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VOLUME I.

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TABLE OF CONTENTS

VOLUME I

HOME DEVELOPMENT

	PAGE		PAGE
THE AMERICAN HOME	1	THE HOME-- <i>Continued</i>	
THE HOME	5	The Nursery	21
The House	8	The Kitchen	23
Taste in Furnishing	10	The Laundry	25
The Hall	11	Carpets and Rugs	32
Drawing-Room or Parlor	12	Window Shades and Draperies	35
The Library or Living-Room	15	Tapestry	36
The Dining-Room	15	Decorative Woods	36
The Sleeping-Room	18	The Grounds	37
The Bath-Room	20	Income and Rent	38

SOCIAL USAGES

THE ART OF ENTERTAINING	41	GARDEN PARTIES	58
THE HOSTESS AND HER GUESTS	42	PICNICKING	58
INTRODUCTIONS	43	CALLING	60
CHAPERONAGE	44	COURTESY	63
ENGAGEMENTS AND WEDDINGS	46	THE HIGHEST TYPE OF GIRL	69
WEDDING GIFTS	49	THE COLLEGE GIRL	71
DINNERS	50	THE ART OF CONVERSATION	77
DANCES—OPERA AND THEATER		TRAVELING	81
PARTIES	53	THE ART OF CORRESPONDENCE	87
LITERARY CLUBS	54		

HOUSEKEEPING

INTRODUCTION	97	HOUSE CLEANING	104
SYSTEM IN HOUSEKEEPING	99	MARKETING	108
THE HOUSEKEEPER AS A FINAN-		SELECTING MEATS	109
CIER	100	TABLE SERVICE	112
THE HOUSEKEEPER AS A SANITA-		CARE OF SILVER	115
RIAN	102	CARVING	115
THE HOUSEKEEPER AS A NURSE	103	FLOUR	118

	PAGE		PAGE
BREAD MAKING	120	THE KEEPING OF PETS	136
THE CARE OF FOOD	121	The Canary	136
UTILIZING REMNANTS	122	The Parrot	140
THE CARE OF LINEN	123	The Cockatoo	141
CARE OF LAMPS	124	The Pigeon	142
SWEEPING	125	The Cat	142
HOUSEHOLD PESTS	127	The Dog	144
Ants	127	Training the Dog	146
Bedbugs	127	The Rabbit	150
Fleas	128	Monkeys and Rodents	153
THE SERVANT QUESTION	130		

DRESS AS A FINE ART

DRESS AS A FINE ART	157	DRESSES	182
FASHION	159	DRESS REFORM	186
FABRICS	162	EXPRESSION OR DRAMATIC EFFECTS	189
COLOR	169	THE SYMBOLS OF PRECIOUS STONES	193
JEWELS	174	BIRTH STONES	195
FUR	179	THE LANGUAGE OF FLOWERS	197

HOME STUDY OF ART

HOME STUDY OF ART	201	DOES EARLY MARRIAGE HELP OR HINDER?	231
Oil-color Painting	206	WIVES WHO HAVE HELPED THEIR HUSBANDS	238
Water-color Painting	208	GIRLS—NOW AND THEN	247
China Painting	210	THE HIGHEST TYPE OF GIRL	252
Pottery	214	IF I WERE A GIRL AGAIN	254
Painting on Silk	224	MIDDLE-AGED WOMEN AND SUCCESSFUL ENDEAVOR	265
Painting on Velvet	225		
Modeling in Clay and Wax	227		

PERSONAL HYGIENE

ANATOMY	272	THE SICK ROOM	300
THE MUSCLES	274	Heat	305
DIGESTIVE SYSTEM	276	Ventilation	306
THE CIRCULATORY SYSTEM	280	Care of Food	308
THE NERVOUS SYSTEM	283	Employer and Nurse	309
THE RESPIRATORY SYSTEM	291	Hints on Nursing	310
CARE OF THE SKIN, HAIR, TEETH, AND NAILS	295	The Family Physician	311

PREMONITORY SYMPTOMS OF DISEASE

THE CRY	314	POSTURE	317
RESPIRATION	315	THE TONGUE	318
THE PULSE	315	THE URINE	319
THE TEMPERATURE	316	THE SKIN	319

HOME MANAGEMENT OF COMMON DISEASES OF CHILDREN

	PAGE		PAGE
RESPIRATORY DISEASES	320	SKIN DISEASES — <i>Continued</i>	
Sore Throat	322	Hives	337
Coughs	323	Ringworm	338
Snuffles	323	Stings	339
Mouth Breathing	323	Eczema	340
Chronic Catarrh	324	Warts	340
Tonsillitis	324	Chilblains and Frostbites	341
Quinsy	325	Frostbite	342
Croup	325	Fever Blisters or Cold Sores	343
True Croup	326	Boils	343
Bronchitis	327	Moles	344
Pneumonia	327	Shingles	345
DISEASES OF THE DIGESTIVE SYS-		Birthmarks	345
TEM	328	CONTAGIOUS DISEASES	346
Indigestion	328	Chicken-pox or Varicella	346
Biliousness	330	Measles	347
Thrush	331	Scarlet Fever	348
Hiccough	331	Mumps	349
Vomiting	332	Whooping Cough	349
Constipation and Diarrhea	333	Diphtheria	351
SKIN DISEASES	336	SELF-PRESERVATION AND FIRST AID	
Prickly Heat	336	TO THE INJURED	352
Tooth Rash	337	THE FAMILY MEDICINE CHEST	363

GENERAL INTRODUCTION

THIS new-work holds an original and unique position in the world of books. While it is literature in the highest sense, yet its literary excellence is subordinate to its practical usefulness.

It was designed to vie with romance in interest, and to amuse; but, at the same time, to instruct. Its purpose is to broaden knowledge and to aid in the development of character. While not a text book, it covers the fundamental principles of every phase of human endeavor. It is a standard reference work upon all subjects of current interest, and is superior to encyclopædic publications in that all information upon a given subject is together and not divided among a number of volumes. Facts are best thrown into their proper perspective when they are placed logically among other facts on the same subject. In biography a man should be studied with due regard to the times in which he lived, or to the subject in which he was particularly eminent. The convenience of the reader is much greater under this plan. One is often deterred from following up the study of a subject, such as art, by the difficulty of handling a number of volumes, as well as by the uncertainty of knowing where to look for the subject, character, or point sought. This overcoming of the broken, disconnected manner of treating subjects is a point of very great value to the student or reader, and one will be found following a subject far beyond the immediate curiosity of the moment with sustained interest.

The books form a reading, working library, designed for the amusement and the practical use of men and women of all ages and in all walks of life. From its pages, the business man—both the seasoned veteran and the youth just starting—will receive guidance and inspiration, as in it, commercial leaders and financiers recite their experiences and observations. To those interested in political development and public honors is given the benefit of advice and suggestions by many of the foremost public men. To parents, to young men and to young women, there is inspiration in the views of highly successful men and women in business, in the professions and in the

trades, who treat upon the selection of desirable occupations, a subject of supreme importance—since in the unsuitability of occupation lies the cause of the majority of failures. The articles for women contain valuable information and the views of authorities upon such important subjects as Motherhood, the Home Training of Children, upon Scientific Housekeeping, Social Usages, Dress, etc. Its articles upon Literature in all its phases, and upon Art, are highly instructive and fascinating to the reader. Its historical and biographical sketches are intimate reviews of famous men and great events. Its educational features are designed for the benefit of parents and are quite comprehensive, including child culture, training in useful arts, etc. It covers the important points in many fields of endeavor and of common interest, including such diversified subjects as Oratory, Journalism, Physical Culture, Pastimes, Sports and Games, Physiology and Pathology, Natural History, and the Sciences. The entire work is carefully indexed enabling instant reference to each subject, and besides the special articles which constitute the body of the work, it also contains a vast amount of general information and important statistics.

The library exists as a result of the interest manifested in it by the eminent men and women who have contributed to and made it. Not only are the most renowned authors and poets of the day, the most eminent scholars in their several departments, and the highest authorities upon all subjects, represented, but men who have risen to great fame and fortune in the financial, commercial, and industrial world, who have never before been induced to enter upon literary work, have here, for the first time, fully contributed from their practical experience to the upbuilding of this monumental work. Each master of his business, or profession, or art, writes in these volumes as he would talk, upon the practical subject which he has made his own. These are not pedantic theorizings by text-book professors, but real and vivid facts told by men who know. In other words, this library, which has been brought down to the very moment of printing, is a work pulsating with human interest, a work of great practical value, and indispensable as a guide book and reference work.

HOME DEVELOPMENT.

THE AMERICAN HOME

THERE are no happier homes on earth than ours. It is said that a happy country has no history. This is more true of homes than of nations. We hear much of divorces; yet they occur not more than once in a thousand marriages. Only the seed of discord will germinate and grow into a weed that will destroy the home.

The ideal home, especially if there are children, is to be found in the country rather than in the city. The woods and fields give physical strength and stamina, a clear brain, a strong will and, usually, good morals. But the city develops virtue to its full fruitage. A strong and true man or woman is more useful in the city than in the country. The influence of each is greater. The rough gem is cut, so that it glows and glistens. In the busy centers of human struggle and activity a man is found out, and he finds himself out. He reaches his level, be it high or low.

To speak personally, I have lived thirty-seven years in the country, and forty years in the city. Both lives have their value—the country for gathering in forces, the city for putting them out in the interest of our fellows.

But wherever they may be situated, I see no degeneracy in American homes. The divorces are merely the driftwood on the surface of home life. They in no way represent or reflect the clear depths.

Let a young man begin right by marrying the right woman, and by marrying her early in his life, and his home will be a great blessing.

ROBERT COLLYER.

AT THE present time, pessimists are making a great deal of capital out of what they are pleased to call the deterioration of American home life, which, they affirm, is evidenced in the weakening of family ties, the breaking up of the privacy and sanctity of home, the increase of divorce and kindred evils, which are depicted in lurid colors by these frightened moralists. Particular stress is laid upon the modern institution of the apartment house, women's clubs, and the different attitude which woman now holds to society, as



powerful factors in the disintegrating influences at work in the home.

Such apprehension is needless. If there is one subject about which more nonsense has been talked than about any other, it is that of the apartment house. The modern apartment house, with all of its scientific, sanitary, and labor-saving improvements, has reduced the drudgery of housekeeping and home-making to a minimum, and has increased the comfort and general well-being of the family in a proportionate degree. In the detached home, under the old conditions, the life of the wife and mother was a ceaseless round of toil, with no time for recreation, mental culture, or social intercourse. Her horizon was narrow, at best.

The wisest and broadest-minded sociologists tell us that we are going to have a perfect social or home life just in proportion as we coöperate and bring science to our aid. The modern apartment house is a move in this direction. What it needs to complete it is a large restaurant where people can take their meals together, if they desire, and a great common recreation, or living room, where all can assemble in the evening for lectures, music, games, conversation, dancing, and general social intercourse. How much better and more exhilarating this would be than the solitary, monotonous life which many, especially women, lead in separate homes! What a relief from the old dullness and drudgery!

As to the pitiful cry that family affection is decreasing, that is even more senseless than the apartment house wail. Men and women will love each other, love their children, and be loved by them in turn, no matter what happens. You might as well talk of the animal deserting its young, of the bird in the tree forsaking its unfledged little ones, because of a great thunderstorm or some other convulsion of nature, as to say that social upheavals or changes weaken or destroy human affection. None of these convulsions now sweeping over society will change what nature has made unchangeable,—love.

In the material world we have positive and negative electricity; the centripetal and centrifugal forces balancing each other. If these forces were thrown out of equilibrium for five minutes, we should have material chaos. So, in the moral world, we have the two diverse elements complementary to each other, the masculine and the feminine; and the perfect adjustment of these two great forces is as necessary to the preservation of the order of the moral world as the balancing of the centripetal and centrifugal forces is to the maintenance of order in the material world.

The reason conditions are not as harmonious in the moral world as they should be is that these forces have not been, are not, in

perfect equilibrium. The feminine has been unduly depressed, and disorder has resulted. When they stand in a relation of perfect equality — when, as Tennyson expresses it, we have —

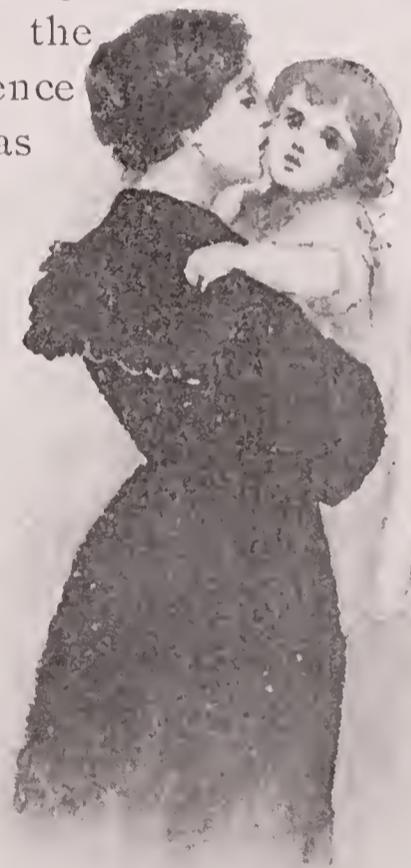
“Two heads in council,
Two beside the hearth,
Two in the tangled business of the world,
Two plummetts dropped for one, to sound
The abyss of science and the mind,”—

then only shall we have the ideal society and home.

Another cry is that the large family no longer exists; that woman's growing independence will lessen population. No doubt it will; and we shall have fewer idiots, lunatics, and criminals to be burdens on the state. A great deal of cheap sentiment has been indulged in regarding the large family. I think it is a wrong to the child and a wrong to society to bring into the world more children than the parents can comfortably provide for and educate; the average man and woman cannot do this for more than two or three,—four children at the most.

As to the increase in the number of divorces being an evidence of the weakening of home ties, I think it is quite the contrary. I believe it is due to the growing independence of woman and her recognition of what is due to her as the mother of the race. Her new dignity and self-respect will not allow her to maintain relations which can never be productive of anything but degradation and misery for herself. She knows, too, that the influence of unhappy relations between the parents will act most disastrously upon the children. There will probably be some abuses, but, on the whole, facility in obtaining divorce will result in strengthening all true relations and weakening all false ones.

In short, I believe that many of the things be-moaned as evils, including the apartment house, the woman's club, and less stringent divorce laws, are heralds of the good time coming—the ideal society and home of the twentieth century.



ELIZABETH CADY STANTON.

IS THE American home deteriorating? I think we are rapidly drifting away from the old, tender home life of the past, and substituting for it a more exciting and varied mode of existence, a more intense and highly colored life, but a life less satisfying. If this is to be regarded as an evil, then, undoubtedly, home life is

deteriorating among the great middle class of America. It requires time for men and women to adapt themselves to a new order of things; and, while actual unhappiness in the family cannot be charged to these altered conditions, I do think they are responsible for the weakening of home ties. The new order is, perhaps, better for the woman and worse for the man. The husband is no longer the central power in the home, around which everything else revolves, and the wife is not so wholly dependent as she was.

Apartment, hotel, and club life are, I believe, among the principal influences in the weakening of home ties, and perhaps greater than any of these is the growing desire of women for a wider field of action than that bounded by the limits of a home. I believe in higher education to the broadest possible degree of culture, for women as well as for men, but I am not a very strong advocate of what, in public parlance, is termed a "career" for women; for I think that in seeking and finding a career, as women do now, they give up a great deal in the way of that tender family life that meant so much in the past. As a general rule, the woman who leaves the home to follow a public career must lay many sacrifices on the altar of gratified ambition.

Club life among men, on the one hand, and the growth of independence among women, on the other, tend to make marriage less attractive to both sexes than it once was, and hence to a great extent to do away with home ties altogether. The bachelor finds all the creature comforts of life at his club and marriage ceases to be a necessity; while the young woman, at least in some instances, is so enamored of her career that she is not willing, even though she love a man, to give it up for the less varied and more confining life of the home. I do not think the increasing number of divorces has anything to do with the deterioration of the home. There are cases in which divorce is not only just but righteous. I think it the cruelest thing in the world to refuse to grant a divorce to two people who may be committing murder in their hearts, and violating the most sacred traditions of the home. I do believe, however, if it were more difficult to get married, divorce would be less frequent. In England, the marriage laws are much more stringent than they are with us. The simplest way to get a marriage license there is to go to a registrar's office and make formal application, but the sun must set twice on the application before the license will be granted. Even this forms a slight safeguard against marrying in haste and repenting at leisure, for the man and the woman must think at least two days about what they are going to do, which is not always the case in America.

English home life among the middle classes is, I think, superior to ours. The Englishman's home is still his castle; and, instead of living in apartment houses and hotels, the English family clings to the separate home of its fathers. The English woman, too, has less craving for excitement and change than has her American sister. She is more reposeful. She is content to be simply wife and mother, as were her mother and grandmother. She moves contentedly in her "sphere." The husband is still the sole power, to which all the family is content to bow. But, when everything has been said on either side, neither the American nor the English woman suffers by comparison. The American woman is, and always will be, the brightest ornament of the home; and, if it is not happy under the altered conditions, it is largely man's fault.

MRS. FRANK LESLIE.

THE HOME

THE growth of civilization has been commensurate with the growth of the family ideal, with the recognition of the family as the foundation of the state.

The sentiment of home life is comparatively modern, but to find the first homes the student must go back to the cave-dwellers, to the primitive abodes of prehistoric peoples. Home to them was the fissure in the rock, the hole in the ground, to which they might creep when worn out with warfare or with the day's hunting. The age of building came centuries later, being preceded by the nomadic period, when men lived in tents and moved from place to place to find pasture for their flocks and herds. The growth of the family ideal was meanwhile apparent in certain nations and among certain peoples, preëminent among them the Chinese, who, perhaps of all nations, first conceived the sentiment of home life and home ties, and who carried this conception to such length that the result was ancestor-worship, a veritable religion, with the family as its pivot.

Among other peoples the recognition of home, and of what it implied of family union and obligation, was less keen, or of a different form. The patriarchal system of the Jews was a conspicuous example of the self-consciousness of the family, but it implied obligation only to the living. Among the Anglo-Saxons the family was likewise the unit of political organization, but the home in the modern sense was unknown to them. Although the Greeks had homes and family ties, the sentiment of home and family life was, as a rule, lacking among them. The real home of the social Greek was not the house where his wife sat spinning among her handmaidens, but

the portico, or the open square, where keen-minded men discussed philosophy and politics, and where bright-eyed boys looked on and listened.

Among the Romans the love of home was more highly developed, the sense of the importance of the family life was keener. But it was not until the birth of Christianity that the sentiment of home life was felt by the European peoples. In one sense, Christianity created the home by placing the first duties and obligations of men there and not in the market-place. Yet after the first hundred years of Christian development, the growth of the home sentiment was retarded by the ascetic ideals which crept into the Church, inclining its members to believe that the state of celibacy was more honorable and more pleasing to God than marriage. In consequence, men abandoned their family ties and fled to the deserts. Monasteries and convents were founded. The Middle Ages brought forth a society warped by this conception of the highest duties of life.

Chivalry itself was not founded upon the affections of the family, but upon mystic and unreal passions. The exigencies of the times produced homes, which could scarcely be called such if measured by modern standards. The feudal lord dwelt in his castle, with perhaps a hundred dependents, who sought shelter within its stone walls from the "violence of enemies." The peasant dwelt in his hovel, being little better lodged than the animals. The fortified towns were crowded to overflowing; and to the majority of the inhabitants their most congenial home was the market-place, or the street before their door-sill. Because human life was of so little value, because the dangers to society were so great, people lived more in common. The separation, the differentiation which separates family from family in modern life, were then unknown. The family, indeed, existed, but home life was subordinate to the life of the burg or the castle. But as the feudal ideal passed away, and with it the monastic ideals of the Middle Ages, the home came into greater prominence, and the sentiment of family life began to assume its modern importance.

With the Renaissance came a flowering of family dignities and honors, especially marked in England and in Italy. In England the ideal of the home was most clearly developed, and received, perhaps, its most beautiful illustrations. In Italy, the dignity and importance of families as powerful factors in the state received the greatest emphasis. The homes of the Medici, of the Borghesi, of the D'Este, stately palaces still standing, are embodiments in marble of this spirit.

In the century which has just passed, the whole conception of home and of family life has become at once more simple and more com-

plex than in any previous period of the world's history—more simple because it has been freed from the ideals of political power which are not possible in a democratic age, even in countries where class-divisions are recognized; more complex because the sense of moral responsibility in the family is keener than ever before. The home and the family are regarded as a training school for citizenship, for the cultivation of all those virtues upon which the welfare of society is founded. The genius of the age is social, but it is a socialism which makes the family, and not the individual, the unit of society. In England, in Germany, in Italy, in all the countries of Europe, the home is the bulwark of the nation. The attempt of France in the Revolution to establish the claim of the individual above that of the family only ended in the greater glorification of family life.

The American people has been called a homeless nation, by those to whom a home implies a permanent dwelling-place. The opening up of a new continent, the ever westward movement of American civilization, the evolution of an agricultural into a commercial nation, and the consequent growth of great cities,—all these causes have prevented the foundation of homes as permanent dwelling-places. But the home-spirit and the spirit of family life are stronger, perhaps, because of this nomadic element in American civilization.

The Englishman of rank is linked through his ancestral house to his remotest ancestor. The American is separated from his grandfather by, it may be, a score of houses, representing an evolution from poverty to riches, or *vice versa*. His dwelling one year may be in a city flat, the next in a suburban cottage, the next on a ranch or a farm; but these changing conditions are not, of necessity, fatal to the home-spirit. This spirit in its essence is the sense of moral responsibility toward the persons who make up the domestic circle. This sense should be keenest in the mother of the family. American women are not without it, but it is too often subordinated to that responsibility whose chief care is material things—opulent housekeeping, the preserving of appearances, the effort to have a certain style and state in the daily domestic round.

These ideals of living, however worthy, should not overshadow those greater ideals, which found the happiness of the family upon gentle manners, chivalrous conduct, that aristocratic sense of obligation which flourishes nowhere better than upon republican soil. Courtesy throws a rose-light upon the most arid facts of daily existence. It provides that sense of romance in human relations so necessary to counteract the prosaic effects of intimacy. It is the subtlest and most stimulating flattery, since it assumes the presence of gentle elements in other people.

Yet it is of no value unless sincere, and to be sincere, courtesy must, first be cultivated in the home. Just because the members of a household know each other well, they should safeguard their intercourse with the entire array of the minor morals. For courtesy in its essence is not formality, but the recognition of, and respect for, the personal dignity of others.

The tendency of Americans as a nation is toward the omission of courtesies which in Europe are considered necessary to social well-being. The confusion of American life is partly responsible for this omission; but the root of this negative evil must be looked for in American homes. The habits of obedience, of respect for elders, of consideration for others, are sometimes wholly unformed. In consequence, the child emerges from his father's house with many virtues, perhaps, but crude, assertive, and ungentle.

The greatness of the American nation was due in part to the "plain living and high thinking" of the New England households. Its future greatness should be built upon the high breeding which is possible in the homes of both rich and poor, and which implies self-possession, self-control, and the kindly spirit.

THE HOUSE

THE choice of a house depends largely upon the circumstances of the family which is to occupy it. The occupations of the several members of the family, their incomes, their tastes, must be taken into account. As a rule, the location of a house should suit the convenience of the father, its interior arrangements the convenience of the mother and of the family. The father should decide how much time he can afford to spend in going from his home to his place of business, and whether it is better for him to live in the city or the country. If he prefers to reside in town, the matter of choosing a home becomes very complex.

In New York, and in the majority of the large cities, great wealth is required to own or to rent an entire house. People of moderate means must content themselves with a flat or with an apartment. In "A Hazard of New Fortunes," Howells describes the trials of a Boston family, hunting an apartment in New York—their encounters with janitors; their consternation over dark rooms, and over closets dubbed bed-rooms. Their early hopes and their final despair reflect the experiences of thousands of families.

The flat or apartment is usually depressing to the spirits. It looks crowded before there is a piece of furniture in it. The decorated ceilings, corpulent plums in the dining-room and hot-colored

flowers in the drawing-room, are suggestive of plush and of weary Philistine dinners. The bed-rooms suggest stuffy dreams, and the kitchen seems made for a little gehenna of heat and bad temper. A penitential servants' room squeezed into a corner, and opening on darkness, is the last weight on the conscience of the prospective housekeeper.

But even a flat has its possibilities; it can be made to look home-like upon compulsion. To produce this home-like effect, it is well, as a beginning, to secure a flat which has never been lived in, and which has not been papered or "decorated." The decorated ceiling is an abomination. An arrangement may be made with the agent by which the family intending to rent the flat may choose the wall-papers.

Furniture purchased especially for a flat produces a much better effect than the promiscuous furniture which might do duty in a large house. In furnishing the flat, the first object is to produce an effect of spaciousness. This can be done by carefully economizing every inch of room. Box couches and chiffoniers are better for the bed-rooms than beds and bureaus. The dining-table should be circular. Divans built into the corners of the drawing-room are cosy in effect, and, by doing away with a certain number of chairs, increase the apparent size of the room. Tables are not desirable, nor thick hangings, nor many ornaments. The chairs should be small and light in design, and not many in number. Shelves for holding books can be built against the wall, and save the space of heavy bookcases. The whole effect should be as light and free and spacious as it is possible to make it.

A flat should not be chosen which has dark sleeping-rooms, nor should a servant be assigned a dark sleeping-room. Flats facing south and west are warmer in winter and cooler in summer than those which face east or north. The higher the flat, the purer the air, and the greater the amount of sunshine; but, unless there is an elevator, the good effects of air and sunshine may be counterbalanced by the fatigue incurred in climbing the stairs.

Choosing a home in the country or in the suburban town is a far less difficult matter than choosing a home in the city. Space and freedom belong to country living, and should on no account be sacrificed; better a small house with large grounds, than a large house with but little ground. The dweller in the country should have a house with a broad porch and a garden; otherwise he is no better off than in the city.

The cultivation of the garden should be a labor of love shared by the entire family. No one who has read "Elizabeth and Her German Garden" can fail to feel the charm of working among flowers. Works

on gardening have become very popular and should be owned by every family dwelling in the country. Every country house, however small, should have a little porch or conservatory, inclosed with glass and facing south, where the garden plants may flourish through the winter.



The house should face east and south, or south and west, and should stand on high ground commanding, if possible, a view of the surrounding country. A central hall or living-room is desirable in a country house; or a small reception-room opening into a large library, which may also serve for a general sitting-room. The bed-rooms should be large and airy, with broad windows, framing the landscapes outside. The ideal country house differs in many respects from the city house. It should be low and broad, not high and narrow; it should be made for comfort, not show.

TASTE IN FURNISHING

INDIVIDUALITY of taste is more pleasing in the arrangement of the appointments of the home, than the most elaborate copies of the house furnishings of more pretentious homes. The first thing to be considered is how much outlay can be expended in adornment, and the next is how to obtain the most satisfactory results with that amount.

Cheap imitations are never desirable, and show a lack of refinement in matters where taste is required. If one must practice economy in furnishing his house, let it be in quantity, not in quality. There are at the present time so many really beautiful things to choose from, some of which are both fine and inexpensive, together with the great possibilities which can be accomplished by the handiwork of women, that there is no reason why the cottage or apartment should not be made attractive like, as well as the home of the means, who can indulge each fancy



as it arises. The newest designs in furniture and decoration are not always the best. Novelties in both branches appear each season, until it becomes a difficult matter to choose among the great number offered or apartment and home-possessor of ample

for inspection. The purchaser who possesses good taste avoids all startling and extravagant effects, and selects only that which harmonizes consistently with the other furnishings of the home. The desire to finish a room within a certain period of time leads many into the grave error of buying a great deal of furniture at once, instead of purchasing article by article, and thus making the home an expression of the owner's individuality.

Of later years there has rapidly grown a desire for more unconventional and less formal treatment of the interior of houses, but this, if a certain fitness is preserved throughout, should add to, rather than detract from, their artistic beauty. The fashion of creating a series of rooms furnished and ornamented after those of foreign countries, destroys a full harmonious effect. Those styles of decoration, if transferred to our own homes, demand both correct representation and suitable setting to demonstrate their full beauty and worth.

THE HALL

THE hall, even though but a passageway, should receive especial attention in its appointments, as it is the first room entered, and consequently leaves an impression on the mind which adds to, or detracts from, the beauty of the other rooms. In the modern houses, the reception-halls are of such generous dimensions that there are many opportunities for developing artistic effects in the furnishings. Nor are the smaller, less pretentious hallways entirely devoid of possibilities in pleasing effects.

In the selection of wall decoration, panels are the most popular style in wall-paper, woodwork and tapestry, or tinted walls. Burlap is an excellent substitute for tapestry, and makes a safe and satisfactory wall covering for a hall in neutral tints, or in dull reds, blues, or greens. China matting or canvas, which is much like burlap in texture and appearance, may be obtained in several desirable shades, and is inexpensive. It is a simple and pleasing method of wainscoting, which can be made more elaborate by painting the panels in some delicate design. It is, however, safer to leave the plain surface, which can be finished with a handsome molding, the width of which must depend upon the height of the walls.

The ceiling should be light in color, with very little, if any, decoration, unless the reception-hall is a large room. Where it is not



practicable to follow the inclination in selecting the material one's taste suggests, it is always possible to find neat, effective styles in wall-paper which are inexpensive, and a good substitute for the more costly decorations.

A few good pictures on the wall are a pleasing addition to the furnishing of the hall. They give a homelike appearance to the house that will be appreciated the moment the outer door is opened. These pictures should be plainly framed, and the subject of the engraving or water-color should be of general interest. It is better to have one good engraving than half a dozen inferior pictures.

Hardwood floors are found in nearly all of the houses recently designed. These floors can be highly polished, and need only a few rugs which harmonize with the walls in the prevailing tint. Where a carpet is preferred in the hall, it should be of some neutral tint, with conventional figures in subdued colors. Draperies hanging in the doorways should match the prevailing tint, or combine contrasting colors. The furniture of a hall which is used merely as a passageway must necessarily be very unpretentious. If possible, banish the old-time hat-tree to the end of the hall. A small table and one or two high-backed chairs are generally all that the space allows in the way of furniture in the small hall.

In the square reception-hall, you may gratify your taste in the matter of furniture to a greater extent. In addition to the high-backed chairs, there may be a comfortable old-fashioned sofa with inviting sofa pillows in colors to match the draperies. Two large armchairs and a handsome hall-table complete the furnishing.

DRAWING-ROOM OR PARLOR

THE word Parlor, which at one time conveyed the idea of the best room in the house, has been almost entirely superseded in dwelling-houses by the more dignified name of drawing-room. The fact that the word Parlor is now used in various lines of business—those devoted to the care of the hair, complexion, etc., has brought about this disuse of the word, and the adoption of the more English term for the "best room" of even a modest house.

In furnishing the drawing-room, above all things avoid stiffness of effect. A large rug or carpet, harmonizing with the prevailing tints of the walls, should be selected. The polished hardwood floor with handsome rugs is undoubtedly to be preferred to the carpeted room, though much more difficult to keep in good condition. In the selection of furniture for the drawing-room that is in daily use, avoid the

purchase of showy, useless pieces. The most expensive furnishings are usually found in the drawing-room, but there should not be too marked a difference between this apartment and the others.

There are many houses in which the elaborate decoration of the drawing-room is achieved only through the sacrifice of much that is needed for the adornment of the sleeping-rooms. The furniture should be in keeping with the size and shape of the room, and should be chosen with a view to comfort, as well as to artistic effect. There is such a variety of style in furniture to-day, that it is not difficult to make a choice suited to your means.

Several easy chairs, one or two small sofas, a small reception chair, and two or three others of odd design, are more desirable than the complete suites. There is a large variety of fancy tables from which to choose. The present taste is for quaintly carved mahogany or rosewood, but many pretty tables are made of less costly woods. The size of your center table must be in keeping with the size of the room; if the latter be large, two or three small fancy tables will add to its attractiveness.

They may be used to hold flowers, books, or pretty pieces of china.

The wall covering should be light and dainty, and the paper, or other material, as rich as can be afforded. If inexpensive, let it be as simple in design as possible. The pictures should be fine engravings or etchings, or photographs from the old masters. Pictures are indicative of the taste of the owner, and for this reason should never be purchased by the wholesale, nor hurriedly. Oil paintings should be omitted from the collection, unless really fine work can be afforded.

Massive gold-leaf frames are not so popular at the present time as they were a few years ago; they should be used only as a setting to oil paintings. Lighter frames, which form a graceful finish to the picture without being a conspicuous part of it, are more in vogue and are comparatively inexpensive.

After having selected your pictures, it is well to consider the art of hanging them. To hang and group pictures properly is not within the ability of everyone. A good eye for distance, straight line, and harmony of grouping are essential requirements. A few general principles may be kept in mind which will tend to assist the amateur in picture hanging and grouping. A room may be made to appear less high by lowering the picture molding. The space above may be filled with plaster or metal bas-reliefs. Those pictures conveying an impression of space or distance, such as landscape or marine views,



should be hung on a level with the eye. Definite subjects, such as figures, heads, and floral designs, may be hung low or high. Harmony of coloring and style should be observed; for instance, a very rich oil painting will detract from a pale water color, or a pronounced figure piece is likely to weaken the effect of a delicate etching, or pen-and-ink sketch. One of the most important matters to be observed in the hanging of a picture is to have the proper light strike it.

By skilful arrangement, frameless paintings, etchings, engravings and photographs may be effectively used in any but the most formal apartments, such as drawing-room and hall. An irregular grouping of sketches, in imitation of the decoration of an artist's studio, gives, in some cases, a much better effect than does a uniform arrangement.

Mounting-cards and mats may be obtained in a number of different shades of green, red, buff and gray, and these make artistic backgrounds for sketches, or for prints of heads or figures which may be attached, with paste, by the two upper corners. Unframed pictures may be secured to the walls by means of the brass-headed "thumb tacks" to be purchased in any art-material shop. A set of pictures framed alike may be grouped, or placed one below the other.

Perhaps nothing in a house adds so much to the general good effect as do the pictures. Expensive paintings, etchings, and engravings may be out of the reach of the householder of modest income, but the excellent reproductions of fine works now to be obtained from any art dealer, possess much artistic value and are worthy of a place in any home. Handsome bric-a-brac, china, bronzes, curios, pretty statuettes and vases are now sold at prices to suit even a light pocket book, and when chosen with a discriminating eye, and with careful reference to their harmony with the general character of the room, they add an invaluable finishing touch to the whole.

Mirrors are always in favor; they should not, however, find a place in the drawing-room unless of fine quality and handsomely framed. The old-fashioned colonial mirrors, in one or three sections, are very desirable for drawing-room or parlor decoration, and can always be found in the antique shops.

Cabinets, either for wall fastenings, or made to stand upon the floor, are excellently adapted for holding curios and objects of art. Inlaid Turkish and Syrian tabourettes, octagonal-shaped low tables, chairs, divans, easels, pedestals and screens are to be had in innumerable shapes and designs. Foot-rests are as welcome in a drawing-room as is the inevitable down pillow.

Candles and lamps should, when possible, be used in preference to gas or electric lighting, as their light is infinitely softer and more

effective. Dark papers and dark draperies absorb an immense amount of light, and one can manage with half the quantity of artificial light, if a reasonably cheerful tone prevails in the general decoration of the room.

THE LIBRARY OR LIVING-ROOM

THE custom of uniting the offices of several rooms in one large apartment is becoming more general each year, and to-day a library may serve also as music-room, study or living-room.

Warmth and comfort should be the keynote in the decorating and furnishing of the library, and a personal, rather than a general, taste may be followed in the arrangement of books, family portraits and individual possessions. In the treatment of the library walls, we are permitted much latitude. Book cases—when a structural part of the room—may be arranged on all four of its sides, fitting in recesses and ranging from four to six feet in height. The wall above the shelves is covered with reference to the wood used; the material may be canton flannel, heavy felt paper, tapestry or embossed leather, in rich full tints. The ceiling should be of a light shade of the predominant color of the wood work and wall-covering, or may be paneled in wood or with cross-beams. The hard-wood floor, oiled, painted or stained so as to be easily cleaned, should be covered with a large art square or with center rugs. Small rugs—Indian or Oriental—may be laid about before fireplace, couches or window-seats.



The library is the place for family portraits, oil-paintings, old engravings and for a general commingling of many schools and subjects of art. The window and door draperies of a library should be strong in color and firm of texture. Inner wash curtains in ecru tints are more desirable for sitting-rooms than are those of white material. Library chairs should be large and comfortable. The center table should be large and of substantial build. A lounge should also be provided, on which may be heaped cushions harmonizing with the color scheme of the room.

THE DINING-ROOM

THERE are people in this busy world who, looking upon the hour spent at table as so much time lost, would, were it not for the necessity of sustaining life, leave it out of the day's program. They eat their meals hurriedly and in silence, without giving a thought to their surroundings. But to the large majority of home-loving

families, the dinner hour is one of happy reunion, when the members of the family may chat over the events of the day, with the peaceful consciousness that they can lay aside its busy cares and enjoy the restful hours of evening.

The dining-room, for this reason, as well as for others, should be one of the brightest and most attractive apartments in the house. Where economy must be observed in furnishing the dining-room, its appointments should be selected with great care, so that both furniture and all minor details will harmonize with the walls and woodwork, and also with the shape and size of the room.

If the sunshine has access to all parts of the room, a dark green and straw-colored matting, with a handsome design in conventional figures, is one of the most effective floor-coverings you can select. Two or three rugs scattered about the room add to its appearance; but we would advise the sparing use of small rugs in a dining-room. If the floors are of hard wood, highly polished, or stained, one large rug of shaded green and oak, with a dash of color interwoven, is very handsome. If green is not a favorite color, dark blue, or any rich tone which the quiet taste may fancy, and which is in keeping with the other furnishings of the room, will answer the purpose.

The furniture of the dining-room should consist of a sideboard, extension-table, and chairs. A small side-table and one of the pretty corner china-closets with beveled glass front, add greatly to the attractiveness of the room, as do also window-boxes of well-kept flowers and ferns. In choosing pictures for a dining-room, it is well to avoid those subjects which represent dead game or fish. These have long been accepted by many people as peculiarly appropriate for dining-room decoration but they are really in very bad taste.

In selecting the furnishings for your table, fine napery and delicate china and glass are more desirable than an abundance of showy silver. The family silver should always be chosen with a view to its usefulness, never for vulgar display.

Where the matter of expense does not interfere with one's choice, there are several methods of wall treatment suitable for a dining-room. In one instance, the field was hung with heavy felt paper of a warm golden brown, the woodwork was of antique oak, the panels of the doors and shutters of a lighter shade of brown than the general surface. The frieze was relief ornament on a yellow ground, the ornament in two shades of brown. The dado—there should always be a dado in a dining room—was of wainscoting. The floor, to follow out this scheme, was of hard wood, partly covered with a large Eastern rug in tints of blue and brown. The curtains and covers for the

window-seat (which were the only textile fabrics in the room) were of blue velours, in a pattern of golden chrysanthemums.

Wainscoting is admirably adapted to a dining-room, and not infrequently is carried up to a wide frieze, from which it should be separated by a shelf for holding jugs, platters, china and glass, of various patterns.

Embossed leather papers are often used with good effect in the dining-room. The walls of this apartment should never be hung with tapestries, silk, or similar stuffs. The general woodwork should be somewhat darker than the walls. The sideboard and mantel may be made to harmonize with the decoration by being built with reference to the dado line, and with that of the frieze. To preserve the architectural effect, the tops of the sideboard, mantel, and doors should continue on a level with the frieze rail, presenting an unbroken line on which ornaments may be arranged.

When the sideboard is not a structural part of the room, it may be of various designs. Perhaps the most pleasing and satisfactory of all styles is the Colonial. The lines are simple and graceful, harmonizing well with most furniture. Colonial sideboards may be had in various woods, those of mahogany being the most desirable. There are also the old Dutch dressers, with decorative copper hinges and handles; but these require special harmony of environment. As a rule, the solidly handsome buffet, no matter how plain, is preferable to the more ornamental styles for the arrangement of plate and glass. An artistic touch may be added by placing copper or brass sconces for candles, which, when lighted, bring out the beauties of the glass and silver with delightful effect.

The furniture should harmonize with the general character of the room. Dining-tables of polished wood, carved chairs, side-tables, closets and cabinets for china and glass, are to be found at all prices and of all qualities. The round table, for those who have a dining-room large enough for its accommodation, is the most serviceable and the prettiest, as it not only seats guests to the best advantage, but displays the table service and decoration better than does any other.

The foot-rest should not be omitted from the dining-room. The chairs should be strong, broad, and comfortable; those covered in leather being altogether the most satisfactory. Closets for choicer pieces of china or glass are eminently suited to the dining-room. Those with mirrored backs that form a background for the display of each dainty article are preferable. A pretty conceit is a cabinet or shelf devoted to pieces of one kind, such as jugs, teapots, steins, and other bits of ware in pretty or odd designs. If there be no room for a cabinet, a corner cupboard or some hanging shelves will serve as a substitute.

THE SLEEPING-ROOM

THE simpler the arrangement of a sleeping-room, the better. The furniture, especially, should be characterized by simplicity and lightness. Anything that will harbor dust, absorb impurities, or prevent perfect circulation of the air, should have no place in a sleeping-apartment. Heavy curtains or hangings are particularly objectionable in a bedroom. In case of illness, one may be confined to the sleeping-room for days, and there should be, therefore, no opportunity for the lodgment of odors, microbes or any form of insect life.

Physicians advise against ponderous furniture and heavy enveloping curtains; many would even banish wall-papers from the bedroom. A substitute for the last is found in paint, varnish or cotton hangings. Painted walls, plain or with delicately stenciled ornamentation, are admirable; they provide effective decoration, and perfect sanitary conditions, and require but little care. Many, however, object to this painted surface as appearing cold, and prefer walls covered plainly with some material made for such purposes.

A New York firm has lately imported some entirely new Japanese silk hangings for wall decorations. They are made of soft, loosely-woven silk fibers, and somewhat resemble Shikic silk. Some of them are backed with paper to give them stiffness. They may be either mounted on the wall, as is wall-paper, or draped on slender wires run through top and bottom. Cretonnes of delicate pattern are sometimes stretched on walls in the place of paper, producing a very satisfactory result. A room paneled in hard wood two-thirds of the way up, and then finished with a frieze of cretonne, presents an attractive appearance. The ceiling may be either painted, or simply whitewashed, or tinted. It is preferable that a bedroom should be decorated in light tints, but it must be remembered that white produces a chilly effect, and is to be used only in combination with tints of a warm hue.

The window and bed draperies perhaps contribute more than any other feature to the general effect of the sleeping-room. Swiss muslin curtains are much used and may be quite simple or very elaborate, according to the general character of the furnishing. Cretonnes and *crêpes* are a little more substantial, but equally pretty; they may be obtained in a vast variety of colors and designs. Lace or muslin curtains are beautified by having a foundation of silk or cambric, harmonizing with the general color of the room.



For the outer covering of beds, there is a large variety of pretty and inexpensive spreads. The most popular covers are those which can be laundered, and if one is skilled in needlework or can afford to pay for the skill of others, the handsomest are in heavy linen elaborately embroidered by hand. These have wide borders, with graceful vines and flowers; the center may be in flowers or in any dainty conception of the owner's fancy.

For a young girl's room, pretty covers and bolsters can be made of silk or of lustrous cotton, such as sateen or silkaline, covered with lace. The color of the lining should match the prevailing tints of the walls and furnishings. This room should be light and as dainty as possible, and it can be furnished with a modest outlay. A brass, or white enamel bedstead, a dressing-table covered to match the bedspread, a willow rocker, two small enamel chairs, and a couch with a removable cover of dainty, figured cretonne, in which the prevailing color is that selected for the linings of the curtain and bed covering, will furnish this room charmingly.

The couch may be covered in heavier plain material of neutral shade, with gay pillows of silk or cretonne, and if the top is made to open with hinges, the box should be lined carefully so that it can be used to store away clothing not in daily use. This is especially useful to women and young girls who live in apartments where they have limited closet room.

The beauty and attractiveness of the bedrooms depend but little upon the depth of one's purse, for exquisite effects may be obtained here with comparatively little outlay. For an unpretentious bedroom, nothing is prettier than plain pine furniture, enameled. The enamel may be bought ready for use. By following the directions and using care, any one can paint a pine chamber set. Colored paints, unless harmoniously combined with white and gold, or white and bronze, are not so desirable on the whole as white paint. The walls, floors and draperies of a room containing such pieces of furniture, may be of any color, but delicate shades are more in harmony with white and pale tints.

Besides the ordinary furniture of a bedroom, there are several desirable additions that lend a touch of individuality to this part of the house. Among these is that delight of the feminine soul—a cheval mirror. In lieu of the cheval glass, a long mirror in wardrobe or bureau should be substituted in a woman's bedroom.

No bedroom is quite complete without the addition of a lounge and pillows. A screen or two, a revolving table for pitcher and glass, for book and candle, all combine to contribute to the comfort as well as the beauty of a sleeping-room. A guest-room should also

contain a writing-desk, fully equipped with paper and envelopes, pen and ink and stamps, and a basket with sewing-materials. Pictures on the walls are not desirable. Like the reception-room, the guest-room should be impersonal in character.

THE BATH ROOM

THE proper furnishing and care of the bath room are matters of vital importance. This apartment may be a source of comfort and a preserver of health, or an unpleasant and unhealthful place that is likely to foster disease. To insure cleanliness, the room must be properly furnished. Carpeted floors and papered walls should be avoided, as they absorb impurities from the atmosphere and do not admit of the free washing that is essential to cleanliness.

To those whose purses admit, there is nothing to equal the pretty tiled floor and walls, which may be white, delicate blue, a dainty green or any favorite color. Yet for the room which now has and must retain its wooden floor and plastered walls, two or three coats of good paint will serve the purpose admirably. A rug or two is necessary for comfort, and can be put out of doors for frequent airing; cotton rugs may be purified by washing.

The tub or closet should never be boarded around, but should be exposed on all sides, and all plumbing should be open to the air. Materials suitable for bath tubs have been fully considered in connection with bathing. Of whatever material, the tub should be thoroughly cleansed after each use.

Each morning and evening the water-closet should be freely flushed, and the basin should be washed with sand soap. If by carelessness or accident any bits of hair, burnt matches, lint, rags, coarse paper or anything that can possibly obstruct the pipes finds its way into the basin, the only safe way is to pick it out. A seemingly very little thing in the pipe may call for the services of the plumber. The hand basin must be well washed and the pipes flushed. Any lint that collects about the strainer in the pipe may be removed with a small wire hook, or with a shoe buttoner, kept for the purpose.

The attention which the floor needs will of course vary from day to day. Once a week, tub and hand basin should be washed with hot water in which some washing soda has been dissolved, and a generous quantity of the hot solution should be poured down all the pipes. If the tub is of zinc it should be cleansed with whiting and ammonia, rinsed well and wiped dry. Much less scouring will be necessary if the tub is carefully dried after every cleaning. Any ordinary stains on marble, porcelain or enamel may be removed by

the use of sand soap. For old stains that will not yield to this treating, muriatic acid should be used.

There should always be an ample supply of towels and wash-cloths in the bath room. They may be kept in a small cupboard or on a set of shelves with a curtain arranged in front. Huckaback, crash, and Turkish toweling for bathing purposes, divide favor with one another so that it is desirable to have some variety. Whatever the material, try to be generous enough with it to make towels of convenient size; scrimpy bath towels are a trial and a nuisance, poorly compensated for by the small saving of cost or of work in laundering.

Wash-cloths may be of any of the toweling materials, of stockinet, or pieces of old table linen. The knitted ones are liked by many. A towel rack is necessary for the proper drying of towels and cloths. A good quality of soap will of course be provided, and every one has his own idea as to the most satisfactory kind.

In some bath rooms hot water is not provided during the warm weather. Generally this is a great mistake. Nearly every one wishes a warm or a tepid bath at intervals, while many feel a chill from a quite cold bath at any time. With the many devices for heating water by gas, coal oil and wood alcohol, it is easy to make provision for a comfortably warm bath at any hour of the day or night. Proper heating arrangements are, of course, an absolute necessity to health and comfort. There should be, besides, a small oil or gas heater that can be used at pleasure on chilly mornings and evenings, when heat is not required in the entire house.

In no part of the house is proper attention to ventilation more necessary than in the bath room, and it is well to have some arrangement by which there is a constant change of air, the size of the opening to be adjusted, of course, according to changes of temperature in the outside air.

THE NURSERY

THERE is no room in the house more important than the nursery. It is the child's first home, the spot which represents the world that he has so recently entered, and much depends upon his earliest impressions. For that reason great care should be taken in making his surroundings not only comfortable, but bright and happy. Even an infant is susceptible to the influence of cheerful or gloomy environment.

The furniture of the nursery should be simple and substantial, not easily destroyed. Rugs that may be shaken daily are to be preferred to carpets; and a painted, oiled or hardwood floor is recommended

for cleanliness. The wall surface may be dealt with in several ways, but preference is given to the nursery papers, on which are illustrated the fairy tales and Mother Goose melodies so dear to the hearts of little children. They are possibly not so esthetic as painted walls, or those of some floral or figured designs, but they possess the merit of interesting children—an important consideration in a room where so many of their hours are to be spent.



The fire-facings may be of picture tiles descriptive of some scriptural or historical events, which will furnish subjects for endless conversations, and will open up a wonderful field of information. Upon the walls should be hung only those pictures which appeal to the interest and emotions of these little lords and ladies of creation. Let the subjects be cheerful and attractive, and above all, artistic. The training of the eye and the imagination to a sense of beauty cannot be begun too early. Copies of many masterpieces, colored or in black and white, can be obtained at little expense, and, when framed in the light woods so much in vogue, form the daintiest decorations for a nursery wall.

Windows should be provided with moderately dark shades, to shut out glaring light; and with white curtains that may be easily laundered. Window-seats, which may also be lockers, serve as receptacles for childish possessions. Shelves and drawers built into the recesses of the walls are absolutely necessary for the storing away of books and playthings.

It is never well to permit children to sleep in the rooms in which they spend the day; but when limited space makes this a necessity, the selection and furnishing of beds and cribs are of the utmost importance. Each child should have a separate bed; those of brass or iron, with woven wire springs, are not only the most hygienic, but the most attractive in appearance. The mattress should be of a good quality of curled hair, and if the pillows also be of hair, they will be found less heating to the little heads than those of feathers. The room should be thoroughly aired before putting the little ones to bed each night, and while they are taking their morning walk.

It is important that the location of the nursery be where it will have plenty of sunlight and good ventilation. If your house is too small to admit of a room being set aside as a nursery, let the children spend all the time possible out of doors, or in a bright, sunny room where their earliest impressions of life will be cheerful. It is said, and we believe truly, that the first imprint on the child's mind will never be entirely effaced.

As to the simple nursery furniture: A long, low table with rounded corners, and little chairs with straight backs and with seats sufficiently high to permit the children to sit around the table with their picture-books and kindergarten work, should be placed where they will not interfere with the daily romp. A strong, wide couch with small pillows, both couch and pillows covered with bright, washable goods, is a desirable addition to the nursery, and affords both a resting-place for tired babies and a fine field for pillow fights and acrobatic feats.

Nurse should have a comfortable rocking-chair, a small sewing-table, and a basket for her mending. The rockers in a nursery should never have sharp points, with which small feet and legs may come in contact, bringing their owners to grief. The rockers of both the large and the small chairs should be so curved over in the back that they will not be a source of annoyance and danger to the children when they are romping.

THE KITCHEN

WHEN the housekeeper has the selection or planning of the house which is to be her home, the first part of the building she looks at critically is the kitchen. This room should be as attractive in its way as the drawing-room, and if economy must be used in furnishing any part of the house, the kitchen should be favored, as it requires more attention to detail than the best room in the house. Upon its construction and arrangement depends the comfort of not only the housekeeper and servants, but of the entire family.

Everything should necessarily be secondary to cleanliness and utility, but it is essential that the kitchen should be pleasant to the eye as well as convenient. A bright, cheerful kitchen with plenty of sunlight and fresh air will insure better service than the small, dark, badly ventilated rooms often dignified by the name of kitchen in some of the houses built solely for the purpose of renting.

The woodwork and walls of the kitchen should be such that they cannot readily harbor insects. Walls of hard plaster that can be cleaned with soap and water are the best. This may be painted and varnished so that it will resist dirt, and will look bright and new when cleaned with a damp cloth.

An iron sink is to be preferred to any other, and can be made to look well by coating with enamel paint. Woodwork around the sink



is particularly objectionable, as it is sure to be a favorite hiding-place for the persistent water-bug, against which nearly all housekeepers have to battle when living in rented houses.

If the kitchen is large enough to admit of movable cupboards, they are desirable when provided with glass doors so that their contents may be readily inspected. If the back and the removable shelves be covered with oilcloth, they will be more easily cleaned.

The range or stove should be a good one, and, if possible, should be placed where the light will reach it from all sides, so that there will be no difficulty in cleaning every part where soot and ashes accumulate. In most rented houses, the range is set into the chimney, so that there is no choice in placing it, but in these cases the back is solid, and the stove opens entirely from the front and top. The subject of the range or stove is one of importance because it is impossible for the best of cooks to prepare a palatable dinner when the fire refuses to burn properly.

The pantry, opening into the kitchen, should have tin boxes arranged along one of the lower shelves for flour, sugar, meal, salt, etc. A large, closely covered box for bread, and one or two smaller ones for cake, are a part of the necessary kitchen furnishing.

The kitchen should have gas jets, or other lights, so placed that everything in the room can be seen easily without carrying a lamp from one part of the room to another. If oil lamps are used, brackets to hold them can be placed against the wall. The floor of the kitchen should be covered with linoleum or heavy oilcloth, unless the floor is of hard wood, and the housekeeper prefers having it kept bright by frequent scouring.

If your kitchen is large enough, it is wise to have one comfortable wooden or wicker chair in addition to the regular hard-bottomed chairs that belong to the kitchen furniture, so that the tired worker may snatch a few moments of rest at intervals during the day when she may not leave the kitchen to seek it elsewhere. The work will seem lighter, and better service will be rendered.

The pots and kettles should have a place out of sight. Hung on hooks under the lowest shelf in the tin-cupboard, they will be convenient and out of the way. The tables should be so placed that one will be near the stove, another near the door leading into the dining-room. We are writing of the kitchen found in modest homes. In stately houses a butler's pantry is indispensable, and so are numberless other conveniences which are impossibilities to the renters or owners of small, unpretentious homes.

The ice-box should be kept in the pantry or in the cellar. Brooms

keep their freshness longer when carefully hung in the cellar-way or shed. Tubs and pails, not in constant use should be kept on the cellar bottom with a little water in them; this prevents shrinking on account of dryness, and consequent leaking.

THE LAUNDRY

THE wise housekeeper so arranges the work of wash-day that there shall be as little waste of force as possible. Wringer, washboard, clothes stick, boiler, and an abundant supply of soap, starch, and bluing will be at hand, and there will be a generous supply of tubs in good condition.

The first thing to be considered is the water: When hard water must be used for washing purposes, care should be taken to "break," or soften it. As mineral waters differ widely, it is impossible to give directions for this process that will serve in all cases. Sal soda, ammonia, or lime water will soften water that contains carbonate of lime. The proportion of the alkali used must be governed by the amount of lime in the water. If a large quantity is to be "broken" at once, and there is time for it to settle, quicklime is perhaps the best agent. Pour enough water on the lime to cause it to fall to a powder. After it is slaked, add water enough to make it like thin cream, and then stir into the vessel of hard water. No undissolved lime should be allowed to go into the water. The exact proportion will, of course, depend on the degree of hardness. The water should then be allowed to stand for twelve hours, when the lime will have settled to the bottom, leaving the water soft.

If sal-soda is used, dissolve it in boiling water; when cold add a sufficient quantity of the solution to soften the water. The water is softened when the soap used readily makes a lather.

If the hardness of water is due to the presence of sulphate of lime, it can be softened only by boiling. In boiling hard water, for either laundry or cooking purposes, an oyster shell or a piece of marble placed in the vessel will collect the lime. The shell or marble should be scraped and cleaned frequently.

Proper attention to the breaking of hard water saves soap, labor, abuse of the hands, and injury to the fabrics laundered. When a chemical analysis of the water is practicable, much experimenting may be avoided; but the intelligent housewife will persist in her efforts until she has reached a solution of this important question.

Muddy water, if it cannot be allowed to settle, should be put through a cotton-flannel strainer.

Opinions differ in regard to mixing soiled clothes on wash-day. One fastidious woman, who might be called a "crank" on this subject, keeps a special tub, or a very large granite pan, exclusively for napkins and tablecloths, soaking, washing, and rinsing them in it, and using the pan for boiling. Her table linen is never placed in the common boiler.

Towels, pillowcases, and sheets are soaked, washed, boiled, and rinsed separately from body linen. Handkerchiefs have a small tub to themselves for soaking purposes, and so have stockings. Dish-towels are washed and boiled in the same pan as is the table linen, but separately. As dish-towels should be scalded and rinsed after every dish-washing, they should not be very much soiled in any case. The same rule applies to dish-cloths, if such are used instead of the wire contrivances and dish-mops which many housewives prefer. There is also a wide difference of opinion among housekeepers as to the treatment that will bring best results in the washing of white clothes.

Probably the most tiresome method is that of placing the soiled garments, a few at a time, in the suds and rubbing the dirt loose. Some housekeepers soak the clothes over night in cold water; others, for a short time in the morning, in the warm suds. Others, again, startle the advocates of the other methods by placing the dry, soiled articles, when free from stains, into the boiling suds. The one who has not tried it usually declares that such treatment will "set the dirt"; while the one who practises this method cannot be induced to use any other. Many housekeepers think that the soaking of clothes over night tends to "yellow" them. Some boil the clothes for several minutes, while others protest that to secure the best results, scalding only is necessary.

If the clothes are to be boiled first, a bar of any good laundry soap is shaved, put into the boiler of water, and allowed to dissolve. A tablespoonful of kerosene added to the water will aid in dissolving the dirt, but care should be taken that the water boils before any clothes are put into it, else they will be yellowed instead of whitened. The cleanest of the white clothes, from which all stains have been removed, should be placed in the boiler first and be allowed to boil for from fifteen to twenty minutes. Such parts as rise above the water in boiling should be pressed down with the clothes stick, and all should be stirred a little to aid in loosening the dirt.

When sufficiently scalded, the clothes are lifted from the boiler and put into a tub of cold water. The hot clothes and the water that accompanies them heat the water in the tub, and produce a good suds; soap is then rubbed on the places most soiled. It may be surprising to find that now little or no rubbing is needed for the cleaner

things. Washed from this water, they receive another scalding in clear water and from this they are washed out of a second suds; then follows the rinsing water and, finally, the blue water.

When there are two pairs of hands available, the white clothes can be hung to dry much earlier in the day,—thus getting more sunshine,—if all of the waters are arranged at once, so that the clothes may be taken through each in turn instead of waiting until all are washed through the suds.

If the clothes are to be soaked over night, all the fine things should be put in one tub, and the coarser and more soiled articles in another; the table linen in a third. The clothes should be well covered with water. In the morning, when ready to wash, the boiler should be full of clean, warm suds. Soft soap, or a bar of hard soap dissolved in hot water, may be used. All the water in which the clothes have soaked should be drained off and the hot suds is then poured into the tubs. The cleanest articles should be washed first, and when this is done they are wrung and placed in a tub of warm water. In this they are well rinsed. Then soap should be rubbed on the parts that are most soiled and the clothes are ready to be placed in the boiler, which must contain cold water enough to cover them.

For fine clothes, allow the water to boil up once. The garments should then be taken out, and should be placed in a tub of clean, cold water, from which they are rinsed and put into water made slightly blue by means of an indigo bag or liquid indigo. Too many of the prepared bluing contain Prussian blue, which has iron in it; and this sometimes produces iron-rust spots on the clothes. From this water the clothes are wrung, and, after such as need be are starched, they are hung out of doors.

The clothes-lines must be perfectly clean. A galvanized iron wire is best for the purpose, as it can remain out of doors without rusting, and needs only to be wiped carefully before being used. If rope lines are used, they should be taken down after each wash-day; a weather-stained line will often ruin a good garment.

A good soap is always the most satisfactory for laundry purposes. A poor soap is dear at any price. If a considerable quantity of soap be bought and the bars arranged so that the air can circulate between them for a time, they will harden so that less waste will ensue from careless use.

The best of all bleachers is an abundance of sunshine and fresh air. If the clothes are left on the line in the sun, even after they are dry, they will be the whiter for it. It is well to be cautious in the use of washing powders and the various chemical bleachers. Many contain injurious substances that whiten, but weaken, the

fabrics. Borax, turpentine, and kerosene are the safest bleaching agents. Two tablespoonfuls of ammonia, one of borax dissolved in boiling water, or one tablespoonful of turpentine, may be added to a tubful, or boilerful, of clothes. Special attention must be given to removing stains. Some will be set by hot, and others by cold, water. Blood stains are easily removed by soaking and rinsing in tepid soap-suds before the article is scalded.

With proper attention to the care of flannels and knitted woolens, including stockings, much of the common shrinking and hardening of the fabrics may be avoided. Some who have given careful attention to the subject prefer to use borax instead of soap, except for delicate colors that might be faded by the process. About two tablespoonfuls of borax is dissolved in a pail of tepid water, and the garments are soaked in this for twenty minutes. They are then washed, preferably with the hands, as rubbing on a board tends to full them. The rubbing should be done as lightly as possible. Pressing them with the hands and turning them about in the water will remove much of the dirt. When quite clean they are rinsed twice in clear, tepid water, and dried, if possible, in the sun; otherwise, in a warm room.

Another method of washing woolen garments, which many find to give satisfaction, is as follows: Soak the garments for twenty minutes or half an hour in warm suds made with castile soap, or with some good soap manufactured especially for the purpose. The soap should be dissolved in the water and never rubbed on the articles, as the soap in direct contact with flannel hardens and shrinks it. Some add a little borax to the suds. Wash with the hands, and if very much soiled, wash through another suds, then rinse through two warm waters, and dry in the sun or in a warm room.

When a garment is very much soiled, and the dirt is settled in spots, as is sometimes the case, it is well to partially cleanse the spots before wetting the whole article. Lay on a board the piece to be cleansed; take a cloth or soft brush, wet it in warm water, rub it on the soap, and then rub or brush the spots. This will greatly facilitate the washing, and will save other parts of the garment from unnecessary wrenching.

Ecreu or cream-colored curtains or other articles may be washed as satisfactorily as white ones. Soak them in clear water, and wash clean. If the articles are ecru, boil a little saffron in water, strain, and add enough to the rinse water to restore the color to the desired shade. For cream color, a very little saffron may be used, or yellow ocher may be dissolved in water, and enough of the strained solution added to the rinse water to produce the original tint. The natural color of linen can be preserved by adding coffee to the water.

Coffee-colored laces can be restored in the same way. Tea is sometimes used to retint laces.

It is scarcely possible to give the exact proportions of any of these materials to be used, but with a little practice, the desired result may readily be obtained. It is usually the safest plan to experiment with a small piece of the goods, until the right shade is produced. If this is not practicable, be very careful not to put in too much of the coloring material at first, as more can easily be added.

To wash summer silks, first clean all spots that can be removed with chloroform, gasoline, or benzine. Add a teaspoonful of ammonia and a little white soap to a pail of tepid water and soak the goods for a short time. Then dip it until it looks clean, but do not rub. Press the water out, so as to make as few wrinkles in the material as possible. Rinse once or twice in water slightly warmed—never use hot water for silk—and then hang it in the shade until partly dry. With a cloth laid over it, the garment should then be ironed until quite dry. Corded silks look richer if pressed on the wrong side. China silk may be washed as above and ironed at once, on the wrong side. No part of the silk must be allowed to become dry before ironing; if it should dry before pressing, dampen it again by rolling it in a wet cloth. Doilies and centerpieces of silk embroidery may be treated in the same way. Use several thicknesses of the ironing blanket over the board and press hard on the wrong side with a moderately hot iron. The embroidery will stand out and look much richer than if ironed flat.

The satisfactory laundering of colored cottons is an operation calling for much care. Too hot water, the free alkali in some soaps, and sunshine, are all ruinous to delicate colors. If soap is used it should be of mild quality, and should be dissolved in the water instead of being rubbed on the goods. These goods are sometimes washed without the use of soap. They may be washed in starch water instead of suds, then rinsed twice in clear water. No other starching is necessary, unless it is desired to have the goods very stiff.

Starch may be either raw or boiled. Boiled starch is made by adding cold water to raw starch in the proportion of one cup of water to three-quarters of a cup of starch, and then pouring on boiling water until it has thickened to a smooth mass. Stir this constantly as you pour on the water. Many laundresses add a bit of butter or lard not larger than a filbert, and others a teaspoonful of kerosene, to prevent the starch from sticking to the irons. A lump of spermaceti dissolved in it gives a good gloss to the laundered garments. A piece of sperm candle may be used for this purpose. All starch should be made slightly blue.

On some deeply colored goods the ordinary white starch shows in splotches. For such goods, colored starches can be purchased which will obviate this difficulty. For some colors, making the starch very blue will suffice. Anything starched with boiled starch must be dried and sprinkled, before ironing. With raw starch this is unnecessary. To make raw starch, allow four tablespoonfuls of starch to a half pint of cold water. Collars and cuffs, or anything to be made very stiff, should be dipped into this and then well clapped between the hands so as to distribute the starch evenly. Articles that are to be starched by this process should be first dried and then dipped into the starch but a short time—certainly not more than half an hour—before they are to be ironed. Roll the articles in a damp cloth, as this will give better results in the ironing.

The various prepared starches now so much used, always have full instructions printed on the packages. Many of these are entirely satisfactory, and are fast taking the place of old methods of starching for fine articles, and for those that are to be made very stiff. It is not necessary to wait for the clothes to dry before using these preparations, and the ironing can follow immediately.

If convenient, fold the clothes for ironing at the time they are taken from the line, as the ironing will be easier than if the articles are crumpled into a basket and have more wrinkles pressed into them. Everything that does not require starch is drawn into shape, lightly sprinkled with clear water, folded smoothly, and pressed down into the basket. Sheets, pillowcases, towels—everything—will iron more easily for being first evenly and smoothly folded.

To fold a sheet properly for ironing requires two pairs of hands. With the right side of the sheet up, let each person take hold of and put together an upper and a lower corner of the sheet. This will fold the sheet in halves, crosswise, with the wrong side out. Now, each holding the two corners in one hand, run the other hand along the edges in such a way as to smooth out the selvages. Take hold of the corners formed by folding and stretch the sheet crosswise. Then, retaining the present hold, gather into the hands from six to ten inches of the selvaige edges, and stretch again; then another reach of selvages; stretch again, and so on until all of the edges have been gathered into the hands, and all parts of the sheet smoothed by being stretched in opposite directions. Next, releasing all but the holds of the corners, bring the two corners of one end of the sheet to the corners made by the fold, and the corners of the other end to the other side of the fold, so that the hems lie right side out against the middle fold. The selvaige edges are now brought together, making a fold in the middle, and another turn brings the selvages to the fold.

Finally, turn the selvage ends of the folded sheet outward and bring them to the second or last fold, and turning the first or middle fold outward, bring it to the opposite side of the second fold. When ready to iron, it will be found that all the hems can be reached without unfolding the entire sheet, and the result will be quite as satisfactory, with much less labor than if the sheet had been folded lengthwise and then crosswise, as is sometimes done.

In ironing table linen, the wrinkles left by the wringing process can only be removed by thoroughly dampening the articles. The irons should be used very hot, but always be sure not to scorch. The linen must be ironed on both sides until every thread is perfectly dry. Only in this way can the satiny gloss of the damask be brought out. If it is merely pressed smooth and left to dry afterward, the best of damask will look dull and the satin figures will show but dimly. Do not attempt to draw the linen into shape while dry. After sprinkling roll it in a cloth or coarse towel. Just before ironing, while the starch is soft, the napkins are easily drawn into proper shape.

Dinner napkins are folded squarely, always with the initial showing. The first fold is made by bringing the selvages together; the second by bringing the selvages to the middle fold. Next, the hems are brought together, and finally, the hems to the middle fold, with the initial on top.

Handkerchiefs are softer, and look quite as well as if starched, if they are made very damp and then ironed until thoroughly dry. As with napkins, the first and second folds must be lengthwise of the goods, followed by two crosswise folds, so that the result is a square. The initial is, of course, on the outside. Towels must be folded into three parts lengthwise, and then crosswise at the middle.

Many kinds of goods can be made to look like new material by ironing them on the wrong side. The hems and seams must be pressed well again on the right side. This is especially true of corded or figured goods, either white or colored, gingham, and other colored cottons. In very hot weather, clothes must not be dampened many hours before they are to be ironed, as they will sour, and may even mold. In cold weather this work may be done the night before. If the sprinkling be properly done, the labor of ironing will be much less than if the things have been made either too wet or too dry. It is easy to make the mistake of getting them too wet, and having to iron much longer in order to dry them, than would otherwise be necessary.

For your ironing outfit you will require a half-dozen flatirons with good steel bottoms, a skirt board, sleeve board, and bosom board. These boards should be covered, first with an old blanket, then with

thick, strong, cotton cloth, and finally with a cover or lighter cloth, so fixed that it may be removed for washing. It is well to wash the flatirons once a month in warm water in which a little lard has been melted. This should be done while the irons are warm. Do not let them stand day after day on the stove; and be careful not to spill water on them, as it tends to roughen them.

The use of ironing wax or a little Bristol brick, will prevent the clinging of the starch to the irons. If irons become rough from neglect they should be rubbed on a cloth or paper saturated with coal oil. Rubbing the irons on a branch of cedar laid on a board or table aids in keeping them smooth. This may be done to advantage at frequent intervals during the ironing. If through carelessness or accident an article is scorched, lay it in the sunshine. If the fiber is not burned this will generally remove the mark.

Clothes should hang in the air for at least twenty-four hours after ironing. Unaired sheets may cause serious sickness. Examine all clothes as they are sent up from the wash, and see that all necessary mending is done before they are put away. A word may not be out of place here in regard to the receptacle where soiled clothes are placed during the week. A wicker hamper, allowing circulation of air, is infinitely to be preferred to a laundry bag.

CARPETS AND RUGS

RUGS have to a great extent superseded carpets, not only in parlors and halls, but also in living-rooms and bed-rooms. There are sanitary reasons for this; rugs can be beaten, aired, and exposed to the sunshine more frequently than carpets.

At the time rugs first began to displace carpets, the carpets were as a rule inartistic. The design of the fabric was at that time in decided contrast with the ground; the figures were bold and were so clearly defined that the carpet sometimes became the chief adornment of the room, instead of a neutral background for the things placed upon it. Doubtless the introduction of rugs is one reason for the recent improvement in the designing of carpets. The manufacturers have been forced by this competition to secure artistic designers, and the result is that some American carpets now compare favorably with those of foreign make, even though the designs are often but copies of the subdued Oriental patterns.

Mats were doubtless the original form from which carpets and rugs have grown by a natural process of evolution. These originated in the Orient, where the practice of sitting cross-legged made and still

makes them a necessity. In ancient Egypt carpets were used in religious ceremonies and also for furnishing the palaces of the Pharaohs. They were not introduced into Europe until about the beginning of the seventeenth century, when they were brought from Persia into France in the reign of Henry IV. In England their manufacture was begun about the year 1750, by artisans who came over from France. The varieties now in use are almost numberless, the most familiar being the Chenille, Wilton, Axminster, Moquette, Velvet, Brussels, Tapestry Brussels, Ingrain, and Venetian.

The best grade is the Chenille. In this the weft is composed of chenille instead of yarn. The pattern is dyed in the chenille and nothing shows on the surface of the fabric except the ends of the chenille fringe. This carpet is very heavy, soft, and of a luxurious appearance. It is manufactured chiefly in Glasgow.

The Moquette and the Axminster carpets are practically the same, the chief difference being that the Axminster is of a slightly better grade than the Moquette. They both admit of unlimited variety in pattern and color.

The Wilton and the Brussels carpets are woven alike and of the same materials,—that is, with a linen back and worsted surface. Wires are inserted between the threads of the warp so that when they are withdrawn they leave a series of loops upon which the design appears. In the Brussels these loops remain, but in the Wilton they are cut open and sheared smooth, leaving an effect similar to that of velvet. In the worsted portion of the material of these carpets, each color requires a separate frame, five such frames being the limit of advantageous manufacture. From this come the grades of this style of carpet, called three frame, four frame, or five frame.

The Velvet and Tapestry Brussels are made like the Brussels and the Wilton, with the difference that only one thread of worsted warp is used, and upon this all the colors are printed before the carpet is woven. That which is cut and sheared is called Velvet, while that which remains uncut is called Tapestry Brussels. These manufactures were brought into England in 1842, and into the United States soon afterward. Owing to some difficulty about the patents, the industry did not flourish at first, but now more Tapestry carpets are used than any other kind except ingrain.

Ingrain is the only carpet which was originally made exclusively of wool. To-day much of the ingrain is part cotton. The threads are dyed before weaving, and it is the interweaving or "ingraining" of the colors which give it the name. These are two-ply or three-ply, according to the number of the intermingling layers. The name ingrain is now applied only to the "two-ply," the other being

distinguished from it as "three-ply." The latter is chiefly of historic interest, for it is practically out of the market to-day. Of the ordinary grades of carpet, the cheapest is the Venetian, which is used almost exclusively for stairways.

The purpose of the carpet and the rug is almost precisely the same. The difference is chiefly mechanical. When the fabric is made for one particular room, it is fitted to that room and is made as a rug. When manufactured in large quantities for the market, it is evidently a matter of economy to make the carpet in a narrow strip, which may be cut to any length, and widened by sewing strip to strip. The rug is still made in one piece, but it is not necessary to fit the rug to the room. It is common to use large numbers of comparatively small rugs, which may be arranged at pleasure. Because of this mechanical difference, rugs are made richer and more elaborate than carpets. A good rug is suitable for almost any room, while the changing of a carpet from one room to another involves both labor and expense.

Rugs are divided into so many classes and bear so many different names, that one is at a loss sometimes to know just what to select. Although most of our rugs come from the Orient, the rug district is confined to a comparatively limited area. The Turkish, Persian, and Daghestan are the prominent Oriental weaves, and from these a great variety of others borrow their principal characteristics.

The Turkish rug is a large square, with thick tufts of red and blue in two or more shades on a greenish ground. They are very little used in this country.

The Persian rugs are the handsomest, richest, and most valuable of the Oriental family. They involve a great deal of fine detail and are very ornamental in patterns of graceful figures, flowers, and birds. The Persian rugs are much more finely woven than either the Turkish or Daghestan rugs, and are exquisite in their marvelous coloring.

The Daghestan rugs are not so valuable nor so fine as the Persian, but very much superior to those of Turkish weave. They are chiefly designed in geometrical patterns in a great variety of well-arranged shades.

All these rugs are made from the wool of the sheep of Asia Minor, and are colored with vegetable dyes by primitive methods. Other rugs come from Japan, and from the Indian districts, but they are much lighter in quality and are composed of few colors.

The Navajo blankets are much in vogue at present. These beautiful fabrics are made by the tribe of Indians whose name they bear, for their own use. The "pale-face" does not use them as blankets, however, but as rugs. In expense they cost from five to

ten per cent of the price of Persian rugs, and in beauty they are not to be compared with them.

A handsome rug is an expensive luxury. It may, however, be classed among the products of the fine arts, like painting and sculpture. It never wearies the eye or mind, but grows continually more satisfying. Time tones down, mellows, and improves the colors. Such a rug will last a long time, improving with age, and destined to be a valuable inheritance.

WINDOW SHADES AND DRAPERIES

THERE is perhaps no more important consideration in the furnishing of a room than that involved in the treatment of its windows.

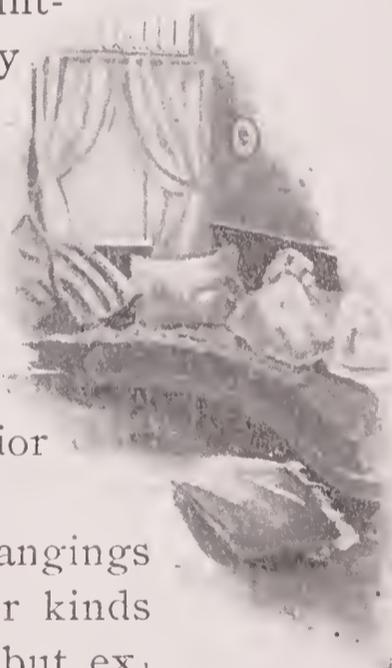
How often we enter an apartment that lacks nothing from a decorative standpoint except the tasteful selection of its window shades! In too many cases, they form a disturbing element of the whole effect. For this there is little excuse, as shade cloth is made in a countless variety of colors and tints, and the proper shade may easily be found in any well-selected stock.

All window shades that show from any one point of view from without should be of the same shade. Nothing is more inartistic or displeasing than a variety of window coverings seen from the exterior of the house. Neutral tints are preferable where the shades must be of one color throughout the home, as they harmonize successfully with almost all interior decorations.

At most of the best upholsterers it is possible to obtain hangings for window curtains of many materials. Some of the cheaper kinds of cretonne, jute, and cotton hangings are not only artistic, but extremely moderate in price; there need be no difficulty in providing good and tasteful curtains for any window. In choosing draperies, great care should be exercised as to the colors and general appearance, as most patterns change very greatly under gas and candlelight.

Lace and soft silks are the proper curtains for drawing-rooms. Very often only heavy lace curtains are used. These are hung in straight folds to the floor. When silks are used, they should not conceal more than a third of the lace curtains. Silk outer curtains may be either hung straight or festooned over the poles.

Nottingham lace curtains are the least expensive, and are pretty and serviceable, but better suited to the upper windows of the house. Swiss lace curtains are equally desirable, and come at the same price. Irish point lace curtains are very popular, and may be had



in a variety of grades. Madras curtains, though not as much used as formerly, are excellent for both wear and color effect, their soft tints blending well with almost any style of furnishings.

Among silks, and silk and cotton materials, the China and Indian silks are the cheapest. They make graceful and appropriate draperies for windows that are not too large. The silk and cotton damask curtains now offered for sale, come in rich designs and are made up with or without linings of soft contrasting silks. Ecrú curtains are more desirable for sitting-room and dining-room, than those of white. Simple muslin curtains should be used in bedrooms and bathrooms, as they require frequent changing.

TAPESTRY

A MARKED increase in the use of tapestries for upholstery has taken place in this country within the past generation, the material being employed, as in its original usage, for covering the walls of apartments, and also for covering the backs and seats of furniture.

The better tapestries of modern weave are the product of several famous factories. The Aubusson tapestry is made in the city of Aubusson, and is used principally for wall-hangings and curtains. The greater part of the tapestry offered for sale in France is said to be of this make. In general, old designs are copied, or modified to suit the size of the rooms for which the hangings are ordered.

The Cluny tapestry is a strong, thick cloth of wool and silk, made in England. Gobelin tapestry is produced at the establishment of that name in Paris. The designs are very complicated, and are produced in brilliant and permanent colors.

There are many imitations of the famous tapestries, some in printed worsted cloth, for chair, table, and sofa coverings; but unless good tapestry can be obtained, it is better to restrict oneself to less pretentious materials for hangings and upholstery.

DECORATIVE WOODS

A MONG the woods most used in the furnishing and decoration of houses, are mahogany, rosewood, satinwood, oak, cherry, maple, cedar, butternut, walnut, and pine.

Mahogany is a very hard wood, susceptible of high polish and remarkable for its beauty of grain and its great durability. It is of a reddish brown color and is largely used in the making of fine furniture.

Rosewood comes principally from Brazil; it is used chiefly in veneers for pianos, cabinets, tables, etc. The wood is fine and hard,

and of a dark reddish brown color, streaked with black. When first cut, the wood gives out a faint odor of rose, from which characteristic it derives its name.

Satinwood.—This tree is a native of India. Its wood is very hard, fine, and durable, and possesses a luster like that of satin. It is of a yellowish color and is valuable for fine cabinet work and interior decoration.

Oak.—Though a very light wood in weight, oak is sufficiently tough and durable to make it extremely desirable for the manufacture of furniture, flooring, house-trimmings, and for all kinds of cabinet work. This wood is among the least expensive of furnishing and decorating materials.

Cherry.—There are several varieties of cherry wood used in furniture making and house decoration. That of the wild black cherry is highly esteemed. Its wood is light and hard, of a brown or reddish tinge that becomes darker with exposure. Cherry wood has become scarce of late, so that stained birch is often used as a substitute.

Maple.—Several varieties of maple are highly valued for their wood. Bird's-eye maple, so called from the small round spots in its grain, is much used in cabinet work for fine furniture, paneling, etc.

Cedar is very valuable, light in weight, straight-grained, durable and fragrant. It is used for closets, storage chests, boxes, and flooring.

Butternut, also called White Walnut, is of American growth and bears a strong resemblance in its general appearance to the black walnut, although not so hard and durable. It is susceptible of a fine polish, and is largely used in interior finish and cabinet work.

Walnut.—Walnut wood is not as much used as formerly, and has been superseded by other lighter-toned woods. It is heavy, very ornamental, and susceptible of high polish; it is of a purplish brown when first cut and grows darker with age.

THE GROUNDS

THE grounds surrounding the town or country house add so much to the attractiveness of its appearance that they should be carefully laid out and well kept. A smooth, green lawn, with a few flowering shrubs or small trees, is far more pleasing to the eye than one with a number of flower beds.

Flowers should have a place of their own at the side or rear of the house. A climbing rose, a honeysuckle, or a Madeira vine, looks well when artistically trained over the veranda; and the brilliant foliage plants near its base furnish enough bright color to relieve the unbroken green of the lawn without destroying its beauty.

Fruit and vegetables from your own garden will possess a flavor not found in any that you may buy from the greengrocer, and will well repay you for the care bestowed upon them.



In modest city houses, where there are no grounds to beautify, one may have window-boxes, or small conservatories, made by building a frame the length of the window, extending beyond it in width, and covered with open wirework. It should have a substantial floor and shelves of wood. Arrange the plants along the shelves so that the heavier pots will be on the bottom. This must be securely fastened and braced with iron rods, to prevent its breaking down under the weight of the potted plants. If glass be fitted into your "flower cage" late in the fall, you may enjoy the fragrance and beauty of blooming plants all winter.

INCOME AND RENT

AN IMPORTANT consideration in the selection of a house is its adaptation to the circumstances of the family; its suitability to their financial and social standing. If the rent is out of proportion to the income, it expresses what the family is reaching after, not what it has attained. Comfort should be the first consideration; then as much luxury as can be paid for with ease, but no more. Every young woman in beginning her housekeeping should make the most of the means at her command, but should never sacrifice her physical and moral well-being to a desire for display.

