERRAPIN SOUP, MAKE-BELIEVE	898
THANKSGIVING DINNER, BILL OF FARE, ETC.	986
"THE SALAD BOWL"	967
TIN, TO CLEAN	1030
"TIP-TOP" POTATOES	944
TOAST: BOSTON CREAM	959
Egg	960
French	960
Ham and Tongue	914
Milk	958, 959
With and Without Milk	958
TOMATO: CATSUP	973
Jelly	980
Soup to Make	894
TOMATOES: ESCALLOPED	956
Prepared as Figs	952
Salad Dressing for	966
To Broil	941
To Can	982
TONGUE: BEEF, POTTED	911
Mock Beef	910
Toast, with Ham	914

	Page
TONIC, FOR THE HAIR	1025
TOOTHACHE DROPS, JAPANESE	1020
TOOTH POWDER, BORAX FOR	991
TRACING PAPER, TO MAKE	1036
TRAINING GINGERBREAD, OLD-FASHIONED	853
TREES, BORERS IN, REMEDY	1009
TURKEY: BOILED AND FRIED	925, 926
"Dutch"	912
Hash	926
Roast	925, 987
Soup, from Bones and Left-Over Meat	899
To Prepare for Picnics	926
TURTLE SOUP, MOCK	898
TWIST CAKES OR DOUGHNUTS	879
TYPHOID FEVER, EGGS IN	933

U

UNFERMENTED WINES, TO MAKE	1022
UPHOLSTERED FURNITURE, TO REMOVE MOTHS FROM	1038

V

VANILLA: CAKE, TO MAKE	865
Syrup, to Prepare	1023
VARIOUS DISHES OF MEATS, VEGETABLES, POULTRY, ETC.	902-988
VARNISH, TO PREVENT RUST	1033
VEAL: BROTH, AS MADE IN INDIA	900
Curried	932
Escalloped	932
Head Cheese, with Chicken	908
Jellied	932
Loaf	913
Minced, with Poached Eggs	932
Mock Duck with	921
Odds and Ends of, to Economize	915
Scotch Collops with	912
Shoulder of, Stuffed	912
To Prepare for Picnics	926
VEGETABLE DISHES, HOW TO COOK	936-946
VEILS, LACE, TO RENOVATE	997
VELVET CREAM, A DELICIOUS DESSERT	875
VENETIAN STEW, TO MAKE	918
VENISON STEAKS, BROILED	908
VERMONT JOHNNY CAKE	877
VIENNA: BREAD	797
Yeast	797
VINES, BUGS ON, TO PREVENT	1017

W

WAFFLES: BREAKFAST	875
Rice	878
With Yeast	878
WALNUT STAINS, BLACK	1037
WARNER'S, DR., RECIPE FOR CURING BEEF	888
WASH: FIRE-PROOF, FOR SHINGLES	1040
For Hands When Roughened by Cold	1029
For Ladies' Hands	1029
Silverware, to	1035

	Page		Page
WASHING: BORAX FOR	989-991	Or Snow Sauce for Puddings..	811
Brown Linen	995	Fish, Baked, and Sauce for 922,	923
Calicoes	989	Furs, to Renovate	994
Carpets	997	Paint, to Clean	1036
Colored Cotton Goods	995	WHORTLEBERRY PUDDING, BOILED..	825
Colored Silk Handkerchiefs...	997	WILD GRAPE JUICE, TO BOTTLE...	975
Fluids and Powders	989, 991	WILD GRAPE WINE, TO MAKE.....	1021
Flannels	989	WINDOWS: TO REMOVE PAINT	
Laces	997	SPOTS FROM	993
Muslins and Cambrics	989	Washing	997
Ribbons	989	WINE: BLACKBERRY, TO MAKE..	1021
Silk, Cashmere, Etc.	989	Jelly, Claret	979
Softening Water for	998	Jelly, Port	978
Value of Ammonia for	998	Stains, to Remove	996
Windows	997	Unfermented, to Make	1022
Woolen Blankets	990	Wild Grape, to Make	1021
WASP STINGS, AMMONIA FOR	999	WINTER, SUCCOTASH, TO MAKE... 957	
WATER CAKE, COLD	866	WOOD, BEST WAY OF PRESERVING..	1007
WATER, HARD, TO SOFTEN	998	WOODEN VESSELS, TO CLEANSE ...	1005
WATER ICES, TO MAKE	962-964	WOOLEN BLANKETS, TO WASH ...	990
WATERMELON CAKE, TO MAKE ...	845	WORCESTERSHIRE SAUCE	968
WATER-PROOF, BOOTS AND SHOES,		WORMS: CABBAGE, REMEDY	1012
TO MAKE	1024	Currant, Remedy	1011
WATER-TIGHT CEMENT	1040	Cut, to Destroy	1018
WAX: GRAFTING, TO MAKE	1005		
Sealing, for Bottling, Etc.....	1006	Y	
WEDDING CAKE, VERY RICH	861	YANKEE STYLE OF APPLE PUDDING	814
WEEK, BILL OF FARE FOR	902	YEAST: CAKE WITHOUT	867
WELSH RABBIT OR GOLDEN		Hop, Potato Bread with.....	797
BUCK	930, 931	How to Make	794
WESTERN RURAL'S GRAHAM BREAD	798	Vienna	796, 797
WHEAT: AND INDIAN BREAD ...	800	Waffles with	878
Bread, Good, to Make	793	YORKSHIRE PUDDING, ENGLISH ...	815
Cracked, Mush	940		
Cracked, Pudding of	819	Z	
Pop-Overs	877	ZINC, TO CLEAN	1035
WHITE: CAKE	857	ZINCING IRON	1031
Corn Dodgers	802		
Mountain Cake	857		

INDEX

Law and Business Dept.

(Index Medical Dept., Page 1238. Index Domestic Science Dept., Page 1260)

A

	Page
ABILITY, EXECUTIVE, AND MANAGEMENT	1156
ABOUT CHECKS	1195-1209
ACCEPTANCE, DELIVERY AND, OF DEED	1052
ACCEPTANCES	1208
ACCEPTED DRAFTS	1207
ACCIDENT INSURANCE	1127
ACCOUNT: BOOKS	1228
Cash	1227
Checks in Full of	1197
Cornfield	1234, 1235
Farmer's, with a Merchant	1230, 1231
Farmer's, with Day Laborer	1230, 1231
Farmer's, with Hired Man	1236, 1237
Ledger	1236
Pork	1234, 1235
Potatofield	1234, 1235
Private Cash	1236, 1237
Receipt on	1192, 1193
ACCOUNTS: BOOK-KEEPING AND LEDGER	1236, 1237
Keeping	1120, 1228
Ladies' Check-Book and Personal	1200
ACCRETION, TITLE BY	1053
ACKNOWLEDGMENT OF DEED	1052
ACTION, OWNER'S LIABILITY FOR	1072
ACTS, RESPONSIBILITY OF EMPLOYER FOR EMPLOYEE'S	1078
ADJACENT OWNERS, RIGHTS OF	1068
ADJOURNMENT IN PUBLIC MEETINGS	1224
ADVERSE USE, OR PRESCRIPTION, WAYS ACQUIRED BY	1064
ADVERTISING	1166
AGENCIES, PURCHASING OR WHOLESALE, SWINDLE	1220
AGENTS, ALL KINDS OF	1220
AGREEMENT: ARBITRATION, FOR	1124
Arbitration, by	1102
Arbitration or Submission—General Form	1102
Contract or, Common Form of	1096
Partnership	1099
To Cultivate Land on Shares	1097
AGRICULTURAL IMPLEMENTS AS CHATTELS	1061
ALL ABOUT: BANK DRAFTS	1204-1208
Checks, Certificates of Deposit, Drafts, Etc.	1195-1209
Legal and Commercial Forms (See Legal and Commercial Forms)	1091-1103
Notes, Receipts, Etc.	1179
ALTERATIONS, RIGHT OF TENANT TO MAKE	1086
ANIMALS: BORROWING OF	1084
Diseased	1075

Domestic, and Laws Regulating Their Keeping	1082-1084
Hiring of	1084
Injuries by Vicious	1072
Owner's Liability for Acts of	1072
Pasturing of	1083
Trespass by Domestic	1070
Vicious, Lawfully Killed	1073
APPOINTMENT OF A SECRETARY FOR PUBLIC MEETINGS	1222
APPLYING FOR A POSITION	1155
ARBITRATION: AGREEMENT FOR	1124
Agreements by	1102
Best for Farmers	1125
Or Submission Agreement—General Form	1103
Settle by	1124
ARTICLE, RECEIPT FOR PAPERS OR ANY	1194
ASSENT OF PARTIES IN CONTRACT, MUTUAL	1044
ASSIGNMENT OF MORTGAGES	1056
ATTITUDE, MENTAL	1155
ATTORNEY: HOW TO REVOKE POWER OF	1100
Power of—Short Form of	1099
AUTHORS ON BUSINESS EFFICIENCY	1143, 1173
AVOID: RESPONSIBILITY, HOW TO, FOR NOTES ENDORSED	1182
Lotteries	1119
Speculation	1110

