

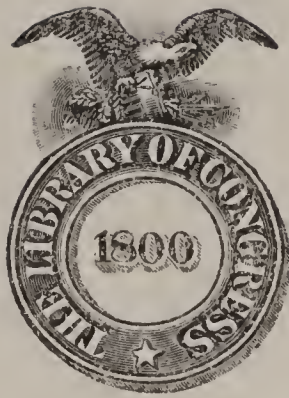
RL

91

C3

PREVENTION *of*
FALLING HAIR

CARL E. CARLBERG

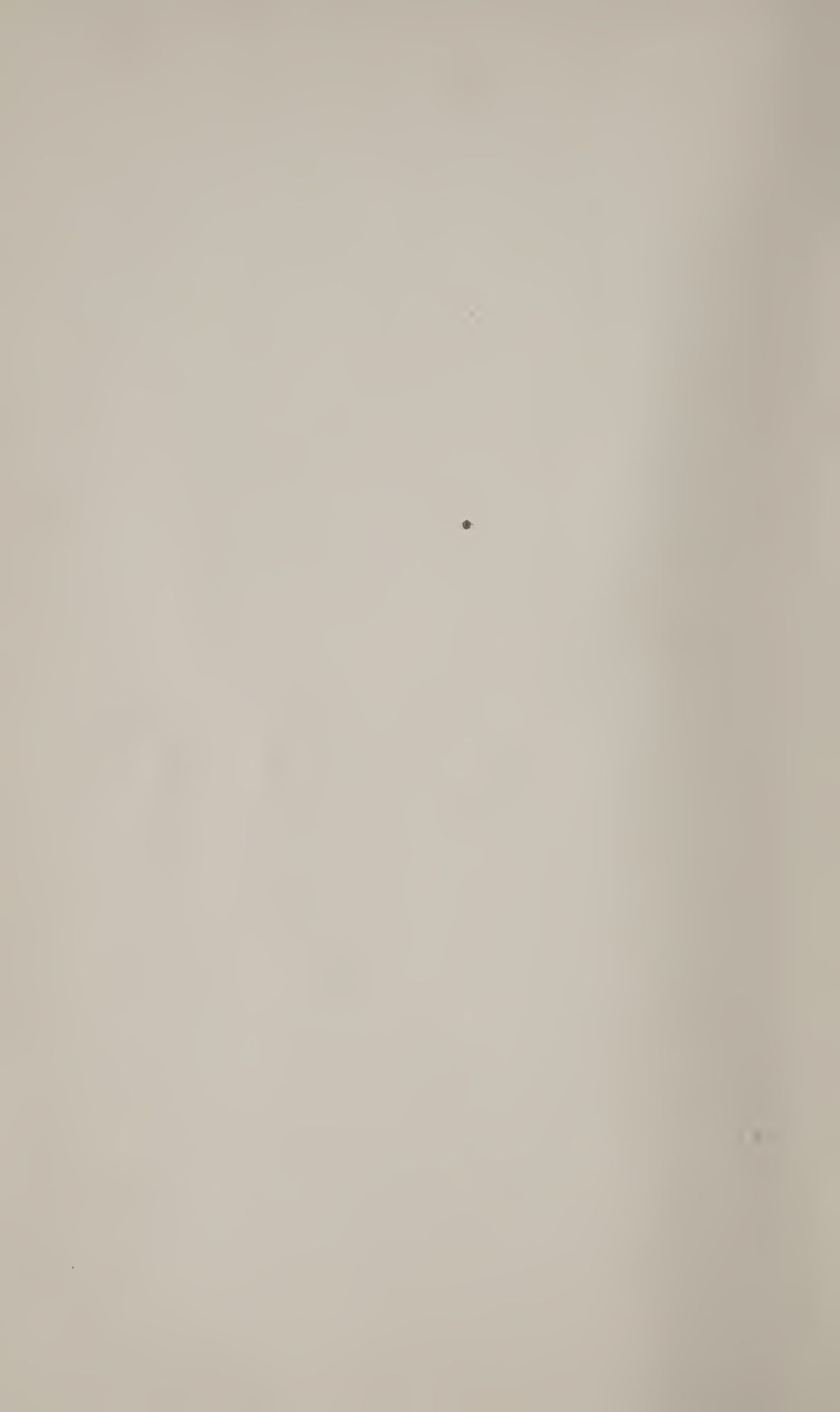


Class RL91

Book C3

Copyright N^o _____

COPYRIGHT DEPOSIT.



PREVENTION
of
FALLING HAIR

By REV. CARL E. CARLBERG

ST. PAUL, MINN.
CARL E. CARLBERG
PUBLISHER

RL91
.C3

Copyright 1923
By
CARL E. CARLBERG

All Rights Reserved

JUN -1 '23

©CIA704728

no |

TABLE OF CONTENTS

	Page
Preface	5
Contributors	8

CHAPTER I

The Skin

1. Anatomy of the Skin	9
2. Blood-vessels	10
3. Lymph-vessels	11
4. Nerves	11
5. Muscles	12
6. Sebaceous Glands.	12
7. Sweat-glands	12

CHAPTER II

The Human Hair of the White Races

1. The Birth, or Development of the Hair	14
2. The Gray and Whiteness of the Hair	16

CHAPTER III

Causes of Falling Hair

Direct Causes	18
1. Natural and Unnatural Falling of Hair, and Their Definitions	18, 19
2. Uncleanliness	19
3. Tight Fitting Hat	20
4. Seborrhea (Dandruff)	21
5. Alopecia	22
6. Alopecia Areata	24
7. Tinea Tonsurans (Ringworm)	25
8. Atrophia Pilorum Propria	26
9. Vitiligo	27

MENTAL DISEASES

10. Sorrow	27
11. Fear	28
12. Worry	29

CHAPTER IV

How the Hair May Be Stopped from Falling Through Direct Treatment

1. Continuous Hair Cutting	32
2. Shampooing	34

	Page
3. Finger Manipulation of the Scalp	35
4. Exercises for Diseased Hair and Scalp	36
5. Exercises for the Unnatural Falling of Hair	37

Through Indirect Treatment

6. Physical Culture	38
7. Fresh Air	41
8. Abdominal Breathing	41
9. Air Baths	46
10. Sun Baths	46
11. Sleep	52
12. Making New Blood	54
13. The Muscles	56
14. Rest of the Muscles	56
15. The Nerves	57
16. Nerve Energy	58
17. Rest of the Nerves	58
18. Rest of the Brain	59
19. Prevention of Tuberculosis	59
20. Prevention of Sorrow	60
21. Avoiding Fear	61
22. Antidote for Worry	62
23. Optimism	64
24. Humor	65
25. Power of Will	74
26. Training of the Will	75
27. Courage	75

CHAPTER V

Ladies' Hair and Scalptreatment

1. Trimming	80
2. Singeing	81
3. Shampooing	82
4. Diseases	84

CHAPTER VI

Children's Hair and Scalptreatment

1. Hair Cutting	86
2. Washing, or Shampooing	87
3. Finger Manipulation of the Scalp	88
Conclusion	89

PREFACE



A GREAT problem has been solved—the problem that has baffled humanity for ages. Scientists and physicians alike have tried to discover some sort of preventative for falling hair, but failed. Barbers, with their guaranteed hair waters, tonics and shampoos, have met with a similar result. People have paid hundreds and thousands of dollars for various kinds of hair remedies, without having been able to stop their falling hair. Why this revelation should be given the writer, I do not know. The discovery is very simple, yet very successful and dependable. The book is not intended to be a text-book in any particular subject, but it may be termed a study in hygiene and practical pathology.

Previously to the writing of this book, I had worked at the barber business for thirteen years; studied several years in various schools of learning; graduated from a theological seminary; spent over two years in private study of medicine, pathology, osteopathy, massage, etc. I therefore feel equal to the task set before me. I have not, however, become one-sided or too enthusiastic in any special study. I do believe, though, that all these kindred treatments, together with medicine, work for the good of humanity, and should therefore be recommended and patronized by all the people.

When we speak of stopping the hair from falling, we do not mean that all hairs can be prevented from falling out. Neither do we want to stop all

the hairs, even though it should be possible, because that would not be natural. In several instances when the patients have lost a considerable amount of hair, it has grown in again, and the bald spots have diminished through this system of exercises. We do not claim to grow hair, however, but we fully guarantee to stop the unnatural falling of the hair, if the rules laid down in this book are followed.

The reason why this book was ever written was the fact that my own hair used to fall out very fast, especially the last year before I discovered the preventatives described in the book. I had tried physical culture for years; changing the mode of living; and all the hair tonics on the market. The hair came out by the combfuls just the same, from ten to fifteen hairs every day. I had lost about one-third of the hair, and it was disappearing from my head very rapidly. It would only have been a matter of a few years, and my head would have been as bald as a billiard ball.

I had never used the hair tonics systematically or given them a fair trial, so I decided to buy a bottle, take it home and apply it every day. I did so, and as long as the tonic lasted my hair stopped falling; but when the bottle was empty and the manipulation of the scalp discontinued, the hair began to fall out as before. I then purchased another kind of tonic and followed the same procedure, with the same result. I bought two more bottles containing different kinds of tonics, but a few days after the last bottle had been used, the hair again began to fall out. Four kinds of the best tonics had thus been tried without giving any satisfaction whatsoever. Then I commenced to massage the

scalp dry with the balls of my fingers, and I met with a wonderful success.

Many other persons have experienced the same success, only from following this very exercise: massaging the scalp. Says one of my patients:

“The finger manipulations prescribed by you, have certainly done my hair a great deal of good. I used to get a combful every time I combed my hair, but it has nearly stopped coming out altogether. I presume that the few hairs that now fall out are due to the natural falling of the hair.”

Another one says:

“I have observed your rules regarding the finger manipulations of the scalp, and I have found them to be very helpful and beneficial indeed. My hair has not only stopped falling; but it seems to me that it comes in thicker all the time. I have never tried anything that has done so much good to my hair, as this simple rubbing of the head and scalp.”

We now wish that the rules and exercises contained in this book, if applied, may do for the reader what it has done for me and many others: namely stop the falling of hair and restore the body to health, strength and endurance.

In the preparation of this book we have sought the co-operation of medical and literary men. A list of these contributors appears prefixed to this volume. Their articles are signed, giving due credit to their authorship. We acknowledge our debt to our contributors, and wish to thank them for their splendid co-operation.

—THE AUTHOR.

CONTRIBUTORS TO THE BOOK

DOCTOR HORACE LO GRASSO, M. D.
Superintendent, J. N. Adam, Memorial Hospital,
Perrysbury, N. Y.

"Heliotherapy In Tuberculosis."

Heart's International Library Co., Inc. N. Y. N. Y.

"Anecdotes of the Hour."

DOCTOR RUSSEL H. CONWELL, D. D.
Pastor Grace Baptist Church, and President and Founder of
Temple University, Philadelphia, Pa.

"Humor—A Physical and Mental Cure."

PROFESSOR ALFRED J. WINGBLADE, M. A.
Principal Bethel Academy, St. Paul, Minnesota.

"The Psychology of Humor."

PROFESSOR H. C. WINGBLADE, A. B.
Professor Bethel Academy, St. Paul, Minnesota.

"The Psychology of Courage."

CHAPTER I.

PREVENTION of FALLING HAIR

The Skin

We may better understand the diseases and treatment of the hair, if we have studied the skin or scalp in which it grows. We shall, therefore, in this chapter, describe the skin with its different layers, blood-vessels, lymph-vessels, nerves, muscles, etc.

Anatomy of the Skin

The skin is composed of two distinct layers: the epidermis or scarf-skin, and the corium, derma or true skin.

The epidermis, also called cuticle, consists of four layers: (a) Stratum corneum, or horny layer; (b) stratum lucidum, or transparent or bright layer; (c) stratum granulosum, or granular or grain layer; (d) stratum mucosum, or slimy layer. The transparent, or bright layer, and the small grain layer, are not so important as the horny and the slimy layers.

The horny layer is composed of horny cells. The softer portion, "rete mucosum" beneath, is thus being protected by this layer.

The transparent or bright layer, is formed of bright, rounded or elongated cells. This one is considered to be the foundation of the horny layer, and is of little importance. These cells have their axes arranged in a vertical manner to the skin surface.

The granular layer consists of flattened granular cells. These cells contain a tissue-building principle or protoplasm, which is also found in the hair and nails.

The mucous layer is the most important, and the deepest layer of the epidermis. This layer contains the epithelial cells, which contain the skin pigment or coloring matter, and which give the hue to the skin. (Epithelium from Gr. epi, upon, and thele, nipple, teat.) These cells lie near the papilla of the corium. No blood-vessels are contained in the epidermis.