With the majority of families who rent, the amount paid is the first thing to be considered. As a rule, people are tempted to expend too large a part of their income in rent. One fourth is a reasonable proportion, but in the city, one-third is sometimes devoted to rent. The income of some families is so small that one-fourth of it would hardly allow room for privacy. But if more than one fourth is paid, this expenditure should be made up by economies in other directions. It is desirable to own one's home. The combined amount of the interest and taxes will hardly equal the annual rent. The repairs will be an item, but they will be for the improvement of the property, and can be made at the convenience and not at the caprice of the landlord. To own a house is a great incentive toward avoiding useless luxuries or ephemeral pleasures, that the house itself may be adorned or improved.

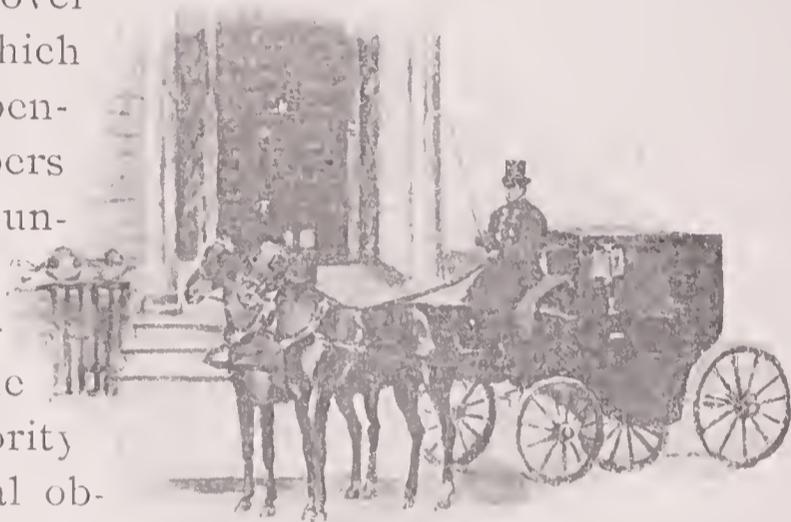
SOCIAL USAGES

THE ART OF ENTERTAINING

THE complex conditions of American life have well-nigh crowded out the sweet, old-fashioned virtues of hospitality. The high pressure at which people live is one cause of this sin of omission; but a more direct cause is the mistaken idea that hospitality implies extravagance, or, at least, a complete change in the everyday manner of living. In Mrs. Whitney's novel "Hitherto" a household is described, in which "having company" implied a complete suspension of the ordinary family life. The members of the family held their breath, as it were, until the guest had departed.

True hospitality implies neither undue expenditure of money, nor the throwing of the domestic machinery out of gear. The majority of persons are inclined to store up their social obligations, or their hospitable instinct, then to rid themselves of the burden in a yearly, or semi-yearly cataclysm, which is preceded by dismal forebodings, and followed by exhaustion. "Thank goodness, that's over!" is not a beneficent farewell to waft after departing guests, who, catching the moral contagion, have had their own sufferings in attending the forced meeting of social creditors. This kind of entertaining is very common in America; and is gone through with in a penitential state of mind which would be funny if it were not so disastrous to a wholesome ideal of what constitutes true hospitality. It is primarily a state of feeling; and unless that feeling is present no genuine hospitality is possible. It is the willingness to share a last crust with a friend, to place one's house at his disposal, to break down the barriers raised by formality and a sense of ownership, that visitors may feel at home in the most literal sense. The best method of making them feel at home is to go on in the usual household ways; to share the accustomed meal, if it be only potatoes and bread; to give to them in the spirit and in the letter, "the freedom of the house." Hospitality should become a habit; and that is only possible when it implies no extraordinary effort.

Such easy and kindly entertainment is the best possible preparation for the more formal expressions of the hospitable spirit—the dinner or the afternoon tea. The same virtues that make the solitary guest feel at his ease, contribute to the ease of a hundred guests. The secret of entertaining a large number of people is to make each



guest feel that his individual presence gives a distinct and particular pleasure to his host or hostess. The look of profound dejection to be seen on the faces of many people at a large reception, arises from the feeling of being herded. Man is a dignified animal. The first law of hospitality should be the recognition of his individuality. This recognition calls for no extraordinary social skill on the part of his entertainers; merely for tact, good will, and a desire to give pleasure. The Christian virtues have fuller scope, perhaps, in a drawing-room than anywhere else, because the true spirit of hospitality addresses itself to the nobler natures of men. When people assemble socially, they must, like the ancient Christians, "have all things in common," material and spiritual, or the harmony of the gathering will be disturbed.

THE HOSTESS AND HER GUESTS

THE virtues of the successful hostess are chiefly negative. Her highest skill lies in producing results without allowing her guests to see her methods. They find themselves happy, comfortable, and at ease, but are not conscious of any effort on the part of their entertainer. The hostess who understands her task makes it her first rule to give her guests their liberty. This does not mean neglecting them. It is a recognition of the fact that there is always a certain strain in leaving the freedom of home to become a guest in another household; to conform, it may be, to unfamiliar customs and rules of living. To relieve this strain is the first duty of the hostess. It is best accomplished by allowing guests some time each day in which "to get their balance;" to go their own ways; to follow their own inclinations. A sense of forlorn helplessness is produced in guests by an oversolicitous hostess, who maps out every moment of their day as if they were children. The successful hostess is always mindful of the "margin of freedom." She understands the temperaments of her guests, consults their tastes, and entertains them accordingly. She does not thrust pleasures upon them, but allows the day to take its pleasant course, assuming that her visitors have enough originality to look, in a measure, after themselves. In English house-parties, the "margin of freedom" is wide, extending until the dinner hour. During the day, the guests are free to follow their own devices.

The duties of guests to their hostess are of a positive nature. They should not make themselves a weight on the conscience of hospitality, nor go about with a "what-next?" expression. Like the saint and the sinner, they should live in the present moment, accept-

ing and turning to account, whatever situation is uppermost. They should allow the hostess liberty to follow her accustomed pursuits; should observe the rules of the household; should be never in the way, and never out of the way.

One of the best safeguards of the interests of both hostess and guests lies in naming the duration of the visit when the invitation is sent. This relieves the guest of the embarrassment of choosing the length of her stay; and allows the hostess to make her plans for a definite period.

INTRODUCTIONS

IT HAS become the fashion of late years to look upon introductions as somewhat solemn and significant ceremonies, not to be lightly performed. In consequence, some hostesses make it a rule never to introduce their guests to one another—their meeting under one roof being thought a sufficient introduction in itself. This custom is not native to democratic America, but is imported from England, where introductions are supposed to contain a possible element of danger, since it never can be known what social advantage may be taken of them.

Not to introduce guests to each other seems, however, a negative way of protecting them from a possible distasteful acquaintance. The positive method would be to bring together only persons in the same social circle; or those of whose congeniality the hostess could be sure, and then make them known to each other. This, however, is not always possible at a large gathering. But no hostess should ever turn a guest adrift in an assemblage where she knows he has no acquaintances.

In introducing two people, the younger should always be presented to the elder, the man to the woman, the less famous to the more famous. But even a famous man should always be presented to a woman, however young and socially insignificant. The form of introduction should be as simple as possible; and the "let me present" should never be used except when presenting a celebrity. It is sufficient to mention the two names, the more important being mentioned first and with greater emphasis. Explanatory phrases, as "my aunt," "my cousin," are in place and very often furnish a bridge over the awkward silence which sometimes follows an introduction. Never say "my friend Mr. Robinson," nor tell Mr. Robinson that you wish him to know your friend. It is taken for granted that you will not introduce those for whom you are not socially responsible. Well-bred people do not exclaim, "I am happy to know you," or "I am glad to know you." It is sufficient to repeat the name, and to bow courteously.

Young women who wish to be considered well bred will not call men by their Christian names, no matter how close the acquaintance, except in the absolute privacy of home. The rule holds good in the case of men addressing the ladies of their acquaintance. Be punctilious in addressing elderly or prominent people by their proper names and titles. If one's memory fail in regard to a name, be careful not to allow the person addressed to perceive your forgetfulness. If one must introduce a stranger, it is courteous, if embarrassing, to explain your predicament and frankly to ask the name. It is always well, if possible, to give people some clue to each other when introducing them, in order that they may be more at ease.

Introductions between young people are much less formal in character, and carry less weight of significance. A young man, however, should never introduce a friend to a young lady without first asking her permission. Casual introductions, in a street car or on the street, should be avoided because they are unnecessary. A hostess should introduce callers one to another, because the majority of people would feel more at ease under such circumstances, if properly introduced. Whether a casual introduction justifies future recognition depends largely on circumstances. If the two people introduced live in the same town, such recognition is well-nigh imperative; but no introduction should carry the social obligation farther. Persons can exchange polite greetings on the street, or wherever they happen to meet, without being obligated to call on each other.

Letters of introduction should not be given lightly, for a certain amount of social obligation is attached to them. The persons to whom they are addressed feel called upon to receive the stranger, and to invite him within their gates. In presenting a letter of introduction, it is better to send it with a card by mail or messenger than to deliver it in person. The former method is less embarrassing, both to the bearer and to the person to whom the letter is brought. A gentleman may, however, convey his own letter of introduction to a lady, sending it up with his card. It is scarcely necessary to say that such letters should always be unsealed, and should be written without a profusion of complimentary recommendations.

CHAPERONAGE

THE duties of a chaperon are delegated maternal obligations, delicate and complex in their nature. According to social usage, no young unmarried woman will attend an entertainment outside of her own home without the protection of a chaperon. The latter must be selected by one knowing her intimately and should be a married

woman, a widow, or an elderly spinster. The chaperon is indispensable at parties, the theater, or opera, or at dances and suppers which are given in public places. A chaperon must be vigilant, yet not obtrusive in her watchfulness. It is taken for granted that young women who move in good society will conduct themselves with decorum. When a married woman or widow has been invited to chaperon girls, it is customary for all of those who will compose the party to call upon her immediately. It is also obligatory to call on her first reception day after the party, or if she have no reception day, to call within the week.

In the large cities, gentlemen who give theater or opera parties which include ladies, must first secure the services of a chaperon, and in sending their invitations they must state that this lady has consented to be present. If a gentleman giving a theater party invite his guests to supper afterward, the chaperon acts as hostess of the occasion and must be accorded all the honor and deference due to her dignity. At dancing parties, the duties of the chaperon are more complicated. Those who are thoroughly conversant with correct form, will not introduce a gentleman to a young girl without the permission of her chaperon. It is the chaperon's prerogative to say when her charge shall withdraw from the entertainment, and it would be rude for any of her party to challenge this right.

Young girls often resent the presence of a chaperon, but they should be thankful for her protection. Her presence may save them from embarrassments, and perhaps from some innocent indiscretion, which the social world might magnify into a heinous fault. St. Paul's injunction to "abstain from all appearance of evil" is rich in both earthly and heavenly wisdom. The chaperon exists to guard her charges from the appearance of evil. Gossip, particularly if it have its source in jealousy, is only too eager to throw pebbles which hurt and sting, even though they do not kill. The need of a chaperon is not so great in the country as in the city, though sometimes the familiarity of young people in a small town or village has its own dangers. Picnic parties should always be chaperoned.

When a girl has passed her first youth, a greater degree of freedom is accorded to her, but even then she should be wise enough to guard herself from "the strife of tongues." In this country, where many girls and women are self-supporting, and are obliged to live in a city boarding-house, or alone in a studio, they cannot be expected to conform to all of the rules which govern a guarded and sheltered girlhood. But they should endeavor to be their own chaperons.

The whole matter of conformation to social usage is summed up in the truth that only by obeying society can one become its master.

ENGAGEMENTS AND WEDDINGS

THE parents of a young girl who has become engaged should first announce the engagement; such an announcement is never made by the friends or relatives of the prospective groom. If the engagement is to be a long one, an early announcement is desirable, but, ordinarily, within a month or six weeks of the wedding will be the correct time.

It is both foolish and ill-bred for a pair of engaged lovers to give evidence of their mutual attachment in public; to dance only with each other, and to look bored if obliged to talk to any one outside of their rose-circle of enchantment. They should remember that the universe is still trundling along, and would continue to trundle even though they broke both their engagement and their hearts. It is not well to use up all the romance before marriage, but to keep some stored away for the inevitable day of prose.

The wise bride-elect begins her preparations for her marriage many weeks, if not months, before the ceremony is to take place. If she is "clever with her needle" she can make many of the articles of her trousseau, thus saving expense and being able to exercise her individual taste. She should not crowd all of the preparations for her wedding into a feverish month of hurry and scurry, but should allow at least a week's margin of repose before the great event.

It is customary in France for girls about to be married to make a week's retreat in the convent where they were educated. They approach the sacrament of marriage with prayer and meditation and thoughts of God. It would be well if American girls could go into some such restful retirement on the eve of their marriage, that they might bring calmer thoughts to the solemn ceremony. Too often the bride's mind is occupied with the set of her gown, and the effect of the bridal procession, or she is worn out with the rush and hurry of the last days.

It is best that a marriage should take place in church, being primarily a religious ceremony. A church wedding need not involve the sending out of invitations, but may be celebrated in the presence of the family alone. In the Catholic church, the nuptial mass is sometimes sung; and in the Anglican church, the communion may be celebrated. In these cases, the hour of the wedding should be early. There is much to be said in favor of early weddings. The bride is not worn out by a long day of preparation or waiting; and the wedding breakfast is then really a breakfast. Afternoon weddings are not so fashionable as morning weddings, and night weddings should be abolished altogether. They have long since ceased to be fashionable.

Invitations for a wedding should be sent out from two to three weeks before the date of the event. They should be sent to all of the friends and relatives of the families of both bride and groom. An invitation to a church wedding should be engraved on heavy white paper, and should read as follows:—

MR. AND MRS. JOHN EVERETT
 REQUEST THE HONOR OF YOUR PRESENCE AT THE
 MARRIAGE OF THEIR DAUGHTER
 ELIZABETH
 TO
 MR. FREDERICK WINSTON
 AT
 ST. MARTIN'S CHURCH
 ON WEDNESDAY MORNING, OCTOBER TENTH
 AT TEN O'CLOCK

Sometimes cards of admission to the church are also inclosed. If there is to be a reception after the ceremony, a reception card is inclosed which may read thus:—

AT HOME
 AFTER THE CEREMONY
 112 PINE STREET

A wedding invitation to the church need not be acknowledged, but an invitation to a wedding breakfast or reception should be acknowledged at once. The wedding invitations are sent out at the expense of the bride's family. The bride's family pays also for the decorations of the church, for the music, and for the wedding breakfast. The groom pays the clergyman's fees, buys the ring, and gives presents to the bride and to her bridesmaids. He also presents his ushers with scarf-pins, or some other souvenir.

At one time it was the custom for the bride to seclude herself after the wedding invitations were issued, as if she were in a kind of moral quarantine which would end on the wedding-day. But now she comes and goes in a natural manner; and in consequence, "feels more natural" when the great event takes place. The prospective groom should not monopolize too much of the time of the bride-elect during this period. If he is considerate he will understand that she will wish to be with her family as much as possible.

The bridesmaids should be selected from among the sisters, cousins, or other near relatives of the bride and groom, and from among the intimate friends of the bride. It is desirable to choose the bridesmaids soon after the engagement is announced, that they too may be able to prepare at their leisure for the event. An early choice of

bridesmaids has a certain social significance. They form a kind of little court about the bride, who for once in her life, at least, knows all of the sweetness and none of the sorrows of being a queen. In choosing bridesmaids, the bride should remember not to embarrass a friend who may not be able to afford an elaborate gown for the occasion. If the bride require that her maids wear very expensive dresses she should pay for them herself. The simplest gowns are often the prettiest. At one June wedding the bridesmaids were dressed in white organdies, with colored silk sashes, and large Leghorn hats, trimmed with the same color as that of the sash. At a December wedding, the bridesmaids wore white cashmere and carried bunches of holly.

The decorations of the church may be as elaborate as the bride's family can afford. It is customary in the city to distribute the wedding flowers afterward among the hospitals. A rehearsal generally precedes a church wedding, that each person may know just where to stand and where to take his or her place in the procession. The best man plays an important part on the day of the ceremony, besides making certain preparations beforehand. He buys the tickets for the wedding journey, orders the express and the carriages, and frequently buys the ring and sees that it is in its place in his waistcoat pocket. He attends the groom in the vestry, and stands by him during the ceremony. Sometimes he accompanies the bride and groom to the station and sees them safely off. He does not form part of the wedding procession when it enters the church. In this procession the ushers come first, then the bridesmaids; then the maid of honor, if there be one, and then the bride herself, leaning upon the arm of her father, brother, or some other male relative. If her father is not living, the bride, if she desires, may be given away by her mother. Whoever performs this office merely bows when the question "Who giveth this woman away?" is asked and then goes to the pew where the bride's family is seated. As a rule, only one ring is used in the ceremony, but sometimes rings are exchanged. The bride does not remove her glove to have the ring put on, the third finger of the left-hand glove being slit for the purpose. After the ceremony, the bride and groom should leave the church with as much solemnity as they entered it. It is in bad taste for a bride to smile and nod to her friends while going down the aisle of a church.

The bride is generally gowned in the conventional white, with long veil, and perhaps orange blossoms. After the ceremony, the veil is thrown back, the maid of honor performing this service. A bride may wear a traveling gown and hat if she chooses. The elaborate trousseau once prepared for a bride is not now considered in good taste.

There is no reason why a bride should buy dozens of sets of underwear, as if she were never again to have money to spend on clothes. As for her dresses, she should have only enough for one season's wear. Fashions change so quickly that it is but poor economy to purchase many gowns.

The wise woman will not sacrifice present display to future comfort. If a bride does not consider herself she should at least consider her family. Too many families have been crippled financially by the effort to give the daughters large church weddings. The unworthy motive is sometimes that the bride may have a profusion of wedding gifts with which to begin her married life. No self-respecting woman would care to receive gifts which did not represent love or kindly interest.

Many brides do not look beyond the wedding-day; as if its pomp and ceremony were the whole of marriage. A dispassionate observer is almost tempted to think that a girl marries for the sake of the ceremony. If the bride be wise in her generation she will keep up the illusions and harmless mysteries of the engagement period long after marriage. She will not be seen by her husband in curl-papers and dowdy wrappers. She will always retain that margin of mystery, which is necessary to preserve the dignity of even the most impersonal relation. The intensely personal relationship of marriage needs to be safeguarded by the utmost delicacy and dignity. Women often fail to keep the love which they have won, because they go at once, after marriage, into moral and physical negligee.

WEDDING GIFTS

BRIDES have reason to regard the coming-in of the wedding gifts with apprehension. Only the gods know what symbols of stupidity and bad taste will pour in from well-meaning but misguided friends; French clocks, with a character of Parisian instability; hideous bronze knights to support the clock in its waywardness; vases to hold dust, not flowers, and a great variety of bric-a-brac which includes everything undesirable, from China pug-dogs to dragon-candlesticks. The bride realizes in terror that she must either display these atrocities in her new home, or pain the givers, each of whom will look for his or her present in a place of honor.

There was an era of weddings, not long ago, when an unfortunate bride might find herself the possessor of twelve soup-ladles and eight silver ice-pitchers.



The ice-pitcher and the castor went into oblivion together, but the soup-ladle is still a popular choice with the giver of wedding gifts.

If silver is sent as a present, it should be unmarked, and the donor should let the bride know that she is at liberty to exchange it, should she have duplicates, or should she desire something else in its place. It is not advisable to give pictures as wedding presents, unless the bride's taste in art is very well known. Fine china for the table makes a suitable wedding gift; so, too, does a lamp of artistic shape or design. But in all cases, the circumstances of the prospective bride and groom should be considered, and the bride should not be embarrassed with useless or incongruous presents.

DINNERS

THE degree of formality observed in dining is an index of the degree of civilization attained by a nation. In England, dinner, the only formal meal of the day, is surrounded by an atmosphere of stateliness which has a moral rather than a material source, not at all dependent upon the number of courses served, nor upon the number of servants in attendance. The same dignity would be observed in breaking a crust of bread and drinking a simple glass of wine, as in partaking of a banquet.

This formality of the spirit, rather than of the letter, is much needed in American dinner-giving. The materialistic temper of the nation, governing its social life, has made dignity and state synonymous with display and extravagance. In consequence, such dignity is reserved for extraordinary occasions, the daily habit being somewhat slipshod. In the matter of dinner-giving, for instance, no hostess can ever hope to impart the true atmosphere to her entertainment who does not daily "dine in state." This means that the principal meal of the day, however simple, should be served with touches of beauty, and should be partaken of in dignified leisure.

When dinner is an evening meal, shaded candles, a few flowers, a change of dress, a change of thought from the prose of the day to that kind of homely romance which comes with the closing in of night; these symbols, material and spiritual, lend state to the most ordinary family dinner. This habit of dignity once learned, the difference between a family dinner and a formal one will be merely one of degree; it will not involve that upheaval of the whole household which stands in the way of hospitable intention.

Invitations to dinner-parties are issued in the name of both host and hostess, differing in this regard from invitations to teas, luncheons, and general receptions, which the hostess alone extends.

The ultra-fashionable hour for dinners at the present time is eight o'clock in the evening, although dinners may be correctly served at eight-thirty, or even nine. It is not good form to give a dinner-party earlier than six o'clock. Except in the height of the season, the invitations should not be issued more than two weeks before the occasion. In small towns, where the hostess is thoroughly acquainted with the existing conditions, one week or ten days is ample notice.

In giving a formal dinner, the best taste directs that the number of courses should not exceed five or six; but these should be perfectly cooked and served. The secret of a successful dinner lies in not attempting the unfamiliar, nor in putting upon the resources of the household a greater strain than they can bear. The hostess who is out of her depth is in constant danger of panic, and of communicating her panic to her servants. She should know what her cook can do, she should understand the limitations of her waitress, and then give her dinner upon the plane of their best efforts, but not one degree above it. Unless her waitress understands the art of setting a table, she herself should attend to the last detail of this important feature of the dinner. To make the table beautiful should be her first aim, since the entertainment is addressed primarily to the esthetic sense of her guests. Beauty is not costly. A few flowers arranged with taste, a few candles with shades of a color to blend with the flowers, give this touch of beauty.

The seating of guests is a most difficult task, and in this the tact of the hostess is displayed at each separate entertainment. Those who are strangers to one another should be presented when the guests meet their host and hostess in the drawing-room. A hostess is permitted some latitude in the manner of her introductions prior to the announcement of dinner. She will find some means of bringing her guests together upon common ground, in order that they may have opportunity for immediate conversation and acquaintance.

If a dinner be given to honor, or to introduce, any especial guest, that person will, if a lady, be escorted to the table by the host. The hostess will be escorted by a gentleman so honored. In seating guests, deference must be paid to age, to distinction in any art or profession, and to social and political position.

For a simple dinner, no great array of silver at the plates is necessary. An oyster fork, and two sizes of dinner forks with knives of similar sizes, and one or two spoons should be sufficient. Flowers at each plate make a pretty accompaniment. It is customary for the dishes to be passed first to the hostess, but they may be passed first

to the guest of honor on the hostess's right. Before the dessert is brought on, the waitress should remove the crumbs from the cloth with a crumb-knife and tray. Black coffee can be served either at the table or in the drawing-room after dinner.

During the dinner the hostess should belong absolutely to her guests; she should never let her thoughts drift from the current of conversation, no matter what eccentricities the cook and the waitress may develop at the last critical moment. She has done her best, and the guests know it. Trusting to their humanity, she should cast away care. In the last analysis, her spiritual peace is of more value to the guests than is the comely order of her dinner. If both can be preserved, the full fruits of success are hers.

The hostess gives the signal for rising. Gentlemen may remain in the dining-room to smoke and chat, or they may accompany the ladies to the drawing-room. An approved modern custom is to have a cozy smoking-room, where the host may entertain those men who prefer masculine society, leaving the others free to follow the bent of their inclinations. Some hostesses have adopted the European custom of serving coffee in the drawing-room, and permitting the gentlemen to smoke there.

Breakfasts and luncheons, while less formal than dinners, yet require a certain formality of setting. Both men and women are invited to a breakfast; but usually women only to a luncheon. Breakfast should never be served after twelve o'clock, noon. From one to two-thirty is the formal hour for a luncheon. Embroidered squares of linen, placed in the center of the table and under the plates, may be used instead of a table-cloth. With a highly polished wood surface, the effect is very good. Flowers should be abundantly used. For a wedding-breakfast these should be white, or of the colors of the bridesmaids' gowns and bouquets.

The afternoon tea in America is an elaboration of the simple English custom of serving tea and bread-and-butter daily at five o'clock. Americans have made it a "function" most elastic in its limits. It is a favorite method of introducing *débutantes*, and also affords an excellent opportunity to present a stranger guest to one's acquaintances. Usually when a hostess announces her tea, she invites every one on her visiting list. Teas are the most informal entertainments to which invitations are issued. The variety of suitable refreshments is great. Besides the beverage from which the occasion takes its name, sherbets, punches, coffee, chocolate, and similar refectations may be offered, but it is not in good taste to present wines. Usually a bevy of young women is invited to aid the hostess. There seems to be a reaction against deputing the serving of refreshments to these assistants.

Well-trained waiters are now preferred, leaving the hostess and her assistants free to devote themselves to the purely social duties of the occasion.

DANCES—OPERA AND THEATER PARTIES

THERE are a few general rules which a well-bred young woman will faithfully observe at a ball. She should not sit out too many dances with any young man, and no matter what her preference may be, she should not dance with the same young man more than four or five times, even if the number of dances on her card should be twenty. It is ill-bred for a *fiancée*, especially if a general favorite, to bestow her favors with partiality.

Well-bred men and women will scrupulously keep their dancing engagements. They will be careful to write names and numbers so as to prevent mistakes, and will, above all things, avoid the stupid accident of losing a dancing card inscribed with their engagements. When a gentleman invites a young woman and her chaperon, he must escort them comfortably to the entertainment, and thoughtfully look after their welfare during the evening. The obligation on the ladies' part is to give this gentleman the preference and to accept his escort to supper.

Those who extend invitations to theater and opera parties bear all the expense thereof. A young girl may invite her guests in her own name, mentioning the name of the chaperon. Gentlemen accepting such invitations sometimes send flowers to their hostess and also to the chaperon. In sending invitations to the theater or opera, it is necessary to state whether the party will be entertained in a box or in the chairs. *Decolleté* gowns may be worn in any part of the house during the season of grand opera. In some cities, notably New York and New Orleans, full evening dress is required for both men and women.

Should the host or hostess desire to entertain at supper after the theater or opera, it is a wise plan to select the *menu* in advance. Where there is an intimate acquaintance between the host and the members of his party, it is permissible to have an informal supper served in a *café, à la carte*. A chaperon may invite the party to supper, but it is not proper for any other member of the party except the chaperon or the host to proffer such an invitation.



LITERARY CLUBS

A LITERARY CLUB is an institution the object of which is the study of literature. Organizations of this kind may be divided into two classes, the one devoted to investigation and research, the other, simply to literary recreation. The happiest results are obtained by a commixture of both classes. Under this combination we find the

Travel club, in which the members may journey by means of books and maps through one country after another; the Debating club, whose members meet for the discussion of specified questions; and the Reading clubs, in which the study of the more important works of literature is taken up in a thorough way.



Literary Clubs need be confined to no special season or society. They may be organized wherever and whenever a sufficient number of energetic and congenial persons are to be found who are interested in this form of social reunion and intellectual improvement; but perhaps they flourish best in large villages where attractive entertainments are few, and where the desire for intellectual stimulant, and for friendly intercourse, causes the residents to seek pleasant means of passing long afternoons or evenings which otherwise would be dull and profitless.

If the object of a club is amusement rather than literary advancement, the first essentials are simplicity of organization, an absence of useless formality, and complete harmony throughout the circle. If serious work is to be done, it is necessary that the organization should be governed by rules, and that there be a more formal method of conducting the meetings. The result would be infinitely more satisfactory if the club would begin with government, grow accustomed to wholesome discipline, and have a clear, concise understanding of the work in hand, instead of drifting aimlessly, without compass or chart, over the vast sea of literature.

The work of organizing a literary club need not be complicated. In clubs of moderate size, two officers are all that are required—a president and a secretary, who may also act as treasurer. The ordinary duty of the president is to preside impartially over the deliberations of the assemblies, to enforce the rules of order, and to maintain due decorum among the members. The secretary reads aloud all necessary papers pertaining to the business of the club, takes charge of all of its papers and documents, receives and distributes all moneys

belonging to the society, and keeps an accurate account of all pecuniary matters pertaining thereto.

Every member should follow strictly the rules of order, should abstain from all personalities, disturbance by whispers, laughing or other acts of annoyance, and should endeavor to promote good fellowship throughout the assembly.

The club should prepare and adopt by-laws for its government. It is also usual to appoint a committee of three to arrange the program, to select and to assign subjects, and to act as judges when necessary. A meeting should be held each week, as longer intervals tend to lessen interest. Once a month each member should contribute an unsigned essay, story, sketch, or poem, which should be read aloud by the reader appointed for the evening, and be discussed and criticized afterward by the other members of the club. Subjects should occasionally be suggested for debate, and the entire society should participate therein. The meetings may be held at the house of each member in turn, but when practicable, it is better to have some regular place of assemblage.

Of course, no club will be a success that fails to keep up the interest of its members. It is necessary to the life of the meetings that great care should be exercised in the selection of subjects for study or debate. The arrangement of the program must naturally be influenced by the taste and capabilities of the club members. Subjects should be selected that will be of interest to the members, and upon which they desire information. Interest may best be kept up, and the minds of the members of the club most improved, by the presentation of a continuity of subjects from one meeting to another, and for this reason it is well to map out, for the season, a program of subjects which will bear some relation to each other.

The members will not always be of equal mental capacity, although it is more stimulating and beneficial when all are capable of ready competition. A society of this sort will naturally separate into several divisions, formed of those who read best, those who write best, and those who talk best. Every member will in time demonstrate for what especial rôle he is best fitted, and it will be one of the tactful duties of the committee selected to arrange the program, to suggest and apportion suitable topics. The program should not be too long, and the more serious items should be interspersed with light forms of entertainment. Music, the discussion of art, even an occasional visit to the theater to see the dramatic presentation of some well-known book, all are legitimate means of amusement for a literary club.

The arrangement of the programs must be left, of course, to individual clubs, but it is wiser not to make the subjects too extensive

or too diversified. There should be a leading paper to which all items presented should bear some relation. The minor contributions may vary as to character, being either pathetic or humorous, serious or fanciful. If an especial writer is to be discussed, as Shakespeare, Dickens, or Thackeray, attempt should not be made to cover all of their writings in a season. Should history be the keynote, it is best to confine the discussion to a certain period, or to some particular country or reign.

There are many suggestions that might be adopted that would add interest to the meetings,—“five-minute papers” might prove interesting; a “modest members box” could be organized, wherein slips of paper should be dropped bearing questions to be answered by the club. Prizes of books might be offered at the end of the year for the greatest number of popular quotations, the clearest essay, the brightest sketch, or most entertaining story. At the close of the meeting it is usual to devote a half hour, or longer, to informal conversation, and if desirable, refreshments may be served.

The aims of a Literary Club should be mutual improvement and entertainment. There should be a union of sociability and of a desire for the cultivation of a proper taste in literature. Clubs of this class are an excellent means of discipline; they assist the mind to grasp, to consider, and to retain the matter in original form. There are many minds that do not fully respond to school or college training, but which later in life, under the stimulating atmosphere of these social and intellectual reunions, develop unexpected capacity.

Debating Clubs—Debating clubs, because of their distinctive character, require perhaps a fuller explanation of their management than do other forms of literary clubs.

In the earliest stage of civilization, oral discussions were classed among the most effective methods of diffusing knowledge, and were deservedly considered a most important factor in advancing the greatest projects of nations. The ability to debate a question in a forcible manner is an invaluable accomplishment, and one that has often been the means of bringing honor and distinction to its possessor.

Societies formed for the cultivation of the art of debate are frequently productive of the greatest good, and at the same time afford an excellent source of entertainment and recreation. They cannot be too highly recommended to those who desire to develop the resources of the mind, to exercise to their fullest capacity the reasoning powers, and to cultivate the faculty of extemporaneous speech.

The simplest form of debate is the regular discussion of a question by two persons who oppose each other in formal speeches. In the debating club it is necessary to have a presiding officer, and to appoint

judges to render the decision. In presenting the question to be debated, it should be so stated as to permit of a distinct affirmative and negative, the affirmative always beginning the discussion. The number of speeches and the time allowed for each speech are points agreed upon beforehand. As the speaker who opens the debate has nothing to answer, the closing speech is usually given to him in order to equalize the opportunity for argument. Little change is made in the form of debate when more than two speakers take part in the discussion. There should be an equal number of debaters on each side, who ought to be fairly matched in ability.

The earlier speakers should endeavor to leave some of the strongest points for the concluding arguments, and the later ones should be careful not to repeat matter already advanced. Should the entire club care to take part in the discussion, another form of debate may be adopted. When his name is called from a list, each member may express his opinion. In this form of debate the question under discussion is termed a "resolution," or "motion," which is to be "supported" or "opposed." This method is often used in clubs and in societies, but it lacks the interesting element of personal encounter, and lessens the opportunities for brilliancy of debate.

The method of organizing a debating society varies little from that of the ordinary literary club. The president (or chairman) should preside at all of the meetings, his office being to state the question for discussion, to call for each speaker, and to give the question to the judge. The duties of the secretary are the same as in other clubs of this nature. It is necessary to appoint a literary committee, who shall select questions for debate and assign speakers to different sides.

By-laws for the proper government of the club are presented and adopted. Any member violating the rules of order, refusing to take part in discussions as appointed by the committee, or neglecting to pay his dues, may be expelled from the society by a two-thirds vote of members present.

The great danger in a club of this kind is that its harmony may be disturbed by ill will arising from too free expression of opinion, or through the advancement of some member, who by superior qualities, or by greater intellectual effort, may rise to a prominent place in the society. It should be remembered that all direct controversy is to be of a positive nature, bringing success to one party, defeat to the other, and that the chief requisites for preserving peace in all serious discussion are patience, good-nature, and breadth and fairness of mind.

GARDEN PARTIES

SOCIAL rules relax in summer, and at Garden Parties etiquette permits absolute informality. A hostess may without criticism invite to a garden party people whom she knows but slightly. She should, of course, call upon strangers before extending an invitation, but even that ceremony is dispensed with on occasion. The hostess should keep herself visible during the entire entertainment, but its informality argues that her duties will not be arduous. The guests will amuse themselves, if material be provided. Ices, cooling drinks, dainty salads, and shady nooks for *tête-à-têtes*, are essential. There should be music, if the affair be on a large scale.

These entertainments usually begin in the late afternoon and may be concluded at sunset, or extended into the evening. On such occasions, the refreshment table is an important adjunct.

The repast is *buffet*, and small tables may be scattered throughout the grounds, in not too secluded nooks, so that the guests, with the assistance of the waiters, may look after their own comfort and convenience. At garden parties, the hostess has more freedom than at any other entertainment. If she possess the tact to place herself in the position, as it were, of being her own guest, but greatly interested in the success of the entertainment, she will, doubtless, achieve a triumph.

PICNICKING

CHILDREN hail with delight the prospect of a picnic. Parents do not. The former think of the rollicking in the woods and the good things to eat; the latter of the labors and anxieties, the resulting headaches, and sometimes illnesses, and the nightmare of disorder. Picnics are likely to be either "very, very good," or a complete failure. But, a failure or a success, the picnic is here to stay. The question then is, Can it be so arranged as to be a real pleasure to all concerned? Can all martyrdoms be omitted without diminishing the pleasure of any of the party?

There are some picnics that are foreordained to be as they are. Of these, this paper does not treat. Such are the outings of the millionaires, like those managed by the late Ward MacAlister at Newport. To this number belong also Sunday School picnics. Few general rules can be given for the conduct of the latter, because the



circumstances of the individual schools are so different that each case must be studied by itself. But the generic picnic, the neighborhood picnic, is easily within the reach of most people and, with a little wise planning, may be made delightful and useful.

The place should be selected with care, and should, first of all, be accessible. Half the day and all of the patience of the participants in the picnic may be exhausted in reaching the scene of action; and, if the return home is wearisome, or disagreeable, this fact may obliterate completely the pleasant memories of the day.

If the plan for the day include boating, swimming, fishing, or crabbing, this will not only govern the choice of location, but will give character to the entire function.

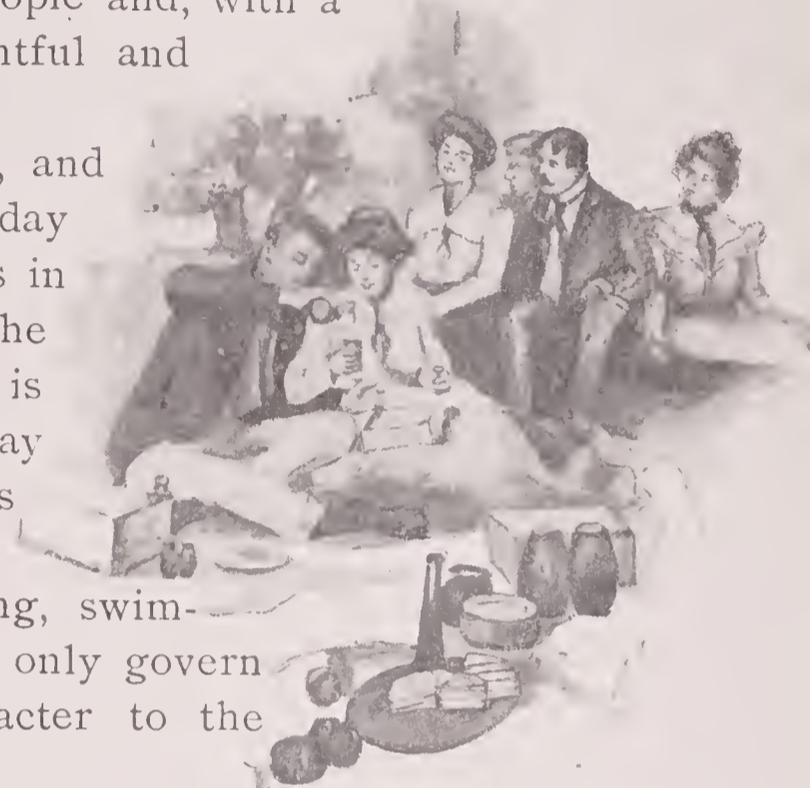
Apart from this, the place chosen should be one of more than ordinary charm. If you are to have a day with Nature, you should have her at her best. Some river side, some picturesque lake, some rugged hill, some inviting grove, some "bank whereon the wild thyme grows," will invite the pleasure seekers. One thing is imperative—there should be the best of drinking water within easy reach.

The company should be selected with great care. This world is blessed with the presence of many pleasant, tactful, jolly men and women whose good nature is marvelously catching. One or two such would be able, on occasion, to infuse the spirit of cheer, mirth, and joviality into an entire brigade. They are invaluable for the picnic.

When the party includes children, the start should be made comparatively early in the day, and the picnic dinner should ordinarily take place at noon. When the party is made up of "children of a larger growth," the picnic should be arranged for the latter part of the day. In this case the collation will be served late in the afternoon. The merrymakers will have the full benefit of the twilight, and the ride home, "by the sweet, silver light of the moon," will bring the outing to a satisfactory close.

The selection of provisions and equipment for a picnic should receive rational attention. Children will want swings, baseballs, footballs, beanbags, jumping ropes, and such other means of sport as are easily carried. In every case take plenty of hammocks.

There are two principles that should govern the provision of food. One is that it should be abundant, for a day in the open air develops a surprising appetite. The other principle is that the collation



should require the minimum degree of labor, so that the ladies be not cumbered with too much serving. Fresh fruits should be taken in abundance. Lemonade should be prepared in advance by mixing the lemon juice and sugar, so that only the water need be added at the ground. The fewer china dishes the better. There must be coffee cups, but there need be few plates. Wooden or paper plates and pasteboard boxes may be freely used. But avoid paper napkins. The real napkin is needed at the picnic far more than at home. Have a full supply of napkins, towels, and soap.



Sandwiches should be wrapped in napkins or cloths slightly dampened, to prevent the bread from becoming dry. Meats should be wrapped in paraffin paper for the same reason. Bread is at its best when a day or two old.

Not the least of all the responsibilities entailed by a day in the woods is the cleaning up after the collation. To leave the beautiful grounds where you have spent a delightful day, covered with scraps of paper, empty tins, fruit rinds or peelings is unpardonable, and no party of well-bred young people will forget to do a little good-natured "straightening-up" of things before starting for home. Papers, wooden plates, and pasteboard boxes should be burned. All the other fragments should be buried. A few minutes of careful work will leave the ground in perfect condition.

Another point for consideration in the conduct of a picnic is to see to it that the work entailed is fairly divided, so that the bulk of it shall not fall upon the few who are "willing."

CALLING

YOUNG people and persons of leisure must observe all social obligations. The delicate and aged may dispense with onerous forms.

Calling is obligatory upon all not excused by general consent. Formal calls are necessary but once a year, unless a special entertainment or special visitor make a particular obligation.

In paying calls, the preliminary consideration is the visiting-card. Simple as visiting-cards are, they may yet indicate good taste or the absence of it. These important bits of pasteboard should be white, thin and unglazed; decorated, printed, or gilt-edged cards belong to a semi-civilized society. The name should be engraved in script, or may appear in blocked letters.

The titles affixed to names in this country are very simple and of narrow range. A man prefixes "Mr." to his name; a woman "Mrs." or "Miss." A married woman uses either her husband's name in full, or his initials. As a widow she may, if she wish, retain his name, or may use her maiden name with her married name as,—

"MRS. EMILY DICKINSON JONES."

The eldest daughter of a family has her card engraved simply,

"MISS JONES."

Her sisters use their full names, or their initials with the family name. To use a nickname on one's card is in very bad taste.

Physicians, army and navy officers, judges, and clergymen may use their titles on their cards, as,—

"REV. GEORGE MACNEIL."

or

"WINSTON DOUGLAS, M. D."

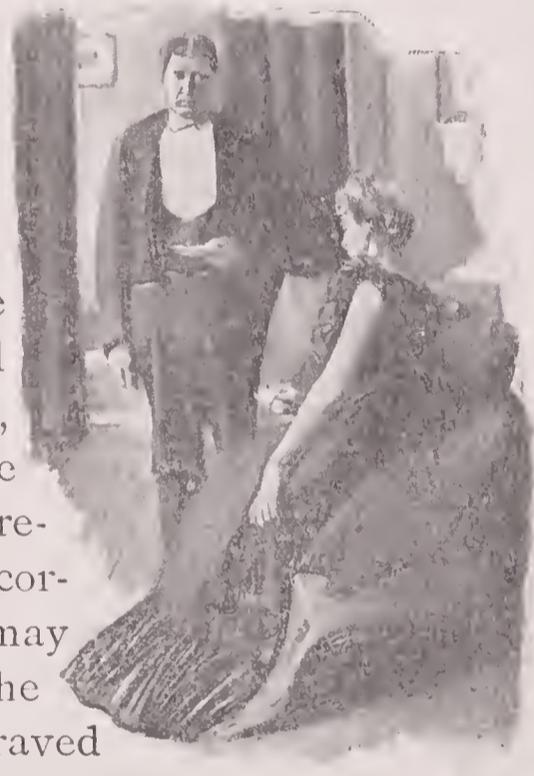
A husband and wife formerly had their names engraved on one card, but it is now the custom for each member of the family to have his or her own card. The sizes of cards vary, but a man's card is always much smaller than a woman's. The address of the owner of the card should always be engraved in the right-hand lower corner. This includes the street and number, but not the name of the city. If, however, the owner live in a small town or village, the name of the town alone may be given. If a woman has a reception day, it is usually engraved in the left-hand corner of the card, as, "*Tuesdays.*" A special time may be indicated as "after three," or "four to six." The name or names of the daughters are sometimes engraved under the mother's name, as,—

"MRS. WILLIAM BENSON."

"THE MISSES BENSON."

Persons in mourning usually have a narrow edge of black about their cards. This border should not be too deep.

Calls may be by mail or messenger, or in person. Cards may be sent by mail for an afternoon tea or reception, or for New Year's Day. Professional and business people, and those whose daily cares are exacting and confining, are at liberty to make many of their calls by mail; but persons of known leisure are bound by courtesy to call in person. The hurried time of a departure for a long absence sanctions the use of what are called P. P. C. cards; that is an ordinary



visiting-card, with the letters P. R. C. (*Pour Prendre Congé*—to take one's leave) written in the lower left-hand corner. These cards are used when one is going away for a long period, or is leaving a place permanently.

There are, however, certain occasions which demand a call in person. After a dinner-party a call should be made within a week, and always in person. The success of personal calls depends largely on knowing when to go and how long to stay. If the person called upon have a reception day, the call should be made on that day, and on no other, unless a great degree of intimacy exist. If there be no reception day, the judgment of the caller should be used as to the best time for making the call. Morning calls of an informal nature are growing in favor; but these should not be made upon any one known to be occupied with household duties, or with other business, and should never be made before eleven o'clock. In winter, afternoon calls may be made as early as is desired; but in the heat of summer, it is better not to call before half-past four or five.

The phrase "not at home" is now accepted in the conventional and not in the literal meaning, and should be used when the person called upon does not wish to receive callers. It should always be stated at the door, however, and never after the caller has entered the house, and has sent up his or her card. The servant should always know whether her mistress is actually at home; and, if at home, whether she wishes to see people.



In sending up cards it is better to send too few than too many, for a lavish display of cards is never in the best taste. A card should always be sent up, of course, for any visitor whom the hostess has with her; or if the hostess is a stranger, the same rule prevails. A card for the hostess and one or two for other guests will as a rule suffice. Turning down the edges and corners of cards to indicate various social intentions has very properly gone out of the fashion. So much mystery surrounded these turnings, that "Puck's" caricature of the custom was well within the mark: "If you wish to be perfectly sure, turn down all four corners and punch a hole in the middle."

First calls are, of course, more formal in their nature than the ordinary calls upon friends and acquaintances. A card should be left for each lady in the family; two cards will suffice for mother and daughters. If the caller be a married woman, calling upon a married woman, she should leave two of her husband's cards—one for her hostess, and one for her hostess's husband. First calls should be

returned within a week, and in person. In the majority of places a newcomer is called upon, but in official circles in Washington the strangers make the first calls.

Persons visiting a city send their cards with the address of the hotel to those whom they wish to call upon them. It is wise when so doing to indicate an hour at which they will be in so that their friends may not be put to the inconvenience of a fruitless call.

When making a call gentlemen leave their umbrellas in the hall, but may bring their canes and hats into the drawing-room with them. A lady may open her wrap, but should not lay it aside unless requested to do so. These rules, however, are not infallible. In all social matters personal judgment and discretion must be exercised. When other guests arrive the caller should not leave immediately, but within a few moments after their arrival. The hostess rises to say farewell to the parting guests, but does not accompany them beyond the door of the drawing-room, unless in the case of an aged or infirm person.

When a guest rises to go, he should stand not upon the order of his going but depart at once. It is ill bred to keep his hostess standing while he draws her into a parting conversation. Let him remain seated until he has said everything he wants to say—then go.

The topics discussed when calling should be of a general nature, and not over-serious. The successful hostess and the tactful caller will endeavor to soften the formality of the occasion with a certain atmosphere of *nonchalance* and kindly ease.

COURTESY

WHAT is Courtesy? It is the myrrh and rosemary which keeps society sweet. It is the crown which makes a monarch of every human being possessing it. This monarch may be a day laborer, a child, a woman, or a boy, if he but have tranquillity and self-poise, a good heart, and a fair understanding.

A passion of philanthropy makes a man courteous, however plain his breeding. The love of cultivated manners comes afterward, for the forms of politeness but express a thoughtful kindness in a superlative degree. Under these forms of politeness, society protects itself. It is a convention, it demands conventional manners. There is in it much that is excellent and necessary. It is like the Constitution of the United States, holding many different laws and many conditions of men peaceably together. The strictest standards of justice cannot be applied to either of the two, but without them the world would relapse into chaos.

Fashion does not always imply courtesy. Fashion may exclude generosity, and be politely framed to wound. Fashion is often a painted phantasm, but more frequently the laws of probation and admission to society are most useful, and lead to better things. Fashion may be but a ball-room code; but it is better than no code. There are persons who constitute a natural aristocracy, in every tribe, people, village, state, and family. They can assume, if trained, the *toga virilis* of fine, stately, conventional manners, but these never fit the selfish man, nor the deceitful and egotistical man. If a man with outward varnish of manner has not the true grain of the wood underneath, he is suspected, even if he has been dined and introduced; even if he be well grounded in philosophy, politics, science, and the gossip of the fashionable *salon*.

Courtesy is the birthright of woman. She is born to good manners, or she should be. Her love for husband and children, her inspiring and gifted nature, raise her at times into heroic and godlike regions. She treads her upward path as if no other path existed. She has an instinct of polite behavior, her love of approbation giving her a felicity of manner. She desires to please. She has a magnanimous deportment, holding out protection to all who seek her help.

But not all women, thus powerful and thus gifted, are courteous. They can be, and are, very unjust to each other. They can wound by sharp speeches; they can cut, and neglect, in society, those whom they consider beneath them in position. They cherish small enmities and rivalries which are unknown to men. Perhaps from the fact that the ambitions of well-to-do and well-born women are restricted to a narrower circle than are the activities and ambitions of men, such women are often wanting in real courtesy. A woman is curiously keen to detect faults in other people.

We are all encumbered with our personality; we exaggerate, we talk too much; we have prejudices; therefore we have a constant need of courtesy. Tolerance for the opinions of others is the first requirement of the courteous spirit. We must be courteous to every *ism* which others may believe in though we do not ourselves; for we must remember that to those who hold these beliefs, we are as much outside the pale as they may be to us. We must have courtesy toward all men's thoughts.

"The Family of society is the balance of a thousand insanities," — Courtesy is the urbane Doctor, who regulates all these crazy folk. The moment that Doctor goes to sleep we have mobs, and wars, and accidents, and tricks, and tyrants, and a plentiful crop of despots. Every man is a tyrant in tendency.

The courteous boy is charming, everybody loves him. The courteous young man, if his hand is on the plow, will turn it aside to let you pass. The courteous young lawyer is the persuasive man. The courteous judge, as he sits on the bench, like Truth vested, adds a new beauty to Justice, who has been slandered and called an unlovable deity. As senator, the courteous man can make us see his side of the shield. As doctor, that most important of callings, the courteous man begins to cure his patient when he enters the sick-room. Who does not remember that sweet voice, that tone suggesting comprehensive energy and belief in his own power to heal, as it comes through the mystery and the misery of the confused and pain-stricken brain; that powerful courtesy which, like the note of some great organ, dominates the wild discords that are running riot?

How great is the courteous lawyer who can say, "I thought I was right, but perhaps I was not!" The man who can leave his own point of view, how powerful he becomes in an argument! And here we may mention one of the chief graces of Courtesy,—it is Deference. It is not necessary to copy the deliberation, and—as it may seem to us—the formal and trying stiffness, that characterized the court ceremonies of Louis XIV., or the republican simplicity of Washington, but we can well remember the effect upon us in childhood of the fine deference paid by our fathers and mothers to their elders. It was certainly very impressive to young children, and it produced a happiness all through the house.

Again, the courteous must not be too punctilious or too precise. There is a certain perception of the *Juste milieu* which here constitutes perfect taste. Corners and sharp angles should be avoided in the contact of everyday life. There is no greater mistake than to banish courtesy, even a formal courtesy, from the everyday intercourse of the home life. Great intellectual distinction, phenomenal gifts, cannot make good the absence of courtesy. We all remember the hero of the last battle, or the inventor who had done the world a service,—but who made us miserable because he was not courteous. Society demands of its patrician class the most cultivated courtesy, the most deferential manners, the graces of the fine gentleman, as well as the honesty of the sincere one.

Even the coarse and ignorant, the mean and malignant, have a sensibility to extraordinary merit. The coarse and frivolous recognize superiority, and they honor it in a blind, capricious way. Therefore the official courtesies extended to a great soldier, a conqueror, a sailor who brings back his flag glorified, to a president who travels, to a great woman, honored as an author, are almost always productive of a glow of the heart.

The flag is a symbol of patriotism, and of courtesy, and as such it is a universal language. Does a hero arrive upon our shores, up flies the flag—a voice of courteous welcome from a million hearts. The boy shouts when he sees it, and the woman weeps; the rough takes off his ragged cap and, for a moment, looks amiable. It is not easy to remember a lack of official courtesy, except when, in France, Queen Victoria was caricatured, on her birthday.

Official courtesies to the governor of the state do not amount to much in these unceremonious days, but they do amount to something. It is curious, however, how soon we drop them; as the president or the governor returns to private life. There is no taking off of hats, no beating of drums, as the ex-official walks down the street. It would be better for the nation did our presidents carry some of their immense consequence while in office, into their private lives.

In colonial times, the clergy were treated with great deference, but in our republican days that has been abandoned. "The Dominie is no longer lord." And we shall never have the "Grand Seigneur," the man who was instructed in every art of graceful behavior, who was taught the *bel air*; the man who could not dress without the aid of a dozen lackeys, but who could fight like Marlborough. This man had good manners; he was more than the fashion of an epoch, he became—in the pages of Molière, that French Shakespeare—one of the eternal types of human nature. He did graceful acts courteously, and he did cruel acts courteously. The mob accepted him for a master, because, as they said, if their feet were to be trodden on, a velvet slipper was better than a wooden shoe. He had not perhaps "the bourgeois virtues," but he had something which was very gracious and courteous.

A courteous manner often pleases more than wit or brilliancy. Emerson says that Fashion is good sense entertaining company. In the first place we obtain command over our own natures, we control our severity of judgment. We aim at seeing virtues rather than defects; we may perhaps affect a cordiality which we do not feel, but which makes us more agreeable than we ordinarily are. Such a command over the shortcomings of our own natures is not insincerity. It is Courtesy; it is Deference; it is Unselfishness. We may find that our "dignity," as we call it, our "principle of honor," or some other high-sounding name, was really nothing but prejudice after all.

A man who is by nature clownish is apt to dignify his characteristic by calling it a noble sincerity, and he often does injustice to the more polished man. He should remember, however, that the manner of a vulgar man has freedom without ease, and the manner of a gentleman has ease without freedom. A man with a courteous address

may be just as sincere as if he possessed the noble art of treading on everybody's toes.

Is it the fools alone who see only the pleasant side? Far from it. Are they alone the visionaries, who see the best rather than the worst? The person who sees the bright light in an eye otherwise considered dull, who distrusts the latest scandal, is as likely to be sincere and wise as is the cross-grained and suspicious person. He who is courteous is quite as likely to be sincere as he who has no toleration for sinners. To live only for this world, with its imperfect judgments, would be a very poor life, indeed, but whil we *have* to live in this world, we should make ourselves as agreeable and as ornamental as we can. And courtesy will help us to do this. Courtesy will teach us the "*bel air*," and make us agreeable to all sorts and conditions of men. And if we cannot command great talents and great beauty, if we have not grace or wit, we can all acquire a courteous manner.

As a nation grows — and what is the growth of a nation but that of many atoms, many a mite, many an individual? — it grows more courteous. It respects the rights of the ship which comes to its port in time of war. Nothing could have been more beautiful than the care taken by the people of New York of the Spanish man-of-war which happened to be in our waters whilst the Spaniards in Cuba were blowing up our "Maine." This was international courtesy. One of the grandest things which the family of man can conceive is this international courtesy. The heart of man used to throb at the old story of the French guard who entreated the English to fire first; but we have a nobler story of our own Captain Philip, who forbade his men to cheer, saying, "Don't cheer! the poor fellows are dying."

Excellence forms, or should form, an indestructible fellowship between those who possess it. All great ones, towering above the common multitude of mortals, feel themselves indissolubly united. Their condition is too solitary for them not to seek each other.

A world without courtesy is a disorganized thing. The temper is an enemy that carries away the girths from our saddles, — the bits from our bridles, — the oars from our boats, — the wheels from our carriages, — that leaves us in the demoralized condition of a world without courtesy. How can we make a bargain without courtesy? How adjust a quarrel? How can we educate our children; how can we marry or be given in marriage; how can we bury our dead; how can we rule the state; or do anything in the least of a public and important nature without courtesy? Certainly it is hard enough to unravel all these tougher threads, even with courtesy and patience.

A child cannot be too early trained in courteous manners. The little boy or girl should be taught to give the right hand, and the

little girl to curtsy when introduced—to answer when spoken to. All the elements of polite behavior should begin early. Good table manners are most important, and cannot begin too early. There is a very old proverb that “Courtesy costs nothing,” but it is a lifelong study to obtain a courteous manner. To meet a person who has it is a cordial exhilaration.

Bravery, modesty, and hope, as against hostility, bitterness, and anger, such is Courtesy as against Discourtesy. Truth, courage, frankness, love, humility, and deference are all on the side of Courtesy.

There is nothing more interesting than the creation of the gentleman, not a frivolous and fantastic gentleman, but a brave and well-bred man, a compound result, into which every force has entered as an ingredient,—virtue, wit, courage, and power. Excellence of manners and social cultivation grew with every age of the human race, but we must keep alive the distinction between fashion, a word sometimes of sinister meaning, and the heroic character which the word gentleman imparts. A gentleman is a man of truth, expressing his lordship in his behavior. He does not despise fashion, but it is the flower or fruit, not the grain of the tree. Fashion becomes “funded talent,” and aristocracy and fashion are inevitable results of cultivation, education, and courtesy.

A fine sense of propriety leads up in every society to social and civic distinctions, and although the objects and ends and aims of fashion may become frivolous, fashion in itself is not frivolous, nor objectless, nor accidental. Each man's rank depends on the symmetry of his structure. A natural gentleman finds his way in, and will keep the oldest patrician out, if that man has lost his claim to the grand old name of gentleman. Good breeding and personal superiority will fraternize with each other. The true gentleman rises to the top and stays there, nor can any accident of fortune affect his patent of nobility; no man but himself can take from him this name, the grand old name of gentleman.

La politesse est à l'esprit.

Ce que la grace est au visage.

De la bruit du cœur elle est la douce image

Et c'est la bonté qu'on chérit?

VOLTAIRE.

THE HIGHEST TYPE OF GIRL

YOUNG women are the greatest influence in the world to-day. It is sometimes said that women are what men make them. It is much truer, I think, to say that men are what women make them. The best elements of society are conserved in women. The world looks to women, and depends upon them, for its moral and spiritual advancement. I wish more girls would realize this great fact. But more are realizing it, I am happy to say, than in my youth.

In my time, I have seen our sex advance in moral fiber and in dignity of thought. Their release from worn-out tradition, as to the place of women, has broadened their horizon and increased their ambition to live on high planes of intellectual and moral life. They are going up, and men are going up with them. One sex cannot advance alone; the progress must be mutual. This is why I believe in coeducation. The sexes are an inspiration and a guard to each other.

I am glad that the girls of to-day are athletic, for sound health means far greater happiness for themselves, and those near and dear to them, and a stronger and better race in the twentieth century. To all girls, I would say: If you want to feel joy in living, exercise in the open air as much as possible. Breathe deeply, and inure yourselves to cold.

I am thankful that home training is now being taught in the public schools. There are vast potentialities of happiness in this movement. It will give added success and satisfaction to the married state, and to specify a minor, but still important, matter, will go far toward solving the servant problem, by increasing respect for household work. One of the greatest regrets of my life has been that I have not been more of an adept at housekeeping. Yet I, who have devoted myself chiefly to writing, lecturing, and traveling, have needed this knowledge less than most women.

I have much respect for the woman who is proficient in household work. She does not make drudgery of it. She takes pride in her capability, and is a success,—considerably more of a success than the haughty "lady," who orders her servants about in imperious tones. The latter would not like to be told that her attitude is a relic of barbarism, and is rarely, if ever, seen in the best society; yet this is the truth. The woman who thinks it beneath her dignity to treat with tactful consideration those who are performing the duties of her household, gives unmistakable evidence of crudeness and lack of all culture, except, perhaps, a mere surface glaze, which is usually most transparent to those whom she is most desirous of impressing.

Such a woman may be able to simulate elegance and polish, but she has really very bad manners.

In this matter of manners, we have not advanced during the last century. We Americans do not give manners the attention they deserve. Abroad, we are acquiring the reputation of being the best-dressed people in the world; but about our manners, which are even more important than dress, there is often a polite but significant silence. Our educational system should take more account of deportment, which, in large measure, is expressive of what we represent. The social atmosphere is warmed by the enthusiasm of youth. We admire and even envy the overflowing vitality of the healthy girl; but when the outpouring of this enthusiasm and vitality becomes forgetful of the feelings and opinions of others, the line between good manners and bad is crossed.

Young women who are fond of outdoor sports, who can do as well as men numerous things that, in the past, men alone did, and women who are successfully competing with men in the business or the professional world, exult in the power and freedom which their mothers did not have. This is excellent, but these progressive women are in danger of offending good manners, by giving their exultation and their own personalities too great an emphasis. Some of them feel that their sturdy work or play is too engrossing to give them time for the delicate amenities and little niceties of social life that in my youth were held in such high esteem. This view of manners is not that of the majority of women, but it has sufficient prevalence to have caused a deterioration in politeness since the days when I went to school. Young women are less reserved than they used to be. They should remember that reserve is a power in life, as in literature. It is possible to be frank, and yet keep something in reserve.

Good manners are not a mere matter of form. It is, of course, essential that there be some standard of deportment, but the garment of formal politeness is easily assumed and may conceal depravity. True politeness, the kind that cannot be counterfeited, finds its source in a good heart, sincerity being its chief element. To be polite in the true sense, one must be well mannered in thought and feeling. If a mother bring up her children to be self-respecting, sincere, and considerate of others, she need not drill them much in the external forms of politeness. She may rest assured that they will have innate good breeding, which is a key to many of the world's storehouses of success and happiness.

The freedom or even laxity of manner which I have seen develop in young people during the last few years is but a reaction against the old stiffness and formality of society. Already this reaction is

beginning to wear itself out, and the pendulum of American womanhood to swing evenly and smoothly. The new influences and opportunities which have come into the lives of our women during the period of my observation, have resulted in a state of affairs which partakes somewhat of the chaotic; but, out of the chaos, order is being born, and out of the stimulating new conditions, will come the representative twentieth-century American girl, who will be, I think, the highest type of girl the world has seen.

THE COLLEGE GIRL

DURING the last twenty-five years the higher education of women has become general in the United States. American fathers expect to send their daughters, as well as their sons, to college. Girls with degrees are "thick as autumnal leaves . . . in Val-lambrosa." Such dizzy intellectual heights are attempted that the practical interests of everyday life are in danger of being viewed through the wrong end of the opera glass.

But whatever the effect of college education upon women, it has become a permanent element in American life; and must be considered, therefore, in its relation to American girlhood. The prospective collegian should know, first of all, why she is going to college; whether to prepare herself for teaching, or for wider fields of mental activity; or merely to have a good time. This last object is by no means an unworthy one. The social side of college life is of value in developing a girl's character and in preparing her for general society. That an exclusive devotion to study has often the opposite effect is not an argument against higher education, but against the misuse of it.

A girl's choice of a college will depend largely upon what she is going to college for, and upon the amount of money at her command. Many of the state colleges and universities, as well as those of private foundation, offer a certain number of free scholarships. No young woman; however poor, need be debarred from college privileges, provided she be intellectually gifted. But she should be sure of the nature of her gifts. Many struggle through college, emerging worn and torn, who would have been much better employed in learning dressmaking, or millinery, or the care of a house. Speaking generally, it is better to remain ignorant of all the "ologies" forever than for four years to drag a tired, ill-nourished body in the wake of an aspiring brain.



Mental and physical health can always command work, but a broken-down constitution renders a whole alphabet of degrees ineffective.

The choice of a women's college or of a coeducational institution is a matter of individual judgment and preference. Much can be said in favor of either system of education. The women's college is a kind of emancipated boarding school. The coeducational college or university is more nearly related to the high school. As a rule, coeducational institutions present greater advantages and make severer demands on the scholarship of students than do women's colleges. The objection is frequently made against coeducation that it is as productive of engagements as of degrees, the degree of M. R. S. being bestowed by one student upon another. If true, it is one more argument in favor of coeducation. In the bracing intellectual atmosphere of university life, men and women meet without the specter of sex constantly between them. Working shoulder to shoulder in the class room, they learn to like and to respect one another; to measure each the other's character by the light of high noon,—a better preparation for marriage than is limited drawing-room intercourse. If all marriages could be made in college instead of in the traditional heaven, there would be fewer unhappy ones.

A girl should not go to college too early. She will appreciate its advantages far more at twenty than at sixteen, an age which, despite the traditional sweetness, has many limitations. Temperament, of course, enters into the question. Some girls of seventeen are more mature than others of twenty-two or twenty-three. As a rule, a girl is ready for college when she has begun to think and reason for herself; when her character has taken on definite outlines. The higher education is for the development of her womanhood, as well as for the development of her brain. A girl may have all the requisite mental attainments for entering college, but may be morally immature, and, therefore, easily led and easily influenced. Too little stress is laid upon the moral preparation for the college career. Ideals should be high and noble, principles fixed and sound, before a girl leaves the shelter of home to become part of a great educational institution.

Having chosen her college, the prospective freshman's next thought should be of her wardrobe, and of the furniture for her room. The college trousseau is almost as important as the bridal trousseau, and should be prepared with equal care. No matter how great her mental attainments, the college woman should dress well, if for no other reason than to promote the cause of higher education. Unspeakable damage has been done to this cause by the bluestocking, rigid and eager, with ill-fitting clothes, and an unwomanly lack of mystery

about her. Plain, obvious, and literal, she suggested not culture, but all the stupidities of over-education. The really clever woman understands that she must hide her attainments under a veil of feminine charm and mystery. Her learning is a rapier to be concealed under folds of chiffon and silk. She may be as unusual in character and attainments as she pleases, if she only dresses in the fashion. A woman must always be the queen of her learning, and not its slave. She must be a woman before she is a scholar; and she expresses this supremacy most clearly in her dressing.

Plain, stylish, tailor suits, with shirt waists, are suitable for the class room. For the evening dinner, which is now customary in the majority of halls and dormitories, she should have two or three light silk waists. Even though she study after dinner, she will find the change of dress restful, and perhaps mentally stimulating. For the usual college receptions and dances, she should have a couple of pretty, but serviceable evening dresses. For Sunday wear, the girl collegian should have a more elaborate tailor suit, and as pretty a hat to wear with it as her purse can afford. Her preparations for college should also include the furniture of her room. As a rule, she will find it more satisfactory to room alone, and thus have the decoration of her "cell" entirely in her own hands. As it will be her "House of Life" for four years or more, it will repay her to bring as many of her Lares and Penates with her as possible; her pictures, her books, her ornaments. The sight of her familiar possessions will help to dispel her possible homesickness.

College dormitories are usually furnished, but the student will find her room more comfortable and satisfactory if she provide the greater part of the furniture herself. She is really setting up a little home for herself, as the bride does, with the difference that her house is comprised in one room. College girls frequently speak of their rooms as their "houses." Unless the room is divided by a partition, it should be made to look as much like a sitting-room as possible. The best bed for the purpose is a box-couch in which clothes may be put away, and which can serve for a divan in the daytime. Heaped with cushions, it may be made into a veritable cosy corner. The tea-table is a necessary institution of college life. If the collegian has any intention of making calls or returning them, she should have her tea-table equipped with teakettle and as many pretty cups and saucers as she can afford. A cupboard in which to store tea, sugar, crackers, olives, and other groceries, is indispensable.

The social side of college life, represented by the tea-table, is of great importance to the college girl and cannot be dismissed with a word. It has, as a rule, two divisions. There is the social life of

the halls or dormitories, the life of the girl students among themselves; and the broader social life in which they come in contact with members of the faculty, perhaps; or with the men students, if it be a co-educational university. In women's colleges, the majority of social events exclude men altogether. Teas, receptions, dances, plays, are given by the women and for the women. In colleges where the students live in communities of twenty or twenty-five, occupying separate houses, there are divisions and subdivisions of the little social world.

It is a great advantage to a girl to know some things concerning the social life of the hall or dormitory before she is drawn into it. If she be fortunate enough to have an elder sister in the college, she will be spared many of the jolts of inexperience and ignorance. She can have no severer social training than the first two years of her college life. She comes from a home where she is perhaps the center of the family interest; where she has a circle of friends and a well-defined position. She finds herself one of several hundred girls in an institution,—girls who know nothing of her, and whose first attitude toward her is one, not of protection and sympathy, but of criticism.

Every freshman should know that during the first three months of her college life she is a more conspicuous figure, and is more criticized than she will ever be again. She is being weighed and measured and estimated. Account is taken of her appearance, of her style of dressing, of her charm or lack of it; of her intellectual attainments, of her social gifts. This is just both to the freshman and to her critics. The little democracy of the college world is recruited from every part of the Union. The stranger coming to it is judged strictly on her own merits, and her position will depend largely upon herself. As a rule, she finds her niche during her first term, and this niche is usually a Greek Letter fraternity.

The fraternity system is forbidden in some colleges, but it prevails in the majority of colleges and universities in this country. Where the fraternity system does exist, it is so prominent a feature of college life that every freshman must take account of it. A fraternity is an organization of close and secret foundation, which exists primarily for social ends, but implies a bond much like that which exists between the members of a family. The bond is one of mutual moral responsibility and helpfulness. The names of fraternities are made from combinations of the Greek alphabet, such as "Sigma Chi," or "Kappa Alpha." Chapters of each fraternity exist in certain colleges and universities throughout the United States. Fraternities of men, have, as a rule, chapter houses where they live together as in a club. Women's Greek Letter fraternities are not usually lodged in chapter houses, but exist within the community of the hall.

Every fall, when the freshmen come up to the university, the fraternities, acting in rivalry, select the most eligible new girls for the process of "rushing" them. This selection is founded on certain preconceived ideals or principles of each fraternity. In one eastern university there are four women's fraternities. One is avowedly frivolous. Its members refuse to lead "the strenuous life," and with frank levity go in for a good time. Another is haughty and intellectual. Another is Philistine in character. The fourth compromises between the claims of the university and those of society. As a rule, each fraternity selects girls who will be in sympathy with its own ideals; but often all four fraternities will be "rushing" one girl. "Rushing" her means inviting her out to walk, sending her flowers, giving teas in her honor, inviting her to midnight suppers and the like,—until the girl's head is fairly turned with her popularity. If she be wise, she will understand that she is on probation, and is being criticized as well as "rushed." On her bearing during this trying period much depends. Courtship lasts generally about two months, then comes the "time of asking." Before this time, however, a girl generally shows her preference for a certain fraternity. When this becomes known, the tug of war ceases. No fraternity will expose itself to the mortification of a refusal.

Many girls refuse to pledge themselves to any fraternity, belonging, instead, to the contingent called "independents." It is an open question, indeed, whether the fraternity system is wholly desirable. Much can be said for and against it. It is an admirable training-school for a young, crude girl, who might otherwise grow younger and cruder in her absorption in Latin and Greek. Her "sisters" teach her how to "do up" her hair becomingly, how to put on her clothes with effect, how to behave on the campus and in the drawing-room. They initiate her into the codes of courtesy peculiar to the college. They see to it that she does not become a "grind." They watch over her friendships that she may know only desirable men. The younger the girl, the better fitted she is for fraternity life, and the more benefit it will be to her.

But after a certain stage is passed, the influence of a fraternity is not wholly beneficial. In narrowing a girl's interests and friendships to a limited circle it induces a provincial spirit, wholly at variance with the cosmopolitan spirit which a university training should foster. Too often it lays the balance on the social side of college life, to the detriment of the intellectual side. The happy medium between work and play is not often attained, yet the girl who plays too much is really wiser than the "grind," who devotes all her time to study.

The collegian does well to remember that the four years of academic life are not an end in themselves, but a means to an end; this end being culture in its broadest sense, the development of the whole nature. It is not important to know everything which a university has to teach, but it is important to acquire the knowledge of greatest aid to personal development. The college period is the dividing line between youth and maturity; the time when knowledge must be transmitted into wisdom. Learning is of use chiefly in the class room, the library, the laboratory; but wisdom is also for the streets, the market place, and the home. The college woman who has "learned wisdom" is fitted for any sphere of life, whether domestic or public, but the merely learned woman is an embarrassment to society, which does not know what to do with her.

A woman should make her college career an organic part of her life, having direct and far-reaching results. The four years' course is too often a kind of academic parenthesis, having no organic connection with the business of living; it is too often regarded as children regard their school. A university should be looked upon primarily as a place in which to find out the meaning of life; to learn how knowledge can minister to man's immortal destiny. College women too often neglect this lesson. They return to their homes, restless, dissatisfied, feeling that the domestic round is too narrow to give scope to their energies.

The higher education can have no broader field than the home in which to show its good results. In family life the womanly qualities are of preëminent value. Unless the higher education has fostered these qualities, it has failed of its purpose. In a recently published story of college life, a middle-aged professor of mathematics suddenly realizes that she has never lived, because she has never felt and suffered like other women, nor shared their experiences of marriage and motherhood. A too exclusive devotion to intellectual pursuits does warp a woman's nature. The wise woman will not be learned, to the exclusion of feminine charm.

The university of the future will perhaps add one more to its thousand-and-one courses. It will establish a chair for the purpose of teaching women the value of charm; and will bestow a special degree upon those who are charming, first requiring B. A. of them to prove to a skeptical world that womanly fascination is not incompatible with learning.

THE ART OF CONVERSATION

CONVERSATION as a fine art is usually the product of an overripe civilization, whose great achievements have produced a kind of amiable world-weariness, a disposition to regard all matters of life with tolerance, with a certain detached interest. When the hold on outward things is loosening, when a nation is enjoying the after-glow of its golden age, then conversation attains the dignity of an art. Soldiers and fighters are men of few words. The period of struggle in the life of a people or of an individual does not produce the elements out of which the art of conversation is formed. These elements are leisure, culture—the kind of culture which is born of a great variety of human experiences—and that divine indifference which precludes the passions of egotism.

These elements are found in all periods of national life during which conversation as a fine art was practiced. The dialogues of Plato, memorials, more or less faithful, of actual conversations, belong to an age when Greece was growing pensive over her past greatness.

The period which followed the reign of the magnificent Louis brought forth the famous *salons* where the art of conversation attained a perfection never before realized. Because these elements of leisure, culture, and that indifference which is born of sympathy and experience, are partially or wholly lacking from the life of the present, the art of conversation has practically fallen into disuse.

It does not exist in the United States, because of the youth of the nation,—the staccato period of restless, nervous energy, of action rather than reflection, of education rather than culture. The Republic, being, as yet, a robust boy, crude but powerful, has not evolved that national self-consciousness which must precede the social arts. It is extremely doubtful whether the art of conversation could ever be perfected in a nation governed as this is by commercial interests; by that continual rivalry which is directly opposed to the highest social virtues; by that extravagance which reduces all entertainment to a material level. The American hostess is more concerned with the decoration of her dinner-table than with the conversational qualities of her guests; more anxious to have a “crush” at her reception than to put her guests in communion with each other. In consequence, snatches of talk take the place of conversation.



The United States is not singular in this respect. While conversation as an art is held in greater esteem in Europe, because of the weight of tradition surrounding it, the honor is theoretical. The same conditions that debar its practice in this country, prevail to a lesser degree abroad. The fever of modern life is more productive of delirium than of rational thought and calm social intercourse. The *salon* never existed in England, and probably never will, a certain taciturnity and surface coldness in the English temperament being unfavorable to the highest social genius. In Germany, the chief obstacle to its existence is the inferior position of women, or rather, the conception of woman as an unthinking animal whose functions are primarily domestic. In France, the home of the *salon*, republican institutions seem unfavorable to the preservation of its great traditions. The *salon* is essentially the product of an aristocracy, since the art of conversation demands aristocratic qualities.

Considering this art as an ideal which should be cherished, however difficult of fulfillment in the present age, it may be well to understand why the qualities of leisure, culture, and the broadest human sympathy are necessary to the art of conversation.

Americans, though often wasteful of time, have little leisure. Society and business life constitute a maelstrom, within whose whirl there is no opportunity "to loaf and invite the soul." Thought, like character, cannot mellow in the sharp, nervous atmosphere of a restless and overworked community. As a nation, Americans have not the slightest conception of what is meant by leisure. They confound it either with the helplessness of old age, when time of money-making is over, or with a kind of discreditable laziness. The leisure out of which the art of conversation grows is positive, not negative. It is the "wise passiveness" of Wordsworth's teaching; the pause in which the soul takes breath.

Culture is equally essential to the art of conversation. By culture is not meant the higher education,—not "knowing things,"—not the ability to produce facts, as goods are measured out from a storeroom. Some one has said that facts are cobblestones in the path of conversation. The public school system of the United States, admirable as it is in many respects, does induce a false idea of what constitutes education; in consequence, genuine culture is rare. Education should mean, not the acquiring of a vast amount of knowledge, but the liberating of the mind and spirit of man through processes which are only in part intellectual. It is the perfecting of his humanity. Culture neglects no division of human nature, but brings forth the perfect flower of personality. The art of conversation is directly dependent upon culture, and very little, or not at all, upon so-called education.

Culture founded upon a great variety of human experiences, brings forth in its turn that wise charity which is the third element in the art of conversation. It is above all a passionless art; and passion is a fruit of egotism. Unless conversation is conducted without feeling, it becomes a kind of argument. There can be no barrier of egotism in the charity which is founded upon sympathy and experience. The man who would acquire the art of conversation must first destroy all barriers of egotism between himself and others.

While conversation as a fine art cannot be universally practiced under existing conditions, there are certain rules of conversation which should be observed on all occasions. The topic of conversation is of primary importance. In a general gathering, it is wise to avoid speaking of religious or political matters. On these subjects many persons disagree. Theological and political arguments are notoriously bitter and intense. Even a slight reference to these subjects may wound or antagonize a hearer. The safest course is never to mention them. Opinions on any subject should never be expressed in general conversation. They savor of egotism of that personal element, which it is so necessary to eliminate from a social gathering. To talk of oneself, of one's doings, is equally out of place. The motto "Be impersonal" should be adopted when in general company. To be impersonal is the essence of good breeding; the foundation of the highest social arts.

The same rules which govern general conversation are applicable, though in a lesser degree of severity, to conversation between two or three persons. Gossip is always in bad taste. Chivalry should protect the absent, who cannot protect themselves. The subject of disease should be avoided. There is a certain vulgarity in speaking of one's dyspepsia, or of one's liver complaint. The woes of the housekeeper should not be retailed to her friends. In short, all kinds of human disorders, physical, mental, or moral, should be veiled.

The silent elements of social intercourse have never been sufficiently honored. Men and women are known by the subjects which they avoid in conversing with others. Time and place should largely determine the character of topics discussed. The merits of a Turkish bath should not be mentioned at a dinner-table; nor the methods of dentistry, or any subject which is "suggestive," and might interfere with some one's enjoyment of the meal. Conversation at the table should be invariably cheerful and to a certain degree exclusive.

Small talk has often been described as an evidence of frivolity; but it is a necessary factor in social life. It is better, however, to converse lightly on serious subjects, than to converse seriously on minor matters. Light conversation by no means implies empty conversation. As a rule, general conversation should be light. It is

better to float on the surface than to be overwhelmed by the flood. A too serious talker—one who has “bank notes, but no small change”—overawes his listeners, and checks the spontaneity which is an essential element in all social intercourse.

The chief element of a successful conversation is sympathy rather than knowledge, but a certain amount of knowledge is necessary to give conversation its form. An acquaintance with the news of the day, with the current books, with the leading articles in current magazines, is a better equipment for general conversation than are the weightier matters of the law. Should unfamiliar topics be introduced, it is wiser to have the courage of one's ignorance than to assume a knowledge which later may involve one in embarrassment. In this day of a thousand-and-one topics of general interest, such ignorance is often pardonable: in any case, should be frankly confessed. Conversation is for entertainment, not for instruction and examination; and sins of ignorance should be lightly regarded.

The hostess who would make conversation serve her social purposes, should endeavor to draw from each guest the best that is in him. As a rule, men talk well on the subjects with which they are most familiar. In the Contributors' Club of the “Atlantic Monthly” a writer spoke admiringly of a neighbor who could talk only “cow”; but on this subject, with which he was familiar in all its bearings, he would sometimes attain heroic flights of eloquence. Whatever the special enthusiasm of the guest, whether it be fine breeds of animals, or the manufacture of stained glass, or even stamp-collecting, the wise hostess will utilize it for conversational purposes.

Conversation, even of the simplest type, does not always flow freely. An unsympathetic remark, an atmosphere of uncongeniality, may stop it at its very source. Men who have been known to talk brilliantly in some assemblies are quite dumb in others. Certain naturally gifted persons possess the happy talent not only of talking well themselves but of making others talk well. They are good listeners. To be a good listener requires self-effacement, the power of concentration, and that sympathy which leads one to be interested always in what interests other people.

It is well to remember that it is easily possible to be a good listener, even if one cannot be a good talker. Coleridge was a remarkable talker, but required a monopoly of conversation for the full display of his genius. He had no talent for listening. Tennyson lacked the sympathy out of which spontaneous conversation flows. On one occasion, when he had been presented to an American lady who was anxious to meet him, he sat down beside her, and roared out, “Have you trees in America?” thereby frightening the poor

woman speechless. When she had gathered courage to falter "Yes," he then asked in the same rough manner, "What kind of trees?" This second question reduced her to despair, and the conversation came to an abrupt end.

Shyness, one of the most common barriers to conversation, is a malady which sometimes afflicts the greatest of men. Hawthorne was so shy that he avoided social gatherings whenever he could. Diffidence generally implies self-consciousness. The best remedy for ridding oneself of self-consciousness is to both think and talk of what interests others. The golden rules of conversation are the golden rules of daily living: Tact, gentleness, sympathy, and understanding.

TRAVELING

A CENTURY ago Americans traveled strictly for business purposes, and always with a sense of impending martyrdom. They would not set forth on a journey of fifty miles without making a will, commending themselves to providence, and taking a solemn farewell of their families. Two days were consumed in going from New York to Philadelphia; four, and sometimes six, in going from Philadelphia to Washington. The lumbering stage-coach was the only vehicle of travel, and all kinds of perils from storm, from Indians, and from bad roads might be looked for.

A man prepared for a winter journey from New York to Boston with all the solemnity and apprehension with which he might now prepare for an arctic expedition. Arctic explorers of the present are furnished with more comforts than the traveler of 1800 could obtain at the wayside inn. The women of that time did not travel at all, unless it were in some extreme emergency, or when their husbands changed residence. Mrs. John Adams, wife of the second President; has left a graphic account of her stage-coach journey to Washington, and of the perils and discomforts she underwent on the journey.