B

BAD HABITS	1138, 1150
BANK: COUNT MONEY BEFORE LEAVING THE	1114
Draft, Definition of	1204
Draft, Form of	1204
Drafts, All About	1204-1208
How to do Business with	1176
Note, Payable at	1184
Notice	1208
BANKER, DON'T BE YOUR OWN	1122
BARON ROTHSCHILD'S MAXIMS	1143
BARS, GATES AND, IN WAYS	1065
BASKET, DON'T PUT ALL YOUR EGGS IN ONE	1113
BE: CAREFUL OF STRANGERS	1113
Cheerful	1110
Forgetful of Self	1133
Kind to All	1109
Liberal and Just	1112
Short	1129
BEARER OR ORDER, NOTES, CHECKS AND DRAFTS PAYABLE TO	1178
BEING YOUR OWN LAWYER, ETC.	1116
BENEFITS OF LITERARY SOCIETIES	1107
BEST NOTES FOR FARMERS	1182
BILL: OF GOODS, RECEIPT FOR	1192
Of Lading, with Drafts	1206
Of Sale	1095
BILLS: DUE, FORMS OF	1190, 1191
Paying by Checks	1178

	Page		Page
BOOK-KEEPING AND LEDGER		Self Helps in Business	1174-1209
ACCOUNTS:	1226-1238	The Foundations of a Successful Business Career	1128-1140
Account Books	1228	BUSINESS EFFICIENCY: 1141-1173	
Cash Account	1227	Authors	1143-1173
Cornfield Account	1234, 1235	Anderson, F. B., President,	
Farmer's Account with Day Laborer	1230, 1231	The Bank of California	1148
Farmer's Account with Hired Man	1236, 1237	Ascham, Roger	1168
Farmer's Account with Merchant	1230, 1231	Barbour, Geo. H., Vice-President and General Manager,	
Keeping Accounts	1228	Michigan Stove Company	1159
Ledger Account	1226	Barnard	1161
Pork Account	1234, 1235	Beecher	1145
Potatofield Account	1232, 1233	Bell, Alexander G.	1163
Private Cash Account	1236, 1237	Berkeley	1165
Wheatfield Account	1232, 1233	Brandeis, Louis D.	1158
BOOKS, ACCOUNT	1228	Brill, Samuel, President,	
BOUNDARIES: MIDDLE OF		Brill Brothers	1164
HIGHWAY AS	1062	Brown, A. D., President,	
Rivers and Streams as	1062	Hamilton, Brown Shoe Co.	1163
And Ways	1062	Bulwer	1166, 1167
And Ways, How Located	1062	Bundy, Harlow E., General Manager, International Time Recorder Co.	1172
BOYS IN BUSINESS, FARMER'S	1111	Butler Brothers	1144
BRANDING CATTLE	1083	Butler, Edward B., President, Butler Brothers	1166
BROTHERS, BUTLER, MAXIMS	1144	Carnegie, Andrew	1146, 1147, 1153, 1154, 1156, 1157, 1160
BUILDING A HOUSE, CONTRACT FOR	1094	Carpenter, R. E., of the Taft-Pierce Manufacturing Co.	1160
BUILDING, SHORT FORM OF LEASE FOR RENTING	1096	Chalmers, Hugh, President,	
BUILDINGS, A PART OF REALITY	1059	Chalmers Motor Co.	1163, 1164
BUSINESS: CAREER, FOUNDATIONS OF A SUCCESSFUL 1128-1140		Chesterfield	1147, 1167, 1171
(See Foundations of a Successful Business Career.)		Clews, Henry, Founder,	
Correspondence (See Business Correspondence Below)	1210-1216	Henry Clews Company	1148
Correspondence "Don'ts"	1211-1213	Converse, John H.	1161
Do a Safe	1110	Coulter	1169
Efficiency (See Business Efficiency Below)	1141-1173	Cottingham, Walter H., President, Sherwin-Williams Co.	1146, 1154, 1162
Farmers' Boys in	1111	Davidson, Walter, President and General Manager, Harley Davidson Motor Co.	1162
Getting Pleasure from	1146	Davison, H. P., of J. P. Morgan and Co.	1163
How to do, with a Bank	1177	Deeds, E. A., Vice-President, National Cash Register Co.	1157
Letters	1147	De Weese, Truman A., Advertising Director, The Natural Food Co.	1166
Maxims	1143	Dickens	1165
Order of, in Public Meetings	1222	Drew	1145
Politics in	1111	Earle, J. W., President, Remington Typewriter Co.	1159
Principles	1144-1146	Easton, Edward D., President Columbia Phonograph Co.	1161
The Start in	1104	Edwards, Tryon	1145
Training	1112	Elliott, Howard, President, The New York, New Haven and Hartford R. R. Co.	1167
World, a Vast Laboratory	1141	Emerson, Ralph Waldo	1145, 1158
BUSINESS CORRESPONDENCE: 1210-1216		Feltham	1144
Letter Written by an Educated But Careless Young Man	1212	Field, Marshall	1143, 1145, 1160
Letter Written by a School Boy	1214	Field, Wm. A., Superintendent, Illinois Steel Co., South Works	1156
Proper Forms for Beginning Letters in	1215	Fisk, W.	1167
Proper Forms for Closing Letters in	1216		
BUSINESS DEPARTMENT: 1104-1237			
Book-Keeping and Ledger Accounts	1226-1234		
Business Correspondence	1210-1216		
Business Efficiency	1141-1173		
Common Sense Talks About Business	1104-1127		
Fraud and Swindling Schemes	1217		
How to Call, Organize and Conduct Public Meetings	1221-1225		

	Page		Page
Ford, Henry	1173	Randolph, John	1167
Forgan, D. R., President, National City Bank of Chicago, Vice-President Chicago Clearing House Association	1148	Redfield, Wm. C., Secretary of Commerce 1146, 1157, 1160	1160
Franklin, Benjamin 1147, 1148, 1161, 1168		Ripley, E. P., President A. T. & S. F. Ry.	1146
Funk, C. S., Formerly General Manager, International Harvester Co.	1157	Robinson, Frederick, Vice- President, The J. I. Case Thrashing Machine Co.	1156
Glossbrenner, A. M., Presi- dent, United Typothetae of America	1170	Rockefeller, John D. 1144, 1153, 1154	1154
Green, Hetty	1145, 1163	Roosevelt, Theodore ..	1153, 1158
Harriman, E. H., Late Head of the Union Pacific Rail- road System	1150	Rothschild, Baron	1143
Hatch, Edw. P., President, Lord & Taylor	1146	Saville	1170
Hawes, J.	1160	Scott, Walter	1148
Helps	1145	Sears, Richard W., Founder, Sears, Roebuck & Co. 1154, 1168	1168
Herrich	1165	Shakespeare ...	1148, 1168, 1171
Hewitt, Henry, President, Hewitt Land Co.	1168	Siegel, Henry, President, Siegel, Cooper & Co.	1165
Hinds	1147	Simmons, C.	1162
Holland, J. G.	1169	Spencer, Geo. B.	1146
Holman, W. C., Former Di- rector and Advertising Manager, National Cash Register Co.	1149	Sperry, Lyman B., M. D.	1151
Hubbard, Elbert 1145, 1149, 1150, 1152, 1162, 1165		Steele	1170
Ingersoll, Col.	1151	Superintendent of the Lin- dell Street Railway of St. Louis	1150
Johnson	1167, 1168	Tacitus	1145
Joy, Henry B., President, Packard Motor Car Co.	1146	Talbert, J. T., Vice-President, National City Bank of New York	1160
Knowlton, Leslie D., Assis- tant Auditor, New England Telephone and Telegraph Co.	1147	Tarbell, Gage	1144
Knox, J. S., in "Salesman- ship and Business Effi- ciency" 1152, 1155, 1163, 1164, 1169, 1170, 1172		Tillotson	1166
Lavater	1165	Townie, Henry R.	1152
Lawson, Thos. W. 1146, 1152, 1153, 1165		Tupper, M.	1144, 1167
Lincoln, Abraham ...	1157, 1170	Upham, Frederick W., Presi- dent, The Consumers Co.	1159
Logan, James, Chairman, Executive Board, United States Envelope Co.	1172	Vail, Theo. N., President, American Telephone and Telegraph Co., President, Western Union Telegraph	1153
Lorimer, Geo. H.	1172	Waldron	1170
Lowell, J. R.	1145	Wanamaker, John 1153, 1156, 1157, 1172	1172
Lytton, Henry C., President, The Hub, Chicago.	1157	Ward, A. Montgomery, Founder, Montgomery Ward & Co.	1161
Mandel, Leon, Mandel Brothers	1161	Wayland, H. L.	1152
Mann, Horace	1167	Webster	1148
Marden, Orison Sweet 1149, 1151, 1157		Wellington	1145
Mathews, W.	1167, 1170	Wilbur	1147
Messelink, G.	1156	Wilcox, Ella Wheeler.	1162
Mirabeau	1165	Woolley, C. M., President, American Radiator Co. 1154, 1169	1162
Moore, Edwin W., President, The Electric Cable Co.	1164	Younger, John	1162
Munger, T. T.	1167	<i>Subjects</i>	1141-1173
Ollesheimer, Henry	1150	Advertising	1166
Patch, Edward P., General Manager, Lord & Taylor.	1164	Applying for a Position.	1155
Phillips, Wendell	1169	Bad Habits	1150
Plantus	1168	Business Letters	1147
Pope	1167	Business Maxims	1143
		Business Principles ..	1144, 1145
		Business World, The	1141
		Causes of Failure	1149
		Character	1160
		Cheerfulness	1162
		Concentration	1163
		Confidence	1163, 1172
		Courage	1148
		Courtesy and Politeness.	1166
		Credit	1147
		Debt	1167
		Decision	1169