The corium is composed of white fibrous tissue, scattered in various places with fibro-cellular tissue. It contains blood-vessels, nerves, lymphatics, nerve-corpuscles, hair, sweat—and sebaceous glands, muscle—and fat-cells. The corium consists of two layers: (1) papillary layer; (2) reticular layer.

The papillary layer sinks into the rete or network. The papillae, or minute prominences, are supplied with blood-vessels, lymphatics (glands containing a colorless fluid), and nerve-corpuscles or minute cells.

The reticular layer is composed of connective tissue. This layer sinks into the papillary layer, without any certain limit. The connective tissue fibers are differently arranged in this layer, from those in the papillary layer.

Blood-Vessels

The surface of the corium is rough and thrown into a series of elevations, which are rich in capillary blood-vessels and nerve endings. These are

vascular and very sensitive. Branches which go forth from the deep plexus, penetrate the sweat and sebaceous glands, and also the hair-follicles. The blood in these blood-vessels gives the skin its reddish color. Through some emotion the blood is rushed to the skin and causes blushing. When through sickness or fear the blood is withheld, a pallor or paleness is noticeable on the face.

Lymph-Vessels

The lymph-vessels are like the roots of varicous plants in the soil, with tubes which gradually become larger until they finally empty into the veins. With the exception of one class, the lymph-vessels carry that colorless fluid called lymph for the purpose of carrying away all waste matter, thus assisting the blood in nourishing the body. The power of these vessels to absorb has often been illustrated by the fact that sick people have been kept alive and saved by the simple baths of soup, broth and other nutriment.

Nerves

There are two kinds of nerve-fibers contained in the skin. They are called sensory and motor nerves. The former carry messages to the nervous centers, and make reports on that part of the body where they are situated. The latter carry orders from the nervous centers to the muscles, notifying them when certain motions are to be made.

An example may be given of both these messages. For instance, a person may come in contact with a hot stove or furnace, and burn his finger. Imme-

diately a message is sent along the sensory nerves to the brain, and the mind is told of the danger. The mind at once sends a telegram back on the motor nerves to the muscle in charge of that finger to withdraw from the dangerous position. The muscle obeys and the finger is saved.

Muscles

There are also two kinds of muscle-fibers contained in the corium, namely voluntary and involuntary. The muscles in the skin of the face are grooved; while smooth ones exist in the scrotum and in connection with the hair-follicles.

This question has occasionally been asked, "Why does the hair rise or stand on the ends, when an animal or human being is frightened?" The answer is simply this: On account of the contraction of the hair-muscles. These muscles are like the guy ropes of a tent, and are termed the erector muscles.

Sebaceous Glands

The whole surface of the body is covered with small tubes which descend into the skin. The ends of these tubes take the form of little glands or bags. These glands collect sebum or oil from the blood, which is used for the purpose of lubricating the corium, scalp and hair. The sebum keeps the hair and the tissues of the skin soft, and prevents them from wearing out too rapidly.

Sweat-Glands

These glands consist of simple tubes which lie in coils in the corium. Their purpose is to filter

off the perspiration from the blood. The perspiration consists mostly of water, with a small amount of waste material. There are over three thousand sweat-glands in every square inch on the palm of the hand; but only four hundred to the square inch on the back, making a total of about 2,000,000 scattered all over the human body.

In the skin, as we have seen it, the hair derives its life and development.

CHAPTER II.

THE HUMAN HAIR of THE WHITE RACES.

The Birth, or Development of the Hair

There are various kinds of hair. We are, in this book, only concerned with human hair of the white races. And if another deduction is made, we will come down to the hair that covers the human head.



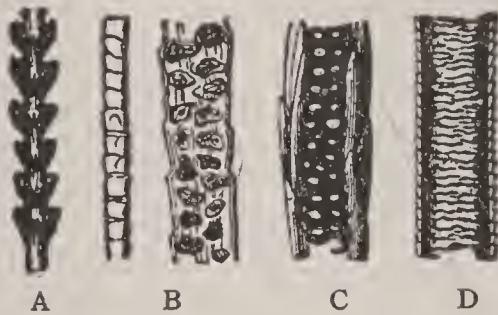
The Hair Greatly Magnified.

The hair-follicle, when it commences to grow, adds one cell to the other, as a bricklayer lays one brick upon another in building up a wall, and in this manner the hair grows and is slowly pushed out through the skin outlet or the mouth. The neck of the hair has its lodgment at the entrance of the sebaceous duct. The lower end of the follicle is called the bulb.

The hair, as a whole, consists of a cortex or hard substance, which is the bulk of the hair, the medulla or marrow, and the cuticle, which covers

the hair. The outside portion of the hair is called the shaft; the part in the corium, the root. Both constitute the bulb, which fits over the papilla. Through the papilla the hair receives its nourishment.

Every hair is like a tube, but it is never empty. It is filled in the center with medulla, a fat similar to that which is contained in the tubes and cells of the bones. Outside the hair proper are scales like the tiles of a roof. These scales form delicate lines on the hair surface. This fact may easily be demonstrated if you take a hair between your fingers and move the fingers back and forth; the hair will move from the bulb to the outer end.



Hairs of Various Animals Magnified. A, Indian Bat. B, Mouse. C, Sable
D, Human.

The human hair varies according to age, sex, country and other circumstances. At birth, an infant generally has light hair. It usually grows darker and stiffer with age. The same is also true with eyelashes and eyebrows. The hair is supposed to be one of the last tissues of the body to die, and is often found to continue to grow after death.

The Gray and Whiteness of the Hair

The color of the hair is a race characteristic, and is due to minute pigment granules or the coloring matter in the hair-bulbs. The loss of pigment may be general all over the scalp or it may occur only in certain places. The loss of pigment is usually permanent, although the color may change with the season or with some condition of health.

The pigment granules do to the hair what paint does to a house. As the paint makes the color of the house, so the pigment makes the color of the hair. We are making a mistake when we speak of the hair as losing its natural color, and turning gray or white. The natural color of the hair is white; how, then, can it lose its natural color? The hair can lose its original color, however. It may have been black, brown, red, light, or any other color, and then turn gray and white; consequently, it will lose its original, not its natural, color. This may be proved in the following manner. When the hair begins to turn gray, the pigment granules in the epithelial cells dry up, and disappear. When these cells thus are emptied of all pigment, and no more is secreted, the hair has turned completely white. This shows plainly, that the natural color of the hair is white.

The causes of gray or white hair may be traced back to their sources. The hair changes its original color on account of insufficient circulation of the blood in the scalp. The lessened circulation of the blood is again due to certain mental diseases like worry, fear, etc., and various physical disorders.

But there is some unknown cause yet to be discovered. These causes referred to, could easily be removed, and they are removed in many instances. This, however, does not restore the hair to its natural color. There is one theory that massage of the scalp will restore the original color of the hair. However, this cannot be done. We may prove this statement in this manner:

Massage of the scalp is nothing else than simple rubbing. This rubbing might be performed systematically or not. Its purpose is to stimulate the blood circulation, and thus assist the blood in carrying the proper amount of nutrition in the form of pigment to the epithelial cells. If this theory of restoring the hair of old people to its original color by massaging or rubbing of the scalp could be proved logically, why does not the beard on a man's face, which is being rubbed so often for the purpose of shaving, turn from its gray to its original color? The hair of the face is composed of the same substance as that of the head, and receives its nourishment from the same source. It is clear, therefore, that healthy people with gray or white hair, can change the color of their hair only, by bleaching or dyeing it.

CHAPTER III.

CAUSES of FALLING HAIR

Direct Causes

The cause of the falling of your hair can easily be determined, if you study your case carefully in the light of this chapter.

The hair of the head falls out in three different manners: first, natural; second, unnatural; and third, through uncleanliness and diseases.

Natural Falling of Hair

By natural falling of the hair we mean, that the hairs fall out leaving their root, or bulb, in the corium. How often this occurs, no one seems to know. The hair that is shed in this way, will make an average of from two to six hairs a day, taking the spring and autumn in consideration, when a person loses more hair than during any other season of the year. These hairs fall out because they have served from three to five years. We should judge, that four years is the average life of a human hair. When a hair thus falls out, a new one takes its place. It occurs in the following manner: First, a new papilla is formed in the epithelial cells proceeding from the derma. A new hair grows by forming new cells, as described in the second chapter. The old hair, when dead, is held mechanically in the follicle, until the new hair begins to grow, when the old one is pushed out of the sheath. Sometimes the dead hairs fall out through rubbing of the scalp.

A person with natural falling of hair need not fear that he ever will be bald. The hair will continue to shed this way, more or less, as long as he lives, even though all the exercises prescribed in this book are followed. There are about 48 hairs to the inch on an average human head. That would amount to 4,304 hairs to the square inch. The average head has about 140 square inches covered with hair. This would approximately amount to 606,864 hairs. One could certainly afford to lose a few hairs every day, even though there should not appear to be any in return, and still have a good crop at the age of sixty or seventy. We know, however, that a new hair is replaced by the old one that falls out, provided, of course, that it falls out in the natural way. A person who possesses mental, and physical health and strength, with good circulation of the blood in the scalp, should retain a thick, and healthy head of hair, at an old, obsolete age.

Unnatural Falling of Hair

The unnatural falling of hair is that kind which makes people bald, slowly but surely. Senility, and the first class of premature alopecia, namely, "idiopathic," belong to the unnatural falling of hair. We shall, under this heading, name some of the causes of unnatural falling of the hair.

Uncleanliness

Uncleanliness is one of the many causes, which have a great deal to do with falling hair. Cleanliness comes next to godliness. As the body can-

not be kept clean, and in a healthy condition, without regular baths, neither can the head, scalp, and the hair remain clean and healthy, without regular washing or shampooing. The hair must be kept free from dirt and filthy substances, in order that it may grow, thrive, and flourish.

Tight Fitting Hat

The wearing of a tight fitting hat prevents the air from entering into the hair and scalp. The blood is also prevented from circulating properly in the scalp.

The blood is the medium through which the body is being nourished. How then can the hair live, when it does not receive the necessary nourishment? There are four and a half ounces of blood sent out by the ventricles, or cavities, at each pulsation of the heart. That would amount to 324 ounces in seventy-two pulsations, or a minute, or about 20 pounds, being 1200 pounds per hour, or nearly 13 tons per day. All this blood, carried through the heart, has been purified in the lungs, and, through the arteries, carried everywhere throughout the human body, for purposes of nutrition. Then, if a tight hat is worn on the head for one hour only, the purified blood lost to the hair would be a considerable portion of the 1200 pounds which circulate through the human body in that time. The blood thus shut up in the blood vessels in the scalp has given its nourishment once, and is weak and poor without any more nutrition. This indicates that the hair has been "starving" for one hour, and made much weaker. The food from

the blood is carried into the epithelial cells, and thence into the hair-cells, which is the hair proper. Feed your hair by wearing a loose fitting hat!

Seborrhea (Dandruff).

There are several forms of Seborrhea. Two of them are more distinct and are called "seborrhea oleosa," and "seborrhea sicca."

"Seborrhea Oleosa" is that form which is characterized by an excessive flow of sebum. The sebum makes the hair very greasy and sticky, and sometimes the hair becomes matted and sticks together. If the hair and scalp are not washed regularly, a disagreeable odor may arise from the scalp.

"Seborrhea Sicca" is the other form which appears upon the face as well as upon the scalp. When it is found upon the scalp it is called dandruff.

Dandruff has been the object of various theories. One theory is that dandruff is a disorder which occurs in the sebaceous or fat producing glands, characterized by an increased, decreased or altered secretion of sebum. The sebum thus secreted, may form crust and scales upon the scalp.

Another theory is held that dandruff is a functional disease of the sebaceous glands, which takes the form of an excessive and perhaps abnormal secretion of sebaceous matter, appearing upon the skin as an oily coating or scales.

However, this is only half of the truth. If the sebum or fluid secreted by the sebaceous glands, could be gathered together in such a large quantity, that it could be used to lubricate an automobile, would that sebum or oil form dandruff in the ma-

chinery of the automobile? Or if it were possible to collect a quantity of sebum so great that, it would be sufficient to oil the big machinery in a factory or in a huge steamer, where the oil flows freely from one year to another, would there ever appear any dandruff in, upon, or under these monster machines? No! Never!