The introduction of railroads increased business travel, but traveling for pleasure is a development of the last quarter of a century, during which time railroad accommodations have reached the superlative degree of luxury. Within these last twenty-five years American women began that habit of traveling alone, which is now so universal that a woman might start unattended on a trip around the globe



without exciting comment. She no longer waits for her husband or her brother or her son to bear her company, but goes alone on her journey of business or pleasure.



This happy condition is owing partly to the participation of American women in so many pursuits once open only to men, and partly to the comforts of traveling in this country. The long, unpartitioned car, holding from forty to sixty people, affords a protection to a woman which she cannot have in the small, locked compartments of the European train. Then, too, the toilet facilities are much more luxurious and convenient on the American than on the European train; while for long journeys the woman traveler has a maid at her command, and all the other conveniences of a train fitted up with every household comfort, from the dining-room to the library.

Women are not, as a rule, good travelers. Any one observing them in the waiting-room of a railroad station must be impressed by the air of anxiety which they wear, as if the journey were a matter of life and death to them. They either sit silently on the edge of the seat, clutching their ticket and their bags, and ready to spring; or they fly about, asking a thousand questions of the wrong people.

This nervousness is entirely unnecessary. Traveling is a simple process. The company plays no tricks on the public. Trains leave the station at the time scheduled—never five minutes before. The ticket office is always open in ample time for every one to buy his or her ticket before the train leaves. The baggage master checks the baggage for the train on which it should go. The company does everything for the traveler. Her part is merely to use her common sense, and to be calm. The majority of women are breathless travelers. They do everything “on the run,” suspending their normal state until the end of the journey.

This unnatural excitement may be avoided by attention to a few simple details of preparation for a journey. If a trunk is to be taken, notify the nearest express company the night before; state the hour when the trunk will be ready, the train and the station to which it is to go, and whether two men will be required to lift it. If residing in the city, the ticket may be purchased at a local office of the railroad company, and the trunk checked from the house to its destination. This system of checking from house to house is most convenient, saves much trouble, and involves but little more expense.

If the ticket is not purchased before going to the train, it is well to start five or ten minutes earlier; but it is foolish, and savors of panic, to allow too much time for the trip to the station. Before starting, the traveler should see that her purse is in her bag, and her baggage check in her purse. Without this check she will not be able to claim her trunk. Her trunk keys should also be convenient, in case of emergency. On arriving, if she has hand luggage (though the less there is of this the better) she should deposit it on a seat, then, unencumbered, take her purse and buy her ticket. She can then check her trunk. Both ticket and check should be put into her purse, but her purse may be carried in the hand until she is on the train. For all long distances, the ticket must be shown when going through the station gates. If a porter assist her to the train with her hand luggage, she should give him ten cents.

If she is traveling in the ordinary day coach, as it is called, and the car is very full, she should leave one-half of the seat free. She may, of course, keep people out by a barricade of bags and a forbidding look; but a lady will never descend to such vulgarity or selfishness. On arriving at her destination, if she is going to a hotel and wishes her trunk sent there, she should inquire if a porter or an omnibus from the hotel meets the train. To the porter, she can give her check; she need then have no further anxiety about her baggage.

Arriving at the hotel, she should go at once to the desk and tell the clerk the kind of room she wishes, the price above which she does not care to go, and the length of time she intends to stay. This definiteness may save her later both annoyance and expense. If leaving a hotel early in the morning, it is well to pay the bill the night before, and to be packed ready to start. Before leaving take a last look about the room to see that nothing is left behind.

If the stay has been of some duration, it is customary to give the chambermaid a tip of a dollar or half a dollar; and the waiter at the table the same amount. The size of tips depends on the length of the stay, the character of the hotel, and, of course, on the length of one's purse. The tipping system is not a good one. It fosters servility; is bad in its effects on both the tipper and the person tipped; but it is universal and cannot therefore be escaped without more annoyance than the effort is worth.

The secret of being a good traveler is primarily the preservation of good humor; the disposition to take things as they come, without being flustered or worried. If the train is six hours late, be philosophical over the delay. If it is buried in a snowdrift, don't make matters worse by prophesying death through freezing. A train load of

people is a little community in itself, as dependent for its well-being as is any other community upon the individual members.

Men, as a rule, are better travelers than women, because they understand better what to take on a journey, and because they are not so easily confused by time tables, changes, and checking of trunks, and are not so easily overawed by the porter.

The preparations for a journey in this country vary, of course, with the length of time to be spent on the road. For a journey of seven to ten hours in the daytime, little more is needed than for a ride of an hour or two. Whether the distance be long or short, the most suitable dress for the train, both in summer and winter, is a dark tailor suit with shirt waist, walking hat, and gloves of lisle or kid as the season may demand. In summer, a thin silk waist may be worn, but a shirt waist of dark wash material is preferable, as it cannot be spoiled by cinders.

In Europe, the cost of baggage makes it necessary to carry a great deal of hand luggage, but in America it is well to put into the trunk everything not needed on the journey and to carry only a small satchel with the articles most necessary to one's comfort on the train. These should always include two or three handkerchiefs; a fresh collar to put on just before one reaches one's destination; a number of common pins and safety pins; a comb; a pencil and a small writing pad, in case a telegram or note must be written from the train; a couple of needles threaded with black and white thread; a small cake of soap; a drinking cup which folds into a case; and a fruit knife. A woman's satchel should also contain a bottle of smelling salts.

Unless there is a dining car on the train, or it is known that a stop is to be made for luncheon or dinner, it is wise to carry a lunch. Home-prepared lunches are as a rule much more tempting to the traveler than the indigestible pyramids of food on a station lunch counter, or the elaborate menus of a dining car.

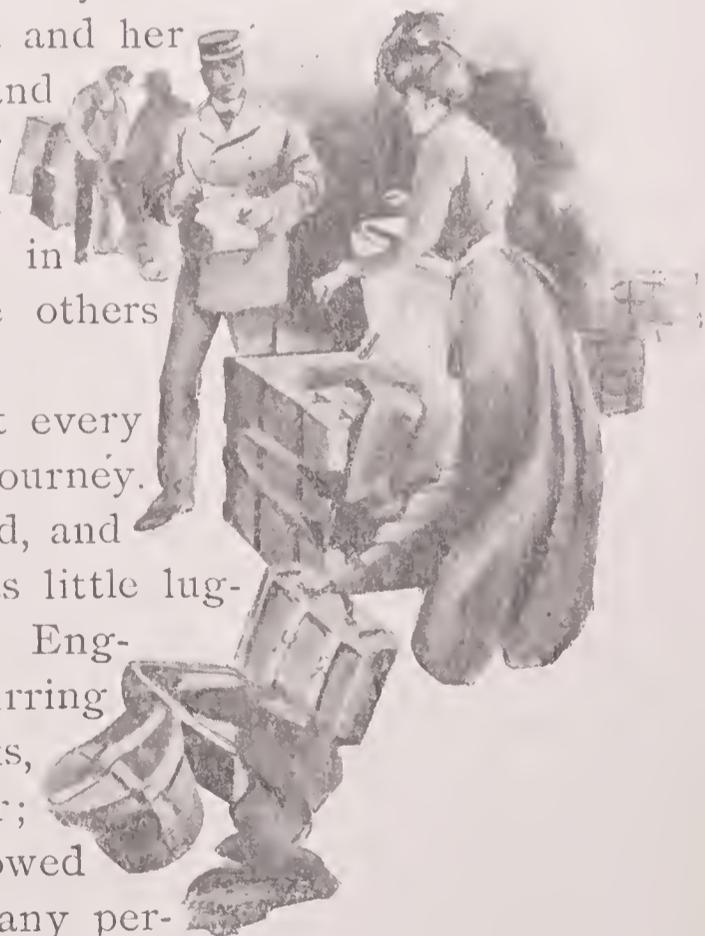
In preparing a lunch for the train, the convenience of eating it should be the first consideration. Hard-boiled eggs should have the shells removed and should be wrapped in fresh waxed tissue paper. The salt and pepper for them should be put in a tiny pasteboard box or glass bottle. Sandwiches should be wrapped in waxed paper. They are best prepared with potted ham or chicken. Cold chicken is delicious for a lunch, but has the disadvantage of being difficult to handle. Pickles or olives should form part of the lunch, and perhaps a slice or two of plain cake, with fruit. A few bonbons slipped in make a very good dessert. Some lemon juice prepared for lemonade is very refreshing on a journey, particularly if it be made in summer.

To have the full benefit of a train lunch, it should be eaten as a regular meal, and not nibbled at throughout the journey, with the consequent penalty of a headache. It is well to take a book or a magazine for a journey of several hours; though to many persons it is sufficient entertainment to see the passing panorama of the country.

For a night journey more elaborate preparation is necessary. To the outfit for the day journey should be added a loose flannel sack of dark color, and all of the articles necessary for a morning toilet. It is better not to undress entirely on a sleeper, but to remove the dress-waist, corset, outer skirt, and shoes; the bands of the other skirts can be loosened; then put on the flannel dressing-sack. Thus arrayed, a woman can hurriedly "get herself together" in case of accident, or make a pilgrimage to the dressing-room at the end of the car without going through elaborate preparation. Her tie, belt, collar, and other small articles of dress, can be put in the little net hammock which swings in every berth; her dress skirt should be folded with her jacket and laid at the foot of the berth.

If there be an unoccupied berth above her, or beneath, she is privileged to use that for her satchels and wraps; but she should keep her money and valuables upon her person. If she expects to arrive at her destination at a very early hour, she should leave word with the porter to call her in time. Every berth is furnished with an electric bell between the windows, by which she may call the porter. In the morning she can go, in a long underskirt and her flannel sack, to the dressing-room to bathe face and hands and arrange her hair, then return to her berth to put on her outer garments. A well-bred woman will never monopolize the dressing-room in a train beyond five or ten minutes, if there be others waiting.

Traveling abroad has become so common that every woman should know how to prepare for such a journey. If she intends remaining but a few weeks abroad, and those filled with travel, she should plan to take as little luggage as possible. If she is not going out of England, she may take a small trunk without incurring extra expense; but on the Continent, all trunks, weighing over sixty-five pounds must be paid for; while in Holland and Italy no free baggage is allowed except that which is carried in the hand. Many persons travel all over the Continent with only hand luggage. It is easily managed, because porters meet all trains, and, for a few *centimes* or *centissimi*, take the luggage from the compartment to the carriage.



If a woman decides to take only hand luggage, she may divide her traveling outfit between a dress-suit case and an English hold-all. The hold-all is a convenient, if clumsy, arrangement, made of a long, wide strip of heavy canvas, with pockets attached. A large one holds almost as much as does a small steamer trunk; when filled it is rolled together and strapped. Into the hold-all should be put all clothing which is not to be worn on the steamer.

The kind of clothing one should wear on a steamer depends upon various things; but a rainy-day suit of thick cloth is indispensable for deck use. With this should be worn stout shoes, a flannel shirt waist and thick gloves. A silk shirt waist or two, not too elaborately made, will serve for dinner wear and may be worn with the rainy-day skirt; long skirts are never suitable for promenading on the deck. With the deck suit, one requires also a golf cape and steamer rug, to be wrapped in when lying in the steamer chair; a cushion for the head is a great comfort.

The underclothing should be of winter weight, as it is cold on the ocean, even in summer. For sleeping, flannel nightgowns should be used. A miniature hold-all, with pockets for soap, toothbrush, and tooth powder, should be hung up in a convenient place in the stateroom. If a woman is sharing a stateroom with two or three others, she should systematize her belongings, doing all that she can to preserve the general order.

When several share a stateroom, it is customary for each occupant to rise and to retire at a certain fixed time which will not conflict with the dressing and undressing of the others. The daily bath is an absolute necessity. On going aboard, the woman traveler should at once arrange with the stewardess for this bath; the latter prepares it at a certain hour every morning, and calls the person who is to take it.

If the traveler feels too ill to go to the dining-room, meals may be taken on deck. These meals are served by the deck steward. If one is inclined to seasickness, it is better to arrange with the dining-room steward for a seat near the door.

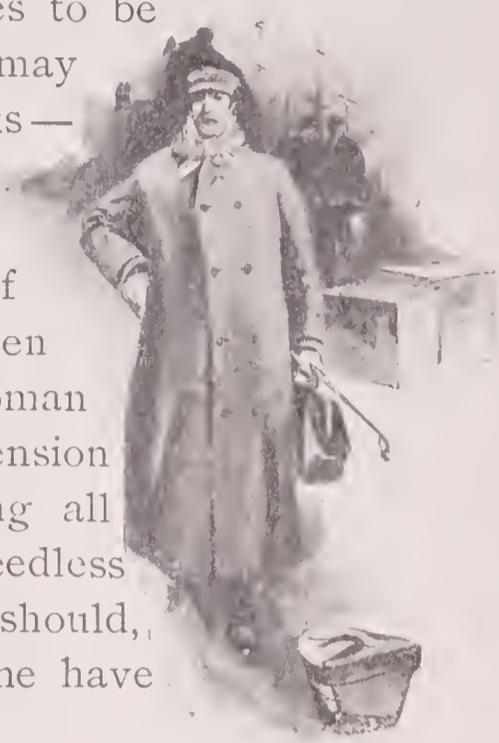
The fees paid to the attendants on shipboard vary according to the steamship lines. On the most expensive lines five dollars is given to the dining-room steward, five to the stewardess, and three to the deck steward. On the cheaper lines, half of these amounts should suffice. No fees are given until the last day of the voyage.

Traveling presents more difficulties in Europe than in America, but even the most timid woman need not fear to travel alone, if she understands a few simple rules. In buying a ticket, it is much better to go to the office of Thomas Cook, or of Gaze, than to the railroad office; for at the former places, whether in Venice, Paris, or Vienna,

there are always English-speaking clerks who are ready to answer any questions, and to explain the entire route, the changes to be made, the stop-overs allowed, etc. At these offices one may obtain lists of reliable hotels and *pensions*, maps, guidebooks — in short, every variety of verbal and written information necessary to the traveler.

On the Continent, it is customary for the majority of people to travel second class. In England one may even travel third class with entire comfort and safety. A woman traveling alone should always secure her room in the pension or hotel in advance, and know the exact cost, including all extras; otherwise she may be forced into great and needless expense. If she has not secured her room in advance, she should, in making her bargain, be very exact as to terms, lest she have unpleasant surprises on her bill next morning.

It is possible to travel all over the Continent outside of Russia, knowing only English; but even a slight knowledge of French will be of advantage. No woman should go abroad without a supply of "Baedekers" for all countries which she intends to visit. In "Baedeker" she will find every variety of information, from cab rates to the cost of a wood fire. She should study these guidebooks thoroughly before starting on her trip, and have them with her throughout the journey.



THE ART OF CORRESPONDENCE

THE eighteenth century has been called the age of letter writing. Much of the voluminous correspondence of the time was of such literary quality as to find a permanent place among English and French classics. The letters of Horace Walpole, of Lady Mary Wortley Montagu, of Cowper, have a literary as well as a biographical value. In some instances, as in the letters of Walpole, the correspondence was carried on self-consciously with a view to future publication. Cowper's letters, on the other hand, were the spontaneous fruit of his friendly and gentle spirit, written without thought of fame. But whatever the motive of the writer, letters were of an importance in the eighteenth century which is now difficult of realization. The causes of this importance are to be found in the conditions of the time. Railroads did not exist, and stage coaches carried the mail from town to town. Postage rates were so high that letters were luxuries which only the well-to-do could afford. Books were scarce. People lived in an isolation most favorable to brooding thought upon the great questions of life, or to an intense interest in whatever news of the world they could obtain from a chance journal or magazine.

All of these causes produced the lengthy, leisurely, somewhat solemn letters of the eighteenth century, with their moralizing spirit, their



ingenuous gossip, their clear and careful wording; forming a sharp contrast to the epigrammatic, staccato letters of the present.

But over against the letters of Horace Walpole, Lady Montagu, and Cowper, may be placed the love letters of the Brownings, the correspondence between Carlyle and Emerson; and, coming near to the close of the nineteenth century, the letters of Robert Louis Stevenson, Phillips Brooks, Sidney Lanier, and Edward Rowland Sill.

The decline of letter writing as a branch of literature was contemporary with the growth of the nineteenth century. The age of the telegraph, the telephone, and postal service by steam, is not favorable to the production of letters which might serve as models of distinguished and beautiful English.

The value of nineteenth-century letters has been personal and biographical rather than literary. Bismarck's letters are valuable only for the light which they throw upon the statesman and his life. The love letters of the Brownings have chiefly a romantic interest. The letters of the eighteenth century were impersonal and classic. The letters of the present day are valued in proportion to the personal element in them; to the light they throw upon a famous man's or woman's daily life, habits of thought, tastes, and inclinations.

Correspondence may be divided into two classes: formal and intimate. The dividing line between these classes is not easy to determine; one shades into the other. Formal correspondence includes all business letters and the majority of social invitations and replies. Letters to friends and to the members of one's family belong to the "intimate" class.

There is no royal road to learning the art of correspondence, either formal or intimate, but it is easier to give certain rules for formal writing than for letters between friend and friend, since these depend for their style and spirit on the personality of the writer. The aroma of a letter, like the perfume of a rose, cannot be imparted by rule. Sincerity and sympathy go far in the writing of a friendly letter, as they do when the correspondents are face to face. It is more difficult to write freely to some friends than to others.

The whole matter of intimate letter writing is so dependent upon temperament, circumstance, feeling, that the form of it must be left

to each person's taste and judgment. It is a good rule, however, never to put anything in a letter which might be misunderstood or misinterpreted by the person to whom the letter is addressed. The spoken word carries its true meaning in its inflections, but the written word cannot be modified by tone and accent. For this reason it is well not to jest or tease on paper, or to write in anger. Angry words, when written, are more brutal than spoken words could ever be. Never repeat gossip in a letter; in brief, it is a good rule never to write anything in a letter which you would not be willing to have the whole world see.

Concerning love letters, the best rule suggests "Punch's" advice to those about to be married. "Don't!" Do not write love letters if the temptation can be resisted. It can never be known into whose profane hands such letters may eventually fall. Even those of Keats to his Fanny seem silly and vapid to the world. It is never well to commit to paper the expressions of what may be only a passing emotion. Women, because of their highly strung natures, are especially in danger of saying too much. The superlative degree may be at once sublime and ridiculous, depending for its character on the point of view. Pour forth the soul on paper, if absolutely necessary, but burn the paper afterward.

Business letters should be as short as possible and written in the simplest style. They should contain nothing foreign to the subject of the letter. If it is necessary to write on two or more matters of business at the same time, to the same firm, it is wise to devote a separate letter to each matter. If an answer is desired, a stamped and addressed envelope should always be inclosed.

Social invitations can be either engraved or written. If engraved, the stationer will furnish, if requested, the correct form of wording. Written invitations may be in the first or third person, according to the formality of the occasion. The simplest, most direct wording is the best in either case.

Business letters may be typewritten, but it is the grossest discourtesy to send a typewritten letter to a friend. Half the value of friendly letters lies in the familiar handwriting, which is, in a sense, the writer's expression of his personality. Even the handwriting of a stranger carries a mysterious atmosphere of its own. Postal cards should never be used for anything more personal than a direction to one's laundress. They should never be sent in place of letters.

The kind of writing paper a person uses is indicative of his place in the social scale. Gilt-edged, scented, and highly-colored papers are vulgar in the extreme. A thick, pure white, unglazed linen paper is the best, though cream-tinted and blue-gray papers may also be used.

Ruled paper is very properly ruled out of good usage. The only permissible decorations for correspondence paper are the engraved monogram, the coat of arms, and the address. These sometimes add great beauty to the paper, and they may be as ornate and as costly as you like. It need hardly be added that the envelopes should match the paper. This may be called the personal appearance of the letter. If the address is engraved upon the envelope, it should be upon the flap, unless the envelope is for business purposes.

Colored inks are in bad taste; a good black ink is suitable for all occasions and possesses the advantage of being always legible. Too much stress cannot be laid upon the matter of penmanship,—and here the first requisite is legibility. To write illegibly is unpardonable, though many people affect an illegible hand, foolishly imagining that it indicates originality of mind,—not to say genius. An illegible signature—especially when attached to a business letter—is a source of annoyance to the recipient, and is frequently the cause of financial loss. If, then, your writing tends to illegibility, spare no effort to overcome the defect. On the other hand, the penmanship should not be an imbecile imitation of the copy book, whether of the Gaskell; Spencerian, or any other system. Such systems may be perfect in their way, but they have no more individuality than has the wax model of a hairdresser's parlor.

The address of the letter of friendship varies with the degree of intimacy. "Dear Miss X" or "Dear Mr. Z" indicates simple cordiality and courtesy. The pronoun "My" is intensive and indicates a degree of friendliness. "My dear Mr. Z" is friendly when "Dear Mr. Z" would be formal. In business letters the name of the person addressed should be followed by "Sir," "Dear Sir," "Madam" or "Dear Madam."

A lady writing to a stranger should always give, in parenthesis, her title with her name. Thus, "(Miss) Caroline Evans" or "(Mrs.) Mary Parton Bain." A married woman may prefer to sign her name and give her husband's name in following parenthesis. Thus, "Angelina Jones (Mrs. Jonathan Jones)."

The heraldic title "Esq." is not commonly used in this country, but is always used in England when writing to an equal. "Mr." is reserved for tradespeople and those beneath the writer in station. A man in America who has no honorary or professional title, is generally addressed as "Mr." The married lady should be addressed by her husband's name, but not by his title; thus, "Mrs. Henry Brown," not "Mrs. Dr. Henry Brown."

In writing a name always give it in full as "Miss Mary Elizabeth Webb," not "Miss Mary E. Webb." If initials are used at all, both initials should be given, as "Miss M. E. Webb." The middle initial

habit is intensely American and is a source of amusement to foreigners.

Every letter should plainly give the writer's address. This is usually done in the superscription, though there is no objection to placing it at the conclusion. In all ordinary letters of friendship, and in all business letters, the date should be given in full—month, day of the month, and year. Thus, "June 21, 1901." On brief notes and invitations, the date may be written out, and in this case it is placed at the end of the note. Thus, "June the twenty-first, nineteen hundred and one." After returning from a visit of several days or weeks to the home of a friend, one should write immediately a letter of thanks and appreciation to the host or hostess who entertained her. The thanks which the guest expresses at the time of saying good-by are not enough. These should be reiterated in a letter.

In writing both formal and familiar letters care should be taken that the general appearance of the letter is prepossessing. Margins at the sides of the pages, sufficient space between the lines, and ample room for the signature lend dignity to the effect. Brevity, simplicity, and tact are the best guides in learning the art of correspondence.

The following examples will give a good general idea of the proper form for some of the letters of a more conventional nature:—

LETTER OF CONDOLENCE

DEAR HELEN:—

The news of your father's death has just reached me. I think I know, in part at least, what his going forth means to you; but the full loneliness of your grief no one can share. The happiness of death is always hidden from the living.

My love and sympathy are more than ever with you. Hoping that I may see you soon to say what I cannot write,

Faithfully your friend,

June the second.

MARY ELEANOR DALE.

LETTERS OF INTRODUCTION

Presenting a Gentleman

LONDON.

MY DEAR MRS. EUSTIS:—

You will not, I am sure, feel that this letter is presented to you by an entire stranger when it introduces to you Mr. Jefferson Howard, of whom mention has so often been made in my letters. Mr. Howard is paying his first visit to our country, and will be in Washington several days.

Knowing so well the hospitality of your beautiful home, I feel I can do nothing better for my friend than to place him in a measure under your guardianship.

Ever your friend,

April the tenth.

GERTRUDE GATES.

Introducing a Young Lady

GERMANTOWN, PA.

MY DEAR MRS. GOODWIN:—

The bearer of this letter,—Miss Clines,—one of my dearest friends, is to be in your city for several weeks, and this being her first visit to Washington, I am anxious that she should see it under the best auspices. There is no other whose acquaintance will add so much to her pleasure, and so I place her hand in yours with the sincere hope that my expectations of the mutual pleasure to be gained may be fulfilled.

Your friend, I am always,

January the seventeenth.

IRENE WORMLEY NEWTON.

"THE HIGHLANDS."

LETTERS OF INVITATION

Informal Invitation to Dinner

[Engraved Address]

MY DEAR MRS. WILSON:—

Colonel and Mrs. Black are my guests for a few days and I am asking some friends to meet them on Friday, the twelfth. May we hope that you and Captain Wilson will give us the pleasure of dining with us at seven-thirty?

Very sincerely yours,

MARGARET BROWNING.

*Saturday, May the fourth.**Acceptance of Dinner Invitation*

MY DEAR MRS. BROWNING:—

Mr. Wilson and I accept with pleasure your invitation to dinner on Friday evening, the twelfth. Through mutual friends I have heard much that makes me eager to meet your guests—Colonel and Mrs. Black.

Faithfully yours,

KATHERINE WILSON.

Saturday, the fourth.

"THE RICHMOND."

Declining Invitation to Dinner

MY DEAR MRS. BROWNING:—

It is with sincere regret that I find it impossible for Mr. Wilson and myself to dine with you on Friday. We are leaving town to-morrow to be gone a fortnight. Our departure is all arranged, otherwise we would be glad to postpone it, as we are both eager to meet your guests—Colonel and Mrs. Black.

Cordially yours,

KATHERINE WILSON.

Saturday, May the fourth.

"THE RICHMOND."

Invitation to Evening Entertainment

MY DEAR MISS WHEELER:—

If you and your sister have no engagement for Wednesday evening, may we hope that you will spend the time with us, quite informally?

Yours most cordially,

KATHERINE FLORENCE.

Saturday, the seventh.

or

DEAR MR. LAWRENCE:—

Miss Noble — whom you met last winter — is again with us for a brief visit. We should be very glad to have you call. We are to be at home — quite informally — on Tuesday evening.

Very cordially yours,

KATHERINE FLORENCE.

Saturday, January the tenth.

[Engraved Address]

DEAR KATHERINE:—

Will you join us at Whist next Thursday evening? We are asking a few friends, and hope you can be one of the number. It will be a "small and early" affair, but we may dance afterward, so bring a partner for the waltz and whist.

Faithfully,

MARY.

Monday, the fifth.

ANSWER

DEAR MARY:—

I shall be delighted to join your whist party on Thursday evening, and have asked Mr. Waltham to accompany me. He is, as you know, an expert whist player. Thanking you for your kind invitation,

Affectionately,

KATHERINE.

Tuesday, the sixth.

HOUSEKEEPING

HOUSEKEEPING

INTRODUCTION

GOOD Housekeeping has both the dignity of a science and the beauty of an art. Its importance in the economy of society is such that every woman should understand at least its first principles.

In Europe, no young girl's education is thought complete without some training in the conduct of a house. French women are famous for their management of household finances; German women, for their knowledge of the minutest details of domestic science. While very young they are taught to sew, to cook, to assume the care of bedrooms. The little daughter of the reigning emperor shares this education with the daughter of the poorest peasant. It is assumed that the higher her rank, the greater the obligation of a woman to look well to the ways of her household.

These noble and simple ideals have been largely obscured by certain conditions of American life: the greater independence of American women; the opening to them of employments and occupations other than domestic; the congestion of the population in cities, where home life in its fullest sense seems possible only to the rich; all of these causes have produced a state of ignorance concerning housekeeping which is responsible for many of the evils of American society.

To train young girls to be housekeepers should be the first object of their education, since God and nature intended them to be wives and mothers, whatever other careers are opened to them. This training should begin in their earliest school days, and should be conducted not by the teacher but by the mother. Good housekeeping cannot be learned in the cooking-school, or in the class room. It is a practical, not a theoretical, science, requiring daily demonstration for its mastery. To learn it in all of its phases, an hour at least should be spent each day in some department of the household. A young girl may well omit a language, or an "ology," from her school curriculum in order to learn, each week, the preparation of some wholesome dish for the table, or some important detail of marketing or laundry work. Such an education, begun when a girl is eight or nine years old, and carried on, gradually and easily, until womanhood, would fit her for housekeeping, without depriving her of a single privilege of her youth.

This preparation for housekeeping is too often deferred until a girl is about to marry. In consequence she is overwhelmed by an avalanche of theories, which she has no time to understand or to apply. Or she makes no preparation whatever, depending, apparently, upon inspiration to guide her in performing those duties, which as much as in any other profession, demand a thorough previous course of training. She enters her new home, untried, ignorant, and little better fitted to cope with the difficulties of housekeeping than was David Copperfield's Dora.

"Everybody we had anything to do with seemed to cheat us. Our appearance in a shop was a signal for the damaged goods to be brought out immediately. If we bought a lobster it was full of water. All our meat turned out to be tough, and there was hardly any crust to our loaves. In search of the principle on which joints ought to be roasted, to be roasted enough and not too much, I myself referred to the Cookery-book, and found it there established as the allowance of a quarter of an hour to every pound, and say a quarter over. But the principle always failed us, by some curious fatality, and we never could hit any medium between redness and cinders.

"I had reason to believe that in accomplishing these failures we incurred a far greater expense than if we had achieved a series of triumphs. It appeared to me in looking over the tradesmen's bills, as if we might have kept the basement story paved with butter, such was the extensive scale of our consumption of that article. I don't know whether the excise returns of the period may have exhibited any increase in the demand for pepper; but if our performances did not affect the market, I should say several families must have left off using it. And the most wonderful fact of all was that we never had anything in the house."

This is the description, unexaggerated, of the too common experience of the American girl in her first attempt at housekeeping; and after a dreadful period of tears and despair over tough steaks, and joints roasted to cinders, and of humiliating efforts to straighten household finances, she finds that her only hope lies in patiently and systematically mastering the principles of cookery, of the keeping of household accounts, and, in fact, of all the departments of domestic economics. The fact that she may have a corps of servants at her command, to do the actual work, does not relieve her of the responsibility of knowing how the work of each should be properly done. For only by a thorough understanding of the minutest details of the household machinery, can she manage and direct it so that it will run smoothly, evenly, and with the least possible loss of energy, money, and, above all, good temper.

SYSTEM IN HOUSEKEEPING

THE daily affairs of a household, large or small, should be systematized. A schedule of duties for each day of the week should be made out by the housekeeper, and she should see that this schedule is observed as strictly as is possible. With a good working plan as a guide, the mistress will be saved frequent repetition of directions, and the maid will know what is expected of her. Much of the trouble of domestic service is caused by indifference, indolence, and, too often, by ignorance on the part of the housekeeper, who perhaps requires one poor maid to do everything well, without definite instructions.

There are certain routine duties which must be performed every day by either the housekeeper or a maid. First the kitchen fire must be made and the ashes taken up and sifted. The teakettle must be rinsed out, filled, and placed on the fire; the dining-room must be aired and the table set. Then the breakfast must be prepared and served. While breakfast is being eaten, the bedrooms should be airing, the beds having been opened and the bedclothes placed near an open window.

After breakfast, the dishes should at once be washed and put away; the dining-room should be dusted, and the window shades drawn. The beds may then be made and the bedrooms be put in order. The sitting-room, hall, and other rooms, should be dusted, and any lamps requiring it should be filled and trimmed. If you live in the city, the vestibule and the sidewalk may require sweeping and perhaps washing. If the home is in the country, the front and back porches should be swept during the morning. They should also be washed frequently. In addition to this general routine, each day brings duties of its own. The order suggested here is followed in many families. Monday is washing-day. An energetic woman, if she begin early enough, should get the family washing out of the way by noon. Usually a laundress is employed, but when the one maid has everything to do, the mistress or her daughters usually assist with the lighter routine work. The ironing is done on Tuesday. Wednesday and Saturday are usually baking days. On Thursday and on Friday the sweeping is done. It is convenient to divide the sweeping so that the upper rooms are cleaned one day, the lower the next.

An interested, energetic, and systematic housekeeper is far less likely to have a listless, indolent, and slovenly servant than is one who

encourages these characteristics by example; nor is it example merely, but that psychic influence which each mind diffuses. Mere contact with an active mind acts as a stimulus upon a sluggish one. The mistress who lets her maid understand clearly what is expected of her, but who treats her as a rational human being, realizing that there is a limit to endurance, who is firm without nagging, pleasant without familiarity, is likely to receive cheerful and conscientious service.

THE HOUSEKEEPER AS A FINANCIER

THE first step in the line of domestic or business economy is to keep an account of all expenditures, that you may know for what purposes your money has been used. When possible, the wife should have a bank account in her name, and this account should represent the allowances made for all household and family expenses, with the exception of those things which the man of the house needs, and for which his own bank account provides. The wife's allowance should be paid to her when the husband receives his salary or, if he is in business of his own, a certain amount should be paid to her regularly each month. A careful estimate should be made of what can be afforded for table expenses, and this much may be reserved in cash, the remainder being placed in a bank.



This system will save the trouble of keeping weekly accounts of anything except the table expenses. The purchases made for the house and for the wardrobe of the family are recorded on the stubs of checks; at the end of the month their cost may be computed and the amount be set down under their respective heads. Such a system will not succeed unless it is strictly followed. It is a great aid to the wife in learning to live within her means, for she has at hand, at all times, the information by which she can better gauge the household expenses. The haphazard money arrangements of many families are the cause of much distress and regret. You frequently hear a careless housekeeper say: "I don't see where the money has gone. I must have lost some." If she had kept a record of her accounts so that she could review them, she would doubtless see several ways in which she could have avoided some expenses without suffering any discomfort.

In contemplating an important expenditure for the home, there are two points to be considered: the desirability of the proposed object, and its expense. In other words, "Do we want it?" and

"Can we afford it?" These questions should be weighed and decided with a strict reference to the income and the needs of the family. It should always be borne in mind that it is unsafe regularly to spend up to the limit of the income. You may set down so much for food, so much for clothes, so much for services, and so on; but you can never tell how much you may need in case of sickness. Many a family which has congratulated itself on living within its income suddenly realizes that nothing has been set aside to defray the expenses of a sudden call for the doctor and nurse. It is better to save a portion of the income, if you wish to feel secure and to avoid unpleasant experiences.

There is another important matter which is liable to abuse: While true economy is always the saving of dollars and cents, it often means, too, the spending of money. Your own judgment will have to determine when such expenditures are justified. In the matter of life insurance, for instance, you may get along without it and spend your money for something else, of which you think you stand in greater need for the time being; yet the time may come when the insurance will be worth more. Again, it often pays in the end to buy the higher-priced article, though by buying the cheaper, enough might be saved to purchase something else. You will derive more genuine pleasure from a good piece of furniture than from a dozen cheap affairs which look well only while they are new. Economy then is largely a matter of judgment in buying, the means always serving as the index of what can be afforded.

Putting aside each week or month a given sum for the table expenses of the family, and keeping the expenses within that limit, constitute the only sure way of controlling that branch of expenditures. But this given sum means an average. It may be the best economy to exceed it some months, as, for instance, when extra expense is involved in the purchase of a barrel of flour, or a quantity of sugar. It is often better to purchase such staples in quantities sufficient to last some length of time, especially if their price is ruling low in the market. Such purchases will extend over other months, and a reasonable average expense is thus maintained.

If a housekeeper have a good storeroom, and is careful and systematic, she will find that she can economize very often by buying in quantities. Having a storeroom is not only a convenience, but it insures a saving of time, especially in case of sickness or bad weather.

THE HOUSEKEEPER AS A SANITARIAN

IF CLEANLINESS is anywhere next to godliness, it is in the house. It seems justifiable to modify the axiomatic saying so that it will read: "In housekeeping cleanliness is godliness." Insects of all kinds delight in dust and dirt. Deprive them of this and they will generally seek a home elsewhere. Better than all moth powders or balls is a good airing and brushing of garments and the washing or sponging of those that are soiled. If a housewife complains of the moths in her woolens and furs, and of the persistence of creatures nameless to polite ears, it is circumstantial evidence that there is carelessness on her part in the management of her house.

Two things should be strenuously enforced: absolute cleanliness in both the attic and the cellar. The former insures comfort to the household and the latter may serve to ward off a pestilence. All of this work must be intelligently overlooked by either the mistress or a trusted assistant. If the thousands who suffer from malaria would examine the cellars under their houses they would be likely to find there abundant breeding-places for germs. Cobwebs and dust and old rubbish harbor vermin, while cellars reeking with dampness, or foul from badly constructed or neglected drains, are pestilence breeders. This is a phase of housekeeping involving not only a question of practical knowledge, but of eternal vigilance. Everyone ought to know the principles of keeping a house clean.

In this field, as in others, science and art have come to the aid of the housekeeper, and have provided her with abundant material for saving time and labor in cleaning. Many labor-saving devices are advertised, and the housekeeper can usually determine by trial which are valuable. Soap, of course, is the great stand-by. It has been said that the quantity of soap consumed by a nation must indicate in a measure the degree of civilization attained by its people. It is certainly some index of the ways of the housekeeper. Kerosene oil and ammonia have also been found to be great labor-savers in cleaning. The many other substances that proved of value for different cleansing purposes cannot be enumerated here, yet the subject is worthy of much attention from the intelligent housekeeper.

Sunlight and pure air are two of the most effective agencies for the health of body and mind. Many people, from choice or necessity, are within doors almost constantly, where little sunshine reaches them and where the air they breathe is laden with impurities of different kinds. The effect of such surroundings is shown in the drooping posture, pale countenance, and irritable disposition. This result is

inevitable. It is chiefly the dangerous forms of life, the germs and the microbes, that flourish out of the sunlight. Every home, therefore, which is shut off from sunshine, is subjected to the inroads of these organisms. Dark rooms are unfit for human beings to live in.

There can be no more practical sanitarian than the neat housewife. Her influence radiates in various directions. Her habits of cleanliness are inculcated in her children, and the man who has a clean home generally pays attention to the cleanliness of his office or place of business. As a sanitarian, the housekeeper has the health of her family in her hands. It is a responsibility which she cannot neglect with impunity.

THE HOUSEKEEPER AS A NURSE

TO HER other offices, the wife and mother must add those of a nurse. In the sick-room, as in every other part of the house, she is the reigning spirit, and the patient under her charge owes as much to her careful nursing as to the skill of the physician.

First of all she must have perfect confidence in the doctor, then, without listening to advice of well-meaning friends who recommend numerous remedies for the relief of the patient, she must obey his instructions implicitly.

It requires firmness as well as gentleness to be a successful nurse, and it is very difficult for the mother to refuse the pleading of the child who cannot understand why he must be denied what his sick fancy craves. It is more difficult to care for the convalescent than for the patient who is very ill, because with returning strength he is very sure to grow restive under the necessary restraint, both in his desire to eat that which is harmful, and in overtaxing his strength by getting up when he should remain in bed. It is easier to manage a child in matters of this kind than to manage grown people who reason from their own standpoint. Sometimes the irritation caused by refusing to humor a patient is more injurious than the imprudence he is determined upon. It requires patience, unflagging devotion and physical strength, to fulfill satisfactorily the duties of a nurse.

The nurse should be quiet in her manner, never whisper, but talk in a low, clear voice which can be distinctly heard without effort by the patient, whether he or some one else be the one addressed. It worries and frequently alarms a sick person to have others talk in whispers, as he imagines himself the subject of discussion and that they are keeping from him something about his condition.

The problem of what the convalescent may have to eat when he begins to ask for food is not easily solved, for he is sure to rebel

against the things prescribed as sick diet. The nurse must, for this reason, try to make the proper food as tempting as possible, by having it daintily served in fine dishes, on a tray neatly covered with a white tray cloth or napkin. The cup must never be filled to overflowing nor the plate overloaded, as either will be annoying to the sensitive patient and make him turn from the food in disgust.

The care of the sick is wearing, not only upon the body but upon the nervous system as well, and for this reason the nurse must take both rest and exercise at regular intervals in order to retain her physical and mental strength. Where the patient is one of the family, the mental strain is all the greater, but so also are the powers of endurance.

HOUSE CLEANING

WITH the model housekeeper each day brings its demand for cleaning in some quarter. But however neatly a house may be kept, it requires especial putting in order at least once a year. In New England generally, and in many households throughout the country, this work is done both in spring and fall.

If the matter be conducted quietly, there are many advantages in the double cleaning; as too often managed, however, such cleaning times become a terror to every one, and, above all, to the man of the house. To him it seems as if all home comforts were suspended. Irregular luncheons take the place of regular meals, and nothing is to be found in its customary place. Every room is a vision of step-ladders, brooms, dusters, and other implements of warfare upon dirt; the temper of the family is ruffled, and the whole household is involved in a whirl of scrubbing and renovating.

When the house is all swept and garnished and order is again restored, the weary housekeeper, though thoroughly worn out herself, looks with something like contempt upon her slower neighbor who believes in taking more time and in making less confusion, and who finally emerges from the struggle with less fatigue, and with equally good results, so far as the accomplishment of her work is concerned. She has also a serene consciousness that the peace of the family has been but little disturbed.

To accomplish the work by the more sensible method, too much should not be attempted at once. If one room is taken at a time and is finished before work is begun upon another, the whole house can be cleaned without difficulty and with little or no discomfort. It is always wise to wait until the necessity for furnace or stove fires is past before commencing the spring house cleaning. There

should be a perfect system in doing the work. Proceeding upon the theory that it is not necessary to turn the house into chaos, to upset the established order of domestic life, and to exile the family while the cleaning is in progress, a few suggestions may be in order.

The first weeks of April, especially in New England, are likely to be windy, dusty, and generally too inclement to favor the periodical work of putting the house in order. It is well to wait, therefore, until late in the month before beginning the real campaign. Still, those earlier days can be profitably employed in "taking stock," — in looking over bundles, boxes, and trunks that have been stored away. Articles of clothing that have outlived their usefulness to the family should be given away, if of service to any one; if not they should be destroyed, for if allowed to remain in the house unused they will breed moths and collect dust. Winter clothing should be aired, brushed, and packed away, with lumps of camphor gum or a sprinkling of Dalmation powder to keep out the moths and buffalo bugs. Stout bags of manilla paper, securely tied, make an excellent protection for coats and furs, if you have not sufficient trunk or chest room. All closets should thus be put in order before the rooms are cleaned.

If any rooms are to be papered or painted, it is economical to have the work done early, so as not to have such operations going on while the rest of the house is being cleaned. Such rooms when finished can be shut up and are off the housekeeper's hands.

Housekeepers differ as to the part of the house in which the regular cleaning should begin. Some prefer to begin in the attic and others in the cellar. It should certainly be one or the other. On the whole, the advantages lie in the cellar. If there is a furnace it must be cleaned, and as dust may escape through the pipes into the rooms above, it is well to get the furnace in order first. In too many houses the cellar is the one place in the house that is never cleaned, yet from a sanitary point of view, there is no part of the house in which cleaning should be so thoroughly done. Not a corner should be slighted. If the cellar is kept in fair order during the winter, and if ashes are regularly removed, there will be less dirt to clear away, but an abundance of dust will have collected everywhere, unless it also has been removed from time to time. The furnace should receive the first attention, and before cleaning it the registers should be closed in all the rooms. All ashes and cinders should be removed and the pipes should be cleaned, if possible.

The smoke pipe is the only one that need be taken down, for it is liable to rust because of the moisture it gathers from the chimney during the summer. Every cellar window and door should be opened to admit the light and air. The ceilings, walls, and floors should then

be well swept, and it is a good thing to treat the walls with white-wash at least once in two years. The windows should be washed, and any closets or shelves should be well cleaned. The cellar should not be left until every corner and crevice is free from dirt.

It is well to paint with black enamel varnish the iron parts of the furnace to keep them from rusting, and the pipes will last much longer if kept painted. It is also well to keep a tub of charcoal and another of lime in the cellar; they make it sweeter and dryer. The unslaked lime should be placed in a tub or barrel, which will allow it to expand to twice its bulk, as it takes up the moisture.

The cleaning operation should then be transferred to the attic. In many houses the attic seems to be regarded as a place into which any old rubbish can be thrown, and which will never require cleaning. Like the cellar, it may become a source of contamination to the whole house. If the attic is kept in good shape, it is the proper place for keeping a great many articles when they are not in use. Any parts used for storage should be thoroughly cleaned, and should be saturated with naphtha before the contents are replaced. Clothing, quilts, or old carpets should be hung on the line for thorough airing before being carried back to their places. The walls, ceilings, and windows should be cleaned as carefully as are those in any other part of the house, and the whole apartment should be well aired before articles are replaced.

From the top of the house you should work downward, taking the bedrooms first, then the rooms on the lower floor, never forgetting to arrange each day's task so that it will interfere as little as possible with the comfort of the family.

That part of the work most dreaded is the taking up and cleaning of carpets. In the city, the yards are not sufficiently large for beating the carpets, and it is much better to have all rugs and carpets taken away by those who make a business of this work. These cleaners will come, take the carpets up, clean and relay them, thus saving the housekeeper much trouble, and at small expense. In the country, the carpets can be beaten in the yard, or may be taken to a near-by vacant lot.

On taking up a carpet, it is advisable to have two strong sheets at hand, one in which to roll the carpet, and another for the lining. The lining should be swept on both sides, piled up and covered with the sheet. The carpet should be either spread out on the grass, or hung on a line and thoroughly cleaned with the excellent wire beater which is sold for this purpose, or with a strong switch or ratan. It should then be swept on both sides, and left to air for a time. It should, however, be carefully watched for moths. It is a good plan to iron the edges and corners of the carpets with irons not

heated to the scorching point. A damp cloth may be placed under the iron, and the steam will penetrate every crevice and aid in killing the moths. This may be done two or three times a year. When the house is to be closed for any length of time, tobacco or camphor, or both, should be sprinkled about, especially in the corners.

Hardwood floors and mattings greatly lessen the labors of the housekeeper, for the floors can thus be kept much cleaner during the entire year, and the house-cleaning period becomes a much simpler matter. Stained floors should not be swept. A soft brush will take off the dust, if it has been allowed to accumulate, but all that is really needed is a wiping over with a soft cloth every day or two, and an occasional polishing with turpentine and beeswax. These can either be mixed at home, or may be bought prepared for use. A very little linseed oil applied now and then revives the stain.

The best way to keep linoleum in order is to dust it regularly and to rub it over once or twice a week with a little linseed oil or buttermilk. It should never be scrubbed. When necessary to remove black marks, use plenty of soft, soapy water and a piece of old flannel, but the linoleum should be rinsed well and carefully dried with a soft cloth. Soiled matting can be washed on both sides with salt and water. Care must be taken not to use a cloth that is too wet, nor to scrub the matting with a brush.

As the closets should have been cleaned and put in order at the outset, they will not trouble the housekeeper when she comes to the bedrooms. The closet doors should be closed so that the clothes within may be protected from dust during the cleaning of the adjoining room. In cleaning a bedroom, the mattresses and pillows are, of course, dusted and brushed in the open air. Bed slats should be thoroughly scrubbed, and it is advisable to paint them lightly on both sides with corrosive sublimate. This is very poisonous and should be used with great care. It is better to wear gloves when handling it.

The living-rooms on the first floor should, if it is practicable, be cleaned one at a time, thus avoiding confusion. All of the ornaments, and as much of the furniture as possible, should be removed. If a piano or other heavy piece of furniture is left in the room, it must be carefully covered to protect it from all dust. Many housekeepers fail to see that the dinginess of the furniture results from constantly rubbing dust from it. They allow it to receive a heavy coating at each sweeping, and destroy a part of the polish at every cleaning.

Window draperies should be taken to the yard for a thorough shaking and airing. If they are not to be hung again, they should be folded carefully, wrapped in sheets and packed away. The shades should be taken down and wiped with a clean cloth and should not

be replaced until the room is cleaned. The walls, especially if papered, may be dusted with a long-handled, soft brush, or with a cloth tied over a broom.

The annual cleaning given to the kitchen and pantry should come last, but, if they have been properly cared for during the year, they will require little special effort. They should always be kept scrupulously clean. The china and the china closet should be cleared of every particle of dirt. Pots and kettles should receive an extra scrubbing and airing, and fresh papers should be put upon the shelves.

It is impossible in any written directions to cover all details of the annual cleaning. Each intelligent housewife will make her system conform to the needs of the household.

MARKETING

HOUSEKEEPERS of to-day in the cities and large towns are inclined to regard the market and grocery boys who call at their doors for orders as a great convenience, and so they are—if they can be afforded. Such careless marketing, however, is always extravagant. You may think that you have neither the time nor the strength for a daily, or even for a weekly, visit to the markets, but you will find in the end that you can easily “make the time,” and in doing so, save yourself many disappointments.

You will add to the attractiveness of your table, and at the same time be benefited by the morning outing.

In ordering from the house, you are at the disadvantage of not knowing what varieties the markets afford, and you have not the opportunity to compare prices. At the market all of the articles are spread out before you, and varieties are suggested which you would not think of at home. You will also see

that your purchases are properly weighed and trimmed and that you get all that you pay for. There is much waste, for instance, in trimming a roast, and the pieces cut off are rarely sent with the meat, yet this waste makes excellent soup material, and should always be used.

The buying of meats and vegetables being an important matter, it is best to make every effort at the start to find a trustworthy marketman, and one who seems anxious to learn your ways. As a rule, it is better to choose a market that is patronized by several



grades of customers, for the butcher or the grocer who has customers to whom he can sell what you do not want, is likely to take more pains to meet your wishes. For this reason, if there is a large public market convenient to your home, it is better to go to that than to the smaller ones which cater to one kind of trade. Those cities which have established public markets have found that in several ways they are a great convenience to the people.

When you have found a good marketman, patronize him regularly, and he will soon learn your requirements, and will give better service than if the orders are irregular. If some day you find it inconvenient to go to market, you can send your order to this marketman and be sure of having it filled to your satisfaction, because he will not only know what is expected, but will be especially careful with the orders of a regular customer.

One writer tells of a delightful visit she once made to a country house where the domestic machinery ran with the utmost smoothness, though the housekeeper was providing for a party of sixteen, in addition to her regular family. Being of a practical turn of mind, she asked the hostess how she could give her time uninterruptedly to her guests and pay no apparent attention to her housekeeping or the marketing. The housekeeper told her that before her visitors had arrived she had carefully planned a menu for each day. A copy had been given to the cook, who was very skilful, and another copy to the marketman, who brought the supplies each day as they were needed. The housekeeper felt sure that her orders would be properly carried out each day, so that she could devote her time to the entertainment of her guests. This illustrates well not only the advantage of having a marketman who knows your tastes, but the value of a system in housekeeping.

Mistakes and errors sometimes occur in the best shops; a certain amount of patience is essential in marketing, and it is well to remember that every one cannot always have the best cuts. If the marketman cannot furnish the desired article, something else can be substituted.

SELECTING MEATS

IN SELECTING meats, experience and knowledge are required. It will pay you to make a study of a quarter of beef, for instance, so as to be able to tell where the best cuts are, or so that you may know, when a slice of meat is sent to you, from what portion of the beef it came. There is a great difference in cuts from the same sirloin, or from the rump, or from the round. This is something which can be learned only from practical observation and experience. Direc-

tions on paper can scarcely teach one to distinguish between cuts. Observe the piece from which your butcher cuts a steak, note from what portion he cuts it, and when you have tried several cuts in this way and have closely observed their quality, you will be able to tell what kind of cut you wish.

The best beef is of a bright red color, veined with white, and with a moderate amount of whitish outside fat. The flesh should have a firm, smooth, open grain. The sirloin and the porterhouse cuts make the best steaks. The names given to these cuts vary in different localities. In some places the whole loin is divided into three sections: (1) The tip end of the sirloin, (2) the second cut of sirloin, (3) the first cut of sirloin. In others, the loin is divided into two portions, one the sirloin, the other the porterhouse. Beginning with the shank or leg of a hind quarter, the next cut is called the vein, and next to that is the round. Then comes a triangular cut which is called the rump, the back of which is sometimes called a large sirloin, or a hip roast. Next to the rump comes the loin. The smaller part of the loin is called the porterhouse or short steak.

If you will examine a hind quarter of beef and mark out with your eye the various divisions, you will find that you will be greatly aided in selecting your meats. Knowing that sirloins are favorite cuts, some marketmen will cut their beef so as to make a large part of the rump do for sirloin. You will be attracted by the lower price, but you will note that the cut is a very large one. As a rule, the smaller the cut from the loin the better the quality of the steak. If you have a large family, however, and must be economical, you will find that some rump cuts make very good steaks.

The rib roasts are cut from the fore quarter, next to the porterhouse steak of the hind quarter. A roast from the porterhouse end of the loin is of course much better, but it is much more expensive. Round steak makes good rolled beef, beef tea, Hamburg steak, or stew. The round is usually tough, and needs much cooking, but it has a good flavor and contains very little waste. The rump is excellent for a pot roast, *beef-a-la-mode*, braised or corned beef. If beef is kept for a certain time, it acquires a better quality and is more tender than when freshly cut.

Veal is generally more expensive than beef, and it requires more flavoring and longer cooking. Good veal has pink meat and firm white fat. The best cuts are the loin and the ribs which constitute roasts and chops. From the leg are cut steaks, cutlets, and a solid piece, boned, for a stuffed roast. The neck is used for stew.

The best roasts of mutton come from the leg, though good ones may be cut from the loin or from the fore quarter. Stews and broths are

made from the neck and breast. French chops look well on the table, but they are more costly, as they are cut from the ribs and are weighed before the bones are trimmed. The loin chops are more economical and are generally tender and have little waste. Mutton is in season the year round, while lamb comes only from May to September. Lamb is cut like mutton, and, being immature, the meat should be very thoroughly cooked.

If you have a good storeroom, it is often economical to buy a hind quarter of mutton, which will cost very much less than if you buy it piecemeal. The part of the quarter which will spoil first is the flank. The ribs and loin will come next, but the leg will keep for many weeks if hung in a cold, dry place. It is better to cut off the flank and the thin end of the ribs at once. They can be trimmed of the fat and used for soup stock. Meanwhile you may cut off the chops as needed, and you will generally get from a dozen to fourteen. Then you have the leg for a roast when desired. Of course, the mutton cannot be served at every meal, as the family would tire of it. Study to bring it in at proper intervals and it will always be found delicious. You can generally save about one-third on the cost of the meat by buying in this way. You will need for the cutting a good, sharp knife, a meat saw and a cleaver.

There are different opinions regarding the use of pork, which is a heat-producing food. Many people think it should be used sparingly, and in winter only. Fresh pork ribs and loin supply the best roasts and chops. The flesh should be pale red with white fat. Salt pork, bacon, ham, and sausage, are the best forms of pork. They are all inexpensive, and by most people can safely be used in moderation, and with a mixed diet. Salt pork and bacon are much used in the preparation of other meats.

The most experienced housekeeper is likely to be deceived in purchasing poultry, and you should be able to depend upon the word of your marketman as to the age of the fowl. Good chickens have a yellow skin, plump breasts and soft, yellow feet. Broilers should weigh from one to two pounds.

No article of food is more easily digested than fish. All fish should be carefully washed and salted as soon as it reaches the kitchen. It should be kept in a cool place, and it is better, if possible, not to keep it in a refrigerator in which are kept butter and milk, as the latter articles readily absorb the odor of the fish.

It is much easier to buy good vegetables than good meat, for stale vegetables are more easily detected. You cannot be sure of obtaining fresh vegetables, however, unless you visit the market yourself, or unless your marketman understands that you will not

trade with him if he brings you poor supplies. The average market is well supplied with vegetables, and a good variety can be secured throughout the year. Generally, a good quality of peas, tomatoes, beans and corn can be bought cheaply by the dozen or half-dozen cans. With a cellar or storeroom well stocked with canned vegetables and fruits, the housekeeper always has something to fall back upon in case of an emergency. But fresh vegetables are always preferable, and should be used abundantly, especially in summer, when lighter and simpler foods are desirable.

TABLE SERVICE

IN EVEN a very modest household, where no attempt at fashionable living is made, the dinner is pleasanter if conducted with at least some slight formality. With a little system in the general household management, it is as easy to have the table properly laid and the dinner served in an orderly way, as to have things conducted in the confused and irregular manner often seen in families where but one servant is employed. The maid of all work may not be able to serve at table with the thoroughness of a butler, and perform her duties as cook at the same time, but with careful management she may do the heavier part so that the meal may pass smoothly, which is the main thing. Nothing is more annoying than jumping up from the table for forgotten articles. Let us confine ourselves at first to considering the home which has but one servant.

Let the table be carefully laid before the meal is prepared. Let the tumblers, one at each place, be at uniform distance from the edge of the table. A cold plate, a napkin, knives, forks and spoons in number according to the dinner, are laid at each place. Knives and spoons are placed at the right hand, forks at the left.

Cold plates,—one for each person,—are laid first upon every well-spread table. Upon these are placed smaller plates containing the oysters or other appetizers. These are brought in and placed before the dinner is announced. If oysters are served, a quarter of a large lemon, or the half of a small one, should be placed on the plate. The oyster fork is removed with the oyster plates.

When soup is to follow the oysters, the soup plates should be placed where they will become warm before the time for sending them to the table. When the oysters have been eaten, remove the plates, leaving the under ones to receive those containing the soup. The pile of soup plates should then be set before the hostess, and the

tureen of soup, its cover removed to a side table, should be placed in front of the plates. The hostess then ladles the soup into each plate, which should never be more than half filled, while the waiter, having first folded a napkin over her thumb, places each plate upon a tray, and carries it at once to the right of the person designated. There she sets it down upon the cool plate already in place.

The rules governing the passing of food are simple. When there is no choice to be made by the person served, the waiter carries everything to his right side, and when she is to remove anything from before a guest at the table, she should lift it while standing at that person's right side. But when a guest is to help himself from a dish, the waiter should carry the dish to his left side, and should hold it very near to, or upon, the table, while the person serves himself.

While the soup is on the table, the waiter arranges the roast upon its platter, which should be of ample size. If a gravy spoon is to be used, it should be placed upon the platter. The waiter then brings in the vegetables, and the gravy boat, and places them upon a side table. Then going to the right of each person, she removes the soup plates and takes away the under plate with it. Hot plates for the meat are then brought in. For the host's convenience, these plates should be placed upon his left side, unless he occupies a carver's chair, in which case they may be set directly in front of him. The host ascertains the preference of his guests for rare or well-done cuts, and, as soon as the first plate is helped, the waiter, thumb napkin in place, lifts the plate and carries it to the person mentioned by the host.

Then while more meat is being carved by the host, the waiter places upon her tray one vegetable dish, and the gravy boat, and carries them to the left of the guest who has been served to meat. After the guest has helped himself from these dishes, the waiter sets the tray upon a side table and carries another cut of the meat whither the host directs. This is followed, as before, with the vegetable and the gravy. When all present have been thus helped, another vegetable is passed around on a tray, and this is followed in the same manner by whatever other vegetables there may be.

At a table arranged for the service of one waiter, olives and such relishes are then passed, usually from one person to another. When the meat course is finished, the waiter places the carving knife, fork, and gravy spoon upon the platter and carries it away. Then the plates, with the knives and forks laid across them, are removed. It is better to take only one in each hand. The salad is then brought in. The mistress usually serves this, and places the dressing upon it.

After the salad course, the tray cloths are removed, all eatables except fruit and nuts are taken away, and the table is brushed free from crumbs. Finger bowls placed on little doilies upon dessert plates may now be brought to the table. If these plates are to be used for dessert, the bowls and doilies may be drawn away to the left. But if a pudding is served, the finger bowl and plate must be set to the left side of the guest by the waiter and the pudding set down from the right side. Finger bowls should be not quite half filled, and the water should not be perfumed, though if desired a slice of lemon or a sweet geranium leaf may be placed afloat on the top. Coffee is served last in small cups, brought in on a tray and passed around to the guests. The sugar and the cream are placed near the hostess and passed to those who desire them.

There are many little rules and modes of procedure with which the expert waitress should be familiar, and there will always be some matters of individual taste suggested by the mistress of the household. A few of the generally approved regulations, besides those indicated in the service of the dinner already described, may be mentioned. In setting a table, the edge of a knife should be turned toward the plate; the bowls of spoons and the tines of forks should be turned upward. Knives and forks should be placed in the order in which they are to be used and those first required should be at the outside.

All glasses should be placed at the right; napkins and bread-and-butter plates, or small butter plates, at the left. Carvers, fish-slice and fork, and such things should be left on a side table until needed. Then they should be placed quietly and quickly, the knife at the right of the platter and the fork at the left.

Extra plates, glasses, knives, forks, and spoons should be in readiness on the sideboard. A meal must not be announced until everything which is or may be needed, is ready.

Everything not too large to rest comfortably on a serving tray should be handed from it. Everything relating to only one course must be removed before serving another. The maid must not leave the dining-room until sure that there is nothing more for her to do.

The proper placing of a side table makes every difference in the serving of a meal. A small table at each end of the room is often desirable. This affords a proper place to put down a vegetable or other dish without going the whole length of the room. A waitress should know the different sauces, and the correct manner of serving. Then, for instance, if game be served without a sauce, she may offer dressed celery or lettuce to be taken on the same plate.

If a hot sauce and a salad are both served, she will provide an extra plate for the salad. Except in case of an accident which she cannot remedy, the maid should not speak to the hostess, who must be perfectly free to entertain her guests without any further thought about the dinner.

CARE OF SILVER

WHEN silver is to be polished, first rub it with some perfectly smooth cleaning powder, mixed with a little alcohol and water.

Soft cloths or chamois are suitable for this purpose. After being thoroughly rubbed, the silver should be rinsed in boiling water, and then be dried quickly.

Silver vegetable dishes and soup tureens are preferable to those of china. Not only do the silver dishes keep the contents hot, but they are not breakable, and a dent may be remedied at small cost. They are easily kept clean. A plunge into scalding water, and a quick drying afterward, and an occasional rubbing with a piece of chamois or flannel, will generally keep them bright.

Stains on silver can often be removed by rubbing them with common baking soda and salt, moistened with a little water. This is especially good for the removal of egg stains.

CARVING

SKILFUL carving is one of the most useful accomplishments the master of the house can possess, and where only one servant is kept, it is a very necessary one. To carve well requires both study and practice, and the host who has not mastered the art of carving easily will be wise to do this in the kitchen. Only a few of the general principles can be suggested in an article of this kind.

The chair placed for the carver should be high enough to allow the work to be done comfortably without his being obliged to stand. The platter should be large enough to hold the entire joint or bird when carved, without crowding.

The skewers should be removed before placing the meat on the table, and the carving knife must have a sharp edge. Nothing is more annoying to the carver than a dull knife; and to the guest, or members of the family, than using the steel to improve it.

In serving a large bird, such as a goose or a turkey, place the head always to the left. Smaller birds, such as partridge or grouse, are placed across the platter and the heads should be on the farther side.

A saddle of mutton should be placed with the tail end next to the carver. A haunch of venison or mutton should lie with the backbone or loin nearest the carver. A leg of mutton or lamb, or a knuckle of veal, should have the thickest part toward the back of the platter, but a shoulder of mutton or veal should have the thickest part upward. A rib or sirloin roast should be placed with the backbone at the right end of the platter, while a round of beef should lie with the flesh side up. A sirloin beefsteak should have the tenderloin next the carver. The thickest end of a fillet of beef should be at the right end of the platter. A calf's head should lie with the face to the right, and a roast pig with the face to the left. The thickest part of a roast ham should be on the farther side of the platter.

When the rib roast is properly placed before you, put the fork in the middle and cut down to the ribs close to the backbone. The thick gristle near the backbone will be next cut off. Then from the side nearest the carver will be cut thin, even slices, parallel with the ribs, and the knife will be run under them to separate them from the bone. A sirloin roast will be sliced in the same way, a cut being made at the flank end, as well as near the backbone, to separate the slices. Be careful to serve the crisp fat with the rare slices, for this adds to the richness of the flavor.

To carve a beefsteak, your eye should be trained to know the best parts, and all of the best should not be served to one or two persons. First, cut out the tenderloin close to the bone and cut into long narrow pieces. Then cut the other part from the bone and cut into strips. Serve a part of each, and serve fat to those who desire it.

To carve a leg of mutton or lamb, or a knuckle of veal, put the fork in the top, turn it toward you and cut slices through to the bone. Then slip the knife under and cut slices from the bone. The under side may be sliced in the same manner. A saddle of mutton must be carved with the grain of the meat in long, thin slices from each side of the back. It will have to be partly turned over to reach the tenderloin and kidney fat. Some recommend carving a saddle of mutton by putting the knife under the meat to cut it away from the bone, and afterward dividing the meat in thin chops, fat and lean together.

The leg and saddle of venison are carved in the same manner as the leg and saddle of mutton. When the leg and loin are served together, the loin should be carved before the leg. First cut off the flank, then separate the ribs, and afterward carve the leg.

A forequarter of lamb should have the ribs sawed through before it is cooked. The carving fork should be placed firmly near the

knuckle, and then you should cut all around the leg and up on the shoulder. Lift the leg from the shoulder and cut till you reach the joint. Cut through this joint, and then from left to right, separating the lower from the under part of the breast. Take out the blade, if it has not already been removed, and divide the ribs. A rib and a piece of brisket may be served to each person.

Roast ham should be cut from the thickest part down to the bone in thin slices, and the fat and the crust should be served with each slice. In carving tongue, the tip or thin part should be carved lengthwise. The center, which is the finest part, should be carved across in thin slices.

In carving either the roast, the leg, or loin, of pork, the knife must follow the direction of the lines scored by the cook before the meat was roasted, on the skin which forms the crackling. This skin is too crisp to be conveniently cut through. If the cook has scored the lines too far apart for single cuts, the crackling may be raised, and the meat then sliced.

It is well to study the anatomy of a turkey sufficiently to find out where the joints are located, but theory is not what is needed so much as practice. A fork should never be put through the back of a fowl. In carving a turkey, free the ends of the drumsticks from the body. Insert the carving fork across the middle of the breastbone and remove the leg from one side, cutting close to the body, and through the joint. Then remove the wing from that side, and shave off the breast in thin slices. Turn the bird over and with the point of the knife remove the "oyster," which is a dainty morsel contained in a small cavity of the bone on each side of the lower part of the back. The small dark portion found on the side bone may also be removed. Removing the fork from the breast, divide the legs and wings. Cut through the skin, and with a spoon remove a portion of the stuffing. Serve light or dark meat, as preferred, and a spoonful of the dressing. If carved in this way, one side of the turkey can be left entire and it will present a fair appearance for another meal. When the whole turkey is required, take off the legs and wings from both sides, and slice the breast before removing the fork.

In carving a goose, the flesh of the breast is usually sliced first on either side of the bone. The wings are cut off next, and then the legs. The breast of a roast goose, or of a roast duck, should be cut parallel to the breastbone.

Small birds, when not served whole, may be cut from the neck to the end of the breast and down through the backbone. To carve a large partridge, cut off the leg and wing from one side, and then from the other. Leg and wing should be served together. Remove the

breast from the back, and cut through the middle. When the birds are smaller, serve one-half to each person.

In serving fish, learn to cut neatly and to leave the backbone on the platter. Cut to the bone and serve; then remove the bone to one side and carve the lower half.

FLOUR

IN THIS country, where good bread made from spring or fall wheat is within the reach of every household, we seldom give a thought to the fact that, after all, only a small portion of the people of the earth enjoy this food.

In the remoter parts of Sweden, the people bake their rye bread twice a year, and store the loaves away for future use, so that eventually they become as hard as bricks. Still farther north, bread is made from barley and oats. In Lapland, oats with the inner bark of the pine, is used. The two well ground and mixed together are made into flat cakes and cooked in a pan over the fire. The Icelander scrapes the moss from the rocks and grinds it into a fine flour which serves for both bread and puddings. In some parts of Siberia, and in the northern countries of Asia, a fairly good bread is made from buckwheat, a flour with which we are familiar in our own country. In parts of Italy, chestnuts are cooked and ground into a meal, which is used for making bread. Rice bread is the staple food of the Chinese, the Japanese, and a large portion of the inhabitants of India. In Persia, the bread is made from rice flour and milk. In the Molucca Islands, the starchy pith of the ságo palm furnishes a white and floury meal. In some countries, bread is made from various roots, which, after being soaked and dried, are ground into flour. Thus it appears that our familiar wheat flour is peculiar to the more civilized portion of the inhabitants of the world.

But while wheat flour is a great staple, it varies considerably in quality. Too many young housekeepers are disposed to regard all flour as alike. As a matter of fact, much of the lack of success in cooking comes from this inability on the part of the purchaser to distinguish between the different qualities. The young cook, ambitious to succeed, decides to try some recipe which has been recommended to her. This demands one or two cups of flour, as the case may be, a certain quantity of milk or water, and of shortening; she flatters herself that if she follows the recipe carefully she will achieve a satisfactory result. This, however, will depend very largely upon whether she is using the same kind of flour that was used by

the cook who wrote the recipe. The directions might be followed with the greatest care and yet the result be unfit for the table.

There are not only various brands of flour, but variations occur in the same brand. Most of the differences are caused by the different processes of making flour; yet under the same treatment the products of spring or winter wheat will differ.

When flour is made by the roller process, two cupfuls will make a much stiffer batter than will the same quantity of flour made by the old process of grinding. Again, flour-makers all over the country are constantly introducing new machinery into their mills, and thus bringing about changes in their processes. In the eastern states, where mills are few, the flour used comes mostly from the northwestern states and is chiefly made by the roller process. It is also generally made from spring wheat. If rubbed between the fingers, it feels rough and granular, and if pressed in the hand it will not hold its shape perfectly but will fall apart. This flour requires more moistening in the mixing than is required for flour made by the grinding process.

Many of the mills in the middle western states are now using both processes. The wheat is first rolled and then ground very fine and smooth. Such brands can be used equally well for bread, cake, and pastry.

Flour that is made from new spring wheat will not produce as good bread at first as after it has been kept for a month or more. A barrel of flour that will not make good bread when first opened may in two months produce an excellent loaf.

Many housekeepers, especially at certain seasons when flour is likely to spoil, buy in small quantities, and the first baking from each new supply is an experiment. An experienced housekeeper can tell from the way in which flour "wets up" how it should be used. It is not so essential to follow a recipe closely as to know just how thick the batter should be to produce the desired result. In the colder months, it is better to buy flour in larger quantities, as it usually improves with age.

Flour of all kinds can be kept in good condition only in a cool, dry place, and it must be kept closely covered to exclude dust and insects. A wooden flour bin, with a closely fitting lid, is a good receptacle for flour in dry, cool climates; but the tin bins or cans, that may be washed clean and put out of doors to sun and air, are the best vessels to use for this purpose in warm or moist climates.

The housekeeper should know also that the whitest flour is not the most nutritious. What is called the first quality of flour does not contain so large a quantity of the best elements of the wheat as does the second quality, which is much darker, and which gives a sweeter and more nutritious loaf. Indeed, the entire-wheat flour, which is

very dark, is the most nutritious, though many do not like the bread that is made from it. The wise housekeeper will at least keep entire-wheat flour on hand and vary the bread diet with it. The fine quality of flour that is so commonly used, undoubtedly yields too little of what the system needs, and too much of what it does not need in such large quantities.

BREAD MAKING

AS BREAD is the staple article of diet, no meal being complete without it, there are infallible rules for making bread which every housekeeper should learn.

First of all is the selection of the flour used, as satisfactory results can be obtained only with good material. Good yeast is equally essential, as upon it depends the lightness of the loaf. Heavy bread is neither palatable nor wholesome. The yeast used in bread making must be of the purest and best to insure success. Vague ideas exist in the minds of many as to what yeast is. It is a microscopic plant of the lowest order, several varieties of which are known to scientists. Some of these are improved by careful cultivation, and these pure yeast cultures, sold as compressed yeast, when fresh and good, are considered the best. Yeast, being a plant, is subject to the same laws of growth as other plants. Extreme heat and cold are alike fatal to it. This explains the fact that when bread dough is mixed with too hot a liquid, or is frozen, it fails to rise.

The most interesting process in bread making is the planting of the yeast in the warm dough, and the power which the yeast has in its growing to raise the mass. This it does in the following manner: The flour contains starch. The yeast, in growing, converts a portion of this starch into dextrin, a kind of sugar, and, continuing its work, the sugar is further changed into alcohol and carbon dioxide, a gas which puffs up the dough. This is alcoholic fermentation, and is the same process as that which makes all fermented liquors. If the process is stopped at this time, either by stirring the dough or by baking, the bread remains sweet, but if allowed to continue its course unchecked, after a time acetic fermentation begins and sour bread is the result.

In mixing the ingredients, care must be taken to have the right proportion of each constituent part. Flour, salt, yeast, and milk, or milk and water, are absolutely necessary in the process of bread making. A little butter and sugar is used by most housekeepers to overcome the toughness of the loaf. The liquid used in mixing the bread should be lukewarm, as the yeast is easily scalded, or chilled, and in

either case will not raise the loaf. The following rule if carefully observed, will bring good results:

Sift the flour into a large pan or bowl. Put the sugar, salt, and butter in the bottom of the bread pan, or into another bowl, and pour on a spoonful or two of boiling water, enough to dissolve all; add the quart of wetting and the yeast. Now stir in slowly two quarts of the flour. Cover with a cloth and set in a temperature of from seventy-five to eighty degrees, to rise till morning.

Bread mixed at nine o'clock in the evening will be ready to mold into loaves or rolls by six the next morning. In summer it would be necessary to find a cool place, in winter a warm one; for the chief point is to keep the temperature even. If mixed early in the morning it should be ready to mold and bake early in the afternoon. This first mixture is called sponge. To finish the bread, stir in enough flour from the two quarts remaining to make a dough. Flour the molding board and turn out.

Now begin the kneading, which is a process not easily described. By it the dough is made tender and fine grained. The process is best learned by observation of some one skilled in the art, and by practice. The dough should be of such consistency that the merest dusting of the board and hands with flour will suffice. Too much flour added at this stage would make the finished loaf hard and dry. Knead with the palm of the hand or with the knuckles as much as possible. The dough quickly becomes a flat cake. Fold it over and continue the process for about twenty minutes. Thorough kneading is a great element of success in bread making.

The dough should be equally divided, made into loaves, and covered with a cloth. When light, they should be baked in a slow oven. The fire should last through the entire baking, as adding fuel will cool the oven and cause the bread to fall. Bread that is baked one hour is better than that which is taken out earlier. When the bread is baked and taken from the oven it should be placed in a standing position and lightly covered, so that it will not cool too quickly. It must be perfectly cold before it is put into the bread box.

THE CARE OF FOOD

THE young housekeeper may acquire great skill in buying provisions economically, and yet lose much by failing to properly take care of what she purchases. It need not be said that perfect cleanliness is necessary for the preservation of food, and for the avoidance of the dangers of contamination by disease germs. The cellar, the

pantry, and all places where provisions are kept, should be carefully watched, so that the food may be surrounded with pure, cool, and dry air. If possible, a little sunlight should be admitted occasionally.

It should be borne in mind that most foods must not be put away when warm. If covered closely when in this condition, they spoil rapidly. Soups, meat, fish, and bread should be cooled thoroughly, and in a dry current of air, if possible, before being set away. When meat is not hung up, it should be placed on a dish and set in a cool place. Meat should be removed from the paper as soon as it arrives from the market, and before cooking it should be washed or wiped with a wet cloth.

A dish of charcoal placed in the refrigerator or pantry helps to keep the atmosphere dry and sweet. The bread box should be washed, scalded, and thoroughly aired in the sun, as often as twice a week. Bread and cake should be thoroughly cooled before being placed in boxes, otherwise the dampness from the steam will cause them to mold quickly.

UTILIZING REMNANTS

THE careful housekeeper avoids waste by calculating as closely as possible how much of each article of food is required for the meal to be prepared, and buying accordingly. This can be readily learned by observation, and if you study the individual tastes of the members of your family, so that in marketing you buy only such things as you are confident will be eaten, you will save the expense of filling the larder with food that will be wasted because it is not tempting to the appetite. It is well to bear in mind that the way an article of food is prepared, cooked, and seasoned does more toward making a savory dish, than the fact that it has been procured early in the season at a fabulous price.

The young housekeeper who aims to be a helpmeet to her husband in aiding his efforts to amass wealth, cannot better assist him than by taking good care of the small matters pertaining to the house, especially the larder, where watchfulness is needed to prevent useless waste.

Many palatable dishes can be made by utilizing the remnants of meat and vegetables, which, although not sufficient for another meal if separately prepared, are sufficient and toothsome when combined. A small piece of meat chopped fine and highly seasoned can be made into a stew and served on toasted bread for breakfast; or it can be made into hash by adding a few boiled potatoes. Bones taken from

the steak, chops, or roast can be used as a foundation for soup, to which can be added left over potatoes, tomatoes, celery, peas, or beans.

Cold fish is less easily used than other meat, though if carefully boned; it can be hashed with potatoes, or scalloped with sauce and crumbs. Cold oysters give a pleasant flavor to the dressing in poultry. Celery chopped fine gives an excellent flavor to this dressing and also to soup.

A good-sized roast of beef may be served hot, then cold, and afterward afford a beef stew. The beef fat should be tried out, and used for frying meat and vegetables, as good suet is equal to butter for that purpose.

There are so many ways to use stale bread that it would be a shameful waste to throw away the loaf or cut pieces from the loaf that has become dried. By putting the loaf into a steamer over boiling water a few minutes, it becomes light and as fresh as new, warm bread. The cut slices make good toast, or can be made into what is called French toast, by dipping them into well-beaten egg and milk, then frying them in butter. Another way to utilize stale bread is to dry it in the oven, so that it will take the place of "cracker dust," for frying oysters, clams, fish, and veal cutlets, and in which to roll croquettes and fish balls.

Chopped beef can be used with eggs to make a meat soufflé, or can be scalloped with crumbs. Cold roast lamb, mutton, or veal, can be used for a meat pie with pastry crust, or may be cut into thin slices and heated in tomato sauce. Cold chicken or turkey can be hashed and served in a cream sauce, on toast; or made into fritters, or a salad.

Cooked ham, finely seasoned with onion, mustard, pepper, and salt, is a good filling for sandwiches. There are many ways of utilizing cold potatoes and other vegetables; indeed, every portion of food can be made into palatable dishes, thereby insuring economy of the living expenses.

This may be a homely subject, but unless your means are sufficient to make the study of economy unnecessary, it is well to know how much can be done with moderate expenditure, where the housewife learns to utilize the remnants, as well as to take good care of the larder.

THE CARE OF LINEN

THERE is true economy in buying tablecloths and napkins of the best quality. Not only do they wear better, but they have always a fresher and firmer look than those of cheaper grades. The durability of table linen depends largely on the treatment it receives. In washing it, little rubbing is needed. Wringing by hand

is preferable to putting it through the wringer, which sometimes injures the fabric, or leaves creases not easily removed with the iron.

Fruit stains or iron rust should be taken out before the articles are put into soapsuds. The former may be removed by pouring hot water on the stains. Rust will usually yield to oxalic acid. Moisten the cloth with cold water, sprinkle with a little of the acid, and rub between the hands. If one application does not remove the stain repeat the operation. Be careful to wash all acids from the fabric as soon as the stain disappears. Sometimes iron rust, if not too marked, can be removed by covering the spot with salt and lemon juice and exposing it to the sun. Ink stains should be treated in the same way as iron rust.

Tablecloths should not be allowed to flap in the wind, as they are likely to get whipped out at the corners. If folded together, with both edges pinned firmly to the line, the strain is lessened. When signs of wear begin to appear, a little darning will save a tablecloth for a long time. If skilfully done with threads of the fabric, worked in with the weave, these darnings will be almost unnoticeable.

There should be a generous supply of sheets, pillowcases, and towels in every household. The sheets should be arranged in piles according to size. In putting them away, it is well to place those just returned from the wash at the bottom of the pile, to insure equal wear for all. Sheets and pillowcases should be numbered and should never be put away without careful airing.

Towels should be of generous size. Those of the best quality are the cheapest in the end. The bath-room should be well supplied with Turkish towels.

CARE OF LAMPS

LAMPS are either a source of great pleasure to the household, or a perpetual torment. With intelligent care, however, they need never be troublesome. The following rules will apply to the various makes in common use:—

To prevent oil from oozing over the top of the burner, simply turn the wick down after the light is out. It is better to rub off, rather than to cut off, the charred part of a wick. The loose threads of a new wick should be clipped off. When once in shape, the necessity for clipping will be very rare. A wick should be put in the lamp several hours before using, so that it may become saturated with oil. When a lamp has been lighted, if one part of the wick is a little higher than the other parts, it will char first, and when well charred can be rubbed off to the level of the rest. A bit of soft paper, a

nail brush, or, best of all, the unbroken finger of a glove, will do this successfully.

Be careful that no bit of charred wick, or burned fly or moth, is left in the lower part of the burner. There is danger that it will ignite and set fire to the oil in the reservoir. A clean lamp is not at all dangerous. If a lamp has been left standing with a little oil in it, it should not be lighted until filled, and not until the burner has been carefully wiped. It is possible that a gas may have formed, making it unsafe to light the lamp before refilling.

To start the circular wick of a large lamp, put a new wick in the burner and saturate thoroughly with oil that part of the wick that is above the burner. This is best done by holding the wick and the edge of the burner upside down in a shallow cup of oil. Screw the burner into place before putting the oil in the lamp. Light the wick and put the chimney on. The wick will char so that it can be rubbed down to an even surface. When a lamp is first lighted, keep the flame low until the metal of the burner is heated; this secures a clear, steady flame.

To clean burners, boil them in water in which sal-soda has been dissolved, one teaspoonful to each quart of water. To prevent chimneys from cracking, put them, before using, into a large pan and cover them with cold water. Let the pan stand on the stove until the water boils, then remove it and allow the chimneys to cool slowly in the water. If the brass catches of the burner are too tight, the chimney will break as it expands with the heat. These catches are easily loosened without injury to the lamp.

Alcohol lamps for kettles and for chafing dishes must be kept perfectly clean, and the wicks must be renewed before they are burned out. It is true not only of alcohol lamps, but of oil lamps, that the question — "What is the matter with it?" may often be solved by putting in a fresh wick. There is more or less paraffin in oil, and this sometimes clogs the wick.

SWEEPING

THE first step toward sweeping a room is to prepare for the operation. You should have a variety of brushes and cloths. One brush, which a housekeeper seldom possesses, but which will be found of the greatest convenience, is a paint brush for the purpose of removing the dust that lodges in the carvings of woodwork, and that cannot be reached by a dust cloth. You should also have a stiffer brush for moldings, and a sharp knife for the corners, although it may

not be necessary to use the latter. The dress for sweeping days should be of some material that will wash. A dust cap should completely cover the hair, and if you wish to keep your hands in good condition, they should be incased in gloves.

Begin by dusting and removing from the room all the small articles and bric-a-brac. The rugs should be taken into the yard for shaking and beating, and if there are draperies at the windows, they should be shaken and either folded away or carefully covered. Shades should be rolled to the top, and the windows should be opened at least a few inches. Furniture that is too heavy to be removed should be dusted and covered with sheets. You will find it a great convenience to make up a supply of such coverings from calico or other cheap material, and to have them sufficiently large to cover any piece of furniture. All upholstered pieces should be first swept with a whisk broom; a smaller brush, somewhat coarse, is useful in reaching the very deep places.