	Page		Page
Dress	1170	CHECKS: ALL ABOUT, ALSO CER-	
Economy	1168	TIFICATES OF DEPOSIT,	
Efficiency	1156	DRAFTS, ETC. 1178, 1179,	
Endurance	1165		1195-1209
Enthusiasm	1172	Certified	1199
Executive Ability and Man-		Common Form of	1196
agement	1156	Corporation, Form of	1198
Experience	1168	Drafts, Notes, Etc., How to	
Fear	1151	Indorse	1179
Getting Pleasure from Busi-		Filling up Printed Forms of,	
ness	1146	and Notes, Etc.	1178
Honesty	1165	How to Indorse	1209
Initiative	1154	Indorsing	1196
Labor and Wages	1152	In Full of Account	1197
Leadership	1172	Keep Stubs and Memorandum	
Loyalty	1170	of	1197
Mental Attitude	1155	Making Payable to Some Other	
Modern Methods	1160	Person	1197
Opportunity	1172	Or Drafts, Payable to Yourself.	1208
Organization	1154	Payable to Bearer or Order,	
Perseverance	1171	Also Notes and Drafts.	1178
Personality	1159	Payable to Yourself	1196
Promptness—Punctuality ..	1167	Paying Bills by	1178
Records, Keeping, and Mak-		Presenting for Payment	1178
ing Notes	1170	CHEERFUL, BE	1110
Responsibility	1169	CHEERFULNESS	1130, 1162
Salesmanship	1164	CLASSIFICATION OF ESTATES ..	1045
Self Confidence	1172	CLASSIFICATION OF WAYS.	1063, 1064
Service	1162	CLEARING HOUSE, WHAT IT MEANS.	1203
Sincerity	1165	CLERK, EMPLOYMENT CONTRACT	
Success	1157, 1158	WITH	1101
System	1161	CODICILS IN A WILL	1090
Thoroughness	1152	COLLATERAL FOR SECURITY TO NOTE.	1180
BUTLER BROTHERS' MAXIMS.	1144	COLLATERAL NOTE, FORM OF.	1187
BUYING DRAFTS FOR REMITTANCES.	1179	COLLECTING TAXES, METHODS OF.	1080
BUYING REAL ESTATE, INVESTI-		COLLECTION OF RENT	1086
GATE TITLE BEFORE	1124	COMMERCIAL FORMS, LEGAL AND	
		(See Legal and Commercial	
		Forms)	1091-1103
		COMMITTEE ON RESOLUTIONS IN	
		PUBLIC MEETINGS	1223
		COMMITTING TRESPASS, WAYS OF.	1069
		COMMON SENSE TALKS ABOUT	
		BUSINESS:	1104-1127
		A Wife's Property	1118
		Accident Insurance	1127
		Agreement for Arbitration.	1124
		Arbitration Best for Farmers.	1125
		Avoid Lotteries	1119
		Be Careful	1110
		Be Careful of Strangers.	1113
		Be Kind to All	1109
		Be Liberal and Just	1112
		Being Your Own Lawyer. Etc.	1116
		Benefits of Literary Societies.	1107
		Business Training	1112
		Count Money Before Leaving	
		the Bank	1114
		Do a Safe Business.	1110
		Don't Be Your Own Banker.	1122
		Don't Deed the Farm Away.	1117
		Don't Count Money in Public	
		Places	1114
		Don't Employ a Poor Lawyer.	1123
		Don't Put All Your Eggs in	
		One Basket	1113
		Don't Sell on Credit	1110
		Deeding Property to a Wife.	1118
		Deeds and Mortgages	1125
		Dissolving Partnerships	1117
		Farmer Boys in Business.	1111
		Fire Insurance	1126
		Forming Partnerships	1116

C

CANCELLATION OF WILLS, OR REVO-	
CATION OF	1090
CARE OF YOUR MONEY, TAKE.	1113
CAREER, THE FOUNDATION OF A	
SUCCESSFUL BUSINESS.	1128-1140
CARELESS SETTING OF FIRES.	1075
CASH ACCOUNT: ..1227, 1236, 1237	
Private	1236, 1237
CASH RENT, CONTRACT FOR RENT-	
ING A FARM FOR	1098
CATTLE: BRANDING	1083
Diseased, Sale of	1083
Laws Regulating Keeping of.	1082
CAUSES OF FAILURE, THE.	1149
CAUTION—CORPORATIONS AND SO-	
Cieties	1207
CERTIFICATE, COPY OF CLEARING	
HOUSE LOAN	1203
CERTIFICATES OF DEPOSIT:	
	1195-1202
All About, Also Checks, Drafts,	
Etc.	1195-1209
Drawing Interest	1202
CERTIFIED CHECKS	1199
CHAIRMAN, SELECTION OF, FOR	
PUBLIC MEETINGS	1222
CHARACTER	1160
CHATTLE NOTE, FORM OF	1188
CHATTELS, AGRICULTURAL IMPLE-	
MENTS AS	1061
CHECK BOOK, LADIES', AND PER-	
SONAL ACCOUNTS	1200

	Page		Page
Genius in Dress	1108	Mutual Consent of Parties in ..	1044
Give and Take Receipts	1121	Legal Points Concerning	1092
Good Nature	1108	What Necessary in	1044
Handling Other People's		CONTRIBUTORY NEGLIGENCE	1078
Money	1121	CONTROL, SELF	1132
How to Invest Your Surplus		CORN, CONTRACT FOR SALE OF,	
Money	1113	ALSO WHEAT OR OATS	1093
Indorser for a Friend	1119	CORNFIELD ACCOUNT	1234, 1235
Investigate Title, Etc., Before		CORPORATION: AND SOCIETIES	
Buying Real Estate	1124	—CAUTION	1207
Keep Good Company	1116	Check, Form of	1198
Keep Out of Debt	1110	In Making Deeds	1050
Keep Your Credit Good	1111	Note, Form of	1189
Keeping Accounts	1120	CORRECT FORMS, IMPORTANCE OF ..	1091
Learn from Others	1112	CORRESPONDENCE, BUSINESS, ..	1210-1216
Lending to Relatives	1117	COUNT MONEY BEFORE LEAVING	
Letter Writing	1115	THE BANK	1114
Life Insurance	1127	COUNTERFEIT MONEY SWINDLE ..	1217
Loaning Money	1123	COUNTRIES, DRAFT SENT TO FOR-	
Make a Will	1118	EIGN	1208
Make Contracts in Writing ..	1120	COURAGE	1148
Money Used for Traveling ..	1114	COURTESY AND POLITENESS	1166
Occupations Open to Women ..	1112	CREDIT:	1147
Past Due Notes	1125	Don't Sell on	1110
Pay as You Go	1116	Keep Your, Good	1111
Paying Notes and Drafts ..	1122	CROP, DIVISION OF	1087
Perseverance	1108	CROPS, TREES AND, A PART OF	
Personal Industry	1106	REALTY	1061
Politeness	1109	COVENANT, MORTGAGOR'S	1055
Politics in Business	1111	CULTIVATE LAND ON SHARES,	
Securing a Situation	1104	AGREEMENT TO	1097
Select a Good Location	1110		
Sending Money Away	1121		
Settle by Arbitration	1124		
Style of Signature	1119		
Take Care of Your Money ..	1113		
Taking Mortgages	1123		
The Habit of Industry	1106		
The Start in Business	1104		
Things Needed When Travel-			
ing	1114		
COMPANY, KEEP GOOD	1116	DAY LABORER, FARMERS' ACCOUNT	
COMPETENT PARTIES IN CONTRACTS ..	1044	WITH	1230, 1231
COMPOUND INTEREST	1055	DEATH, DISPOSITION OF PROPERTY	
CONCENTRATION	1163	AT	1088-1091
CONDITION OF HIGHWAYS	1069	DEBT:	1167
CONFIDENCE	1163, 1172	Keep Out of	1110
CONSENT OF INDORSERS, INDORSE-		DECISION	1169
MENTS AND	1180	DEEDS: 1048, 1052, 1080, 1088, 1125	
CONSIDERATION: IN CON-		Acknowledgment of	1052
TRACT, NECESSARY	1044	And Mortgages	1125
In Deed	1051	Consideration	1051
CONTRACT: AND WARRANTY FOR		Corporations in Making	1050
SALE OF STOCK	1094	Delivery and Acceptance	1052
Consideration Necessary in ..	1044	Disposition of Property at	
Employment—Clerk, Laborer		Death by	1088
or Workman	1101	Execution, Proper	1051
For Building a House	1094	Grantee in	1050
For Hiring a Farm Hand	1093	Grantor in	1049
For Renting a Farm for Cash		In Escrow	1052
Rent	1098	Married Women in	1049
For Sale of Land	1101	Proper Parties Requisite for ..	1049
For Sale of Wheat, Corn or		Quantity of Land	1050
Oats	1093	Recording of	1053
Must be Legal	1044	Requisites of	1049
Or Agreement, Common Form		Sealing	1052
of	1096	Signing	1051
Or Note, a Swindling	1219	Tax, Validity of	1080
CONTRACTS:	1043	Title to Real Estate by	1048
Competent Parties in	1044	Witnessing of	1052
Express, of Hiring	1076	DEEDING PROPERTY TO WIFE	1118
Implied in Hiring Help	1076	DEFECTIVE: MACHINERY, IN-	
Make, in Writing	1120	JURIES BY	1078
		Premises, Injuries from	1078
		DELIVERY: AND ACCEPTANCE	
		OF DEEDS	1052
		Of Mortgages	1056
		DEMAND: DRAFT, TIME AND	
		SIGHT	1207
		Note	1185