It is impossible to stop the body from wearing out, and the powder-like substance (old skin) which rolls off the scalp and body is replaced by new skin in the form of tissues. If the secretion of sebum is not sufficient, or altogether stopped, there will be very little dandruff, if any at all. The dead tissues may be combed, or brushed from the scalp dry, and when collected, they look like a rough, or coarse powder. This substance alone will never form dandruff. But together with the sebum, these worn out tissues will form one of the deadliest diseases of the hair. The crust lies so tight on the scalp, that the air is prevented from entering into the bulb, or tissue, thus draining the sebaceous glands, robbing the hair of its food, and causing it to split, break off, or fall out. Dandruff is, therefore, a pigmentary disease caused by an excess of sebum secreted by the sebaceous glands, which, together with the worn out tissues of the scalp, form small, thin layers, or scales. This is what the dandruff is composed of, and nothing else.

Alopecia

Alopecia is a hair disease which usually causes the hair to fall out in patches, but sometimes it

causes complete baldness. Occasionally the disease causes the nails to fall off. The disease may be divided into three classes: congenital, senile and premature.

Congenital alopecia consists of a thin growth of hair in certain localities, and sometimes all over the head. In severe cases the scalp may be completely bald, without any fuzz upon it whatever. Heredity has a great deal to do with baldness of this kind.

Senile alopecia comes with old age. The hair gradually becomes thinner, until it has disappeared altogether. It begins to fall in the frontal and temporal regions, and continues slowly up towards the crown.

Premature alopecia, as the name indicates, occurs between the ages of eighteen and forty. This form may be divided into two classes: "idiopathic" and "symptomatic."

The "idiopathic" alopecia shows no sign of any disease, even though eight or ten hairs fall out every day. In the place of these falling hairs, new and shorter ones occur. These hairs, even though of a poorer quality, are formed in the epithelial cells and grow practically in the same way as the common ordinary hairs. The papillae of these hairs have been diseased, and this cause prevents the hairs from developing into a strong and healthy growth. A fine growth of hair may thus follow another still finer, until the entire scalp is bald. Some authors believe that this form of baldness is associated with seborrhea in some form or another.

The "symptomatic" form of alopecia is the result of various diseases. The hair may fall out very rapidly, following some kind of acute disease or fever.

Alopecia Areata

Alopecia areata occurs both upon the scalp and face. It consists of oval patches, which occasionally cause total baldness. The corium becomes soft and smooth, devoid of hair. The spots are usually white, but sometimes turn pinkish on account of an excessive accumulation of blood in certain parts of the scalp.

This disease varies considerably in its course. In some cases the bald patch is developed in a short time; then again in other cases it may take a few days or weeks. Sometimes the patch increases in size, until the whole surface of the scalp is bald. When the hair begins to grow in, the bald surface is covered with fine, downy white hairs. Some of them are shed, and others are changed into thick, and pigmented hairs. Oftentimes these hairs fall right out again, and are afterward replaced by another growth that remains.

No money should be wasted on this or any other hair-disease. The writer is reminded of several cases of alopecia areata. One, especially, a man of about forty-five came in to the barber shop one day afflicted with this disease. One of the barbers tried to sell him some hair remedy and tonic, when another barber with whom the writer is well acquainted interfered and told that customer to save his money and seek first class medical treat-

ment, in order to get his blood and body in a good and healthy condition. The man took the advice and, after three months had elapsed, he was well and strong, and his hair had grown in again as thick as before. It also bore the original color, black.

Sometimes it takes several months, and even many years, before a person gains sufficient strength to conquer this disease. It might also occur at any time in life.

Tinea Tonsurans (Ringworm)

Ringworm is a disease attacking the whole body. When it occurs upon the scalp, it is due to small-spored cellular cryptogams or fungus.

There are several forms of ringworm, but it is only necessary to describe one form here, namely: Tinea Tonsurans or ringworm of the scalp.

This contagious, parasitic disease begins with small, reddish, scaly patches, which may appear upon any portion of the scalp. When the infection takes place, the follicles and hair-shafts are invaded by fungi germs. The hairs, after the infection, become brittle and break off about ten millimeters from the scalp.

The patches are small and reddish, with gray scales. Some are small as a five-cent piece, and others as large as the palm of the hand. In some cases the hair becomes affected over large areas, and no distinct patches are visible.

Tinea Kerion is another form of ringworm of the scalp. This one becomes inflamed and termin-

ates in pus or matter. The patches may be red or yellow with local dropsy. The yellow pus secreted flows through the hair-follicles. Itching, burning and pain are felt in the affected portion of the skin. If the matter is removed, a ringworm may be cured sooner, but care should be exercised, so that the hair-follicles are not destroyed. That would leave a person permanently bald.

Microsporion ringworm is another kind which has few patches, but is quite large in size. Scales occur upon the corium and the hair-follicles are prominent.

Trichophyton ringworm is still another form, with smaller patches, but greater in number. No scales appear upon the scalp in this form of ringworm. The hair usually breaks off near the scalp, and the stumps thus left are brittle and dry. This form is due to an insufficient supply of sebum in the scalp.

Atrophia Pilorum Propria

This form of disease may be divided into two distinct classes: "Symptomatic" and "Idiopathic". The most characteristic feature of this disease is splitting.

The symptoms of the former are the same which take place in seborrhea, ringworm, phthisis, syphilis and in various fevers.

The latter form or "idiopathic," may be characterized by the following affections:

The splitting and breaking off of hairs are the chief symptoms of this form. The split hairs occur

mostly upon the female scalp, where they spread apart or curl up. Sometimes they split into three or four stalks all the way down to the hair-bulb. Then they break off and fall out, and often ruin the bulb itself.

Vitiligo

Vitiligo is a pigmentary disease characterized by light-colored patches, appearing upon the head and body. These patches may develop fast or slow. Sometimes they are covered with hair which usually turns white. On account of the heat in the summer months, the pigment increases and disfigures the corium around the patches where the hair still retains its original color.

The progress of the disease is very slow, and first after a number of years may become visible to the eye. There are cases known where the greater part of the body has been affected.

Vitiligo is due to nervousness or a nervous breakdown, which again may cause other physical disorders. It may last throughout life, if proper physical and mental treatment is not obtained in time.

MENTAL DISEASES

Sorrow

Sorrow produces a condition of the body contrary to that produced by joy. Sadness depresses the bodily functions, and the muscular system becomes relaxed and weakened. A sorrowful person always seems to be exhausted or fatigued. Often a person of this sort is sighing, and that shows

Nature's effort to make up the loss of oxygen resulting from the chest's decreased activity. We often hear of a person "weighed down with sorrow," and this expression certainly is a physiological conclusion. Sorrow also effects the internal organs.

Even the sorrowful mother starves her babe on account of a depressed mental condition. Her life seems to be dried up, or sapped out, and her feeling is chilled or benumbed, and the mental faculties dulled. In this manner the whole body withers under the great influence of sorrow and grief.

Sorrow of long standing leads to organic changes; for instance, atrophy of the kidneys.

Fear

Fear is apprehension, misgiving, solicitude, timidity, trepidation, anxiety, awe, dismay, consternation, alarm, dread, reverence and veneration. In other words, fear is a painful emotion caused by an expectation of evil or danger.

Fear produces a weakening and, occasionally, a complete paralysis of the muscles. The blood-vessels also contract, and this is clearly shown by the increase of the heart beat and, sometimes, by accompanied chill. The sympathetic nerves also receive a powerful impression, which causes the pupils of the eyes to dilate. Fear (terror) has sometimes caused paralysis, insanity, or death.

Whenever a person fears some danger or becomes affrighted, something is sure to happen to the hair. It will either begin to fall out, or turn gray or white. There are many instances where the

hair has turned gray over night, or in a very short time. Take the case of the man who walked in a tunnel, not thinking of any danger before he heard the coming of a fast train which was just approaching the curb and turning into the same tunnel. Frightened almost to insanity, he began to run out of the tunnel with all his might and when he had reached the end, he threw himself on the embankment, as the speeding train passed by without touching him. Here he lay for several hours, and when he revived and went home, he found, to his great surprise, that his hair had turned completely white.

There are also other well known incidents that may be mentioned; for example, the cases of Marie Antoinette and Sir Thomas More. This un-willed fear will come very suddenly and cannot be avoided, but the self-willed fear is the kind we can and ought to avoid.

Worry

Worry is a mental disease which rapidly exhausts the nerve centers. Depressing emotions are far more harmful to nerve centers, than is healthy and sharp brain-work. Hard mental work combined with worry and anxiety ruins the nerve centers, and exhausts their stores of energy. It is not only the work itself that does the harm, but the cross-fire, the short-circuit, the disturbed emotions, all work in harmony to prevent the brain from repairing its losses.

We can get through with a great amount of work if we do it quietly and in a methodical manner. Some people want to accomplish their tasks in the fewest possible minutes, and they worry themselves and everyone else in the attempt. A person whose mind is addicted to worry is always looking for the worst to happen.

Of all the real troubles in life, there are none so destructive to body and mind, as the imaginary ones. The troubles we are looking for hardly ever come. The man who is always thinking of the danger of colliding with some pedestrian in a street crossing may be sure to be run down by an automobile. Then again if this accident occurs, and he is not killed, he will be thinking of automobiles, and he will be almost certain to run up against some pedestrian. People who are always worrying about the future, and all the ills and diseases that may possibly come, are inviting troubles.

Worry is also causing neurasthenia or physical sickness. This state of the nervous system alters the blood-circulation, and causes the feeling of illness. Such people feel chilly or burning hot; still their temperatures may be normal. They continue to worry and feel certain that they are going to be sick, and the dread of their imagination further aggravates their nervous condition, and finally they become sick. Physical sickness is thus brought on with a poisonous blood, which is the cause of a sick body, and a sick body is the cause of falling hair. Hence worry is one of the many causes of

falling hair, and there are millions of men in the world today, who have lost their hair through worry.

This mental disease is also the cause of more unhappiness, sorrow and death, than all the other skin and scalp diseases added together. Business enterprises, large or small, have "gone to the wall," and many of their owners have suffered an early death. Hospitals and insane asylums throughout the world are filled with mental patients, whose minds have become diseased through this fearful habit.

CHAPTER IV.

HOW the HAIR MAY BE STOPPED from FALLING

THROUGH DIRECT TREATMENT.

Continuous Hair Cutting

Continuous cutting of the hair has a splendid effect. The oftener it is cut, the stronger and healthier it will become. The hair should therefore be cut every two weeks, or at least once a month.

For the benefit of those who would like to know the various styles and names of hair-cuts, the following table may serve the purpose. Nine of these are named as follows:

Short Pompadour—This is an old style hair cut, but one that is still in vogue. A pair of clippers are used on the sides and back. The hair should be wet slightly and brushed straight back, cut with a pair of shears on top, and left about one inch, or one and a half inch long.

Long Pompadour—In this form of a hair cut, the clippers are used in the back, and sometimes on the sides, the hair being combed back or parted in the center, trimmed, and left as long as desirable.

Quarter Crown—In this mode the clippers are used a little around the edges. The hair is afterward tapered up with a pair of shears.

Half Crown—The clippers are being used half way up towards the crown all around the head. The hair is then cut and trimmed with the shears, as in a quarter crown cut.

Full Crown—This style requires the clippers to be used clear up to the crown in the back of the head, and on the sides all the way up to the temples. It may be trimmed afterwards in the usual manner. In the Crown hair cuts the neck may be shaved around or straight down.

Medium Business Hair Cut—This form is the most common for a middle-age business man. The hair is cut medium all over the head. The neck may be shaved around, or straight down on the sides. It all depends upon taste, or perception.

Feather Edge, or Military Style—This one is the most common hair cut today. In this form the clippers are used in the back, and occasionally on the sides. Then the hair is being tapered with the shears, as in a crown cut. The neck is always shaved straight down on the sides.

College Hair Cut—A false crown is made with the comb in the center of the head, and the hair is combed evenly in all directions. Then it is trimmed around the edges with the shears, leaving it as long as possible on top. The neck is shaved around.

High Brow Hair Cut—This style is the latest, and so new that it has not yet been “christened” and received its stable name. High Brow hair cut, we should think, would be a name just as good as any, and we will call it so, until some other and better name is inaugurated.

In this style the clippers are used a little on the back of the neck only. All the hair may be combed straight back, as in a long pompadour, but

left much longer both in the back and on the sides. The shears are used around the edges, sides and back. The neck is not shaved around, neither straight down on the sides, but straight across. This leaves small rounded-off corners on both sides of the neck. The hair is otherwise finished in the usual manner.

These are the hair cuts which your barber should know the names of and know how to cut, and if he is a graduate of Moler Barber College, he certainly does.

Shampooing

A good shampoo once every week is necessary, in order to keep the hairs separate, and the scalp clean from dust and dandruff. A soap which is free from alkali should be used, or if in liquid form it should be of good quality, but not necessarily expensive. A fine comb may be used first with medium stiff teeth, to comb out the dead tissues, and debris. Care should be taken however, not to use a sharp-pointed comb in combing the hair.