The molding at the top of the wall can be cleaned by means of a long-handled brush, though it is much better, after sweeping the room, to stand on a stepladder and remove the dust from the molding and from the tops of the window casings and doors, by means of a wet cloth. In sweeping, begin at a farther corner of the room and work toward the door. After a few short strokes of the broom over a square yard or so of the carpet in one direction, sweep the same space again in the opposite direction. When the entire carpet has been swept in this way, gather the dust into a dustpan and burn it. Do not let the pan stand with the dust in it after the sweeping has been done.

If the carpet is dark, and is very dusty, coarse Indian meal, slightly moistened with water, may be scattered over a small place at a time and swept off lightly. It will take the dust with it, and at the same time will brighten the colors of the carpet. Salt may be used for the same purpose on any carpet, but tea leaves, Indian meal or anything else that is wet, should be applied only to dark carpets.

The carpet should be swept at least twice, and then all the windows should be thrown wide open to permit a thorough airing of the room. The walls may then be brushed with a cotton flannel bag slipped over the end of a broom, and the woodwork should be wiped with a damp cloth. It is a good thing to go over the carpet finally with a carpet sweeper, and the surface may be wiped lightly with a cloth moistened in warm water, to which has been added a few drops of ammonia, or a little borax. By doing this the good results of the sweeping will last longer. After the sweeping and dusting of the room is completed, return the furniture which has been set aside.

In sweeping bedrooms, the bottom of every closet should be wiped out and the shelves should be carefully examined. In dusting, some articles of furniture require extra care. For the piano, or furniture of delicate polish, old silk handkerchiefs generally make the best dusters. For all ordinary purposes, squares of old cambric, hemmed, will be found as good as anything. All dusters should be frequently washed. Remember that in dusting the process should be wiping, not a flirting of the cloth, which simply sends the dust into the air to settle down again in some other place.

All brass or silver-plated work about the fireplace, the doorknobs, and all nickel furnishings, should be cleaned once a week before sweeping. For silver, rub first with powdered whiting, moistened with a little alcohol or hot water. Allow it to dry on the surface of the metal and then polish with a dry chamois skin. If there is any intricate work, use a small toothbrush. All polishing utensils should be kept in a box together.

HOUSEHOLD PESTS

ANTS

PERHAPS the most common insect pest with which the housekeeper has to contend is the little red house-ant. The only effectual means of ridding premises of ants is to find the nest and exterminate the colony. The nest is often situated under the floor of a building, and it may be necessary to raise some of the boards in order to reach it. The location of the nest can usually be discovered by following the path of the individuals which make their appearance. If the nest is found to be in a wall where it is not practicable to expose it, the occupants may sometimes be reached by injecting some fluid into the opening. Kerosene, benzine, naphtha or bisulphide of carbon may be used for this purpose. Nests built in the cracks of the foundation timbers may be destroyed in the same way.

The little black ant is very common, as is also the pavement ant in certain localities. The latter frequently has its abode in holes in the ground, under stone or asphalt paving. If the entrance to the nest can be uncovered, the destruction of the colony is a simple task. One or more drenchings with boiling water will often prove effectual. Any of the petroleum oils may be poured into the holes with good result, and a liberal use of bisulphide of carbon is almost certain death to an ant community. One or two ounces should be poured into each hole and the opening immediately stopped up. The bisulphide penetrates the numerous passageways and kills the insects. How-

ever, the source of trouble is sometimes quite beyond our reach, in a neighboring building or under a paving which cannot be removed. When this is the case, our attention must be directed to destroying or driving away the members of the colony that find their way to our houses.

FLEAS

IF THE house is infested with fleas, see first that no cats or dogs are permitted to carry more into the house. If these pets are kept, the immunity of the human occupants of the house from annoyance will depend upon keeping the animals free from the insects. If dogs and cats are kept clean by proper combing and by frequent washings with soap made for the purpose, there need be no difficulty in keeping the fleas out of their hair.

The oil or the dried leaves of pennyroyal sprinkled about will aid in driving out the fleas. If the cracks of the floors have become nesting places for them, the carpets or mattings will probably have to be removed, and the floors thoroughly cleansed. Benzine sprinkled over the floor-covering may in some instances prove effectual, or the liberal use of California buhach.

In floors which have been neglected, or in houses that have been closed for some time, especially in damp weather, the dust in the crevices may harbor a multitude of the insects in various stages of development. In extreme cases of this kind, the quickest and easiest way to destroy them is to take up all carpets and drench the cracks with hot soapsuds. If preferred, benzine may be used, though it is not so certain to kill the eggs as is the boiling or scalding water, and greater danger is incurred by the use of a large quantity of benzine.

BEDBUGS

THE question of effectual means of destroying bedbugs is one that almost every housekeeper finds herself, at one time or another, compelled to solve. The one who begins her career in her own new house, with all furnishings free from infection, and who is watchful of all articles that are brought into the house, may never have serious trouble of this kind. If danger of the pests is suspected, preventive measures should be taken promptly.

If by some chance one of these insects has gained admission, its advent must be followed by a series of cleanings that will preclude the possibility of any eggs remaining to hatch. With proper treatment, patiently and persistently applied, badly infested houses may be completely reclaimed. Many of the common insect remedies have

little or no effect upon these bugs. Besides, their haunts are usually in deep crevices where powders cannot reach them, or in the bedding or wall paper, where liquid preparations would cause damage. Again, their remarkable power of surviving for a long period without "visible means of support" makes it impossible to starve them out. Houses that have remained unoccupied for months are frequently found to be infested with them.

In a room in which the bugs have already gained a foothold in the walls and bed, the first step will be to examine the bed closely and destroy every living bug, molted skin, and egg that can be found. The nests are most likely to be found in the corners of mattresses, and individual bugs may be secreted in any fold or binding that affords a hiding-place. If the bedstead is of wood, the joints at the corners, notches for the ends of the slats, and crevices made by the paneling, make places of concealment that need special attention. If all such places are drenched with coal oil or gasoline, the developed insects will be killed instantly. If the process is then repeated several times in quick succession, the young ones will be killed as they hatch and the pests should soon be exterminated. A safe method, however, is after each application of the oil to put "black flag powder," or some other poison, about all joints and crevices.

Iron beds are much more easily kept from insect pests than are wooden ones. If it is desirable to use the wooden ones, however, the crevices should be filled with putty, laundry soap, or paint. Corrosive sublimate is another useful remedy, and some housekeepers who are very successful in exterminating these insects use nothing else for this purpose. Oil of turpentine is good, and there are several patent bedbug poisons in the market that are more or less effective. All liquid preparations must be applied with a feather or small brush that can be introduced into the cracks, or they should be injected from a syringe.

Any articles or parts of furniture that will not be damaged by the treatment may be quickly cleaned by having scalding water applied. The water, if near the boiling point, not only destroys the bugs, but kills the eggs. If the infested room have a papered wall, the quickest and easiest remedy will probably be a new paper. If the paper cannot be changed, examine the cracks or broken places carefully and destroy any insects that may be found. Yet this cannot always be done thoroughly, as these wily little creatures often seek the most secure hiding-places in the corners of the ceiling, whence they repair after their nightly raids.

Both benzine and corrosive sublimate are good to apply to the cracks. If this does not prove effectual, possibly sulphur fumes will

do the work. Remove from the room all silver or gilt articles and all plants, light a sulphur candle and leave it burning in the room, or place four or five ounces of brimstone or flowers of sulphur in a vessel over a fire. Sprinkle this with dry corrosive sublimate. Unless a vessel of considerable size be used, it will be well as a precaution to arrange a larger vessel into which the liquid may run in case it should overflow in the melting. Close the room tightly and allow it to remain so for several hours. This is an effectual means of ridding closets of the pests, as the fumes penetrate the numerous crevices that are not easily reached by other applications. A wet sponge should be held to the face upon entering the room to open the windows after the fumigation. If it be suspected that the bugs have found lodgment in the cracks between the flooring, all the dust should be swept out, the floors washed in scalding water, and any preferred poison applied; or repeated applications of benzine or gasoline will give good results.

When these bugs become established among books and papers, they are not easily eradicated. Books afford so many inaccessible hiding-places that sulphur fumigation is about the only effectual remedy in such cases. If the library contain silver or gilt ornaments or decorations that cannot be removed, the books will have to be taken to some other apartment for fumigation. The bookcases and shelves should be treated with some of the various preparations recommended for use on beds.

Constant vigilance and unrelenting effort is needful to eradicate these pests from premises that have become infested. An ounce of prevention is worth many pounds of cure in a difficulty of this nature, and the foresighted housewife will take no risk by allowing any possible source of trouble to be neglected.

THE SERVANT QUESTION

IN THE colonial period of American history, and in the early years of the Republic, the position of servants and apprentices was clearly defined. The aristocratic traditions of the mother country, prevailing over the newborn spirit of democracy, drew sharp distinctions between the various classes of society.

These distinctions were material as well as moral. Tradespeople were not allowed to wear the dress of gentlefolk. Servants and apprentices were obliged to dress according to their stations. They were treated justly, but with a certain severity, which kept them in their places as silent and humble members of the household. Small

wages and heavy labor were their portion. Their material and spiritual welfare was wholly in the hands of their masters, with whom they lived year in and year out, with no thought of change.

This state of things could not long continue. The leaven of democracy soon spread through all classes of society, dimming the once sharply defined distinctions, and infusing a new spirit of restlessness. The evolution of Americans from an agricultural into a business people was perhaps the strongest agency in weakening the old aristocratic traditions, and in spreading a certain discontent throughout all classes. The ambition to rise in life, to become rich or famous, drew men from positions of service into more perilous but more congenial conditions of struggle and experiment in new enterprises. Young men left the farms for the cities: young women, the kitchens and the dairies for the mills or the stores.

These processes of change have been quickened of late years by the added forces of higher education, and of a complex system of public education. So many men and women are pressing into business and professional life, preferring to fail on a higher plane rather than to succeed on a lower one, that it has become a serious question whether there will be any left to perform "the lowly and serviceable" offices of life.

The first step toward the solution of the vexed servant question in this country should be the inculcation of the truth that all labor is honorable; and of that other elementary truth, that God did not create all men for the same office and ministry. Children in the public schools should be taught that greatness does not consist in bigness; nor does success consist alone in making money, or in "rising" in the world. They should be taught that the successful man is the man who is of most service to his fellows, whether that service consist in making a wooden bench honestly and properly, in conducting a railroad honestly, or in sweeping a room with care. The solution of the servant problem, as of many other problems of this country, lies in transforming the present ideals of that which constitutes success, into those which recognize primarily the nobility of service,—the dignity of honest labor.

In the majority of American households, but one servant is kept. How shall the domestic economy be ordered under these circumstances, that the best results shall follow? In their lament over the troublesome servant problem, American women do not always realize that the difficulty may lie in their own ignorance of household matters.



One step toward the solution of the problem would be the complete mastery by the mistress of every detail of housekeeping. Here, again, the education in household affairs must begin with the child. American girls should be taught cooking, the management of the kitchen and the pantry; every detail of laundry work; every detail of lighter housekeeping.

Such knowledge puts the mistress of a house in a position of power. Nothing places a servant in such just dependence upon her mistress as the knowledge that the latter is independent of her services. The picture of the ill-tempered and wasteful cook lording it over the whole household because she alone knows how to cook, is not overdrawn. The tyranny of servants springs largely from their consciousness of power possessed through knowledge. The mistress of a house should always know more than her servants, should be to them in the position of a guardian and guide; otherwise, confusion and the strife of tongues.

The mistress with one servant should share with her the work of the house. The entire work of a household, however small, is too much for one person to do well. The division should be made with reference to the special talents of the maid-of-all-work.

It is difficult to maintain dignity and style of living in a household where but one servant is kept; yet this is possible if the mistress assume entirely the responsibility of certain duties. It would appear that the best results are obtained if the single servant can concentrate all of her energies on cooking, on the care of her kitchen, on waiting at the table and answering the door bell.

The mistress can assume the entire charge of the bedrooms, of drawing-room or parlor, and of the dining-room. Once a week, if possible, a woman can be brought in to do the thorough sweeping. It is better for this additional woman to sweep than to assist in the washing, because sweeping takes her to another part of the house, and keeps her out of the kitchen, where, under her mistress, the single servant should be supreme. This leaves only the lighter and pleasanter duties of housekeeping to be performed by the mistress, the making of beds, the dusting of rooms, the setting of the table,—labors which have their esthetic element. It is much easier to teach a servant to cook than to teach her how to put individuality and beauty into the arrangement of a room or a table.

There is no good reason why the single servant should not be waitress as well as cook, nor why she should not wear cap and apron; and, except on washing-day, be always neat enough to answer the bell. Cooking is a dainty labor. Professional cooks, like Mrs. Rorer, have proved that it is possible to perform any kind of cooking without injury to the clothing. The single servant should be trained to

be as neat in appearance as if she were one of a large corps of servants. The mistress should provide her with gingham dresses, with caps and aprons; and should insist on her keeping them in order. The expense of such provision is comparatively light; and is more than compensated for in the appearance of the maid.

She should have a good, sunny room; and if there be no servant's sitting-room, or if the kitchen be small, her bedroom should be large enough to serve the purpose of a sitting-room. No servant should be put into a small, dark, dingy cupboard of a room. If her self-respect is to be cultivated, she should have a cheerful, pretty bedroom, plainly, but neatly furnished, with ample facilities for bathing. She should be taught that she is for the time being a member of the household; is therefore obligated to be clean and neat; to live as far as possible in accordance with the rules of the household.

In this day of frequent changing of servants, the old-time, kindly interdependence between mistress and maid is scarcely known. Servants do not remain long enough to become identified with families, to share their interests, their joys and sorrows. They are, as a rule, aliens, performing their labors in a perfunctory spirit. The fault is not wholly theirs. American women seem not to know how to establish a servant in the household; to make her at once so comfortable and so useful that she has a double sense of her well-being.

If space allow, it is well to have a servants' sitting-room, whether for the use of one servant or of six. This room should be furnished with a table, a couch, one or two rocking-chairs, and, if possible, a shelf of books. A good servant is usually an intelligent servant. To recognize her intelligence is one method of putting it to good service.

In old New England days, the faithful servants of the family sometimes knew Latin, and were well read in theology. But this knowledge did not interfere with the performance of their duties. They believed in the dignity of labor, in the divinity of service. The domestic life was to them, as to their mistresses, the most beautiful of all lives. So they were content and faithful.

The discontent of the modern mistress, her impatience of the restraints of housekeeping, communicates itself to her servants. What she despises, they despise. Work becomes drudgery. The household duties are performed without enthusiasm. The mistress with one maid cannot expect her to be enthusiastic in her little round of toil, if she, herself, be listless and indifferent. Working in harmony and with a thorough appreciation of the high end in view,—the proper conduct of the house,—mistress and maid will accomplish as much as half a dozen servants working without unity of purpose.

Where two servants are kept, the cares of the mistress of the house are, as a rule, doubled instead of halved. Her first problem is to find two girls who will live in harmony with each other; who will not shirk their work, or refuse to do each her full share.

The work of two servants should be so apportioned that the duties of each are entirely distinct and in no danger of overlapping. The kitchen should be the province of the maid who does the cooking; while the "second maid," as she is called, undertakes those duties otherwise assumed by the mistress of the house. When the washing is being done, the second maid takes for the day the place of the cook.

If possible, each servant should have her own room. If two share the same room, they should have separate beds, separate bureaus, and separate washstands. Health, as well as comfort, demands this. Their afternoons and evenings out should be understood, and nothing should interfere with this arrangement.

In an establishment where many servants are kept, as in large New York houses, the mistress does not come in contact with her servants. Between her and them is the trained housekeeper, who has her own sitting-room and dining-room where she preserves a kind of state shared by the upper servants—the butler, the lady's maid and the valet. The other servants have a general assembly-room called the servants' hall. Their table is entirely distinct from the table of the family, another bill of fare is provided for them, and their hours for meals are arranged by the housekeeper. Even in the servants' hall, class distinctions are sharply preserved, the upper servants carefully separating themselves from those of lower rank. Their bedrooms are generally at the top of the house, where, with bath-rooms and dressing-rooms, they form a home in itself. In one New York mansion, the servants' rooms at the top of the house open upon a gallery, from which the domestics can witness whatever festivities are going on in the rooms beneath.

The servants in these large establishments are usually trained to a high degree of perfection. The butler must not only be a connoisseur of porcelains, of the silver and cut glass for table service, but he must be also a judge of wine. The lady's maid must understand hair-dressing, and must be able to trim hats and to make dresses. The housekeeper must be a good financier. Each in his or her place must be a specialist.

To procure a good servant is a more difficult business than to train one. In the city, the best method of procuring servants is to go to an intelligence office of the first class. The successful servant is usually possessed of enough money to afford the fee required by the office. The poorer class of servants, as a rule, use the advertising

columns of the newspaper. References should always be required in engaging a new servant, though in this country references have less significance than in England, where no servant can obtain a position without a recommendation from the mistress with whom she last lived. Before engaging a servant, her prospective mistress should arrive at a thorough understanding with her concerning her wages, her duties, the number of afternoons which she expects to have for herself during the month, and all other points on which disagreement might later arise. In the present state of affairs, this catechism is usually reversed, the servant plying her would-be employer with a variety of pertinent and impertinent questions.

A story is told of the wife of a professor at a well-known university, who, after submitting to a thorough cross-questioning from a servant, said gravely, "And now there is one question I should like to ask *you*: Can you play the piano? Unless you can, I cannot possibly engage you."

Good results are sometimes obtained by training an ignorant girl who has just arrived in this country. Ignorance does not necessarily imply a lack of intelligence; it may be only undeveloped intelligence. Under the supervision of a wise mistress, a well-trained servant may be evolved from an intelligent Irish or German girl, however crude.

The evolution, however, sometimes involves many trials to both mistress and maid. A young housekeeper, who was training a girl newly arrived from Ireland, had occasion to show her how to prepare cantaloup for the table. The next day a watermelon was served for dessert, and, to the consternation of the mistress, the maid brought in the rinds upon a plate, having carefully cut out and thrown away the red portion of the fruit.

Swedes and Finns make good servants. The colored race is endowed with the very genius of service, but the members are not always trustworthy. All things considered, however, the proverb "like mistress, like maid," contains the secret of the successful training of servants.

A nurse girl should be selected with more care than is any other servant of the household. To some degree the physical health and the moral well-being of the child are in her keeping. Even the most solicitous mother cannot have the nurse and the child always under her supervision. Nurses have been known to treat children well while in the house, but to abuse them when out walking with them. A New York lady, upon seeing a nursemaid strike and shake a very little child who was in her charge, remonstrated with her and was roundly abused for her interference. She then followed the nurse to the child's home and reported the circumstances to the mother, who at once discharged the cruel girl.

Many mothers prefer to have gentlewomen assume the care of their children, believing truly that the earliest impressions which a child receives are practically ineffaceable. If the nurse be a coarse, rough woman, of untidy habits, her charges will be to a certain degree influenced by her manner and conversation.

THE KEEPING OF PETS

THE force of the arguments sometimes advanced to prove that it is cruel to deprive wild birds and animals of their freedom, depends almost entirely upon the kind of treatment that these creatures receive while in captivity.

No sympathy is ever wasted on cats and dogs, for they are born in a domesticated state and know no other. As a result, they often cling to their masters or mistresses, no matter how badly they may be treated.

The charge of cruelty is most often made against those who keep caged birds, but experience has shown that such birds are not unhappy when they are properly cared for. It is cruel to neglect an imprisoned bird, and the little fellow cannot be blamed for escaping if he gets a chance. But a bird that is well cared for seldom leaves his cage without returning, and he will generally refuse to accept his liberty if it is offered.

The keeping of pets is a constant lesson in kindness, and its effect is apparent, not only in the birds or the animals, but also in our own natures. It is a remarkable fact, ascertained by statistics carefully gathered from training schools and prisons, that very few men or women who act kindly toward household pets are ever found among criminals. The unselfish attention required in caring for a pet has an elevating tendency. Not only does the dumb creature amuse the child, but its care is a training to him in gentle ways and acts of justice that go far to insure an honest life.

If you have pets, therefore, never be lacking in kindness to them. See that they have those things which make them happy. Do unto them "as you would that others should do unto you." This golden rule is as sound when applied to the treatment of animals as to the treatment of men. Indeed, animals are the more apt to show appreciation of your kindness and attention.

THE CANARY

THE Canary has been a captive for so many generations that he is almost as completely domesticated as the chickens and ducks of our

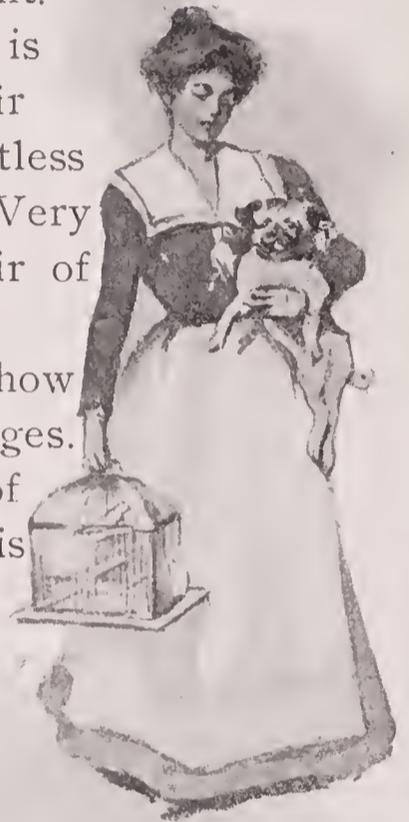
barnyards. He is the most common of our caged pets, but alas, he is so frequently neglected that he seldom shows his best qualities.

Canaries have their likes and dislikes, and they may be made good tempered, gentle, and cheerful, or may become quarrelsome and sullen. They often show their peculiarities in mating, for a bird has his own notions and should be allowed liberty of choice. The little damsels of canarydom accept or reject a wooer, as they see fit. It will be useless for you to insist upon a union where there is no love manifested. Once mated to their satisfaction, a pair will remain united for life, and if separated by a thoughtless owner, they will mourn as if their hearts were broken. Very touching stories have been told of the recognition of a pair of birds when reunited after years of separation.

Canaries are sensitive to their surroundings, and will show preferences in colors as well as in the positions of their cages. A bird will sometimes be unhappy or restless in one part of the room, though perfectly contented in another part. It is said that some birds have refused to sing because the wall paper was of a color or pattern displeasing to them. You will need to study these little peculiarities, and you will find that your efforts to please your pet will add to your enjoyment, as well as to his happiness.

The Canary should have a cage large enough to enable him to exercise. Regularity should be observed in cleaning the cage and in giving food and drink to its occupant. As you know, his principal food is canary seed mixed with a little rape seed. He should sometimes have hemp seed as a dainty, but it should always be scattered over the surface of the gravel kept in the cage, instead of being put into his seed dish. Canary seed varies greatly in quality, and a bird will often scatter poor seed when he would waste none if it were of a better quality. Only the kind that has large, plump grains should be given to him. The reason why hemp seed should not be mixed in the dish with the other seed is that the canary likes the former best, and eats nothing else as long as it is found in the dish. It is not well to feed him entirely on what he likes best, and hemp seed is too rich for a regular food. If a half teaspoonful is occasionally scattered on the gravel, he will walk around until he finds every grain, and in the meantime will eat some of the plainer seeds in his dish.

The Canary should have a little green food every day, such as lettuce, chickweed, apple, or similar articles for which he manifests a liking. It is best to hang the cage near a window, but out of the way of draughts, and it should not be too near to a radiator or



a stove. If the room become cold at night, it is well to wrap a thin blanket closely about the cage.

The Canary should often be talked to, and should always be treated gently. He is intelligent and imitative, and has a wonderful capacity for song, but he must be taught to sing. This may be done in three different ways. He may be taught to sing either our own tunes or the notes of another bird,—that of the lark or the robin for instance; or his own natural song may be developed. The learning period in a Canary's life is during the time when he is between five months and a year old. You must then make a choice of one of the three methods of teaching and begin the work before it is too late.

At this time, the cords of his throat must be kept flexible, and it will be best not to feed him too freely on seeds, but to give him soft foods, such as hard-boiled egg, grated and mixed with cracker or bread crumbs. He should have variety of food and plenty of it, for he is growing, and needs to be well nourished.

If you wish to teach him to sing one of our common airs, such as "Annie Laurie," he must first be placed with the cage covered, in a quiet room. Then you must whistle a few notes of the air, or play it on some instrument, slowly and distinctly, in correct time, over and over again, until the bird begins to try to sing it. He must not see the teacher nor hear the least noise to distract his attention, and you will need to be very patient, for you may have to spend hours in repeating these few notes before he will try them. As soon as he does, reward him with some dainty.

But no matter how well he has learned his artificial song, he will forget it the first time he molts, or sheds his feathers, unless it is carefully repeated to him every day. If you wish him to imitate the song of a lark or robin, he must be placed in a covered cage, in the same room with one of these birds. If the cage of the lark or robin be placed in a sunny window, he will sing in his usual happy way, and the Canary, in his darkened cage, will pay attention to the notes and imitate them.

The third method, which is the most natural one, is to have the young bird trained by a good singer of his own species. All that is necessary is to keep the two in a room together. The young bird should not be disturbed by other noises, and especially by other singing. Sometimes the Canary's notes are so loud and shrill that you



tire of hearing them, but you should never stop the song by violence. Never scold or shake the cage. If the bird is too noisy, quietly cover his cage, at the same time speaking kindly to him, and before long he will begin to understand that he is not to sing his shrill notes at all times.

Canaries sometimes become ill, and when they do they require close attention. They are subject to fits, especially if their diet is not well regulated. When the first symptoms of these attacks are noticed, some of the softer foods already referred to should be substituted for seed. Many bird fanciers give the same remedies to a bird that are given for similar complaints in human beings. For example, if the bird has a cold, a homeopathic pellet is dissolved in his drinking water. He thus takes a little medicine whenever he drinks.

Should his claws become long enough to interfere with his movements, they should be trimmed slightly with sharp scissors. Care must be taken that they are not cut so close as to cause them to bleed, for though not dangerous, this is very painful.

If it is noticed that a Canary is restless, and continually picks at his body and wings, he is probably troubled by lice or other parasitic insects. This may be verified by covering the cage with a white cloth or paper, which should be left on over night; if the bird has lice, some of them will be found on the paper or cloth when it is taken off in the morning. The cage, after being carefully washed, should be fumigated with sulphur, which may be sprinkled on live coals, placed in a dish in the bottom of the cage. After this has been done, a small bag of powdered sulphur should be hung in the cage, near the top, and anise seed should be mixed with the gravel in the bottom of the cage. While the cage is being fumigated, the bird may be given a bath in tepid water, after which he should be sprinkled with a powder supplied for the purpose by a reliable veterinary surgeon or bird fancier. For the next few days, the bird should be kept in another room or in another part of the same room.

Frequent bathing is one of the best promoters of good health in birds. As a rule, the dishes made for that purpose are not of the right shape, being made long and narrow, so that they will slip into the cage. Birds like sufficient water to stand in, so that they may dip their wings freely. A common flower-pot saucer makes a very good bath, and the bird can stand on the edge without danger of slipping. The bottom of the cage should be taken out, and the frame placed over the saucer on the table. You will be surprised to note how much better the Canary enjoys bathing in a dish of this kind than in one of those usually sold with bird cages.

THE PARROT

AFTER the canary, the Parrot is the most general favorite as a cage bird. No one unless fond of birds should buy a Parrot, for he demands not only seed and water, but love and attention. He is capable of being either a charming companion or a torment; and as he is a bird of strong emotions, the way in which he is treated has a noticeable effect on his character. If poorly cared for or kept amid unpleasant surroundings, his talent will develop in unpleasant ways, and instead of learning to talk he will take to screaming or barking.

Unfortunately, Parrots receive their first training before they become pets, and much time and care are often required to change their temper and language. In some cases they remember what they first learn, despite any amount of subsequent teaching. When you first

get one of these birds from a dealer, you will often find that he is not friendly, and your first step should be to convince him that you are his friend. This must be done through gentleness and unvarying kindness. If you indulge in violence of any kind in the room in which a Parrot is kept, if you speak loudly or sharply to him, or permit any one else to do so, he will never be a gentle and agreeable pet. Most people seem to have a natural tendency to tease a Parrot, but it is a serious mistake for the bird's owner to permit them to do so.

As soon as the Parrot is thoroughly convinced of your friendship, and no longer shrinks from you, it is time to begin to teach him. He will be found to be like some people, in that if he is not learning something good he will acquire knowledge of the opposite kind. He should be taught by repeating to him each day, slowly and distinctly, the desired word or expression just as you wish him to say it. It is best to begin with one word, and unfortunately, the word generally selected is "Polly." As there are already thousands of Parrots that say "Polly wants a cracker," you will be wise to teach your Parrot to say something else.

Care must be taken in teaching a word to see that the bird understands it. If you give him a nut, say "Nut." When you first come into the room in the morning, say "Good-morning;" and when you go out say "Good-by." In this way you may train your Parrot so that he will at least appear to know what he is talking about. There are many badly-trained Parrots that chatter words or expressions without the least reference to the occasion.

The best food for a large Parrot is ripe corn, and canary, hemp, and millet seed. He should have plain, tepid water to drink. Crackers



may be given to him, and if he has bread it should be dry. Smaller Parrots should have very little hemp seed, which is too rich to be healthful for them. Green food is said to be unnecessary for these birds, but a little ripe fruit or green corn does them no harm. Filberts and walnuts, they consider a special treat. Fresh twigs may be put into the cage, but they should be of soft wood, such as willow or birch. All food should be fresh, and in winter should be warmed slightly if taken directly from a cold room. A piece of cuttlefish bone should always be secured where the bird will have easy access to it. A Parrot, like other birds, should have plenty of fresh gravel or sand on the bottom of his cage.

It is customary to bathe a Parrot by putting him into a bath tub and spraying him with lukewarm water. Another way is to dip a leafy branch in water and hang it in his cage where he can rub against it. Most of these birds enjoy this arrangement thoroughly.

Since he is a tropical bird, the Parrot must be carefully protected from cold, and should never be kept in a cold room. One thing that must not be forgotten is that he is not a safe companion for other caged birds. The Parrot family is continually waging a relentless warfare on the other feathered tribes, and the battles that occur often result fatally.

THE COCKATOO

THE Cockatoo belongs to the parrot family, but has many distinctive characteristics. He is a more beautiful bird than the parrot, and more affectionate. While the latter is inclined to be grave and dignified, the Cockatoo is of a rollicking nature, and when he is happy is full of play. It is interesting to watch two Cockatoos amuse themselves by funny antics. They will sometimes roll over together on the floor, like two kittens.

If shown some attention and treated kindly, the Cockatoo often develops into a wonderfully intelligent bird. But, unlike the parrot, he is not a good talker. He may usually be taught to speak a word or two, but will seldom master a sentence. The care of a Cockatoo need not differ materially from that of a parrot. He should never have soft food, though he is fond of it. His diet should consist of hemp seed or dry corn, with an occasional ship's biscuit or dry cracker.

Besides the two already mentioned, there are several other birds which come under the head of talkers. The common crow may be taught to speak, and his relative, the raven, learns very rapidly, and rarely forgets any sentence that he has mastered. But both are too active to be kept in cages, and too full of mischief to be left at large in the house. Many of our common birds, such as the

robin, Baltimore oriole, and bluebird, can be tamed, and, if treated kindly, will live happily in cages. They should have for food whatever they are accustomed to eat in their native state.

THE PIGEON

PIGEONS occupy a position half-way between the poultry yard and the bird cage. In their ways of living, they are much like the domestic fowls, and they readily take care of themselves if furnished with the proper kind of food. But in their dispositions, and in the remarkable things that they can be trained to do, they resemble the most affectionate of our household pets.

The Pigeon house, or dovecote, should be divided into cells, so that each pair of birds may have its own apartment. Each cell should be about a foot in height and sixteen inches in width and depth, and the door should be arranged so that the nest cannot be seen from without. There may be either a perch in front of each cell, or larger ones arranged in a convenient manner. The dovecote must be placed at such a height as to be out of the way of rats, and should be well constructed, so as to afford its inmates protection from cold and dampness. It must be kept fresh and clean or it will soon be deserted. The exterior should be painted white, as that color is the most attractive to Pigeons.

It is natural for these birds to have a strong love for their original home, and this instinct is especially marked in the species known as Homing Pigeons. In many instances, these birds have been sent to other lofts, sometimes hundreds of miles distant, and, after being confined there for months, have flown back to their first home as soon as they received their liberty. The only sure way to keep Homing Pigeons in a new loft is to put them there when they are only four or five weeks old. Even birds two or three months of age sometimes return to their first home, after having been confined elsewhere until they seemed to be entirely contented.

Many fancy varieties of Pigeons have been produced by careful breeding, and any of them can be kept as pets, with very little trouble. Whenever possible, they should be left to come and go at will, for they are never happy without a considerable amount of freedom. The best foods for Pigeons are the grains and various kinds of seeds which they find for themselves when at liberty.

THE CAT

IN THE opinion of those who thoroughly understand the Cat, no pet is more companionable and none more desirable. So long and

so well has the Cat performed her duty of protecting us from the depredations of mice and rats, that we can hardly imagine what we would do without her.

The care of Cats must vary somewhat with the different kinds. Some of the aristocrats of the tribe are very costly. To this class belong three varieties of long-haired Cats,—the Angora, the Russian, and the Persian. These are so rare that we need not consider them, but may turn our attention to the common pussy, the friendly little creature that is so familiar to us all. Whether white or black, a tabby, or a Maltese, the proper care of these animals is much the same. It is more important that pussy's welfare be closely looked after amid the close surroundings of city life than in the country. In the latter place she has as much freedom as the barefooted boy, who frequents every nook and corner of the farm. She has many opportunities for finding mice and birds, and she can always be sure of a good meal of milk from the dairy, or food from the kitchen. In a city or large town it is quite different. The Cat must be fed and cared for as carefully as are other pets. What is said regarding the care of Cats will, therefore, apply mainly to the city Cat.

Puss is naturally a very clean animal, and should be encouraged to remain so. A small box for her use should be placed out of sight in some well-ventilated corner, and be kept supplied with sand or sawdust. The latter is considered better, as it can be burned. Instead of a box, many use a galvanized-iron pan, such as is used for roasting purposes. This should frequently be washed. The sand or sawdust should be changed almost daily.

A basket filled with clean oat straw or with flannel should serve as pussy's bed, and, if possible, should be placed in a corner near a window so that the sunlight may fall on it. The flannel "bedding" looks better, but the clean oat straw is more to the Cat's liking, as she can turn and roll in it. Its only drawback is that it gets scattered over the floor when she is leaving the basket. The straw or flannel should frequently be changed, and the basket should always be kept perfectly clean. If the animals are troubled with fleas or other insects, the bedding should be sprinkled with a little flowers of sulphur.

In cleaning a Cat, brush the fur well with a soft brush or with an ordinary bath mitten. A Cat's coat can be greatly improved by washing, though bathing one of these animals is a delicate operation. She is exceedingly nervous and sensitive, and shrinks from the water, but kindly tact and perseverance will enable you to overcome



her fears. She should be handled carefully and gently, and be made to understand that no harm to her is intended. Make a thick soap-suds, and, applying it first at the hind quarters, gradually go over the Cat's entire body. After the suds is thoroughly rubbed in, dip the animal, hind feet first, into a tub of tepid water to rinse off the soap. Puss will struggle so hard as to make the operation very difficult, unless she have perfect confidence in the one who is performing it.

After being wrapped in a soft bath towel, she should be put into a basket of clean oat straw and be kept in a warm place. She will finish the drying and cleaning process by rolling in the straw and licking her coat. She should then be brushed with a soft brush.

Most of the maladies with which city Cats are afflicted are due to unsuitable food. In the first place, the dishes from which a Cat is fed should be clean. Milk should be the principal article of food, and it should be perfectly fresh, as sour milk is likely to produce stomach troubles. When a Cat is very thirsty she prefers to drink water, and this should be kept in a clean dish where she can get to it at any time. She drinks but little at a time, but will suffer if she cannot get water when thirsty. A very useful dish in which to feed Cats is one that has a partition in the center, so that milk can be placed in one side and water in the other. This insures the water being emptied each time that the milk is replaced or the dish washed.

If properly cared for, a Cat is not likely to be troubled by fleas, but should these pests find a home in her fur, their presence will render her restless, and sometimes irritable. In addition to sprinkling powdered sulphur in her basket, as has been suggested, the same remedies may be applied that are mentioned as being suitable for dogs; or a specially-prepared insect powder may be obtained from a veterinary surgeon.

Stale bread, crackers, or oatmeal biscuit, may be added to the Cat's milk; oatmeal porridge forms an excellent diet, and fresh vegetables should be given to her from time to time. Puss requires meat, and should have a small quantity once a day.

Kittens can be weaned at the end of the third week, but it is better to allow them to remain with the mother a little longer. If any are to be destroyed or removed, they should be taken away one at a time.

THE DOG

OF ALL our household pets, the Dog usually comes nearest to being one of the family. There are so many different kinds of Dogs, and they are of such varied sizes and habits, that a pet suited to any condition or taste can be found among them. A dainty, luxury-loving,

little Dog would be out of place in a great country household, where the children like one that will romp with them out of doors. On the other hand, a Great Dane or a St. Bernard is scarcely the best pet to keep in a city apartment. When seeking a pet Dog, therefore, you should get one that will suit your surroundings.

The first act toward caring for any kind of Dog should be to provide him with a suitable sleeping-place. The home and bed of a large Dog is naturally the kennel. It should be dry, clean, and light, and must be protected from severe cold and dampness. A good bed may be made of straw, covered with an old rug or a piece of carpet. A Dog of medium size, like most of the spaniels and the terriers, if permitted to sleep in the house, should have a corner prepared for that purpose. The delicate house Dogs which are very popular in cities, require beds almost as soft as our own.

The best plan in feeding a Dog is to make it a rule that he shall never have food taken from the table. He should be fed at regular times, and it is well to have his hours for meals the same as those of the family. It is a mistake either to overfeed a Dog with raw meat or to starve him on dry bones. The best kind of food for most varieties is a mixture consisting of a little cooked meat, plain vegetables, and a mush made of some cereal. The Dog should not be fed so much of it at a time that he will pick out the meat and leave the rest. His drinking water should be fresh, and he should have access to it at all times. Care in these details will go far to insure the health and good spirits of the pet.

The smaller Dogs require more careful attention. These little animals should never have more than one full meal a day, and it should be given to them at about five or six o'clock in the evening. A little milk or broth may be given in the morning; but nothing else. In no case should they be allowed to have candy or rich food, though they are usually fond of both. Some of those having long hair must either be fed from the hand or have their locks tied back at feeding time.

As a rule, a pet Dog gets very little training, but while he is young he should, at least, be taught what things he must not do. This can easily be accomplished by exercising patience and perseverance.

Many of the maladies common to Dogs may be avoided by proper feeding. If a good Dog becomes very sick, and there is no veterinary surgeon at hand, it is well to consult the family physician. A



sick Dog should be kept quiet and should be carefully handled. The most common trouble to which these animals are subject is fleas. A good way of ridding a pet of these pests is to wash him thoroughly with a weak mixture of carbolic acid and water, or carbolic or sulphur soap. This is also good for mange. If the Dog manifest symptoms of rabies, he should be confined in a cool place until a doctor can be consulted.

TRAINING THE DOG

THE dog, if he be of the right kind, is the source of much joy in life. One cannot fail to observe that many great men have had an attachment, sometimes amounting to a passion, for dogs. Chief among these was Sir Walter Scott, who expressed the fullness of his love when he said that the worst thing about dogs "is that they are so short-lived"; on the other hand he added that "if my dog should live to an advanced age and then die, what would become of *me!*"

Sir John Millais, one of the most talented and delightful of all English artists, expressed his feeling for dogs in certain of his pictures. "A Distinguished Member of the Humane Society" represents a Newfoundland dog lying on a quay, ready to rescue a drowning child. "The Shepherd's Chief Mourner" is one of the most pathetic pictures in all the range of art. It shows the interior of a shepherd's cottage, in which poverty is depicted with startling fidelity; in the center of the room is the coffin, upon which the collie rests his chin— infinite sorrow looking from his eyes.



To the poor, the dog is a faithful friend. When calamities come, when human friends leave us, the faithful dog clings closer. The sharing of poverty, exposure, and hunger, seems only to increase his love. Jacob A. Riis, in his autobiography, tells of his unsuccessful attempt to sell his dog. Being homeless, and literally starving, he went—taking with him his Newfoundland dog, Bob—to answer the advertisement of a Wall Street man who wished to buy a dog:—

"But when he would have counted the three gold pieces he offered into my hand, I saw Bob's honest brown eyes watching me with a look of such faithful affection that I dropped the coins as if they burned, and caught him about the neck to tell him that we would never part. Bob put his huge paws on my shoulders, licked my face, and barked such a joyous bark of challenge to the world in general, that the Wall Street man was touched. 'I guess you are

too good friends to part,' he said. And so we were. We left Wall Street and its gold behind, to go out and starve together."

Rab, of Dr. John Brown of Edinburgh, has become classic in literature. Dickens has expressed his feeling for dogs in the portraiture of Bill Sykes, a ruffian whose one redeeming feature was his love for his dog.

At the same time, a dog may be a nuisance to every one except its owner. The ill-bred dog is unspeakably disagreeable. He snarls, bites, destroys clothing, and barks viciously at the innocent visitor.

The complete family ought to include as Mr. Beecher declared, not only a grandmother and a baby, but also a dog. The adults will pet him, the children will find companionship in him. The child that has never owned and loved a dog, has missed something of value from the experiences of childhood. The dog in the family will then be either a delight or an insufferable nuisance. Which he shall be, depends largely on the training of the pup.

In selecting the pup, it is best to see the whole litter together. That one is always the most intelligent and docile which, in his puppyhood, is the "smartest," or most active. When the litter is nursing, a slight interruption will distract the attention of some, while the others will keep right on with the occupation of the moment, not appearing either to see or to hear. The former are the ones to be taken. They will learn quicker and obey better.

It is laid down as a first principle that any dog can be trained. This does not mean that all may be taught with equal ease, or that they will reach the same degree of proficiency. Some dogs, like the setter, the greyhound, or the collie, have so strong a bent in one direction that it is easy to train them in that one line, and correspondingly hard to teach them other things. But this is not different from the variety of talents that are found in children. One child inclines to mathematics, another to music. In movements, one child is naturally awkward and another graceful. There are many and wide differences, but it remains that in any case there is a wide gulf between the trained and the untrained child. The distinction is apparent at a glance.

As all children may be trained,—though not equally,—so all dogs may be trained. Professor Norris, a most successful trainer of dogs and ponies, whose exhibitions have astonished and delighted hundreds of thousands of spectators, is positive on this point. In proof of it, his collection of from twenty-five to fifty dogs seems to contain very nearly all sorts and conditions of dogs, no two of which are alike. And there are few or no thoroughbreds in the collection. His exhibition leaves the general impression that there are about half a hun-

dred of "thoroughbred mongrels." A school of dogs is like a public school,—all the pupils may be taught, though some must stand at the head and others at the foot of the classes. Even the latter gain much.

If you cannot get the kind of dog that is wanted, you should not be deterred from teaching the dog that you have. Indeed, in the matter of acquiring knowledge, the mongrel is often superior to the aristocratic breeds.

The qualities of a successful trainer are not in themselves rare, even though the use of these qualities may be. All that is required is a definite aim, persistence, good sense and unlimited patience.

The quality that is usually lacking is the definite aim. One wants an educated dog; but what does one mean by education as applied to a dog? One wants his dog to perform tricks, but he has not in mind the particular tricks that he is planning to teach. He has no definite thought of teaching the dog first one thing, then a second, then a third. His efforts, therefore, fail. It would be astonishing if they did not fail. They would fail even if applied to an intelligent child. The child does not have a jumble of mathematics, science, history, and art, thrust upon him all at once. He first learns definitely his letters, then he learns to read, and so is led regularly from one thing to another, until he is in some measure educated.

An important point is that there should be one trainer only; but this does not mean that the dog is not to obey every member of the family. Teaching him to obey them will come later. But in the process of education, he should have one instructor, not six, not even two.

The trainer should be the owner of the dog; or, if he is not the legal owner, he should have all the authority that will lead the dog to recognize him as the sole master. It is he who feeds the dog, punishes him, pets him, chains him up at night, first greets him in the morning and releases him. It will not be long before the dog will understand that he is in the control of this one person, and, in his canine fashion, he will be studying the mind of his teacher, for he grasps the fact that his prosperity and happiness depend upon his relations to this person. Not a few dogs come to be fairly successful mind-readers.

In a house full of children, it is not always easy to give the training of the pup to one person only. But if all are masters, there is no master. Then it will be strange if the dog does not learn tricks galore,—not the tricks that amuse, but those that exasperate. He will develop an intelligence of a certain kind, but much of his ambition in life will be to know "how not to do" the thing that is wanted.

The punishment of a dog should be rational. There may be little of it, the less the better. But, much or little, it should be of the right sort. If the punishment does not accomplish its purpose, it is worse than nothing. Injudicious use of the rod will change a dog from the noble animal that he should be to a despicable sneak. A very little whipping will go a long way. When the dog realizes that he is being punished, he fears the human tongue quite as much as the lash. The punishment should be serious and deliberate. The dog should never be cuffed nor kicked and then allowed to escape. Talk to him. He may not understand your words, but he will interpret your tones and manner. After the lecture, you may dismiss him in disgrace, or pet him. In the latter case, he will understand that he is forgiven and is expected to live up to the standard of the forgiveness. Things should not be thrown at a dog, nor should he be chased with a broom or stick.

These preliminary remarks are purposely long because they are of chief importance. The principal thing is to have control of the dog and to know how to teach him.

If the pup is destined for a house dog, the first thing to do—and the hardest—is to teach him to live in the house. It is instinctive with him to use his teeth, and unless the owner is careful, the pup will chew up everything within reach that happens to strike his fancy. Such things as he is likely to destroy should, therefore, be kept out of his reach. Give him a rubber ball to exercise his teeth on. Some people give him an old slipper or a rubber shoe. There is danger in this. The pup does not easily distinguish between the shoe that he is allowed to chew and the one that he must not chew. It is safer to let him know that he is not permitted to bite any shoe whatever, and the ball will satisfy his reasonable needs.

Then he must have his own chair or rug. Otherwise he will monopolize every upholstered chair within reach, being particularly partial to those that are most luxurious and expensive. This should not be tolerated, and, with the right kind of start, he can be taught to keep to his own furniture.

Nor should he be allowed to be noisy. The house is not the place for loud barking, nor for excessive romping. Nip in the bud the first attempts at these transgressions. Punish him as gently as you will, but let him know that it is punishment and he will quickly learn the limitations of his rights and liberties.

After he has learned house manners, the next thing in importance is that he should behave himself out of doors. He should invariably follow his master, and at no great distance. This will save the master a world of trouble. The dog that is out of sight in front, then out of

sight behind, then barking at passing horses, challenging dogs, chasing cats, bits of paper and what not, to right and left, is anything but a comfort. But the dog that follows at heel is not only a pleasure to his owner, and the admiration of neighbors, but is of practical value in one thing that will be explained later.

In teaching specific tricks, bear in mind that the lesson should always be given before feeding time. If the pupil does well, he is to be rewarded with a mouthful of food. So long as he is hungry, this is particularly acceptable. As he has already learned that he will get his food from his trainer or not at all, he will soon see the importance of not alienating his commissary department.

Again, lessons should be made short. Do not bring any lesson to a close unless something has been achieved, for that would leave the pup as victor and encourage future insubordination. But, if possible, let the lesson be not more than from ten to twenty minutes in length, stopping before the dog is tired out. This will make the whole course of instruction easier for both teacher and pupil.

The specific tricks are of two classes: those that are useful, and those that are amusing. The useful ones also furnish amusement, but the others have no value in practical service. The useful tricks are manifestly of chief importance.

The first trick lesson should be carrying. Give the dog a stick, or ball, or any convenient object. If necessary hold it in his mouth. Then repeat, over and over again, the words, "Bring it to me," or "Bring me the stick." If he will not follow, you may drag him—not too harshly—across the room after you. If it is necessary to strike him, do it very gently, so as not to discourage him at the outset. As he begins to obey, even in the least, reward him with food, petting, and praises. But do not lose patience or temper. As soon as he has learned to carry, let the second lesson be that of fetching. Throw the stick a few feet and repeat nearly the same words as before, "Bring me the stick," "Get me the stick." When the pup gets the idea,—and he ought to get it soon,—he will enter into the game with as much zeal as a boy shows in a game of ball.

The next trick is picking up dropped articles. This is for the street. Assuming that the dog is at heel, drop your handkerchief. If he does not of his own will pick it up, call his attention to it. Keep at it by various devices until he picks it up. Then reward him as before. Repeat the experiment many times and for many days. It will become a second nature for the dog to pick up anything you may drop,—handkerchief, paper, package. He will carry the article for you until you take it from him. The practical nature of this is obvious.

As soon as convenient, the dog should be taught to "charge," or lie down. This is noted at this point because it is intensely practical. The best dog, no matter how well trained, will occasionally get nervous. This is likely to occur when visitors are in the house. When it occurs, it will break up the conversation, ruffle the most placid temper, and destroy the pleasure of the most desirable visit. If the dog will, at command, "charge" and remain quiet, these annoyances may be escaped. The method of teaching is to draw out his legs from under him, thus making him lie down. Talk to him all the while, gently and lovingly, frequently interjecting the command. It is not as easy to teach as most of the more common tricks, but it is not really hard, and there is no good reason why it should be omitted from the curriculum of any dog's education.



Of the tricks classed as amusing, the easiest, and therefore the first to teach, is jumping. Hold a stick in front of the pupil, a few inches above the floor. Hold a piece of meat just beyond the stick and say, in encouraging tones, "Jump, jump!" As soon as he gets over the stick at all, reward him plentifully with praises and caresses, but give gingerly of the bait: give him a bare taste, just enough to sharpen his hunger. The instruction is not complete when he jumps over a stick only. He should clear every obstruction,—jumping over a chair, a stool, the creeping baby, or through his master's arms. Some dogs will never learn to jump more than two or three feet high, while others grow to be expert in this branch of athletics.

Another easy lesson is that of rolling over. Reach under the dog's body, grasp the farther front paw, then gently roll him over on the floor. Praise and feed him as if he had done it himself, and soon he will do it alone.

In teaching him to speak, the instructor must use his ingenuity to mimic the short bark, or yap of the dog. The meat or bait must be held near his nose so as to tempt and even tantalize him. He will incline to bark as a relief to his own mental agony. Your barking will fix in his mind that that is what you want when you command him to speak. Keep this up through feeding time. After a few days, he will consent to speak between meals.

When you begin to teach him to sit up, put him in a corner of the room. The walls will support him and preserve his balance and this will make it easier and pleasanter for him. As a result, it will also be easier and pleasanter for his teacher. The point of caution is that he should hold his front paws well up. It is at this point that most teachers miss the best results, for although the position

looks strained, it is really the correct attitude for preserving the balance, and is therefore easier for the dog.

Walking on the hind legs follows naturally upon this. The elevated position of the fore paws is of even more importance in this than in the preceding trick, because the balancing is more difficult.

For shutting the door, stand him on his hind legs, placing his front feet against the partly open door which his weight will close. This might be classed among the useful tricks, but it is really of less practical use than one would suppose.

These are most of the ordinary tricks suitable for the average pet dog. There are many others more difficult, but they come later and require much time and skill.

There is an old proverb, the doctrine of which is as good as the English is bad,—“You can't *learn* an old dog new tricks.” This teaches that the best period for instruction of the dog is early in life, say between the ages of six and eighteen months. But there is also an important corollary, namely, when the dog has been properly taught, it is easy to keep him in the right path as long as he lives.

The time needed for the proper education of the dog is comparatively insignificant, being but a few minutes each day for a few months, at most. The results should be gratifying and should last through many years. When the dog has had his training, he may be graduated, so to speak. After that, he will obey not only his master, but also, to a reasonable extent, all the members of the household. He will be a useful as well as an entertaining member of the family. A faithful policeman, a sympathetic companion, a steadfast friend, he will repay a hundredfold all the care and patience he has received during his school days.

THE RABBIT

RABBITS make very desirable pets, especially for the younger members of the family. Their houses must be constructed with great care to keep the occupants from escaping. This they will do either by gnawing their way out or by burrowing. When once at large, the rose bushes and young trees, as well as the gardens in the neighborhood, are likely to suffer from their depredations. Generally, a rabbit house should be divided into two rooms, and should have a small “run” made of stout wire netting, connected with it. The floor should be provided with sliding pans, which may easily be taken out and cleaned. In order to keep all dampness from the house, it is well to elevate it a few inches above the ground. In very severe winter weather it should be carried indoors, if possible. In order to keep



the Rabbits from burrowing under the wire netting, it is usually necessary to drive stakes, close together, all around the little yard so that they extend into the ground about two feet. A box sunk in the ground at the farther end of the yard, and provided with an opening so that the bunnies can go in and out, will be greatly appreciated by them.

Rabbits may be fed oats, corn, all kinds of greens, carrots, raw sweet potatoes, tea leaves from the teapot, and milk. It has been said that Rabbits do not drink water, but this is a mistake. Sometimes when the little Rabbits are born, the mother Rabbit will die if she has no water to drink. Water should always be placed where the animals can reach it, though they will take only a very little.

The number of young in a litter varies from four to eight. They are born without fur and with their eyes shut. It usually takes ten days for them to open their eyes and get their coats. The first little fellow to venture forth is regarded as the smartest of the litter.

Rabbits are very good living-barometers in their way. Before a storm they become unusually frisky, and even though the sky is clear, you may notice a difference in their actions. It is then safe to expect a storm within a few hours.

MONKEYS AND RODENTS

IF KEPT where there can be no harmful results from his mischievous acts, a Monkey makes a very desirable pet. The little creatures are so intelligent that a study of their ways is of great interest, and at the same time they are so comical that they furnish a never-failing source of entertainment. They are affectionate and will soon become devotedly attached to persons who treat them kindly. Mischievousness is inborn in a Monkey, and he is always seeking some way of amusing himself. He finds great pleasure in hammering or banging something with which he can make a noise, and for this reason he should never have access to breakable ornaments. The best way to restrain him is to tie him with a light chain.

He will very often make friends with other household pets, but sooner or later they are likely to suffer from some of his mischievous pranks. Monkeys should not be exposed to cold or dampness, for they are very susceptible to colds and lung diseases. As in the case of other pets, they should receive food and water regularly and should be bathed often. They will eat almost any kind of fruit that is eaten by man, and are especially fond of fruits, nuts, and vegetables.

Some of the most pleasing pets are found among the Rodents. Squirrels are bright and frolicsome, and at the same time are

neat and easily kept. A squirrel of any sort likes a warm bed, plenty of nuts to eat, and a chance to exercise, such as is afforded by a revolving cage. The Guinea pig, which was originally brought from South America, has become a great favorite among children. Practically his only recommendation is found in his appearance, for he shows little intelligence. But he is cleanly and easy to manage, and makes very little noise. He is not particular as to his food, but is usually fond of anything that Rodents eat.

Many other animals, large and small, can be domesticated, and some of them become very attractive as pets. In the west, bears and even wolves are taken when young and so trained that they seem almost wholly to lose their natural instinct to savagery. Children play with them without a thought of danger. Of course these do not belong in the class of pets, but they are mentioned here to illustrate the susceptibility of the brute creation to kindness. Of the smaller animals of the United States that are wild by nature, it is safe to say that there is not one of them that may not be tamed, and become attached to human associates and surroundings. The beaver, the woodchuck or ground hog, the weasel, the prairie-dog, all these have been trained as pets. Birds of almost every kind have also been caged, although some of them do not thrive in captivity. It is often interesting to take wild birds as soon as they are able to leave the nest and try with them the process of domestication. If they seem contented and happy they may be kept as pets; but any such that pine under restraint and evince a desire to be set free should be given their liberty. To retain them as captives becomes cruelty.

DRESS AS A FINE ART

DRESS AS A FINE ART

Decoration should always be subordinate to the thing it decorates.

—*Edmund Russell.*

AN ART becomes a fine art when the beauty created by it comes into direct contact with the human personality, so that it is ministrant to the human soul. Dress stands in this relation to the individual; it is closer to real life at its highest than are painting and sculpture. A beautiful woman, at a great moment in her life, becomes a more unforgettable picture than any oil and canvas; and her dress forms an essential part of her appearance. A well-draped figure, living and moving, creates a deeper impression upon human consciousness than can any statue. Art should be for life as well as for galleries.

Art in dress differs in no essential from art in paint or clay, in sound or stone. The laws of art are everywhere the same, since the laws and meanings of beauty are everywhere the same. Yet every art differs somewhat from every other, there being some things that can be better expressed through one medium than through another. Words express what tones cannot; music expresses what language cannot. The rules of each art will be different from those of every other; but the principles of all arts are the same. Harmony is harmony in color or in sound; discord is discord in color or in sound. The difference between the meaning of harmony and discord always remains; yet harmony in color expresses something a little different from harmony in sound. Each art has advantages and limitations. Dress has the advantage of a close relation to real life; it has the limitation of being subordinate to the various qualities and needs of the wearer. But limitation, understood and regarded, becomes strength. It is not less noble to so place a bow of ribbon as to make a cheek seem rosier, than to paint a red figure where it makes a tree seem greener.

Almost every woman may be so dressed as to look beautiful; every woman may be dressed so as to look interesting. Some women can be made only picturesque, but even the beauty of ugliness may suggest charm of character; and there are always beautiful features that can be brought into prominence. Ugly features can be in some way obscured, or attention can be drawn away from them. Every face has some beautiful lines, every one has some beautiful color. All women try to look well; but to try intelligently is another matter. A preference for blue, or for red, is not a safe guide in selecting a costume. Color is a matter of relation, and must relate to the

wearer's colors, not to her preferences. Dress, as a decorative art, is for those who see us—not for ourselves. To make ourselves attractive is a duty and a generosity, not a vanity.

The natural harmony of line and color in the human body is one of the highest forms of beauty. It suggests happiness and health; it is the ideal; and every variation from it is a discord. The object of decorative art in dress is to obscure the discord and to attract attention to the harmony; to increase it, in fact, by adding new elements.

There are laws of beauty. It would be strange, indeed, if beauty only were exempt from law. And where there is law there may be science; where there is intelligent reasoning there is a development of faculty: Through the development of those faculties of the mind which perceive beauty, taste is developed. Which lines and which colors will look well together is a matter of knowledge, and such knowledge is the basis of taste. Dress as a decorative art should be a part of popular education. The evolution of dress constantly increases the necessity for the study of dress as an art. Mere dress-making is now a matter of great skill; as a trade only, it takes years to master it; as an art, it takes a lifetime.

Fashion books and paper patterns bring fashion to the door of every cottage and farm home. Home work has advanced as well as trade or art work, and both standard and execution still advance. The greatest lack at the present time, is a knowledge of the laws of applied art; but a science of art easy enough of comprehension came into the world in the discoveries of Delsarte. These laws were discovered less than a hundred years ago, and they are not yet generally known, as most people think the work of Delsarte was merely the invention of a few gymnastic movements for grace-making.

Truth is never in a hurry; it can afford to wait; but the oftener it is discovered and rediscovered, the better. Dress has received enough attention; what it needs is thought and knowledge.

There is a looking-glass in every bedroom. For what purpose? So that the clothing which is put on for warmth or covering may become decorative. Everybody wishes to look well, so everybody is concerned in some degree with decorative art. A knowledge of the principles of beauty is a distinct advantage. It is a help to know which things will look well together, and which will make a given person look well. It saves experiment; it saves time; it saves mistakes; it saves material and money; it may save failure in life because of unattractiveness.



Dress must fill many rôles. It must be hygienic and comfortable, and must leave the body full freedom of action; it must be becoming and decorative, which means beneficial to the lines and colors of the individual; it must subordinate or enhance certain features; in short, it must always help the body. It clothes the body and expresses material relation to life, but that is not all; dress has also relation to the soul. It must express character, subordinate itself to the spirit, and be a signal flag to the mind of the wearer. To these ends, it has many qualities; but supreme, and least often attained, is one final merit, difficult to describe or analyze, which, when present, is more eloquent than any other—that is, distinction.

Every woman has some general characteristic which becomes a merit in her. The dashing woman, with red cheeks and black eyes, wearing contrasting colors which sometimes seem loud, is often refreshing and enlivening, and makes her neighbors seem commonplace or obliterated. True, it is not very kind or very well-bred to obliterate other people; but, after all, it is best to let every woman emphasize her type. If you are dashing, do not try to be tame; if you are gentle and sensitive, do not try to be loud; for the result of such an effort is always near to swagger. If you are tall, do not try to be short. If you are little, and of a comedy style, do not try to be stately. Dress to express your character and to suit your environment. It is easier to change environment than character; and beware lest environment, even though of dress, change your character, obliterate your strength, and leave you commonplace. It is the principle of good art to focus to the climax—not to smooth down to the dead level.

For our present need we are concerned with the laws of harmony in color, line, mass, etc., that we may produce the effect of beauty in men or women. And, above all, we are concerned with the laws of expression; that clothes may become an expression, as well as an ornament and an aid.

FASHION

FASHION should be thought about, fashion should be studied. Every fashion has a cause; that cause should be generally known. Every fashion produces results; those results should be foreseen. There is needed a fashion magazine, a quarterly, whose editorials should announce and explain the coming fashions, show their relations to, or their diversity from, the fashions which they supersede; show how things lately fashionable can be utilized in the new fashions, and make clear what idea the new mode embodies.

To fill the position of fashion editorial writer there should be selected the best informed writer on the staff. She should know contemporary his-

tory, diplomacy, politics; for she must show *raison d'être* of all fashions. For example, one of the new century fashions was the high-peaked hat for children, a copy or modification of the Mexican hat. Is it not interesting to inquire what brought Mexican hats into New York? Who are the Mexicans that we should copy them? What has brought them to our notice? Or what mental need had we that is satisfied by a pyramidal hat? What is its expression? These are subjects school children should study.

One great advantage we of the present day have over our ancestors is that there are always so many things fashionable. There is room for individuality without being so remote from the fashion as to seem ignorant or unrelated. A woman feels insulted if you call her old-fashioned. Every

woman thinks she knows what is fashionable, thinks it requisite that she should know what is fashionable; but this knowledge is too often superficial. The ideal fashion should lead

us to think of cause and effect, should show us what we are choosing, and what effect it will have upon our looks, our moods, our character, and our relation to society. There are leaders who feel that it is obligatory upon them to be the first to wear a new fashion. There are other leaders who feel it beneath their dignity to be quite in the newest fashion. The aristocrats are a little above fashion. If you are

too up-to-date, it advertises the fact that you are not above fashion. But the other extreme of being out of date, or behind the times, is also better avoided. Perhaps it would be best always to know the fashion, to understand the character of each new fashion, then to choose or leave it as it suits your looks, your style, your life, your needs; thus acting in the direction of freedom and individuality.

Not a century ago, a single model of a bonnet would be the fashion for a whole summer, and every woman would be compelled to wear it, or to wear the last year's model. There are, to-day, a thousand models, at least, all equally fashionable. Then there are suggestions by the hundreds for the trimmings. Their generalization is lightness, that the largeness may not be burdensome. For the modern woman thinks of health and comfort. She would not readily submit to a half-bushel Gainsborough, made of buckram and velvet, and weighing as much as a helmet. A large hat must now be light. Thus the evolution of dress is steadily toward comfort. But small hats are also in fashion, something to be worn when one is not "dressed up"; straws and simple trimmings that can endure exposure to sun and wind and weather.

The ideal modern woman must be becomingly dressed, sufficiently in the mode, and still must preserve, and always show, a touch of individuality. Let us not confound fashion and style. "Stylish" means having a plan, a distinctive quality, a daring and interest, beauty of outline, unity, seeming simplicity of effect, no mere muddle of tones or colors or lines or masses. Style means plan, idea, structure. It takes a thinker to make a stylish



garment. A designer of a beautiful garment to be made in duplicate and worn by thousands of women, stands high in the scale of artists.

Sarah Bernhardt when asked if she were not herself who she would rather be replied, "I would be an English duke and live in Paris." Paris seizes and makes Parisian whatever its attention is for the time drawn toward. When Sarah Bernhardt is envying an English duke, French mothers and daughters begin to wear English clothes. Fortunately, clothes do not long remain English after they reach Paris; very fortunately for Americans, for English designs are heavy, hard of line, plain, smooth, unsympathetic, and generally trying to the more sensitive type of the American woman. They are impossible for the wiry French woman.

It is the universal custom for the men of America to follow in their clothes, the fashions of England but the feminine fashions of England must usually be everywhere lightened and softened in effect, before they are suitable to American women. American women are overloaded in English hats, bony in English dresses.

Yet to England we owe the tailor-made costume — a thing that will never again be entirely out of fashion, so suitable is it to certain types and to certain places and occupations. Its beauty is in its appearance of simplicity; yet of all garments it is furthest from being simple. Its disadvantages are expensive labor—a tailor is always expensive, a geometrical cut always difficult to do well—and the necessity it involves of modifying the natural figure with the corset.

It has been to some extent left behind by the shapely shoulder and general trimness of the Eton jacket, which being loose from the belt enables the woman once more to have full use of her arms. Every tendency in dress at present is toward beauty, freedom, hygienic life. We are living in a glorious time. If modern sports continue, the American woman of the leisure class will soon be as large and Junoesque as the English woman.

What the advocate of bloomers and other ugly conveniences could not do, the tennis girl and the golf club easily accomplished. French heels disappeared from the tennis court and the golf links, and then from Broadway. Long and full skirts are no longer required to vindicate one's claim to womanly modesty. The tennis shoe gave us the street shoe; the bicycle skirt brought the rainy-day dress. Convenience and beauty in the golf skirt prepared the way for the ordinary short walking skirt. When society women wore short skirts, short skirts became the general fashion.

What the woman of leisure wears, the working woman wishes to wear; so the dress made for games is spreading to the shops. The more a street dress is suited to the street and for work, the less it is suitable to the house and leisure; and this differentiation of long and short dresses, according to occasion, is likely to be one of this century's blessings to woman. Its results will be both hygienic



and psychic, as the convenience, health, and strength, gained by the short dress will not outweigh the gain in charm, beauty, and sweet moods, that result from freedom in fancy and fabric in home dress.

The tea-gown may develop into manifold forms of beauty, losing its old shape of a mere wrapper and giving play to invention of forms of beauty and expression suited to all types, moods, and moments. A happy woman once said, "most women have too little negligée experience." Why not wear in the sitting-room, library, parlor, bedroom, or boudoir, becoming garments, frivolous, fanciful, of any and every fabric, giving full expression to the wearer's moods and affording entertainment and pleasure to her friends. The time it takes to change the dress from outside to home costume is a very small price to pay for the psychic value, the rise in self-esteem, the cheerfulness of mood, which results.

Three-cent cheese cloth and grace are sometimes more admirable than five-dollar brocade and whalebones. Beauty flouts at money. It may be seriously said that there is no necessary relation between beauty and cost. Poverty is no excuse; short, at least, of that sordid poverty which makes even soap a luxury, and leisure unattainable.

Fashion fluctuates, but fashion follows the differentiations of civilization. The evolution of dress goes on at a rapidly increasing rate. Now that the desire for health and grace and free out-of-door sports has shortened the corset from eighteen inches to six, and diminished its bones from fifty to five, reducing it to a mere girdle, it is possible, but not probable, that the terrible busks of our grandmothers, and the longest and stiffest corset of the tailor-made days may return; but it is very sure that return would not be general or lasting. The chicken does not go back into the egg-shell. Nor will the twentieth-century woman ever be as disregardful of hygiene and beauty, of comfort, and freedom of life, as were her grandmothers. The modern woman loves work, loves play, demands life in its broadest sense. She expects to be a happy woman, a happy mother, and an important member of society.

FABRICS

FROM CHEESE CLOTH TO VELVET; FROM GAUZE TO ARMOR

ONE of the most subtle influences in the art of dress is the adaptation of fabric to the woman wearing it. Thick, loose cloths, suitable to the fogs of England, and to the Juno-like women who by preference wear them in tailor-made garments, overload the slim, bony, nervous, high-colored French or American woman. The most useful fabric is opaque; the most beautiful fabric is transparent. The opaque fabric gives its own

color, with insistence, but yields its form generally to the form of the wearer. The transparent fabric gives its own color and also the color of that which is beneath it. This produces elusive and beautiful effects; color more changeable and complex, color blending, shadowing, contrasting. Here new colors formed; there the old ones gleaming.

I have lately seen many dresses built of layer upon layer, skirt upon skirt, of the thinnest fabric obtainable. The richness and delicacy of color resulting from successive combinations become as beautiful as a bird's wing, sometimes as gaudily delicate as a butterfly. It is almost safe to say that if a dress is to remain feminine in expression, very brilliant and contrasting colors *must* be of transparent fabric.

Among new art fabrics one of the most beautiful and useful is a strong, fine, white cotton lace and plain net, printed in splashes of soft-colored flowers, of conventionalized pattern but without much outline. When this is read these may be worn, or they may be out of date; but that is an unimportant consideration; the strong, transparent fabric, and the soft, fleeting design and color, suggest a means of attaining beauty which will remain. This lace worn over an under dress, or drop skirt, of one of the tones in the flowers is as beautiful as an organdie and ten times more durable. An organdie dress, the fabric of good quality, the color and design good, is perhaps the most beautiful gown ever worn. It is elusive, suggestive, transparent; it is delicate to the eye and to the touch. It is the most feminine thing in cloth.

The thing beautiful is on a higher plane than the thing decorated, or, as we say, trimmed. I wish that word "trimmed" could be banned from the dictionary. Why "trim" a hat? Let us "make" a hat. Why trim a dress to make it beautiful? Let us make the dress itself beautiful. Why buy an ugly fabric, and then sew lace and ribbon on it? Still it all depends on how the lace and ribbons are used. An artist must always be on both sides of the question. Among transparent fabrics there is one called madras muslin. In the museum in Salem,

Massachusetts, I saw some bits of real madras muslin, brought from Asia, as a curiosity, by an early sea captain. They were almost as transparent as glass, almost as fine as a cobweb. I do not know by what steps the commoner madras muslin of to-day changed from this to the thing it is. The women of the Zenana and the harem, always indoors, protected, idle, languid, in a hot climate, could wear these delicate stuffs. For use in England, they needed to be coarser. The publicity of a woman's life, the variety of her occupation, her size, her activity, all



demanded it. The coloring of the early English-made madras muslins, and their conventionalized designs, were of marvelous beauty. They were made just when the value of faded tints and low tones had begun to be taught by artists. It is one thing to make designs for a piece of cloth and it is another thing to make designs which can be executed in a loom. In madras muslin, the threads which form the pattern are run into the fabric and cut off at the edges of the design. This leaves the designer practically free as to how he makes his design. There is no fabric with a woven design which offers so much freedom to the designer; and of this the artists at once took advantage, so that of all fabrics in the market, the most beautiful designs and colors were for years in madras muslin; and although merely for the sake of change, manufacturers have of late made ordinary calico-looking madras muslin, there still may be found in almost any large store a number of really beautiful ones. They make the most beautiful window hangings of our times. They have as good design as the most expensive lace, often better, and with the addition of color.

It was for a long time taught that a really artistic dress must be purchased at the upholsterer's. There the fabrics were wide enough to make good drapery without too frequent seams, or to cut skirts and cloaks of good line, without the interference of seams. There art had freer sway than in dress goods; but the manufacturer is ever watching for suggestions, and speedily the dress-goods counter began to supply this demand.

There are still those, however, who buy madras muslin for dresses. Another element of its beauty, by the way, is the velvety edge on the design. These rough edges soften the blending of color and break the outline of the pattern.

The most beautiful dresses I have seen of madras muslin were lined with cheese cloth of the coarsest, loosest texture. Made in this manner, the dress, while transparent and soft, has a velvety richness of fold, and is as beautiful in

effect at one dollar a yard as many of the most expensive fabrics.

Speaking of cheese cloth as lining to madras muslin, brings to mind one of the prettiest and also the cheapest of the writer's dresses. It was made at home, sewed in straight seams, only one curve cut for the armholes, shirred into a pretty round neck, and cost but sixty-five cents when finished, being made of cheese cloth at five cents a yard. It was a deep, creamy white—the white of unbleached cotton. The fabric was very sleazy, the cotton so coarse that the threads were a little like wool; and when worn for two or three days in hot weather the wrinkles which hung from the shirring of the neck fell into long, parallel, straight lines to the feet—lines which swung loose or swayed into a fathom of sweeping curves following the turning of the body. Bending or sitting, the folds broke into cascades of natural ruffles, exquisite in effect, and a real part of the garment, capable of unending change and surprises. Round lines are becoming to the neck, the face, and the head. This dress was shirred round and round—out toward the shoulder—not deep enough



to flatten, but just deep enough to raise the chest. The shirring was drawn in to form a band about the neck, which spread into a thick ruff below the chin and ears. The sleeves were shirred at intervals, and fell open and full at the wrist. Our artist has attempted a picture of the dress from description.

I wish that some one would write a book on art in cotton. If cotton had in its career escaped starch it would be further up in the scale than it is now. We like things to be clean, so we wash them. One great advantage of cotton is that it can be washed. To give it its original texture, to make it look like new, we iron it. To advertise the fact that we have washed and ironed it, we starch it. Starch was the first downward step in the art of dress. Starch makes a cool fabric hot. Starch constricts the action of the body, spoils the poise and bend of the head, gives artificial motion to the wrist, develops a priggish primness in state of mind. Most cottons are more beautiful in texture, hang in more beautiful folds, and fade into more beautiful tones, after washing. This is a cotton-producing country. Invention should exhaust itself in the production and use of cotton fabrics. Even Hamburg embroidery at a few cents a yard, may, if the design is good, contain the beauty it would have ruined a pair of eyes to produce with a needle.

But let heavy women wear heavy fabrics. These, with large folds and long flowing lines, obscure her too round curves and justify her size. It is fallacy for a large woman to try to look small by wearing tight clothing.

It has been said that fat is an enemy of beauty. A body made of solid muscle gets its shape and its beauty from the infinitely varying lines that result from the great number of the muscles laid one over another; but fat has little organization, it just lumps on anyhow and anywhere, usually where least wanted. For this reason it is better not to display all its curves. It has some advantages, if not too excessive; and this need not be in these days of science. It makes the skin smooth, the face childish, often sweet, and is very likely to be accompanied by good humor, often merriment. So I should say, make yourself the best you can, then accept yourself as you are, and take advantage of your particular style.



A large woman can have grace, dignity, and repose; and her size may, if well dressed and well carried, make the small woman seen insignificant. Let her seek heavy curves, up-and-down lines, long, diagonal lines, high head dressing — hair and hats, aigret, bows, hair jewels — and long trains.

A tall woman on the other hand may with advantage try to look shorter; at least she might if there were ever an advantage in looking short, for surely height of stature is a beauty.

Time was when the shine, expense, and general awesomeness of black satin tyrannized society. One felt that words could hardly express the indignity to human beauty inflicted by a black satin waist. The glitter of the high light on the satin utterly obliterated the form of the wearer. But everything is good in art, and even black satin is used with some advantage to-day. It has its time and place. Nor are the satin fabrics as ugly as formerly. Its insistence upon its own high lights has been broken in upon by design and color; the glisten of its surface has been softened, so that some kinds are now as soft as velvet.

Art in manufacture is the bugle cry of beauty in our day. What we need now is knowledge, and more knowledge, and then more knowledge. In every school there should be a class in how to spend money. This subject was at one time the most popular in a long course of very popular lectures. To keep up with the age, to know how to spend one's money effectively and economically, is a subject demanding an increasing amount of attention. Which effects and how to get them, is a practical problem for the art schools. Nine out of ten of the students study how to make the chalk look like plaster, and how to make oil paint look like cloth. The time would be more profitably employed in studying the laws of decorative art, and in preparing exhibitions for the arts and crafts.

Black silk was once the shibboleth of respectability. "One good black silk dress" was the substantial teaching to every young woman, by her mother and aunts. One Bonat silk—we all prided ourselves upon knowing at a glance the quality and price, four to six dollars a yard—in which maiden or dame looked equally frumpy and self-satisfied, was for ten years the backbone of a lady's wardrobe. Let my older readers think seriously of those days for a few minutes, and realize the enormous benefit and the untold common sense that decorative art has brought into the dress of modern life. In this country we are accustomed to say that art dates from the Centennial. So it does—some of it.

Then there was the early Victorian era in England. No time or country could have shown more Philistinism, ignorance or *bourgeoisie*, in dress.

But England had its "Centennial" too. The event which revolutionized fashion in fabrics in England was the advent of the East India Company. The importation of Oriental fabrics was a revelation to even the Anglo-Saxon mind; and in the fashionable sections of London, the Anglo-Saxon was well sprinkled with Celtic. In London, artists are "in society." Their influence is more quickly felt than in America, and the artists welcomed with joy and praise the incoming Oriental fabric. Indian shawls, probably the most beautiful pieces of cloth ever made anywhere, put to shame the English shawl of red and green Scotch wool. Even the Paisley, out of which we now make our artistic tea-gowns, was a long step ahead of former English weaving. Of the Indian shawl, more hereafter. The Persian rug soon routed that English thing of which you, dear readers, probably



remember one specimen at least in your grandmother's parlor,—the Brussels or Wilton rug, with a stag chased by dogs; or perhaps, a sleeping hound, or St. Bernard.

Madras muslin, in the infinity of weave, gave variety from our English lawns, sometimes pretty though they were. Pongee and Tussore, washable and durable in their lovely rusty color of natural silk, gave a suggestion of rest from the lurid blues and greens of French and Italian silks. To these we may add the useful and beautiful (although striped) blue and white seersuckers, real seersucker, I mean, the kind that came from the Orient, stiff with glue, hard as a board, and that had to be boiled for seven hours and dried on the lawn before it was ready for the scissors.

Pongee is the next best for utility. Both fabrics, because of their saving in laundry bills, are cheaper by the end of the summer than starched cotton. Pongee requires care in washing. It must not be sprinkled or the spots will show. It must be ironed damp. Its low tone of rusty yellow makes it especially the fabric for blondes of low coloring. Its beauty and effectiveness for such a wearer can be believed only when seen, and these are among the most difficult types to dress effectively. There was a time when linen was to be had only as natural gray linen, linen bleached white, or blended linens. But linens are now in the market, and will probably always be, in all shades of all colors, coarse or fine at need, beautiful and serviceable, for shirt waists or entire summer dresses.

The early sailors brought many European fabrics to the Massachusetts coast. The sea captain's wife wore Canton *crêpe* shawls and other things, brought home more as curiosities than as objects of art. At the present time, shawls have given place to the more conveniently-made garments, evening cloaks, etc., which, proving a more complete covering, are therefore more serviceable, especially for street car, or carriage, wear. The beautiful Canton *crêpes*, with their long, graceful fringes, have become parlor draperies, bed coverings, table covers, and even dresses. The best Oriental *crêpe* shawl is probably the best silken fabric ever made. For there is a long way between the best and the worst silk.

Cotton, silk, and wool; what are the merits of each? Cotton goes to the family washtub or to the laundry. This places it first in utility. Clean cotton ennobles all callings. The dainty white cotton gown of the trained nurse, the cap and apron of the housemaid, the clean shirt waist of everybody, have made great and hygienic advances. When cotton gets free from starch the domestic world will be very beautiful.

One of the uses of wool, of which the designer has not yet fully availed himself, is thin fabrics in wool—loose, soft woven wool, such perhaps as the Greeks used. In the substantial woolen fabrics, variety, beauty, and quality, can hardly be excelled. As we have it now, the best can hardly be distinguished from camel's hair.

Taffeta is noisy, shiny, unsympathetic to the touch, and generally Philistine, but it has its use. The slippery taffeta silk petticoat, rightly gored,



has shown the modern woman how pleasant is exercise, how easy is walking, when she has her limbs free from entangling skirts. Nothing slips so comfortably as a taffeta petticoat. If it were only a little less noisy we would vow to keep it always in fashion.

There could hardly be a less gracious material than black taffeta, so much used for outer garments in the place of woolen jackets and other wraps. But even black taffeta has one merit, and that is, it is not black. It is gray. For there are as many qualities of black as of white. Black

silk is black and silver. The high lights are often practically white. When the high lights are taken into consideration in trimmings, as in many modern garments which have wide bands of white silk stitching, or collar and facings of gray silk, the effect is not so ominous.

Utility is a bugbear. "It will wear well." What of it! There is always a beautiful thing that will wear well, and an ugly thing that will wear well. Let us not select the ugly one because we are too indolent to search out the beautiful one. "Will it wash?" is another *bourgeoise* shibboleth. Anything will wash. It may shrink. If so, send it to the dry-cleaner. If enough people patronized the dry-cleaner, dry cleaning would soon be cheap. "It will fade." Most things are more beautiful after fading than before. They may not look so new, which is as often a merit as a demerit.

Nature knows how to make beauty. Go study her effects. The brown earth, the silver-white sand, the gray-white dust of the country road, the blue gray of stone walls, and that silvery sweetest of blue grays, the color of old unpainted wood, split-rail fences. In the country there are the unstained shingles of the seaside cottage palaces. These are nature's beauties, as eloquent as the sunset, or the autumn maple.

Grenadine is a beautiful fabric and always in market. It is the strongest of transparent materials. It is somewhat unpleasant through being rough to the touch, but most valuable from the utilitarian point of view.

Cashmere has a somewhat unsympathetic surface, but is beautifully soft to the touch, has an unfrivolous expression, and lies in graceful folds.

The cheaper nun's-veiling makes softer folds, and is therefore for some purposes better. It is still of wool, and if the weave has any body, it is valuable as making no pretense, a simple criss-cross of threads.

The thousand patterns of *crêpe* cloth, of late invention, will probably remain in manufacture (for it is an innovation), varying in pattern, size of crinkle, etc. It has the advantage of an appearance of heaviness, with less weight than that of old-fashioned goods.

Faded Oriental cottons embroidered in silk, although expensive, because we are obliged to pay for their antiquity or fading, are most valuable for house gowns. They utilize the wearer's ingenuity and emphasize exceptional qualities.

The world has risen above the time when velveteen was an impossibility in good society, because it was supposed to be an imitation of



velvet,—an attempt at making believe you were dressed in velvet. But here again the artist has come to our rescue. My lady found that a great artist preferred to paint her picture in a velvetcen rather than a velvet dress; so it came about that the artists preferred velvetcen to velvet. The Liberty velvets flooded England with so-called art costumes; at any rate these were dresses and hats designed with disregard to Parisian fashion plates, and some of them were beautiful. The dresses were long and slim, showing the beauty of fold of the uncut fabric. The hats were heavily gathered and puffed, showing coarse or fine broken lines of light and color to blend into the hair, and to shadow the large English faces, and were perhaps not too heavy in appearance for the Juno-like English maid or matron. In course of time, Liberty shops appeared in London, New York,—everywhere,—and velvetcen was good form. With the Liberty velvetcens began a reign of soft and low-toned color that has been a welcome relief from the tyranny of black velvet.