	Page		Page
ENDURANCE	1165	FOOT, TRAVELERS ON.....	1067
ENTHUSIASM	1172	FORD, HENRY, MAXIMS OF	1173
EQUITY OF REDEMPTION	1058	FORECLOSURE OF MORTGAGES, TWO	
ESCROW, DEED IN	1052	WAYS OF	1058
ESTATE: AT WILL	1047	FOREIGN COUNTRIES, DRAFTS SENT	
Courtesy	1048	TO	1208
Dower	1048	FORM: COMMON, OF CONTRACT	
For Life	1046	OR AGREEMENT	1096
For Years	1047	Common, of Check	1196
From Year to Year	1047	Common, Judgment Note, with	
In Fee	1046	Waiver	1186
In Land	1045	Common, of Protest	1181
Real, Title by Deed	1048	Of Bank Draft	1204
Real, Title, How Obtained.....	1048	Of Certificate of Deposit 1201, 1202	
Tail	1046	Of Certified Check.....	1198
ESTATES, CLASSIFICATION OF.....	1045	Of Chattel Note	1188
ESTOVERS	1046	Of Checks in Full of Account.....	1197
EXECUTION: FORM OF, OR SIGN-		Of Clearing House Loan Cer-	
ING	1090	tificate	1203
Of Deed	1051	Of Collateral Note	1187
Of Mortgages	1056	Of Corporation Check	1198
EXECUTIVE ABILITY AND MANAGE-		Of Corporation Note	1189
MENT	1156	Of Dissolution of Partnership.....	1099
EXPERIENCE	1168	Of Lease, Short, for Renting a	
EXPRESS: CONTRACTS OF HIR-		Store, House or Building ..	1096
ING	1076	Of Mercantile Draft	1205
Warranties	1081	Of Note by a Married Woman.....	1188
		Of Note by One Who Cannot	
		Write	1189
		Of Principal and Surety Note.....	1187
		Of Receipt for Partial Pay-	
		ment on a Note	1183
		Short, for Power of Attorney.....	1099
		Short, of Will	1100
		FORMING PARTNERSHIPS	1116
		FORMS: ALL ABOUT LEGAL AND	
		COMMERCIAL (See Legal and	
		Commercial Forms) ..	1091-1103
		Filling Out Printed, of Checks,	
		Notes, Etc.	1178
		For All Kinds of Notes.....	1184
		For All Kinds of Receipts.....	1192-1194
		For Beginning Letters, Proper.....	1215
		For Closing Letters, Proper.....	1216
		For Due Bills	1190, 1191
		For Indorsed Note	1184
		For Orders	1191, 1192
		Importance of Correct.....	1091
		FOUNDATIONS OF A SUCCESS-	
		FUL BUSINESS CAREER	
			1128-1140
		Bad Habits	1138
		Be Forgetful of Self.....	1133
		Be Short	1129
		Cheerfulness	1130
		Do Not Shirk Your Work.....	1137
		Effects of Mental Disturbance,	
		the	1129
		Habitual Hurry	1134
		Handsome is as Handsome	
		Does	1139, 1140
		Have a Purpose in Mind	1137
		Irritability	1135
		Knowledge of One's Self.....	1136
		Malign Passions	1133
		Overwork and Underwork	1136
		Patience and Good Temper.....	1130
		Secret of Fascination, the.....	1132
		Secret of Success, the.....	1136
		Self Control	1132
		Smile	1131
		FOWLS, TRESPASS BY	1070

F

FAILURE, THE CAUSE OF	1149
FARM: DON'T DEED AWAY THE.....	1117
Contract for Cash Rent.....	1098
Hand, Contract for Hiring.....	1093
Repairs on	1085
FARMER, ON SHARES, DUTIES OF.....	1087
FARMER'S: ACCOUNT WITH A	
MERCHANT	1230, 1231
Account with Day Laborer	
.....	1230, 1231
Account with Hired Man.....	1236, 1237
Arbitration Best for	1125
FARMERS': BEST NOTES FOR.....	1182
Boys in Business	1111
FARMING: ON SHARES	1086
Utensils Swindle	1218
FASCINATION, THE SECRET OF.....	1132
FEAR	1151
FEE, ESTATE IN	1046
FELLOW EMPLOYEES, INJURIES BY.....	1077
FENCE: DIVISION, NOT ALWAYS	
NECESSARY	1071
Wire, Swindle	1218
FENCES: A PART OF REALTY	1061
Division	1071
Lawful	1072
On Highways	1071
Patent, and Gates, Etc.,	
Swindle	1218
Railway	1071
Repair of	1085
Who Bound to Make.....	1071
FIELD, CORN, ACCOUNT.....	1234, 1235
FIELD, MARSHALL, MAXIMS OF.....	1143
FIRE INSURANCE	1126
FIRES, CARELESS SETTING OF.....	1075
FISHERMEN, HUNTERS AND, TRES-	
PASS BY	1070
FIXTURES: A PART OF REALTY.....	1059
Gas, in Realty	1060
In Realty, Pumps, Sinks and	
Water Pipes as	1060
Removable	1062

	Page		Page
FRAUD AND SWINDLING		Contract for Building	1094
SCHEMES:	1217-1220	Short Form of Lease for Rent-	1096
A Swindling Contract or Note	1219	ing	1096
All Kinds of Agents	1220	HOW: HIGHWAYS, ORIGINATED	1069
Farming Utensils Swindle	1218	To Avoid Responsibility for	
Patent Fences, Patent Gates,		Notes Indorsed	1182
Etc.	1218	To Call, Organize and Conduct	
Purchasing or Wholesale		Public Meetings	1221-1225
Agencies	1220	To Do Business with a Bank	1176
The Counterfeit Money Swindle	1217	To Indorse a Note	1180
The Lightning Rod Swindle	1218	To Indorse Checks	1209
The Most Prominent Swindling		To Indorse Checks, Drafts,	
Schemes	1217, 1218	Notes, Etc.	1179
The Wire Fence Swindle	1218	To Invest Your Surplus Money	1113
FRIEND, INDORSER FOR A	1119	To Locate Boundaries and	
FURNITURE, NOT A PART OF		Ways	1062
REALTY	1061	To Revoke Power of Attorney	1100
		To Write Contracts	1092
		Ways May be Used	1064
		HOW TO CALL, ORGANIZE AND CON-	
		DUCT A PUBLIC MEETING	1221-1225
		Adjournment	1224
		Appointment of Secretary	1222
		Committee on Resolutions	1223
		Order of Business	1222
		Prohibition Meeting	1221
		Selection of Chairman	1222
		The Secretary's Report	1224
		HUNTERS AND FISHERMEN, TRES-	
		PASS BY	1070
		HURRY, HABITUAL	1134
		I	
		IMPLEMENTS, AGRICULTURAL, AS	
		CHATELS	1061
		IMPLIED: CONTRACTS IN HIRING	
		HELP	1076
		Warranties	1081
		IMPORTANCE OF CORRECT FORMS	1091
		INDORSE: A NOTE, HOW TO	1180
		Checks, How to	1209
		INDORSED NOTE, FORM FOR	1184
		INDORSEMENTS AND CONSENT OF IN-	
		DORSERS	1180
		INDORSER FOR A FRIEND	1119
		INDORSER, RESPONSIBILITY OF	1181
		INDORSERS, CONSENT OF, INDORSE-	
		MENTS AND	1180
		INDORSING: A CHECK	1196
		Partial Payments on Notes	1183, 1209
		Payments on a Note	1183
		INDUSTRY: PERSONAL	1106
		The Habit of	1106
		INFLUENCE, UNDUE	1089
		INITIATIVE	1154
		INJURIES: ARISING FROM UN-	
		USUAL EMPLOYMENT	1078
		By Defective Machinery	1078
		By Dogs	1073
		By Fellow Employees	1077
		By Vicious Animals	1072
		From Defective Premises	1078
		INSURANCE:	1055, 1087, 1088
		Accident	1127
		By Mortgagor	1055
		Fire	1126
		Life	1127
		Rights of Insured	1087
		INSURED, RIGHTS OF	1087
		INTEREST: CERTIFICATES OF DE-	
		POSIT, DRAWING	1202