If liquid soap is used for the shampoo, apply that on the head first, then add water so as to make a foam or lather. Next rub with the balls of the fingers, avoiding any scratching with the nails. The hands are operated opposite to each other. The soap may be applied in the same way as the liquid, and the same style is followed in both forms.

After two or three minutes of rubbing, rinse out in warm water, not hot enough to burn, and finish with cold. The cold water should not be applied immediately after the warm water, but

should run cold gradually on the head, in order to avoid chilling the hair-bulbs. After the hair has been thoroughly rinsed, dry it well with a fan or a hair dryer, if one can be had, and never go out in the cold air, especially in the winter, with damp hair.

A little pomade may be applied on the hair after a shampoo, so that the hair may be combed in any way preferable. Some heads of hair cannot be combed well otherwise, owing to the strength and thickness of the hair. Care should be taken however, that not too much pomade is used, as the sebaceous glands secrete an oily substance which serves as a lubricant to the hair and scalp. In some scalps, the sebum is absent altogether. In cases of this kind, a little pomade should be applied at least twice a week, in order to prevent the hair and scalp from becoming too dry.

Finger Manipulation of the Scalp

There are thousands of people who have for many years taken exercises similar to those described in this book, except this very thing: finger manipulation of the scalp. All the other exercises combined, no matter how necessary they are in building up muscles and tissues, and in making new blood for the body, can be no more beneficial, than head massages for the purpose of preserving and stimulating the hair. The following exercises are therefore of great importance and may prove to be of great value in preserving the hair.

In manipulating the scalp, the pressure should be sufficient to move the scalp thoroughly on the

skull. This may be difficult in the beginning, owing to the tight and matted condition of the scalp. Sometimes the scalp is easy to move on one side of the head but on the other side almost fixed. In the latter case, friction should begin by using the entire surface of both hands, working them together. After some practice in this manner, manipulate with the cushions of all fingers of both hands, working slowly in circles from occiput or the back portion, to the forehead. The manipulation should be done most vigorously on the crown, as this is the weakest part of the scalp. Sometimes the manipulations are given to induce sleep. If that be the case, the patient should be in bed, and the movements may begin at the crown and worked downward.

REGIMES

Exercise for Diseased Hair and Scalp

Exercise No. 1.—When the hair falls out in patches or there is complete baldness on account of severe diseases, or sicknesses with fevers, which is often the case, it will grow again when the body has improved and become well. For every hair that falls out in this manner, a new one will return, as in the case of natural falling of hair. It may take two or three months, or longer, before the new hairs have grown in, and are long enough to be combed.

There are three things which the patient should do in a case like this, and they are: first, cut the hair very short; second, keep the hair and scalp clean; third, manipulate the scalp dry. Then the

hair will return after the sickness and disease have passed away.

Exercises for the Unnatural Falling of Hair

Exercise No. 1.—Cut the hair short, probably a short pompadour. If the hair is cut in this style throughout life, there is no danger that a person will ever be bald. The exercises laid down in the following regimes will also be unnecessary. Most people prefer having the hair long, and rather take the exercises prescribed in this chapter.

Exercise No. 2.—In the evening before retiring, sit down and manipulate the scalp with the balls of the fingers. Begin down at the edges of the hair, and manipulate up towards the occiput. Do not overlook any portion of the head. The time for this exercise is two minutes. If the hair stops falling in two weeks, repeat this exercise indefinitely.

Exercise No. 3.—If the second exercise does not stop the hair from falling in two weeks, your hair needs special attention. Probably the sebaceous glands are to a certain extent dried up. If this be the case, they do not secrete the necessary sebum. Take, therefore, a little pomade and rub well into the hair and scalp. After this has been done, rest one minute. Then manipulate the scalp for two minutes, following the rules prescribed in exercise No. 2. Repeat every evening for two weeks. If the hair has not stopped falling out the third week, the fourth class of exercise is necessary. But if only a few hairs fall out every day, continue with the finger manipulations indefinitely.

Exercise No. 4.—First, get the hair cut very short with a pair of clippers. Secondly, apply two hot Turkish towels, one at a time, as hot as your scalp can endure, in order to gain the best results. The towels should be folded in such a manner as not to hang down over the forehead. When they have cooled off, so that the steam has disappeared, heat them again and apply them the second time. Leave them on the head about a minute each time. Then take them off and apply a little pomade, and rub in well, leaving no part untouched. Repeat this scalp treatment once a day for three weeks. The time for finger manipulations should be at least three minutes each time. After three weeks have elapsed, the hair and scalp should be in a pretty good condition. If you should like to have the hair long again, and the same trouble should occur, you will be obliged to repeat these same exercises. This will, however, happen to a person whose case is very severe, and there is probably one like this in every thousand. After these exercises have been taken, it will be proper to go back to Exercise No. 2.

THROUGH INDIRECT TREATMENT

Physical Culture

We do not intend to describe anything new in the line of gymnastics. The author of Ecclesiastes hit it about right when he wrote, "there is no new thing under the sun," and this applies also to bodily exercises. Our purpose is, therefore, not to tell you anything new, but simply to delineate a few short rules which will be easy, beneficial, and pleas-

ing. These exercises are described for busy people, and for those who do not take regular physical culture.

Regimes

Exercise No. 1.—First, stand on your feet, heels in and toes out. The muscles should be firm. Raise the hands even with the shoulders, touching them. Then reach forward, and back again. Straight up, and down again. Backwards, then bend the arms touching the armpits, then straight down. Put your entire strength into these exercises, and do them in a moderate manner. Repeat five times in succession.

Exercise No. 2.—Stand erect upon your feet. Raise the arms over your head, bend forward as far as possible, then try to touch the floor with the finger ends. Raise up slowly, bend backward as far as you can without moving the feet, and then forward again. Repeat five times in succession.

Exercise No. 3.—Standing on your toes, raise your arms above the head. Let yourself down slowly on bended knees. Raise up as slowly as you came down. Repeat five times in succession.

Exercise No. 4.—Bend forward and place your hands on the mat in front, and near the toes. Throw the legs backward, and try to get the body as straight as possible. The position of the hands should now be beneath the shoulders, with the body resting on the hands and toes. Jump forward from the toes and bring the feet near the chest and between the hands. Repeat five times, and then re-

main in this position with the legs thrown backward. Now bend your arms letting the body down to the mat, only touching it with the chin. Raise up slowly. Repeat as many times as you can without tiring yourself.

Exercise No. 5.—Stand erect, bend body forward. Turn around from left to right, and vice versa, without moving the feet. Repeat five times in succession.

Exercise No. 6.—To roll forward, place the hands on the floor, one foot in front of the toes. Put the chin on the chest, and bend the neck until the head rests on the mat. Then push forward with the toes, and you will roll over and come to a standing position. This exercise might be a little difficult to accomplish at first, but after a few times of repetition, it will become comparatively easy. Repeat four times in succession.

Exercise No. 7.—Bend your knees and grasp the legs a little above the ankles. Hold on tight with the hands, as you walk on the toes. Walk from one end of the room to the other. Repeat four times in succession.

All the muscles of the body should be exercised, in order that they may become strong; but we should not exercise so that the vital forces of the body are used up, and tired in muscular action. If we proceed in this way, the exercises may become more injurious than helpful. It may therefore be suggested, that we follow the rules and bounds of moderation.

Fresh Air

The atmospheric air is composed of two substances, called nitrogen and oxygen. These are mixed together, nitrogen supplying 79, and oxygen 21 parts. The atmospheric air also contains a small quantity of watery vapor, and a very small quantity of carbonic acid, namely one part in 2000 parts of the atmosphere. If the air contained nothing but oxygen, the air would become too rich, and people would die of over stimulation. Oxygen diluted with nitrogen makes the air mild, yet strong and healthy.

The atmosphere of the earth extends to a height of about 500 miles, and is bearing on every part of the earth's surface with a pressure of about 15 lbs. per square inch. Torricelli was the man, who first proved the atmospheric pressure, and while solving this problem, produced the first barometer. The pressure upon a human body of medium size is 14 tons, but this pressure is being exerted equally internally and externally, and therefore no inconvenience is caused by it.

Abdominal Breathing

It is astonishing how many physical culturists leave out abdominal breathing in their exercises. It seems that they have forgotten that fresh air is life, and of more value to a human being than physical culture, and even food or drink. We can live many days without the latter, but we cannot live long without air. The oxygen of the atmosphere is strong, and may be called our physical doctor. This doctor can, if we let him, vitalize

our blood, and draw out the poison from our system. If the blood receives poor air, it starves all the muscle-, brain-, and nerve-cells of the body.

It does not matter how great an athlete is in his field, if he is not a champion of deep breathing. Jack Kennedy, the champion strong man, Prof. Dowd, physical culturist and weight lifter, Jap, the wrestler, Pennell, the Hercules, Joe Gans, one time the light-weight champion of the world, all died of consumption. There are thousands of other athletes who have died of this contagious and dreadful disease.

Compulsory abdominal breathing can cure people who suffer from tuberculosis, if begun in time. A child who inherited a hollow chest and consumptive tendencies, was made well in one year through deep breathing. A friend of mine at Philadelphia told me the following true and interesting story:

“Some years ago I was frail and emaciated, and threatened with death from consumption. The doctors had given me up as incurable, and I was left alone to die without any human being to help me restore my lost health. When I had almost given up hope of ever becoming well, I thought that I would try physical culture and deep breathing. After a short time only, I noticed a great improvement in my health, and it was not very long before I was completely rewarded with vigorous health. I give credit mostly to abdominal breathing.”

The breathing capacity of a bird and a frog differs very much. When the frog with her hollow chest, can only take a mouthful of air at a time, the

bird drinks it, as a thirsty person drinks a glass of water, and expands his chest as an officer in command of a large army. It surely makes a great difference! The frog can only sit in the swamp and croak, whereas the bird can fly over the swamp, with its unclean waters and disease germs, into the very heavens, and sing his notes which are almost divine. I think that we would rather be birds than frogs. But if we expect to live a bird-life, it will be necessary for us to do what he does: expand the chest, and drink in the pure atmospheric air of heaven.

REGIMES

Exercise No. 1.—Sit down near an open window. If the weather is cold, move further into the room, but see to it that the air is fresh and pure. Begin by expanding the abdomen, and take one long draught, and fill the ribs and chest with one continuous inhalation. Do not exhale immediately, but keep the air in the lungs for a little while, and thus rinse yourself out with the air, as a piece of clothing is rinsed in water. Send the air into all the streets and alleys of the lungs, and flush them clean from all waste, dirt, and other impurities, just as the streets and alleys in large cities are flushed and cleaned by great water-trucks. Repeat this exercise six times in succession, every day for ten days.

Exercise No. 2.—This exercise should be taken after meals. Expand the abdomen first, and then the chest, and take one long breath, carrying the air to all the corners of the lungs. The inhalation

should take five seconds, the breath should be held five seconds, and the exhalation should take the same amount of time. Repeat this exercise morning and evening, five minutes each time for fifteen days.

Exercise No. 3.—Stand erect in your room. Draw the shoulders back, and slowly raise the hands outward from your sides, up over the head, and at the same time fill the lungs with pure air. The hands should remain above the head, and the air in the lungs for ten seconds. The inhalation and exhalation, ten seconds each, should take place simultaneously with the raising and lowering of the hands. Repeat this exercise twice a day, five minutes each time for twenty days.

Exercise No. 4.—While walking out in the open air, draw the shoulders back, and take a long draught. It should take fifteen seconds to inhale this one. Then hold the breath ten seconds, and exhale in ten seconds. Always begin by expanding the abdomen first, then the chest. Repeat this exercise twice a day, morning and evening, six minutes each time for twenty-five days.

Exercise No. 5.—We presume that the above exercises have been taken quite easily, and that your chest has been expanded considerably. We may therefore go a little stronger.

Stand erect in your room. Draw the shoulders back, and take a long, slow, continuous inhalation. The hands should be raised slowly out from your sides, and above the head. Keep the air in the lungs twenty seconds. The time for inhalation and

exhalation is thirty seconds each. The same rule should be followed as laid down in exercise No. 3. Repeat this exercise once a day, seven minutes each day for thirty days.

Exercise No. 6.—Take a walk around the block. Do not walk too fast or too slow. Take a long, deep breath, and fill the lungs to their last capacity. The time for this inhalation is forty seconds. The breath should be held ten, and then exhaled in thirty seconds. This may be a little difficult to accomplish at first, but you will soon be accustomed to it. If you strain yourself in doing it, cut the time down to suit your own breathing capacity. There are, however, many students who have developed a capacity for inhaling and exhaling, covering the long time of five minutes for a complete breath. Repeat this exercise once a day for forty days, four minutes each day.