In silk, Liberty gauze has been another avalanche from the silk counters of the world. Liberty gauze is not now always an Oriental fabric, nor is it even of Manchester make; but no matter whether it comes from Jersey or the Cheneys', light, soft, silk gauze is always welcomed in a costume where beauty is the first requisite, and is, perhaps, the only fabric that rivals organdie muslin. It was an old-fashioned Oriental silk gauze, unearthed from a grandmother's cedar chest and shown to me recently, that reminded me I had perhaps gone too far in saying organdie muslin was the most beautiful of dress goods.

Printed Indian cottons must not be forgotten; for between the primness of American calico, with its realistic French, English, and American, designs, and the decorative quality of printed Indian cotton, is the distance of at least one ocean.

Among fabrics for long service, my eye falls upon a Chinese Canton *crêpe* sunshade. The strength of the fabric has kept it in constant wear for ten years in succession—in summer, for garden party or picnic service, and in winter for a transparency between an ill-placed gas jet and the social life of the room. It is a protection to every woman's complexion, a little advantageous truly, because colored light is always in danger of killing some beauty, as well as of supplying some color need.

COLOR

A DRESS whose color spoils the complexion is worse than a dress with no color, a hat whose line spoils the nose were better not worn.

Match your hair for street dress, your eyes for the house, your skin for evening, is a safe rule. If your hair is very black or very white, very blond or very red, or very yellow, the resulting effect will be conspicuous, but still distinguished. If your hair is of low-toned coloring, its high light and its consequent beauty may be enhanced by wearing a costume of a slightly less brilliant shade of the same color, and the effect of the like-

ness will also give distinction. Likeness, or parallelism, always gives distinction. So-called gray hair, well-groomed, is really blue, and is enhanced in beauty by wearing blue grays and gray blues.

Clothes contrasting in color with the hair seem to indicate that you have tried to be conspicuous. The result is loud and vulgar. Parallelism looks as if you had tried to make each individual point inconspicuous.

The result is that the whole picture of you is a unity, and noticeable, while looking as if you had tried to make each unit of beauty unnoticeable; and the effect is both beautiful and modest.

Out of doors, the great amount of light brings out sufficiently the color of the eyes. Indoors, the eyes are much benefited by having near them their own color, or a tone of their own color a little less pure than the latter. Every eye contains many colors. Stand by a window, with a mirror, and note which colors your eyes contain, and then know that a dress of any one of these colors will make more apparent that particular tint in the eye. Hazel or blue eyes contain perhaps

the greatest variety of colors. Gustave Delsarte said that the light eyes are most dramatic, that is, capable of the greatest variety of expression. Black or brown eyes belong to the softer natures. Notice the ox, the gazelle, while the cat, the tiger, the lion,—and cat-like, tiger-like, lion-like people,—have light eyes.

In the old times, before we studied art in dress, the blond wore blue, and the brunette, pink. If this were the rule, true art would reverse the dress, but the modern dressmaker thinks not of women merely as blondes and brunettes, but thinks of numerous types in color. Even she has only begun the study. The painters of the world so employ the flesh tints. The color of flesh is in almost infinite variety, and skin is sufficiently transparent to reflect numerous colors from its surroundings. The color of the wall, which is the background of your face, changes the color of your face. The color of the cushion on your chair changes the color of your face, and that of your hair and eyes, too. The color of your dress is even more important because more constant. It may be thought of merely as the color you think you like best, or as part of a color harmony of which you and your clothes form the parts.

Reflection, parallelism, and contrast, are the elements to be considered in choosing the color of clothes. A necktie and mustache may be alike or different, the color shading up to the mustache, or the clearer color of the tie killing the color of the mustache. That which belongs to the man should be the highest point in the succession and have all the advantages—not the beauty of the cloth that he ties around his neck. The whites of the eyes in a man's face are made more conspicuous and add force to his face by the presence of the ever-constant white collar and shirt front. Blond men in blond clothes are more handsome than in black; and the suggestion of softness that color gives to the figure emphasizes, while black



diminishes, the masculinity of the man. The man who loses least in black clothes is the one with black hair and beard. He has at least the dignifying effect of parallelism, and consequent simplicity.

Art in dress for men need not of necessity mean ruffles or knee breeches. Art is the condition attained by being artful, by using artifice. Men have hair which may be contrasted or matched in color; eyes which may be made larger or smaller by parallelism with the white of the eye; teeth that may be brought into prominence, or may be obscured by repetitions that are more white or less white than they; lips that may be keyed to a wealth of color by a red or pink tie, old rose, terra-cotta — anything — so that the color of the flesh is a little better than the color near it, which by parallelism, likeness, or gradation, enhances it.

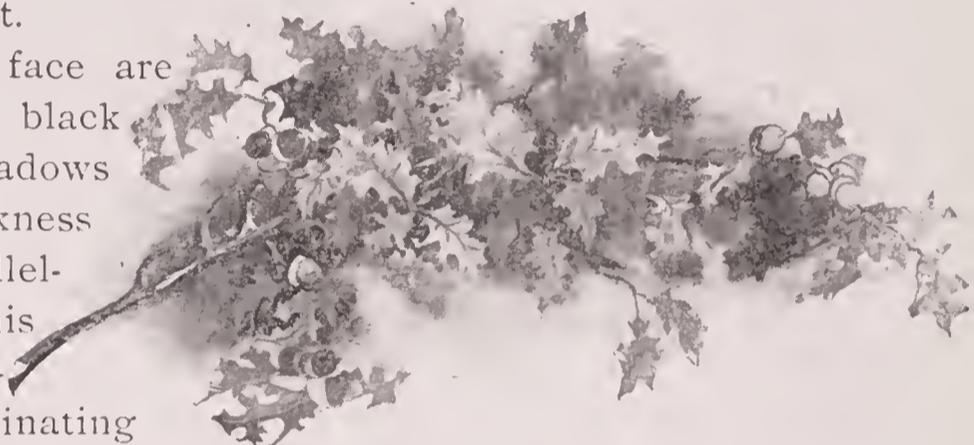
The lines of fatigue in an old man's face are deepened, and the face hardened, by black clothes. Parallelism between the dark shadows and the dark clothes increases the darkness or depth of the lines and hollows. Parallelism between his light gray clothing and his light gray hair enhances the look of cleanliness, purity, goodness; and while illuminating the black shadows and lines in the face by reflecting the light, softens all into a generalization of the sensitive symphony in gray, expressive of gentleness, sentiment, cleanness, and dignity — where a black coat might have made him look like a *roué* or a sick man.

Black is for the very young; and this is not a rule nor an opinion. It is a reasoning, according to cause and effect, as one follows the law of color effects by parallelism, of position and succession, into the laws of expression applied to color and light and shade.

Succession or gradation leads to a climax, and the climax must be some point that it is desirable to emphasize, such as good color of eyes, lips, cheeks, or a general tone of skin, leaving contrast to the strong effects of loud people; contrast less and less representing gradation, until we approach likeness and arrive at parallelism or repetition.

Oppositions express forceful, physical, brutal effects; successions are like melody — gentle, yielding — and express or suggest mental effects; parallelisms conventionalize and calm.

Older men, older women, women of sensitive types of beauty, very delicate girls, are helped and expressed by succession in color, the tones worn never becoming as high in color as the tone of their own color, however light that may be. Children having very clear color, with no outlines to be hardened, and no lines or shadows to be avoided, can better bear oppositional effects. Oppositions in children attain gayety and cheerfulness. A woman with plump face and very white skin gains sentiment by wearing black, and so enhancing her shadows. Sometimes she, by contrast, heightens her high lights and gains brilliancy. Such a woman can wear jet and glittering silks and diamonds with good effect.



I often speak of high and low key in color. By high key I mean prismatic color—that is the colors of the rainbow—or prismatic color mixed with white. White light and prismatic color are specimens of harmonic vibration. By low key in color I mean prismatic color dulled, dimmed, deadened, or muddled by discordant vibration. As color is universally admired, and as color in the human body indicates health and happiness, the brighter and richer the colors, the better. Artistic or artful dress, then, is dress which enhances the color in the human body. Bad use of color in dress is that which by its own brightness, clearness, or high key, makes the color of the person muddy and ugly by contrast.

Succession, then, is the dominating law of color in costume. Or to put the same thought into another form, subordination of cloth to skin is art in dress. Have health and happiness and your color will increase. With a given complexion, wear colors lower in key than your own.

A blue ribbon so mixed with milk white as to become pale blue contrasts with a yellow skin. The yellow skin is beautiful when it is a clear yellow; but pale blue ribbon makes a yellow skin which is not a clear yellow, muddy and homely. An olive ribbon would by parallelism make the same skin look rich. Olive contains yellow and blue; the yellow in the olive makes gradation between blue and the yellow skin a step, a bit of melody. The blue bow was too high in key, it looked clearer and fresher than the thing with which it was contrasted. The skin should have had the advantage, but instead, the bow had the advantage.

Dried flowers furnish multitudinous suggestions for fade tones, pale or dark, each having color, and still possessing enough grayness or other discord to be below the key of the natural tones of the face. A bunch of variegated flowers thrown carelessly on a corner of a table or shelf or mantel, or arranged in a vase without water, and left so for weeks or months, will, if properly observed, furnish a large color education; for most exquisite tints and tones are here. Old women, and women of low color, look most beautiful in these fade colors. They reflect light to illuminate shadows, and they reflect color. It is the absence of this reflection of color that makes wrinkles in a face look so much worse in an unretouched photograph than they do in life.

Very good effects may be produced by the skilful management of light and shade. Sunshades, like sunhats, should shade the face. It is more comfortable for the eyes; it is cooler. But sunshades to be becoming, at a picnic, say, or a garden party, or in the village street, or driving,—anywhere where one meets her friends on social occasions,—are better not to shade too completely. A sunshade partly transparent drenches the wearer with color, and it may be greatly to the improvement of her complexion. For the most insidious effects, the color of the sunshade itself must be of low key. This effect may be simulated by an opaque shade with a colored lining, which will reflect colored light into the face. The greatest objection to the lined sunshade is its weight. It is an object far less sincere and beautiful than a shade of single thickness.

What is true of the sunshade in regard to facial coloring is true also of hat brims. This is one of the points at which comfort and beauty do not always come together. Openwork shades, or hat brims with flecks of light falling through, are very trying. Spots are usually ugly. Accidental spots are always ugly.

The power of white in dress is because of its reflection of light and its power to enhance the brilliancy of the eyes, the teeth, and the high lights of the skin. The high lights of the skin are very important because they help to make the modeling of the face more clear and brilliant; and white at the same time, by reflection, illuminates the shadows. Black, on the contrary, increases the depth of the shadows by parallelism, and still more by contrast with the high lights of the skin and teeth and eye-balls, which are brought into harmful contrast with the shadows and lines. The shadows and the lines being deepened, the face looks older, or more tired, or sick, or tragic, if either sickness, or sorrow, or age, have already made shadows and lines. Black is liked for its convenience. It is often said that one can wear black with anything; or that black looks well with anything. I would reply, "Yes, equally well, but never really well." Too many people wear black. Only happy people should wear black. Only healthy people should wear black. Only young people should wear black. Let all with delicacy of coloring avoid black. Let all with faded coloring avoid black. Many of these types must also avoid every dark shade of every color. And the reason of all this is that faint color loses color near black.

The nearer we approach the prismatic colors, the narrower the range of colors we can wear. I never wear a color that I can name or match in a shop. This is because of my general creed in dress, which is the subordination of the dress to the individual, making the person — not the gown — the objective point of interest.

The tender, impalpable hues which cannot be formulated in words, the lovely faded lines, like those of old tapestry, or the richly blended tints seen in Indian shawls, are the most satisfactory. The individualist in dress believes that it is possible to take that which is best from different countries and eras, only so that it is adaptable to the type of the person for whom he designs.

The beautiful jewel which suits your type and character may be the keynote to a long line of dresses, extending to a time when the complexion or hair changes — such ornaments, for example, as cameos, carved ivory, coral, intaglio, turquoise, dull gold, etc. One beautiful gown was selected because of the possession of a wonderful moonstone ring. A silken shawl was finally picked up in an old curiosity shop. The thin grenadine center had the moon-like radiance of the wonderful luck stone, and the border in dull Persian coloring provided against monotony.

"A good contrast" is a phrase that has ruined more hats and dresses than ever did shower or sun. If you give an infant a basket of colored wools to play with, he will first select the one that differs most in color from the others — in other words, the brightest. Even before this, the

chances are that the first object that will attract his attention in this new world to which he has come will be the lamp or gas jet. It differs from its surroundings more than any other object about him. It attracts his attention. If you go into a barbaric land, with objects to sell or trade to the natives, and take with you beads of colored glass, or garments of colored fabrics, which by their conspicuousness of color please the barbarian, you will find that that which differs most from its surroundings, that which presents the greatest contrast to its neighbor, will be his choice (barbarian or child). It is a proper beginning, but there are higher forms of beauty than the mere contrast of two things.

The first step in the progression of the higher forms toward beauty is the contrasting of many things placed together. This would be seen in a Persian shawl, or a stained glass window, or in the basket of wools out of which an Indian rug is to be made. But in these objects of beauty, contrasting elements will be very numerous, broken into small pieces, intermingled, with a variety of shape as well as of color, and obscured from the mind by the design. Contrast, you see, becomes good when many elements are simultaneously contrasted. Contrast is barbaric, infantile, stupid, uninteresting, unmusical, unharmonious, when two or a few things are in contrast.

JEWELS

IN NATURE the most brilliant colors are in the small objects, such as flowers, birds, butterflies. Where large masses of bright color appear, the latter is transient — sunsets, blue sky, the blue and green of the sea. While the general color of a costume should be lower in key than the color of hair or eyes or skin, jewels may be higher in key. They suggest to one how beautiful a color can be. The glitter of faceted jewels is sometimes helpful and sometimes harmful. The Capucian stones of eastern cut and polish show more color and less glitter than faceted jewels, and are, fortunately, at last coming into the market in the western world.

It is not well for a lady to let her diamonds outshine her eyes. Whether they do, depends upon the vivacity of her face, which is dependent upon her mood at the time, and particularly upon the light in which she wears them — daylight, gaslight or electric light. On the right woman, with the right dress, in the right light, they are supreme in beauty. On most women, with most dresses, in most lights, they outshine, outglow, and outglitter the wearer, and are detrimental to beauty. Very few women can wear diamonds, and these in very few places. There are very many other stones far more becoming for ordinary occasions.

Hitherto the fortunate possessors of jewels have worn them after a somewhat haphazard fashion. The woman who glories in the ownership of what an old dame described as "a tirade" of diamonds, is often only too pleased to have occasion for decking herself therewith; and it was no doubt with a certain shock of surprise that some of us read, not long

since, that Sarah Bernhardt had been expressing in decided language her dislike for diamonds, characterizing these much-bepraised stones as "unbecoming." "Diamonds unbecoming! How can that possibly be?" exclaim the many who do not think for themselves. Simply because ornaments are meant to heighten one's charms, and these gems overpower them. Their glitter, unless, in very exceptional cases, kills the flash of a woman's teeth and eyes, the axiom being that the brighter the woman the brighter should be her jewels; few there are, however, who can outshine the brilliancy of the diamond.

There are many beautiful stones to be added to those in general use, which are not now considered in the market, because jewels have not been enough thought of as ornament, but have been too much thought of as a show or commercial investment.

First of all, jewels should relate to spots of color; usually the brightest color will be found in the eyes. The woman who knows the secret of making the most of herself, will dress to show these off. Opaque stones are best for day wear and sparkling gems for night; so that a hazel-eyed girl, who, if she wear jewelry at all, will frequently choose small diamond earrings, would look far better with larger stones repeating the color of her eyes. Such ornaments are not difficult to find. Hazel eyes have generally rays of different hue in the iris, and any of these—yellows, greens or browns—may be chosen.

Labradorite,—an iridescent stone, somewhat resembling the opal, but less fiery, and of varied shades of gray, brown, and greenish brown,—though inexpensive, is artistic and harmonizes with eyes of changing hues. Cat's-eyes, too, are beautiful stones for day wear, especially the yellow Oriental cat's-eye; though the green and gray quartz cat's-eyes are not without beauty. According to one's natural coloring, antique turquoise, topazes, cairngorms (because they are yellow enough to do without gas, and yet are not pitched in too high a key), carnelians, cameos, and lapis lazuli, may be recommended for day wear. Crocidolite—at one time rare, but now common—is of a golden brown color, and might well be utilized for personal adornment.

A brown-eyed woman, with dark hair and sallow skin, if she have no true artistic feeling for dress, will probably go to a ball attired in conventional black satin and diamonds, and pass unnoticed. The same person arrayed in an evening dress of soft, transparent brown, accordion-pleated chiffon over brown silk, fastened with lacings of cairngorms, and caught by a girdle of the same, ropes of cairngorms in her dusky hair, will look radiant, and be admired by all.

A fair woman, with dark blue eyes, brown hair with reddish or yellow lights, and a clear complexion, will find the sapphire to be her stone *par excellence*; while the topaz, the cairngorm, and deep-hued amber, avoiding the lighter shades, will also suit her. Cameos, too, she will find becoming,



and an ideal costume to set off her good points would be a gown of Liberty silk or velvet, the exact shade of the background of the cameo, draperies caught by cameo brooches, and a cameo necklet encircling the throat.

Diamonds, rubies, and emeralds are the most costly stones, and are consequently most in request because of the commercial instinct that looks on these jewels as a safe investment. As we have already pointed out with regard to diamonds, they suit very few because of their overpowering brilliancy, and when worn at all should be worn in masses.



Few women have lips sufficiently red to count against rubies of the lighter shade, and there is, in so far as adornment is concerned, no greater folly than buying dark rubies; at night they look black. The most effective mode of wearing rubies is to mass the lighter colored stones on a red velvet dress. Coral is far more becoming, though until lately but little used, simply because it represents a lesser outlay in pounds, shillings, and pence. The secret of beautiful and befitting ornaments lies not in their price but in their artistic treatment. A dark-haired girl in a flame-colored gown, with ornaments of red coral, the lightest tones being on her neck and the darkest on her hair and draperies, will look strikingly handsome. After the eyes and lips, the color in a girl's cheeks is the best point to work up to, and pink topazes of the exact shade may be found to give a delightfully fresh effect to the wearer's color. An ideal necklace is of pink pearls in varied and delicate shades, and, indeed, pearls of all kinds are beautiful gems.

And here it may be remarked that the throat is by no means the only position for the display of jewelry; at any rate if the lines are pure and well-formed. A necklace is sometimes worn on the corsage, formed into epaulets, twisted in the hair, or used to secure a drapery. If very brilliant stones are chosen, it is best to place them on the head, the most effective place for the display of such ornaments; the space of hair between them and the face softens the blaze, and they add to height and dignity. Women with full faces should carry their jewels diagonally across the head, thus giving apparent length. Brooches should not be pinned, as they usually are, in the center of the dress collar, but placed a little to one side. Bracelets and rings are to be worn in strict moderation, and of rings, the long marquis shape is supposed to be the most flattering to the fingers.

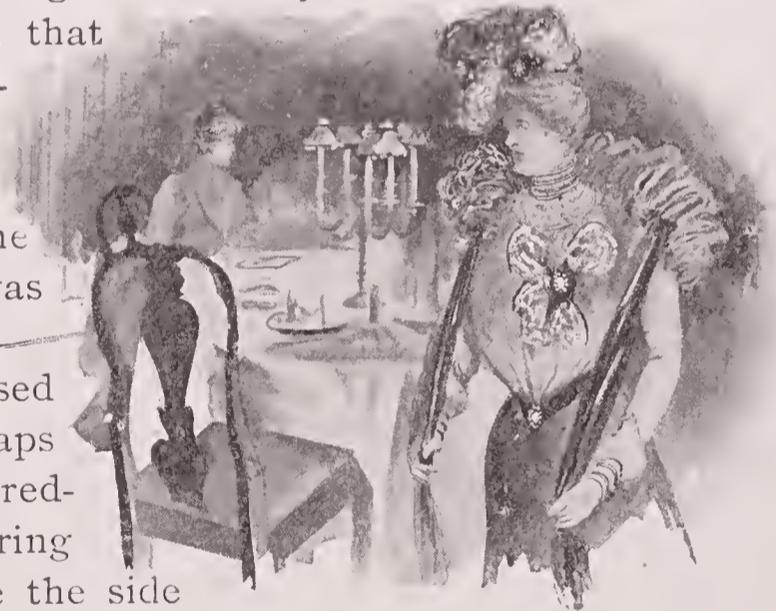
The emerald is a stone that few women should wear; it is decidedly masculine in character. The turquoise is not suited for general wear, but those on whom it looks well should wear a quantity of the stones. The delightful milky opal, with its soft coloring and lambent fires, is coming into a favor too long denied it by superstition. With white, or rather cream, gowns—for no one of artistic taste wears a blank white—carved ivory is generally becoming, and shows a woman's teeth and the whites of her eyes to advantage. The brownish hues of old ivory suggest a delightful color scheme that may be adopted for wear either by day or by

night. A gray-haired woman in a gown the exact shade of her hair, with buttons of wrought silver, oxidized if preferred, and antique silver ornaments to match, will look distinguished in any assembly. The jewel may well be placed in parallelism with the wearer's brightest point of color; or it may be the keynote to her entire costume, which, according to desire, may be in parallelism with the personal coloring, in opposition, or in succession.

It is not the writer's object to show that either parallelism, opposition, or succession, is better than the other, but only to show: first, that effects are produced by each; second, what the effects are that are produced by each,—effects of developing or submerging color. It is not for an artist to say which an artist shall choose. It is only for him to say what opposition expresses and suggests, what impression it will make upon the observer, what the expression of parallelism is, and what is suggested by succession.

Succession is a kind of gradation; it is modulation by short steps from one thing to another. Like melody, it is never brusque, neither is it forceful, save as gentleness is force. It might sometimes seem even weak. Oppositions or contrasts are always strong, assertive, sometimes too assertive, sometimes splendidly dashing, and again, vulgarly dashing, according to circumstances. Beautiful jewels, well arranged, splendidly related in color to the costume, can hardly be worn in too great profusion on proper occasions, unless they submerge the beauty or character of the wearer.

Surely it is better to be an attractive woman than a mere jeweled figure, but costly jewels can be so chosen and arranged, and so justified and helped by the color and character of the dress, that any woman may be beautified by them. I remember a large, strong, rather coarse, homely woman, dressed in darkish silver-gray silk, wearing large masses of gray pearls, who made one feel that to be large and coarse and homely was rather a fine thing. I have seen a homely, thin-faced, dark-skinned, gray-haired woman dressed in changeable silk, with large ornaments of perhaps fifty large stones in all, of that opaline-colored, red-lighted blue and gray stone which travelers bring home from the Alps, who pleased the eye like the side of a vase or the wing of a bird. She looked as peacefully self-possessed as if she had owned the city. "Were they real?" some one might ask. Real? Real what? Real beauty or real carbon?



A profusion of corals with a dress near their own color made a girl I know a success at a party. I remember an English duchess, a very large woman, with corals of rare beauty of coloring and of enormous size, cut in unusual, simple, and good design, but worn over a black velvet dress. I thought she flaunted her corals. Some might have said that the dress made a good background to show the corals. That was just what I

thought. She seemed to want to show them. It might have been more artful, more artistic, to wear them with gray or pink or red, and to thus show them, while seeming to wish to subordinate them.

A pretty thing is a lavender silk waist, with a very thin white lace bow of several loops and ends, five or six inches in length, pinned on at throat, belt, bust, or one side, by a central fastening of a large amethyst circled with small pearls. The jewel becomes the keynote of the costume. If a contrast is desired, this gives a gentle one with blond hair of low key.

Jade is one of the most beautiful objects in the world. The delicacy of its green shades, toning almost to black, and quite to white, constitutes a far higher order of beauty than that of the hard, glittering green of the emerald. The emerald is beautiful as showing how vivid green can be; the jade is beautiful as showing how generally self-forgetful green can be,—letting itself melt into white.

Jade, although very hard, can be carved so that beauty of design may be added to its color. It is a little worn in New York, and much worn in India. Its most detrimental quality is its weight, which makes it useful only for small objects. No small ornament to be worn with gray or gray-green lawn can be more beautiful than necklace and bracelets of soft, milky green jade. It is very suitable (by parallelism) for ashy blondes, while hazel or greenish eyes, by its proximity, are transformed from the unnoticed and ordinary to the highest order of beauty.

“Pearls to a princess are a futile gift;
But note the workmanship—what craft of line!
Intractable jade carved intricately and free
As woven frondage, and the pearls in it
I know not by what miracle of art
Made part of it, and better than themselves
Like berries in the mistletoe. Receive it
As earnest of the rate I hold you at.”*

Let us not forget that a jewel is an ornament, not a mere investment; that it is worn for beauty, not for show, and that there are many ornaments not called jewels which are as ornamental, or even more so, than the most costly stones of commerce. Among the most beautiful of these we find the amber. One of the beauties of complexion, a thing that suggests health, is the yellow tone; to this, amber can blend in all of its shades. Amber itself changes color with age, ranging from the palest lemon yellow, through the most liquid tones, to the warm wood color. Amber darkens with age—the newest color is not the most beautiful. It has been most worn in beads, but is little worn in the western world, because, to the Anglo-Saxon mind, beads have seemed to belong to childhood; but the great lines of corals, strings of large beads, which Rossetti has painted, and the ropes of diamonds worn by New York women of station, show that this silly prejudice is becoming obsolete.

*“Birth of Galahad,” by Richard Hovey.

Strings of old amber, with a dress of several thicknesses of very thin transparent goods, worn by any of those numerous women who have the amber shades in their hair, would be beautiful enough to make a woman famous for a season. The price of one small diamond ring would buy this entire costume. Let all brown-eyed women collect, study, and wear, amber or cairngorms. But the cairngorm is heavy, while amber is light. The cairngorm has been mostly worn by the Scotchmen, as a shoulder fastening to their plaids. They are not, however, especially masculine, except when large. The principle is, repeat in varying shades the color of your eyes, to enhance that color.

Steel belongs to young women with gray hair; steel, and soft fabrics like silk or chiffon, to older women. Cut steel is very brilliant. It tones to white, and it tones to blue; so also does silver, growing darker toward black, it passes through the grays. These are the colors that by parallelism and succession give the greatest dignity to women of gray hair and blue eyes, or, as has been said, blue hair and gray eyes. For the grays are really blue, certainly not yellow. Before the days of Monet we had not observed that the weather-worn, unpainted wooden fence was really blue, not gray.

To put the whole subject in a sentence, every woman has a personal jewel, one that is especially suited to her complexion, her manner, and her character; and she should make an effort to discover it.

FUR

THE primary necessities of dress are now more and more considered. These are warmth, covering, coolness, decorative value, mark of station, wealth, and suitability to occupation. Never in the history of the world were wool and fur so well used to give at once comfort and distinction to the wearer. As the northern countries dominate civilization in this present age, the tendency has been to an excess of covering and to too great warmth. The decorative quality of fur is very great. Natural fur is in almost infinite variety of color. The variations of long hair, drooping or spirited hair, or soft seal-like texture, make it easy to adapt fur to garment making and garment lining, and even to garment trimming, if such a barbarism may be permitted.

The soft-faced, white-haired old lady in the long-haired white furs or natural seal, even the white seal, is a woman beautifully cloaked. The blue-gray hair of the younger woman finds a kindred in blue fox and other furs. Natural lynx is a godsend to any delicate complexion. Sable has both style and grace for the brown-haired or black-haired women to whom it is suitable. Mink and sable are for the typical American woman, most numerous in class of all, with rich complexions, and with brown hair varying to bronze. Chinchilla is the fur for black-haired women growing plentifully gray, since their hair is made up of black and white, not blue. Ermine is

most beautiful of all,—truly royal if worn on suitable occasion—but has the least variety of occasion of any. Its natural associates are point lace and pearls, fine velvets and brocades (if not dark in color). It is surely the daintiest and most elegant fur, and the one having the greatest distinction when rightly used. It should be quite above the realm of simple contrast, and may be worn in combination with the stateliness of brocade; for daintiness of color should be kept for parallelisms, successions, kinship with melody. Raw contrasts with ermine, (the creamy, pearly, beautiful white that it is,) such as red, green, purple, brown—in their heavy shades—would be very much like a drum beat in the middle of a violin solo.



In the early and primitive use of fur in the manufacture of garments, in which it was combined with cloth, skins were generally used whole, trimmed off and sewed together, making practically a piece of cloth out of the fur. This resulted in garments of warmth, but not of beauty, and often at the expense of too great weight for any use other than driving. The activity of modern life causes lightness to become one of the most important considerations in the making of any garment. There are few occasions when one can afford

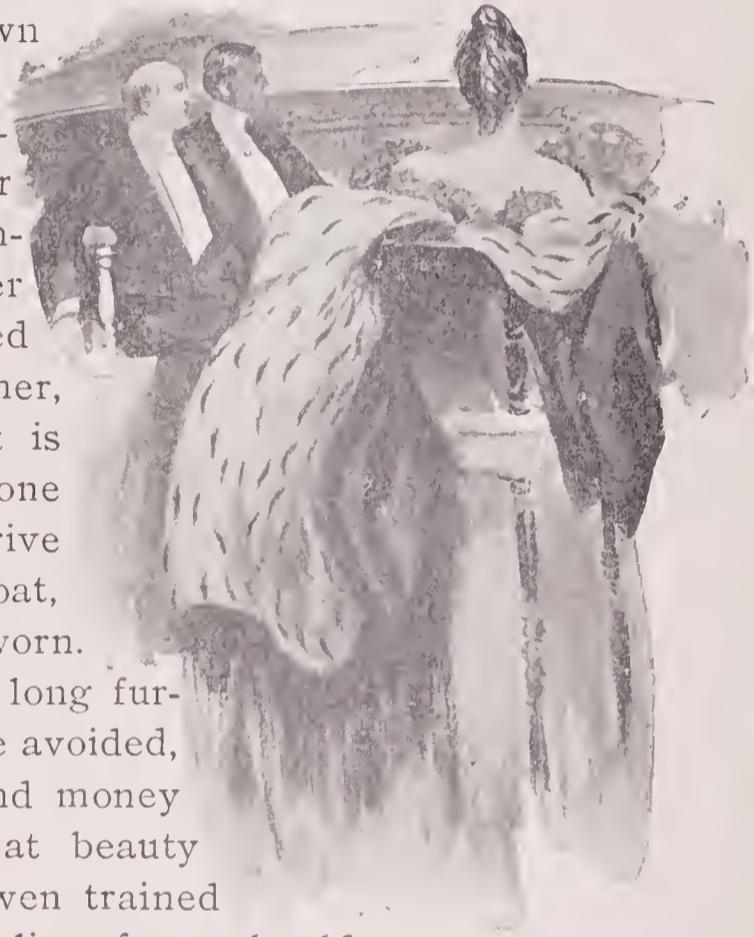
to wear a heavy garment, even to gain dignity and richness. Sometimes the fur was the garment, the cloth the accessory. Then the cloth was the garment, and the fur became a lining. This was warm and pleasing in softness of texture, but very difficult to make beautiful. Such garments have nearly always been ugly.

But at the latter part of the century, the matter of design of garments, partly of cloth and partly of fur of various kinds, was seriously taken into consideration by some leading artists and by all designers. The result was great variety, beauty, adaptability, and convenience. In fact, it is now difficult to think of anything good to do with fur that has not already been done. It has lined collars and the fronts of garments, so that the chest could be protected from the wind: muffs made and worn in several generations, but discarded for their inconvenience, were finally brought into fashion for certain occasions when they were not a special inconvenience; and a great variety of other ways of getting warmth was found,—gloves for men; gloves for women; sleeves with fur at the wrist, made loose to turn down, or flaring to stand out over the hand, buttoned or not.

A reform or a new start of any kind is likely to spring from some inherent quality of material, or in its use, and this is the chief fountain of the beginning of good art. Start from something that is not artificial. For example, when modern thought about decoration in furniture first began to spread over the country, durability and return to simple lines, big square legs, frank square corners, thick boards, and the general Eastlake idea, had a strong hold upon the sincere side of the American mind. Just so in warm garments; where certain portions of the garment needed to be warmer than others,—a collar to turn up around

the neck, a double-breasted effect which could be buttoned up for greater warmth, or turned back toward the shoulders to admit the air to the body, or to bring the pretty colored dress waist into relation with the complexion, and at the same time to throw out decorative lines from corners and angles of the turned back portion, resulted. Here was room for the beauty of line to play unending melodies. A point here brought style, a fine curve there gave distinction; and that which can so easily be made a bungling load, to be thrown off in an ante-room, attained to beauty.

But even sham, art can make simple and serviceable. Many a woolen coat with its fur collar which pretends to be a lining and is not, is comfortable and pretty, warm at the neck and wherever needed, and yet not too warm for walking. Lined throughout with fur, a walking coat, in most weather, would be too warm. The cloak lined throughout is quite another matter. There are some days when one can walk in it, and there are days when one can drive in it. And here, as in the case of a man's overcoat, is opportunity for almost the grandest garment worn. It seems as if every wardrobe should contain one long fur-lined or fur garment. Here expense can hardly be avoided, but on the other hand, here is a chance to expend money legitimately. It is so manifestly for warmth, that beauty and display seem accidental, as they ever should. Even trained cloaks, made long so as not to break the sweep of line from shoulder to floor, and to cover the delicate dress over which it is worn, are on certain occasions charming. An opera cloak, carriage cloak, or evening cloak, is almost a woman's birthright. It does so much for her. Thrown back over her chair, it protects her from bad backgrounds. Wrapped about her, it protects her dainty dresses from disaster. It is so large and so suitably made of costly material, that it may at will meet the needs of the richest, and cost thousands of dollars. But it may equally well be becomingly made of inexpensive material, and will still be an object of beauty and utility. Here Oriental or old embroideries may be utilized; Chinese silks, Oriental shawls, borders and laces can be used. Even a simple broadcloth, with an effectively cut shoulder cape and collar outline, may, while giving all the elegance and romantic grace of the Italian *capa* or the military cloak, still have the distinction befitting the woman of beauty and elegance. The possibilities of design in this direction are infinite. In England where low-necked dress is much more generally worn than elsewhere, the *décolleté* cloak is always found in every lady's wardrobe. Its beauty will increase as evening dress grows yearly into greater use in France and America.



DRESSES

A THING is the more beautiful as it is the more complete, provided it has unity and harmony of parts. Gathers are among the oldest enemies of beauty. Lines in sweeping and ever-changing curves have great variety and beauty, but puckers hanging from a string, in broken lines and starched angles, are usually mere discord. Sometimes if the fabric be very thin these lines straighten into parallels, slightly diverging, and become orderly, simple, pretty; but the gathered ruffle, sewed



on somewhere, is usually meaningless and often ugly. One of the greatest leaps that art in dress has ever taken was in the invention of the circular ruffle. It must have been a tailor's idea — a dressmaker would tear off a straight piece of cloth and run a string through it. The circular ruffle is as if the garment were made seamless and woven to its required shape; the thing seems a unit, the folds are radiating, orderly, exquisite, and, if the ruffle is wide, stately. Yes, the circular ruffle is the apotheosis of frills.

So much for the bottom of the skirt. As for the top, can there be any comparison, apropos of beauty, between a fudgy mass of gathered cloth, starting from a straight hard line called a belt or band, at right angles with the figure and obscuring a thousand lines of beauty, as well as breaking into all the lines that come down from the shoulder, arms, and body, over the waist and hips.

It has sometimes been fashionable even to trim dresses with gathered-up lace. Frances Hodgson Burnett once said, "Lace should never be bought by the yard, but always by the mile." It is agreed that too much lace could hardly be worn unless it were gathered. Think of the meaningless top edge where the gathers are sewed on; think of the beautiful design in the lace jumbled and wasted (for why buy lace unless the design be beautiful). True, there are some uses for lace, such as the edging of a petticoat, where only soft texture is liked and detail or beauty of design unnecessary, and where the outer garment covers all but an occasional glimpse of the lower edges; and even here a ballet-dancer-like effect is too likely to be attained. A better effect in the soft hanging of the sheath dress skirt is obtained by cutting the under skirt after the same pattern, the ruffles being numerous, circular, and flat, and edged only with lace or other ornament, so placed as to give the full effect of its pattern.

Then consider the waist, the end of the sleeve, the hand. Hardly a hand is so beautiful as not to have some ugly lines which would be brought into prominence by a gathered jumble around the end of the sleeve. For a gathered ruffle has fat, clumsy, ugly curves, and if any such appear in the hand, it would help to bring them into prominence. This is one of the first places where parallelism must be avoided. But let a flat, circular piece be cut for the wrist, repeating in character the bottom of the dress, and simplicity and elegance are attained, with a protecting becomingness

to the hand. The hand is placed in a sheath or cup, which by its linings of color may also reflect beauty into the skin. This sleeve-ending can be finished in corners or points, or curves or lines or angles, for the sake of style; and the throat collar has of late years repeated it in a thousand graces of flare and finish, making most helpful backgrounds to the face.

The bottom of the cloak, repeating by the same circular ruffle the general character of the dress, has given to our time the greatest elegance and dignity in opera and carriage wraps. In fact we are living in an age when art in dress transcends that of any time or clime. For the problem of the Greek, whose rivalry is likely to be first mentioned, was such a simple problem as to appear little by comparison with the needs of the modern dress. The simple, almost idyllic life, the warm climate, the poverty of manufacture, the little variety of occupation, made a straight piece of cloth hung from the shoulders in one simple manner, or twisted about at the will of the wearer, all that was needed. A folklore song of tuneful melody, however beautiful, can hardly be compared with a Wagner overture. Greek dress was beautiful of its kind—we include it among our kinds. Probably there are as many Greek dresses in New York to-day as were ever at any one time in Athens. They are worn for house gowns, stage gowns, sleeping robes, etc.

The Greek dress was dignified and graceful and beautiful. Beautiful for its sincerity and simplicity, yea, for its primitiveness; but would it not be a little voluminous for modern work-a-day life? Truly it would. No Greek gown would give half the freedom that does an uncorseted, well-made bicycle suit. This primitive dress is a good model for tea gowns, and, in modern life, for that only. A modified Greek gown may often make a becoming platform dress for reader or lecturer or teacher, but for general use, it is an entirely worthless model. Modern dress at its best is as much better as modern life is more inspiring and intricate.

The beauty and becomingness of a dress have nothing to do with money. It has to do with thought, tact, education, industry. Defective dress is not due to want of money. It is due to indolence, ignorance, or false ideals. If money is the motive, and show the object, not money, nor the absence of, it will effect good dressing. As said long ago by G. F. Watts: "Taste can have no definite limits excepting those that can be referred to simple principles; while it is easier to say what is not in good taste than what is, it is safe to say that whatever outrages acknowledged principles cannot be in good taste."

There are those who regard as immodest a dress cut low in the neck. We forget that among our American ancestors, children, girls, and women wore such dresses in the daytime as well as in the evening. And the daytime receptions of "The Great Queen" have preserved the custom. Nobody thought of immodesty in the old New England summers, but only of coolness, sweetness, and beauty; yet there are those, loud of voice and pen, who now decry a low-necked evening gown as positively sinful.

Far more unpleasant and harmful are the shriveled, wrinkled, puny necks caused by the late fashion of high throat bindings—high and stiff, for

they must be stiff if they are so high. But after some years of neck decoration by the stiff collar in its various forms, from linen to velvet, some genius thought of lace or silk supported by a wire or two, all tolerably soft and harmless. Now the wonder is that this was not thought of by the first woman who turned the leaves of the high-collar fashion plate.

Halliday says: "It cannot be good taste to diminish the noble and graceful character of the shoulders by losing the quality of the upspringing stem of the neck from them, and this is effectually done by the ignoble arrangement of the tailor-made coat. Neither the plea of convenience, neatness, or necessary stiffness of material, can be urged for the utter abandonment of natural grace. At one period in medieval times, the stiffest and most uncompromising of materials that covering could be made of — metal — was compelled to administer to the sense of beauty, and became its servant in most delightful combinations."

I said long ago that art in dress went out when scissors came in, but the scissors have well-nigh redeemed themselves and justified their existence, for both art and beauty are fast returning, and bid fair to make up the quarrel between sense and comfort on the one hand, and necessity and style on the other. It sometimes seems as if there were nothing more plebeian than the insistent newspaper woman's, or reformer's, supposition that it is impossible for a woman to think in a low-necked gown. Now it is a fact that among those women who habitually wear "evening dress" are found the most brilliant, accomplished, and useful women of the world. One might cite Queen Alexandra, nearly all of the women novelists and poets, nearly all of the women painters and sculptors, most of the women influential in diplomacy, college girls, and college teachers; and in those circles where large evening gatherings are customary, nearly all of the kindly mothers and grandmothers.

If, then, there is no reason why evening dress should not be worn, one must consider whether there is any reason why it should. There are two reasons why it is a good custom — beauty and economy. There is no fabric and form so becoming to a beautiful woman's face as her own shoulders and skin. This is the origin for our old-time saying: for evening match the color of the dress to the tone of the lady's skin, while for other lights, eyes, hair, teeth, etc., should be taken as keynotes.

In America, the beautiful and dressy afternoon gown, with fancy bonnet or picture hat, is fast superseding the English fashion of low neck, save in the wealthy homes of the large cities. The afternoon dress is even more costly than the promenade or carriage dress. It is of the richest material, of the most skilled cut, and of great elaboration of ornament; or, if of the tailor-made order, it is of such exquisiteness of shape, fit, and outline, as to require the greatest professional skill of the tailor. And this costs much. An evening dress may even be beautiful and becoming without being fitted at all, or even cut; for color and drapery go so far. And here it is interesting to note that many of the best modern dresses have only the lining fitted or shaped to the figure, while the outside goods is draped on, drawn tightly in folds, or stretched without them; but not

scissored and sewed into geometrical puzzles of line that obscure or jangle natural outline.

Shirt waists are worn for their convenience. The possibility of frequent change, the inexpensive service of the laundress or the cleaner, make them a great advantage in hygienic cleanliness. They furnish also a custom of economy, by making of inexpensive material that part of the dress which wears out soonest. This waist, copied as its name indicates from a man's shirt, with collar and cuffs and tie exactly like those of the shirt, was first worn by those women who joined in men's out-of-door sports. It crossed the channel to Paris, blossomed into style, grace, and an infinity of fabrics, and finished its voyage to America just in time to arrive when the uncleanliness of the ordinary lined dress waist, basque, or coat, had made woman begin to see that something was required other than the long-suffering and inefficient corset cover.

It is always interesting to note how one change produces another. Woman discovered that a tight-fitting basque or bodice, or round waist, confined her movements; and having put herself into a shirt waist for her occupations of work or play, she began to think of further differentiations of the dress waist. It had a greasy neck, so she cut out the neck and put in a guimpe, which could be frequently and cheaply changed. Finding that she could have many changes of these little guimpes,—light, dark; lace, silk, cotton,—society blossomed into an infinite variety of clean, pretty clothes. So the ugliness of the man's collar—for occasions when we wish to advertise that we are not now trying to look pretty, we are not now "dressed"—brought us much prettier and much dressier waists for occasions when they are suitable.

The undress look of the shirt waist while one is in the cars and on the streets, on the way to one's work, to golf, or other occupation, has bred another good thing,—the tiny coat or Eton jacket, so convenient to wear, so economical of material, so pretty in cut. But as in the case of the shirt waist, a garment to be popular and in general use must have opportunity for the use of beautiful and varied materials, and the great firms have learned to select the best selling patterns or designs to be multiplied a million fold and to be sold, ready for wear, to the large classes who lack taste, or time, to design for themselves, and whose home product would in any case have far less finish than the once scored ready-made garment. American manufacturers have put to shame even custom-made shoes. The scientific cut of American shoes, at least before the introduction of the recent military pattern, furnished a more shapely and comfortable foot covering than any custom shoe ever produced. The general standard of dress has risen chiefly by means of this mercantile trick of the manufacturer, and by the introduction of the scientifically cut, machine-made paper pattern.

The artistic disadvantages of the shirt waist have been so frequently done away with at the neck and sleeves that they are hardly worth mentioning. Tucks, shirrings, wired lace throat bands and the like, have given variety and beauty. The belt was more difficult of treatment, slower of

evolution. I think it may be said that of all lines drawn on the human figure, a straight line across the body at the waist is the most detrimental to beauty. G. F. Watts says: "To interrupt the harmonious intention of the column, carried out through the human form, by cutting it in half, in imitation, as far as possible, of the insect, must be condemned, especially as this degrading effect is enhanced by the apparent shortening of the lower limbs and the hideousness of the abrupt jutting out under the compressed waist; all this accentuated by the skirt drawn tightly over the body, to the loss of all grace of form, and worse. That lines are beautiful in proportion to their capacity for variety, and the interest greater by the display of light and shade—that length of line gives height and distinction to the human figure—are principles which should never be ignored by any who would cultivate the delightful art of dressing with good taste."

But the shirt waist gives a line worse even than that of any belt, the difference in color between the waist and skirt, the upper third of the body being almost uniformly light or bright—advantageous, truly, to the face—and the skirt almost uniformly dark. At last, however, shapely girdles have begun to modulate between waist and skirt in the more elaborate costumes. This is a distinct advantage, especially as the girdle quickly resolves itself into a thing with lines differing in the back and front, curves unlike at top and bottom, all adjustable to the special needs of each figure.

The writer does not say, wear shirt waists; does not say, do not wear shirt waists. She is not a dictator. She is a student of the art of dress, the philosophy of fashion, and has only the hope of being helpful to her readers by suggesting to them ways of thinking about fashions, hoping that the habit of studying the fashion of to-day will leave the mind of the reader better prepared for adapting and utilizing the fashion of to-morrow. We cannot give recipes for good dressing. We can talk about the laws of beauty, and suggest the artful ways of adapting them to manifold individual needs. Only thus far is it wise to attempt to go, at least in a brief paper like this. We are beginning to have classes for dressmaking and schools of dressmaking. Let us hope to see a studio school for the study of dress as an art, as a utility, as an expression.

DRESS REFORM

IN FORMER days, corsets a foot or two in length from top to bottom, stiff and heavy, killing every beauty of motion of the figure, were necessary to hold in place and obscure a mass of bindings and gathers of the multiple undergarments worn. The first teachings in regard to hygienic dress were most convincing to the mass of American women. Almost every woman had chronic backache, and it was taught that the heat on the back caused by these duplicated and gathered garments was largely the source of the pain. Also, that the weight of dress skirts and petticoats,

faced with heavy materials, lined and sometimes padded, caused further injury and consequent pain. Then the bands upon bands about the waist, which held these various garments,—underdrawers, drawers, flannel petticoat, thin muslin short petticoat to cover the flannel one, chemise, perhaps, then a long petticoat or two, then the dress skirt,—all were girt firmly around that portion of the trunk of the body where there are, save at the spine, no bones to protect the soft vital organs inside. Everything conspired to produce that one curse of the American woman's life—back-ache. Every woman was ready for the change if only it would be in fashion. The fashion maker far away in Paris, London, or New York, like the manufacturer, always has his ear to the ground. He is, after all, but the salaried servant of society. So when complaints of all this were carried by the wives of American millionaires to the Paris dressmakers, Worth said, "Then we must take off the corset." But the attempt to do this was not successful, so he invented the "straight front" instead of the crushed-in curve between breast and abdomen, and thereby gave half a foot of extra room to the heart, stomach, lungs, and liver. As the illustrations show, the modern long waist, with straight front, is far more hygienic than was the long-waisted dress of olden time.

The whole trend of modern dress is toward simplification in the number of garments worn. Petticoats are less in number; drawers and corset cover have become one garment (even this often discarded for knit shirt and tights, which in turn have grown to a single garment), avoiding a bungle of material about the waist and hips and back, and getting rid of one of the thickest and most clumsy bindings; so that three or four garments complete the costume.

The history of the American dress reform movement will be interesting reading some day, but we are hoping it will not be written until the present art movement shall have completed the work begun in ugliness and good faith, and shall have justified the original idea that hygiene and beauty are not antagonistic, that sincere lives have no quarrel with beautiful clothes.

In this age, all eyes are upon America, and it is now many years since first were seen in the best Paris shops copies and adaptations of American dress reform garments, so beautified as to be not much more like their originals than a silk waist from the *Rue de la Paix* is like an English country girl's shirt waist. And when even the millionairess caught her breath at the idea of no corset at all, Worth, who like all great thinkers hunted for the essential idea in a subject, asked himself, "What is the thing that is really needed?" And the purchaser was not long in explaining that American women lead active lives, are devoted to work and to play, and had discovered the need of large lungs, space enough for an uncrowded heart, free digestion, unharmed livers, and naturally curved



spines; and in general, that an American woman wished to be comfortable in her clothes, and to have freedom for grace and strength and growth. She knew that an active brain and a joyous life can be sustained only by natural, healthy vital organs. The slab-sided corset went, large curves appeared under the arm, complex, beautiful curves, like Hogarth's line of beauty, with longer lines over the hips. Corsets became narrow in the back where little room is needed, wide in the front where the ribs expand; the steels slipped down from the breastbone to the belt; so that to-day a woman of sense, without a desire for foolish exaggeration of hips or waist, may be corseted without much harm to health, or hindrance to natural shape. Lungs have come into fashion. That strong swell of the body where the ribs end below the breast, so often pointed out by the artists and teachers in classes and studios, is now not only found but

it is encouraged in the well-dressed girl and woman. The athletic girl frequently discards any corset or even girdle at all, as an insult to her live body. Formerly, the abdomen and bust were brought into prominence, while that most important breathing and digesting region was crushed under a curved hollow toward the body, where now a convex line above the corset band gives, as before stated, half a foot of extra room for lungs, stomach, and heart.

And incidentally, in accomplishing this change in the corset, the ugly cross line on the figure disappeared, so that the dress became long-waisted in the front and short-waisted in the back, advertising, suggesting, and encouraging the Gibson-girl poise, the Du Maurier-duchess carriage, Juno-like, imposing, lady-like.

Among the things which helped to bring about the change in modern fashions toward both hygiene and beauty was a book called "Beauty of Form and Grace of Gesture," written by Frances Mary Steele and her daughter, Elizabeth Livingston Steele Adams:—

"However desirable a change in ways of thinking or customs of living be recommended, however salutary an improvement be proposed, there is in human nature an inertia that resents disturbance from accustomed methods, or removal from ordinary grooves. Especially is the substitution of one standard for another most difficult to effect, even though a higher ideal be presented. It is so much easier to be regardless of vitiated air and to continue to breathe it, of adulterated food and to continue to consume it, of evil doctrine and to continue to hear it, of wrong impulse and to continue to follow it. The bad is facile, the good is difficult. But the normal condition of growing souls is struggle. We cannot consent to give it over. The position of woman in all the world of the past has made her conservative and timorous. Even to move to a higher plane demands from her unwonted courage. It is not strange, then, that incentives toward improvement of physical form and vesture meet indifference, distrust, and positive objections. A few of the more serious ones urged against any change to



better dress might be frankly answered. Are they not trivial, compared with the advantages they undervalue?

“Love of beauty is not the highest motive.
I hate to be conspicuous.

There are no artistic dressmakers.

I don't know how.
I have no taste.
The effort is too expensive.

I should look too queer.

I have to attract attention.

I can't sit up without a corset.

My bust is pendulous.

I am too busy to think about clothes.

I am too fat.

So-and-so can, but I can't.

True, but it helps the highest mission.

It is not easy to be conspicuously elegant.

Nothing is so glaring as the latest novelty.
Use plain seamstresses till demand creates supply.

It is never too late to learn.

Cultivate taste.

It is not as wasteful of vitality as is conventional dress.

Study to look your best. Who can do more?
None should do less.

Be noticeably beautiful, and thus reward attention.

You have large muscles. If they are weak from disease, train them.

By every healthful means attain or simulate ideal firmness.

You must, you do. Shall your thought be intelligent?

Reduce and conceal it; do not force it upon public notice in a conventional gown.

Don't be cowardly. Nothing is gained without cost.”

Mrs. Steele was one of the early dress reform thinkers and experimenters, and Mrs. Adams a painter, who sacrificed two or three years from her painting to study and experiment upon dress as an art. Most of the points insisted upon as important in this book, and in the lectures on the subject, are now embodied, or are rapidly becoming embodied, in modern life, dressing, and custom.

EXPRESSION OR DRAMATIC EFFECTS

AS IN morals, so in beauty; no man can be good alone; all around him grow good, or he grows bad. It is the ethical law of life; it is the esthetical law of art; it is the law of beauty.

Nothing can be very beautiful save in relation to other beauties. How long would you be content to be shut up alone with a few rubies? But put the rubies on a pink and white hand, held near a flushed cheek, not far from a red lip, and you are content for long. You kiss the sweet hand,—maybe the lip. The ruby has come into relation with its kin in her cheek; given itself for her and you. It is no more a mere stone; it is beauty, it is life. A flower or a bunch of garnets might have the same experience.

Color rightly used produces decorative beauty. Decorative beauty rightly adjusted to life produces dramatic effect. A failure in attaining dramatic effect would result in what we are accustomed to call theatrical. Dramatic effect is a true exhibition of something or somebody. It is oratorical, it speaks to somebody, of some quality. The dramatic effect of a red dress is something apart from its decorative effect. It suggests

cheerfulness, courage. The dramatic effect of white alone is a suggestion of cleanliness, coolness; and if worn in combination with suggestive soft folds, and on suitable occasion, may suggest purity, truth, and simplicity of soul; or it may be merely negligée in its expression. White worn for its dramatic effect in suggesting cleanness, is perhaps the most universal and the lowest form of beauty, in dress. It looks clean. Why, of course

your clothes are clean! A white tablecloth looks clean,—all tablecloths are clean,—it is a matter of course in a decent house, the fact does not need emphasizing. The white of your dress is a thing of changeable degree, your eyeballs and teeth are not. Happiness and good health may keep the whites of your eyes clear and beautiful in tone. Then again, sorrow and sickness may spoil that tone. With the best and most expensive service of the modern dentist in polishing your teeth—and no money is better spent—you cannot always be sure of their being whiter than your laundress's chemicals will make your white dress.

I remember a very celebrated white room in an artist's house in London, a famous white dining-room. But there was no white in it.

They were all make-believe whites. Placed beside the white of your linen collar or lawn dress, they would have appeared gray or green or blue or ivory or cream or ecru; and the room was known in two continents as "The Famous White Dining-room."

It is the opinion of the learned that the wearing of black at all, and the wearing of mourning most of all, is unhygienic. The body suffers from the obstruction of light. Remember the sickly look of those who work in mines, and of the plants that grow in cellars. Light is a necessity to health. But mourning as a dramatic expression is a convenience. It is a signal respected by all. To be able to hide a tearful face under a dark veil is often a comfort and a protection. As a conventionalization, mourning is also a convenience. It relieves from social obligations that suddenly become irksome. But neither is this all good, for the necessity of being cheerful and self-contained is sometimes a help, sometimes saving the cost of an hysterical flood of tears. An invitation that must be accepted may save one a lonely day of despair. If it were customary to fight grief, and to hide it, rather than to acknowledge, and to yield to it, doubtless the grief-stricken would be better off.

But granting that there are some advantages in wearing mourning, when grief is too new to be mastered by will, forgotten in duty, or risen above in resignation, surely the time when life has begun to master grief, is a time when color, diversions, amusements, physical exercise, all help toward getting a new hold on life. Why not make second mourning color, rather than mere absence of *crêpe*? It is easier to be cheerful in colored clothes; it is easier to be energetic in colored clothes, and so to get the benefit of oxygen in all ways. Black because of its tendency to subordinate detail and to enhance outline, thus giving style, is always popular. And black does



have great style. It sacrifices sentiment, subordinates sensuous beauty, and emphasizes line. The dramatic value of this latter can hardly be overrated. But should sentiment be sacrificed? That depends upon what the sentiment is—whether selfish or altruistic, whether noble pride or self-vanity, whether joy and love, or grief and melancholy and despair. Black emphasizes outline, but not bulk. Bulk is often vulgar; but bulk is sometimes beautiful. In the paintings of Titian, and other great artists, it is the sensuousness of bulk, not the style of outline, that gives charm. In the commonplace, round lines of youth, it is the sensuous beauty of bulk and color that are fascinating; and is not youth always fascinating? Is not youth always sought?

On board ship, two artists once discussed the athletic beauty of a young man who walked the deck, up and down, before them for several days. Had either been a sculptor he would have been glad of the man as a model, but being artists and not sculptors, that beautiful figure was remembered for life. The man was dressed in a summer suit of thin, light gray wool. As he stood against the background of white deck, or gray sail, or summer sky, he had neither marked outline nor voluptuous bulk. He had beautiful limbs that moved in a play of grace suggesting whole poems of manly health and courage and thought and love. He was a nineteenth-century Greek. In the latter days of the voyage, when the sea was still, and everybody opened his trunk to get out his land clothes, he appeared one day on deck in a black suit, with the proper collar and cuffs, and other badges of his station. The artists looked at each other aghast and remembered his beauty. Where was it gone? He was a mere silhouette now, hard, uninteresting, and commonplace.

Almost every article of dress has some dramatic expression. The cane is the badge of leisure. Nowadays it is used by men of all classes, on their leisure days or vacations. In the case of a man of leisure, of course it is well known that the cane supplanted the habit of the sword, and became a badge of the leisure class. It is now a badge of the leisure hours. A man will carry a cane one day and leave it at home another.

The top hat, when much worn, is a dramatic expression of the age or mood of the country. It expresses leisure for thoughts about elegance; it expresses a desire for style; it is used instinctively, maybe, to counter-balance the ugly trouser legs; it has been most worn in England where trousers were ugliest. In France, Italy, and America there has been a much greater tendency to cut the legs of trousers so as to hint at a leg inside. One of the advantages of men's evening dress is that, in so far as black dress can do so, its shape also hints at a man inside of the clothes. Daytime coats and vests are more obscuring. Bungling daytime dress, and the exaggerated outline of black evening dress, have done what they could to obscure beauty, but the blessed bicycle, the return of horse-back riding, the coming in of golf and tennis, have re-discovered a muscular beauty that Michelangelo himself could not have discerned in modern life a few years ago.

Since men's feet now set the fashion for those of women in the matter of street wear, and their collars and ties for working clothes; since the

English boy has lent his beautiful Eton jacket, the modern Greek his zouave, the Rough Rider his hat—possibly men will one day borrow color from us, at least for evening dress, and so redeem, from its hiding under a mere outline of black, the beautiful masculine figure.

When both men and women dress according to occupation, all of these needs will naturally fall into place. Life and the evolution of dress, together with the advance of decorative art, will do what ignorant but well-meaning reform neither could nor should.

One of the most noticeable things in French society is the "beauty of dress worn by French women," but the next observation is less complimentary to the intelligence of the nation. It is, that of all peoples, the French women have least regard to the becomingness of their costumes. The lack of subordination of the decoration to the thing decorated is the weakest point in French art, either the art of dress or decorative art in general. This is the point on which America leads all countries. An American woman in a Paris dress is far more likely to be so dressed as to heighten her own beauty than is a French woman. A French woman attains style and stops there.

The leading French dressmakers prefer for two reasons to work for Americans rather than for the French. One reason is the American habit of lavish expenditure, and the other is that they also know that "she wears her clothes better."

This seems to me to be a crucial point in good dressing. It is not enough that a dress is stylish, or even fashionable. The woman must be emphasized, in character, color, form,—in every way helped by her dress, not hindered by it; and especially is this true in the expression and heightening of character. Some women require oppositions to express them. The dashiness of their appearance is their charm and best quality. It would be useless and foolish to attempt to subordinate this quality by more quiet dressing. Let each woman be herself and dress to look like herself. And how often do we hear the expression—*a propos* of a dress or a hat—"That does not look like you, Mrs. So-and-so!" Nor is it worth while for the dove-like creature to undertake to please some member of the family by trying to be more dashing. Swaggering red bows, lumbering plaids, mannish hats and ties, are all of no avail.

Occasionally one sees a woman in whom style, chic, clashing outlines, extravagant coqueries of bow, or belt, or buckle, or band, things bizarre, or fanciful, centralize all eyes upon her, and leave the daintier women crowded into a seemingly sentimental jumble.

Expression of the individual, and suitability to the moment, constitute the final test of good dressing. On some occasions, convenience must be foremost, on other occasions, beauty, but let it always be the beauty of the man, woman, or child that is clothed, not the mere beauty of clothes. Without attention to this psychological point of view, no amount of good decorative effect would make social life other than a panoramic picture, gliding grandly before the eyes—leaving all hearts unsympathetic, and all souls unrelated.

The two-foot looking-glass of the average old-time bedroom has given place to the long mirror or the threefold dressing-glass. Those who have admired the line and drapery, the general decorative effect of poetic and dramatic dress, in the palatial spaces of the modern home, and on the stages of those great theaters where tinsel and trumpery have so far given place to artistic suitability, now regard the generalizations in a costume as important. Madame must see the back of her head, the curve and swing of her train, the angle of her poise. She is no longer content to see how her face looks, and satisfied if a ring or a curl sets off becomingly the color or line of her cheek. Women think more broadly about dress. Dress is no longer merely fixing yourself; dress is architecture.

THE SYMBOLS OF PRECIOUS STONES

“A gold-adorned and pillared temple, round,
Whose walls were hung with rich and precious things,
Worthy to be the ransom of great kings.”

— WILLIAM MORRIS.

BY THE Ancients, the formation of gems was attributed to the gods. The cradle of the infant Jupiter was rocked by a beautiful youth, whom the gods, in commemoration of so honorable a service, changed to a diamond. An imprisoned glowworm became the émerald. The amethyst was once a nymph beloved of Bacchus. The lapis lazuli was formed from the dying cry of a tortured Indian giant; a malignant passion formed its home in the heart of the onyx; while amber was created from the tears shed by the sister of Phaethon because of the latter's unhappy fate.

There are many tales, varied and interesting, showing the wonderful influence that these rare bits of mineral have wielded over the mind of man. Elaborate descriptions of their use in ancient times for religious purposes, and for personal adornment, have been found. Fifteen hundred years before Christ, to symbolize each of the Jewish tribes, twelve precious stones were set in the breastplate of the priest who was to minister before the sacred altar erected by the children of Israel.

“Thou shalt set it in settings of stones; the first row shall be of sardius, a topaz, and a carbuncle, this shall be the first row.

“And the second shall be an emerald, a sapphire, and a diamond.

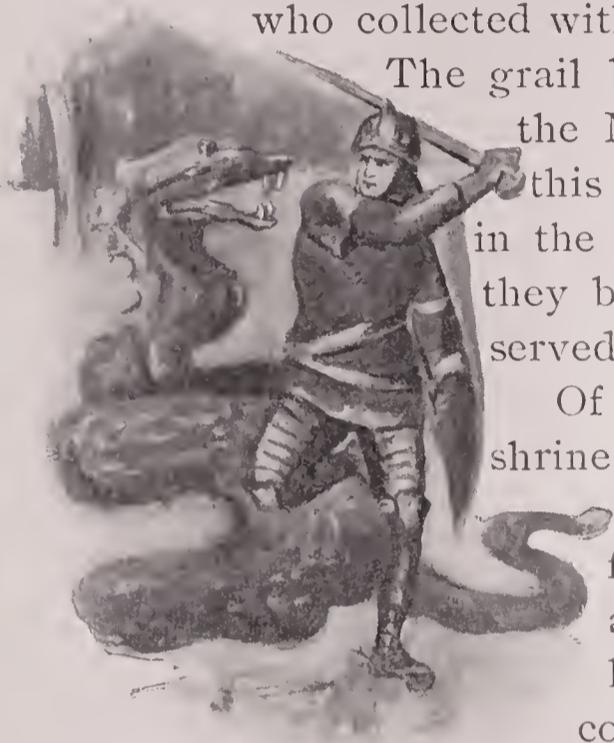
“And the third row a ligure, an agate, and an amethyst.

“And the fourth row a beryl and an onyx and a jasper; they shall be set in gold in their inclosing.”

“And the stones were according to the names of the children of Israel, like the engraving of a signet, every one with his name, according to the twelve tribes.”



Tradition among the Rabbis would have us believe that Moses engraved the stones of the breastplate with the blood of the worm called "Samir," by some interpreters translated *adamas* (diamond). The story of the Holy Grail has been adopted as the basis of numerous romances and poems. According to this legend, the Holy Grail was a cup made of a single large emerald, which was detached from the crown of Satan when he fell from heaven. The cup was used at the last supper, and afterward was given to Joseph of Arimathea, who collected within it the blood of Christ as he expired upon the cross.



The grail being lost, it was the great object of the knights of the Middle Ages to find it; but none was qualified for this task unless pure in heart and deed. The Crusaders, in the tenth century, at the capture of Cæsarea, found what they believed to be the Holy Grail; this object is now preserved in the Cathedral of San Lorenzo, Genoa.

Of the famous "black stone" of the Kaaba—a sacred shrine of Mecca—many legends are related. This stone was popularly supposed to have fallen to the earth from paradise, upon the advent of Adam, and it was an object of reverence long before the time of Mahomet. The great Arabian placed the stone on a corner of the shrine, to be kissed by pilgrims. When first placed in the Kaaba, it was a jacinth of "dazzling whiteness," but it became gradually blackened by the contact of lips. The Shah of Persia is reported to be the owner of two diamonds, one of which renders him invincible, the other being possessed of the power to force secrets from his enemies.

In olden times, followers of most religious beliefs embellished their places of worship with rare and precious gems. Precious stones also served to adorn the tombs and shrines of departed friends, and they have been included in all nations in the decorative scheme of the future abode of the righteous. The paradise of the Chinese is adorned with gold and precious stones. The Moslem pictures in imagination the rivers of heaven flowing over amber, sapphire, and jacinth. The prayer of Tobias speaks the universal dream of the Jewish nation: "She shall be built of emeralds, sapphires and all precious stones, her walls and battlements of fine gold, and the streets shall be paved with carbuncle, beryl and stones of Ophir." The Christian, surpassing in his dreams of paradise those of Buddha, Moslem, or Jew, pictures the splendor of the Holy City, whose walls are of the rarest jewels and whose gates are of pearl.

Tradition would have us believe that to these treasures of the earth were attributed properties antidotal for most of the ills of life. A

ruby owned by King Solomon was said to reveal to him all he desired to know, in heaven or upon earth, and gave him power over demons. One famous stone, the "Dracomus," which was stolen from the head of a dragon, was believed, like the toadstone, to absorb all poison from the system of one who touched it. Another stone, equally well known, was derived from the brain of an Arabian monster, and was considered a charm against plague and pestilence. It was called the Bya stone. The opal for years has been considered an ill-omened gem—the harbinger of evil to all who possessed it. Even the diamond was valued by the Romans only for its supernatural virtues, for it was supposed by them to protect the wearer from poison, insanity, and evil dreams. Yet, at one period it was considered the most deadly of poisons. Cellini, the famous Italian worker in gold and silver, relates how an enemy would have killed him by means of a solution containing pulverized diamond, had not the chemist, employed to reduce the gem to powder, substituted for it a bit of beryl.

Onyx, when worn alone, was said to expose its wearer to danger from evil spirits. The beryl was often employed in certain rites practised in witchcraft, and was said to possess the power to reveal secrets of both the past and the future. A ruby was said to change color when the wearer was threatened with danger. It was worn, too, as an amulet, to protect the wearer from poison, sadness, and evil thoughts. The sapphire was said to be an antidote for madness, and was able to free the possessor from enchantment.

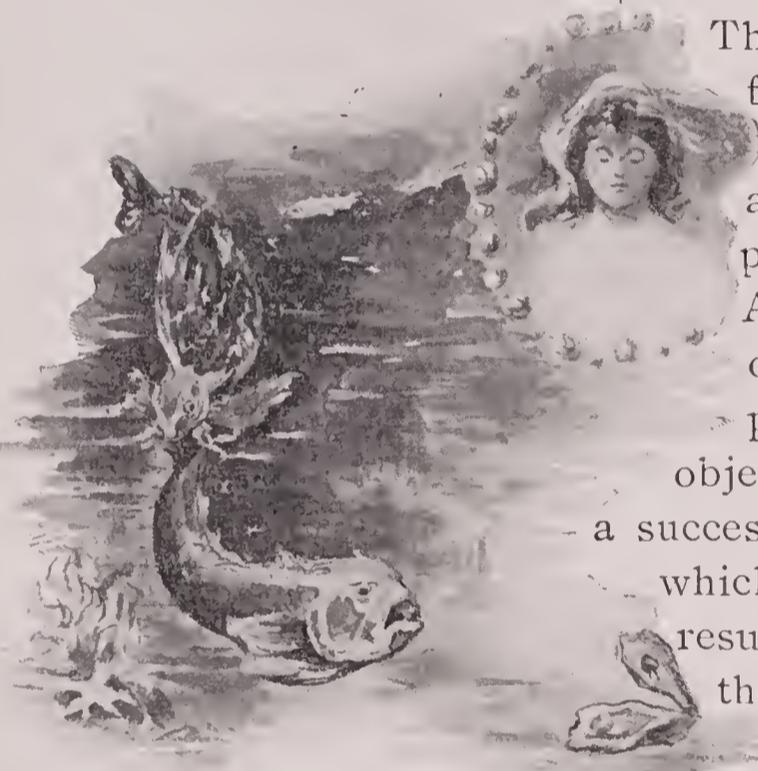
BIRTH-STONES

A DIAMOND is the purest form of carbon, the chief element of coal,—which we often hear spoken of, and not inappropriately, as "black diamonds." Hence many scientists have tried to discover a process of refinement for changing coal to diamonds. As yet, however, only very small stones have been produced in this way, and these at an expense exceeding the cost of those found in a pure state. The diamond is sometimes called the emblem of innocence; but more generally it is symbolic of pride. It is the birth-stone of one born in the month of April.

The Ruby, next in value to the diamond, is a gem of beautiful rose red, the darkness of the shade varying slightly in different stones. It seems to have been considered in Bible times as the most precious of stones. Job said: "The price of wisdom is above rubies;" and Solomon set the value of a virtuous woman "far above rubies." It is said to be the emblem of a noble nature, imparting the courage

for great achievement, and possessing power to bring contentment to its owner. It is the appropriate jewel for one whose birthday is in the month of July.

The Sapphire and the Pearl are sometimes ranked with the ruby, next to the diamond, and in any case, are second to no others. Job, in one of his wonderful references to the treasures of the globe, says: "The stones of the earth are precious sapphires," while in Solomon's greatest tribute to wisdom, he says: "Coral and pearls cannot be compared to it." The sapphire is a gem of a beautiful deep blue; while the pearl is well known for its exquisite translucent whiteness. The great divine, Henry Ward Beecher, was passionately fond of jewels, especially of fine sapphires, which he declared brought him nearer to heaven than did any other sight. The sapphire is the birth-stone of those born in September.



The Pearl differs from all other gems in coming from the depths of the ocean instead of being found in the earth. It is not a mineral, as are the other precious stones, but is an animal product or growth found in the shells of mollusks. A grain of sand, or small particle of some other foreign matter, finds its way between the parts of the shell of an oyster or mussel. This object the little occupant of the shell covers with a succession of layers, of the same substance as that which constitutes the inner lining of his shell. The result is that the grain of sand is transformed into the beautiful object which we call a pearl. The Kingdom of Heaven is likened by the Great Teacher to a "pearl of great price," for the possession of which a man would sell all that he had. The pearl signifies innocence and modesty, though it has no place in the birthday list. Perhaps it was thought that the beautiful lesson the pearl teaches should not be the peculiar property of the children of any one month.

The Garnet, a dark red stone, is the talisman for one born in January; it denotes constancy and helps the wearer to be faithful in all engagements. The Opal is a translucent gem reflecting a great variety of beautiful hues; it is one of the most fascinating of stones, and has had great popularity of late, though it was once thought to bring bad luck to the wearer. It signifies faith and hope, and in our calendar of gems, brings a wealth of pure thoughts to the October child.

The Turquoise, a jewel of a peculiar and delicate shade of blue, is a favorite among the less expensive stones. It is an emblem of

prosperity, and is said to bring success to the owner who was born in the last month of the year. The Amethyst is a beautiful gem of varying shades of violet. Its significance is sincerity, and it is supposed to bring to one born in February a birthday dower of peace of mind. The Bloodstone, the March birthday gem, is dark green in hue, mottled with red spots resembling drops of blood. It indicates courage.

The Emerald, a jewel of a bright green color, is very much admired, and its name has come to be a synonym of that hue. Hence, from the verdant luxuriance of its vegetation, Ireland is called the "Emerald Isle." To one born in May, the emerald is a mascot for success in life. The Topaz is the birthday stone of November; it signifies fidelity. The Sardonyx is the emblem of conjugal felicity, and belongs to August. The Agate is the stone of June, and means health and long life. Jet signifies sad remembrance, and hence is worn most with mourning garments. The Onyx is the symbol of reciprocal love.

THE LANGUAGE OF FLOWERS

"To him who in the love of nature holds
Communion with her visible forms,
She speaks a various language."

—BRYANT.

"An exquisite invention this,
Worthy of Love's most honeyed kiss—
This art of writing *billet-doux*
In buds, and odors, and bright lines!"

—LEIGH HUNT.

FLOWERS have a language that is so beautiful, so full, so intricate, and yet so distinctly their own, that almost from the beginning of creation, man has sought to interpret it. Theirs is a universal speech, addressed alike to all mankind—to the rich and the poor, to the young and the old, to the living and the dead. The little child is attracted by the beauty of the commonest wild flowers, and, responding to a natural impulse of childish affection, gathers them, and carries them to his mother; thus unconsciously helping to fulfill one of the divine purposes of their creator.

The lover can find no more eloquent messenger to the object of his adoration than the flowers. The devotee covers with his offering of choicest blossoms the altar dedicated to the God he worships. The bereaved, in sad remembrance, strews the last gift of flowers upon the grave of his loved one.

Every flower holds in its heart a secret which, imparted, becomes a lesson, and an inspiration to enrich our lives, and to attune our souls to Nature's voices. They stand as symbols both of our hopes and our disappointments—our happy hours and our bitter moments.

The Ancients did not despise the silent lesson taught by the flowers. In Bible lore, we read of the Olive, which stood for Peace; of the Corn, symbolie of Plenty; the Willow, of Mourning; the Cedar, of Strength; the Lily, of Purity. The art-loving Greeks gave to flowers a human interest, and "linked legend of man's love, or woe, or triumph, to each blossom."

In later years, the education of the society belle or beau was not considered complete without a knowledge of the language of flowers.

Love's offering often came in the form of a nosegay, each blossom of which conveyed some special meaning. By floral linguists, a bouquet of this sort was as easily read as was a *billet-doux*, for almost every flower was made the symbol of some attribute or idea. The introduction of this flower language into Europe was through the gifted Lady Mary Wortley Montagu, who brought it from the East in order to teach her countrywomen how a letter of passion, friendship, civility, or even of news, might be prepared without even inking one's fingers. Lady Montagu claimed that there ex-

isted no sentiment or emotion that was not possible of expression through the gentle speech of flowers. From time immemorial, a

Rose has signified Love. If a lover would declare awakening affection, he presented to the fair one a rosebud just beginning to open. If the lady accepted, and wore the flower, she was supposed to favor her lover's suit.

Then there was "Rosemary, that's for remembrance," and "Pansies—that's for thoughts." The word Pansy comes from the French *Pensee*—"thought." Laurel is universally regarded as the symbol of Fame; the Olive signifies Peace. Flowering Almond means Hope. Tradition tells us that when the Greek hero, Demophon, was returning from the siege of Troy, he was wrecked on the shores of Thrace. While there, he gained the love of the King's daughter, who, on the departure of the Greek for his home, promised to be faithful until he should return to marry her. But Demophon did not return to Thrace, and the maiden pined away and died. Through pity, the gods are said to have changed her to a Flowering Almond.

There are interesting legends connected with the origin of certain flowers. One fable relates that Flora, grieving at the loss of a



favorite, entreated the gods to change her to a flower that would reign as queen over all others. To please her, all the gods took part in creating such a flower, and thus was the Rose formed.

Another myth concerns Narcissus, the beautiful son of Cephisus. Though beloved by all of the Grecian nymphs, Narcissus treated them with contemptuous indifference; but having accidentally seen his own image reflected in a stream, he became so enamored of it that he languished until he died. The gods, through compassion, changed him to the flower that still bears his name.

Of the Sunflower, we are told that Clytie, a daughter of Oceanus, following always the course of the Sun god through the heavens, was transformed into a Sunflower.

The Daisy, it is said, is so called because it is the "day's eye," opening its petals when the day begins, and closing them when daylight ends. But this is true only of the little English daisy, from which the larger ones take their name.

In the arbitrary flower code, the Mandrake flower signifies Horror, and thinking of that, one can imagine its blossoms to be little white waxen faces, transfixed with fear, hiding beneath the huge leaves.

The beautiful rival of the "Queen of the garden," the Rose Oleander, if presented to one as a gift, means "Beware."

The Nettle, for no far-fetched reason, is said to signify cruelty or ingratitude; the Blue Lobelia stands for Hatred, and the cheerful Marigold, oddly enough, is symbolic of Chagrin.

The honest, bright-faced Dandelion is charged with meaning Coquetry, probably because the seed-ball, like the daisy flower, is frequently called into service for settling the vexed question as to whether or not the loved object loves in return.

According to Milton, the Amaranth, or Everlasting, is the "Immortal flower that once in Paradise, hard by the tree of life, began to bloom"; hence it means undying, or never-fading.

The Fringed Gentian means Heavenly Hope.

The fragrant Petunia bears the message, "Your presence soothes me"; while the Mignonette gives the frank information, "Your good qualities surpass your charms."

The Heliotrope means Devotion, or "I turn to Thee."

The Red Clover, with its wholesome sweetness, is the symbol of Industry, while the hardy Nasturtium is the emblem of Patriotism.

The delicate Trailing Arbutus peers from the rough, brown leaves with the sweet words, "Thee, only, do I love."

Many peoples have chosen some flower as their national emblem, and the legends and traditions connected with these national flowers are known the world over.

The Rose has been the national emblem of England since the fifteenth century., when Henry VII., of the House of Lancaster, put a stop to the famous "Wars of the Roses" by marrying Elizabeth of York. There is a pretty tale connected with the ending of this conflict: A rose bush in Millstone, which had always produced both red and white roses, suddenly began to put out roses of mingled red and white. Whether the tale be true or not, there grows a rose in England whose petals are intermingled white and red, and which bears the name of the "York and Lancaster" rose.

The following story is told concerning the adoption of the thistle as the national emblem of Scotland. Many years ago the Danes made war upon the Scots. One night while the Scottish camp was sleeping, the enemy approached through the darkness and would have successfully attacked the sleepers had not a Danish soldier stepped with his bare foot upon a thistle. The cry that he could not restrain awakened the Scots, who sprang to their arms, fell upon their enemies and routed them completely.

The traditional history of Ireland's emblem, the Shamrock, is no less interesting. Saint Patrick, Ireland's patron saint, is said to have used the Shamrock to illustrate the mystery of the Holy Trinity; and for this reason, it became the emblem of the Irish nation. In olden times, the Irish wore sprigs of Shamrock, which were believed to charm away the witches, evil spirits, and snakes.

The Lily of France is the purple Iris. It received its name from King Louis VII., who chose it for his badge when he set out on his crusade to the Holy Land. Time has changed its original name *Fleur-de-Louis* to *Fleur-de-lis*, by which name we now know the beautiful Iris. It is used on the arms of France, and in many royal decorations. During the "Reign of Terror" people were forbidden, on pain of death, to wear the emblem, because it was the badge of royalty.

There is an old story connected with the Mexican coat of arms,—which consists of an eagle, resting upon a cactus stem, and holding a serpent in his beak,—to the effect that many years ago, when the Aztecs or ancient Mexicans were looking for a place in which to dwell, a seer told them they should continue to wander about until they came to a spot where an eagle would be found perched upon a rock, and on that spot they should build their city. When the wanderers came to Lake Tezcuco, they saw an eagle seated upon a branch of uspal cactus, which grew in the crevice of a rock, and in his beak he held a serpent. The name of the city the Aztecs built was afterward called Mexico, and the uspal cactus became the national flower of the Mexicans.

The Sacred Lily, or Lotus, of Egypt, was used by the ancient Egyptians in their offerings to the gods, and its beautiful form was painted and carved upon their temples, and in the royal palaces. It was also regarded as a symbol of life, and was honored by all Egyptians, though only those of upper Egypt took it for their emblem.

Chrysanthemum means "Golden Flower," and this is the national emblem of Japan. In that country, a day is set apart each year for the "Festival of Chrysanthemums." The "Golden Flower" is embroidered on flags and banners, and painted on all important papers.

The Greeks chose the modest Violet for their emblem, and it bore for many years the name of "Badge of Athens." Ion is the Greek name of violet, and the Greek Ion was supposed to be a talisman against evil. A Greek myth relates that Io, on being changed by Jupiter into a heifer, lived upon violets alone.

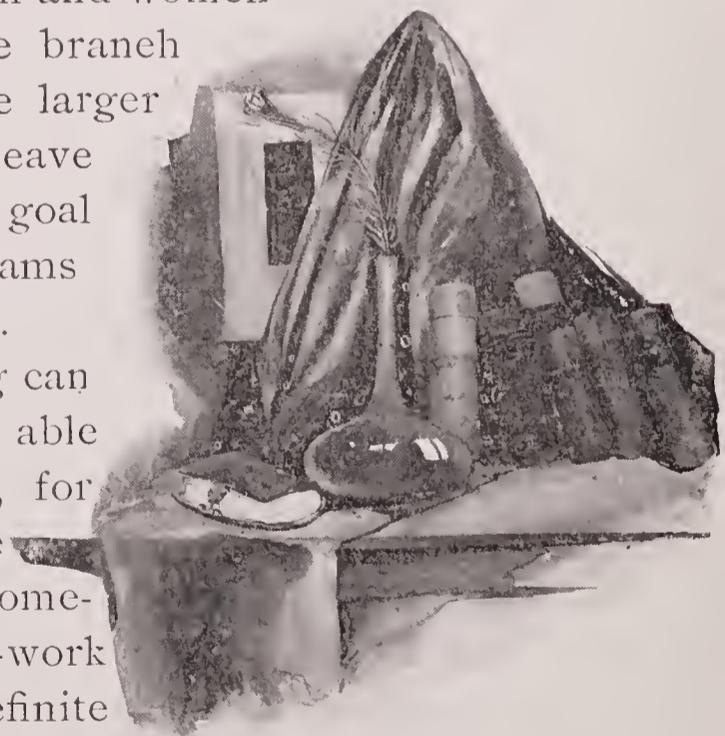
Geoffrey, a French nobleman who married Maud of England, chose the humble Broom Flower as his emblem. His son became Henry II. of England, and the line of kings from Henry II. to Richard III. were known as the Plantagenet kings. The Broom Flower was sometimes called by the Latin word *Planta genesta*, and was always worn by the Plantagenet kings as their emblem.