G

GAS FIXTURES IN REALTY	1060
GATES AND BARS IN WAYS	1065
GENIUS IN DRESS	1108
GETTING PLEASURE FROM BUSINESS	1146
GIFT, DISPOSITION OF PROPERTY AT	
DEATH BY	1088
GIVE AND TAKE RECEIPTS	1121
GOOD: COMPANY, KEEP	1116
Keep Your Credit	1111
Location, Select a	1110
Nature	1108
GOODS, RECEIPT FOR BILL OF	1192
GRANT, WAYS CREATED BY	1064
GRANTEE IN DEED	1050
GRANTOR IN DEED	1049

H

HABIT OF INDUSTRY, THE	1106
HABITS, BAD	1138, 1150
HABITUAL HURRY	1134
HAND, FARM, CONTRACT FOR HIR-	
ING	1093
HANDLING OTHER PEOPLE'S MONEY	1121
HANDSOME IS AS HANDSOME DOES	1139
HARNES AND WAGON MUST BE IN	
GOOD REPAIR	1068
HAVE A PURPOSE IN MIND	1137
HELP, EMPLOYING OF (See Em-	
ploying Help)	1076
HIGHWAYS: BOUNDARY EX-	
TENDS TO MIDDLE OF	1062
Condition of	1069
Definition	1066
Fences on	1071
How Originated	1069
Lawful Use of	1066
Hired Man, Farmer's Account	
WITH	1236, 1237
HIRING: ANIMALS	1084
Express Contracts of	1076
Farm Hand, Contract for	1093
Implied Contracts in	1076
Minors	1077
HITCH TEAM, TRAVELER SHOULD	1068
HONESTY	1165
HOOP-POLES, A PART OF REALTY	
WHEN IN USE	1061
HORSE TRAINERS	1082
HORSES, UNBROKEN OR VICIOUS	1068
HOUSE: CLEARING, WHAT IT	
MEANS	1203

	Page		Page
Compound	1055	LAWYER: BEING YOUR OWN,	
Mortgagor's	1055	ETC.	1116
INVALID TAXES	1079	Don't Employ a Poor.....	1123
INVEST YOUR SURPLUS MONEY,		LEADERSHIP	1172
How to	1113	LEARN FROM OTHERS	1112
INVESTIGATE TITLE, ETC., BEFORE		LEASE, FORM OF, FOR RENTING	
BUYING REAL ESTATE	1124	Houses, ETC.	1096, 1097
IRRITABILITY	1135	LEASED PROPERTY, PROTECTION OF.	1086
		LEASES	1085
J		LEDGER ACCOUNT	1226
JOINT NOTE	1186	LEDGER ACCOUNTS, BOOK-KEEPING	
JUDGMENT NOTE	1186	AND	1226-1237
JUST, BE LIBERAL AND.....	1112	LEGAL: CONTRACTS MUST BE...	1044
		Department	1043
K		Points Concerning Contracts.....	1092
KEEP: GOOD COMPANY	1116	Points Concerning Notes 1194, 1195	
Out of Debt	1110	LEGAL AND COMMERCIAL	
Your Credit Good	1111	FORMS:	1091-1103
KEEPING: ACCOUNTS	1120, 1228	Agreement—General Form....	1103
Of Stallions, Laws Regulating.1082		Agreement to Cultivate Land	
KILLED, VICIOUS ANIMALS LAW-		on Shares	1097
FULLY	1073	Agreements by Arbitration....	1102
KIND, BE, TO ALL	1109	Arbitration or Submission....	1103
KNOWLEDGE OF ONE'S SELF.....	1136	Bill of Sale	1095
		Common Form of Contract or	
L		Agreement	1096
LABOR AND WAGES	1152	Contract for Building a House.1094	
LABORATORY, THE BUSINESS WORLD		Contract for Hiring a Farm	
A VAST	1141	Hand	1093
LABORER: DAY, FARMER'S AC-		Contract for Renting a Farm	
COUNT WITH	1230, 1231	for Cash Rent	1098
Employment Contract with....	1101	Contract for Sale of Land....	1101
LADIES' CHECK BOOK AND PER-		Contract for Sale of Wheat,	
SONAL ACCOUNTS	1200	Corn or Oats	1093
LADING, BILL OF, WITH DRAFTS..	1206	Dissolution of Partnership....	1099
LAND: AGREEMENT TO CULTI-		Employment Contract—Clerk,	
VATE, ON SHARES	1097	Laborer or Workman.....	1101
Contract for Sale of	1101	How to Revoke Power of At-	
Estate in	1045	torney	1100
Mortgaged, Purchasing	1057	How to Write a Contract....	1092
Owner, Rights of	1069	Importance of Correct Forms..	1091
Quantity of, in Deed	1050	Landlord's Notice to Quit for	
Landlord Must Pay Taxes....	1087	Non-Payment of Rent	1099
LANDLORD AND TENANT:		Legal Points Concerning Con-	
1084-1088, 1099		tracts and How to Write	
Collection of Rent	1086	Them	1092
Division of Crop	1087	Partnership Agreement	1099
Duties of Farmer on Shares..	1087	Power of Attorney—Short and	
Duties of Landlord	1085	Simple Form	1099
Duties of Tenant	1085	Security for Rent	1097
Farming on Shares	1086	Short Form of Will.....	1100
Landlord Must Pay Taxes....	1087	Short Form of Lease for Rent-	
Landlord's Notice to Quit for		ing House, Store, Etc. 1096, 1097	
Non-Payment of Rent	1099	LENDING TO RELATIVES	1117
Leases	1085	LETTER: WRITING	1115
Protection of Leased Property.1086		Written by a School Boy....	1214
Repair of Fences	1085	Written by an Educated But	
Repairs on the Farm	1085	Careless Young Man	1212
Right to Make Alterations....	1086	LETTERS: BUSINESS	1147
What May Tenant Take Away.1086		Proper Forms for Beginning..	1215
LANDLORD'S NOTICE TO QUIT FOR		Proper Forms for Closing....	1216
NON-PAYMENT OF RENT ...	1099	LIABILITY: FOR REFUSING TO	
LAW OF THE ROAD	1067	DISCHARGE MORTGAGE	1058
LAWFUL: FENCES	1072	Owner's, for Acts of Animals.1072	
Use of Highways	1066	LIABLE, WHO IS, FOR NUISANCES..	1075
LAWS: REGULATING KEEPING OF		LIBERAL AND JUST, BE	1112
DOMESTIC ANIMALS	1082	LIEN FOR SERVICES OF HORSE...	1082
Regulating Keeping of Stal-		LIFE: ESTATE FOR	1046
lions	1082	Insurance	1127
		LIGHTNING ROD SWINDLE	1218
		LIMITATION OF TAXATION.....	1079
		LITERARY SOCIETIES, BENEFITS OF.1107	

	Page
LOAN CERTIFICATE, COPY OF CLEAR- ING HOUSE	1203
LOANING MONEY	1123
LOCATION, SELECT A GOOD	1110
LOTTERIES, AVOID	1119
LOYALTY	1170

M

MACHINERY, INJURIES BY DEFEC- TIVE	1078
MAKE A WILL	1118
Contracts in Writing	1120
MAKING: CHECKS PAYABLE TO SOME OTHER PERSON.....	1197
Notes and Keeping Records.....	1170
MALIGN PASSIONS	1133
MAN, HIRED, FARMER'S ACCOUNT WITH	1236, 1237
MANAGEMENT, EXECUTIVE ABILITY	1156
MANURE A PART OF REALTY	1061
MARRIED WOMAN, FORM OF NOTE BY A	1188
MARRIED WOMEN MAKING DEEDS	1049
MARSHALL FIELD'S MAXIMS	1143
MAXIMS: BARON ROTHSCHILD'S.....	1143
Business	1143
Butler Bros'	1144
Marshall Field's	1143
Of Henry Ford	1173
MEETING: PROHIBITION	1221
Public, How to Call, Organize and Conduct	1221-1225
MEMORANDUM OF CHECKS, KEEP STUBS AND	1197
MENTAL: ATTITUDE	1155
Disturbance, the Effects of.....	1129
MERCANTILE DRAFT, FORM OF	1205
MERCHANT, FARMER'S ACCOUNT WITH	1230, 1231
METHODS, MODERN	1160
MIND, HAVE A PURPOSE IN.....	1137
MINORS, HIRING OF	1077
MIXED NUISANCES	1074
MODERN METHODS	1160
MONEY: DON'T COUNT, IN PUB- LIC PLACES	1114
Count, Before Leaving the Bank	1114
Counterfeit, Swindle	1217
Handling Other People's	1121
How to Invest Your Surplus.....	1113
Loaning	1123
Received to Make Payment for Another, Receipt for	1194
Sending Away	1121
Take Care of Your	1113
Used for Traveling	1114
MORTGAGED LAND, PURCHASING.....	1057
MORTGAGEE	1054
MORTGAGES: ASSIGNMENT OF.....	1056
Deeds and	1125
Delivery of	1056
Discharge of	1057
Equity of Redemption	1058
Execution	1056
Foreclosure of, Two Ways of.....	1058
Liability for Refusing to Dis- charge	1058
Mortgagee	1054
Mortgagor	1054
Paying	1056
Recording	1056