After you have practiced the above six exercises, abdominal breathing should now come easy to you. The muscles are now strengthened, and may stand almost any strain put upon them. There is, of course, a possibility of straining the muscles of the chest and abdomen, but this may be avoided by determining your own power and endurance. No fixed time for exercises are now necessary, as the breathing will be much deeper and natural than when the exercises first were begun. It will be proper, though, to set aside a few minutes for deep breathing every week. You may be walking to or from your place of business; if on board a ship or a steamer, there is always an opportunity to inhale

the pure atmospheric air that will give a fresh flow of magnetic energy to the blood and nerve centers.

Air Baths

Fresh air should be allowed to enter the many pores supplied by the Creator all over the body. For this reason air baths are recommended. They can safely be taken in cold weather by closing all doors in the room, and opening one window, in order to prevent draft. Then the patient may walk about in the room with garments removed, swinging the arms or hopping and jumping. When a chilly sensation is felt, the patient should rub the skin vigorously with the hands until reaction occurs. Then dress, sit down on a chair, and comb the hair from one side of the head to the other, allowing the fresh air to enter all the pores of the scalp. This is necessary especially if the hair is very thick.

During the winter, in cold climates, where the weather is cold, the body should be exposed only two or three minutes at a time. In such a case, the air bath may act as a sort of tonic. The principal thing is to secure a good reaction after every cold application.

Sun Baths

One of the essential objects to promote health is the sun. No life could ever exist on the earth, if it were not for the warm, and lifegiving rays of the sun. Sun baths are therefore very valuable in the upbuilding of worn tissues, the curing of tuberculosis, and other diseases, as well as for the purpose of maintaining health and vigor.

In order that the sun cure may be as successful as possible, a good system should be followed. We know of no other doctor and physician who has worked out such practical rules as Doctor Horace Lo Grasso, M. D., Superintendent, J. N. Adam Memorial Hospital, Perrysburg, N. Y. Doctor Lo Grasso has been kind enough to permit us to republish the treatise on his famous sun cure treatment, published in the Health News, New York State Department of Health, December, 1921. These valuable rules are therefore published here, for the benefit of the reader. They are as follows:

“Before commencing the treatment it is best that the patient be made thoroughly but gradually accustomed to the out-of-door life. During this preliminary period a record is made of the temperature, pulse, blood, and urine findings. Cases with high temperature and those showing considerable weakness must be watched very closely, as it may be necessary that the sun be given less intensely, or at a time of the day when it is least depressing.

“Radiation may be carried on in bed, couch, or even on the floor. It should be discontinued at least one-half hour before meals and should not be resumed until an hour or more after. During the hot summer months it is better to give sun during the early and late hours, as the heat of the middle of the day is very depressing and is likely to cause reaction, such as temperature, headache, nausea and vertigo.

“A very important point in the method of giving sun-cure is that the feet must be exposed

first without regard to the site of the lesions which at first are kept covered and are the last to be exposed.

“Care must be taken that no breeze strikes the body. This is an absolute requirement in cold weather, for a slight breeze is sufficient to chill the patient—thus making sun-cure dangerous. Therefore, in choosing a location, it is best and almost necessary that it be protected from prevailing winds, and that the buildings be placed so as to get a southern and eastern exposure. Screens and wind-breaks are a necessity during the winter months even where there is natural wind protection. At present we are experimenting with a bed that protects the patient from the winds by means of a canvas on two or three of its sides.

“It is best to guard the head with a linen cap, an umbrella or an awning at the head of the bed. The eyes must be shielded with colored glasses or with a cloth placed over them.

“The following schedule is used at the J. N. Adam Memorial Hospital in giving the sun bath:

First Day: The feet are exposed and bathed in the sun’s rays for five minutes, three or four times at hour intervals.

Second Day: The feet are insolated ten minutes and the legs from ankle to knee five minutes, three or four times at hour intervals.

Third Day: The feet are insolated fifteen minutes, the legs from ankle to knee ten minutes and the thighs five minutes, three or four times at hour intervals.

Fourth Day: The insolation of the previously exposed parts is increased by five minutes, and the abdomen and lumbar region are exposed five minutes, three or four times at hour intervals.

Fifth Day: Again the insolation of the previously exposed parts is increased by five minutes, and the chest and back are exposed five minutes, three or four times at hour intervals.

Sixth Day: Increase the exposure by five minutes.

“The time of exposure is increased daily according to this ratio till three or four hours of sun bath is given. If the patient’s condition does not allow this schedule to be carried out, we insolate the front of the body first, and on the sixth day, or as soon as he can be turned conveniently, expose the back in accordance with the above schedule.

“If, for any reason, during the preliminary treatment, the sun baths are interrupted, insolation should be resumed at a stage a little earlier than that at which it was stopped. When the rest of the body has been insolated and it is time to expose sinuses and ulcers, these should be covered with a wire screen to keep off flies and at the same time allow the sun and air to play upon the lesions. The only covering worn after complete insolation is a loin cloth.

After each sun bath the patient may be vigorously rubbed with spirits of camphor. If the skin is very sensitive, a rub with some vegetable oil, such as olive or cocoanut oil, may be given. See that the patient’s skin does not peel as this will retard tanning.

“Great care must be taken while the patient is becoming accustomed to the sun and during the formation of the first pigment, as it is at this time that he is likely to become too enthusiastic and over-expose himself. If any reaction is observed, such as high pulse, rise of temperature, vertigo, nausea, headache, or other constitutional disturbances the exposure must be stopped or the time shortened.

“After sun baths have been taken for some time, if weather conditions become unfavorable for exposure, an air bath may be given, the length of time depending upon the general condition and resisting power of the patient. During the winter months robust patients may be exposed to the air for fifteen minutes at a time without any ill effects. In cold weather, regardless of sun conditions, if a patient complains or shows signs of being chilly, he must be taken at once to a warm room and rubbed down and the treatment discontinued for the time being.

“In using sun-cure on joint cases, it is considered advisable to discard all casts. This has led many to believe that immobilization is dispensed with in heliotherapy. This is not the case, however. On the contrary, with sun-cure immobilization is one of the requisites, and this is accomplished by absolute rest in bed, while deformities are gradually reduced by posture and extension. In fact, it can not be too strongly emphasized that the Rollier method of treatment along with a specially devised method of fixation and extension by trac-

tions—a combination which increases the resisting power of the patient, preserves or restores the natural function of the joint, and prevents or corrects deformity.

“The action of the sun upon the bone tissue is one of repair. There is a separation and painless, spontaneous expulsion of sequestra, and an intense recalcification. The effect upon ulcers and sinuses is one reaction as shown by the profuse discharge at first, followed by sloughing, the formation of healthy granulations and the gradual drying and healing of the lesion. Abscesses, as a rule, become calcified or are absorbed. Oftentimes they have to be repeatedly aspirated. Glands are gradually reduced in their size, and when broken down, the contents are frequently absorbed. The effect on effusion, in joints, peritoneum and pleural cavity, is one of absorption.

“The outstanding local result in joint disease is the gradual partial or complete restoration of motion in the affected joint. Where in the classical treatment the aim is to destroy the function and bring about ankylosis, in heliotherapy the aim is to restore the full function of the joint.

“Another point worthy of notice is the effect of the sun and air upon the musculature. With heliotherapy there is little or no atrophy of the muscle of the affected part. Although some of our patients have been in bed for three or four years, as the lantern slides will show, their musculature is that of those who have been doing physical training. The favorable progress of the cure is in direct

proportion to the pigmentation of the skin; in fact, tanning is used as an index to prognosis.

“The promptness with which the sun treatment begins to take effect is very gratifying to patient and physician alike. Pain as a rule is alleviated within two weeks and before very long disappears entirely; high pulse and temperature gradually come down to normal; appetite returns; weight and strength increase; the blood condition improves. These changes are registered in the patient’s appearance; the haggard and spiritless look gives way to one of cheerfulness and animation. Looking at his entrance photograph, he can scarcely believe that it is a likeness of himself as he once was.”

Thus we see the value of sun baths. Nothing could be added to this wonderful cure, to make it more valuable. Allow the sun to shine upon the body with all its force, and you will be convinced of the ability of Heliotherapy in restoring health, or in maintaining what you may already have: strength, vigor, and ambition.

Sleep

Sleep restores strength and health. The body as a whole increases during sleep, while the brain shrinks or diminishes in volume. The explanation of this fact is this that the blood flows back from the brain when a person sleeps. If this condition did not take place, the brain would not get the perfect rest and the brain cells the necessary repair. When the blood thus draws back or recedes, the nutritive lymph supplies the cells with material, and simultaneously diminishes the oxygen which the

blood has brought in contact with the brain cells.

There are various theories concerning the phenomenon of sleep. One is that sleep is due to narcotic poison, which accumulates in the body during the hours a person is awake, and which diminishes during sleep. Then again the awakening is supposed to be due to a spasm-producing poison, which develops during sleep and causes muscular twitching. Both these theories seem to be quite sane and believable.

It has been observed that the first two hours of sleep are the most beneficial. This has been measured by the intensity of sound required to awaken the sleeper. Another observation may be made by pricking a sleeper in the skin with a needle, and thereby measuring the intensity of sleep.

Any person may become subject to sleeplessness for a longer or shorter period, on account of some mental or physical disorders. If these are not cured in time the symptoms may become intensified, and neurasthenia may be the consequences. If a neurasthenic person should experience sleepless nights without any improvement, insomnia may be the result.

A healthy person should sleep eight hours out of every twenty-four, and the sleep should be sound. Sometimes it is rather difficult to fall asleep immediately after retiring, and one lies awake for hours thinking of physical, mental or spiritual things. This way of tiring the body and mind is very harmful, and should not be tolerated. It may be avoided in the following manner:

In the first place, avoid all bad or dreadful thoughts, and instead think of the good, the beautiful and the happy things in the world, or a bright and happy future. Secondly, relax all the muscles of the whole body, and exclude all thoughts from the mind. In order to do this, it will be necessary to employ the great faculty called WILL. After constant practice for some time, it may be possible to control, not only the mind by the will-power so as to exclude thoughts, but it may also be comparatively easy to control also every other faculty of the body.

Making New Blood

The iron exists in the body of an adult in the haemoglobin of the red corpuscles, and in all the cells of other tissues. The amount contained in the blood is about 3 gm. And that contained in invisible form in other cells has been estimated at 1 to 3 gm.

Most people, after reaching middle age, lack iron in their blood. It has been thinned out through various sicknesses. The red blood-corpuscles are thus being starved, and the blood and body are gradually becoming weaker.

The corpuscles are disc-shaped smooth cells which swim in the blood at the great number of 30,000,000,000,000. Their duty is to carry away impurities from every part of the body. When disease germs enter the body (and millions do every day) the red corpuscles attack and destroy them. If the blood is weak and sluggish and loaded with poisons, the disease germs will multiply quickly.

Various kinds of medicines could be recommended for making new blood, but why not let nature do the work? In the olden time, when civilization was yet a dream, people were blessed with bodily and mental vigor, and weakness and starved blood was a thing unheard of. Why? Because people lived simply on what nature had prepared for them. They ate mostly vegetables of various kinds, and consequently their blood received the iron necessary for the upkeeping of a strong and healthy body.

There are different kinds of vegetables in which iron is found. Take, for example, the husks of grain, and the peels and skins of fruits. Modern methods of cooking throw all these good and life-giving things away, whereas they should be eaten for the benefit of the body.

Spinach (spinage) contains more iron than any other vegetable. It is sometimes eaten as salad, but more frequently cooked in various ways. Spinach is of more value in making red blood when eaten in its natural form.

Apples also contain a considerable amount of iron. They should be eaten with the peelings or skins on, as a great deal of iron is contained in them. An apple eaten before retiring will also act as a laxative.

Lentils are also known to contain iron. They belong to the papilionaceous division of the natural order Leguminose, and are cultivated in Southern and Central Europe. The garden lentil is known by its size, and by the great quantity of mealy sub-

stance which it contains.

The difference in iron quantity contained in vegetables will be seen in the following comparison. For example, one-half quart of spinach is equivalent in iron to one quart of green vegetables; and one quart of green vegetables is equivalent to half a dozen apples.

People who have plenty of red blood, usually enjoy being alive, and they also accomplish great things.