HOME STUDY OF ART

WHILE it is desirable to secure the best instruction in any chosen line of study, it is unwise to abandon all hope of achievement in such direction when good instruction is not attainable. There are to-day in this country thousands of young men and women who are ambitious to take up, professionally, some branch of art, but who, living in places remote from the larger cities, and being without the requisite means to leave home to study, are struggling alone, to reach the goal of their ambition, or wasting their youth in dreams of future opportunity which may never be realized.

There is a generally prevalent idea that nothing can be accomplished in art work unless the student is able to go to New York, or, perhaps, even to Paris, for instruction. This, however, is not so. If the student starts in the right way—understanding something of the essentials of good drawing and color-work—there is no reason why he should not make definite and practical progress, without the assistance of a teacher.

The first requisites are to know how to begin and to be willing to work. And the first fact to be fixed in the mind, so firmly that nothing can



displace it, is that good draughtsmanship is the foundation of good painting, of good designing, of good illustration. Without skill in drawing it is useless to hope for success in any branch of pictorial art. Even the copyist will reproduce the work of other men more successfully if he has himself learned to draw.

If, then, you are ambitious to become an artist, determine that you will give your first attention to drawing—that you will not yield to the temptation of paints and brushes until you know how to handle your pencil and charcoal.

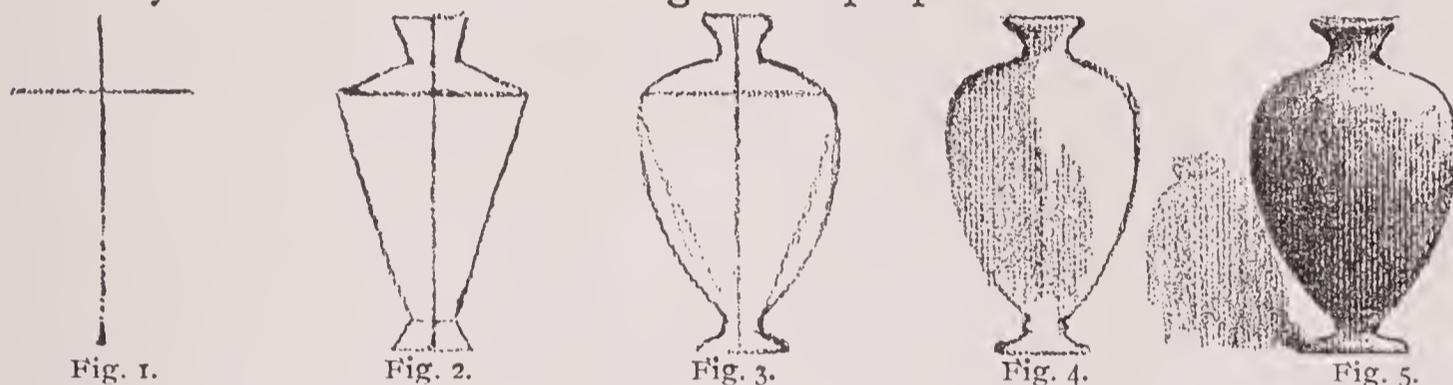
For practical study without instruction, it is well, if possible, to establish a class of three or more members. If all are earnest workers, even though not possessed of equal talent, better results will be achieved than are likely to come from solitary study. The student who works entirely alone is deprived of the constant incentive to further effort which comes from seeing the work and the working methods of others. But if he is compelled by circumstances to study by himself, he will find the following suggestions for class work applicable to his own needs.

Assuming that several students have agreed to form a class for the purpose of art study, the next step is to secure a workshop. This may be in any large apartment having a good north light. The empty loft of a barn has been converted, with slight alterations, into a delightful studio; or some member of the class may be able to give for its use an attic or other apartment in his home. But where it is possible, it is best for the members to club together to rent a suitable room in some business building of the town or village. This studio should be lighted either by skylight or by north windows. In no case should the light fall upon the model from more than one direction. If there is a window instead of a skylight, the lower half of it should be shaded, permitting the light to enter only from above.

For the work, each student will need an easel, a drawing board, charcoal, paper, and thumb tacks. Charcoal paper comes in large sheets and if bought by the dozen, or in larger quantity, will be less expensive. The drawing board should be about 18 x 24 inches in size; the thumb tacks are used to fasten the paper to the board. Charcoal can be bought by the box. It is the best medium for drawing purposes, as it can easily be brushed off when a mistake is made. In addition to these articles, a bottle of fixative and an atomizer will be needed. These are for "fixing" a finished drawing so that the charcoal will not rub off. An old handkerchief or a piece of soft chamois skin is used for dusting out mistakes. A supply of geometrical objects, in white wood, should be purchased, and these, with a small table or two for the arrangement of studies, complete the outfit of the studio. Later on, when the students have advanced to drawing from life, a platform about eighteen inches in height, and

several pieces of drapery of different texture and color to serve as backgrounds will be required. If there is no shop at hand for the sale of art materials, write to a dealer in some near-by town, sending a list of your requirements, and asking for information as to prices.

For a beginning, let the subject be a wooden cube or a vase. The easels should be so placed that the light will not cast a shadow of the student's hand upon the drawing paper; and they should be not more than five or six feet from the object to be drawn. Let us suppose that the latter consists of a vase, as shown in the cut. You are to consider the study first as to outline and general proportions. It is best to start



with a few construction lines. Place upon your paper a straight perpendicular line of about the height of the vase, or of whatever height you wish to make your drawing of the vase. You must now learn to take measurements by means of your charcoal. This process is a little difficult to explain clearly, but by experiment, the idea is readily grasped. You wish, for instance, to get the correct width of your vase at its widest point, as compared with the height: Hold your charcoal stick at arm's length toward the subject; close one eye, and move your thumb along the stick until it measures upon the latter the space filled by the height of the object. Now, keeping the arm steadily at length, turn the charcoal to a horizontal position so that it crosses the vase at the desired point. Your thumb is still marking the first measurement upon the charcoal and you are able to judge as to the relative proportion of the width. To your surprise, you find that the vase is just twice as high as it is wide. This gives you something tangible to start with. The next step is to draw a horizontal construction line across the perpendicular line which represents the height of the vase. This is a simple matter if you know just where the horizontal line should cross the perpendicular. You must be careful not to place it too low, for the widest part of the object is near the top—just how near is what you want to learn. Hold your charcoal at arm's length again and note with your thumb the space filled by that part of the vase lying between the top and its widest part. Then lower the charcoal carefully from point to point and find how many times this space will go into the entire height of the vase. You will perhaps find that from the top of the vase to the widest point the space is one-fourth of the entire height. Measuring with the eye, you must then divide the

perpendicular line on your paper, by light touches of the charcoal, into four parts. At the upper point is the place of intersection for the first horizontal line. (Fig. 1.) This gives a general idea of the process of measuring. Apply the same rules in securing the width of the base, neck, and top of the vase, comparing each part with other parts, and in that way finding the general proportions.

The next step is to connect the construction lines, as shown in figure II, paying no attention to the curves until the shape and proportions are indicated in straight lines. After this is done, draw the curves (Fig. 3.) and gently brush away the construction lines, which should have been made with a light touch. It will be well to practise drawing in this way for some time before attempting to model. By modeling is meant putting in the shading.

Change the subject frequently and arrange groups of two or more articles. The ruler or a lead pencil is a great aid in measuring when you wish to determine the relative proportion of objects. A straight edge held at different angles across the study shows which points are in line, one with another, or in what degree they vary—falling inside or outside of a given line.

When ready to begin modeling look carefully at your study and endeavor to see it in broad masses of light and shade, as in figure IV. Partly close your eyes and these masses become more apparent—the delicate gradations of shade being lost. Draw a light line indicating as nearly as possible the shape of the shadows as you see them, and then put them in with your charcoal, in an even tone. This is called “blocking,” and it is an important step, not only in the work of beginners but in that of experienced artists. It is advisable to draw in this way for some time before attempting the details of finishing.

When skill has been acquired in “blocking in” a drawing, the next step is to study the modeling in its finer expression—find the highest light on your model, and the deepest shade, and try to secure the relative value of all the intermediate shadows. (Fig. 5.) Use your charcoal as you would a pencil or crayon, working only with the point and avoiding the use of the paper “stumps” which are made for rubbing the charcoal into the paper. With the acquirement of skill in handling this medium, the artist learns how to use his thumb and fingers for such blending as may be needed and for securing certain artistic effects.

After a certain facility in drawing from inanimate objects has been acquired, it will be well to work from the living model. Charcoal, water color, oil, or pen and ink, may be used; and where it is desirable to save the expense of hiring models, the students should pose in turn for the class. For life work, a platform is required that will elevate the model from twelve to eighteen inches above the level of the floor.

In posing the model, it is advisable to select only simple positions, as it is difficult to hold a pose which puts too much strain upon any of the muscles. In the art school classes, a model usually poses from twenty to forty-five minutes without resting; five minutes of relaxation is then allowed, after which the pose is resumed. One position is kept during a week.

Students who are ambitious to become illustrators should, in addition to their other work, draw with pen and ink from the model. For this purpose, a smooth, hard-finished paper is required. Many artists prefer Bristol board, but there are other papers equally good; for instance, the smooth-finished Steinbach papers. A bottle of Windsor and Newton's India ink and a supply of ordinary fine-pointed writing pens are also needed. The pens made especially for drawing do not differ particularly from the writing pens, and will be of no especial use to the beginner. In making a pen and ink drawing, follow the same general rules that are given for charcoal drawing. Study carefully the proportions and values, and practise with your pen to secure the stroke that best expresses what you see. Study also the subject of composition; to be able to draw skilfully from the model is but half the battle; you must learn to group your figures, to give to them the necessary setting. A careful examination of the work of the best illustrators, appearing each month in the leading magazines, is very helpful; but such work should not be copied; it is best to evolve a style of your own; and this will come with increased skill in the handling of your pen. The editors of illustrated publications are always willing to examine drawings with a view to their purchase. In sending drawings to a publisher be sure, first of all, that your work is suitable for the publication in question. This point can easily be decided by an intelligent examination of the magazine or paper. Never roll a drawing for mailing, but send it flat. No editor will take the trouble to examine a rolled drawing. Always send sufficient postage to cover the return of your drawing, in case of its rejection; and see to it that your address is clearly written upon the margin or back of the paper.

Wash drawings for illustration are made with a brush and water color or India ink. Lampblack is a good medium and so, too, is sepia. But many artists use only ink, leaving the white paper for the high lights. It is best to avoid the use of Chinese white.

If it is not convenient to purchase the geometrical objects made especially for drawing purposes, substitutes can be found in any house-



hold. White pasteboard boxes, vases of simple design, books, or kitchen ware, etc., will be useful.

OIL-COLOR PAINTING

WHEN the student has acquired a certain skill in drawing, he may make his first efforts in oil painting. The following list includes the colors that should be purchased for this work.

	White	
Orange Madder		Strontian Yellow
Rose Madder		Cadmium Yellow
Raw Umber		Orange Cadmium
Cobalt		Yellow Ocher
Burnt Sienna		Ultramarine
Ivory Black		Terre-verte

This list also indicates the arrangement of the colors upon the palette. The paint box for holding the colors and other materials is made of lacquered tin, the lid being so arranged that a sketch made out of doors can be carried without risk of being spoiled before the paint is dry. The palette should be rather large and of light weight. It is also best to have one of light color rather than dark. A palette which is well cleaned and polished after being used will acquire a beautifully smooth surface and a delicate tone.

Brushes for oil painting are of two kinds, bristle and sable; of the latter variety, only the red sable, in two or three of the smaller sizes, will be needed. They are expensive, but indispensable for fine touches and for outlines. Most painters have on hand three or four dozens of bristle brushes, but the student will not need any such number. It is of more importance in choosing the latter to get a good variety of shapes and sizes. There are both round and flat brushes. In the round kind, select those having long rather than short bristles; they should not be too thick and should be flexible and elastic. You will use more of the flat brushes than of the round ones. There will also be several small bristle brushes, but it is advisable to use them as little as possible. All brushes should be carefully washed with warm water and soap after every painting. Turpentine is sometimes recommended for cleaning purposes, but nothing could be much worse for the brushes, as it hardens and stiffens the hairs and bristles. A palette knife is also needed in oil painting, both for cleaning the palette and for mixing the colors. The blade should be very flexible and elastic. The mahl-stick is useful for resting the hand when steadiness is required in painting, but the student should not become too dependent upon its use as such dependence interferes with the free movement of hand and arm. An oil cup will be needed, though it is best to avoid the use of oil as much

as possible. The cup is made to attach to the edge of the palette. For beginners, academy board is very satisfactory to paint upon. It is cheaper than canvas and is made in a large assortment of sizes. By writing to any art dealer, a catalogue of materials with prices can be obtained, which will be helpful in making a choice of articles.

It would be advisable for the beginner in oil painting to commence with a simple still life study. For still life work, much material may be found in the household. Vases, copper vessels, kitchen utensils, books, fruit, and vegetables—all lend themselves to attractive grouping. Do not attempt to paint flowers until facility has been acquired in mixing the colors and in handling your tools. Drapery usually forms part of a still-life arrangement and should be chosen with a view to the general harmony of color and texture. Drapery, by the way, makes an excellent study in itself, and it is advisable for the student to devote some of his time to the painting of different materials hung in folds from a chair back or thrown in a crumpled heap upon a table. Make a study of silk drapery,— of satin, plush, velvet, and various wool fabrics,— try to represent both color and texture. If several students are working together, as has been suggested, it would be a good plan for each to contribute to the class properties a piece of good drapery.

Great care should be taken in the arrangement of a still-life group. Try to get the best possible composition; keep the objects together, rather than scattered, and do not group utterly incongruous articles. See, too, that a good light falls upon the subject.

After the group has been arranged, the first step is to make a careful drawing of it upon the canvas or academy board. Use charcoal for this, and follow the rules for drawing as given on another page. This preliminary work should be fixed with fixative and an atomizer, so that it will not brush off. The next step is to paint over the drawing with one color, put on very thin: the color used in this preliminary painting is a matter for the judgment of the student; it should be one that will harmonize with the general coloring of the entire group. Raw umber, or raw umber mixed with burnt sienna, can generally be used for the purpose. The object is to aid you in getting your values. Both in the drawing and in the preliminary painting, an effort should be made to place the shadows in their proper relation to each other—to make as correct a drawing of the subject as is possible.

When the first painting is dry, you are ready to commence with the body color. Do not hurry—study the colors in your subject and try to match them on your palette; and when you have secured the color you want, put it on the canvas with a bold, free stroke of the brush. Do not use a mahl-stick except when it is necessary to put in a small line or a delicate accent. Paint your background first—or at least paint enough

of it to aid you in getting the other values in your subject. Don't be afraid of your paint and brushes—it is better to make a bold mistake than to fail utterly through timidity. In placing a color upon the canvas, you should not only be careful that it “matches” the color of the object you are painting, but that it has its proper value in relation to every color around it. One color in your group will be lighter than all the others; another color will be darker than the others; and between these two points will be a variety of values which it is your object to properly place. Power to do this can be gained only through much thought and careful study. If your subject contains several light objects, you will at first be inclined to believe that all are equally light; but looking at the group more closely you will find that this is not so. Close your eyes partly so that you see the group as a mass, and you will find that certain of the objects which appeared to be as light in color as the others, have become less conspicuous, and by comparison, are really much darker. Try to see and to preserve this relation of values throughout your work. There are excellent handbooks on the subject of painting which will be of much use to the student who is working without an instructor.

WATER-COLOR PAINTING

THE selection of materials for oil or water-color painting should be made with great care—if possible, under the direction of some one who understands the art. Nothing requisite to good work should be omitted; but it should be borne in mind that eminent painters, as a rule, produce their best effects with a comparatively small number of colors.

The materials used in water-color painting are colors, brushes, paper,—either in single sheets or pads,—pencils, and a drawing board. A great many colors are used in water-color painting, but the following list includes all that are necessary for practical purposes:—

Pale Cadmium	French Blue	Burnt Carmine
Orange Cadmium	New Blue	Burnt Sienna
Indian Yellow	Permanent Violet	Raw Umber
Yellow Ocher	Purple Madder	Brown Ocher
Emerald Green	Rose Madder	Vandyke Brown
Hooker's Green No. 2	Light Red	Sepia
Indigo	Carmine	Brown Madder
Prussian Blue	Indian Red	Chinese White

Water colors are put up in three forms,—pans, tubes, and dry cakes. The pan colors being always moist enough to work with easily are more suitable for the beginner. They should be bought in half-pan sizes. Chinese white, being but little used, should be carried in tubes. The colors should be placed in the box in chromatic succession, commencing

with the lightest — the yellows, then the greens, blues, purples, reds, and browns.

Brushes for water-color painting are of three kinds: brown sable, red sable, and camel's hair. Large brushes, of firm body, elastic, and not too pointed, are to be chosen. The hair of a good brush keeps its pointed shape when dry as well as when wet. Small brushes are seldom needed. Brown sable brushes are the most expensive. Those of red sable, which are much cheaper, will answer every purpose of the beginner. Camel's-hair brushes are not so good as the others. A good working equipment consists of one small No. 2, one large No. 2, one large No. 4. One red sable brush should be kept for whites, and nothing else. Another for delicate yellows and reds. For painting marine views and landscapes, and also for flowers, fruit, and still-life groups, two large round sable brushes are required. One flat sable of medium size is also useful. A flat bristle brush of medium size will sometimes be found serviceable in landscape and marine painting.

Use only paper made especially for water-color painting. Whatman's or Steinbach's is best for the purpose. Water-color paper is made in smooth, medium, and rough finish. For the beginner, the medium finish is best. The rough finish produces a strong effect. The smooth paper is preferred when little color or moisture is required. Water-color paper can be procured in blocks or pads, and for the beginner, especially, these blocks are most serviceable. They are made in several sizes — the most convenient being 12 x 15 inches in dimensions. The colors should be allowed to dry before the sheet is removed from the block. There is also a water-color board made which is often used, but for all practical purposes these blocks are just as good.

Many artists prefer to "mount" the paper for their water-color work — a very delicate operation. Mounting consists of stretching the paper smoothly over a frame, for convenience in working. The sheet of paper is cut about an inch larger all around, than the board upon which it is to be mounted. Lay the sheet on the board, right side up, and moisten it thoroughly by sponging it gently with cold water. Great care must be taken not to injure the surface of the paper by rough rubbing. When the paper is well dampened apply a strong glue to the four edges which are to be turned down around the board; see that the paper is pulled smooth and even. The work must be done as rapidly as possible, as the paper dries unevenly and quickly and your work may be spoiled by wrinkles unless all of the edges are glued down at about the same time. The paper can be fastened on the under side of the board, by means of thumb tacks if desired, but glue is safer. As the paper dries, it should become taut and very smooth.

A hard lead pencil of the best quality; a cotton cloth for drying the superfluous moisture from the brushes, a bowl or glass to hold water, and a piece of clean blotting paper will also be required.

The first studies in water color should be made from simple still-life arrangements, such as are described for drawing. Do not attempt at once to work out of doors, or to paint flowers or figures. The subject should be sketched on the paper with a lead pencil, care being taken to avoid heavy lines and erasures. The drawing board is held at an angle which will permit the color to flow downward, and the paper should be slightly dampened all over before beginning to paint. It is advisable for the beginner to practise the handling of his brushes and the laying on of broad washes. The latter may seem a simple matter, but it is not, as the paint shows an aggravating tendency to dry in spots and edges which cannot afterward be removed.

CHINA PAINTING

CHINA painting is best learned under an experienced teacher, but those who are unable to avail themselves of such instruction may acquire the art unaided if they bring unlimited patience and a certain amount of intelligence to the work. The first consideration is, of course, the firing of the china. To the person dwelling at a distance from large cities this would be an insurmountable barrier, unless a portable kiln could be procured. Portable gas kilns are now manufactured and may be obtained from dealers in art supplies. These can be set up in any part of the house where there is gas attachment. From one and a half to two hours is the time required for firing, but the ware should be allowed to cool gradually before removing it from the kiln.

The firing of the china being provided for, the next step is the selection of ware. A porcelain should be chosen that is absolutely free from cracks, spots, or other blemishes, and that has a pure white polished surface. Berlin porcelain is adapted for figure painting because of its high finish. French porcelain fires well. The English porcelains are all well adapted for china painting. None of these foreign wares, however, excels those which are manufactured at Trenton, New Jersey. The fine, delicate surface of the Trenton ware lends itself to the most artistic treatment.

The materials for painting should be carefully collected. The following is a list of indispensable articles:—

- 1 steel palette knife.
- 1 hand rest.
- 1 muller and a ground-glass slab, for mixing.
- 1 porcelain palette.
- 1 medium-sized dabber.

- 1 erasing point.
 1 steel and horn palette knife (for mixing gold, white relief paste, blues, violets, carmines).
 1 ivory stylus.
 1 bottle of tinting and painting oil.
 1 " " tar oil for mixing relief paste.
 1 " " fat oil for colors and gold.
 1 " " tar paste for stenciling designs preparatory to painting.
 1 alcohol lamp (for drying colors more expeditiously).
 Tracing paper.

Tube colors already ground in oil are the most convenient for amateur use. The following is a list of the colors, manufactured by Lacroix, which will be found most useful:—

REDS—

- Rouge capucine* (Capucine red).
Rouge chair No. 1 (Flesh red No. 1).
Brun rouge riche (Dark red brown).
Violet de fer (Iron violet).

PURPLES—

- Pourpre riche* (Deep purple).
Violet d'or foncé (Dark golden violet).

BLUES—

- Bleu ciel azur* (Sky blue).
Bleu outremer riche (Dark ultramarine).

GREENS—

- Vert No. 5 pré-* (Grass green).
Vert brun No. 6 (Brown green).
Vert pomme (Apple green).

YELLOWS—

- Jaune à mêler* (Mixing yellow).
Jaune d'ivoire (Ivory yellow).
Jaune jonquille (Jonquil yellow).
Jaune d'argent (Silver yellow).

BROWNS—

- Brun foncé* (Deep brown).
Brun jaune (Yellow brown).

BLACKS—

- Noir d'ivoire* (Ivory black).
Noir corbeau (Crow black).

WHITE—

- Blanc fixe* (Permanent white).

GRAYS—

- Gris tendre* (Light gray).
Gris noir (Black gray).

The brushes are another important consideration and great care should be exercised in their selection, and in their subsequent treatment. After using a brush it should be rinsed in alcohol, rolled to a point, and laid aside until again needed.

Having procured the ware and the materials for painting, the next step is tracing the design upon the china. This of course presupposes an elementary knowledge of drawing. The surface is prepared by rubbing it with spirits of turpentine. The outline is then drawn with a hard lead pencil. If a ground is to be laid (by which is meant covering the surface of the china with a uniform tint to serve as a background to further decoration) the following method should be observed:—

If, for instance, a cream tint is desired, take four parts of color, add to it two parts of tinting oil, and thoroughly mix to a smooth paste; then add turpentine until a consistency is obtained which covers the ware opaquely, runs smoothly from the brush, and which does not spread. If too thin, add a little more color. The best brush for the purpose is a large camel's-hair grounding-brush, size 12.

Having made all preparations, proceed to put on the color quickly, in broad, free washes, which will blend into an even background. If an uneven surface results, a dabber must be used to perfect the blending. This dabber is made by placing cotton within a little square of silk or linen and tying the four corners together. Not until the ground tint is perfectly dry can the design be traced upon it.

If tube colors are used, it is necessary to dilute them with turpentine. A drop or two of oil of turpentine will facilitate the laying of the colors. Clove oil is also used, but in using it, the colors do not dry as quickly. Differences in climate also affect the drying. Colors containing iron should always be carefully washed from the brushes before colors which do not contain iron are used. The brushes should be of medium size; and it is better for beginners to accustom themselves to large rather than to small brushes, that they may better learn delicacy of manipulation. If a mistake be made in laying on a color, the color applied must be allowed to dry before the mistake can be rectified, otherwise a blotted appearance will result.

Mixing colors and learning their uses forms a fascinating division of china painting. The classification of Monsieur Lacroix divides colors into three groups:—

First—Colors which contain no iron—the blues, golds, and whites.
Second—Colors which contain but little iron—greens and yellows.
Third—Those colors which have iron as a base—reds, red browns, flesh reds, browns, brown yellows, ochers, blacks, iron violets, and the majority of grays.

Of the first group, carmines, carmine lake, purples, and gold violets, have their base of gold. The base of blues is cobalt. Cobalt with iron produces tints ranging from light gray to black. To obtain fresh green color, jonquil yellow should be used with blue. Silver yellow mixes readily with gold, iron violet, and some reds.

Blacks are made of cobalt and iron, the cobalt predominating. Browns are formed from mixtures of iron and cobalt. Grays are formed by mixing blacks, blues, and reds, according to the tint required; or by mixing complementary colors like reds and greens; or by mixing one-third ivory black, with two-thirds sky blue. All colors do not fuse alike, some requiring more heat for their fusion than others. Those requiring the greatest heat are called hard colors.

The more fusible colors are:—

Bleu ciel clair (Light sky blue).

Carmin tendre (Soft carmine).

Gris perle (Pearl gray).

Gris roux (Reddish gray).

Jaune d'ivoire (Ivory yellow).

Blanc fixé or permanent white. (Seldom used in painting on hard porcelain except for touches of high light upon flowers, jewels, etc.)

Flowers are usually the first decorations attempted by beginners. If they have a good knowledge of drawing and a fair eye for color, better results are obtained by painting direct from the natural flower, but colored designs are furnished by all art stores. These are best for the beginner.

The following is a list of the most important colors required for flower painting:—

BLUES—

Bleu ciel azur (Sky blue).

Bleu riche (Deep blue).

GREENS—

Vert pomme (Apple green).

Vert No. 5 pré (Grass green).

Vert No. 6 brun (Brown green).

Vert No. 7 noir (Black green).

YELLOWS—

Jaune jonquille (Jonquil yellow).

Jaune orange (Orange yellow).

Jaune à mêler (Mixing yellow).

Pourpre riche (Deep purple).

Carmin, No. 3 foncé (Dark carmine).

Violet d'or (Golden violet).

REDS—

Rouge capucine (Capucine red).

Rouge orange (Orange red).

REDS — *Continued.*

Rouge chair No. 2 (Flesh red).

Brun rouge riche (Deep red brown).

For white flowers, the local tint is formed by the surface of the china. For the shadows, gray is used. For the high lights, permanent white (*blanc fixé*). *For yellow flowers*, use jonquil yellow or mixing yellow. *For blue flowers*, sky blue or deep blue: for paler blues, a little carmine may be added. *For pink flowers*, use carmine, and shade with a mixture of carmine and apple green. *For red flowers*, use capucine red, orange red, and deep red brown. *Purple flowers* require a mixture of deep blue and deep purple. *The yellow centers* of flowers require mixing yellow, heightened with jonquil yellow. For the shading, use brown green.

In painting flowers, begin at the center and work to the edge of the petals. When the colors of the local tone are dry in the several parts, put in the shading. The depth of the colors depends largely upon the surface of the china, whether the ground-tint is dark or light. No particular and infallible instruction can be given. The artistic sense of the china painter is the best guide in the production of color effects, and the cultivation of this sense is dependent upon constant experiment.

In painting foliage, begin with the central vein and work toward the edge. Grass green is used for the local tint. To obtain a bluish green, add blue; for a yellow green, add jonquil yellow.

Brown green mixed with grass green can be used for shadows. For very dark shadows use black green.

Iron violet may be used for the red touches on leaves.

Butterflies, the natural accompaniment of flowers, are not difficult to paint. The veining of the wings requires ivory black. For the ordinary yellow butterfly, use mixing yellow.

Painting landscapes upon china requires first of all a delicate sense of color, and a keen appreciation of natural effects. A knowledge of drawing is also necessary, but the accuracy required is less than for flower painting. Much practice and not a little artistic knowledge are required in painting landscapes direct from nature. Colored landscape cards, which are better for the beginner, can be obtained at any art store.

Painting heads and figures upon china is most difficult and should not be attempted without some previous knowledge of china painting. The colors required for heads and figures are: —

Noir d'ivoire (Ivory black).

Bleu ciel (Sky blue).

Brun 4 foncé (Dark brown).

Brun rouge riche (Deep red brown).

Rouge chair No. 2 (Flesh red).

Jaune d'ivoire (Ivory yellow).

Brun sépia (Sepia).

The design should be traced rather than drawn, as the greatest accuracy of outline is required. For the background, mix one-third of ivory black with two-thirds of sky blue. It should be darkest near the head, light near the edges, and should be laid on very rapidly. About one-half can be put in before it is ready to blend. The other half can be joined above the head.

For the *flesh tint*, use flesh red No. 2 mixed with two-thirds of ivory yellow. Too much yellow should be avoided. After putting in the local tint of the complexion and the local tint of the hair, work over the background, shading it from the edge to the center.

To *shade the face*, mix one-third of ivory black, one-third of flesh red No. 2, and one-third of sky blue. The features may be put in with the shading tint. They require the most delicate touch.

For the *cheeks and lips*, use deep red brown. For the shadows a little black mixed with iron violet may be used.

For the *eyebrows*, use the same color as the hair. *Dark hair* requires dark brown, and should be shaded with black. For *light hair*, use sepia or ivory yellow, shaded with sepia and black. For the finishing work on faces, the finest brushes must be used.

POTTERY

THE history of the art of pottery is closely interwoven with the history of civilization. From the ancient sepulchral urns, over which Sir Thomas Browne quaintly moralizes, to the latest product of Sevres, the development of the potter's art has been, in itself, a register of human progress, of continual struggle toward perfection.

Pottery is usually divided into three groups: Earthenware, stoneware, and porcelain. Earthenware, or soft pottery, is again subdivided into:—

1. Unglazed; as a common flowerpot.
2. Lustrous; having a transparent, shining surface, produced by a thin glaze.
3. Glazed; having a thick, shining surface, produced by the use of lead.
4. Enameled; the clay being hidden by an opaque coating, produced by the use of tin, and impervious to water.

The largest part of all ancient pottery is included in the first three groups. Most modern pottery, *Majolica*, *Faïence*, and other wares, is in the fourth division. The clays used are of various degrees of purity. For porcelain, the purest of all clays, kaolin is used. It formed the chief material of the beautiful Chinese porcelain which for centuries was the despair of European potters, until the discovery of kaolin in Cornwall, England, and in other western countries, made the manufacture of porcelain possible in Europe.

Outside of China, therefore, the history of porcelain belongs to a very late era in the development of the potter's art; but the manufacture of earthenware dates back two thousand years before Christ. In Egypt, the mysterious motherland of civilization, the potter's wheel was used for forming cups; and certain enameled vessels bear the names of kings who reigned even earlier than this period. Bricks of sun-dried clay were, perhaps, the first products of the potter's art before he learned to round upon his wheel, cups, vases, bowls, and other articles of decorative or domestic value. At Telloh, between the Euphrates and the Tigris, Monsieur de Sarzec discovered the remains of a great palace. Walls were found eight feet in thickness and composed of large square bricks, each bearing the name of Judea, a king of Chaldea, who reigned about 2700 B.C. The first services of the potter were to history. The men who baked the bricks of those ancient palaces little dreamed that thousands of years after, the products of their simple skill would be eagerly studied, as a means of historical enlightenment.

Bricks and tiles, though made by the potter, are not in the strictest sense, pottery. The earliest extant specimens of pottery come from Egypt. These are long, narrow vases, bowls, and jars, of a deep red color. A painting in the tomb of Beni Hassan represents potters forming their wares upon wheels—stirring the clay, preparing the oven, and carrying the cups from the oven after they are baked. The Hebrews must have learned the art of pottery from the Egyptians: for there are several references to this art in the Bible, as in Genesis XI, 3: "Go to, let us make bricks and burn them thoroughly."

Next to the Egyptian, the early Phœnician pottery is of greatest interest, as being the direct forerunner of the beautiful pottery of the Greeks. The Cesnola collection of Phœnician pottery, in the Metropolitan Museum of New York, includes fine examples of this early ware. The first attempts at decoration were geometric lines, circles, zigzags, chequers, etc. Later, lotus flowers, birds, and animals, were painted in deep red and black colors upon the clay. The transition from Phœnician to Greek pottery is so gradual that no sharp distinction can be made. Human figures, rather than geometric designs, form the chief decoration of Greek vases after the year 600 B.C. The figures were painted black upon the natural red or yellow color of the clay. Between the years 400 and 300 B.C. scenes from the poets and from history, or representations of athletic sports, were depicted. Vases, presumably from the graves of athletes, bear pictures of boxing, disk and spear throwing, or chariot racing. Many of these are inscribed with words, which are like an echo of gay speech heard across the centuries: "Oinanthe is lovely!" one vase proclaims; another says, "Exekias it was who made and painted me"; Exekias, dead two thou-

sand years ago in sunny Greece, and unknown, except through the little vase he made and inscribed. By their names upon their handiwork, a few of the Greek potters are known to the modern world: Amasos, Euphronius, Hieron, and Exekias, are among the most celebrated.

The Romans adapted the art of pottery to a thousand practical purposes; using it for drains, for roofs, and floors, for lining graves, and for friezes and panels. Ornamental statues and statuettes were frequently modeled in clay; but the Romans, lacking the inventive and the artistic faculties, never developed pottery beyond the stage where they found it. When the empire was approaching its dissolution, ceramic art appears to have fallen into decay, and finally it was lost to Europe altogether. Under the weight of the barbaric invasions, all arts, the potter's among them, were crushed out of existence. Europe was indebted to the Saracens for the renaissance of the art of pottery. The Saracens were indebted to the Persians, who retained and practised this art, undisturbed by the "drums and trappings" of many conquests. Persia was conquered by the Mohammedans in the seventh century; at this time, beautiful pottery was made by the Persians and they taught their conquerors all that they knew of the art. Glazed tiles for the pavements and walls of their mosques began to be greatly in demand among the Saracens. The tiled pavements of medieval cathedrals were, it is said, suggested by those of the Eastern mosques.

Ceramic art, as learned by the Saracens, reëntered Europe by way of Spain. Dishes and vases were elaborately decorated in what is called the Hispano-Moresque style; rich arabesques painted upon enamel of various colors. Meanwhile, in Italy, the destined home of world-renowned potters, ceramic art manifested only the crudest expression until the beginning of the fifteenth century, when Lucca della Robbia, a Florentine artist, found a method of perfecting *Majolica* ware. The manufacture of this ware, which is earthen, covered with a thick opaque enamel, had long been known to the Saracens; and it had been partially imitated in Italy. The peculiar glaze of *Majolica* is called stanniferous enamel, because of the admixture of lead which it contains. Della Robbia's earliest work in this ware is the "Resurrection," in the Cathedral of Florence, a plaque with raised white figures upon a blue ground. The Della Robbia family carried *Majolica* pottery to a rare perfection, using it as a medium of exquisite decoration. The Bambino plaques on the Foundling Hospital in Florence, figures of swaddled infants on a blue ground, are among the loveliest of the Della Robbia creations. Another beautiful work is the ceiling decoration in the "Chapel of the Cardinal," in the basilica church of San Miniato, on the hills above Florence. With the work of the Della Robbia family began the golden age of *Majolica* manufacture in Italy. The secret of producing stan-

niferous enamel was everywhere learned. *Faïence* is as often applied to this ware as is *Majolica*; but the latter is the proper term, since *Faïence* is also used to describe a ware covered with a thin transparent glaze; *Majolica* is properly applied only to a thick opaque enamel. The most celebrated *Majolica* factories of the Italian Renaissance were those of Fænza, of Urbino, the birthplace of Raphael; and of Gubbio, a small town in the duchy of Urbino, where the work of the Master Giorgio Andreoli became world-famous. His ware is distinguished by its rich golden yellows, its ruby reds, and by its superb decorations. The greatest artists, like Raphael, did not disdain to leave lines of grace and beauty upon *Majolica* bowls, vases, and jars. Much of the decoration of the Urbino pottery is from designs by Raphael. Other celebrated varieties of *Majolica* came from Cafaggiolo, from Pesaro, and from Deruta; beautiful forms, each individual in style and color, and bearing the lasting imprint of the genius of their creator.

Examples of Renaissance *Majolica* now command enormous prices. At the Fountaine sale in 1884, a Fænza plate of the year 1508, brought £920; another 620 guineas; while 730 and 780 guineas, respectively, were paid for two dishes by Maestro Giorgio. The manufacture of Italian *Majolica* and *Faïence* continues to the present day, though the products of the Renaissance have never been improved upon. The most striking characteristics of these wares are their beautiful rich colors and their elaborate decoration. The art of covering soft pottery with stanniferous enamel soon extended to the other countries of Europe. One of the most celebrated private potteries of France, whose products are now priceless, was that established for her own pleasure by Helene de Hangest-Genlis, widow of Arthur Gouffier, Grand Master of France. Under her supervision was manufactured a kind of *Faïence*, known as *Henri Deux* ware, because many of the pieces bear the monogram of Henry II. of France. It is also called *Faïence d'Oiron*, after the town where it was made. The ware is of the finest clay, covered with a thin glaze. The decorations were made by graving patterns upon the clay, and filling in these lines with clays of different colors. Of this sumptuous and distinctive *Faïence* only fifty-three specimens are known; twenty-six being in France, twenty-six in England, and one in Russia. They are practically priceless in value. Of the few pieces displayed in the South Kensington Museum, London, a candlestick cost £750, a salt-cellar £300. At the Fountaine sale in 1884, a candlestick, about a foot in height, brought £3,675. *Henri Deux* ware belongs, indeed, to the innermost circle of aristocratic pottery.

The name of Bernard Palissy is foremost among the French potters of the sixteenth century. A heroic element pervades the life of this man who for sixteen years, and in the face of well-nigh insurmountable

difficulties, sought the secret of enameling pottery. He built furnace after furnace; made experiment upon experiment. He, himself, tells of his despair, when after superhuman efforts, he could not get his enamel to melt as it should.

"I was obliged to burn the props which supported the trees in my garden, and these being burned, I was obliged to burn the tables and floors of my house, to make the second composition melt; I was in an agony that I cannot describe, for I was dried up and parched from the work and from the heat of the furnace. My shirt had not been dry for more than a month; and also, to console me, they laughed at me, and even those who ought to have helped me, went crying about the town that I was burning my floor; and by these means made me lose my credit; and they thought me mad."

In this furnace of affliction, Palissy's art was perfected. His fame spread throughout France, and he became a potter to the king. The body of his pieces is earthenware of pinkish-white pipe clay, thinly enameled in somewhat dull colors, and ornamented chiefly with imitations of natural objects, such as shells, fish, lizards; and sometimes, figures of men. After Palissy's discovery, the art of enameling pottery spread rapidly through France. Manufactories were established at Ne-vero, Rouen, Marseilles, and numerous other towns.

This art was also practised in Germany, very early in the sixteenth century. In quaint Nuremberg, Veit Hirschvogel made beautiful specimens of enameled ware, similar to Italian *Majolica*. Glazed pottery was largely used throughout Germany in the manufacture of the great tiled stoves, then, as now, the glory and comfort of German households. Hans Kraut immortalized himself in the decoration of these monumental stoves. One, of date 1578, in the South Kensington Museum, is covered with dark green tiles. The same Hans Kraut made, in 1536, an enameled pottery tomb of great size which was placed in the church of the Knights of St. John at Villengen. Upon it, in relief, was depicted the Siege of Rhodes.

In Holland, the art of enameling was carried to a rare perfection in the famous Delft ware. Every conceivable object from a cow to a violin was reproduced. Gelett Burgess's "Purple Cow" is scarcely more singular than the Delft cows, profusely covered with blue bouquets. All kinds of household dishes were also manufactured in Delft, which at the beginning of the seventeenth century supplied most of northern Europe. As in the decoration of Italian *Majolica*, the best artists made designs for *Delft*; Jan Steen, Van der Meer, Jan Asselyn, are among the decorators.

England, although receiving most of its ware from Holland, possessed potteries of its own. Nothing of importance was produced, however,

until after the middle of the eighteenth century, when Josiah Wedgwood manufactured the now familiar Queen's ware, a pottery composed of white clay and flint, with a clear glass glaze. About ten years later, in 1773, he invented a new paste, out of which he manufactured an unglazed, hard, vitreous ware, the now famous "Wedgwood." For its decoration he used cameos, bas-reliefs, statues, seals, and other ornaments; mostly white upon a dull blue ground. The artist Flaxman frequently assisted Wedgwood in the composition of classical designs. One of Wedgwood's most famous achievements was the copy he made in Jasper ware of the Barberini vase in the British Museum.

Stoneware occupies a place midway between earthenware and porcelain; it is fired at a high heat and is hard, dense, and vitreous. One of its distinctive features is its glazing, which is obtained by throwing common sea-salt into the kiln, while at the highest heat. This salt-glaze, as it is called, is technically superior to all other glazes, as it is fused with the ware itself, instead of forming a coating.

The earliest manufactories of stoneware were at Ræren, the center of the Flemish stoneware district. The ware was used chiefly for beer-drinking vessels. The Ræren ware was of a brown color, bearing appropriate decorations, such as a dance of peasants, or domestic scenes. Mottoes were abundantly used; these were mostly of a facetious character as

"Let dogs bark;
Let bauers dance;
Or you get a cracked skull."

The manufacture of salt-glaze stoneware was carried on extensively in England. In 1626, Thomas Rous and Abraham Cullyn obtained a license for "the sole making of stone pots, stone jugs, and stone bottells, for the terme of fourteene yeares." Staffordshire became a great center of stoneware manufacture. Drinking mugs, in various shapes, were a favorite product in this ware. Some of them were in the shape of a sitting bear; others bore hunting scenes in relief. A large mug in the South Kensington Museum bears the legend, "This is Thomas Cox's cup: Come my Friend and drink it up. Good news is come; the Bells do ring; and here's a Health to Prussia's King." In the eighteenth century, stoneware for table use was largely displaced by Queen's ware. The most famous stoneware manufactory of modern times is that of the firm of Doultons, at Lambeth. Founded in 1815, it first acquired fame in the production of brown enameled stoneware; in 1846, Mr. Henry Doulton planned the manufacture of stoneware drainpipes, until then unknown. In 1867, the firm began the esthetic development of their ware by the introduction of "Doulton-ware Sgraffito" — pottery, vases, and jugs, made of common pipe-clay, with simple stamped patterns. This ware has since been brought to a high degree of perfection.

PORCELAINS.—The Chinese were the earliest manufacturers of porcelain, which is a translucent pottery made by uniting a peculiar form of clay, kaolin, with powdered feldspar. For hundreds of years the secret of its manufacture remained in China. Such products as found their way to Europe were eagerly sought by collectors, and were regarded with envy by the potters who endeavored in vain to imitate them. In China itself, the art of porcelain-making was held in the highest honor. Certain kinds of ware were, and are still, reserved for the emperor and great dignitaries. During the different dynasties the colors peculiar to those dynasties were prominent upon the wares. Green was the color of the Ming Dynasty, (1368–1643); and in the porcelain of that period, which is very abundant, green predominates. The color of the Tcheon Dynasty, a soft, peculiar blue, was so highly esteemed that fragments of the porcelain were used as precious stones. The Chinese excel in their colors, which are of a purity and depth unrivaled in the colors of European porcelain. A peculiar form of their modes of decoration is known as “Crackle,” in which the surface of the porcelain is covered with irregular cracks or veinings, sometimes left uncolored, but oftener filled in with color, such as veinings of golden brown on a duller brown background. The Japanese derive their knowledge of the making of porcelain from the Chinese. The porcelain wares of the two nations are very similar; but Japanese is generally of a purer white, and the flower decorations are truer to nature.

Toward the end of the sixteenth century, soft paste porcelain was first made in Europe, in the laboratory of the Grand Duke, Francis I., of Tuscany. But the art was soon lost, and was not revived until 1695, when soft porcelain of a fine transparent quality was manufactured at St. Cloud, in France. The method of producing the genuine Chinese porcelain was discovered in a peculiar manner. Augustus, elector of Saxony and king of Poland, had in his employ a chemist, Böttcher by name, whom he employed to search for the philosopher's stone. In his experiments, Böttcher discovered a kind of clay, which when baked produced a hard stoneware resembling porcelain. He continued experimenting with this clay until, in 1710, he discovered by accident the process of making real porcelain. Some hair powder purchased by his valet attracted his attention because of its weight. He combined it with the clay, and produced porcelain. The powder, made from a clay found at Aue, was identical with the Chinese kaolin. A factory was established at Meissen, and in 1715, the earliest wares, decorated in blue and white, were offered for sale. This famous factory produced later what is known as Dresden ware. The secrets of its manufacture were jealously guarded, but one of the workmen, escaping to Vienna, founded a factory there. Other porcelain potteries were

established in Höchst, which became a center of the art. Factories were founded in Hungary, in Russia, in Sweden, and in France, where that of Sevres became famous. The first porcelain made in England was at Stratford-le-Bow, about 1740. Factories of hard-paste porcelain were established at Plymouth, at Bristol, and at Worcester; the latter place became famous for its beautiful and original work. The products of this factory are generally known as Royal Worcester.

The following is an alphabetical list of the more important porcelains of past and present manufacture:

Amstel Porcelain; made near Amsterdam in the Netherlands, and used largely for table service. The decoration is simple. The marking is the initial A, or the full word "Amstel."

Berlin Porcelain; a hard-paste porcelain made at the royal factory of Berlin; extremely varied in shape and decoration. The marking is a scepter in blue, with the letters K. P. M., for Königl Porzellan Manufaktur; or these words in full around the rim of a circular seal, with the royal eagle in the middle.

Bow Porcelain; the earliest English porcelain, decorated with hawthorn branches, or with figures; marked with a bent bow, with an arrow on the string.

Budweis Porcelain; made at Budweis in Bohemia; a modern, hard-paste porcelain.

Caen Porcelain; made at Caen in Normandy, during the French Revolution; extremely rare; the marking is the name "Caen" in full.

Capodimonte Porcelain; made at Capodimonte, a suburb of Naples; decorated with figures in high relief.

Chelsea Porcelain; an old English production of the eighteenth century, made from soft paste.

Copenhagen Porcelain; an eighteenth century, hard-paste porcelain made at Copenhagen. The mark is three rippling or waving lines. The modern work consists largely of unglazed statuettes and groups.

Derby Porcelain; a soft-paste porcelain made at Derby, England, in the eighteenth century; very translucent, with brilliant colors. Unglazed biscuit ware in figures was also a specialty of this factory. Crown Derby is a variety of Derby porcelain. The mark is a D with a crown; or the monogram D. K., with a St. Andrew's Cross. Derby crown porcelain is the modern product, in imitation of old Crown Derby.

Dresden Porcelain; made at the royal factory of Meissen, near Dresden, in Saxony, established in 1707, and the first manufactory of hard-paste porcelain in Europe. This porcelain is noted for its purity, and for the brilliance of its decorations, which comprise bouquets, birds, flowers, and landscapes. Watteau figures are also made in Dresden

ware. This mark is generally two swords crossed. Old Dresden porcelain is sometimes called *Vieux Saxe*.

Hizen Porcelain; a ware made in the province of Hizen, in Japan; decorated with blue under the glaze, and with green and gold, or red, upon the glaze.

Limoges Porcelain; made at Limoges, in the department of Haute-Vienne, France; formerly a soft-paste porcelain; from 1779 to the present, a hard-paste porcelain. Limoges is one of the most important ceramic products of modern France.

Lowestoft Porcelain; made at Lowestoft, England, in the latter part of the eighteenth century; is very highly prized among old English wares.

Medici Porcelain; made under the supervision of the Medici family of Florence; very rare. The mark is the three balls of the Medici arms, or a sketch of the dome of the Florentine Cathedral.

Sevres Porcelain; a hard-paste porcelain first made at Vincennes, near Paris, in 1745; afterward at Sevres. In 1758 Louis XV. became part proprietor of the Sevres factory; afterward sole owner. This porcelain is distinguished for the richness of its decoration. Painted medallions, wreaths, gold tracings, and jewels, are often introduced. The markings of Sevres have varied with the fortunes of France. Under the kings, the royal cipher was used; under the Republic, the word "Sevres," and the initials "R. F." for *Republique Francaise*; under the Empire, "M. Imple. de Sevres," sometimes with the imperial eagle.

Swansea porcelain; made at Swansea, England, between the years 1814 and 1820, when the factory was removed to Coalport. It is ranked among the most perfect productions in English porcelain. The mark is a trident, or two tridents crossed.

Worcester porcelain; a soft-paste porcelain made at Worcester, England, from 1751. It is oftener known as "Royal Worcester." George III. conferred the epithet "Royal" upon it. The markings vary, a crescent being sometimes used; or a "scal mark," copied from Chinese porcelain.

The history of American pottery goes back to the prehistoric races of Central America and to the mound builders of the Mississippi Valley. Vases, bricks, and water vessels have been found, witnessing to a crude knowledge of pottery among these early peoples. After the discovery and settlement of America, the products of the potter's art were for many years brought from Europe. The first brick house in America was erected in 1633, on Manhattan Island, by Governor Van Twiller, the bricks being imported from Holland; later, bricks were imported from England. China for table use was also imported, but the difficulty of procuring it debarred its general use, its place being taken by wooden

or pewter dishes. A porcelain factory was established at Philadelphia in 1771; but did not long remain in existence.

In 1829 a pottery was founded in Jersey City, by Henderson and Company, for the manufacture of cream-colored and printed ware. In 1838 the first pottery in New York was founded.

In 1852, the now famous Trenton works were established by Taylor and Speeler. These works became the center of the American china trade and have won for Trenton the title of "Staffordshire of America."

The best products of American pottery have been made since the Centennial, the exhibition of European wares being a strong incentive to a more perfect development of this art. Within the last twenty-five years, Cincinnati has become famous for the production of high artistic examples of decorated porcelain and pottery.

PAINTING ON SILK

OIL colors are preferable for silk painting. The following list includes the colors necessary for the work:—

Flake White	Indian Red	Crimson Lake
Gamboge	Rose Madder	Vermilion
Burnt Sienna	Cobalt	Vandyke Brown
Light Red	Prussian Blue	Emerald Green

Three brushes made of hog hair, are required, Nos. 6, 8, and 10; also a red sable, No. 2. It is well for the beginner to remember that all brushes used in painting—especially those for painting delicate materials—should be kept perfectly clean. In choosing the brushes select those that are soft and springy. The red sable is used for putting in fine detail. An oblong palette and a palette knife are also necessary—also a vial of linseed oil for cleaning the palette.

As in velvet painting, the first step is to transfer the design to the fabric, the latter having been stretched smoothly upon the drawing board and fastened securely with thumb tacks.

To transfer the design to the silk, take a sheet of black impression paper, which can be obtained in any art material store, and place it between the pattern and the silk. Then carefully trace the outline of the design with a sharp-pointed stick or a hard lead pencil, taking care not to rest the hand upon the paper, as it will leave an impression on the fabric. If done carefully, only the outline of the design will appear on the silk after the tracing process. Black impression paper should be used for silks of light color, and red or blue for those of the darker shades.

After tracing the pattern, the design should be filled in with a coating of thinly-diluted gum arabic and allowed to dry. This will make a groundwork for the colors. After mixing the colors on the palette they

should be placed on a piece of white blotting paper so that the oil may be absorbed from them. The work of painting may then proceed in the same manner as on canvas. The artist should not try to paint more of the design than can be completed at one sitting, as the shading should be painted in while the colors are still wet.

Before painting on the silk it would be well to cover the back of the material with powdered magnesia. The finer parts of the design and all small details may be painted in with the red sable brush. Light, graceful designs without a background are not difficult to paint and are effective when finished. Small figures, cupids, and bunches of flowers may be taken up next, and any one with a taste for the beautiful will soon learn how to do these well and how to apply them to artistic or practical uses.

But in this work, as in other decorative work, it is desirable, when possible, to originate one's designs—making studies of flowers and foliage direct from nature, and choosing at first those of the simplest forms and colors.

PAINTING ON VELVET

FOR painting on velvet, both oil and water colors are used. Water colors are easier to handle, but the work is more effective when done in oil. The following colors will be found serviceable for general use, but the artist may find it desirable to add others to suit his particular purposes:—

Flake White	Indian Red	Crimson Lake
Chrome Yellow	Rose Madder	Vermilion
Burnt Sienna	Ultramarine	Vandyke Brown
Light Red	Prussian Blue	Emerald Green

Besides the colors, a few hog-hair brushes,—one each of Nos. 6, 8, and 10,—a bottle of turpentine, and one of linseed oil, are necessary; also a board for keeping the material smooth while painting. A palette and a palette knife will be found serviceable.

Transferring the design to the velvet is the first step in the work. The velvet is laid on the drawing board and fastened smoothly with thumb tacks. The pattern which is to be painted is then placed on the fabric in the position desired. With a hat pin or darning needle the artist pricks the design through the pattern to the velvet beneath, making the holes very close together. A small bag of powdered starch is then passed over the pin holes and the design is thus reproduced in outline on the material beneath. Great care should be taken to keep the pattern steadily in position on the velvet so that the outline may be perfectly correct.

The next step is to prepare the palette. From the list given above select the colors required and after mixing the various shades with the palette knife, place them on a piece of white blotting paper so that the oil may be absorbed. From this, instead of from the palette, the colors may be taken up.

When the material used is white velvet, an outline of the design should be drawn and filled in with a coating of diluted gum arabic to form a ground for the colors. Oil should not be used at all, but if the colors are too stiff a little turpentine will soften them. All repainting should be avoided if possible, the artist being careful to get the tones right at first. Retouching is likely to destroy the beauty of the tints.

To paint on velvet with water colors, the colors should be opaque. They can be purchased ready for use. The design should be outlined on the material in the same way as for oil painting and should then be painted in with Chinese white. This should be allowed to dry thoroughly to form a ground work for the colors, which are placed over it. The artist must be careful that each painting is quite dry before the next color is applied. As water colors have a tendency to crumble a little, pure glycerine may be mixed with them.

The Kensington style of painting on velvet produces beautiful effects. This is generally done in oil colors. The design is transferred to the fabric as directed, or it may be stamped on the material. When the colors are placed on the palette and mixed, take up with the palette knife a small portion of the color to be used and place it on the point of a pen. Pens made especially for the work can be procured in any art store. Keep the paint well down toward the point, and see that the back is free from paint.

Start from the outline, holding the pen as flat as possible, and draw the paint toward the center of the design. To imitate the Kensington stitch, this should be done in short, bold strokes. After each stroke, refill from the palette knife, placing only a small quantity of color on the pen each time. The colors should be blended with the pen, and the shading be done as in ordinary painting. For the finer work, such as twigs, stems, veins of leaves, etc., use a long steel pin with a china head, covering the point with the paint. Start from the outline and draw toward the center with a gently rolling motion so that the paint may be taken up evenly from the pin.

Beginners in the work should be careful not to attempt a difficult subject at first. Select something simple, as a blossom or a leaf. Practise on this for a time and the ability to paint larger subjects will soon be acquired. If possible, procure some work embroidered in the Kensington stitch, and use it as a model. The work should not be removed from

the frame until it is thoroughly dry. A little practice will enable any one with good taste to do the work well and to apply it to many beautiful uses.

MODELING IN CLAY AND WAX

MODELING clay can be obtained through any art material shop. It is perfectly plastic, homogeneous, and free from grit, and must be kept thoroughly damp or it will crack, and break up into hard lumps. In small quantities, it can be kept in any earthenware vessel that will hold water. For larger quantities, a wooden box lined with zinc and soldered, to make it water tight, can be used. There are other modeling substances which under certain conditions are more convenient to use. For any fine and small work, modeling wax, which can be obtained in various colors, is much in demand. It is made soft by warming, and when cold becomes quite hard. The model in wax can be set aside for any length of time while the work is in progress, and when finished it will last indefinitely.

Modeling tools are usually made of boxwood. Steel tools for "cleaning" and for cutting, and steel rasps, are required when the models are produced in plaster. Hard-wood calipers are required for enlarging and reducing. They should have a movable center in order to alter the proportion between the ends. For ornaments, medallions, and for all work that is to be finished upon one side only, a flat board is employed. This is called a modeling board. A common slate, such as is used in schools, is often used for the same purpose. A stand with a revolving top is used to support the modeling board. The best objects from which to begin modeling are casts. These offer a variety of subjects and can be procured at any art material store. It is best to begin with the simplest reliefs and not to attempt at first a difficult head or figure. Geometrical shapes, fruit, foliage, and flowers, may be obtained as studies, and there is also an interesting and useful assortment of hands and feet.

Place the cast which has been chosen as a model on a level with the eye, and place your stand to the right of the cast. Commence by drawing on the modeling board an outline of the cast. When this is accomplished the modeling may be commenced. Place on the stand, ready for use, a sufficient amount of clay. Break off a piece, press it between the fingers and the thumb of the right hand, and place it on the modeling board inside the outlines of the drawing. Press it firmly to the board so that it adheres. Repeat this process until the outline is filled in. Look frequently at the work from the side to see if the clay is being raised as high as the corresponding part of the cast; if it is not, add clay until the elevation is correct. While building up in this way, the fingers only should be used, and the student should have near him a damp sponge

on which he can moisten his fingers to prevent the clay from hardening on them. When too much clay has been put on, it can be removed by one of the toothed boxwood tools. Press all down as solid as possible, being careful to leave no tiny holes in the clay, as this may give much trouble as the work proceeds.

When using the calipers, set them to the size, and test the various parts by actual measurement upon the cast. Do not use the compass at the beginning. Train the eye first and test its accuracy afterward by aid of rule and compass. When inaccuracies are found, the clay must be scraped away by means of one of the tools with fine teeth, or be built up with clay, as the case requires. When correct in these general proportions, it remains to refine the surface modeling, to draw the edges clean and true, and to complete the undercutting or trimming of the clay so that the completed work stands well out from the board. Take a fine tool and draw firmly and accurately the lines on the model, cleaning out the clay. Use a tool to finish neatly the rounded tops, and to get clean corners. A tool will also be needed to finish and scrape away the clay that is undercut.

The modeling of the figure is done in the same manner as described above. No tools should be used on the flesh except to obtain the sharp lines about the eyes and mouth. The hair should be represented broadly massed. This effect is obtained by thin layers of clay modeled by the thumb, without too much softening.

For the figure in the round, that is without background, the revolving-top stand should be used. Upon this build up the clay in a solid mass, keeping well within the dimensions decided upon for your figure, and indicating roughly its general proportions and contour. From this point the modeling is advanced as previously described, the difference being that the student works on all sides of the model.

When the student stops work, he must make provision for keeping the clay from drying and becoming hard. For this purpose a cloth wrung out of water is wrapped around the work. It is also important to care for the tools. Wash the tools that have been in use, also the sponge and the basin, and return the unused clay to the box.

In working in wax no damping is required and the model when completed may be preserved without further attention. The wax should be slightly warm. It should be built up bit by bit and pressed down, just as in clay modeling. The large forms on the model should be made first, then the details. If the wax becomes hard, soften it by placing it near the fire.

PHYSICAL ASPECTS OF THE
HOME

DOES EARLY MARRIAGE HELP OR HINDER?

*OPINIONS OF ELLA WHEELER WILCOX, THURLOW WEED,
HENRY GEORGE, RICHARD HENRY STODDARD, EDMUND
CLARENCE STEDMAN, SENATOR THOMAS PLATT*

ELLA WHEELER WILCOX is one of the best qualified women in America to speak on the subject of marriage. Of the disadvantages of early marriage for both men and women, she says:—

“I think there is more danger of disaster in early marriages than in those contracted at full maturity. The youthful choice is likely to be unwise. The man whom a girl thinks she loves at seventeen would rarely appeal to her so strongly if she were twenty-five, and the girl whom a young man of twenty-one believes he would like to marry would probably not be his selection if he were thirty. A knowledge of the world before marriage is conducive to contentment afterward. The most unfortunate unions I have known were formed while the husband and wife were still in early youth. The man, when he assumes the responsibility of matrimony before he has reached maturity, has had little or no experience in the typical bachelor life, and its attractions are likely to seem much greater to him than if he has already tested them. The wife who was married very early also feels the temptation to taste of life beyond the prosaic domestic circle, although usually in less degree than the man. She has not experienced enough of ball-room and summer-resort flattery, to have wearied of it and to have become cognizant of its emptiness. There seems to her to be a gayety in life which she, whose youth has been devoted to home duties, has never known, with the result that she, as well as her husband, becomes restless. Unless there are strong ties and will-power to keep a husband and wife, who are in this mental condition, to the road which leads away from this temporary unrest, they may stray into bypaths which lead to dissatisfaction and ultimate misery.”

Thurlow Weed, editor, politician, and maker of presidents, was wont to attribute much of his success in life to his early marriage, and to the fact that he made his wife his confidante and adviser at every stage in his career. He was married before reaching his majority to Catherine Ostrander, of Cooperstown, N. Y., after a romantic courtship and a four years' engagement, the story of which is told in the autobiography which he gave to the world in his old age.

“Her parents,” he writes, “doubted, not without reason, the propriety of confiding the welfare and happiness of their daughter to a com-

parative stranger, with unsettled and roving habits. We communed together on the subject, and mutually agreed to hold no intercourse, either by word or letter, for two or three years, when, if her mind was unchanged, she was to write to me. I immediately left Cooperstown, and neither saw her nor heard from her for more than three years, when a letter came informing me that time had made no change in her affections, to which I replied in similar terms. We married without regard to any of the prudential considerations which restrained many then, and which restrain many more now, from contracting a similar tie. I had, when the ceremony was over, just money enough to take my wife to Albany, where, with good health, strong hands and hopeful hearts, we both went earnestly to work to earn our living. The value of our household goods did not exceed two hundred dollars. I am indebted to this fortunate marriage for as much happiness as usually falls to the lot of man, and very largely for whatever of personal success and pecuniary prosperity I have since enjoyed. My wife more than assumed half our labors, cares, and responsibilities. But for her industry, frugality, and good management, I must have been shipwrecked during the first fifteen years of trial. When from our changed circumstances and conditions it was no longer necessary for her to pursue her laborious habits, she insisted upon performing many duties ordinarily transferred to servants. Economy, order, and a well-regulated system in household affairs, were virtues which I did not possess, and their presence in her saved us from disaster."

Henry George was married when very poor, at the age of twenty-two, and the woman who thus elected to share his lot played a large and helpful part in shaping the career which gave him a unique and extraordinary place in the affairs of his time. He worked his way from the East around Cape Horn to the Pacific Coast, and after a luckless hunt for gold found employment at his trade as a journeyman printer in San Francisco. It was then that he met and fell in love with the woman who became his wife. Speaking of their courtship he said to the writer not long before his untimely death:—

"She was a California girl of Australian birth, an orphan and a Catholic, while I was an Episcopalian. I was deeply in love with her, and my love was returned. I got into trouble with her relatives, trouble for which, as I see it now, I was entirely to blame, and I concluded to make her my wife and end it. That was in 1861. She was eighteen and I four years her senior. I was very poor, but she said she was willing to begin life with me regardless of our poverty. I borrowed some clothes to be married in, and from a landlady I knew got credit for two weeks' board for myself and wife. No license was required in those days, or there might have been a delay in the ceremony. I raised five

dollars to pay for a carriage, and in this we drove to a preacher's house and were married. The wedding ring was my wife's grandmother's. The ceremony over, we had supper at a restaurant, and then drove to the place where I had arranged for board. I was now a married man, with a wife who believed in me and was willing to do her part. I got up early the morning after our marriage and went out to look for employment. I secured a place to set type on the San Francisco 'Evening Bulletin,' and was at work at six o'clock."

Then followed years of poverty and struggle, but through them all the young wife proved equal to every emergency, every hardship. Sometimes husband, wife, and a growing brood of children, lived on fifty cents a day, but they never ran in debt. And when George became an editor and writer, and a student of political and social questions, his wife stood behind him to cheer him on the way. Save for her unfailing and hopeful sympathy and support, "Progress and Poverty," and the books which followed it, might never have been written. No act of Henry George's busy, heroic career was wiser or more pregnant for good than his early marriage on "nothing a week."

Richard Henry Stoddard, now the dean of American poets, is a firm believer in the wisdom of early marriages. He speaks from happy experience. A native of Hingham, Massachusetts, he passed his childhood in New York, and in his early teens was apprenticed to an iron molder. During his leisure hours he wrote constantly and read steadily, for he had been born with a passionate love for song, and in 1848, when he was twenty-three years old, he gave to the public his first volume of verse. A few magazines pleasantly noticed the book, and one copy of it was sold. There being no call for the remainder of the edition, it was committed to the flames. The young poet, encouraged by this success, saw no impropriety in becoming the husband of a young lady of Mattapoisett. Elizabeth Barstow was her name. The tie that bound them was a common love of books. The penniless poet and the shipbuilder's daughter were made one by the Rev. Ralph Hoyt, an amiable clergyman who "found it easier to marry the poet than to praise his verses." Then the husband, leaving off work in the foundry, took to the pen for a living; and he has since contributed much to American literature. During upward of fifty years he has turned his hands and mind to many things, doing all of them well, and in the discharge of each fresh task his wife, who also has several novels to her credit in the publisher's lists, has been his keenest and kindest critic. What their union has brought to him, is reflected in the verses which have given this author an abiding place among the makers of American song.

Edmund Clarence Stedman, Stoddard's long-time friend and fellow-poet, is another firm believer in the wisdom of early marriages. He

was married, when a country editor of twenty, to a woman fitted in every way to be the comrade of a poet; and the fact that he had a wife and children to work for lent a resolute earnestness to his early struggles to win success and recognition as an author and man of affairs.

General Lew. Wallace had but recently begun the practice of law when he married Susan Elston, a girl of spirit and culture, and settled with her at Covington, an unpromising little village on the banks of the Wabash River, in Indiana. Their support depended upon such fees as fell in the way of a struggling young lawyer. Then came the Civil War, and Wallace was one of the first to offer his services to the government. Throughout the four years of fighting, the young wife was with her husband in the field whenever it was possible. When the war ended, they settled in Crawfordsville, and set up housekeeping in a tiny cottage on one of the retired streets of the town. In this modest home, "The Fair God" came into being, a work upon which the author was engaged at irregular intervals for ten years. It quickly attracted attention, and was an entire success. During the time that elapsed from the beginning to the conclusion of the work, Mrs. Wallace had cherished a firm belief in her husband's ability and ultimate recognition as a writer of power. When some one, not oversupplied with tact, expressed surprise that he could have written a book so strong and original, the wife replied quietly: "I have known it all these years." Their friends declare there is no doubt that a great deal of his success has been due to this assured faith in his ability, which has never failed him.

When Thomas C. Platt was a young druggist in Owego, New York, having still his way to make in the world, he married Ellen L. Barstow, and he declares, after the lapse of fifty years, that this union was the wisest and most helpful act of his life. Good luck followed him from the day of his marriage. His business ventures prospered; he worked his way upward in politics, and paved the way to a commanding position and great influence in the councils of his party. No small part of his success was due to his wife's sagacity and intuition. She came in time to know as much about the political history of the country as her husband, and in hot political campaigns she often gave him advice that proved to be wiser than that of some of the party leaders. She had all of his tact and shrewdness, and understood as thoroughly as he how to keep silent at the proper time, when to say anything, and what to say when she had occasion to say it. And so, until her untimely death, Senator Platt, alike in the days of his early triumph, in the hour of his temporary gloom, and in the long-continued period of his later success, was constantly attended, cheered, encouraged, applauded, and aided by his wife.

William S. Oakman is justly counted one of the most successful railway managers of the period, and it is well known to his friends that an early and fortunate marriage had much to do with shaping his career. Thirty odd years ago he was a station agent upon a small railway passing through his native town in central New York. While thus employed, he fell in love with a very beautiful young woman, the daughter of one of the most eminent men of his time. She was a quiet, home-loving maiden, who had no fondness for fashionable life and cared not to avail herself of the opportunity which the distinction of her father and uncle would have brought her. Her uncle had been twice governor of New York and once the candidate of his party for the presidency. Her father ruled his party in New York State, and was long one of its leaders in the federal Senate. The young woman, however, had given her heart to the obscure railway employee, and when his position was a little bettered she was married to him, but her father was not at the wedding. A few days afterward a famous senator met her father and congratulated him upon the marriage, adding that his daughter's husband was sure to make a place for himself, mentioning Oakman by name. "Sir," said Roscoe Conkling, for he was the father of the bride, "I know not the man." However, had Roscoe Conkling lived long enough, he must have felt that his daughter's intuitions were better than his own. Oakman, as the sequel proved, was a silent, persevering man, as sturdy as his name might indicate, and with a resolute ambition to be spoken of other than as "Mr. Conkling's son-in-law." Backed by his wife's love and unfailing cheer, he worked his way steadily upward, each fresh test revealing a capacity to meet it. Before he was forty he had won the battle and made a name for himself, and for a dozen years past he has been at the head of one or another great railway property.

Dwight L. Moody had lately given up business to become a missionary worker when, at the age of twenty-five, he married Emma C. Revell, who from that day on was his sympathetic and helpful comrade. They first met in a mission Sunday School in Chicago, where she taught and where Mr. Moody was offered a class if he would gather it himself. The next Sunday he appeared with eighteen ragged urchins whom he had collected from the streets. He next rented a vacant saloon, and soon had two hundred assembled in it for Sunday School and mission work. From this beginning rapidly grew a school having six hundred and fifty scholars, taught by sixty teachers. The year after his marriage a church was built for his converts and he became its pastor. There followed a few more years of preparation, and then the work was begun which gave him world-wide fame. His wife's part in that work lives in the hearts of unnumbered thousands, and at every stage of his ever-widening career of usefulness, her refinement and consecrated Christian

life were to him as a very tower of strength. When, in the inquiry room, Mr. Moody had a particularly stubborn disbeliever, one that baffled his skill, and who could match him with arguments and would refuse to be convinced by any appeal that he advanced, the evangelist would quietly excuse himself and in a few moments return with a lady having gentle manners and a winning voice. He was, indeed, a hardened sinner, who was not won after a few minutes' conversation. Mrs. Moody did not argue with him, but presented the beauty of the new life in such persuasive terms that the man considered it not only a duty to become a Christian, but a great privilege as well. In this she was not playing a part, but exemplifying the life of Him who went about doing good. That Mr. Moody was enabled to do a work greater than that of Wesley was due in no small measure to the wife of his youth.

Jean François Millet was married before the end of his struggling student days to a woman sprung from the same sturdy peasant stock as himself. One day he overheard a stranger remark that he was nothing but a painter of the nude. This remark wounded him to the quick. It also fixed in his mind an instant but firm resolve to "follow nature, in the open air, under the heavens, and touch the earth." He hastened home to tell his wife what he had heard and what he wished to do. "When I get to the ground I shall be free," said he, and his wife earnestly seconded his plans. With two hundred dollars as the total of their worldly possessions they left Paris and settled in the peasant village of Barbizon, where the husband began to paint the humble life of which he had been a part in his youth. The full and splendid measure of his ultimate success is familiar to every student of modern painting, but in the first days he was often reduced to serious straits by the exigency of the bread and butter question. Even after he had painted his greatest pictures, he was still in poverty. Yet his strong soul did not fail; nor did that of his stout-hearted wife, who never lost faith in her husband's gifts, or failed to cheer him on the way. His pictures have taken their place among the masterpieces of art, yet had it not been for his wife he might never have had the courage to follow his bent, but might have remained a painter of the nude till the end of his days.

George Inness was another painter who could justly ascribe much of his fame and well-being to the woman to whom he was married at the beginning of his career. His power to catch and preserve the beauties of nature has placed him among the great landscape painters of all time, but he did not care especially for what is known as popular approval, nor was he ever influenced by the lust for money. It was his wife who took care of the commercial side of his life, and saved him from the consequences of what we are sometimes pleased to term the eccentricities of genius. She gave him, at the same time, a sympathy and

an appreciative companionship without which his extraordinary talents might never have reached full expression. His biographer (and there could be no more fascinating subject than the career of Inness) will be sure to give his wife's influence a foremost place among the forces which shaped his life.

When Collis P. Huntington arrived at manhood, he had saved money enough to buy a horse and wagon and a small stock of dress goods and fancy notions. With these he traveled through Connecticut, putting up at night with some farmer and paying his bill in trade. One night he stopped with a farmer in Cornwall named Stoddard. The farmer's eldest daughter was a comely girl, by nature domestic in her habits, a good housekeeper, and an excellent cook. She also possessed a clear business intellect. It did not take young Huntington long to discover these qualities, and he captured the prize that many a young man had sought to win. Soon they were married, and not long afterward the husband had a fine span of horses and a handsome peddler's wagon. By his marriage the foundation of his immense fortune was laid. Through all of his varied experiences, from a country merchant to a railroad king, he was aided by his wife's quick intuition, and blessed with her loving encouragement.

No man owes more to an early marriage than does John G. Carlisle, the farmer speaker, senator, and cabinet minister. He was a teacher in the public schools of Covington, Kentucky, and had barely obtained his majority when he wooed and won his wife. Two years afterward he was admitted to the bar, and a year later began his public career in the state legislature. During his whole political life his wife, Mary J. Goodson, a woman of rare intelligence and sagacity, proved as much of a helpmeet to him in her way as did Mrs. John A. Logan to her warrior husband. When he was first a candidate for the speakership, a friend asked Mrs. Carlisle what she thought of her husband's chances. "Did you ever know John to fail in anything he undertook?" was the spirited reply. There are few men who would not be spurred to success by confidence of the sort implied in these words.

Brigadier-general Henry C. Merriam, U. S. A., commander of the Departments of the Colorado and Missouri, says: "If a young man's and young woman's principles and manner of living approximate the same standards; if he is able to support her comfortably, and she is willing to do her share, that is, to make an attractive home for him. I don't think that youth will be the slightest bar to their happiness. Indeed, the sooner such a young couple is married the better. She will be a help to him in the attainment of success, an assistance to him in his work, and a joy to him in his domestic life. She will brighten his home and give him courage." Judge Owen E. Lefevre says: "The young

wife is a moral ballast, and her intuition far outweighs her young husband's judgment. The ambition of the young wife for worldly advancement is usually greater than that of her husband. A young man is kept moving forward by the spur of his wife's desires for their advancement. In my judgment a man marrying late in life cannot, as a rule, attain as great an elevation of character and self-respect as that of the man who marries early in life."

WIVES WHO HAVE HELPED TO SHAPE THEIR HUSBANDS' CAREERS

MRS. ERNEST SETON-THOMPSON, FRAU COSIMA WAGNER, MRS. RUSSELL A. ALGER, MRS. ANNA OTTENDORFER, LADY SALISBURY, MRS. CARTER HARRISON AND COUNTESS TOLSTOI AS EXAMPLES



MRS. RUSSELL A. ALGER

It is a goodly company of clever, wifely women who are mentioned in the following pages. The part that such women have played in helping to make their husbands successful or great will always be one of the most fascinating topics, for in few others is there so much of romance and inspiration. There are three ways by which a woman may help to make her husband a success: by influencing him, by directing and guarding him,—so that he may be at his best mentally and physically,—and by actual partnership in his work.

One of the most conspicuous examples of a wife who has helped to make her husband famous, by doing a part of his literary and artistic work, is Mrs. Ernest Seton-Thompson, and, for the part she has played, it might be said, with justice, that her name should appear with that of her husband in his best-known books.

It is not that Ernest Seton-Thompson would not have succeeded had he been quite alone. But, the fact is, that, in a large measure, the charm of his books is due to the clever wife who, as soon as the publication of the first was arranged, took upon herself the task of being his editor and bookmaker. Out of what would probably have been but an ordinary success, she made a book that caused authors, artists, printers, and pressmen to rub their eyes and wonder. It was a volume that had to be looked over carefully. Thus it was that Ernest Seton-Thompson, previously an anatomical artist only, won general popularity.

Mrs. Seton-Thompson said that when she was married in Paris, some six or seven years ago, she "gave up her literary ambition." She said it, however, with a smile upon her lips. It was only a very brief time after her marriage that this ambition seemed in a fair way to be realized at once. Her husband's story, "Lobo," had been printed in "Scribner's Magazine." His technical skill as an artist and his ability in writing were widely known. It was proposed that he make up a book of just such stories as "Lobo."

"Wild Animals I Have Known" grew out of this commission. From the very first moment of its planning, it was Mrs. Seton-Thompson's work quite as well as his. Though the publishers, seeing an inexperienced woman before them, questioned the wisdom of her judgment, this wife never stopped in her work. She took her husband's manuscripts and drawings, and planned the book's form and size. She designed the cover, and chose the paper on which it was to be printed. She outlined, to the chief of every department it passed through, her idea of just what its appearance should be. She suggested and saw carried out the "marginals" that plentifully besprinkled every page,—the little marginal sketches that so delighted the public when it saw them,—actually designing many of them herself, in the rough, and getting Seton-Thompson to perfect the whimsical, artistic ideas.

One of the most remarkable women in the world is Frau Cosima Wagner. That we owe to her much of that stupendous structure of musical composition which Wagner left as a legacy to future ages, is a fact not only generally known in Germany, but conceded by himself. But for her untiring energy and perseverance, the "Parsifal" would never have been written. He pointed out to her what was in his mind if he only had a plant to demonstrate it, and absolute quiet and solitude in which to record the mighty composition surging in his brain. Promising him the plant, she shut him in and protected him from the eager world's intrusion during the period of its composition.

Meantime, with the assistance of her father, Franz Liszt, she persuaded King Ludwig of Bavaria to build, equip, and endow, the magnificent temple of music drama at Beirut. By the time the great "Parsifal" was completed, the opera house was finished, the scenery painted, the vocalists selected, and the orchestra and chorus were ready to interpret the master. One must regard Frau Wagner's as perhaps the most extraordinary case on record. Even as the wife of Hans von Bülow, she fell in love with Wagner before meeting him, solely from her love of his operas, and she named her four children after his characters. When at last they met, he succumbed at once to the love for him of this marvelous woman. She left her husband at once to become his secretary, and remained with him. Von Bülow, seeing he had lost his wife

and children forever, gave her absolute divorce. From the time of her marriage with Wagner, she became his executive, his secretary, and his passionately devoted wife, relieving him of every care and labor except musical composition, to which he was enabled to give all his time. But for this wonderful episode in his life, it is evident that the immense musical composition he left would not have been half completed. Since his death, in 1885, she has carried on his musical enterprises every midsummer at Beirut, drawing around her in the warmest months, in a small town, with poor accommodations (it has greatly improved in accommodations since 1900), music-lovers from all parts of the world, making a great financial success, and refusing tempting offers to transplant her temple to more favored localities. Not until the emperor has consulted with her, is official music announced for the government opera houses, and she is known everywhere as the "greatest woman of Germany." Her father, Liszt, was known as the "homeliest man in Germany," a title which has also been applied to the daughter. Tall, angular, and long-necked, she is a living demonstration of the saying that "beauty is only skin deep," and a protest against the part that beauty has played in the world and in embroiling nations and mankind in war.

Russell A. Alger came out of the Civil War at thirty with the rank of a brigadier-general, but with only a few hundred dollars at his command. This sum he lost in a brick-making venture at Detroit. He then turned his attention to the lumber business, soon to discover, however, that there was no way to succeed but to go out in the woods and conduct his lumbering in person. "I had some gentlemen to back me with money," said he, "and the first year I walked a hundred and fifty miles through the woods, with a pack on my back, to select the timber. My wife also proved equal to the emergency, and went with me into the woods. Our house, that winter, was a little log cabin, a hundred miles away from the railroad, and Mrs. Alger did her own cooking, rising at four o'clock in the morning to prepare my breakfast. It was thus that I got my start, and half of the credit for it belongs to my wife."

Rowland Robinson began life as a wood-engraver, in New York. The experiment was not successful, and at forty he returned to the home of his boyhood and took up the life of a Vermont farmer. Encouraged and inspired by his wife, he wrote an article on fox-hunting, and offered it to "Scribner's Magazine." It was accepted, as were others, and ere long he found himself a welcome contributor to the leading periodicals of the period. A new career seemed opening before him, when his eyes began to fail, and the fading light finally left him in total darkness. Aided by his wife, however, he conquered this obstacle. He learned to write by means of a grooved board which enabled him to guide and space the lines, and his wife afterward revised the manuscript, and prepared

it for the press. Robinson lost his sight in 1887, and he lived until the end of 1900. During the intervening years, he wrote and published a dozen volumes, which have taken rank among the best Nature books produced in America. This would have been impossible without the aid of his wife.

The New York "Staats-Zeitung" is an eloquent and enduring monument to a wife who had the will and the wit to help her husband. Mrs. Anna Ottendorfer came to this country from Bavaria when she was twenty-one years old. She was then the wife of Jacques Uhl, a printer. The husband worked as a journeyman for eight years, being assisted in his struggles by his faithful and prudent wife. At the end of that time, by industry and strict economy, they had saved money enough to buy a printing outfit to commence business for themselves in Frankfort Street, New York. That was in 1844, when German printers were scarcer than now, and the job-printing office flourished from the start. Near the Uhls was the "Staats-Zeitung," a weekly organ of uncertain sound. Mrs. Uhl, with an eye to the future, saw that the acorn, that could then be bought for a song, would be sure to grow into a powerful oak. Uhl was more conservative than his wife, and declared that it would be better to confine themselves to job-printing. Her advice, however, at length prevailed, and together they bought the struggling weekly and moved it to their own office, soon after enlarging the sheet and improving its appearance. Success was evident from that time. German emigration was increasing rapidly, and Mrs. Uhl proposed to bring out the newspaper daily. The husband, believing in his wife's sagacity, put her idea into execution. He died in 1852, and Mrs. Uhl became the chief editor and manager. For seven years she directed the course of the newspaper, editorially and financially, carrying it safely through a hot presidential campaign and the panic of 1857. Two years later she married Oswald Ottendorfer, who was on the editorial staff at the time, and to him she assigned the chief editorship. She continued, however, to take an active part in the business management, even until her death, when she was nearing three-score years and ten. No decisive step was ever taken without her direction and consent, and she knew exactly where the paper stood, from day to day, long after its assets mounted into hundreds of thousands. Had it not been for her, the "Staats-Zeitung" would have had but a brief existence, and that great German organ would never have attained the phenomenal proportions it has to-day.