Requisites of	1054
Taking	1123
Usury	1055
What is a	1054
Tax Clauses in	1056
MORTGAGOR:	1054
Insurance by	1055
MORTGAGOR'S COVENANT:	1055
Interest	1055
MUTUAL ASSENT OF PARTIES IN CONTRACTS	1044

N

NECESSITY, WAYS OF	1063
NEGLIGENCE, CONTRIBUTORY	1078
NON-PAYMENT: OF RENT, LAND- LORD'S NOTICE TO QUIT FOR.....	1099
Notice of	1181
NOTES: AND DRAFTS, PAYING.....	1122
Best, for Farmers	1182
By Married Women, Form of.....	1188
Chattel, Form of	1188
Checks, Drafts, Etc., How to Indorse	1179
Collateral, Form of	1187
Collateral for Security to.....	1180
Corporation, Form of	1189
Demand	1185
Filling up Printed Forms of Checks, Etc.	1178
For Those Who Cannot Write, Form of	1189
Form of Indorsed	1184
Forms of Receipt, for Partial Payments	1183
Forms of All Kinds of	1184
How to Indorse	1180
Indorsing Payments on	1183, 1209
Joint	1186
Judgment	1186
Legal Points Concerning	1194, 1195
Making and Keeping Records.....	1170
Past Due	1125
Payable at the Bank	1184
Payable to Bearer or Order, Also Checks and Drafts.....	1178
Principal and Surety, Form of.....	1187
Promissory	1179
Receipts, Etc., All About.....	1179
Swindling Contracts or	1219
NOTICE: BANK	1208
Of Non-Payment	1181
To Quit, for Non-Payment of Rent	1099
NUISANCES: DISEASED ANI- MALS	1075
Fires, Careless Setting of	1075
Mixed	1074
Private	1074
Public	1074
What is a	1074
Who is Liable for	1075
NURSERY: TREES, WHEN A PART OF REALTY	1061
Warranties of Trees and Shrubs Purchased from a.....	1081