The Muscles

The greater part of the flesh is collected into bands which are called muscles. They are fastened in various parts of the body, in order to pull in different directions. These fleshy bands or muscles number about five hundred. They are composed of various sizes, shapes and lengths, according to their specific work. They are not only producing bodily motion, but also give plumpness, beauty and symmetry to the form of the body.

Rest of the Muscles

When we are tired we should rest. This cannot be done always, but whenever the opportunity is offered, we should do so. When the muscles are in motion, they are wearing out. They must be repaired, and, in order that this might be done, their motion must cease for a longer or shorter period.

An exhausted muscle may be rested or restored to its normal strength by simply washing it. When the poison has been removed, the exhausted mus-

cle is restored and able to do its duty. The muscles which are continually at work get tired and exhausted. The muscles which are not in motion are also subject to fatigue. The fatigue is supposed to be due to a certain poison which hinders the working power of the cells. If these poisons are removed by the blood and lymph as fast as they are produced, the muscles may not get tired for a long time. They require about ten seconds of rest to remove or destroy the fatigue poison. With such intermittent respite the muscles could be kept in motion for an indefinite time. This theory is proven every day; when a person works hard, gets tired and sits down to rest for a minute, he becomes refreshed and continues to work as hard as ever.

It is always best to take Nature's advice. Any muscle may become exhausted, and this is Nature's signal that sufficient work has been produced by that certain muscle for the time being. It is just as unwise to use an exhausted muscle after Nature has given the signal for rest, as it is to run a train over an unsafe track, or sail across the ocean in a ship or on a steamer, which has been condemned and is ready for the scrap-pile.

The Nerves

The nerves are composed of small cells called neurons. Each one is a unit of the nervous system. A neuron is composed of three parts: a body, branches or "dendrites," and a long arm called the "axon."

A nerve cell is therefore compared to a small battery. In this little body is generated nerve en-

ergy, in the same way as a dynamo generates electricity. The axon or long arm conducts the nerve energy in the same manner as a wire conducts electricity. The dendrites or branches are receiving organs, which come in contact with axons of the other cells.

Nerve Energy

Nerve energy is not quite identical with electricity, as some physiologists believed in the olden time. When electricity travels 280,000 miles a second, a nerve impulse travels only one hundred feet a minute.

Then again, nerve energy is different from electricity in this respect. Electricity will travel on any metallic substance, whereas nerve force travels on nothing but nerves. If an electric wire is cut, it can easily be repaired, and a good contact is all that is necessary to insure conduction. But when a nerve is cut, a mere contact is not sufficient. It takes actual repair and restoration in order that the interrupted current may again be transmitted through that cut or disfigured nerve.

Rest of the Nerves

Like the muscles, the nerves also need rest. Too much exercise or strain will enfeeble the nerves to such an extent that not even sleep can restore their vigor. If we do not take the needed rest, but continue to work in this condition, the sleep will be broken, the exhausted nerves will become more weary, and the whole nervous system will break down.

Rest of the Brain

The human brain is undoubtedly the finest instrument ever known to man. It is composed of about a billion nerve cells for the purpose of moulding and storing up our ideas. It is very delicate and sensitive and must have, in order to do healthful and forceful brain activity, a sufficient amount of blood, the right amount of oxygen, the proper supply and the right kind of nutriment, a continual removal of waste products, and the necessary repair of worn parts by sufficient rest and sleep.

Many new beginners (students), while interested in their books, continue to study until their brain is so tired that it is impossible for them to think clearly. The tiring of the mind to such an extent should be avoided. This does not only apply to the fine and delicate nerves of the brain, but also to the nerves of motion, smell, taste, sight, and the sympathetic system of nerves which connect the heart, stomach and liver.

Prevention of Tuberculosis

A tuberculous person may be cured by giving strict attention to the following rules:

Sputum should not be expectorated on the ground, pavement, or into cuspidors, but in receptacles made for that purpose, which should afterward be destroyed by fire. Eating utensils should be sterilized by thorough boiling. All clothing should be sterilized by exposure to formaldehyde gas for twenty-four hours. (Formaldehyde is found in the market as a 40 per cent solution of the gas in water or wood alcohol, under the trade names of

“formalin” and “formol.”) All meat should be freed from tubercle by inspection. All milk eaten or drunk should be pasteurized. All matter which the body throws off should be burned, and a 5 per cent carbolic acid solution, or 4 per cent chlorinated lime solution should be used. Plenty of fresh air should be admitted to rooms inhabited by human beings, as well as the rooms occupied by animals. Sleep out in the open all the year around, if possible. Bedrooms should not be dusted, but washed and cleansed with wet or moist cloths, to prevent the germs flying about. Live in the sun and take sun baths as much as possible. Study closely Doctor La Grasso’s sun-cure treatment; the abdominal breathing; and physical culture. Pay little attention to altitude, longitude or latitude, because they have but slight influence upon the germ, although warm climates are recommended, as Southern California and Arizona.

Tuberculosis is the most dreadful disease to which man is heir. About 40 per cent of all the deaths in cities are due to this fatal microscopical germ, the “Bacillus tuberculosis.”

Prevention of Sorrow

A sorrowful person should ask himself the following questions: What do I have to be sorry for? Are my troubles greater than those of Mr. and Mrs. so and so? Do I not shorten my own life by getting the “blues” so often? Do I not make it miserable for my family and friends, on account of my irritability and sadness? Then, what do I gain by this awful state of mind?

Then begin to read good and humorous stories and books. The antidote given for worry will accomplish the same amount of good for a sorrowful person. Try to laugh as heartily as possible. The man who can laugh when everything goes wrong, is a man worth while. Think healthy and happy thoughts, and "trust in the Lord and take heart."

Avoiding Fear

When fear has taken the form of terror, it is often too late to calm the emotions. But when fear is caused by common danger, present or future, it is best to exercise the will-power and imagine that there is no such a thing as fear.

If I fear poverty, I may fall for the temptation to steal. If I am a business man and fear defeat, I may stoop to dishonour. If I am an author and fear ostracism as a punishment for being original, I may then hide my real convictions. Or if I fear death when death has lost his sting, I am wronging myself and dying many times. We should think of happy and joyful people and of their enjoyment until the grooves in the brain cells are made deep and lasting. This exercise should be repeated until we have become masters of our own emotions. Afterward, put on the armor of courage, and face the danger like Napoleon, Garibaldi, Foch, Pershing and others. Then, again, get under the banner of the Almighty and let His power become your power, and you will become a real "fighting-machine," facing the worst kind of danger without fear or trembling, because "He is with you."

Antidote for Worry

Worry cannot be gotten rid of in a hurry, because we have very little control over the nervous system. We have, however, a vast amount of influence over the body and its movements. These react in a clear and pronounced way upon the mind.

It is therefore advisable not to walk, think and speak hurriedly or jerkily. If walking is done quietly and deliberately, the mind will follow suit and settle down into a steadier groove. Speaking in the same deliberate fashion will have the same effect upon the mind. The movements of the lips and limbs react upon the mind to a great and surprising extent.

You may or you may not agree with me in the following antidotes for worry, but that does not affect the cure. The remedy for worry which is most effective, is to be found in religion. The true Christian is a real optimist and has no room for pessimism, inane, or fruitless worry the end of which is destruction and death.

The Bible contains an abundance of antidotes for worry. Here are a few of them which have rendered a great help to millions of worry-worn people:

“In the fear of Jehovah is strong confidence; and his children shall have a place of refuge.” Prov. 14: 26.

“Casting all your anxiety upon Him, because he careth for you.” 1 Peter 5: 7.

“The fear of man bringeth a snare; but whoso putteth his trust in Jehovah shall be safe.” Prov. 29: 25.

“Jehovah is my shepherd; I shall not want.

“He leadeth me beside still waters.

“He restoreth my soul.

“Yea, though I walk through the valley of the shadow of death, I will fear no evil; for thou art with me; thy rod and thy staff, they comfort me.” Psalm 23.

“Thou hast set me at large when I was in distress . . . Thou hast put gladness in my heart . . . In peace will I both lay me down and sleep . . . for thou, Jehovah, alone makest me dwell in safety.” Psalm 4.

“Unto thee, O Jehovah, do I lift up my soul, O my God in thee have I trusted.” Psalm 25: 1.

“Why art thou cast down, O my soul? and why art thou disquieted within me? Hope thou in God . . . for the help of his countenance.” Psalm 42.

“Let not your heart be troubled: believe in God, believe also in me.

“In my Father’s house are many mansions; if it were not so, I would have told you; for I go to prepare a place for you.

“And if I go and prepare a place for you, I come again, and will receive you unto myself; that where I am, there ye may be also.” Joh. 14:1-3.

“He that overcometh, I will make him a pillar in the temple of my God, and he shall go out thence no more: and I will write upon him the name of my God, and the name of the city of my God, the new Jerusalem, which cometh down out of heaven from my God, and mine own new name.” Rev. 3: 12.

These beautiful passages of the scripture, if committed to memory, will become fixed in the subconscious mind and will, with their great influence, serve as a powerful antidote for the worry habit. Faith in God the Creator of all things, who is able to sustain one's life from day to day, keeping the heart beating, the lungs acting, the brain working, the muscles contracting, and all the processes of the body in good working order, certainly has a marvelous effect in keeping the mind calm and evenly balanced. The belief and trust in the Supernatural Being, who has all life and power in His hand, has a greater and more effective means of casting out fear and worry, than any form of hypnotism or substitute for Christian faith.

Optimism

If pessimism is the cause of unhappiness, sickness and a short life, then optimism is the cause of happiness and a long life. No person can be an optimist and be unhappy at the same time. He may have his "ups" and "downs," but smiles just the same, looks hopefully into the future, climbs over all obstacles, and in spite of all difficulties makes a success in the end.

When some great accomplishment is going to be performed, we look to the optimist to do it. If council or advice is needed, the optimist is again consulted. An optimist is therefore a genius. And a genius is a person who never gives up before he achieves his set goal.

Optimism may be divided into two classes: sane and insane. The sane optimism is that kind

which deals with people or things scientifically and logically. In this case the thoughts, ideas and plans are proven by conclusions arrived at by logical reasoning.

The insane optimism is that kind which believes that nothing is impossible of accomplishment. People who possess this mode of optimism never study the fundamental principles, or stop to think or calculate the consequences, but rush ahead to obtain their set goal.

Humor

Content is the source of happiness, and happiness is the source of humor. When a person is under the influence of joy, the small arteries and capillaries dilate, and the blood supply increases in every organ of the body. The influence caused upon the muscular system increases the muscles to greater activity, and also to greater effort and endurance.

Says Professor Alfred J. Wingblade, M. A., in describing the psychology of humor:

“Abraham Lincoln once said that unless he could occasionally indulge in a humorous story he would die overburdened by the cares of state. Humor, then, has a distinct place in our lives, and that is to turn a man’s thoughts away from himself and his every day problems and allow the mind to relax if but for a moment. A good laugh is as wholesome as a tonic. Many a man and many a woman has been cured of an ailment, imaginary or otherwise, by the free application of humor.

“Humor itself is a gift. Not every man is endowed therewith. To some every situation has only a sober appeal. They are unable to see anything funny in a situation that will cause others to split their sides with laughter. This oftentimes shows itself as a national characteristic as does also the opposite bent. The people of some nations are proverbially humorists while the folks residing in other countries are apparently quite the opposite, and can only see the practical in every situation.

“To folks blessed, and possibly overblessed, with the gift of humor, almost any situation can be made to seem funny. An extreme type is the man who laughs at any sudden situation. Someone falling on the ice, or bumping up against a door, or a person falling backward when tilting his chair, are all very funny incidents to him even when the accident threatens life and limb.

“But the man endowed with the proper amount of humor is the happiest. He can cheer things up with an occasional laugh. He can see the funny side of even a tragic situation and thus bear up and ‘carry on.’ Humor thus gives wings to his troubles. It makes the rough places less rough and the commonplace seem joyous. Such a man can laugh and sing when he might otherwise groan and weep.

“True Humor does not, however, make light of our friends, nor hurt the feelings of the old or poor, nor of the young and rich, for that matter. It does not make the truly serious seem less so. It does not make us less capable of sober-minded work, but more so. It does not make us frivolous

or trivial. True humor does none of these things. It does, however, act as a safety valve that relieves and removes the strain and stress that makes less efficient the human machinery.”

Many stories and anecdotes in book form may be obtained in any bookstore, so that only a few of them will be published here in this book.

From “Anecdotes of the Hour” by Heart’s International Library Co., Inc., we may render the following:

“HUGH BLACK, the eminent Scottish theologian and author, now effectually transplanted to New York, relates the following:

‘It will be remembered that the coronation ceremonies of Edward the VII were postponed because of the king’s sudden illness, which developed into an attack of appendicitis. Upon the recovery of the king, thanksgiving services were held in Westminster Abbey. In the Church of England hymn book there is an Appendix containing hymns for special occasions.