Alexander T. Stewart, the prince of American merchants in his time, owed much to his wife. Men in New York, who know much about their early start, of their first efforts to climb the long ladder to fortune and prosperity, know that it was Mrs. Stewart's taste in color, prudence in invest-

ment, and forecasting of the coming fashions, that gave to the great firm its prestige, and aided it in its ongoing toward a plane of universal recognition as the leading house on the continent. Many visitors, familiar with the interior of Stewart's great establishment, can recall the slight, lady-like figure of the wife of the head of the firm, often seen there, going about, unpretentious, from department to department, from counter to counter, from clerk to clerk, inquiring here, listening there, and attentive everywhere. Stewart's store had precedence of his house, and as he lived, so lived his wife. Together they planned and worked, and the great merchant was prompt to admit that much of his exceptional good fortune was due to the woman who gave him, not her hand alone, but, with it, her head, well stored with mother wit and much good sense.

A woman played a large part in laying the foundations of the fortunes of the house of Vanderbilt. The first Cornelius Vanderbilt married at the age of twenty, and a year later became captain of a small steamboat plying between New York and New Brunswick, New Jersey. Passengers were numerous and many persons went to New Brunswick and back by boat, for the pleasure of the trip. Others, when the boat reached New Brunswick, got into stages and were driven across New Jersey to another steamer which took them down the Delaware. Of course, they wanted something to eat, and here Mrs. Vanderbilt saw her opportunity. New Brunswick's hotel, or half-way house, was dirty and ill-kept. Mrs. Vanderbilt suggested to her husband that they should take the hotel, refit it, and run it in a style that would attract guests. Vanderbilt leased the hotel; but, as the scheme was his wife's, he told her she might run it and have the profits. Mrs. Vanderbilt overhauled the house and named it Bellona Hall, after the steamship "Bellona," which her husband then commanded. The fame of Bellona Hall soon spread to New York, and parties were made up to visit it, because of the excellent fare to be found there. It also increased the profits of the line for which Captain Vanderbilt worked, and his salary was increased to two thousand dollars a year. Mrs. Vanderbilt for twelve years managed Bellona Hall, with profit to herself and pleasure to her guests. Her husband, during these years, had been studying steamships and the chances for profit in traffic on the Hudson and along the Sound. His means were limited, but he had valuable ideas gained from practical experience as a steamboat captain, and he felt sure that if he could get the right opening he need not fear the greater wealth of his rivals. He never had questioned his wife's management of the hotel, but he knew she had saved some money. His opportunity came in 1829. He had a chance to get a controlling interest in a steamship for eighteen thousand dollars. He had saved ten thousand dollars, but he did not know where to raise the balance. He told his wife about the steamship, and

explained his plans for making money if he could get it. "I need eight thousand dollars more, and I don't know where to get it," said he. "I will give it to you," replied Mrs. Vanderbilt, and, to her husband's surprise, she brought the money to him. She had saved it from the profits of the hotel. Vanderbilt bought his boat. Money and more ships came rapidly, after that, — so rapidly that, when the Civil War broke out, he was able to present to the nation one of his boats, worth eight hundred thousand dollars, and yet feel easy about his finances and his fleet. When he was seventy, he was credited with a fortune of many millions.

Victorien Sardou, the French dramatist, acquired great wealth, and it was his wife who opened the way to his first success. Sardou began the study of medicine in his youth, but his father drifted into financial difficulties, and the son had to give up his studies to help the family treasury by teaching philosophy and mathematics. He also wrote trifles for the smaller Paris newspapers. Then he turned to writing plays. After many 'prentice efforts he wrote "The Student's Tavern," and found a manager who accepted and produced it. It was a failure, and its author's discouragement was bitter. For three years Sardou lived in a garret, seeking to keep life together upon a three-sous breakfast and a six-sous dinner. Exposure and privation brought on a dangerous attack of typhoid fever. A kindly neighbor, Mademoiselle de Brecourt, upon whom he had no claim whatever, nursed him through his illness. By and by, after he got well, he married her. A little later, he induced Paul Féval to collaborate with him in writing a historical drama, which did not succeed, although Féval made a good novel out of the plot. For some time after this second disappointment, Sardou's poverty was as great as before; but, in what seemed his darkest hour, his fortune began to change for the better. His wife was a bosom friend of Mademoiselle Dejaset, who opened for him the doors of the theater that still bears her name. "Candide" and "Les Premières Armes de Figaro" were given successively at the Theater Dejaset, and Sardou's ability as a dramatist was recognized.

The story of the marriage of Lord Salisbury, England's present prime minister, makes romance of the best sort. He had just entered parliament when he fell in love with Georgina Alderson, the daughter of a barrister who had risen to be a judge. She was bright and clever, and comely to look upon, but neither of the lovers had any means, and Lord Robert Cecil's father bitterly opposed the union. But they were wedded, in 1857, and the first years of their married life were passed in comparative poverty and obscurity. They lived in modest lodgings in London, and the husband had to eke out a living by his pen, contributing diligently, in the intervals of his parliamentary labors, to the newspapers and reviews. There is a legend of Fleet Street that

credits the young wife with helping him as an amanuensis in his literary labors, at the same time that she was bringing up a large family. Their struggles terminated at the end of eight years, when, by the death of his elder brother, Lord Robert Cecil became Viscount Cranborne and heir to the title and estate of the Marquis of Salisbury.

Perhaps no living man owes more to his wife than does the great Russian writer and reformer, Count Leo Tolstoi. Countess Tolstoi attends to all of her husband's business affairs and has done so for many years. There was a time when the count, in obedience to his socio-religious convictions, wanted to give all of his property to the peasants. The laws would not let him do this, and so he handed it over to his wife, who has since managed it with cleverness, economy, and good sense. She has, at the same time, been his devoted assistant in his literary work. For years she copied, again and again, everything that he wrote. The completed story of "War and Peace," comprising several hundred thousand words, was copied by her no less than seven times for revision and re-revision, before it was brought into the state in which it went to the printers.

The late John A. Logan used to declare that all he was in life he owed to his wife, and surely no man ever had a better one. She was with him in the army, and in political campaigns she was always at his side. She had more intellect and political sagacity than her husband, and an abundance of tact. She was ever his ablest adjutant, and to her efforts was due most of his political success. She supplied all that he lacked, and without her he would not have won the fame and influence that came to him. She acted as a brake upon his fiery and impetuous nature, and more than once saved him from what would have proved a fatal blunder. It was decided, during the presidential campaign in 1884, that both Blaine and Logan should visit Cincinnati and participate in a great political rally. Blaine arrived early in the afternoon of the appointed day, and was accorded an ovation. General and Mrs. Logan, traveling by a different route, reached Cincinnati later in the day, and for some unexplained reason there was no one at the station to meet them. They drove to a hotel, and the general, in hot anger at the slight put upon him, summoned a reporter for a Democratic newspaper, to whom he delivered himself of a violent attack upon Blaine and those responsible for the neglect to which he had been subjected. He proceeded in this strain for some time, Mrs. Logan occasionally interrupting him with such exclamations as "Now don't say that, dear. This young man is a reporter;" or, "That would sound very badly in print, General. You must be careful of your language."

The general, however, was not disposed to be careful. He said he had been outrageously treated, and he hoped that the reporter would

print every word he had uttered. At last the latter rose to go. He had the material for a sensational article, the effect of which would be felt from Maine to California, and he was anxious to get back to the office and begin work upon it. As he left the room, a hand was laid upon his shoulder, and, turning, he beheld Mrs. Logan.

"The general has been very indiscreet," she began; "he naturally is outraged at the treatment he has received, and he is too honest to conceal it. But this is not the proper time to make it public. You will promise me, will you not, that you will say nothing about it?"

There was a world of tenderness in the lady's tones, and her handsome face plainly showed the emotion under which she was laboring. The reporter, however, protested. The general, he said, had given his permission that all he had said might be published; he would betray no confidence in publishing it, and he did not think Mrs. Logan ought to ask this sacrifice of him. Mrs. Logan replied that she understood his feelings perfectly.

"We have been in public life for a great many years," she continued. "In Washington, many of our warmest friends are among the representatives of the great metropolitan dailies. I know that the publication of this interview would create a sensation, but that is precisely what I desire to avoid. Some day it may come my way to make a great sacrifice for you. You have my positive assurance that I will do this when you call upon me. Will you grant my request?"

The newspaper man was touched by the lady's evident distress and gallantly gave the required promise, which he faithfully kept. Thus, did Mrs. Logan prove her wifely devotion, and save her husband from the consequences of his own folly. "She was a wiser man than her husband," added the reporter, in relating the incident to the writer.

In Chicago's recent mayoralty campaign and election, Carter H. Harrison, a democrat and the successful candidate, was opposed by Judge Elbridge Hanecy, a republican. Judge Hanecy made a splendid fight. His campaign was a marvel to many who thought they knew what it was for men to work day and night, to deliver three, four, five or eight speeches a day for weeks and weeks. Not only did Judge Hanecy do all this, but he came to his last mass meeting, on the evening before election, with his voice still strong, his courage undiminished and with his physical condition excellent.

Mrs. Elbridge Hanecy, the wife of the judge, played a silent part in that campaign, as she has in all his life as a lawyer and as one of the most respected members of the bench.

"During the spring campaign," she relates, "I lived over the incidents of each day with my husband, when he returned late at night. Luncheon was ready for him, whenever he opened the door at night

after a hard day's work, and, while he ate, I would read letters to him, and together we would talk over the developments.

"Everything about the campaign was of interest to me. I was in it because my husband was. I answered letters and telegrams for him and almost all of the house telephone calls were answered by me. I never troubled him unless it was urgent, for I was generally well-enough informed about the situation to conduct the telephone part of it satisfactorily. All the newspaper clippings were collected by me, and I arranged them so that he could save as much time as possible.

"But, after all, the best help a woman gives her husband is in her doing her part in the home. It is there that I have sought to be of most use. It is there, in my belief, that a husband ought to get relief from the cares of his business life. I never talk over his work in the court-room unless he chooses to briefly take up some incident. I have never been inside my husband's court-room."

The wife of Chicago's mayor (1901), is known as one of the most attractive women, socially, in all the West. Of medium stature, and rather slight in figure, she is graceful in the ball-room, in the theater-box, and on the street. In her home, she is gentle and always thoughtful of the rights which the public thinks it has to her husband's time.

In her grasp of political situations, she has developed rapidly, during the three successive campaigns which Carter H. Harrison has successfully made for the mayoralty. When the newspapers have criticized him, she has felt the cut first and most keenly. And yet, through it all, she has spurred him on, and, even now, she will not say that he has risen to all the honors to which he is entitled.

"I help my husband in every way that I can," said this wife of the thrice-elected mayor, "and I am sure that I am of value to him in many of the big things he has to do, and I am certain that I also help him in the smaller affairs. He has confidence in me, and we discuss many of the questions which come into his administration.

"A woman's intuition is always of benefit to a man, in the decision of questions where right and wrong enter. In weighing matters, oftentimes I have been able to feel that my suggestions helped to straighten out questions he was debating in his mind. Then, too, it may be that I have had something to do with his entering upon certain campaigns. Once in them, I know that I not only have thrown no obstacle in his way, but I have aided him all the while.

"When Mr. Harrison first became mayor, I carried out an idea, which I may have borrowed from him, that we should have a few fixed rules at home, just as he had a system for transacting business down at the office. One of my rules is that he must leave official business at the office. Politics is tabooed at our dinner table. I insisted upon this for his own

benefit, and I am satisfied it was a wise provision. Another of my rules is that he must not conduct business over the telephone, from the house, unless the matter is very urgent. It was my suggestion, too, that he set aside a certain hour of the day for his conference with the newspaper men, and that he be given his evenings free from interviewing.

“A woman will either help or hinder her husband in the work he may set out for himself to do. The smoothing over of little worries that come to a husband is a part of a wife’s duties. She must be in sympathy with her husband and his work, and help him, because she is in sympathy and anxious for his success, or she will retard him in all his efforts.”



GIRLS—NOW AND THEN

By REBECCA HARDING DAVIS

IT is not an easy thing to write something about women that will interest women, for Woman, as a topic, has been so dissected, turned over, glorified, and dragged through the mud, during the last forty years, that there is not a single new word left to say about her.

I think I will try to sketch her as she was in the beginning of the century just past, and as she is now. The two pictures, will, perhaps, show us what she has lost and gained in that time. The Advanced New Girl will, of course, tell us that the change in her is all gain. She is fond of holding up the old-fashioned Domestic Woman to public contempt as an ignorant, simpering idiot, whose only errand in life was to capture a husband, to make puddings, and to nurse babies. However, it

does not seem to me that she has spoken the final word on this subject.

Look at my pictures a moment. They shall be photographs of real women belonging to the same family. This family was of that tough North of Ireland stock, which in the middle of the seventeenth century took possession of middle Virginia and Pennsylvania.

This Scotch-Irish emigrant was as sound in body as in morals; he loved his own kinsfolk passionately but distrusted all other human beings; he had made for himself, and served faithfully, a cruel, angry God who meant to torture eternally all of his creatures except a few choice favorites, the majority of whom were, of course, Scotch-Irish. He was a hard worker, faithful to his wife, children, and friends, but making life a burden to them by his incessant disputes and habit of complaining.

Such was the ancestor of the millions of self-respecting Americans who lifted the Middle States to prosperity.

This Scotch-Irish progenitor affected our national character quite as much as did the Puritan in New England or the Cavalier in the South. But he never has had the credit of doing it, because he was not given to self-analysis, and hence has never talked of himself in song or story.

The first incomers of this race were, as a rule, thrifty farmers who brought money with them. Land was cheap; indeed, many of the younger men were surveyors who worked for the government in the wilderness as did Washington, and, like him, were paid by enormous blocks of wilderness land. Thus their children inherited estates often surpassing in extent and in beauty of scenery the great seigneuries of France.

Most of these early landholders built homes very different from the flimsy wooden dwellings of the first settlers in New England and in the Carolinas. Some of them are still standing, huge, square mansions of gray, uncut stone, whose wide halls and gigantic fireplaces speak of affluence and a lavish hospitality. Take, for instance, the house of Winifred Saxe, the woman of whom I mean to tell you. It is still standing among the hills of western Pennsylvania. In it you may see the enormous cellars lined with closed bins in which the flour, potatoes, and fruits for the whole establishment were stored. For, remember, outside of the plantation in these earliest days, there was only the wilderness. No butchers, nor grocers; no shops, no markets. The plantation supported itself and yielded all the meats, grains, and vegetables, used in the house. All linen and woolen stuffs, from the sheets and blankets to the baby's socks, were grown, spun, woven, and sewed, under the eye of John Saxe's wife.

Tradition has much to say about Winifred Saxe. We hear of one or two men who, when she married, took to drink and died wretched sots; and of another who also found life worthless without her, and threw

himself into the Ohio, and so made a cleaner and shorter end of it. There are stories of the singular influence which she had over her husband and sons, and every man who came near her; even old Khasuke and the few remaining Indians of his tribe who lingered in the hills, served her gladly, and took orders or scoldings from her in silence. She had not unusual beauty. Many of her descendants have peculiar, large, dark eyes, watchful and sympathetic, which they claim to have inherited from her. There is, too, a silhouette of her in existence which shows a delicately cut face, full of tenderness and humor.

Certain women in all ages have had an unaccountable charm, a magnetism which did not come from a beautiful person or face. Mrs. Saxe probably was one of these. In an old letter her brother says: "Winifred has the voice of a cooing dove, but on occasion she shows the temper of a lioness."

Her own family and the Saxes were the leaders, the dominant minority, in a large territory with its population of white settlers and Indians. The girl, as much as Victoria, was born to the belief that she belonged to a ruling class. She was a little mild woman, but she always bore herself with a certain quiet consciousness of power.

She had assuredly a wider authority than falls to the lot of the modern woman. To begin with, she had eleven children of her own, and two or three orphans who never knew that they were not her own. The house was large and the hearts of John and Winifred Saxe were big and warm.

There was an army of farm-hands who were fed in the kitchen. The house-servants were slaves, both black and white, for Pennsylvania was not then a free state. The white slaves were emigrants who were brought here free of cost and sold by the ship's captains in Philadelphia until they had worked out their passage. John Saxe crossed the mountains once in two years and usually brought home some of these "Redemptionists." Mrs. Saxe always had two, three, or four "bond-girls," the daughters of poor white settlers. She took them when children and kept them until they were of age, instructing them in weaving, sewing, and cooking, teaching them to read, write and cipher; to fear God and keep His commandments. They served her, and she ruled them as a faithful mistress. It was a pure patriarchal relation. As time passed, these girls were settled all over the countryside, the wives of farmers, with children and homes of their own, which they governed by Madam Saxe's rules. Whenever there was a wedding, a funeral, or even an entertainment at the great house, they hurried to her to give her their loving and skilful help.

Over this large tribe of dependents, she was absolute director and ruler. She superintended the schooling of the boys, the weaving, the

spinning and sewing, the cooking, the curing of meats, the putting up of the enormous stores for winter use. She had her supplies of herbs and healing ointments, and was both doctor and nurse in time of illness. More than this: she held these people as her own children, she governed their lives, *mothered* them with keen insight and much tenderness, but with dogmatic authority. It was the natural relation in that unsettled time of the educated woman to her dependent clan. But think of the practical knowledge, the tact, the nervous energy, required for such a life-work. It was the work given in a greater or less degree to the women of that age, of whom the modern girl, whose best work in life probably has been a water-color sketch, or an essay on Browning, speaks with contemptuous pity.

What education had she?

None, according to our ideas. Her only books were the Bible, and "Pilgrim's Progress." But she knew them by heart. Her language in her talk or letters was modeled on their wonderful English. All of her thoughts were based on their thoughts. She knew nothing of philosophy or law. She never had read a novel or a play or a scientific book.

But she talked apart every day with Isaiah and with David; she went through life and met death with John and Jesus Christ. Her company surely was not ignoble. As for her knowledge—she knew men and women. It never occurred to her to paint a picture or to make a political speech or to dabble in science. Her errand into the world she knew well was to drag up human lives to higher levels, especially those of John Saxe and her children; to keep their bodies and souls clean and strong. There was her skill and her business.

She brought all of her force to bear on this single work, her religious faith, her tact, her experience, even her personal charm; she summoned God to help her. She was a strong uplifting power to her children and to the people about her. When she died it was like the drying up of a great rushing stream. The water is gone, but there is a wide space in the world forever the greener because the stream passed that way.

Mrs. Saxe has many descendants living. Jane Lapp, who is one of them, boasts that "the family is made up of brainy, up-to-date men and women." Jane herself is professor of social science in one of our colleges for women. She is a past mistress of that subject, is as familiar with its unclean winding ways as with its broad thoroughfares. She is a compactly built little woman, sharp and decisive in her walk, and nod, and voice, a favorite lecturer in women's clubs in New York. She is not married; so far as I know she never had a lover or was in love. She dwells in a region too high for such carnalities.

Gwendolen Lapp, her sister, is studying art in Paris. Every year or two we hear of a great masterpiece which she has painted and which is

going to be hung on the line at the Salon. But it never is hung. Meanwhile, Gwendolen becomes more and more enfranchised every year. She has been by turns Theosophist, Contist, Agnostic, Buddhist,— but never Christian. She also, it is said, changes her husband or affinity as often as her religion. Jane alludes to her vaguely as “a wandering star” “scintillant with genius,” when people ask: “What is Gwen. about now?” But she never invites her to Blank College, nor goes to Paris when she is on the Continent.

Gwendolen has no children.

The Perotts also are granddaughters of Winifred Saxe. They are married to the leading men in our largest inland city. Susan is the wife of Faunce, controller of the—— Trust. She is president of a dozen literary and benevolent women’s clubs. She is a keen-witted, eager woman, with a manner of great simplicity and charm. She thinks that her influence is wide and potent, that she has played her part in the Boer War, in Manila, and in the election of the president. In fact she has but one talent—that of meddling in the lives of her neighbors. She patronizes all religions as a concession to the weakness of human nature, but at heart believes in none.

She had one child, which, as it was a girl, she declared was a blunder, and gave to her mother, who is putting the poor stupid little creature through kindergartens and cramming schools.

Susan’s sister Phœbe is the wife of a high official in Washington. She probably is one of the best types of an American woman of Society, quiet, low-voiced, with unerring tact and quick, keen sympathies. She was educated in Europe and has her adoring friends in many countries. As it happens, she holds her court in New York, in Carlton Terrace, or by the Arno or the Grand Canal.

She inherits, perhaps, more of Winifred Saxe’s magnetism and hot-blooded sympathies than does any of her other descendants. But what does she know of farm-hands or cooks or bond girls, or of catechisms or creeds? The Bible, she says, is picturesque but obsolete. Her kingdom is Society, and she throws all of her strong mind and stronger affections into her control of it. A house, husband, and children, would only be weights and impediments in her way. Her husband for many years has followed his own pursuits and left her entirely free. She never has allowed herself to be hampered by children.

Another of Winifred Saxe’s descendants is a young girl who is an editor of a popular magazine. She is known as a brilliant essayist. She is pretty, magnetic, and has her *entourage* of lovers. But she laughs at marriage.

“Marry! Why should I?” she cries. “I have comforts and luxuries galore for a bachelor girl. But my lovers are poor scrambling artists or

journalists. If I marry one of them I should soon be jailed in a stuffy Harlem flat, with a half-dozen mewling children. No, no! I know too well the value of money and freedom!"

What is the difference then between Winifred Saxe and her granddaughters?

They have gained knowledge, freedom, and standing places in the labor markets and courts of the world.

What have they lost?

THE HIGHEST TYPE OF GIRL

By JULIA WARD HOWE



YOUNG women are the greatest influence in the world to-day. It is sometimes said that women are what men make them. It is much truer, I think, to say that men are what women make them. The best elements of society are conserved in women. The world looks to women and depends upon them for its moral and spiritual advancement. I wish more girls would realize this great fact. But more are realizing it, I am happy to say, than in my youth.

In my time, I have seen our sex advance in moral fiber and in dignity of thought. Their release from worn-out tradition as to the place of women has broadened their horizon and increased their ambition to live on high planes of intellectual and moral life. They are going up, and men are going up with them. One sex cannot advance alone; the progress must be mutual. This is why I believe in coeducation. The sexes are an inspiration and a guard to each other. I am glad that our girls of to-day are athletic, for sound health means far greater happiness for themselves and those near and dear to them, and a stronger and better race in the twentieth century. To all girls I would say, If you want to feel joy in living, exercise in the open air as much as possible. Breathe deeply and inure yourselves to cold.

I am thankful that home training is now being taught in public schools. There are vast potentialities of happiness in this movement. It will give added success and satisfaction to the married state, and, to specify a minor, but still important, matter, will go far toward solving the servant problem, by increasing respect for household work. One of the greatest regrets of my life has been that I have not been more of an

adept at housekeeping. Yet I, who have devoted myself chiefly to writing, lecturing, and traveling, have needed this knowledge less than most women. I have much respect for the woman who is proficient in household work. She does not make drudgery of it, she takes pride in her capability, and is a success,—considerably more of a success than the haughty lady who orders her servants about in imperious tones. The latter would not like to be told that her attitude is a relic of barbarism, and is rarely, if ever, seen in the best society; yet this is the truth. The woman who thinks it beneath her dignity to treat with tactful consideration those who are performing the duties of her household, gives unmistakable evidence of crudeness and lack of all culture, except, perhaps, a mere surface glaze, which is usually most transparent to those whom she is most desirous of impressing. Such a woman may be able to simulate elegance and polish, but she has really very bad manners.

In this matter of manners, we have not advanced during the last half century. We Americans do not give to manners the attention they deserve. Abroad, we are acquiring the reputation of being the best dressed people in the world, but about our manners, which are even more important than dress, there is often a polite but significant silence. Our educational system should take more account of deportment, which, in large measure, is expressive of what we represent. The social atmosphere is warmed by the enthusiasm of youth. We admire and even envy the overflowing vitality of the healthy girl. But when the outpouring of this enthusiasm and vitality becomes forgetful of the feelings and opinions of others, the line between good manners and bad is crossed. Young women who are fond of outdoor sports, who can do as well as men numerous things that in the past men alone did, and women who are successfully competing with men in the business or the professional world, exult in the power and freedom which their mothers did not have. This is excellent, but these progressive women are in danger of offending good manners, by giving their exultation and their own personalities too great an emphasis. Some of them feel that their sturdy work is too engrossing to give them time for the delicate amenities and little niceties of social life, that in my youth were held in such high esteem. This view of manners is not that of the majority of women, but it has sufficient prevalence to have caused a deterioration in politeness since the days when I went to school. Young women are less reserved than they used to be. They should remember that reserve is a power in life as in literature. It is possible to be frank, yet keep something in reserve.

Good manners are not a mere matter of form. It is, of course, essential that there be some standard of deportment, but the garment of formal politeness is easily assumed, and may conceal depravity. True

politeness, the kind that cannot be counterfeited, finds its source in a good heart; sincerity is its chief element. To be polite in the true sense, one must be well-mannered in thought and feeling. If a mother brings her children up to be self-respecting, sincere, and considerate of others, she need not drill them much in the external forms of politeness. She may rest assured that they will have innate good breeding, which is a key to some of the world's storehouses of success and happiness.

The freedom, or even laxity, of manners, which I have seen develop in young people during the last few years, is but a reaction against the old stiffness and formality of society. Already this reaction is beginning to wear itself out and the pendulum of American womanhood to swing evenly and smoothly. The new influences and opportunities which have come into the lives of our women during the period of my observation have resulted in a state of affairs which partakes somewhat of the chaotic; but, out of the chaos, order is being born, and out of the stimulating new conditions will come the representative twentieth-century American girl, who will be, I think, the highest type of girl the world has yet seen.

IF I WERE A GIRL AGAIN

By ELLA WHEELER WILCOX, MRS. EDWIN MARKHAM, JENNY JUNE CROLY, MRS. ELIZABETH B. CUSTER, CHARLOTTE PERKINS GILMAN, LILLIE DEVEREUX BLAKE, BELVA A. LOCKWOOD, DR. FRANCES A. DICKINSON, AND OTHERS



JENNY JUNE CROLY

IN THE articles and interviews given below, many women of prominence, in various departments of feminine activity, answer the question: What would you do if you were a girl again? The perusal of their responses cannot fail to be both interesting and instructive to young women who are trying to decide what they will make of themselves and how they will get about it. Many hints will be found in them for avoiding errors and wasteful expenditure of misdirected energy, and for profiting by the opportunities which girls now enjoy to an extent which their mothers hardly dreamed would ever be realized.

THE VIEW OF A FEMININE PHILOSOPHER

“SHOULD some great Angel say to me to-morrow:

‘Thou must re-tread life’s pathway from the start,
But God will give, in pity for thy sorrow,
Some one dear wish, the nearest to thy heart’;
This were my wish. From my life’s dim beginning
Let be what has been! wisdom planned the whole,
My want, my woe, my sorrow, and my sinning,
All, all, were needed lessons for my soul.”

Surely no person exists who would not do some things differently were he to live over his life again. No one reaches high noon who does not look back and see how much more wisely some early morning hour might have been employed.

I recall many hours, which, according to my present view, seem mis-spent in my girlhood; hours which if used in the study of languages, with only a grammar or dictionary at hand, would have enabled me to read and translate half a dozen foreign tongues to-day.

Yet, I am not prepared to say that the time I used frivolously, or foolishly, was not of greater benefit to the development of my character than those studies would have been. So long as we discover the un wisdom of any one course of procedure, we are making progress even when we feel that we have lost time.

“We do not always win the race
By only running right.
Some feet must tread the mountain base
Before they reach its height.”

In my early girlhood I deemed it a great misfortune that I lived far from the centers of life and fashion, on a Wisconsin prairie, and that I was denied the pleasures and advantages which I felt I was fitted by nature to enjoy. I know to-day that it was the very best thing for me. It caused me to find out my own powers, and to use them.

Since so many things which in my youth I thought all wrong, have proved in the long run to be all right and for the best, I can but believe everything must be so.

My profession chose me at an early age, and I am grateful to it for the pleasure it has given me, the inspiration it still bestows. Sometimes I think what a fine bank account might be mine had I begun with my first earning to lay aside pennies and nickels for a savings bank. But how can I declare that I might not have acquired, in that way, a mania for riches, which is always accompanied by parsimony and

meanness? Since I have escaped that great disaster, why should I be so unphilosophical as to regret the coppers I used freely and often foolishly? Why should I wish to go back and avoid the places where I stumbled and received bruises, since the hurt gave me more sympathy for my fellow-pilgrims and a better understanding of the difficulties in life's journey?

I am glad I cannot go back. In the knowing that many things I have done were unwise, a benefit is obtained that prevents me from wishing to do so. Going on is much more interesting.

Let be what has been; wisdom ruled the whole.

— ELLA WHEELER WILCOX.

ADVICE FROM A THINKER

You ask what I would do differently if I were a girl again, and knew all I now know. Would I choose any other work or approach it in any other way? And you want to know why? So that those girls who are now trying to succeed may profit by my suggestions. Yes, that is reasonable. And you ask those already successful, meaning by that, recognized.

On that point I can give some very solid advice, resting on experience.

If you want to be recognized,—known for what you are,—just be it. Be sure you are it, first, and then keep right on being it, hard, and in due time you will be recognized as surely as a tack that is stepped on in the dark. The tack needed no introduction; it simply was a tack and remained so without apology or concealment. Train the faculties you intend using, be ready to work, and opportunity will come. This policy I pursued as a girl and in the light of forty years' experience I see no reason to change it. It is natural for a young human creature to want to be great, and any one can be great who is willing to grow. We can help ourselves to grow, but must not hurry too fast.

The only line of conduct pursued in girlhood which I now consider injudicious, lay in a too lavish expenditure of nerve force, and on that point I may give useful warning.

It is all very well to hitch one's wagon to a star, but one need not select the most lofty and remote; and once hitched, one need not whip so hard. It does not hurry the star any, and is exhausting to the driver.

The force of will in healthy young humans is great, the ambitions are pure and high, but they are too apt to pour out strength like water, in strenuous attempts at development. As to choosing work, there are two good rules, and I followed both. One is, "Do what you can do best,

and therefore like best." The other, is "Do what most needs to be done."

Steady faithfulness to one's own profession tells best in the end; but in the meantime there are many openings of many kinds, and it is better to do anything than to do nothing. A cordial taking of chances, meeting opportunity half-way, will open expected doors in solid walls. If I were sixteen again I would not alter the general direction of my work at all, but I would modify my speed considerably. The principal error of those years was in a too violent and continuous effort.

Nerve force is capital. Use the interest carefully, saving some to increase the principal for your heirs; but never break into that principal unless some issue of life and death compels. The world needs helping and we all want to help it; but the best service is in a lifetime's strong and steady work, rather than in a few years of feverish struggles. As to professional success, I adopted one line, as a girl, and follow it still.

Continually do your work, your own natural work, and wait until it is wanted. If it is not wanted, never mind; keep on doing it.

— CHARLOTTE PERKINS GILMAN.

A POETIC RETROSPECT

It is futile to assert at the end of a game of whist that if one had led another suit, at this or that critical point, the result would have been thus, or so. A different play by any player would doubtless have called forth a different response by the others following the rigor of the game, and the outcome of the new permutations would again have been past guessing.

So, when a woman has come to forty years, she cannot declare that any past act of omission or commission would have compelled any certain fate, or assured any positive meed of happiness.

Few heroines of achievement, indeed, from Audrey to Portia, even if offered the fairy-tale re-trial of life, would exchange their own past—the light and shade and color, that make their identity in the universe—for any other set of experiences, however roseate and golden.

Yet there is endless fascination in turning one's face again toward youth and in rebuilding one's life in the iris atmosphere of fancy. To be back again when life went a-Maying with Nature, Hope, and Poesy,—to have once more the eager, believing heart of youth, and yet to hold one's knowledge gained from the years, from the salt and the shine of the tear,—this were indeed the "paradise enow," the "very heaven," of the poets.

Perhaps to be both young and wise is to be of the order of seraphs, and perhaps this frost and fire of spirit is what awaits one when he awakens, a blessed ghost, in the land where time has ceased.

Should I, if a girl once more, with my woman's wisdom added to my maiden inclinations, select again the vocation that was my early choice?

To only a few women is it given to choose their work. Generally one has to take the task at hand and adapt herself to it. Happy if she have the gracious nature of our little sister, the water, and can fit herself to her environment.

When I was a girl, in a wild little mining camp in the Sierra Nevadas, there seemed nothing at hand for me to do but teaching. So I drifted into school work, and later specialized my deferred college course along educational and literary lines and went on teaching, lecturing, and writing text-books.

Of course, I realize that any work well done, from washing linen, with Nausicaa and Ramona, to discovering stars with Caroline Herschel, or Dorothea Klumpke, is equally honorable and necessary in the economy of the universe. Yet one may have preferences and aptitudes. I loved the work I was doing, always, and it is beautiful, mothering work to care for children's souls as the "concerned" teacher does. It is solemn work, too, to stand as a providence for the fitting of the house of the spirit, at this mysterious threshold of life where, as with the Faithful at Mecca, every deed counts sevenfold.

But fine as a life of teaching is, to my mind there is a more delightful service and one as beneficent to the world, in the creative work of the artist, toiling with his sweet sounds, or his shifting lines and colors, or his obedient clay, or his winged words.

So if I had had the ear of the Destinies, and their favor, I should have prayed at any time of the past, as now, that it be given me to be a writer along some of the higher lines of literature; to try to pass on for the possible light or comfort of others some measure of the meaning of life that flashes to me from the faces of men and women, or the grasses of the field, or the galaxies of the skies. — MRS. EDWIN MARKHAM.

MRS. BLAKE WOULD AGAIN CHAMPION HER SEX

I WAS not more than twelve years old when, with some other girls, I formed a small club and we each took a motto as a sort of indication of what we wished to achieve in life. Some of the sentiments were romantic, some of them were benevolent. The inscription on my shield was "I Will Live to Redress the Wrongs of My Sex." At the time I knew not what this meant, that is in any broad scope. Brought up in most con-

servative surroundings, the faint echoes of the "Woman's Rights Movement," as it was called, reached me only vaguely. With the disapproval of my family, and almost without any idea of how to proceed, I resolved to do what I might to remove the unjust restrictions under which women suffered.

And now you ask whether I would again take up this same line of effort if I were once more listening to the bees.

If I could be a new little girl, a fresh incarnation, and if in the world wherein I stood there was any injustice to my sex I should feel the same indignation as I now do at all these discriminations and restrictions. Perhaps then, conditions having grown better for women, I might be able from a more powerful position to carry on a wider work than has been possible in the cramped conditions of my own time.

—LILLIE DEVEREUX BLAKE.

OUR MODERN PORTIA WOULD MARRY LATER

If I were a girl again I would not marry quite so young as at eighteen, but would marry, of course, and would study law and graduate before my marriage. I would practise too. Nothing broadens the mind more than a few years of sharp law practice. It convinces one of the important truth, that every case has two sides. I have been from my early childhood a student, and I believe that much of the happiness of my life has been derived from pursuing certain lines of thought in natural history, in mental phenomena, and in moral science. Until many years after my girlhood, and the taking of my first college degree, there was no opportunity for a woman to study law. Such a thing as a law course for a young woman was hardly to be seriously thought of before the early 'seventies.

—BELVA A. LOCKWOOD.

Mrs. Theodore Perry Shonts, of Chicago, daughter of former Governor Drake, of Iowa, and vice-president of the Chicago Woman's Athletic Club, writes:—

"I believe in a thorough education for girls, an education along the general lines laid down in school and college curriculums, and, if I were a girl again I would seek such a course. My aim would be to develop into a warm-hearted woman, ready to do whatever good in the world I could. I believe in an education that will give a solid foundation for the graces of life. In an oak we see a strong trunk to uphold the branches, to make the whole symmetrical. So with a woman, a good strong foundation is safer to build upon than a weaker basis. If the accomplishments which enable one to grace the drawing-room, to

be interesting, entertaining, and useful, are to come later, it will be found that the walls beneath them are steady and true.

"I attended Wellesley College when I was a girl and would do the same again. I believe in the study of languages and of music, and in travel, as sources of development. An all-round education is of just as much benefit to a society woman as to a business woman, for with such an education, a woman is equipped for any emergency in life. A girl should be trained to develop the best in her, physically, intellectually, and spiritually, and she should be taught to be thoughtful of others, to live unselfishly and for the good of others."

Mrs. Catherine Waugh McCulloch, one of the women lawyers in Chicago, and who has been identified with large public movements said: —

"If I had the opportunity to begin life over again, I should again choose the law, secure the best possible preparation, and concentrate my energies on my chosen profession. I am grateful that no obstacle was thrown in my way by my parents; grateful that the Union College of Law was open to women, and that in Illinois, sex was no longer a disqualification for a woman's admission to the bar.

"After securing the education I desired, having begun over again, should I then be indifferent to the needs of other girls I should deserve to have taken from me that which I had.

"Every girl ought to have the chance to prepare herself for the calling she chooses to enter. We who have found the way should do what we can to open the avenues for other ambitious and earnest girls."

Mrs. Pauline Palmer, the well-known artist, said: —

"If I were a girl again, I would study art harder than ever. I was educated in a convent, but I think if I had my life to live over again, I would prefer the high school and college, for it is my belief that an artist should be well educated. A convent education fits one for home-life but the life of an artist is different. My especial aim would be to PAINT."

Dr. Frances Dickinson, head of the Harvey Medical School, said: —

"Looking upon life as a growth, I would again seek a medical training. It gives a woman resources and a breadth that is of use to her all her life, whether she practises or not. If she marries, and is a mother, she understands the child-nature better.

"If I had my life to live over, I would like to take the kindergarten training and would advise all young men to marry girls having taken such a course. To a woman physician, the kindergarten training would be of inestimable value in treating children and in determining what the child needs. In preparing for a medical career, the experience and training of a nurse would be of value. Beneath it all there should be a good education, which might be carried to whatever extent is expedient in individual cases. General reading, even during and after the medical course has been

taken up, will accomplish much that is generally left to the school-room. The woman who will become successful in a professional career will secure these advantages somehow. My aim would always be to make the best of opportunities which might come to me."

Miss Catherine Goggin's name is well known in the West. She was the first president of the Teachers' Federation, which comprises thousands of members and which is considered a formidable organization by city officials, members of the board of education, and the state legislature. It was she who carried the fight in behalf of the teachers to the legislature to demand increased appropriations for the schools so that the teachers might be paid higher salaries; who secured pension provisions, and many other important measures for the women—and a few men—whom she represented.

"Were I a girl again," says she, "I would make a lawyer of myself. I should want an education along intellectual and practical lines, but one that would mean a sound body as well as a sound mind. My special aim would be to assist in developing the impersonal among my own sex so that women might go into work outside of home without feeling personally hurt or flattered at whatever happens. I would like to assist women in overcoming that feeling of personality, that consciousness of the fact that they are women though they be in the business or the professional fields of activity. It is, as matters now stand, a hindrance in accomplishing the best results. Besides, I would aim to develop a self-control that would make my work easier and more effective, and this I would advise every other woman seeking an outside career to strive after."

Mrs. Robert Hall Wiles, Illinois state regent of the Daughters of the American Revolution, said:—

"I would try to become a healthy, well-educated, well-bred, sincere, tactful, and kindly woman. Vigorous health is by all odds the first thing to be sought; and, secondly, a thorough all-round education.

"I would seek, by all means, a college education, with special attention to world history and literature and a sufficient amount of mathematics and language to give severe mental discipline. Art or music should be thoroughly studied if one has a talent for either. I think both should be made optional in a college curriculum. I do not mention domestic science because with a well-trained mind that can be easily acquired when needed.

"I would aim to make my home happy for every member of the family and the center of gracious hospitality for relatives and friends, young and old. Of course this would be after a completion of a college course. If a girl marries she has her life-work as a home maker, with philanthropic and educational work as incidental to an unselfish life. If she does not marry she may well make such work her purpose outside of her home. If she longs for a 'career,' though I should discourage it, I should place

no obstacle in her way. Every girl has an inherent right to individuality and independence. With the good foundation which the education I have outlined for myself will supply, the sincere, earnest girl will find herself prepared for what may come to her throughout her life."

Mrs. George W. Kendrick, president of the Alumnae Association of the Girls' High School in Philadelphia, said:—

"Were I a girl again, I would be a teacher. Teaching is the ideal work for women; women are the ideal teachers. Too often they are unfairly handicapped in the race with men in this work; but nothing has gone so far to place them on an equality with men as the scholarships awarded in the colleges and universities.

"At Bryn Mawr College this year, the girls who led the van in the senior, junior, and freshmen classes, were graduates of the high school who had received scholarships.

"When I was a girl there was no higher education obtainable for those who desired to become teachers. Indeed, the prevailing tendency was to begin such work with the observation—'I'll teach until I get married.' While higher education and teaching, nowadays, are not incompatible with, or antagonistic to, matrimony, they give the possessor of knowledge a chance to look before she leaps. To say the least, they give her a footing equal to man's. And they give her a wage-earning power impossible of attainment a few short years ago."

Mrs. Caroline Earle White, president of the Pennsylvania Woman's Society for the Prevention of Cruelty to Animals, thus gives her views on the question:—

"While not wishing to depreciate the value of intellectual development, the noticeable results of physical training impress me deeply as I look backward. When I was a girl it was not at all the thing to take interest in athletics—indeed, it was quite the fashion to be thin and languid. To-day, women, whether they do or do not enjoy the advantage of a college course, profit by both indoor and outdoor exercises that tend to make them hale and strong.

"If I were a girl again, I would take such active exercise. I feel sure I would have made myself better able to carry out the work that has always been dear to me. I find that many of the younger women who are taking an interest in our society do so from their association, in outdoor life, with dumb animals.

"The woman of this year is the woman of the years that are past; but she is stronger and healthier. And because she is stronger, she is wiser. And because she is wiser, she has a greater store of kindness for all about her, from the children who come to her to the dumb beasts about her. Qualities such as these I would seek very earnestly if I were the girl who is making of herself the woman of years to come, who shall be brave, and kind, and true."

I WOULD STUDY, I WOULD HAVE FUN, I WOULD
LEARN TO BE A COOK, ETC.

IF I were a girl again, instead of bringing all my brain power to bear upon successful ways to elude lessons, I would study; and I am inclined to think it would be with reference to some especial work. In this country, where marriage settlements are practically unknown, and fortunes are so transitory, women need all the preparation they can get to fit them for self-support. When I was a girl, teaching was the only avenue open to women. Now the field is wide; but when a woman succeeds, it is "the survival of the fittest" and means that she has been equipped for her work. A determined woman does learn in time to support herself, when it becomes necessary, but she walks over red-hot plowshares in the process of learning,—if there was no preparation in youth, when memory is good and it is easy to acquire information.

If I were again a girl, I would lose no chance for fun and frolic, but at the same time I would be a musician, even though nature prevented me from being anything but a mediocre one; for the home life of a woman who sings or plays well enough to please her family or friends is vastly different from a house void of all music.

I would be a cook, looking back as I do and seeing many homes often fairly kept together by the food that is supplied to the breadwinner.

I would learn mental arithmetic, if I were again a girl, so that it would not be necessary to resort to one's fingers to make calculations under the edge of the counter in a shop.

I would know something of kindergartening and nursing, to prepare for God's greatest gifts, wifehood and maternity. Remembering what a lifelong impression the first fiction selected for me made, I would be guided by my mother in the choice of novels.

I would engage in outdoor sports, believing that it would secure me a more amiable and healthful future; and, as to the studies I regret neglecting, I think that if I were again a girl, I would try to apply myself to classical literature, rhetoric, history, and French.

This seems an outline of hard work, but I know that most girls, if but once convinced that they are to be the centers of families or circles of friends, to whose pleasure and comfort they will hourly contribute, would not consider it hard work at all.

—ELIZABETH B. CUSTER.

A GIRL SHOULD KNOW ENOUGH TO PLACE A HIGHER
VALUE UPON HER WOMANHOOD

If it were possible to be again a girl, with the experiences of a woman, and one could put the usefulness of such a transformation into a single word, that word would be "purpose" to realize the value of the acquisition of knowledge,—of the training of every gift and faculty for usefulness and enjoyment; and to know how surely, if unconsciously, the agencies of death work through haste, precipitation, self-conceit, and the violence of appetite and passion; to recognize the law of growth, its gradual processes,—its unfailing results; to know that all we are, all we can become, must be accomplished under that unfailing law, more fixed and more imperative than any law of the Medes or Persians; to understand that we cannot reverse the engine, or force it to jump the track without disastrous consequences, one must have an enlightened mind and a definite aim.

No! we know that we are to abide by our mistakes, and to use them as instrumentalities, not to shift the responsibility of them upon the shoulders of others.

Irrespective of wifhood, or motherhood, we know that it is of the greatest importance that the woman should receive her *highest acquired* training before she is married; and, therefore, should not marry young; for marriage constitutes for most women arrested development, and, frequently, the merging of an immature judgment, and a somewhat vague sense of foundation principles, in the judgment and ideas of another.

Men continue the normal conditions of growth and development after marriage, through their more independent life, their associations in business with other men. Women are bound by domestic ties and duties,—by the pains and cares of motherhood, and by the social and merciful shrines of which they are the guardians.

No, one cannot wish that the girl might know the end from the beginning; it would so appal her. But one might wish that she knew enough to place a higher value upon her own womanhood,—enough not to be in haste to be married,—and to value above all other things those opportunities for self-improvement which will increase her chances for usefulness, and, therefore, her happiness in the world.

— JENNY JUNE CROLY.

MIDDLE-AGED WOMEN AND SUCCESSFUL ENDEAVOR

By MARGARET E. SANGSTER

Few women are indifferent to the passing away of their youth. From the past we have inherited a stock of prejudices, among which is one that has so strenuous a vitality that it is hard to overcome, namely, that a woman's chief end is to be beautiful, attractive, and ornamental. When the bloom of girlhood, and the richer charm of that early maturity which is in its perfection at thirty, have faded, when women begin to see crow's-feet crinkling the skin around their eyes, and lines deepening on their foreheads, most of them are aware of both sadness and protest. It is a difficult time for any woman, the transitional period between her youthful and her older life, and, whether she is married or single, in the depths of her soul, she equally feels its hardship. The matron who is also a mother, has, however, too many legitimate cares and solitudes for others to waste much strength in dull repining. Her sons and daughters are growing up and she must renew her life in them. And in these days, the spinster has often her own independent career, filled to the brim with busy occupation, so that middle-age glides upon her before she is ready to acknowledge its presence.



In the case of most women of middle-age, who have health and leisure, there opens a vista of most encouraging and stimulating possibilities. Even when the latter advantage, leisure, is lacking, the middle-aged woman whose health is firm, may put her time and talents to good account. It often happens that the time from forty to sixty or even to seventy years of age, is a season of serenity and almost unimpaired health to women who have lived in accordance with nature's laws in their early days, so that these years may be exceedingly fruitful.

Successful endeavor implies, at any age, resolution and energy. Self-sacrifice is an essential part of it, and attention to routine is indispensable. Also, the woman who means to succeed must not be too scattering in what she attempts, nor spread her time over a half dozen studies and projects. "This one thing I do," must be her motto. She must concentrate her efforts and give to herself the same intellectual discipline, that she accepted in girlhood from her teachers, remembering that,

though the outward may perish, the inward may be renewed day by day. She must set, for her own benefit, stated tasks, and insist upon their performance. As the little Puritan maid did her morning "stint" before she was allowed to play, so must the great granddaughter of the Puritan, with a light frost whitening her brown hair, and experience enriching where hope once animated and spurred her on, be stern in her determination that for her as an individual, there shall be daily, regular, and conscientious work along some definite and elected line.

The science of music is one of the best of these suggested lines of work, but it is a jealous and exacting mistress. Granting that one loves an instrument and has already acquired some technique, even if the fingers are stiff and the wrist wooden from lack of use, the middle-aged woman may score a very creditable success by persistent study. Her best plan is, usually, to seek a good instructor, and, in connection with two or three other students, not necessarily of her own age, to devote regular hours to practice, taking up, in connection with finger work, the study of harmony. A woman of fifty, last autumn, determined to devote the next six months to music. She revived her old quickness in sight-reading by devoting a half hour after breakfast to the careful inspection of musical manuscript, to copying scores, and to reading operas and difficult studies. A neighbor, similarly inclined, came at ten o'clock, and played duets with her for an hour. At eleven, her German music master came, and, with him, two young cousins, one of whom played the mandolin, and the other the piano, and the next hour was devoted to intense and serious study. In the evening twilight, daily, this lady spent her last hour in the music-room, and her testimony, at the end of the winter, was that she had made more real progress, and had made more decided advances, than at any time in her youth when she had followed the same path. Others observed something in her playing of which she did not speak, and of which she was perhaps unconscious: a subtle phrasing, a deeper color, a truer feeling, a more intimate interpretation of the meaning of the composers whose melodies she essayed to repeat. She had gone to school to life, and life had taught her so much that it was worth while to know, that her music was thereby an infinite gainer.

Some years ago, I had among my friends a very clever and keen-witted woman whose experience in adopting a business career was very gratifying. She had been drilled in the usual juvenile studies,— spelling, arithmetic, English grammar, and history,— in an old-fashioned school, in a thorough but old-fashioned way. The simplicity of the methods in vogue in this gentlewoman's childhood would surprise the modern pedagogue. Her education in the class-room had terminated when she left the grammar school at thirteen. At seventeen, she was married, and

with her young husband, for four years led a rambling and adventurous life, as the Civil War had begun, and her good man was in the cavalry under Lee. She followed his fortunes, living in Southern towns where she could sometimes see him, nursing the wounded in hospitals, and enduring the various hardships which Southern women gallantly encountered in the storm of their secession days. At the close of the war her husband died, and she mourned for him and the lost cause together. Going North, she found a position in a business house where her skill in correspondence speedily gave her a large salary. She could write good English in a clear and direct manner. She was absolutely trustworthy, and the day of the typewriter had not dawned. Several years passed, in successful and highly-paid work, when she resigned her post to marry the captain of a merchant vessel. With him she visited far lands, spending weeks and months on the salt water. Once she was in a mutiny; twice in wrecks. She knew Java and Borneo, China and India, and Japan, and thus her life drifted on, in a loneliness, except for love, which would have been to some women intolerable, yet diversified by many strange sights and new incidents; it was, all in all, a life full of vivid enjoyment and interest, so that when at last, her husband retired, and they took a house, and began living on shore, as most people do all their days, my friend pined for variety. Mere housekeeping was a bore to her; she had for it neither taste nor training, and she had no children to make her feel that a home was a real need. "We will board," she decreed; and her husband amiably assented, giving a more reluctant consent, when he found that she, no longer young, but eager, alert, decisive in her movements, and charming in her manner, had made up her mind to go into business. She carried the day, and sought and found a place where she became the business manager of a corset manufactory, in which situation she remained, conducting the affairs of the house, with consummate ability, for a decade. She kept in harness, in unbroken health, to the day of her sudden death, a woman who never grew old, never lost her zest in the day's work, and was always equal to every demand upon her. Her kindred fancied that she toiled too unremittingly, but I think that she knew her own nature best. To serve the present age, even if the sword snap at last, is better than to fritter away one's time in uncongenial half-idleness, and rust out in the end.

A career in literature is among the possibilities for middle-aged women, and I can best illustrate my point by a few examples. Who has heard Olive Thorne Miller talk of the birds, or who has read her delightful books, but has been drawn to the beautiful, large-hearted, white-haired woman, in most enthusiastic admiration. Mrs. Miller had brought up her family, a large one, and had sons in business and daughters in college, when she began her painstaking study of our little

brothers of the air. We owe to her a great impetus in the study of the feathered folk as individuals; she has shown us that they are akin to ourselves in their loves and hates, and are capable of wisdom in their management, of intelligent planning, and of an intense devotion to their bird kith and kin. Mrs. Miller's success as an author and lecturer has been assured. She has had no rebuffs or setbacks, and she did not dream of any but a purely domestic life till she was middle-aged.

Mrs. Amelia E. Barr, a woman of genius, whose novels and romances form a goodly row on our shelves, and whose writing is singularly pure, clean, and wholesome, began her literary career after widowhood and the loss of dear children had refined her in the crucible of suffering. Her finest success came to her after she had crossed the meridian. Mary Lowe Dickinson, a woman of superb mental endowments and great beauty of character and of person, also embarked definitely on a literary career, when youth was passed. There is a woman in an editorial chair in New York, who had her training when she had children to be educated, and more than one woman has gained success in journalism after forty. Health, capacity, the power to work, not in spurts, but regularly, are all that are needed, granting original endowment, to make a middle-aged woman more successful than a younger one in this field. The serene face of Mrs. Candace Wheeler, her peculiarly womanly presence, her refined voice and the charm of what she has to say, must recur to all who have ever heard her lecture on art in needle-craft, in household decoration, or in the arrangement of the table, or the cultivation of the flower-garden. Mrs. Wheeler has possessed a magic to defy time's encroachments, the magic of congenial occupation, of continual study, and of steady holding on in doing her best. In short stories, of all branches of literature the most elusive and baffling, because they must be concrete, dramatic, sustained, and brief, Mrs. Wheeler's success has been marked, yet she neither wrote, lectured, nor did any outside official work, until she had reached the boundary of youth, and entered later life.

Mrs. Caroline A. Creevey, who has published two successful volumes on botany, one of them involving several years of severe preparatory study and labor, began her definite authorship after forty, and among other women notably successful in achievement, in literary endeavor, are Mrs. Kate Upson Clark, Miss Susan Hayes Ward, and Mrs. Margaret Hamilton Welsh, all of whom had left first youth behind, before they devoted their powers to professional effort. Mrs. Elizabeth Storrs Mead, for ten years the energetic, popular, and splendidly successful president of Mount Holyoke College, was beyond fifty when she entered upon the responsibilities of her exacting chair.

Language study is another attractive field. That languages are most easily acquired during the facile period of childhood, when the brain is

quick to receive and retain impressions, must be admitted. But nothing presents an insuperable obstacle to the woman who can give attention, take lexicon, grammar, and time, and sit down before the fortress of the new and unfamiliar tongue, determined to gain freedom within its guarded precincts. I know a gentlewoman who began the study of Hebrew at seventy years of age, which, for most people, is old age. She conquered its difficulties, and became a promising scholar, under the tutorship of a learned rabbi—not merely a pupil, but a person with claims to scholarship in Hebrew—and at eighty years she reads her Old Testament in its original text.

Our trouble, dear middle-aged friends, is that we develop our minds too much along certain lines, and that we permit whole sets of faculties either to lie dormant, or to become atrophied for want of use. She, who complains that her memory is going, should do as she did in childhood, resolutely learn a portion of prose or verse, by heart, every day, and let somebody hear her lesson. "Nothing can stand before a day's works," said a wise teacher. Are we to sit down and lament the evanescent bloom of girlhood in this interesting world, where success is the reward of a wide-awake enthusiast, and a persevering plodder, in any field, at any age? Perish the thought as unworthy!

PERSONAL HYGIENE.

PERSONAL HYGIENE

KNOWLEDGE of the structure of the human body; of its several parts and organs; of the functions these organs perform and the ways in which each does its work has come to be regarded as among the most useful information anyone can possess. Years ago Herbert Spencer sounded the note of value and it has been followed more or less steadily ever since.

It has been regarded as the most logical form of treating the question of self-preservation and of self-defence to begin with the subject of anatomy. This is followed by physiology or the condition of the human body in health. After that the condition of the body in the several states of disease is presented as pathology.

ANATOMY OF BONES AND MUSCLES

THE study of the location, form, structure, and names of the parts of the body is called Anatomy. The word comes from the Greek word to "cut-up," alluding to the method of study by dissection. The foundation of the human body is a bony frame-work called the skeleton. The bones which compose it are of three kinds: the long bones, designed for strength and the leverage of muscles; the flat bones, for protection and to present a large surface for the attachment of muscles; and the irregular shaped bones. The bones of the head form the skull, and it is divided into the cranium or brain receptacle, and the face. The bones of the cranium are the Frontal bone, forming the forehead or front of the head; the two Parietal, forming the sides of the head above the ears; the two Temporal, forming the temples, and including the opening of the ear (external *auditorium meatus*), and the large eminence behind the ear (mastoid process); the occipital, forming the base and back of the skull and including the occipital protuberance at that part, to which the long ligament which holds up the head is attached (*ligamentum nuchæ*); it also presents the large opening (*foramen magnum*) through which the spinal cord (*medulla oblongata*) passes. These form the outer shell of the skull, and are joined together by dove-tailed joints, called

sutures. At birth there is not a perfect union of these bones, and the opening or imperfect union at the apex of the skull of an infant is called the fontanelle. The sutures become less distinct in old age. Two other bones of the cranium are the ethmoid and sphenoid which form the floor or base of the skull. The bones of the face are: the Malar or cheek-bones; the Nasal or nose-bones; the Superior Maxillary or upper jaw bones; the Inferior Maxillary or lower jaw bones; and the Vomer, a plough-share shaped bone forming the septum or division of the nasal passages. The Inferior Maxillary or lower jaw bone articulates or unites with the temporal bone by means of a hinge-like union formed by an enlargement of the inferior maxillary (*condyloid process*) which fits into a depression (*zygomatic fossa*) in the temporal bone. The angle of the lower jaw is the bend or turn which may be felt under the ear. The point of union of the two inferior maxillary bones is a line running down the middle of the chin and called the Symphysis. The Hyoid bones are in the throat and form attachments for the vocal cords. There are also three odd-shaped bones in the inner ear which form a communication chain for the conveyance of sound. On the superior and inferior maxillary bones is a soft bony tissue (*alveolar process*) into which the teeth are set. The skull rests upon the vertebral column or back-bone which is made up of twenty-four separate bones called vertebræ. These are divided into seven cervical, twelve dorsal, and five lumbar. The skull fits upon the upper cervical vertebra (*the atlas*) by means of flat surfaces (*condyles*) and these permit the nodding motion of the head. The second cervical vertebra (*axis*) has an elongated body which runs up through the atlas, and permits the rotary motion of the head. The seventh cervical vertebra has a very long process to which one end of the long-ligament (*ligamentum nuchæ*) of the neck is attached, the other being fastened to the occipital protuberance. It acts something after the manner of a check-rein of a horse. The lower vertebræ, the lumbar, fit upon the sacral and the coccygeal, which are false vertebræ situated in the region of the back of the hips. The ribs are fastened behind to the dorsal vertebræ and in front in part to the breast-bone (*sternum*) and the floating ribs to a cartilage which permits some motion which gives them the common name. The ribs are twenty-four in number arranged twelve on a side, seven of which are true and five floating. The two shoulder-blades are the Scapulæ. The two collar-bones (*clavicles*) extend from the sternum or breast-bone to the shoulder. The Scapulæ and Clavicles come together and form an articulation or joint by means of a hollow (*glenoid fossa*) into which the head of the long bone of the upper arm (*humerus*) fits. The humerus enlarges at the elbow-joint

into two large flat surfaces to receive the two bones of the fore-arm (*radius* and *ulna*).

The Radius is the outer bone of the fore-arm and permits the rotary movement of the hand. The Ulna is the inner bone. These unite with the several bones which form the wrist. The wrist is a very complex joint and is made up of irregular shaped bones: the Scaphoid, the Semilunar, the Cuneiform, the Pisiform, the Trapezium, the Trapezoid, the Magnum, the Unciform. From these radiate the five Metacarpal which form the hand up to the lower knuckles. Beyond these are the First, Second, and Third rows of the Phalanges, which form the joints of the hands.

The Pelvis is the general name given to the region about the hips. It is made up of the Sacrum and Coccyx at the back and the two irregular bones of the sides which are the Ossa Innominata, or unnamed bones, as they do not resemble any particular object in shape. The point of union in front is called the Symphysis pubis. There is a large cup-shaped hollow (the *Acetabulum*) in each into which the head of the thigh or long bone of the leg (*Femur*) fits. The Femur or long bone of the upper leg enlarges at the knee-joint to unite with the two long bones of the lower leg—the Tibia and Fibula. At the knee-joint there is another small bone, the Patella, which forms the knee-cap. The Tibia and Fibula unite with the irregular bones of the ankle-joint. These correspond with the bones of the wrist and are: the Astragalus; the Os calcis or heel-bone; the Scaphoid; the Internal, Middle, and External Cuneiform; the Cuboid. From these radiate the five Metatarsal bones which form the foot proper; and to these are articulated the First, Second, and Third rows of the Phalanges which form the joints of the toes.

MUSCLES

THE Ligaments are bands of connective tissue, usually of a cartilaginous nature, and serve to bind the several bones together to form the joints. Each ligament has its peculiar shape, location, and office and ligaments are usually named accordingly. The muscles are bands of fiber which communicate motion under the action of the motor nerves. The muscles are named by their Latin names which indicate their location, uses, or shape. An "*extensor*" muscle stretches a limb out; a "*flexor*" bends it; an "*adductor*" carries it forward. The head is covered by the fibers of the *Occipito-frontalis*, which moves the scalp backward and forward, wrinkles the forehead and raises

the eyebrows. The *Temporalis* helps to close the mouth by raising the lower jaw. The eyelids are closed by the *Orbicularis palpebrarum*. The Masseter closes the lower jaw firmly and carries it forward as in biting the upper lip with the lower teeth. The act of bowing the head upon the breast is done by a pair in the neck—the *Sternocleido-mastoid*. When only one of these act at a time, the head is turned to face in the direction opposite to that in which the acting muscle lies. The head is drawn back by the *Trapezius* which are the large muscles of the back of the neck and run down onto the shoulder. One acting alone causes the head to recline or drop over on the opposite shoulder. The corners of the mouth are drawn down by the *Platysma Myoides*. The arm is raised, carried forward and backward by the *Deltoides*, which is the large muscle on the outer part of the shoulder. The fore-arm is bent upon the upper arm by the *Biceps flexor capiti* and the *Brachialis anticus* which form the front of the upper arm, and form the prominent bunch of muscles when the arm is bent. The under or inner side of the upper arm is the *Triceps extensor cubiti*; and it straightens the arm out when bent by the two previously mentioned. The *Coraco-brachialis* is a very small muscle in the front of the upper arm close to the *Biceps*. It helps to carry the arm forward and up. On the inner side of the arm at the elbow is the *Pronator radii teres* which turns the palm of the hand down and also helps to bend the arm. When the right arm is held palm up, the outer muscle of the fore-arm, just below the elbow, is the *Supinator radii teres*, which turns the palm of the hand upward and helps to bend the fore-arm. The wrist is bent by the *Flexor carpi radialis* which is just below the joint in the hollow of the arm. The hand is bent up toward the fore-arm by the *Palmaris longus*. The fingers are bent on the palm by the *Flexor digitorum communis*. The *Flexor carpi Ulnaris* bends the wrist and helps to flex the fore-arm. The thumb is carried over the palm of the hand by the *Adductor pollicis manus*. The joints of the fingers are moved by a number of Flexor muscles. The *Pectoralis major* is a large muscle of the chest and runs over to the upper arm in front of and above the arm-pit. The *Latis-simus dorsi* is the broad muscle of the back and side. The *Teres major* is on the lower side and back of the shoulder. These three muscles act together and lower the arm, and press it into the side. When the *Pectoralis major* acts alone, it carries the arm in front of the chest. The *Serratus magnus* is situated along the side of the body below the *Pectoralis major*. It raises the shoulder and brings forward the shoulder-blade. The muscles of the abdomen are the *Obliquus externus abdominis* and the *Rectus abdominis*, which are used to hold in, and withstand the pressure of, the internal organs. The

Glutæus medius over the hip and the *Glutæus maximus* form the fleshy portion of the trunk. These act upon the bended leg and either extend it or bring it into line, or move one thigh away from the other. The *Psoas*, *Iliacus*, and the *Pectineus*, all on the upper and inner portion of the thigh, serve to bend the leg upon the abdomen. One thigh is drawn up to touch the other, or the legs are closed, by the *Adductor longus*, *brevis*, and *medius*. The *Vastus Externus* is on the front of the thigh and is used in straightening the leg. The *Biceps flexor cruris* is at the back of the upper leg, and operates in bending the knee, and also in turning the foot inward and outward. The *Gastrocnemius* and the *Soleus* form the calf of the leg. They operate in lifting the heel. The *Tibialis anticus* is over the shin and aids in bending the foot. The *Extensor communis digitorum* aids in extending the toes and in bending the foot. It is at the side of the shin. The *Peronæus longus* and *brevis* are at the back of the leg and below the calf. They draw the foot back. The *Gastrocnemius* and the *Tibialis Anticus* merge at the heel and form the *Tendo Achillis*, which is the strongest tendon in the body. It is attached to the *Os Calcis* or heel-bone.

DIGESTIVE SYSTEM

THE alimentary tract may be likened to a chemical test-tube, beginning with simple chemical reactions in infancy, and gradually increasing to more complicated ones as life advances. The food may be likened to the chemical substance to be analyzed (in this case the aim of the analysis would be the separation of the elements, and preparing them for absorption). The digestive fluids are the chemical reagents by which the foods are split up into the constituent elements.

The mouth, called the oral or buccal cavity, with its various accessory organs, forms the first part of the digestive tract. It is lined throughout with mucous membrane, which discharges its secretion into the cavity, together with those of the various glands, the combined product forming the first digestive fluid, the saliva.

After being reduced to a pulpy consistency by the teeth and mixed with the saliva, the food is swallowed. The act of swallowing is performed through the contraction of the muscles forming the pharynx. Passing into the œsophagus, the food moves with a wave-like motion until it reaches the stomach. The œsophagus is a narrow tube nine inches in length, extending from the lower part of the pharynx to the stomach. For a short distance it runs parallel with the windpipe and

then extends backward and downward behind the lungs. This accounts for the pain under the shoulder blades in cases of indigestion. The œsophagus is lined throughout with a mucous membrane, in order that the surface may be kept moist to facilitate the passage of the food.

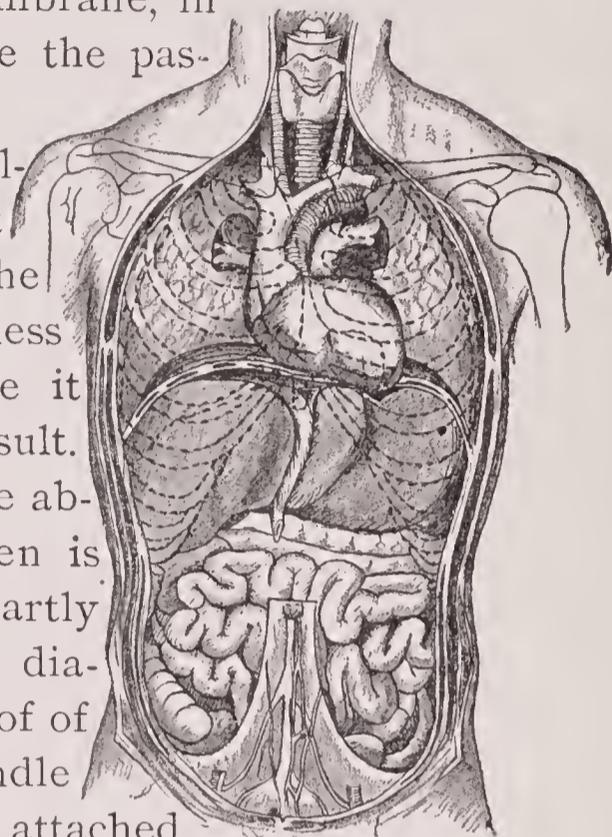
It should be remembered that the œsophagus or gullet does not follow a straight line in its course, but must deviate to pass various obstructions such as the trachea and lungs, and the curve of the spine. Unless the food is properly prepared by mastication before it reaches this part of the canal, indigestion will often result.

The principal part of the digestive tract lies in the abdomen, the largest cavity of the body. The abdomen is separated from the chest by a membrane composed partly of muscles and partly of fibrous tissue. This is the diaphragm, which forms the floor of the chest and the roof of the abdomen. It is fan-shaped in outline with the handle attached to the spinal column and the elliptical edge attached to the ribs in front. This diaphragm expands and contracts during the process of breathing, and it is the spasmodic contraction of it which causes hiccough.

The various parts of the alimentary canal found in the abdominal cavity are held in position by the peritoneum, a strong serous membrane which covers the organs but at the same time permits of their free movement during digestion. An inflammation of this membrane is called peritonitis, a disorder usually terminating in the death of the patient.

Just after the œsophagus passes through the diaphragm it expands into a funnel-shaped pouch called the stomach, which is a muscular sac, situated under the ribs and slightly to the left side of the body. It is the most dilated part of the digestive tract, being about twelve inches long and four inches wide, and, when distended, is capable of holding from two to three pints of fluid. It is the principal organ of digestion, for in it not only does the solution of the food take place but it becomes divided into its various elements in the process called chymification, and some parts of it are digested and absorbed.

The stomach has been likened to the chemist's retort, except that the curves are not so marked and the discharging tube is shortened. The entrance and exit are guarded by valves known respectively as the cardiac and pyloric valves. These valves guard the cardiac and pyloric openings or orifices, preventing the food from being regurgitated into the œsophagus or from being expelled from the stomach before the proper time.



The stomach is covered with a delicate serous membrane, a part of the peritoneum, and its walls consist of three coats: (1) A tough outer coat of fibrous tissue which strengthens and protects the organ. (2) A coat of involuntary muscular fibers, which extends in several directions. The peculiar arrangement of these muscular fibers gives the wave-like or rolling motion to the stomach, churning the food and mixing it with the fluids of the organ, by the alternate contraction and relaxation of the various strata of muscles. (3) The inner coat, containing the mesh-work of nerves and blood vessels, and called the mucous membrane. This coat is a continuation of the lining membrane of the mouth and œsophagus. When the stomach is contracted this membrane is thrown into folds running across the organ from front to back, but when it is full these folds disappear.

The peptic and mucous glands are situated in this membrane and pour out their secretions when stimulated by food. The food is mixed with the secretions from the little tubes which empty into little pits with which the surface is covered, like the cells of a honeycomb. A glance at a piece of tripe, the internal lining of an ox's stomach, will afford a fair but exaggerated picture of these pits.

The intestines are divided into the small and large intestines and are of such length that they fill almost the entire abdomen. The small intestines are doubled upon themselves many times. They form that part of the digestive tube in which the chyme from the stomach is mixed with the secretions of the liver, the pancreas and the intestinal mucous membrane. It is about twenty feet long and is divided into three parts. The first part is about nine inches long and adjoins the pyloric or right end of the stomach, and is called the duodenum. It is curved like a horse-shoe, to receive the head of the pancreas, and into it flows the secretion from the liver — the bile — and that from the pancreas or sweetbread — the pancreatic juice. The small intestine itself also secretes a fluid called intestinal juice, which acts upon the food products still undigested. The second part is called jejunum and comprises the upper two-fifths of the rest of the small intestines. The third part is called the ileum, which comprises the other three-fifths and ends at the ileocæcal valve, the beginning of the ascending colon of the large intestine. Situated at the juncture of the large and small intestines is the appendix, the inflammation of which causes so much trouble.

Like the stomach, the intestines are composed of three coats, the inner being filled with nerves and blood vessels. In addition, this mucous membrane is filled with myriads of minute projections, called "villi." They give to the membrane an appearance not unlike velvet or plush, the fine hair-like projections being so closely set together that it is difficult to distinguish them as projections at all.

In each of these villi is a network of very fine blood vessels and a tube called a lacteal, so named because it carries a white milk-like fluid. These lacteals may be regarded as numerous little roots which suck up the fluid food as the root does the moisture from the soil.

The large intestine begins at the ileocæcal valve which joins the lower or iliac portion of the small intestine to the large intestine, and extends upward as far as the under surface of the liver. Turning at right angles, it crosses the abdomen to the left side and with another turn extends downward, ending at the anus. In the adult the large intestine is about five to eight feet long, or about one-fifth the entire length of the alimentary canal. At birth it is only about a foot and a half long, the last eight or ten inches being the sigmoid flexure. No growth takes place during the first four months, but the parts become readjusted, the sigmoid flexure at the end of this time measuring only six inches and the rest of the intestine about fifteen inches.

The large intestine is called the colon or large bowel, and the intestines collectively are called the bowels or entrails. The colon is usually divided into four parts—the ascending, transverse, and descending colons, and the sigmoid flexure.

The large bowel resembles an inverted letter U—the ascending and descending colons being the upright lines, and the transverse colon being the crossbar. The transverse colon is the longest of the several divisions of the colon, and is the most movable part of the bowel. The descending colon terminates in the sigmoid flexure which is the narrowest part of the colon, and is situated on the left side at the crest of the hip bone. This part of the bowel is about eighteen inches long and is shaped like the Greek letter Sigma σ , whence its name.

The rectum is about eight inches long and is the terminus of the larger bowel, the external opening being closed by a sphincter muscle, called the sphincter ani. The narrowest portion is at the juncture with the sigmoid flexure, and from that point it rapidly widens.

Each of the organs of digestion secretes a fluid which acts upon certain elements of the food, dissolving them out of the mass. In addition to the solvent action of the water contained in each of these fluids there is also a substance called a "ferment," which chemically changes one or more of the food constituents and renders them soluble. Upon the proper action of these fluids, as well as upon the good condition of the various organs concerned in digestion, depends the power of food to nourish the body. When the glands and organs are in perfect condition, and the food is perfectly adapted to their capacity, the process of digestion is a subconscious one, giving rise only to vaguely pleasant sensations, and establishing itself as the foundation for many cheerful emotions.

THE CIRCULATORY SYSTEM

As THE food after digestion becomes absorbed by the blood, this fluid may be regarded as being in a manner an accessory to the digestive tract, for the ultimate purpose of digestion — tissue building — is not accomplished till the food elements are conveyed to the various parts of the body by the blood current.

The blood laden with these elements must go first to the liver, by means of the portal circulation, where certain portions are either changed or have some of their undesirable parts filtered out. Continuing on its way it leaves the liver and enters the right side of the heart, and from there it goes to the lungs to be oxidized or purified, and then back to the left side of the heart to be distributed to the various parts of the body.

This circulation in the human being is carried on by a delicate machinery which has been compared to the pumping station of a city's waterworks. The great central engine is the heart; the water mains are the arteries; the service pipes the arterioles or capillaries; the tenant in the house, who uses the water, the muscles and other tissues of the body; the sewer pipes are the veins; and the discharging outlets are the lungs, kidneys and skin.

The heart is a hollow, pear-shaped, muscular organ, situated very nearly in the center of the chest, with the broad end or base uppermost, toward the right side, and the point or apex downward toward the left. In the infant the position differs somewhat from that of the adult, owing to the difference in the diaphragm. The normal adult heart is about the size of one's closed fist, so that if the fist be placed diagonally upon the chest, thumb uppermost, and to the right, the knuckle of the little finger reaching to the space between the fifth and sixth ribs, a fair idea of the position of the heart in the chest will be gained.

The heart is a double organ, consisting of a right heart and a left heart, each being subdivided into two chambers, called auricles and ventricles, the whole being composed of involuntary muscular fibers. The auricles are situated uppermost and receive their names from their fancied resemblance to the human ear. The ventricles come together at the apex. The right auricle opens into the right ventricle and the left auricle into the left ventricle. The ventricles are much stronger and their walls thicker than the auricles and the left ones are stronger than the right. There is no direct communication between the two sides of the heart, as the blood-stream enters and leaves by veins and arteries in a



CIRCULATION

- 1, Aorta; 2, Right Lung; 3, Left Lung; 4, Right Auricle; 5, Right Ventricle; 6, Left Ventricle; 7, Left Lobe; 8, Right Lobe; 9-9, Heart; 10, Bladder.

manner soon to be described. Between the auricles and ventricles, and between the ventricles and arteries, are minute valves like those of a pump, which by opening but one way allow the blood to flow out but prevent its return. The valve separating the right auricle and right ventricle is called the tricuspid valve, because it has three points. The one on the left is called the mitral valve, because it has two folds shaped like a bishop's miter. The valves which guard the arteries at their exit from the ventricles are called semilunar, because of their half-moon shape.

At birth, the heart retains its foetal character, there being an opening known as the foramen ovale, which allows direct communication from the right auricle to the left auricle. A few days after birth this gradually closes and normal circulation is established. Bearing this important difference in mind, the child when laid down should be placed on its right side at birth, to facilitate this closing.

The largest artery of the body is the aorta, which starts at the left ventricle, and at first ascends, then turns downward, forming an arch. At the top of this arch two large arteries branch off to supply blood to the head and arms. The free end of the arch runs backward and downward behind the lungs, passing through the diaphragm, along the spine, to the lower part of the abdomen, where it branches into two large arteries, one going to each limb. As the aorta passes through the abdomen it gives off branches to supply the organs of that cavity, as the stomach, spleen, and liver. The large arteries branch into numberless smaller ones, becoming gradually smaller and smaller till they become very minute and are known as capillaries.

After permeating the tissue substances, the blood begins its return journey to the heart by means of veins. Beginning with the capillaries in the tissue, at a point where the artery and vein are practically the same continuous tube, the little veins gradually increase in size until they reach the largest in the body. The veins are nearer to the surface of the body than are the arteries, and consequently are more easily discernible, being quite noticeable in some fair-skinned persons. They are provided with minute valves, something like the semilunar valves at the entrance to the aorta, to prevent the blood flowing backward. The capillaries gradually increase in size, at first being so fine in caliber that the blood corpuscles, which measure about $\frac{1}{3200}$ of an inch in diameter, can pass through them only one at a time. Those of the legs pass upward, larger and larger branches uniting till they become one large vein, known as the inferior vena cava, which flows into the right auricle. In a similar manner the veins of the head and arms unite to form the superior vena cava, which also empties into the right auricle.

When the auricle which is supplied with the venous blood, collected from all parts of the body, becomes filled, it contracts and forces the

blood into the right ventricle. As soon as this chamber becomes filled, the walls begin to contract, which action closes the tricuspid valve, preventing the blood from returning or "backing up" into the auricle which it has just left. Connected with the right ventricle is the pulmonary artery, which conveys the impure venous blood from the heart to the lungs, and which is the only example of the kind in the body, *i. e.*, of venous blood passing through an artery.

After the blood permeates the lung structure, and becomes purified, or oxidized, it is conveyed by means of four pulmonary veins to the left auricle. Here the same process is repeated as on the right side of the heart; the blood is forced through the mitral valve to the left ventricle, which in turn contracts, closing the valve, and forcing the blood into the aorta to be distributed throughout the body.

The alternate contraction and dilation of the heart causes the peculiar sound so familiar to every one. When the ear is applied to the

chest over the region of the heart, two distinct sounds are heard, which have received various phonations, but the one most accepted is that of "lub-dub." These sounds are separated by a slight

pause or rest. The first sound takes place upon the contraction of the heart walls; the second and shorter sound takes place upon the closing of the semilunar valves. The con-

traction is styled systole, while the alternating pause or di-

lation is called diastole. The contraction of the ventricles causes a striking of the organ against the chest walls, which in thin subjects may be distinctly seen on the left

side, between the fifth and sixth ribs. Any emotion, nervousness, or violent exercise or disease of the organ will

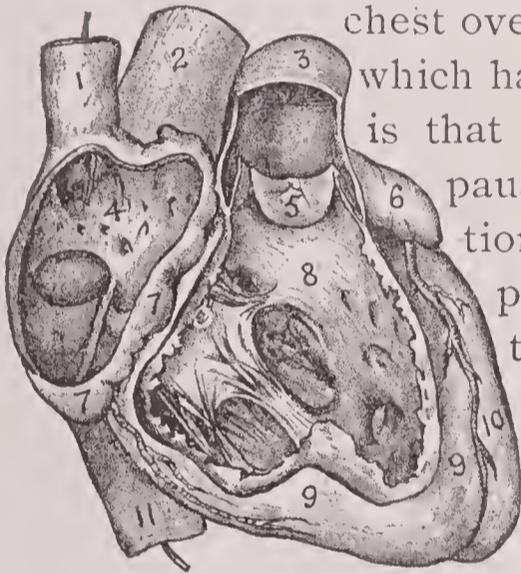
cause the heart to contract faster, producing more frequent "beats." As the blood passes from the heart into the ar-

teries, the impulse of the contraction upon the current is felt all along the line, and in those vessels near the surface

the motion can be distinguished by the touch, and is called the pulse. The radial artery at the wrist, the temporal artery at the temple, the carotid artery in the neck, and the one just above the

heel, are the most prominent.

In the adult the normal pulse rate is seventy-two to the minute, but in the child the number of beats per minute is greater. Slight differences occur, the number of beats depending upon the occupation of the child at the time of observation. Self-consciousness, fear, exercise, and eating, will alter the rate, so that the best time to count the pulse is during sleep. The position also has something to do with the variation, the pulsations being more frequent while standing than while sitting or lying down. The rate is likewise greater in females than in



HEART

- 1, Vena Cava Superior; 2, Aorta; 3, Pulmonary Artery; 4, Interior Right Auricle; 5, Corpus Arantii; 6, Left Auricle; 7, Right Auricle; 8, Interior of Right Ventricle; 9, Right Ventricle; 10, Left Ventricle; 11, Vena Cava Inferior.

males. In infancy the circulation of the blood is more rapid than at any subsequent period.

The pulse rate for different periods is as follows:—

AGE	NO. PER MINUTE	TIME OF CIRCULATION
Six to twelve months.....	105 to 115	12 seconds
One to six years	90 to 105	15 “
Seven to eleven years.....	80 to 90	17 “
Eleven to fourteen years....	75 to 85	21 “
Adult.....	72	22 “

Physiologists have estimated that the amount of blood forced into the aorta at each contraction of the ventricle amounts to about six ounces, which would make about eighteen pounds per minute, and twelve tons every day.

The total amount of energy expended each day by the heart is equal to the exertion of lifting a ton weight to the height of two hundred feet.

NERVOUS SYSTEM

THE Brain is the center of the Nervous System. It occupies the whole upper and back portion of the skull. It is divided into two parts or lobes; the larger and upper portion the *Cerebrum* and the smaller and lower portion the *Cerebellum*. Below the Cerebrum and in front of the Cerebellum is the *Pons Varolii* or *Bridge*. Continuous with the Pons is the *Medulla Oblongata* which passes through the *foramen magnum* and is continuous with the *Spinal Cord*. The brain of man is larger and heavier than that of any other animal except the elephant and some of the larger whales. The brain of an adult male averages 49 or 50 ounces. That of an adult female from 44 to 45 ounces. The average weight of the brain of a new-born infant is from 10 to 11½ ounces. The brain of Cuvier weighed 64½ ounces; Dr. Abercrombie's, 63 ounces; that of Agassiz, 53 ounces. Great weight of brain is not an indication of intellectual power, no more so than great bulk of body is an indication of muscular strength. The brain of the insane has been known to run as high as 64½ ounces and all of them to maintain a high average. The brains of some idiots have ranged from 50½ ounces down as low as 8 ounces. In general the weight of brain in races other than Caucasian is lower and of not so wide a range.