O

OATS, CONTRACT FOR SALE OF, ALSO WHEAT AND CORN	1093
--	------

Page

OBSTRUCTION OF WAYS1065

OCCUPATIONS OPEN TO WOMEN.....1112

OPPORTUNITY1172

ORDER: NOTES, CHECKS AND
DRAFTS PAYABLE TO BEARER
OR1178

 Of Business in Public Meet-
ings1222

ORDERS, FORMS FOR1191, 1192

ORGANIZATION1154

ORGANIZE MEETINGS, ETC., HOW
TO CALL1221-1225

OTHERS, LEARN FROM1112

OVERWORK AND UNDERWORK.....1136

OWNER, LAND, RIGHTS OF1069

OWNERS, RIGHTS OF ADJACENT.....1068

OWNER'S: LIABILITY FOR THE
ACTS OF HIS ANIMALS..1072-1074

 Dogs, Injuries by1073

P

PAPERS, RECEIPT FOR, OR ANY
ARTICLE1194

PART PAYMENT, RECEIPT OF.....1193

PARTIAL: PAYMENT ON NOTE,
FORM OF RECEIPT FOR.....1183

 Payments, on Notes, Indorsing.1209

PARTIES: COMPETENT, IN CON-
TRACTS1044

 Mutual Assent of, in Contracts.1044

 Proper, in Making Deed.....1049

 To a Draft1206

PARTNERSHIP: AGREEMENT1099

 Dissolution of1099, 1117

 Forming1116

 Form of Dissolution1099

PARTNERSHIPS, DISSOLVING .1099, 1117

PASSIONS, MALIGN1133

PAST DUE NOTES1125

PASTURING ANIMALS1083

PATIENCE AND GOOD TEMPER.....1130

PAY AS YOU GO1116

PAYABLE: AT THE BANK,
DRAFT1184

 Checks, to Yourself1196

 Drafts or Checks, to Yourself..1208

 Making Checks to Some Other
 Person1197

 To Bearer or Order, Notes,
 Checks and Drafts1178

PAYING: BILLS BY CHECKS.....1178

 Bills to Persons Living at a
 Distance1178

 Mortgages1056

 Notes and Drafts1122

 Of Taxes Under Protest1080

PAYMENT: FOR ANOTHER, RE-
CEIPT FOR MONEY RECEIVED
TO MAKE1194

 On a Note, Form of Receipt
 for Partial1183

 Partial, Indorsing on Notes...1209

 Presenting Checks for1178

 Receipt of Part1193

PAYMENTS ON A NOTE, INDORSING.1183

PERSEVERANCE1108, 1171

PERSONAL: ACCOUNTS, LADIES'
CHECK BOOK AND1200

 Industry1106

 Property1046

PERSONALITY1159

Page

PIPES, WATER, AS FIXTURES IN
REALTY1060

POINTS, LEGAL1192, 1194, 1195

 Concerning Contracts, Etc....1092

 Concerning Notes1194, 1195

POLITENESS:1109

 And Courtesy1166

POLITICS, IN BUSINESS1111

POOR LAWYER, DON'T EMPLOY A..1123

PORK ACCOUNT1234, 1235

POSITION, APPLYING FOR A.....1155

POSSESSION, TITLE BY1053

POTATO FIELD ACCOUNT ...1232, 1233

POWER: OF ATTORNEY, HOW TO
REVOKE1100

 Of Attorney, Short and Simple
 Form1099

PREMISES, INJURIES FROM DEFEC-
TIVE1078

PRESCRIPTION, OR ADVERSE USE,
WAYS CREATED BY1064

PRESENTING CHECKS FOR PAYMENT.1178

PRINCIPAL AND SURETY NOTE,
FORM OF1187

PRINCIPLES, BUSINESS1144

PRIVATE: CASH ACCOUNT 1236, 1237

 Drains1066

 Nuisances1074

PROHIBITION MEETING1221

PROMISSORY NOTE1179

PROMPTNESS, PUNCTUALITY1167

PROPERTY:1045

 A Wife's1118

 By Deed1048

 Classification of Estates in..1045

 Courtesy Estate1048

 Deeding, to a Wife1118

 Dower Estate1048

 Emblems1046

 Estate for Years1047

 Estate in1045

 Estate Tail1046

 Estates at Will1047

 Estates from Year to Year..1047

 Estovers1046

 Life Estate1046

 Personal1045

 Protection of Leased1086

 Real1045

 Real, Title to1045

 Requisites of Deed to1049

 Title to Real Estate, How Ob-
 tained1048

 What is it1045

PROTECTION OF LEASED PROPERTY.1086

PROTEST: COMMON FORM OF..1181

 Paying Taxes Under1080

 Waiving1182

PUBLIC: DRAINS OR DITCHES...1065

 Meetings, How to Call, Organ-
 ize and Conduct ...1221-1225

 Nuisances1074

 Places, Don't Count Money in.1114

PUMPS, AS FIXTURES IN REALTY..1060

PUNCTUALITY, PROMPTNESS.....1167

PURCHASE, TITLE TO REAL ESTATE
BY1048

PURCHASING: MORTGAGED LAND.1057

 Or Wholesale Agency Swindle.1220

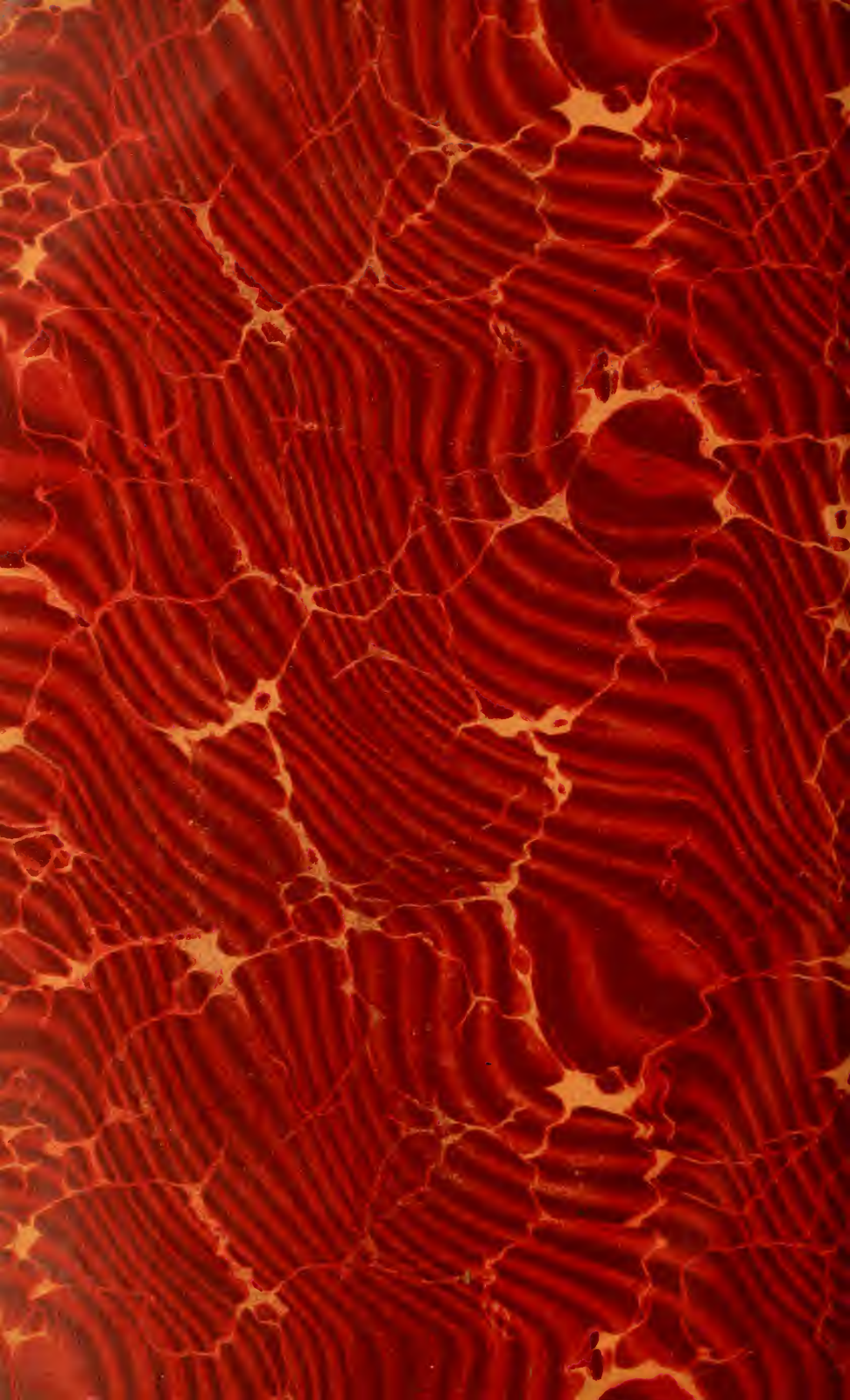
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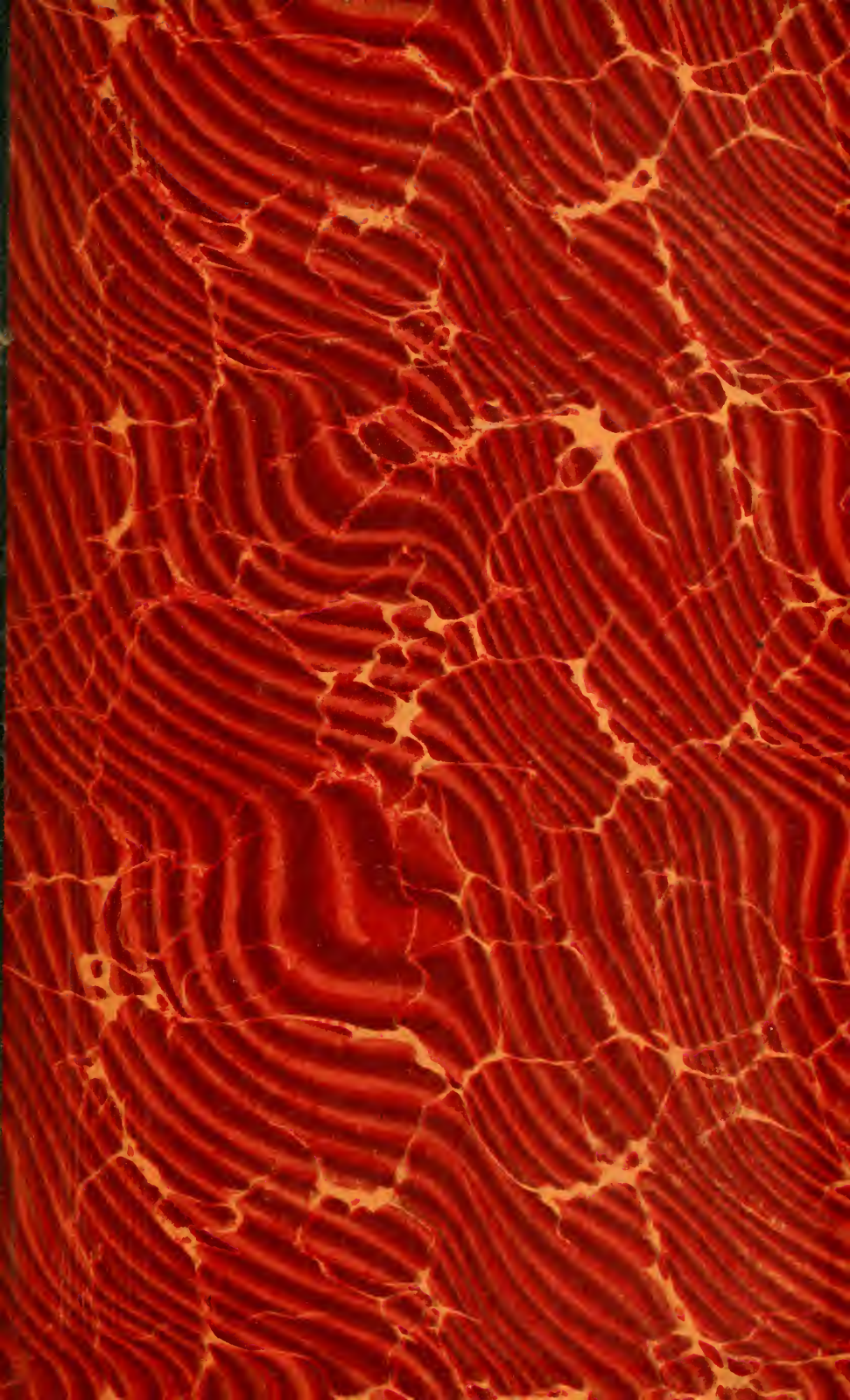
RAILWAY FENCES1071

	Page	Page
REAL: ESTATE, INVESTIGATE		Of Insured
TITLE BEFORE BUYING	1124	Of Land Owner
Estate, Title by Deed	1048	Of Way as Easements.....
Estate, Title, How Obtained.....	1048	RIVERS AND STREAMS AS BOUND-
Property	1045	ARIES
Property, Title to	1045	ROAD, LAW OF
REALTY: BUILDINGS, A PART OF.....	1059	ROADS AT RIGHT ANGLES
Fences, a Part of	1061	ROTHSCHILD, BARON, MAXIMS OF.....
Fixtures, a Part of	1059	
Gas Fixtures in	1060	S
Hoop-Poles, a Part of, when		SAFE BUSINESS, Do A
in Use	1061	SALE: BILL OF
Manure, a Part of	1061	Of Diseased Cattle
Nursery Trees, when a Part of.....	1061	Of Land, Contract for
Pumps, Sinks and Water Pipes,		Of Stock, Contract and War-
as Fixtures in	1060	ranty for
Things That Are a Part of.....	1059	Of Wheat, Corn or Oats, Con-
Trees and Crops, a Part of.....	1061	tract for
RECEIPTS: FOR ANOTHER	1194	SALESMANSHIP
For Bill of Goods	1192	SCHEMES, FRAUD AND SWINDLING
For Money Received to Make		(See Fraud and Swindling
Payment	1194	Schemes)
For Papers or Any Article	1194	SEALING OF DEED
Forms for all Kinds	1192-1194	SECRET: OF FASCINATION, THE.....
Give and Take	1121	Of Success, the
In Full	1193	SECRETARY, APPOINTMENT OF A,
In Full of All Demands.....	1193	FOR PUBLIC MEETINGS
Notes, Etc.	1179	SECRETARY'S REPORT, THE
Of Part Payment	1193	SECURING A SITUATION
On Account	1192, 1193	SECURITY: COLLATERAL FOR, TO
RECORDING: OF DEEDS	1053	NOTE
Of Mortgages	1056	For Rent
RECORDS, KEEPING, AND MAKING		SELECT A GOOD LOCATION
NOTES	1170	SELECTION OF A CHAIRMAN FOR
REDEMPTION, EQUITY OF, IN MORT-		PUBLIC MEETINGS
GAGES	1058	SELF: BE FORGETFUL OF
RELATIVES, LENDING TO	1117	Confidence
REMITTANCES, BUYING DRAFTS		Control
FOR	1179	The Knowledge of One's
REMOVABLE FIXTURES	1062	SELF HELPS IN BUSINESS:
RENT: COLLECTION OF	1086	1174-1209
Landlord's Notice to Quit for		Acceptances
Non-Payment of	1099	Bank Notice
Security for	1097	Caution, Corporations and So-
RENTING: CONTRACT FOR, A		cieties
FARM FOR CASH RENT.....	1098	Certificates of Deposit
Store, House or Building,		Certificates of Deposit Drawing
Forms of Lease for.....	1096, 1097	Interest
REPAIR: HARNESS AND WAGON		Check Book and Personal Ac-
MUST BE IN GOOD.....	1068	count, Ladies'
Of Fences	1085	Checks, Certificates of Deposit,
REPAIRS ON THE FARM	1085	Drafts, Etc., All About.....
REPORT, THE SECRETARY'S	1224	Checks, Certified
REQUISITES: OF DEED	1049	Checks, Common Form of.....
Of Mortgages	1054	Checks, Corporation
RESERVATION, WAYS CREATED BY.....	1064	Checks, How to Indorse
RESOLUTIONS, COMMITTEE ON, IN		Checks, How to Indorse, Also
PUBLIC MEETINGS	1223	Drafts, Notes, Etc.
RESPONSIBILITY:	1169	Checks, in Full of Account.....
How to Avoid, for Notes In-		Checks, Indorsing
dorsed	1182	Checks, Keep Stubs and Mem-
Of Employer's for Employee's		orandum of
Acts	1078	Checks, Making Payable to
Of Indorser	1181	Some Other Person
REVOKE POWER OF ATTORNEY,		Checks, Notes and Drafts, Pay-
How to	1100	able to Bearer, Etc.
REVOCATION, OF WILLS, OR CAN-		Checks, Notes, Etc., Filling up
CELLATION	1090	Printed Forms of
RIGHT: OF TENANT TO MAKE		Checks, Payable to Yourself
ALTERATIONS	1086	1196, 1208
To go Outside of Way.....	1065	Checks, Paying Bills by.....
To Stop by Wayside	1068	Checks, Presenting for Pay-
RIGHTS: OF ADJACENT OWNERS.....	1068	ment