“At the conclusion of the thanksgiving services, a canon, clothed in the solid dignity of a churchman, arose and thus announced the closing hymn:

‘Let us all join in singing hymn number 102, “Peace, blessed peace”— in the Appendix.’ ”

“GEORGE F. BAKER, the all powerful ex-president of the First National Bank of New York City, chuckles over the dilemma of a young Frenchman to whom he was recently introduced.

“Arriving at the bank one morning, Mr. Baker was approached by the young foreigner with a peculiar question:

‘What a polar bear?’

‘You mean what does a polar bear do? I don’t know. He often sits on the ice,’ replied Mr. Baker, wondering what was coming.

‘Sits on ye ece?’

‘Yes,’ said Mr. Baker; ‘there is nothing else to sit on.’

‘Vell, vat he do, too?’ persisted his French friend.

‘What does he also do? Why he eats fish.’

‘Eats feesh! Sits on ye ice and eats feesh! Then I not accept.’

‘Why, what do you mean? You don’t accept? What do you mean?’ asked Mr. Baker, still in the dark.’

‘Oh, non, non; I does not accept. I was invite to be a polar bear to a funeral.’”

“JUDGE KENESAW LANDIS was trying a moonshine case in the days when he was new on the bench—before his temerity in fining the Standard Oil twenty-nine millions. It also occurred long before he accepted the position as baseball commissioner with \$42,500 per year, which has made him still more famous—the defendant gave his name as Joshua Danvers.

‘Joshua? Are you the chap mentioned in the Bible, who made the sun stand still’ questioned the Judge.

‘No, Judge,’ glibly replied the defendant, ‘that wasn’t me. I’m the chap that made the moon shine.’

Soon the revenue officer who had made the capture rose to give his testimony. It developed that his name was Daniel Wright.

‘Well, well,’ remarked Judge Landis, ‘we seem to have a run on Biblical names today. Are you the Daniel who was in the lions’ den?’

‘No, sir Judge,’ roared the officer. ‘I am the Daniel who found the blind tiger.’ And the Judge stopped right there.”

“Thomas A. Edison was asked by the manager of an electrical exposition to send on a phonographic cylinder some of his ideas of electrical interest, to be read at a meeting of many people.

“Mr. Edison replied in a few days and the cylinder was arranged and the audience told that it was to be especially favoured by a personal message from Mr. Edison. The message was as follows:

“‘My Dear Sir: You have requested that I send a phonographic cylinder for your electrical meeting tonight upon which I shall say a few words of interest to your audience. I scarcely think the audience would take any interest in dry scientific subjects, so I will relate the story of a man.

“‘This man, who had chronic liver complaint, came from the West to the East. He searched all over the country for a mineral spring to cure his ailment, and finally he found a sulphur spring, the waters of which immediately cured him. He there-

upon started a sanitarium, and many people from all over the world came and were cured. A few months ago the man died, and so powerful had been the action of the waters upon this man that they had to take his liver out and kill it with a club. Ever yours, Edison.' ”

Here is another good story told by Ex-Governor Stuart of Pennsylvania at Dr. Russel H. Conwell's 77th Birthday Anniversary Dinner given in the Baptist Temple, Philadelphia, Pa. The story was as follows:

“I don't know when I felt so out of place as I feel tonight. It reminds me of an incident which occurred to me when I was Governor on the occasion of being invited to Greene County to attend a farmers' picnic. The farmers for miles around had gathered for the occasion, and were having games and entertainment of various sorts. It is an occasion when the Governor is supposed to say something or make an address. The farmer who introduced me was sitting on the stand with me, which was erected for the occasion, and after watching the festivities for some time he turned to me and said:

‘Shall I introduce you now, or shall we let them enjoy themselves a little longer?’ ”

Not only does humor delight and create happiness to oneself and other people, but it also restores sick people to their normal health, which Professor Alfred J. Wingblade also has related in his article on humor. An illustration of this fact is contributed to this book by Doctor Russell H. Con-

well, who relates an incident which occurred in a hospital where he was called to pray for a dying Scotsman. The story goes as follows:

“I went up to the room; the blinds were closed and the curtains were down. I felt around for the bed, and I finally sat down on a goblet of homeopathic medicine in my attempt to find the patient. When I finally did find him, his head was wet and cold, and I thought, ‘He is dead!’ I went and opened the windows and blinds to let in the light and air, and when I looked upon that face—and there are persons in this audience tonight who know the man to whom I refer very well—I saw it move, but the pallor of death was on it. I went back and sat down on the bed and tried to get him to answer ‘Yes’ and ‘No’ by the shake of the head, but I could not get him to do that. I then gave him some stimulants by the spoonful, and whether that had any effect on him or not I do not know, but it does not affect my illustration. The fact is that I gave him stimulants several times. In a little while he showed some little intelligence, and I said to him, ‘Did you send for the minister?’ and he shook his head. Then I said to him, ‘Have you any friend in Philadelphia?’ and he seemed to shake his head, to say that he had not. Then I said to him, ‘Have you any friends living in America?’ He shook his head that he had not. Then I named, England and France and Ireland and Scotland, and when I named Scotland I saw a flash come to his eyes, and the pallor disappeared around his mouth, and I said to him, ‘Are you a Scotchman?’ and he nodded

his head that he was. I said to him, 'If you are a Scotchman and you make up your mind that you are going to get well, you will!' The effect of that statement upon him was so great that it brought new life. I gave him more stimulants, and I asked him, 'From what place in Scotland do you come from?' I named over several, and I finally came to Cromarthy. I saw by the look on his face that I had the right place. I sat down on the foot of the bed, and told him the story about the people living in Cromarthy who went out to sea and lost their oars, but that did not disturb them at all. They put themselves ashore by turning the boat over and over till they reached the mainland. When I told him that story he laughed so heartily that I felt the bed shake.

"It was not long after that, that the man tried to get hold of my ear, and then that dying man, who had sent for me to pray him into eternity, said that he wanted to tell me a story. I thought of course it would be something very religious, but I found that such was not the case. He told me about the Cromarthy woman who moved to Glasgow, and dying, called her husband to her bedside and said to him: 'Don't bury me with the common people; I want to be buried with the aristocracy.' Her husband referred to the additional expense such a burial would be, 'and' said he, 'I don't see why you should want to be buried there.' 'Well,' said she, 'I could not lie still in my grave if you buried me with the common people.' 'Well,' said her husband, 'we will bury you first with the common people,

and then if you do not lie still we will bury you with the aristocracy at 'the Stravon.'

"By the time that Scotchman told me that story, he looked much better, the pallor had gone from his lips, and I said to him, 'You are much better, aren't you?' And he whispered and said, 'Yes, I feel better.' I said to him, 'Did you send for the preacher?' He said he did, but added, 'You are a queer preacher?'

"Then he told me another story, and by the time he had finished his second story I said to him, 'You are going to get well for sure.' He said, 'I feel wonderfully better.' I said to him, 'According to your faith shall it be unto you.'

"I went home, and the next morning I went to see him again, but they said he was asleep and I had better not disturb him. I went to see him the fourth day, and I found that a number of men from the Stetson factory, where he had worked, had combined to take him out in the park to ride—only the fourth day after I was sent for to pray him into eternity.

"I came to the conclusion, after that experience, that I must never go to any place to pray any man into eternity. I began to repent at once of the sin I must have committed, in frightening men to death, so I said: 'Hereafter, when I go to the bedside of a sick man I am going to make him better if I can, and I will carry that prayerful thought to the extreme.'"

This is only one incident in a thousand, where a sick person has been restored to health through

the great tonic of a wholesome humor. This sick man, no doubt, first suffered from some sort of mental disease, probably melancholia or worry, which again caused the physical sickness or breakdown from which the man was suffering and dying. What sick people in general need, is not so much of drugs or medicine as a stimulant; not a face to look upon which is so sour, that it can turn the waters in the five oceans into vinegar; but a kind, cheerful and optimistic word—a humorous story that will make them forget their sickness and trouble and make them Laugh! Laugh! Laugh!

Power of Will

The WILL is necessary in order that we might be able to put through our ideas. It is impossible to do or make anything without the WILL. If I say that I made up my mind to do a certain thing, I would have to WILL in order to make up my mind to do it. In this case the power of WILL was acting, otherwise my thought would never have been a reality. The WILL is used in every case, whether I WILL do something or whether I WILL not.

It is not only necessary to have a WILL of our own, but one that is strong. The whole body should be under the control of the WILL, which should be trained in the right direction. It is therefore of great importance that our WILL-POWER should be trained in accordance with the laws of nature.

Training of the Will

First, cultivate the power of memory by trying to remember everything that is good and of importance. Secondly, cultivate the power of imagination by lawful thoughts and the building of air-castles. Thirdly, cultivate the power of reason by determining right and wrong, and by deducing inferences from premises. These powers—called the perceptive powers—are of great help in training of the WILL.

Physical culture also takes an important place in training of the WILL, and systematic exercises should be taken regularly with the WILL as a dominating power and set strong upon the exercises.

Let the sub-conscious mind create great ideas while asleep, by thinking lofty ideas while awake, and WILL the conscious mind to carry them into action in our daily work and business enterprises.

Courage

Many people lack courage because they fear a certain person, thing, or matter. It is possible to cultivate the courage that fear will become a thing of the past.

If we approach a person with whom we expect to do business, and have not the courage to believe that we are going to make a satisfactory transaction with him, we will certainly fail nine times out of ten, because our uncertainty and doubt in ourselves and the business at hand, has been told him through the atmospheric ether, long before our conversation

began. But if we approach the man with a firm belief, confidence and courage that we are going to do business with him, and that no one else in the world can offer him a better and saner proposition than we can, provided, of course, that we have the goods he needs, there are ten chances to one that we will meet with success.

The reason why so many fail in business may be attributed to two things: first, they have not before hand scientifically and logically studied the circumstances attached to, or surrounding, the project at hand, and thus arrived at a right and sane conclusion. Second, they are not equal to the situation. In other words, they try to accomplish that which is impossible, and consequently the task is too great for them. It is right here at this point where the courage usually fails us. These two things seem to hamper the courage, as well as to weaken it.

But there is still a third thing to be reckoned with, which will make any person courageous, and that is the courage that comes from God. Courage has therefore also to do with the heart, and thus it becomes a moral issue.

In describing the psychology of courage, Professor Henry Wingblade says:

“We have heard of men, whose spheres were other years, that have possessed courage. And, no doubt, there are persons living even today that may well be called courageous.

“But courage is not a veneer. It is a heart matter. It has to do with the personality. It is a

deep-seated attribute of the very spirit of man. In fact, we may define courage as that dynamic of soul which is stronger than any external influence.

“The boy in *Treasure Island* remembered seeing ‘the battle of looks’ between the doctor and the captain until finally the eyes of the captain fell. Courage is a strength of heart which reveals itself in eye, in voice, in arm, in all the manifold expressions of the personality.

“The battle field is often that of as a fit arena for the display of courage—or any place where danger and death is known to lurk. But action on the battle field may be only a lock-step matter, mechanical, or it may be blind, animal fury. Just as a man may have his limb severed from his body without feeling any particular pain for the moment, so the rush of battle action may of itself make even the cowardly heart oblivious to danger, and render it possible for him to go forward with what might seem to be highest courage and greatest valor. On the other hand, there are, of course, scenes on the battle field where only true courage avails.

“But we also speak of moral courage. Courage to do right at all costs. Courage that fears to do anything but right. ‘I am afraid of nothing,’ said Dante, ‘except to do wrong.’ ‘I dare do all that doth become a man,’ said *McBeth*; ‘Who dares do more, is none.’ But such a heart must dare to face all the results which might arise from right-doing, whether they be physical attack or (ridicule) ridicule. And ridicule is by far the most penetrating arrow **with which evil can react.** But the truly courageous

heart is so pure and abundant that it absorbs none of the enemy's poison, but rather radiates strength, sending back, as a buckler, the venomous darts, together with the beams of its own pure and virtuous light.

“However, I am thinking of the type of courage which each of us needs, from the President down to the humblest worker; namely the courage to live clean, wholesome, helpful lives every day, and everywhere, and under all circumstances. Courage to face the seemingly insignificant task; courage to meet each day's tedious but necessary routine; courage to be patient in the midst of impatience; courage to close the books on the evening of failure, and to open the books of a new day and of a new adventure, and say, ‘I will try again, for life is always alive and therefore always new and hopeful.’