Page	Page		
Clearing House, What It Means	1203	SOCIETIES: CORPORATIONS AND, CAUTION	1207
Consent of Indorsers to Indorsements	1180	Literary, Benefits of	1107
Drafts, Accepted	1207	SPECULATION, AVOID	1110
Drafts, Bank	1204, 1205	SPEED	1068
Drafts, Buying, for Remittances	1179	STALLIONS, LAWS REGULATING THE KEEPING OF	1082
Drafts, Drawn	1207	STOCK, CONTRACT AND WARRANTY FOR SALE OF	1094
Drafts, or Checks Payable to Yourself	1208	STOP, BY WAYSIDE, RIGHT TO	1068
Drafts, Parties to	1206	STORE, SHORT FORM OF LEASE FOR	1096
Drafts, Sent to Foreign Countries	1208	RENTING	1096
Drafts, Three Kinds—Time, Sight, Demand	1207	STRANGERS, BE CAREFUL OF	1113
Drafts, with Bill of Lading	1206	STREAMS, RIVERS AND, AS BOUNDARIES	1062
Educate Yourself	1174, 1175	STUBS AND MEMORANDUM OF CHECKS, KEEP	1197
How to do Business with a Bank	1176	STYLE OF SIGNATURE	1119
Non-Payment, Notice of	1181	SUBMISSION AGREEMENT, ARBITRATION OR	1103
Notes, Checks and Drafts, Payable to Bearer	1178	SUCCESS, THE SECRET OF 1136, 1157, 1158	
Notes, Collateral, as Security to	1180	SURETY NOTE, PRINCIPAL AND, FORM OF	1187
Notes, Filling in	1178	SURPLUS MONEY, HOW TO INVEST IT	1113
Notes, for Farmers, Best	1182	SWINDLE: COUNTERFEIT MONEY	1217
Notes, Forms of All Kinds	1184	Farming Utensils	1218
Notes, How to Indorse	1180	Lightning Rod, the	1218
Notes, Indorsing Payments	1183, 1209	Patent Fences, Patent Gates, Etc.	1218
Notes, Legal Points Concerning	1194	The Wire Fence	1218
Notes, Promissory	1179	Wholesale or Purchasing Agencies	1220
Notes, Receipts, Etc., All About	1179	SWINDLING: CONTRACT OR NOTE	1219
Receipts of All Kinds	1192	Schemes, Fraud and (See Frauds and Swindling Schemes)	1217-1220
Responsibility, How to Avoid	1182	SYSTEM	1161
Responsibility of Indorser	1181		
Waiving Protest	1182	T	
Worth Twenty Thousand Dollars to a Man	1183	TAIL, ESTATE	1046
SELL ON CREDIT, DON'T	1110	TAKE CARE OF YOUR MONEY	1113
SENDING MONEY AWAY	1121	TAKING MORTGAGES	1123
SERVICE	1162	TAX CLAUSES IN MORTGAGES	1056
SERVICE OF HORSE, LIEN FOR	1082	TAXATION, LIMITATIONS OF	1079
SETTING OF FIRES, CARELESS	1075	TAXES:	1079-1081
SETTLE BY ARBITRATION	1124	Invalid	1079
SHARES: AGREEMENT TO CULTIVATE LAND ON	1097	Landlord Must Pay	1087
Duties of Farmer on	1087	Limitation of	1079
Farming on	1086	Methods of Collecting	1080
SHEEP: DISEASED	1083	Paying Under Protest	1080
Laws Regulating Their Keeping	1083	Validity of Tax Deeds	1080
SHORT: FORM OF LEASE FOR RENTING A STORE, HOUSE OR BUILDING OF ANY KIND	1096	TEAM SHOULD BE HITCHED	1068
Form of Power of Attorney	1099	TEMPER, GOOD, AND PATIENCE	1130
Form of Will	1100	TENANT: DUTIES OF	1085
SHRUBS, TREES AND, WARRANTIES OF, IN PURCHASE FROM A NURSERY	1081	Landlord and	1084-1088
SIGHT DRAFT, TIME, AND DEMAND	1207	Right of, to Make Alterations	1086
SIGNATURE, STYLE OF	1119	What He May Take Away	1086
SIGNING: FORM OF EXECUTION OR, IN DISPOSITION OF PROPERTY AT DEATH	1090	TESTAMENT OR WILL	1088
Of Deed	1051	THINGS: NEEDED WHEN TRAVELING	1114
SINCERITY	1165	Sold, Warranty of	1080
SINKS, AS FIXTURES IN REALTY	1060	That Are a Part of Realty	1059
SITUATION, SECURING A	1104	THOROUGHNESS	1152
SMILE	1131	TIME DRAFT, SIGHT AND DEMAND	1207
		TITLE: BY PURCHASE	1048
		By Accretion	1053
		By Deed	1048
		By Descent	1048
		By Possession	1053

	Page		Page
Investigate, Before Buying	1124	Of Things Sold	1080
Real Estate	1045	WATER PIPES AS FIXTURES IN REALTY	1060
To Things Real	1048	WAYS: ACQUIRED BY PRESCRIPTION OR ADVERSE USE	1064
To Real Estate, How Obtained	1082	And Boundaries, How Located	1061, 1062
TRAINERS, HORSE	1112	Classification of	1063
TRAINING, BUSINESS	1067	Created by Grant or Reservation	1064
TRAVELERS ON FOOT	1114	Gates and Bars in	1065
TRAVELING: MONEY USED FOR	1114	How, May Be Used	1064
Things Needed When	1061	Obstruction of	1065
TREES AND CROPS, A PART OF REALTY	1081	Of Committing Trespass	1069
TREES AND SHRUBS, WARRANTIES OF, IN PURCHASE FROM A NURSERY	1070	Of Necessity	1063
TRESPASS: By Dogs	1070	Rights to go Outside of	1065
By Domestic Animals	1070	Rights of, as Easements	1063
By Employer	1070	WAYSIDE, RIGHT TO STOP BY	1068
By Fowls	1070	WHAT NECESSARY IN CONTRACTS	1044
By Hunters and Fishermen	1069	WHEAT: CONTRACT FOR SALE OF, ALSO CORN, OATS	1093
Rights of Land Owner	1069	Field Account	1232, 1233
Ways of Committing	1069	WHO IS LIABLE FOR NUISANCES	1075
		WHOLESALE, OR PURCHASING AGENCY	1220
U		WIFE: DEEDING PROPERTY TO A	1118
UNBROKEN OR VICIOUS HORSES	1068	Property of	1118
UNDERWORK AND OVERWORK	1136	WILL: DISPOSITION OF PROPERTY AT DEATH BY	1088
UNUSUAL EMPLOYMENT, INJURIES ARISING FROM	1078	Estates at	1047
USURY IN MORTGAGES	1055	Make a	1118
		Revocation or Cancellation of	1090
V		Short Form of	1100
VALIDITY OF TAX DEEDS	1080	WITNESSING OF DEED	1052
VICIOUS: ANIMALS, INJURIES BY	1072	WOMAN, FORM OF NOTE BY A MARRIED	1188
Animals, Lawfully Killed	1073	WOMEN: MARRIED, PARTIES IN MAKING A DEED	1049
Or Unbroken Horses	1068	Occupations Open to	1112
		WORK, DO NOT SHIRK IT	1137
W		WORKMAN, EMPLOYMENT CONTRACT WITH	1101
WAGES AND LABOR	1152	WORLD, BUSINESS, THE	1141
WAGON, HARNESS AND, MUST BE IN GOOD REPAIR	1068	WORTH TWENTY THOUSAND DOLLARS TO A MAN	1183
WAIVER, COMMON FORM OF JUDGMENT NOTE WITH	1186	WRITE A CONTRACT, HOW TO	1092
WAIVING PROTEST	1182	WRITING: LETTERS	1115
WARRANTIES (See Warranty Below)	1080, 1081, 1094	Make Contracts in	1120
WARRANTY: EXPRESS	1081		
Contract and, for Sale of Stock	1094	Y	
Implied	1081	YEARS, ESTATE FOR	1047
In Purchase of Trees, Etc., from a Nursery	1081		





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