“But how many have there not been that have wanted the strength of heart to face life's humdrum duties and that have turned from the winding and uneven path to seek safety and rest in the abyss of death. On such tragic souls we invoke God's pity. Then there are the doubly craven hearts, who are cowards not only towards life but cowards also towards death. Afraid to die and afraid to live, they find only a doubled despair as they tremble on the brink of both. Oh, the pathos of such lives! Is there hope for them? There is Hope.

“True courage is virtue of heart which, after all, comes only from God. It was said of Galahad, ‘His strength was as the strength of ten because his

heart was pure.' To be more than conquerors we must have a divine enthusiasm, a positive consciousness of being right, of being one with God thru Him that loved us. But to have this we must capitulate the citadel of our heart to the Prince of Peace, the Lion of Judah, the Strong One of Israel.

“Behold I stand at the door and knock. If any man hear my voice and open the door, I will come in and sup with him and he with me.”

Therefore, if we remember these three admonitions: learn all there is necessary concerning the work or business before us; develop our own ability to execute the business of whatever kind it may be; have a strong faith in God, which will create in us the courage that may be termed unconquerable—then we will be successful in all our undertakings. A man with an unconquerable courage is thus a man who, on his own initiative, does great things while the multitude stand by in mouth-stretched awe and marvel at his daring deeds. Develop your courage to its utmost capacity and you will not only stop your falling hair, but also become a man-power for good in the world.

CHAPTER V.

LADIES' HAIR and SCALPTREATMENT

Nothing is more appreciated and attractive than a good, strong, heavy head of hair. This is not only true of a man, but also of a woman. A woman never gets bald as a man does, but she may lose nine-tenths of her hair, leaving only one-tenth at the age of eighty. At this age, a woman may be strong and healthy otherwise and look comparatively young, but would she not look still younger and more attractive, if she could at this age display the rich mass of hair she did have at thirty or forty? She would in all probability look twenty years younger.

A woman's hair is similar to that of a man except that it is much longer. It is therefore necessary to treat it somewhat differently from that of a man. Sometimes the hair grows uneven, and becomes thin and split at the end. In order to prevent this the hair should first be trimmed, and afterward singed.

Trimming

It is very difficult to lay down any special set of rules for this kind of work. The style changes with the time, and the rules laid down in this book would soon become too old. The rules for trimming split and uneven hair might continue unchanged; however, and a few short rules for this kind of work may serve the purpose.

First, study the *Atrophia Pilorum Propria* in the third chapter. Then, if you find that the hair is split, part it in the center and comb each side down. Take one lock at a time and cut off from one to three or four inches, depending upon how far the hair has split. Continue on one side until every hair has been cut; then turn to the other side and perform the same operation. As soon as the hair splits again, have it trimmed just enough to cut off that portion of it which has split. It may be determined whether the hair has begun to split, in the following manner:

Comb the hair down on the sides and back, leaving it loose. Then pick out a few of the longest hairs from the back and sides. Examine these ends closely in order to see whether they are split. After the hair has been trimmed, it should be singed.

Singeing

The process of burning the ends of the hair is what we call singeing. By singeing the hair, the pores or ends are closed, thereby preventing the marrow or fluid from disappearing. It also gives the hair a livelier appearance.

In the nineteenth and also in the first part of the twentieth century, alcohol burners and gas lighting tapers were used. In our modern time, nothing but wax tapers are being used, and they are recommended by all barbers and hairdressers. They may be purchased in small packages in any barber supply house, for ten or fifteen cents each. Two

tapers should be sufficient to singe any head of hair. After the hair has been singed, the burnt ends should be brushed off, preventing their falling down on the neck.

It is not advisable to singe your own hair. Even though two or more mirrors are being used, it is very difficult and even dangerous. Employ somebody who knows the work and one who is careful. The writer saw an accident of this sort which happened in San Francisco many years ago, and which could easily have terminated fatally. Take no chances, therefore, with poorly educated and unskilled barbers or hairdressers.

Shampooing

Before taking a shampoo, comb the hair with a fine comb. In the back of the head and also on the crown, where the hair pins and combs have been rubbing against the corium, more dead tissues and sometimes dandruff will have accumulated than in any other part of the scalp. All this waste substance should be removed without irritating the hair-bulbs.

In giving a shampoo, the hair should be combed out well. Liquid shampoo or some harmless soap will do. If liquid is used, it ought to be placed in a barber's bottle. A cork that may fit any other bottle you already have on hand, may be purchased in a barber supply house. If you do the work yourself, hold the bottle in the right hand. The rubbing is being done with the left hand. Pour on a small portion at a time. A sufficient amount

must be used in order that the hair may be thoroughly wet. Afterward pour on water, so as to mix the shampoo-soap and make it thinner. Do not get the lather too thin, nor too thick. Rub first on the crown with both hands working in opposite directions, then on the sides. Now gather the hair up from the back and the sides of the head, and apply shampoo and water until the hair is thoroughly lathered. While holding the hair over or in front of the head, rub it lightly between the hands without allowing it to tangle. After the hair and scalp have been thoroughly rubbed, rinse out in temperate warm water. Cleanse the scalp first, and afterward the hair-shaft. Mix a little lemon juice or vinegar in the last warm water, in order to get all the lather or soap out, otherwise the hair is liable to become sticky in drying.

After the hair has thus been rinsed, wring out as much water as possible and then dry it a little with a towel; this will prevent the water from running down the neck or into the eyes. Now let the hair fall down over the back and sides, and dry it with a fan. If a gas or an electric hair dryer is used, it will only require from fifteen to twenty minutes for drying. Some ladies dry their hair by allowing the sun to shine upon it. This is the best way to dry the hair, if you have time. Combing the hair while the drying process is going on is also recommended. In this manner the whole hair-shaft is being dried at the same time.

The hair should afterward be brushed with a medium stiff brush, one that does not irritate the

scalp. The comb should only be used for dividing and parting purposes, except the fine comb which is used in combing out the tresses or dandruff. If the hair should happen to get snarled, brush it until it becomes disentangled. Combing might break it, pull and hurt the scalp. Brushing the hair will also help to distribute the sebum, and thereby make the hair look rich, beautiful, and healthy.

There are various kinds of liquid shampoo, as well as shampoo-soap. One is just as good as the other. None of them can do more than clean the hair and scalp.

If soap is used for the shampoo, it should be rubbed on the head at the same time the water is applied. Then when sufficient lather is obtained, rub the hair and scalp as you would in giving a liquid shampoo, and rinse out and dry in the same way.

Dry shampoo is hardly ever heard of at the present time, alcohol being very expensive and difficult to obtain. People have also come to the conclusion that an alcohol shampoo does not benefit the hair more than a common ordinary shampoo; and also that too much alcohol is injurious to the hair. A shampoo of this kind is not washed out, as the hair is first soaked with alcohol, and afterward rubbed until dry. The benefit received from an alcohol shampoo is therefore very small.

Diseases

Ladies' diseases of the hair are nearly the same as those of a man. It is therefore unnecessary to

describe them again in this chapter. The treatment for these diseases is also the same, and we would therefore advise you, in case you are afflicted with some hair or scalp disease, to study the second and third chapters, and follow their rules and regulations.

CHAPTER VI.

CHILDREN'S HAIR and SCALPTREATMENT

Hair Cutting

The child's hair is, in many instances, neglected, when it ought to receive closer attention than that of a grown person. If the hair does not receive the proper treatment when the child is small, it will be weak and thin, and begin to fall out at the age of maturity. This might, in many instances, leave the young man bald at the age of twenty or twenty-five. The following simple rules should be adhered to for the love, obligation, and responsibility to the children.

First, a few weeks after the child is born, have the fine hairs cut off close to the scalp. Continue this once every month the first year. After the child is one year the hair may be left a little longer, so as to be combed, but not over two inches long. It should, however, be cut continuously every four weeks or oftener, as repeated cutting will make the hair thick and strong, and promote its growth.

When the child is about one and a half years old, the hair should be "bobbed." By this is meant that the hair is parted in the center, combed down in the back, and on the sides. It is then being cut above the ears and around the head, with a pair of shears. The hair in front may be combed down in the forehead, and cut off from two to three

inches above the eyes. The hair in the front is called bangs. A pair of clippers is afterward used in cutting the hair on the neck, and sides.

When another year has elapsed, and the child is about two years of age, the hair may be left a little longer, especially if the child is a girl. It should, at this time, be cut in such a manner, as to cover half of the ear. The bangs may also be left longer, in proportion to the length of the hair.

In this way the hair is gradually growing longer, as the child grows older. A girl's hair is thus cut below the ears at the age of four or five, and continued in this manner until the girl is ten, twelve, and sometimes fourteen. When the hair is cut in this way, it is called Dutch cut.

The boy's hair may be bobbed above the ears until he is four or five years old. After this time it may be cut short, the clippers being used half way up towards the crown in the back, and on the sides, leaving it just long enough in the front to be combed. This style is called a medium boy's hair cut. A continuation of this style of hair cut is urged until the boy is in his fourteenth or fifteenth year, when the hair may be cut in the same manner, as that of a man.

Washing, or Shampooing

A child's head and hair should be washed every day the first year; every other day the second; and at least once a week the third year, and during the entire lifetime. Oftener if necessary.

There should be no need of fear, as to the possibility of the child catching cold, even though the performance takes place in a cold room, and even if the water is cold. Children, as well as grown people, may become so accustomed to cold water baths, that they enjoy them immensely, and may become strong and vigorous people after they have grown up.

The writer is reminded of a lady in his hometown, who sometimes used to bathe her little baby boy in the open sea. When in the winter the sea was covered with ice, she went down to the pier, made a little hole in the ice with a stave or an ax, dipped the boy down into that ice-cold water, wrapped a shawl around him, and carried him home. That boy grew up and became a strong and healthy man. This occurrence, of course, was an extreme case, and will not be repeated by any mother who loves her child tenderly. It goes to show, however, that a child may be trained and become accustomed to almost any mode of living, and still develop into a strong, and healthy man or woman.

Finger Manipulation of the Scalp

It may seem curious, but it is a fact that some children have not the proper blood-circulation in the head and scalp. They are like many grown persons, with various diseases, which hamper the circulation. Manipulation of the scalp is therefore necessary, in order to assist the flow of the blood through the veins in the scalp.

These manipulations should be given very gently, on account of the child's tender skull, and not before the child is one year of age. A healthy and robust child needs no head massages, because if the child is in good health, the blood is also healthy, and consequently circulates properly. Massage will, though, if given a healthy child, aid the thickness and growth of the hair, and make the scalp durable permanently.

If these simple rules are followed, the child will have a strong, healthy, and thick head of hair, which he certainly will appreciate throughout life.

CONCLUSION

We have now studied the skin with its layers, blood-vessels, lymph-vessels, etc., and this study was made the basis for the chapter which followed.

Here we noticed the wonderful development and growth of the hair. The cause of gray and white hair was also studied, for which there is no known cure, as yet.

Certain direct causes of falling hair have been presented, all of which slowly but surely play their part in making a man bald. He is also rendered miserable, unhappy and wretched on account of the inability to prevent the hair from falling; poor, depressed, needy, because of the fact that time, money and energy have been dissipated in the effort to stop the hair from falling.

Several mental diseases have also been noted. We believe that a person who suffers from some kind of mental sickness, will have a harder and more

difficult task to prevent the unnatural falling of his hair, than one who has a sound and healthy body.

Then, again, we have studied various rules which have described how the hair may be stopped from falling. The direct treatment described is necessary for the prevention of falling hair, and works directly upon the hair and scalp. But we have also found that the indirect treatment cannot be omitted for this reason that it restores and builds up the physical and mental to health and vigor. It is therefore logical to procure soundness of body and mind, and if this is done it will be comparatively easy to prevent the falling of hair. Many persons, however, are physically and mentally sound, but their hair is disappearing from their heads very rapidly. It would only be necessary for them to follow the direct treatment for the hair and scalp, provided that they take physical culture, and their falling hair would stop immediately.

Ladies' hair and scalp treatment has been explained in a simple way. Although the lady's hair of the head is a little different from that of a man, it is being treated in nearly the same manner. Certain rules described for men, are also recommended for the ladies. All will help to improve the beauty of the hair, and also prevent its disappearance.

We have also seen how important it is to give the child's hair as close attention as possible. It is the duty of all parents to take good care of their children's hair and scalp.

If there should be some rules which the reader cannot for some reason or other follow as closely as he would like, let him not forget the most important one of them all: Manipulation of the scalp. If the other rules should be followed and this one omitted, the hair would fall out the same as before. Let him do his best and practice; practice will make him patient and patience will make him perfect.

The End.

LIBRARY OF CONGRESS



00026077801