The brain itself gives off several pairs of nerves which pass out through openings in the skull. Among these are the *Olfactory* nerves,

or nerves of smell, which pass to the nose and ramify over the inferior turbinated bones of the nose and thus present a large sensitive surface; the *Optic* nerve, or nerve of sight, which passes to the eye and spreads out over the retina; the *Auditory*, or nerves of hearing, which supply the inner ear. These are known as Sensory nerves. The chief Motor nerves, or those which have to do with exciting movement of the muscles which they supply, are the *Oculo-motor*, the *Trochlear*, and the *Adducent*, which act upon the muscles of the eye and control its movements; the *Portia dura*, which controls the facial muscles of expression; the *Spinal Accessory*, which supplies the muscles of the neck; and the *Hypoglossal*, which supplies the muscles of the tongue. Others again are mixed nerves which act both as nerves of sense, and as nerves of motion. These are the *Trifacial*, which supply the muscles of the face, those of mastication, and some mucous membranes; the *Glosso-pharyngeal*, which ramifies over the surface of the pharynx, the palate, and the back of the tongue where it acts as a *gustatory* nerve, or nerve of taste; the *Pneumogastric*, which acts with the *Spinal Accessory*, and supplies muscles of the neck, some mucous membranes and internal organs, such as the lungs and lining of the stomach.

The word "ganglion," used extensively in the Sympathetic Nervous System, means a knot or enlargement of a nerve, or collection of ganglion-cells. These ganglia are distributed over the body and act as reservoirs or as storage batteries do in an electric system. They are most abundant along the spinal cord where each vertebra has its attendant pair of ganglia from which nerves branch and ramify, from the spinal cord and convey impressions or excite muscular movement. The Sympathetic Nervous System consists mainly (1) of these ganglia arranged in pairs at each vertebra; (2) of three main aggregations of ganglia, called plexuses, and situated in the thorax and the abdomen; (3) of several smaller plexuses distributed through the internal organs; and (4) of an immense number of small nerves distributed by these ganglia. The *Pharyngeal plexus* includes the branches from the cervical region of the spinal cord, and they communicate with the *Glosso-pharyngeal* and *pneumogastric* nerves and control the pharynx, its muscles and membranes. *Pulmonary* branches pass from the cervical region to supply the lungs and to join the posterior pulmonary plexus. *Vaso-motor* branches pass off to supply the muscular coats of the arteries. *Cardiac* branches pass to the *Pre-vertebral Cordia plexus*, *Splanchnic* branches include the *great splanchnic nerve* which goes to the *Solar plexus* along with the *small splanchnic nerve*, and the *smallest splanchnic nerve* supplies the *renal* or *Kidney plexus*. The *Hypogastric* branches pass to the *Hypogastric plexus*. All

of these radiate from the ganglia situated along the vertebræ of the upper or cervical or thoracic region of the spine.

The *Cardiac plexus* is at the base of the heart. Its nerves wind about the heart and control its movements. It acts with the *pneumogastric* and sends some nerves to the lungs.

The *Solar plexus* is situated at the pit of the stomach. It receives the *great* and *small splanchnic* and branches of the *pneumogastric*. This plexus exerts great nerve effect upon the viscera and internal organs.

The *Hypogastric plexus* is located in front of the last lumbar vertebra. Parts of it are called *Pelvic plexuses*. The bladder and other lower internal organs, as well as the coats of arteries, are supplied by this plexus.

In addition to the Sympathetic ganglia located near the spinal cord, there are sent off from the spinal cord 31 pairs of spinal nerves, which are both sensory and motor nerves. They are divided into 8 pairs of cervical; 12 dorsal or thoracic; 5 lumbar; 5 sacral; and 1 coccygeal. Each spinal nerve has two roots: an anterior composed of motor nerve fibers, and a posterior, composed of sensory fibers. These plexuses are the *Cervical*, the *Brachial*, the *Lumbar*, the *Lumbo-Sacral*, the *Sacral*, and the *Sacro-Coccygeal*. The largest nerve in the body is the *Great Sciatic*, which passes through the pelvis, down the back of the thigh and divides into the *internal* and *external popliteal*.

The nervous system may be likened to a delicate and complicated electric plant, with its dynamos, its positive and negative currents, its resistances, its transformers, its relays, and its innumerable current wires for lighting, telephoning, or mechanical purposes. The brain may be regarded as the great dynamo and the spinal cord as the great motor main wire; the optic nerve as the electric light wire; the auditory nerve as the telephone wire—and so on, the parallel extending in every direction. As these parts of an electric plant work harmoniously together, so the parts of the nervous system fit with such exact nicety that the entire system is influenced by the working of one slight part.

The nervous system is to the organs and muscles of the body what the electric current is to the electric plant. Shut off the current, and the plant is useless; destroy the nervous system, and the body dies; cut off a part of the current from one particular point, as, for instance, the electric light or the wire which feeds the trolley to propel the car, and the lights are extinguished or the car stops. Injure or destroy the optic nerve, and sight fails; injure the nerves which control the lower extremities, and the individual can no longer walk. These illustrations simply show that the functions of the body, and even life itself, depend upon the integrity of the nervous system.

This system is usually divided into two great divisions, the central nervous system and the sympathetic system. The central system is composed of the brain, spinal cord, and cerebro-spinal nerves. These are in communication with every part of the body. The sympathetic system has to do principally with the organs of digestion, circulation, and respiration, and is that part of the nervous system which is the most easily affected.

The nerve tissue of the brain is composed of cells, so arranged as to give the appearance of marrow. The spinal cord is made up in much the same way, while the smaller nerves, although composed of the same kind of cells, have their cells so arranged that they seem to be in the form of fibers. A nerve is made up of a large number of these fibers packed closely together, like the fibers of a plant. If a cornstalk be cut lengthwise, the longitudinal section thus made would show a multitude of very fine fibers running up and down the stalk. With a little care these can be separated one from another so that each individual fiber can be distinctly seen. The whole number of fibers are inclosed in a covering or sheath. Under the microscope, the nerves can be separated into similar tiny fibers which are united in a bundle surrounded by a sheath, and to the naked eye they appear as a single piece of thread. These nerves are nothing but an extension of the tissue of the brain and spinal cord, and they act as the wires to carry the vital current to the various parts of the body.

The brain is the great central dynamo, and is the part of the nervous system which serves as the organ of the mind, the intellect, the will, and the emotions. Modern physiologists have clearly demonstrated that it is composed of a number of aggregations of nerve cells called centers, which, though practically independent of one another, yet are bound together to form the whole organ. Each of these centers has a special line of work to do and is largely uninfluenced by the others, except when the stimulating force acts upon more than one center at the same time. Therefore we may consider the brain as composed of a large number of minute dynamos, whose current wires are all merged into one conduit and are then distributed to various parts of the body.

The average weight of the adult brain is three pounds, or, more exactly, fifty ounces. At birth, the average weight is one pound, at one year, thirty-two ounces, at two years, thirty-eight ounces; it is usually larger in the male than in the female. At birth the ratio of the weight of the brain to that of the body, according to careful estimates, is about one to eight; during the first year, one to six; during the second, one to fourteen; and in the adult, one to forty-three. Numerous examples of variation from these figures are found, the weight both being greater and smaller than the average. As a rule, a large brain indicates an active,

intelligent mind, but as the convolutions increase the area of the gray matter, a smaller brain with deeper convolutions may be equivalent to or even surpass the larger one.

The interior of the brain substance is made up of white nerve tissue like the nerves which extend to the various parts of the body. Outside of this lies the gray matter, about one-eighth of an inch in thickness. In this layer is supposed to reside the active powers of the mind; and this layer, and consequently the mental activity, is increased as above stated, by the number and depth of the folds or convolutions of the brain.

These convolutions are irregular depressions dipping into the substance of the brain. It is easy to see that the surface is enormously increased by these folds or plaits, so that if the convolutions were spread out the brain would cover a much larger surface. The object of the convolutions, then, is to compress a large surface into a small compass.

The brain is divided into three divisions, the cerebrum (the anterior part or brain proper), the cerebellum or posterior brain, sometimes designated as the lesser brain, and the medulla oblongata.

The cerebrum or anterior brain fills the upper and forward part of the skull and contains the chief centers of mentality. It is divided into two nearly equal parts called hemispheres. These halves or hemispheres are composed of three lobes each, thus making this anterior part of the brain consist of six separate lobes or divisions. In disease, these lobes are affected in different ways, so that in many instances the part of the brain involved can be accurately determined by the train of symptoms exhibited.

The cerebellum, posterior, or lesser brain, lies beneath and behind the cerebrum, and is separated from it by a fold of the dura mater or covering of the brain. The cerebellum also has two halves or hemispheres, arranged in layers, which upon a superficial glance resemble the interior of a chicken's gizzard. In this part of the brain is supposed to reside the motor centers which control the voluntary muscles and their actions.

The medulla oblongata is the enlarged upper end of the spinal cord; it forms the connecting link between the brain and the spinal cord. It is about one and one-half inches long, is situated just beneath the cerebellum, and is the center from which arise many of the nerves which control the involuntary activities of the body, such as respiration and circulation.

The brain substance is separated from the bony structure of the skull by a membrane composed of three distinct layers; the outer, called the dura mater, a strong, tough layer of membrane; the middle or arachnoid which secretes a fluid to keep the surface of the brain moist; and the third, the pia mater, a very delicate membrane which lies close to the brain substance, following its convolutions, and supplying the tissues with nourishment from the delicate blood vessels contained within its walls.

The brain sends out twelve pairs of specialized nerves, called the cranial nerves, which pass out of the skull by small orifices, and supply nerve force to the various organs of special sense and internal organs. They are either sensory, motor, or both, and give to us the sensations of sight, smell, taste, and hearing, and control the action of the lungs, heart, and stomach.

The spinal cord, as a prolongation of the brain, like that organ, consists of two substances, the gray and white matter, surrounded by the dural membranes. Unlike the brain, however, the gray matter occupies the interior, and the white the exterior. The cord is divided into halves, the spaces separating the hemispheres being styled fissures. It acts as a sort of telegraphic relay, receiving the sensations from various parts of the body and transmitting them to the brain; there these sensations are transformed into consciousness, and the reaction is sent back along the motor fibers to act upon the injured or excited muscle or tissue.

In addition to this action, the cord has a certain power of its own. From the spinal cord the trunk and limbs are supplied by thirty-one pairs of nerves, called spinal nerves. They pass from the cord by two roots, one from the front and one from the back. A short distance from the cord they unite to form one nerve bundle, although the fibers are in fact separated in the bundle. The roots which arise from the front or anterior part of the cord are the motor fibers, which control the *action* of the muscles to which they are supplied; those from the back or posterior part of the cord are the sensory fibers and convey the *sensations* from the various parts of the body to the spinal cord.

If any one of these nerves is injured, the sensation and movement are destroyed in those parts supplied by the injured nerve. It sometimes happens that one of the fibers is injured or diseased, leaving the other intact. Thus the motor nerve may be at fault, but the sensory nerve may be able to convey feeling or sensation. On the other hand, in some rare diseases the sensory nerve may be useless but the motor nerve be able to perform its function.

In the brain, these nerves cross one another so that an injury to one side of the head will produce paralysis of the opposite side. As an example, suppose a child is struck on the head with a stone, or falls and injures the right side of the head; the left side of the face may be paralyzed. The corner of the mouth is drawn up on the *injured* side of the head, but the paralysis is on the opposite side, or on that in which there is drooping of the corner of the mouth. The up-twist is due to the normal contraction of the muscles, the drooping to the paralysis of that part of the facial muscles.

It has already been stated that the spinal cord has the power of independent action outside the function of transmitting sensations to

the brain and receiving motor stimuli from that organ, to be communicated to the muscles or other organs. A sensation may be sent from the surface of the body, as a pin prick, or a burn, along the sensory fiber of a spinal nerve, and instead of going to the brain may be returned by way of the motor branch or fiber, resulting in the movement of the part touched. This return of motion without being carried to the brain, is a reflection of the sensation from the cord, just as a light striking a mirror is reflected back. To this reflection of sensation the term reflex action is given.

Such action is most important, as it relieves the brain of a vast amount of work which, if required to be performed by that organ, would exclude many other and valuable functions and would lessen its capacity as an organ of intellection. Most of the movements and activities of the limbs and body are the result of reflex action, for while the will power may be, and sometimes is, brought into play to control or exercise these activities, as a matter of fact, they are done for the most part unconsciously and without the action of the brain at all. They are reflexes of the spinal cord.

Besides these spinal nerves, there is the sympathetic nervous system, composed of a number of centers or ganglia, connected with each other by minute nerves, and with the sensory fibers of the spinal nerves, by gray nerve tissue.

The brain and spinal cord are incased for protection in bony structures, the brain in the skull and the spinal cord in the vertebral column, but the sympathetic system lies without and in front of the spinal column, like a chain of widely separated beads, the ganglia being the beads and the delicate connecting nerves the string. Radiating from these ganglia, a vast network of nerves extends to the various internal organs, each a complete system in itself and acting practically without relation to the brain or spinal cord.

To illustrate: The heart, lungs, stomach, the arteries, and even the minute capillaries themselves, are controlled by these nerves. The functions of circulation, respiration, and digestion, go on whether we are conscious or unconscious, awake or asleep, without the help of the will. That there is a connection, however, with the cerebro-spinal system is shown by the fact that a blow or injury to any part of the body will often cause nausea, proving the connection between the nerves of the stomach and the cord. From such phenomena this nerve system has derived its name of sympathetic system.

Through the blood which feeds and nourishes the various parts of the nervous system, the vitality of the nerve cells is maintained. If the food is insufficient or the breathing poor, the blood is first impoverished and this in turn affects the health of the nerve tissue. On the other hand,

the nerves control all the functions of the body, and if they are exhausted by disease or overwork, the several functions over which they preside become impaired. In other words, there is a reciprocal action between the two, and what affects the one will sooner or later affect the other. For example, if an individual in ordinary health subjects the nervous system to a severe strain such as overwork (and mental overwork is more depressing, and its effects more permanent, than is physical overwork), he will soon find his digestion impaired. The stomach, no longer stimulated to healthy action by the nerves which supply it with force, fails to secrete as much or as good digestive fluid as formerly; the food in consequence is not thoroughly digested, the amount assimilated is less in quantity, and less nourishing in quality; the blood does not receive enough of the proper revitalizing elements, and oxygenation is less effective because the lungs are affected in a similar manner; the blood is not purified to the proper extent, and the nerve food is thus rendered deficient in quantity and quality. The nerves not only do not grow as long as this condition lasts, but fail even to recuperate.

During childhood, the nervous manifestations are varied, peculiar, and profound, and many times out of all proportion to the exciting cause. The rapid growth, the comparatively large size of the brain, and the imperfect structure of the organ and its appendages, account for many of the peculiarities of this period. A very slight irritation is often sufficient to create a profound nervous impression, because the nerve centers are as yet but imperfectly formed and the nerves themselves, both sensory and motor, are more easily susceptible to irritation. They are more readily influenced by lack of nutrition, and are not only less resistant but are in fact more irritable. The chief nervous manifestations in early childhood are convulsions or spasms, Saint Vitus's dance, night terrors, and other disorders of sleep, incontinence of urine, stuttering, and stammering. Individuals differ materially in their nervous make-up and their ability to resist the adverse forces battling for supremacy, so that in no class of physical ailments is there variety so marked as in those of the nervous system.

For this reason, the greatest care must be given to the surroundings of the child, his health and hygiene must be guarded, and all undue stimulation or excitement prohibited. Artificial stimulants, such as tea, coffee, and alcoholics, must not be permitted.

Being physically active, and growing rapidly, children require an unusual amount of rest and sleep. Unless this quiet for recuperation is allowed, they soon develop symptoms of nervous disorders. The great fault of our modern life is, particularly with many of the school systems, that it is overstimulating, and affords too little time for mental and physical rest. Particularly is this true of city life, and it accounts for

the fact that country children usually succeed in the long run. Their nerves and bodies are not subjected to the constant strain of city life, already unwholesome from the unsanitary and unhygienic surroundings. It is true that the mental development of the country child may be less acute and a little more restricted, but after a time he forges ahead because he has his nervous and physical energy unimpaired.

The influence of heredity has been commented upon elsewhere; it remains but to call attention to the fact and to emphasize its importance. Nervous parents are almost sure to have children as nervous as themselves. It should be remembered, however, that a part at least of the adverse influence of heredity may be removed by favorable environment. Unless the child from his birth is afforded plenty of fresh air, pure, digestible food, exercise, and suitable clothing, he will not only fail to overcome the handicap of this faulty inheritance, but in addition will fall from his already poor condition to one less favorable.

THE RESPIRATORY SYSTEM

Food that has been digested and absorbed must be oxidized before it can be utilized by the tissues. This oxidation is accomplished during inspiration. During expiration the impurities are thrown off, chiefly in the form of carbonic acid gas, thereby bringing into play the secondary function of the lungs, that of elimination. The lungs are the first and most important of the secondary eliminative organs, the kidneys the second, and the skin the last.

Breathing is practically an unconscious, involuntary movement, like the action of the heart, yet it can in a slight degree be controlled by the will. A person can voluntarily stop breathing for a few seconds, that is, "hold the breath" as in diving under water, and suffer no ill effects.

The respiratory system is divided into three parts: (1) The air passages, (2) the lungs, and (3) the skin. To most persons it will be surprising to learn that the skin is classed as a part of the breathing apparatus; yet as a matter of fact such it really is. That it has other and important functions, does not detract from its importance as a part of the breathing apparatus. For the present, however, the first two only will be considered.

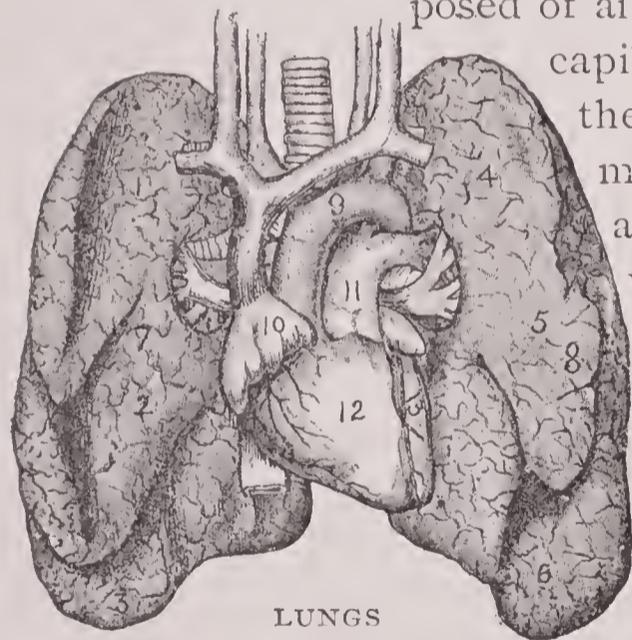
The air passages consist of the nostrils, the mouth, and the windpipe. The nostrils are designed as a passageway for the air in which it may be warmed before it reaches the lungs. The air from the nostrils passes through the trachea or windpipe and thence into the lungs. The windpipe is a hollow tube about four inches long, made up of cartilaginous rings which prevent the collapse of the tube when subjected to pres-

sure. The upper part is called the larynx, and is separated from the lower part of the nasal passage, termed the pharynx, by the epiglottis. The epiglottis consists of a fold of delicate membrane, attached to the inner surface of the larynx, like a trapdoor. When food is taken into the mouth this closes down, in order to prevent the particles from entering the larynx, and as the air escapes from the lungs, it lifts.

Just below the folds of the glottis, in the slit formed by its free edge when open, are the vocal cords or bands, which are so fixed that they can vibrate when the air comes in contact with them. This vibration constitutes the voice. When these cords are thickened, as during a cold, or in case of sore throat, they cannot vibrate to the same extent, and consequently produce a hoarse sound.

The lower part of the trachea after entering the chest divides into two branches, one going to the right and the other to the left lung. These again divide into smaller and smaller branches until they become too fine to be discerned save by the microscope. The lungs, together with the heart and blood vessels, fill the entire chest cavity. The right lung is the larger, having three lobes, while the left has but two, the difference being due to the space occupied by the heart.

The function of the lungs is to purify the blood, making it fit for the work imposed upon it. The lung tissue is a sponge-like substance composed of air cells with a network of minute blood vessels. These



LUNGS

1 and 4, Superior Lobes; 7 and 5, Middle Lobes; 3 and 6, Inferior Lobes; 2, Right Lung; 8, Left Lung; 9, Arch of Aorta; 10, Right Auricle of Heart; 11, Pulmonary Artery; 12, Right Ventricle of Heart; 13, Left Ventricle of Heart.

capillaries are the connecting link, so to speak, between the arteries and the pulmonary veins. The air cells are minute hollow sacs closely bunched together, not unlike a cluster of grapes, and are connected by minute tubes which become gradually larger, finally uniting into a single bronchus from each lung, and these in turn join to form the trachea or windpipe. When the air is breathed through the mouth it flows through the trachea into the bronchi, until it finally reaches the small air cells. The delicate mucous membrane lining these cells allows the air to come in contact with the minute blood vessels or capillaries, so that the oxygen of the air enters the blood and the effete matter in the form of carbon dioxide gas is released from the blood and is expelled through the mouth. This process is called respiration and its two divisions are

called inspiration and expiration.

It is necessary that oxygen be introduced into the blood and the carbonic acid gas exhaled in order that the blood may maintain its normal condition, otherwise the blood corpuscles cannot discharge the function of tissue building. Air is a mechanical mixture of oxy-

gen and nitrogen, in the proportion of about twenty-one volumes of oxygen to seventy-eight of nitrogen. The remaining volume is a mixture of carbon dioxide, watery vapor, and ammonia. The nitrogen acts simply as a diluent. Oxygen is a supporter of combustion and of animal life. The carbon dioxide is very poisonous, and two or three parts per thousand in the atmosphere is sufficient to produce drowsiness, headache, nausea, and even vomiting; and five per cent may prove fatal.

As air is a mechanical mixture containing oxygen, and as certain elements of the blood have a chemical affinity for oxygen, it naturally follows that the oxygen will readily leave the air to unite with the blood. On the other hand, carbon dioxide and watery vapor have a greater affinity for air than for the blood, and as these two substances are both contained in the blood as impurities, when the opportunity is afforded for entering the air they avail themselves of it. Nitrogen simply acts as the medium or receptacle, as it were, for both the oxygen and carbon dioxide.

BREATHING

The air, during its stay in the pulmonary cavity, acquires not only a large proportion of carbonic acid gas, but also organic impurities in the form of waste material thrown off from the blood and lung tissue, by the process of osmose, or transudation. In other words, it leaks through the membranes and enters the air in the cells whence it escapes as above noted. When we are out of doors, these baneful products of expiration are continually being dissipated by the currents of air, while the lungs are constantly supplied with fresh oxygen through inspiration. In the house, or in a closed room, the air is rapidly deprived of this oxygen, while the noxious gases rapidly accumulate in its place, unless there is some arrangement for the frequent renovation of the atmosphere. A healthy adult breathes at the rate of about sixteen times per minute, taking in about twenty cubic inches of air with each inspiration.

The mechanism of respiration is as follows: The diaphragm, which is a serous membrane separating the abdominal cavity from the chest cavity, alternately rises and falls as its fibers contract and relax. This movement is involuntary, though partially under the control of the will. When the diaphragm expands, the capacity of the chest is increased, the additional space being filled with the air rushing into the bronchi and expanding the elastic walls of the air cells. When it contracts, it rises and forces out the air. Both of these movements of inhalation and exhalation are further assisted by the muscular action of the intercostal muscles, which alternately elevate and depress the chest walls, thereby decreasing and increasing the chest capacity. The entire capacity of

the lungs is not filled with each inspiration, a certain amount of air remaining in the lungs and thus preventing an entire collapse of the cells. Although the amount taken in and out each time forms but a portion of the entire capacity of the lungs, it rapidly diffuses through the entire lung structure. Following each expiration is a period of rest equivalent in time to the period of action. If the respirations are normal — that is to say, about sixteen to eighteen per minute — the amount of air breathed per day would be about three hundred cubic feet for each individual.

A very common cause of vitiated air in the home is the presence of gas, either from the stove or the gas burner. Poisoning by escaping coal gas or ordinary illuminating gas is quite common among children. While it is true that many of the cases do not prove fatal, other conditions are caused which may entail great suffering, or the effects may linger for years before entire recovery takes place.

THE NOSE

Breathing, when properly performed, should take place through the nose; therefore, as the first of the air passages, it has an important office to perform. The outer nose, which forms so important a part of the facial outline and expression, is formed by skin and muscles held in place by the nasal bones, which are practically processes of the upper jaw. To this bony projection is attached a piece of flexible cartilage, which divides the nose into two parts, or nostrils. The nostrils are irregular canals extending backward into the head as far as the roof of the mouth. Here they expand into a vaulted chamber called the nasopharynx.

The partition wall, or septum, forms one side of each nostril, while the turbinated bodies form the other. These turbinated bodies, three in each nostril, are composed of thin pieces of bone covered with a spongy tissue. According to their position they are designated as upper, middle, and inferior turbinated bodies.

The nose is the organ of smell, as well as the conduit by which the lungs receive air. By properly warming the air during its passage through the nasal cavities, the lungs are relieved of much of the strain that would be placed upon the delicate mucous membrane if cold air came in direct communication with it. Cold air acts as an irritant to the lungs and causes fits of coughing.

The membrane of the nose is the beginning of the lining of the lung, and, while exceedingly delicate, is not so susceptible to air as is the lung membrane. The olfactory tract, or the path along which the sensations of smell are transmitted, has its terminal nerves in the "superior turbinate." The lower body is covered with nerves of sensation and they are

extremely sensitive to irritation. When any foreign body, germ, or irritant of any sort stimulates the nerves just described, there is a rush of blood to the membrane, and this disturbance of the blood supply causes sneezing, which is a forcible effort to expel the source of irritation.

There are three practical conclusions to be drawn from this brief sketch of the respiratory tract:

First: If the habit of taking deep inspirations is fully established, the strength and capacity of the lungs will be increased. Second: The air introduced through the nose will be gradually warmed and filtered so that it will be in a suitable condition to act properly on the blood corpuscles. Third: Constriction of the chest walls interferes with the breathing and expansion of the lungs so that the normal capacity is reduced and general impairment of the circulatory system takes place. In other words, the inability of the blood to receive its proper amount of oxygen in order to purify it, affects every tissue in the body.

CARE OF THE SKIN, HAIR, TEETH, AND NAILS

THE SKIN

THE skin is not merely a factor in personal appearance, but is one of the most important organs of the body. It forms one of the channels for the elimination of the products of tissue waste and has a marked influence upon the bodily health. It is composed of two layers, the outer, or scarfskin, which contains neither blood vessels nor nerves, known also as cuticle and epidermis; and the lower layer, or true skin, called the *cutis vera*. The latter is richly supplied with blood vessels and certain appendages necessary for the proper performance of the several functions of the skin, as the sweat glands (sudorific), sebaceous glands, and the hair follicles.

The true skin is highly sensitive and is protected by the horny layer or scarfskin. The true skin is seen when the outer layer has been rubbed off as by scratching, or by a blister, or by some slight accident. The surface is raw and painful, and from it oozes a little fluid or blood. This scarfskin is formed by myriads of small round cells, or scales, which are compressed tightly, and when still further pressed together by use, form the compact, horny skin so frequently seen on the palms of the hands of persons engaged in manual labor, as the "callous" on the hands of the blacksmith, or carpenter.



In this layer is found the coloring matter, or pigment, which gives the complexion to the skin. When the amount is small, we have the blond complexion, and when it is large, the brunette. As this increases still further, we have the dark races, running from yellow, red and brown, to black. In the latter cases, the pigment cells are more numerous and crowded together. The sun's heat tends to increase this coloring matter. Cases of sunburn, for example, exhibit marked differences between those parts protected by the clothing and those exposed to direct sunlight. In common sunburn or tan the coloring is generally distributed over the exposed surface; when it collects into small spots it is called freckles. Slight burns, bruises, cuts, blisters, cold sores, and many skin eruptions affect only this layer, and consequently leave no scar after healing.

The true skin is a firm, elastic tissue resting on meshes of tissue not unlike absorbent cotton. This tissue-bed is known as the subcutaneous tissue, and just where it begins and the true skin ends is not sharply defined; for all practical purposes it may be considered as part of the true skin. Unless otherwise noted, when speaking of the true skin the two layers (the *cutis vera* and the subcutaneous connective tissue) will be considered as one. It is the true skin that contains the sweat and oil glands and becomes filled with water in dropsy. It is covered on its outer surface with minute projections known as "papillæ," which contain the terminations of the nerves and capillaries forming the organs of touch. When it is injured, a permanent scar is formed. Well-known examples are the white scars of cuts, pits from smallpox, and the raised scars from burns.

The functions of the skin are more numerous and varied than those of any other organ of the human body. It serves as (1) a protective covering; (2) prevents too rapid dissipation of water from the tissue; (3) assists in keeping up the normal temperature; (4) acts as an organ of sensation, secretion, excretion, and absorption; and finally, (5) helps in the function of respiration. The first four functions are so self-evident that they need no special explanation, either as to their purpose or mode of action.

The skin secretes sebaceous matter and perspiration, or sweat. The former is a semi-fluid material secreted by the sebaceous glands, and is composed of fat, cell débris, and certain odorous material. This substance, when secreted in too large quantities, gives rise to the oily skin so often dreaded by women. In normal quantity it renders the skin soft and pliable, prevents the outer layer from too rapid chafing or excoriation when parts come in contact, and gives luster and pliability to the hair.

The chief function of the perspiration is to aid in the elimination of effete materials and to prevent the temperature of the body from rising

above normal. In health it is colorless, salty in taste, and acid in reaction. That it is of great importance in eliminating deleterious matter from the body, is shown by the close relation it sustains to the kidneys, for in cold weather the urine increases and the perspiration decreases, while in summer the reverse is true. Furthermore, in certain diseases of the kidneys the perspiration is heavily surcharged with products which should normally be secreted by the kidneys.

The skin excretes carbonic acid and water, and is therefore one of the methods of breathing. We do not breathe entirely by the lungs, as is proved by the fact that if an animal be covered with varnish so that this process is prevented, death will result in from six to twelve hours. It therefore follows that it is of the utmost importance that the skin be kept healthy, as otherwise the general health is soon impaired. If the little exits of the glands become closed, the function of these glands ceases and to all intents and purposes they are dead.

Not only is carbonic acid gas excreted from the skin, but oxygen is absorbed by it, just as it is by the lungs, and these two processes may be called skin breathing. Moisture is also absorbed, as shown by the fact that thirst may be diminished by the person being clothed in wet garments; moreover, one is usually not so thirsty on damp or wet days as on bright, sunny ones.

BATHS AND BATHING

IN discussing the physiology of the skin, it was stated that one of the functions of the skin is to act as an aid to respiration. In other words, the skin is a secondary breathing apparatus. It also is used to discharge impurities from the blood. The superficial scales of the epidermis are mechanically rubbed off and have a tendency to mix with the sebaceous matter, perspiration, and dirt, thus forming a thin covering that has a tendency to close the openings of the pores. This interferes with the functions of the skin. The purpose of bathing, therefore, is to mechanically remove this pellicle; and, since the skin is intimately connected with all the internal organs by means of nerves, it acts as a stimulant or tonic to the nervous system.

It is well known that many children fear to be put into a tub of any kind. They have been accustomed only to sponging, and their strong aversion to the tub often prevents the use of medical bathing in the case of fever or exhaustion from heat, and of the more thorough cleanliness obtained by a plunge bath. To avoid this fear, the child should never be put suddenly or roughly into the water, and especial care should be taken that the head is not accidentally allowed to slip below the water. The fear once contracted may often be cured by permitting the child to play in an empty tub for some time, and then putting in a small quantity

of water, the next day more, and each day increasing the amount; or the condition may be met by putting a blanket over the tub, placing the baby on that, and gradually letting both down into the water.

Every part of the body should be well soaped, but care should be taken that no soap is allowed to remain in the ears. For some months soap should be put on the scalp every day, but after six months this should be stopped, because, if long continued, it makes the hair dry and brittle. Vaseline should occasionally be rubbed on the head. The soapsuds should be removed by streams of water squeezed from a sponge.

Cold baths should never be given to children under five years of age, although sponging the body with cool water may be begun as early as two or two and a half years of age, as a mild stimulant immediately following a warm bath. In every case, the head and face should be the first parts washed. In placing an infant in the tub, he should be made to lie in a semi-prone attitude, and the water should be of sufficient quantity to reach the neck. As he grows older he may gradually sit up. If the bath is to be given in the bath-room, much stooping can be avoided by placing the infant's tub upon two slats laid crosswise over the stationary tub.

Many mothers complain of the aversion of their babies to the full bath or even to washing with sponge or cloth. The physiological reason for this is, that the shock to the nervous system occasioned by the sudden reduction of temperature and overstimulation of the nerves of the skin, causes a congestion of the blood in the internal organs, especially in the lungs, and a marked difficulty in breathing, or shortness of breath.

Care should be exercised in holding the child during the tubbing process, for much depends upon this to obtain success. When the infant's body is wet and slippery from the application of soap and water, it is easy for him to slip from the mother's grasp and have his eyes, nose, and mouth suffused with water. A struggle for breath ensues and the child passes through an experience, momentary it is true, yet never forgotten, and the mere sight of a tub thereafter almost throws him into convulsions. The form of bathing best borne by the majority of children is the full bath of the proper temperature, followed by a cold sponging while the child is standing in the lukewarm water. The duration of the bath for very young infants should be only one to two minutes. This period may be lengthened as the child grows older, until the longest desirable time, ten minutes, is reached. Prolonged bathing in hot water is to be deprecated, since it causes a relaxation of the entire system, and susceptible children are liable to feel ill effects. In the case of young children, bathing three times a week is all-sufficient, except the local bathing, which should always follow the removal of soiled napkins, when

the parts should be thoroughly washed with warm water and thoroughly dried. In summer time a daily bath is of benefit, not so much for its cleansing as for its cooling effect. As a tonic, immersion baths are valuable only when they are of short duration and followed by a brisk friction, to cause the glow of reaction which must follow if they are to be of benefit. If reaction does not follow, or the child becomes chilled, it is an indication that either the bath must be discontinued or the method of administration is wrong.

For infants, about ten o'clock in the morning is the best time for bathing; for older children, the bath is best given during the dressing process in the morning. The morning bath is better than the evening bath only as a matter of convenience, since the child is fresh in the morning and does not so readily rebel as when tired and sleepy. If, however, the child is a poor sleeper, the bath may be given in the evening, as it has a more or less sedative effect. The two things to be borne in mind are, first, regularity, and second, the avoidance of the bath just after meals. The mother should select the most convenient hour for this operation and not vary from it. The habit once established, the child will look for his bath as regularly as for his meal or his nap.

At least an hour should elapse between the times of feeding and of bathing. The reason for this is not far to seek. If bathing takes place shortly after the ingestion of food, the stomach being already congested, the blood, which is always driven from the surface by the water, will find its way to the stomach, and supercongestion, so to speak, or hyperæmia, will ensue. As a result, indigestion or colic may follow. It is never advisable to bathe a child whose skin is covered with an eruption, except upon the advice of a physician, because ill effects often follow in eczema and other skin diseases, from the use of soap and water.

Eruptions of the skin requiring immediate treatment should be very carefully handled. The slightest pressure of the fingers will sometimes bruise and inflame the sensitive spots. Vapor baths are, possibly, the most successful and least harmful methods of eradicating the accumulation of dust and oily deposits that so often fill the pores of the skin and create what are commonly known as "black heads." A vapor bath may be easily taken by holding the face over a vessel of boiling water, and covering both the head and the vessel with a cloth sufficiently large to prevent the escape of the steam. After fifteen minutes' steaming, the face should be well washed with hot water and soap.

Freckles are either hereditary or are produced by exposure to the sun, and in either case are due to an increase in the pigment of the lower

layers of the epidermis. To remove them, one must have recourse to some simple remedy that will not injure the delicate skin texture. An old-fashioned recipe is the following:—

One ounce of lemon juice,
A quarter of a dram of powdered borax,
Half a dram of pulverized sugar.

Mix well and allow the preparation to stand for several days before using. It should then be applied to the face and allowed to remain over night. Wind will sometimes freckle a sensitive skin, and in such cases a veil of close mesh should be worn whenever the weather is blustery.

Sunburn may be cured by applying the following lotion: Peel a cucumber and let it soak for a few hours in milk, then with the milk bathe the affected parts two or three times a day. Lemon juice is excellent for ordinary cases of sunburn, but should never be used when the skin is blistered. Elder flower and lavender water are famous for their cooling properties. Moth patches are quite difficult to remove, and nearly always require professional treatment.

Wrinkles arise generally from bad health, anxiety, study, or extreme old age. Nutritious food, plenty of outdoor exercise, and a cheerful, happy temperament retard their formation. Whatever tends to promote the general health will aid in preserving the skin in a smooth, un-wrinkled condition. When the lines are first forming, massage the face gently each night for ten minutes, applying small quantities of good cold cream with the tips of the fingers. Let the rubbing be upward and backward, as the tendency of the face is to fall in forward lines. This simple means will remove wrinkles that are only in the outer skin. Deep creases in the face are almost impossible to eradicate, but may be softened and made less pronounced by treatment of the outer surface. Moisture is very beneficial to the complexion. It is a recognized fact that the moist atmosphere of England has had much to do in producing the beautiful complexion of the English women.

The woman who wishes to secure a beautiful skin for her child must resolve to be steadfast in her efforts and must not look for a speedy or sudden transformation. Permanent advantage should be striven for rather than immediate effect, which advantage is gained not by outward application but by due attention to the laws of health.

THE SICK ROOM

Most families are so situated, both as to means and the size of the house, as to be unable to command a separate room for sickness. Nor is this always necessary or even advisable. While the comfort of the patient

must always be the first consideration, we must not fail to remember the convenience of the nurse, especially if she be the mother. Too often the care of the invalid is but one of many duties, and to have the sick child in her own room is therefore easier than to put him into a room by himself. Again, people of moderate means cannot afford to undergo the expense entailed by the use of separate apartments, which might otherwise be required to lie idle between the several attacks of illness in the family. The sleeping chamber of the patient or of the mother will usually suffice. In cases of infectious disease, however, the patient must be isolated.

A room on the sunny side of the house, with a south or west exposure, is the most desirable location for the home hospital, and as wall paper is not considered hygienic, bedroom walls would better have a tinted rather than a papered surface. This is especially true of a room that is used in sickness. The designs on the wall paper are often very annoying to a nervous sufferer, and sometimes they are positively harmful. In one such instance, to relieve a nervous little patient from the fancied bugs and spiders hid in the wall paper, an ingenious mother procured some sheets of pale rose-tinted print paper from a printing office, pasted the sheets of paper together and hung them on the wall by means of wire and string. Pretty pictures, all of happy subjects, were hung over or pinned to the paper. These were changed about to relieve monotony. As colors affect people differently, in trying this plan, any tint that is a favorite with the patient might be substituted for the rose color. The paper has an advantage over cloth sheets, which are sometimes used, as it is prettier, lighter, and more easily kept in place.



Next to be considered is the floor. One of the rules most strictly adhered to in sanitariums and hospitals is that there shall be no carpets used, and as their abolishment in such places involves a scientific principle, why not consider them out of place in the home retreat for the sick? A bare floor, with a few rugs scattered about to deaden sound, is conceded by the best authorities to be the only hygienic floor for a sick room.

In arranging a room for a sick person, remove all unnecessary furniture. Among the articles that will be found most useful are an easy chair; a couch, where the nurses can rest, when opportunity offers, or the patient during convalescence; a footstool; and a chiffonier, in which not only the garments of the patient, but also the bedclothing, can be kept in a neat and orderly manner. A commode for adults and larger

children is a great convenience many times, but the most scrupulous care must be exercised in keeping it clean. Rocking chairs should be banished, as the rockers so often prove literal stumbling blocks for the feet of weary attendants; in short, do not retain any furniture that is in the way or is not of practical value.

The ideal room would be entirely free from plumbing, but, if such a room is not available, the plumbing must always be guarded for the possible escape of sewer gas. If a toilet or bath-room adjoins the sick chamber, the door should be kept closed, and where a stationary wash-basin exists in the room, it is well to fill the holes in bottom and side and cover the top with a board. These precautions are wise, even where there is the best of plumbing.

A few suggestions about the room and its care in case of infectious diseases may not be amiss here. If a disease of a contagious or an infectious character is suspected, remove from an isolated room all unnecessary drapings and furniture, dress the bed in absolutely clean bedding, convey the patient to the room as speedily as possible, arrange for his nurse, supply her with everything she may need, and let the other members of the family keep their distance unless absolutely needed. The family physician will immediately report the case to the health officers and quarantine regulations must be strictly adhered to. I would emphasize the necessity, however, of disinfecting everything that comes in contact with the patient, or that is used in the room. Especially should great care be exercised in the treatment of the clothes to be laundered; they should be rinsed in Platt's Chlorides or some equally good antiseptic solution, and boiling water, and thoroughly aired before they are put with other washing. I know of an instance where neglect of this latter precaution caused the spread of diphtheria in the family of a laundress and the death of three of her children. Any style of bedstead may be used, but the single, white enameled, iron bedstead is best adapted for this purpose. Wooden bedsteads are frequently the source of trouble, as they catch the dust and form admirable breeding ground for germs and vermin, no matter how scrupulously clean they may be kept.

In case vermin should appear, despite all precautions, the bed should be cleansed with a solution of corrosive sublimate, about one-half ounce to a pint of water. As this is a deadly poison and many fear to use it as freely as is necessary, the following formula is much in vogue among housekeepers: —

Potassium nitrate, one ounce,
Ammonia water, two ounces,
Soap shavings, one ounce,
Water, one quart.

Directions — Apply very freely with a long-handled brush.

Casters are quite an important feature of the perfect bed, therefore creaking and obstreperous ones should be replaced with those that move easily and silently. The bed should stand out from the wall, and as near the center of the room as possible to permit of free access to the patient. The mattress should be made of hair or felt and covered with some light covering beneath the lower sheet. Many mattresses sink in the center from the weight of the patient and the material in that part becomes impacted, resulting in an uncomfortable depression. Care should be taken to overcome this defect by placing a pad of some material under the hollow place. Feather mattresses never should be used in a sick room.

It has been recommended by many practical nurses that a number of pillows of various sizes and shapes be employed, in addition to the one or two usually found on the ordinary bed. These may be made of cotton or wool, if the more expensive ones of feather or down are beyond the means of the family. Cotton sheets have the double advantage of being cheaper and more easily laundered, and are far better, than linen ones, since the chilliness occasioned by the linen sheet is repugnant to most sick people. It is economy to use three sheets, and in the best hospitals, sanitariums, and among trained nurses that method is usually adopted. The first sheet is drawn tightly and smoothly over and fastened with safety pins at the corners of the mattress. When occasion requires the use of a rubber sheet, this is fastened in like manner and covered with a draw-sheet, which is folded to the size of the rubber and tucked in at the sides of the bed. The use of the draw-sheet obviates the necessity of entirely remaking the bed when a change of linen is desired, as it can be withdrawn and another readily substituted with but little disturbance to the patient.

The disadvantages of the rubber sheet are, first, its liability to wrinkle; second, the tendency to cause perspiration; third, the combination of both these aggravations, producing bed sores. The rubber sheet should therefore never be used except in those cases where there is reason to suspect that the discharges from the patient will soil the bed.

It is not a very difficult task to change the sheet while the patient is in bed without disturbing him. There are two methods employed by nurses—the usual one of rolling the sheet into a cylinder, and a newer one offering some advantages, of folding the sheet in accordion-like folds. The first method is accomplished by rolling the soiled sheet lengthwise, beginning at the edge of the bed and rolling toward the patient, till it reaches him. A clean sheet, rolled in a similar manner, is unrolled over the space thus uncovered, the free end having first been tucked into the side of the bed to prevent slipping when drawn tightly. The patient is then turned—or lifted if he is too weak to move of his

own volition — upon the clean sheet, the soiled one is removed, and the clean one is drawn to the other side by unrolling.

The second method is easier to manipulate because the sheet lies flat, and by catching hold of the top fold the whole sheet may be opened with a slight pull. In folding, the sheet is spread out and alternate folds, six inches in width, running lengthwise of the sheet, are made. In order to get the folded sheet under the patient, raise his head and pull the upper part of the folds under him; the lower part may be got under the limbs in the same manner, then by depressing the mattress and grasping the folds in the center, the sheet can be gradually worked beneath the patient.

To change the upper sheet without exposing the patient, loosen the bedclothes from the foot of the bed, tuck in a clean sheet, or sheet and blanket, if desired, draw these up to the waist or chest of the patient, reach under the clean covers and gently withdraw the soiled ones. These should always be thoroughly aired before they come in contact with other unlaundered clothes. Unless otherwise instructed by the physician, the sheets should be changed daily. The patient will appreciate the efforts for his comfort and it will help to break the monotony of his illness. When you cannot change the sheets, pull them as tight as possible and tuck them in the sides of the bed, as this will freshen them up a bit.

The pillow-cases ought to be changed as often as, if not more frequently than, the sheets, as they become uncomfortably heated from the constant pressure of the head, especially when the patient is suffering from fever. When a patient is restless, the pillows should be frequently shaken to air them, and make them feel cooler. Never begin to change the linen of the bed or person till everything needed to replace the soiled clothing has been aired and warmed and placed where it can be immediately reached.

And now just a word about the bed covers. It is well to remember that cumbersome bedding is debilitating and uncomfortable. Eider-down quilts, though light, are likely to cause excessive perspiration. Two light coverings which allow an air space between them are warmer and lighter than a single heavy one, and a sheet and two single blankets are usually all that are necessary. Undue warmth is weakening, and perspiration causes the bed and bedclothing to become damp, hot, and sticky, a very undesirable trio of conditions.

In some instances, the patient is unable to bear the weight of the bedclothes. When this is the case, a support for the clothes can be made by fastening to laths the ends of several barrel hoops that have been cut in halves, and inserting the device under the clothing at the foot of the bed. Or by spreading the half hoops and fastening them in the center

to a lath, a device may be made that will slip over the patient and relieve him of the weight of the bed covering.

There are three special points to be observed about the condition of beds for the sick. There should be cleanliness, no ridges, and no crumbs. One of the latest devices to guard against the last mentioned inconvenience, is the little invalid table, which is so constructed that the upright portion of the stand can be placed upon the floor and the leaf or shelf swung over the bed and adjusted to the position and needs of the patient. This, of course, presupposes the patient to be so far convalescent as to be able to partake of solid food. For a similar purpose bed trays are sometimes employed. They are about two and a half feet long and a foot and a quarter wide, surrounded by a low rim on three sides, the side next to the patient being minus the rim. This tray is provided with short legs, of sufficient length, however, to keep the weight of the tray from the limbs of the patient.

HEAT

The problem of heating the sick room is always a difficult one, depending, as it does, upon so many different factors. An even temperature is the point sought. To ascertain the presence of an equable temperature, a thermometer must be placed near the center of the room, an equal distance from the window and the source of heat, this being the best point from which to obtain the average temperature.

A thermometer hung near a window will show a lower temperature than will be found elsewhere in the room, because the draughts from the poorly-fitting window cases will have the effect of lowering the temperature of the room at that point. If it is placed near the fire, it follows, of course, that the instruments will show a rise in temperature. These two extremes will lead to a false impression as to the actual condition of the room, and either too much heat will be added, or too much cold air admitted. The best temperature for a sick room is about 70 degrees F., although five degrees less may be allowed with comfort when the patient is suffering from a disease attended by a high temperature. If an ordinary stove is used, one burning wood is preferable, as it not only gives a more cheerful fire, but at the same time does away with the danger of coal gas. An open fireplace is, however, the best means of heating, affording, as it does, opportunities for ventilation as well as warmth. Whatever the method of heating, care should be taken to put on fuel in such a manner as to make as little noise as possible. Coal can be wrapped in old newspapers and the bundle placed in the stove, and a wooden poker is a good substitute for the noisy iron one.

VENTILATION

Fully as important as the question of heat, and one demanding as much care and consideration, is that of ventilation. If a well person needs ventilation in the house and bedroom, of how much greater importance must it be to one who is ill! The fact that a sick person does not move about in the open air, and thus have the opportunity of filling his lungs with oxygen, is an evidence that a greater supply of air is necessary in the sick chamber than in an ordinary room. Protracted illness is rendered more tedious, and the convalescence more prolonged, from a lack of proper ventilation during the time the patient is confined to the bed. After the period of convalescence has so far progressed as to admit of the patient going out of doors, we see the magical effect of pure air upon the blood by the rapid return of color to the cheeks.

Although we find sufficient ventilation to be thus always important, still we find ourselves obliged to use various means to secure it. Suppose a room has two windows facing each other: the top sash of each should be drawn down about three inches; this will give a continuous current of air, but far enough above the bed to prevent a draught. The same course may be followed when there is only one window. From careful observation it will be clearly seen that the same object is accomplished, but in a slightly different manner. It is a well-known law of physics that hot air rises and cold air descends, the latter being denser and consequently heavier than the former. In the case of two windows, it will be seen that the draught passes directly from the top of one window to that of the other, but as it is heavier than the hot air it falls to the floor gradually and evenly so that its effect is insensible. In the case of one window, the current of air enters at the top and falls more or less directly downward along the sides of the wall, pushing, so to speak, the hot air in front of it, not unlike the old-fashioned snowplow that carried everything before it.

Another mode of ventilation is to raise the window from the bottom about three inches, and place across the opening, and two inches in front of it, a strip of wood about eight inches high. By this means the air enters the room in an upward direction, without producing a direct draught upon the patient. This is practically reversing the method just described.

The indirect method of ventilation is perhaps to be preferred to either of those just mentioned, in cases where cold air is liable to produce ill effects, as in bronchitis or pneumonia. To accomplish the result by this method, fill the adjoining room with fresh air and allow it to filter

gradually through an open door. As convenience dictates, the choice of introducing the air into the room may be accomplished by one of two ways: either by filling the room with cold air and closing all doors and windows except the door leading into the sick room, or by keeping one or more windows open all of the time.

Where possible, in cases of fever, a current of fresh air should be allowed to pass continually into the room, as this helps to dissipate the peculiar odors usually accompanying these diseases. Care should be taken, also, to dispense with the hangings and all unnecessary packages or vessels around or under the bed, as they interfere with the circulation of air and afford opportunity for the collection of dust.

Growing plants are not only a cheerful adjunct to the sick room, but are an aid to ventilation and purification of the air, as they give off a supply of oxygen that is beneficial. They must, however, always be removed from a sleeping room at night. There is seldom any objection to cut flowers, especially during the period of convalescence, when they are usually hailed with delight. A patient cannot always eat, even the daintiest food; and flowers are much the safer and more acceptable expression of love and remembrance. A little care given to their preservation will enhance their beauty and utility. The following suggestions will be found helpful in keeping flowers fresh: Clip the stems in a diagonal direction, lay them over night in a bowl of fresh water, or place them in a box, sprinkle well, cover tightly to exclude air, and put them outside of the window or in some convenient place where they will keep cool.

Although ventilation is such an essential, yet the construction and arrangement of the room often makes it very difficult to obtain. The bed is usually so situated that a direct draught more or less harmful will fall upon the patient if the windows be open. To obviate this, a light screen, one which can be easily moved from place to place, should be interposed between the bed and the window. This is particularly necessary with children at night, because of the difficulty encountered in keeping them properly covered. Heavy embroidered or velvet screens should not be used, as they collect dust and germs and give a somber, stuffy appearance to the room. A light bamboo frame, covered with China silk, silkaline, or some similar goods, is best for the sick room, as at the end of the illness the material can be destroyed without loss to the household.

Another reason for screens is found in the necessity for keeping the glare of the light from the eyes; particularly when the patient is suffering from fever. In nearly all such cases, the eyes are exceedingly sensitive to light. An improvised screen can be made by covering an ordinary clothes-horse with a sheet or shawl. To children who tire very

quickly of their surroundings and need frequent changes, especially during the tedious days of convalescence, such a screen can be made a source of much amusement by the simple means of pinning upon it pictures in various designs. If the child be strong enough and old enough to sit up in bed, he may cut figures of dolls, men, or animals, and have his nurse fasten them on the sheet. A screen in which the panels are made of white cheese-cloth or cotton is well adapted to such arrangements. By inventing a story of some sort, these figures may be employed to pass away many a weary hour.

CARE OF FOOD

One of the annoyances of the sick room is the difficulty of keeping food hot or cold. The impatience of the sufferer makes it undesirable for him to be kept waiting until the nurse can go to the kitchen, to say nothing of the extra labor on the part of the nurse. In contagious diseases, also, it is out of the question for the nurse to do so, as she will thereby come in contact with other members of the family. A small alcohol lamp, with a stand attachment, can be kept burning all the time that is necessary, without producing sufficient heat to increase the temperature of the room. Additional advantages are found in the economy of space and small cost of maintenance.

For keeping things cold, a small bed-room refrigerator can be obtained for a small sum. After the illness, it can be utilized for the ordinary use of the kitchen, provided it is thoroughly disinfected and cleansed. These refrigerators have three compartments, one for milk, another for fruit, and a third for ice.

If one of these ice-boxes cannot be obtained, the best method of preserving the ice is to wrap it in several thicknesses of paper. Ordinary newspaper will answer the purpose. The package is then enveloped in a piece of old flannel and placed on a cup or bowl, which in turn has been placed bottom upward in a basin or pan. The milk, jelly, broth, and other food to be kept cold is then placed in the basin where it soon becomes cool. The basin or pan is covered with a towel and placed near a window, or, better still, upon a small shelf outside of the window, if there be sufficient shade. All food or water must be securely covered if kept in the sick room. When ice is not available, the water, milk, or food can be cooled slightly by wrapping the pitcher or other vessel in a damp towel and standing it outside of the window.

Much of the success of a nurse depends upon her ability to anticipate the wants of a patient, and to be ready at a moment's notice to serve his food and drink in a palatable and acceptable form. For this reason it should be her first care upon assuming charge of a patient to see that she is provided with the necessary appliances for nursing.

THE RELATION OF EMPLOYER AND NURSE

When a family is obliged to employ a nurse without having had any previous acquaintance with nurses, or when a nurse that has before proved satisfactory is engaged elsewhere, the very best adviser is a physician. This is especially true when the sickness is of a serious character and requires the service of a trained nurse. In ordinary illnesses, unskilled assistance may be sufficient; but in severe and critical cases, experience, skill, and special training on the part of the nurse are indispensable. It is obvious without argument that the physician is the one person most likely to know, either from his own acquaintance or that of his colleagues, just what particular nurse is best adapted to the case in hand.

The educated nurse is a connecting link, long missing, between the physician and the patient. She has a semi-professional standing, therefore, and cannot be classed with the unskilled laborers of the household. Provision has to be made for her accordingly, in respect to meals, sleeping apartments, and assistance that may be required from the kitchen service and elsewhere in order to carry on the work. In short, every facility ought to be provided to enable her to discharge her duties well and to keep herself in good physical and mental condition. The duties of her office are often onerous and exhausting, and she cannot endure the strain long without intermission and friendly support.

I have known cases where a nurse was supposed to be able to watch day and night with no intermission for rest, sleep, or outdoor exercises for a period of several days. Now, while in an emergency any nurse will endure unbroken fatigue for thirty-six hours, or even longer, it is only in rare and urgent cases that this is necessary. Aid ought to be at hand sufficient to allow the nurse one or two hours' outing each day, and rest in bed equivalent to eight hours.

Several difficulties often arise in regard to sick-room etiquette, more from lack of thought than from lack of courtesy on the part of the home-keeper. Of these, the vexing question of washing has perhaps most often given trouble. To a careful observer, it seems that in justice to the patient, as well as to the nurse, she should not be asked to do any washing, save perhaps in obstetrical cases, when she may be expected to wash some of the baby's clothing.

Another troublesome point is what to do with the nurse at meal-time; but a little consideration will show that when the case is so serious as to demand her unvarying attention, the meals may be sent to the sick room; otherwise some member of the family may remain with the patient, and the nurse be invited to the dining-room. Her training entitles her to this courtesy and to all others due to a lady. A good and

competent nurse is an aid and comfort to every one concerned—to the patient, to the family, and to the physician. She has spent laborious years in acquiring the necessary skill and knowledge to enable her to assume the responsibilities of her work, and she is entitled to consideration accordingly.

HINTS ON NURSING

The following hints are given as possible aids to the mother when obliged to assume the duties of a nurse. A trained nurse, of course, would already be conversant with these simple rules of the sick room:

Never say, "Dr. Blank does thus and so," for you are not employing Dr. Blank, and must follow the directions of the attending physician.

Always arrange for a liberal amount of light, unless there be specific reasons for excluding it.

Never give a dose of medicine until you have first read the label to be sure you are right, for no matter how sure you may be that you have placed a bottle in a particular place, some one may have changed it.

Always hold a bottle from which you are pouring medicine with the label upward; this will keep the contents from soiling the label.

Never administer a dangerous medicine except upon the advice of a physician.

Never allow visitors in the sick room except with the consent of the physician in charge.

Never ask a patient what he desires to eat, for nine times out of ten he will want the very thing he ought not to have.

Never leave food uncovered in the sick room. If it is desired to use what has been left over, put it in a place where it will keep fresh and serve it in another dish; it will prove more appetizing.

Remember that sick people are more exacting and fastidious, as a rule, than those who are well.

Never fill a dish with fruit; a small quantity may be relished and easily digested, while a larger quantity will prove harmful; if more is desired, it will be better to give it at another time. Eating is often the only break in the monotony of a sick room, and is therefore doubly welcome, and may be indulged in more frequently than in health, but only small quantities must be taken at a time.

Never permit any one to sit on the side of the bed, as it is very disagreeable to many patients, particularly if they are of a nervous or irritable temperament.

Every noise must be carefully guarded against; rattling windows, or blinds, or creaking chairs, should be attended to at once. Rustling skirts, crackling newspapers, and similar petty noises are very distracting and annoying to a sick person.

Do not talk to the patient more than is absolutely necessary, as it disturbs him, even though he be interested in the subject.

Never worry him with the details of the household cares, nor tell of the misfortunes of friends and neighbors.

Do not allow visitors to tell harrowing tales of the illness of others similarly affected; it has a depressing effect on the patient.

Never permit loud conversation in the sick room. If a visitor should forget himself as to the style or manner of conversation, it is your duty to remind him of the error.

While loud talking is always reprehensible and should be guarded against, still the nurse must also remember that to the patient there are few things more exciting than a whispered conversation. It is true that those indulging in it are doing so with the very best intent, but the patient, believing that it has something to do with the outcome of his case, strains his attention in the effort to hear it. His failure to do so only excites him the more, and leaves him to imagine all sorts of unfavorable things about his illness, which he thinks are being kept from him. It is better to talk in a low, yet in a distinct tone, so that he may hear without annoyance; for nothing should be said in his possible hearing which may not be desirable for him to know.

THE FAMILY PHYSICIAN

Respecting the physician of the family, little need here be said. But there are two problems concerning him which oftentimes present themselves, and are a cause of embarrassment. The first problem regards the choice of a physician, and the second and more complicated has reference to a change of physicians.

As to the first, it need only be said that the family doctor ought not to be chosen haphazard, by rushing out of doors in an emergency and bringing in the owner of the first doctor's sign that is seen. For strangers in a strange place, the recommendation of sensible neighbors ought to be a sufficient guide; or the opinion of a clergyman in the place, or of any other person whose standing will entitle his preference to respect. Where families are not strangers, their opinions respecting the comparative value, to them, of this or that physician, are sure to be formed already by knowing the judgment of the community.

The more difficult question is how to make a change of physicians during the progress of an illness, without doing wrong to any, and without infringing on professional etiquette. Nevertheless the matter is quite simple, if fairly considered for a moment. The family employing the physician have an unquestioned right to dismiss him whenever they choose so to do. Even if they do so under a wrong estimate of the value

of the physician's work, or an undervaluation of his skill and competency in the case, they have the right. Responsibility for results rests with the family.

Now, to effect such dismissal gracefully and in such way as not to unnecessarily wound the natural feelings of the doctor, requires kindness, frankness, and intelligence. Too often the anxious and painstaking physician is dismissed from attendance in a rude and insulting manner. This arises from ignorance and embarrassment combined. The doctor should be told that the friends of the sick one have become alarmed, thinking that the patient was not making the progress they ought to expect, and that they have decided, while fully conscious of the physician's devotion and good-will, to try a change of treatment. Regret may be expressed that such a course seems necessary, and all possible kindness, by word and act, ought to be shown the physician. This leaves opportunity also for a return afterward to the same physician, when future experience may have proved that he was more desirable than had been supposed.

Difficulties arise also in the arrangement of consultation, when it is desired by the family, but is not deemed necessary by the physician. Here, again, the family have the right to request that counsel shall be called, and likewise to express preference for some particular physician. Usually the attendant will acquiesce willingly, but if he objects, either to the physician suggested or to consultation with any other physician, he is at liberty to do so and to resign the case. This leaves the family free to make whatever arrangements they may deem best.

To this must be added that the family cannot call in another physician until the first has been relieved, or has voluntarily resigned. This is evident from the fact that the utmost confidence should exist between the physician and the family. Nurse and patient obey only with half-heartedness the directions given by a doctor whose personality is disliked or whose ability is questioned. If he feels such a lack of confidence he cannot give his best thought and attention to the case, and it is therefore only justice to him to make the change unless you can give him full confidence. The relation between the family and the physician is one involving the issues of life and death, and therefore of the first importance. The clearest justice and right-mindedness are needed on both sides to keep the relation at its best.

Having seen that the sick room is comfortably provided with every necessary, that it is well warmed and well aired, that appetizing meals are served in it, cheerful conversation prevails in it, a neat nurse presides over it, and a good doctor visits it every day, let us hope that it will speedily make itself unnecessary and resolve itself back into an ordinary bedroom.

PREMONITORY SYMPTOMS OF DISEASE

EVERY one having the care of children should know the early indications of disease and the significance thereof. If the signs and symptoms of the more common disorders are not already known, there should be no delay in learning them, as such knowledge is easily accessible. Add to this the exercise of a little common sense and patience, and not only will needless heartaches be spared the mother and unnecessary suffering of the child be averted, but often impending disease of a serious nature will be arrested.

Early recognition of disease in infancy is of the utmost importance, because the feeble resistance at this period makes delay dangerous. In making an examination of a child to determine his ailment, there are several fairly accurate guides, the importance of which, however, is usually evident only to the trained observer. To the mother, many of the avenues of investigation are closed, since only an experienced physician has the necessary knowledge and skill to examine them. Many serious cases have followed the errors of home diagnosis, and it must be obvious to every one that the non-professional lacks the necessary discrimination and judgment. For example, a slight, apparently insignificant, symptom, that is overlooked or passed by as of no real value, may be to the physician the key to the diagnosis.

As speech is not developed in the infant, we are obliged to interpret his condition by objective means, *i. e.*, by physical signs; for instance, the site of the pain may be revealed by characteristic movements or by the position of the hand, which will almost inevitably light upon the region of discomfort. The flexing of the thighs upon the abdomen in intestinal pain or colic is instinctive and not from design.

Likewise, the temper of the child is sometimes an index of the state of his health. Fretfulness, peevishness, crossness, or crying, is frequently the forerunner of disease. The cry is many times characteristic, and when it precedes, accompanies, or follows any activity of the body, it may safely be assumed that it is an indication of pain in the parts affected by such movements. To illustrate, movement of the head in certain directions, accompanied by a cry, would indicate earache, and when the child picks or claws at the ear the diagnosis is confirmed. A cry succeeding a cough would seem to indicate pain in the chest. If it accompanies swallowing, it shows that the throat is sore, or that the tonsils are inflamed. Evacuations of the bowels or bladder, followed by crying, would be an evidence of trouble in one of these localities.

In attempting to ascertain the nature of the child's ailment, the mother must consider: (1) the cry; (2) the breathing; (3) the pulse; (4) the temperature; (5) the posture; (6) the gestures; (7) the expression; (8) the tongue; (9) the urine; (10) the skin.

THE CRY

It is a well-known fact that attendants and nurses who have had the special care of infants, and opportunity for the observation of them, can detect such slight shades of difference in the cry of infants as to be able to diagnosticate the cause of the distress.

A constant cry may indicate hunger, thirst, earache, or some form of continuous pain, of which the nature of the sound is an indication. If, after the child is fed or drinks water, the cry ceases, the source of trouble is ascertained. But many times, as in colic, the feeding does more harm than good, and in a short time the cry is renewed. In earache the cry, while constant, loud, and shrieking, rises and falls, with a more or less rhythmic motion. This is due to the character of the pain. Sometimes the change in volume is scarcely perceptible, yet with a little care it can be noted. This is characteristic of no other trouble. It should not, however, be confounded with the paroxysmal cry.

Paroxysmal Cry—This cry is very severe for a time, then there is an entire cessation, followed by a sudden outbreak. It is caused most commonly by colic, with distention of the abdomen; also from pins in the clothing sticking into the body.

Nervous Cry—Babies cry from fear, fright, loneliness, and sleeplessness. The various surroundings will naturally suggest to the mother the cause of such cries, as a little noticing and comforting will distract the infant's attention, and he will gradually relax and quiet down, and, possibly, soon fall asleep.

Pecvish Cry—This usually occurs in children in poor health, when there is a lack of nourishment of the tissues. Such infants are pale, weak, and puny.

Screaming Cry—The shriek, or shrill cry, piercing and intermittent; generally indicates brain trouble.

Moaning Cry—This indicates that the child is so weak and exhausted that he is physically unable to cry louder, and the low moan is heard deep in the throat or chest. It is sometimes called "chest cry." This is not infrequent in pneumonia, pleurisy, and other forms of lung trouble. The pain produced by the deeper breathing required by the crying is soon felt and the cry sinks to a moan.

Croupy Cry—Every one is familiar with the hoarse, stridulous cry of the child attacked with croup or sore throat.

Sleepy Cry—This cry, accompanied with restlessness and rubbing of the eyes, is sufficiently familiar to need no explanation.

Temper Cry—No child, no matter how amiable he may be, but has given utterance to cries of this character at some period of his existence. It is usually easily known from its associated cause, which may be the deprivation of some much-desired object.

Nasal Cry—The stuffy, nasal, twangy cry indicates cold in the head.

Muffled Cry—Tonsillitis, sore throat, mumps, or other forms of swelling in the throat give rise to the muffled cry.

RESPIRATION

In addition to the various characteristic cries, the mother has also the nature of the respiration to guide her in diagnosing diseased conditions. In the healthy adult the number of respirations is sixteen per minute. They are somewhat slower when asleep, and greatly increased during or immediately following active exercise. They may be more accurately taken while the individual is lying in a comfortable position than when either sitting or standing. The same rule holds good with regard to the temperature and pulse. To count the number of respirations, the best method is to place the palm of the hand upon the chest of the patient, when the rising and falling of the chest walls which accompanies inspiration and expiration will be distinctly seen and felt. However, if the patient is conscious that you are watching his breathing, he will be unable to breathe naturally, and will unconsciously increase or decrease the number of respirations per minute. It is well, therefore, to resort to a little artifice, or to make the examination when the patient is asleep. Respiration below twelve or above thirty to the minute portends danger, and there should be no delay in seeking medical advice.

THE PULSE

The contraction of the heart forces the blood stream through the various arteries of the body. The elasticity of the walls of the larger vessels permits of expansion under this pressure, followed by contraction, and this alternate distention and reduction is called the pulse. As the heart itself cannot be seen, and as its movements are felt or heard only with difficulty by the experienced, the pulse becomes a reliable guide to, or indicator of, the heart's action.

An increase or a decrease in the number of the heart beats, above or below normal, would be an evidence of some abnormal condition present. The pulse may be quickened in such manner by a sudden fright, shock, or over-exertion. If so, the number of beats will return to normal upon the cessation of the cause. If, however, it continues at a more rapid rate, it is an evidence that the cause is deeper seated and more permanent in character. Difficulty of breathing, fever, or exhaustion, will also cause an increased pulse; while hemorrhage, brain trouble, and certain affections of the kidneys will cause a slowing of the pulse. Generally speaking, however, the pulse serves as a guide to the height of the fever, and as such is a valuable sign to the mother.

In addition to the pulse rate, the *character* of the pulse is an important sign. If feeble or intermittent, it shows the heart to be in danger of collapse. A full, bounding pulse is likely to signify the onset of a high fever accompanied with delirium.

The normal pulse rate in the adult is 72 beats per minute; in children, from 80 to 90 beats, and in infants, 10, 20 or 30 beats higher. It varies more than other functional movements of the bodily organs, because the heart is more susceptible to sudden influences.

The old method of determining the existence and height of a fever was by means of the pulse. While this is a fair guide in the absence of more accurate methods, it is so uncertain and subject to so many disturbing influences that it is not reliable, except to assist in determining the action of the heart.

To count the pulse, place the index and middle fingers of the right hand upon the inside of the patient's wrist, and the thumb opposite, *i. e.*, on the back of the wrist. By making a slight pressure; the pulsations will be readily felt. It is better to count a full minute and then repeat, to assure correctness.

THE TEMPERATURE

Taking the temperature of the body during sickness is attended with many difficulties, and only one accustomed to it can give an accurate opinion as to its true value. In a general way, it may be said that a high temperature indicates fever, and fever is an evidence that rapid and excessive tissue changes are taking place. It is one of the almost constant symptoms of disease, particularly in children. Commonly, it is the first intimation of an approaching illness. As a rule, the more intense the fever, the greater the degree of illness. It is important, therefore, that certain fundamental facts concerning the temperature of the body be known, in order to detect any deviation from the normal.

The normal temperature of the body is 98.6 degrees F. in the adult, but is slightly higher in children — about 99 degrees. A range of

temperature of more than one degree above or below normal indicates the presence or onset of disease. So that in the child the presence of a temperature above 100 or below 98 degrees would be the occasion for inquiry as to the cause thereof.

It will be found that the temperature is highest between six and nine o'clock, evening, and lowest between three and six o'clock, morning. The former is designated as the evening temperature and the latter the morning temperature. In sickness the temperature is therefore usually taken at nine or ten o'clock in the morning and about four or five in the afternoon.

When you use the thermometer, take it, bulb end downward, and shake it carefully, until the mercury falls several degrees below normal. Do not shake it sufficiently to force all the mercury into the bulb, as it will take too long for it to rise. Previous to and after using, it is always necessary to wash the instrument in water and wipe it dry. The bulb should then be placed beneath the child's tongue, and the lips, not the teeth, pressed tightly over it to exclude the air.

It is more satisfactory to take the temperature of an infant in the armpit or in the groin. It requires about three minutes in either case to get a proper registration. When necessary to take the temperature several times a day, the result should be recorded each time on a sheet of paper prepared and kept for this purpose; and the instrument should be placed, and allowed to remain when not in use, in a glass containing a solution of bichloride of mercury ($\frac{1}{1000}$), or in alcohol. To prevent the thermometer from being broken by contact with the bottom of the glass, a piece of absorbent cotton should be placed in the bottom. Always rinse off the thermometer immediately on taking it out of the solution.

In selecting a thermometer, do not be guided by the price, for the cheap ones are never accurate, and one offered at a greatly reduced price is sure to prove defective and inefficient. The self-registering variety is by far the best and most satisfactory.

POSTURE

The child readily learns from experience that certain postures will ease pain or discomfort. In colic he will draw his thighs up to the abdomen, as this relaxes the abdominal muscles and relieves the tension. Certain diseased conditions of the brain are known by the position of the child's head; for instance, the head may be drawn back and the neck become rigid, and remain for a long time in this position. Again, there may be a constant tossing of the head from side to side, as in cerebrospinal meningitis. Or perhaps the child may lie in a stupid condition, taking little or no notice of his surroundings. This may show exhaus-

tion, or it may indicate that the system is overwhelmed with the poison of the disease.

Not only is posture of significance, but so also is gesture. It has long been the custom among mothers to attribute picking at the nose to the presence of worms. This sign is sometimes of real diagnostic value, only confirmed, however, by detecting the worms themselves. It is also known that picking at the bedclothes is an indication of extreme danger to the patient. The hand pressed to the ear or clawing at the ear shows the existence of earache. In convulsions, the toes and fingers are stiffened and the thumb may be pressed tightly upon the palm of the hand.

Every one who has had the least experience in the sick room knows that the expression of the face changes with the disease. In colic the face is distorted; in diarrhea it becomes white, pinched and shriveled; in fever it is flushed; in whooping cough it becomes swollen, dusky and congested. A rapid distention of the nostrils is an evidence of difficult breathing. Pain is usually accompanied, even in sleep, with wrinkling of the forehead.

THE TONGUE

It is usually necessary, or at least desirable, to examine the tongue. In children this is often an exceedingly difficult and exasperating procedure, taxing the patience of all concerned. Moreover, the vain attempts, pleadings, coaxings, or threats have a bad effect on the little patient, and may give rise to temporary symptoms, such as irregularity of pulse and breathing, that may cause an error in diagnosis.

The mother should early teach her child to put out his tongue and open his mouth wide when told to do so. When the child is afraid or obstinate, it is extremely desirable that he should not be frightened or lose confidence in the mother or nurse by being forced to submit to the procedure, when it is necessary to examine his mouth or throat. Numerous plans have been suggested to accomplish this end, the one used in some of our infant asylums and children's hospitals being attended with the greatest success. The finger is placed on the little one's lips, which, when felt, will cause the mouth to open, the child believing it to be his food. By rapidly passing the finger over the tongue and drawing it slightly forward, the throat, the gums and the state of the tongue can readily be seen. A little dexterity, brought about by faithful practice, will save much trouble and inconvenience to both mother and child.

The tongue becomes coated from two sources, local and systemic. Decayed teeth, catarrh and sore throat are examples of the first, while nervous strain, loss of sleep, indigestion, etc., are causes of the second. The coating of the tongue, especially the base (back), just after eating

is, of course, frequent, and without significance. This is especially true of bottle-fed babies, whose tongues are often coated with a thick white layer of milk or starchy material used in the food. On the tip of the tongue, coating indicates disease of the stomach, liver or intestines. In constipation due to, or connected with, stomach trouble, a dirty patch is seen in the center of the tongue, with red, clean edges and tip. A thick brown fur indicates biliousness. The mottled appearance so often seen on the tongues of children results from the general impairment of nutrition. In such cases the skin or mucous membrane of the tongue peels off and becomes mixed with the secretions of the mouth.

The color of the tongue affords an indication too slight for the mother to use, although in a general way, it may be said that in fevers the tongue is bright red and increases in redness as the fever rises. The degree of moisture is dependent upon the amount of saliva and other secretions of the mouth. In young infants, as just noted, the tongue is almost always coated with mucus and portions of food, because the saliva is practically absent till the third month, and these particles are not washed away mechanically as they are after the flow is established. The amount of saliva normally secreted each day, being from two to three pints, has a marked effect in this direction. It is easy to distinguish between milk curds and genuine coating, for the former can be readily removed, while the latter cannot be rubbed off. In a number of diseases, dryness of the tongue is a constant symptom, showing that the drain upon the general system has influenced the secretion of the salivary glands and impaired their activity. The return of these fluids is usually considered a favorable sign and marks the decline of the disease.

THE URINE

The quantity of urine passed is very significant, being at one time scanty, at another, profuse. In fever it is apt to be scanty and high-colored, leaving a stain upon the napkin, or a sediment after standing for some time in a vessel. Many diseased conditions cause a decomposition of the urine, which gives rise to an offensive odor that is often characteristic of a particular disease. It may, however, be due to certain foods, such as asparagus, lettuce, or carrots.

THE SKIN

The skin is more tender and susceptible to external influences in early childhood than later in life, and is, therefore, a better index at this time than at any subsequent period. That it is more susceptible is

shown by the great number of skin diseases peculiar to children, and by the fact that eruptive fevers are more marked in them than in older persons. The color of the skin, also, which depends upon the circulation, is more easily affected by disease at this age than later in life. Harshness, dryness, excessive moisture, especially in certain localities, such as the head, are signs of a disordered system. The skin may be pale, flabby, or flushed, according to the cause of the disease. In liver complaints, the skin is yellow; in diarrhea or kidney troubles, it is a sickly, pasty color; in heart or lung diseases, it is dusky or bluish.

Dark semicircles below the eyes show a lowered vitality, and prominent blue veins about the forehead, instead of being characteristic of gentle birth or high social standing, are more often the signs of a poorly nourished child.

By all these means the watchful mother can detect the onset of disease and oppose it—first, by wholesome food, plenty of sleep, and good nursing generally, and, when these fail, to promptly restore the child to his normal condition, by calling in the doctor.

HOME MANAGEMENT OF COMMON DISEASES OF CHILDREN

IN THE following pages, some of the prominent symptoms of diseases and their home treatment are given, but no attempt is made to be exhaustive. The object is simply to give to the mother a few hints that will enable her to judge intelligently as to the condition of her child, to recognize the approach of disease, and as far as possible to ward it off. In such troubles as convulsions and diphtheritic croup, where prompt and intelligent action is often necessary to save life, the hints here supplied, though simple, will, it is hoped, be found sufficient. In other cases, a knowledge of the self-limited character of the disorder may save unnecessary anxiety. In all cases, helpful suggestions as to home treatment have been given; but in no case are such suggestions intended to do away with the services of a competent physician.

RESPIRATORY DISEASES

NEARLY all of the diseases of the nose, throat, and lungs, are the result of colds. An impoverished condition of the system, exhaustion, and sudden changes of temperature are important factors in the process of catching colds, but the commonest cause of all is imprudence. This does not apply to unnecessary exposure only, but to the lack of proper care of the body as to bathing and clothing, and to living in

poorly ventilated rooms. When from any of these causes it happens that the warm body is suddenly exposed to cold air, a chilling of the surface of the skin takes place, causing a sudden contraction of the pores; then the *effete* material that should be eliminated with the perspiration is carried into the blood, and this is followed by a mild sort of systemic poisoning which we know as a "cold."

Catarrhal troubles, pneumonia, bronchitis, and, in short, all diseases of the respiratory tract, are aggravated by the modern system of dry heating common to city houses in winter. Steam, hot water, furnace heat, and even stoves and latrobes, cause the air to become too dry so that it readily absorbs moisture from whatever surface it touches. The heat from a stove will dry the air of an ordinary room to such an extent as to extract moisture from the furniture and woodwork and to cause an imperceptible but rapid evaporation of the moisture from the surface of the body of all persons in it. To prevent this a broad, shallow vessel, filled with water should be placed on the stove; in this way air is moistened by the evaporation of the water. If the skin be healthy, such exposure may have no bad effect. The blood will still be driven momentarily from the surface to the interior, but the reaction will be instantaneous. The blood will then be returned to the surface, and if the air is cold, a glow of warmth will be felt. If the air is warm, there will be a flow of perspiration, the evaporation of which, since it extracts heat from the blood vessels, causes a coolness of the surface. On the other hand, if the skin be below the normal standard, the reaction will be slower, and the tissue changes less complete — conditions most favorable for taking cold.

Most children, from their birth, have certain weak parts in their constitution which may have been handed down to them from their parents. In one instance it may be the lungs, in another the intestinal tract, while in the third, it may be the nervous system. Upon such parts or organs the effects of exposure will naturally first be felt. For example, if a child have a weak throat, he is likely to contract tonsillitis through getting his feet wet, sitting in a draft, or even by exposing himself to the cold air in cold weather; while another may suffer from neuralgia from the same causes.

In the earliest stage of a cold, that is, as soon as the first symptoms manifest themselves, the child should have a hot mustard footbath and some kind of hot drink. The temperature of the footbath should be about 110 to 115 degrees; and the proportion is a tablespoonful of mustard to a pail of water. To better retain the heat, a blanket or other covering should be wrapped about the patient in such a manner as to fall to the floor and entirely envelop the pail. The duration of the bath should be about ten minutes, the water being kept hot by additions from

time to time, as needed. The feet and legs should be dried by rubbing briskly with a coarse towel, and the patient then be placed in bed with an extra blanket or two thrown over him to assist the sweating process.

Just before the patient is ready to get into bed, he should either take a drink of hot lemonade, or a glass of hot water with a teaspoonful of cream of tartar, sweetened if desired. The diet for a day or two should be simple; consisting mainly of toast and tea, or milk, which is generally the best food, and which may be given hot if preferred. A pinch of salt will add to the taste of the milk, which to some persons is "flat" when taken hot. The milk is sometimes more palatable when well shaken and sweetened, or if cooled by crushed ice. The white of an egg beaten into froth, mixed with an equal part of water and sweetened, may be used in place of the milk. A simple cold is not always checked by these measures, but in whatever form it subsequently manifests itself, the above treatment will tend to lessen the severity of the attack. Some of the commonest *sequelæ* (or results following an unchecked cold) will now be considered.

SORE THROAT

Simple sore throat is an inflammation of the mucous membrane of the pharynx, usually accompanied by swelling of one or both tonsils. It is not always easy to distinguish between an innocent and a malignant sore throat, especially if some of the symptoms of malignancy are present, such as patches, fetid breath, and swollen neck. In such cases the mother should not trust to her powers of discrimination but should consult a competent physician at once.

The examination of the throat is often attended with difficulty because of the inability of the patient to open the mouth wide enough or to depress the base of the tongue sufficiently to expose the fauces. When this is the case a good plan is to have someone hold the child near a window, or in any strong artificial light, with his head bent back and his chin pulled down. His mouth now being open, the tongue may be depressed by the curved handle of a teaspoon and all of the parts of the throat thus brought into view. When the patient is old enough to understand what is wanted of him, the repetition of the sound "ah-ah-ah-ah" will sometimes depress the base of the tongue without the aid of a spoon.

Treatment in simple cases consists in laying upon the front of the throat a folded square of flannel, wrung out of cold water, and covered by a fold of oiled silk to retain the moisture, and the whole kept snug in place by a turn or two of linen or muslin. A gargle of bichromate of potash (one drop of the tincture to half a tumblerful of water) or dilute creolin (five drops to a tumblerful of water) will be found efficacious.

COUGHS

Nearly all diseases of throat and lungs are attended by a cough; that is one of the most prominent and characteristic symptoms. All coughs are not the result of cold or inflammation of the lung structure, for there are coughs which are due to irritation of another kind, such as particles of dust in the bronchial tubes; and there are also still others resulting from reflex action. The cough is merely a symptom and not a disease, although as a general rule the deeper and more prolonged the cough, the graver the cause.

SNUFFLES

In snuffles, the nose becomes filled with mucus, and it is impossible for the child to obtain through the nostrils enough air to enable him to breathe properly and at the same time to nurse. The child grasps the nipple and pulls at it violently for a moment or two and then sinks back wearied and unsatisfied. After a short breathing spell he goes through the same process repeating it until he is satisfied or until he falls asleep from sheer exhaustion. In some families, the nasal passages are small and the children in consequence are affected by croup and snuffles; these diseases are seldom found in families the members of which have good nasal organs.

MOUTH BREATHING

Mouth breathing is developed from just such troubles. The air passing continually over the tongue dries up the moisture, the organ becomes harsh, dry, and coated, the breath bad, and sleep troubled; the habit of snoring soon manifests itself.

Mouth breathing also results from the obstruction of the nasal passages. The commonest cause is an abnormal growth, such as an adenoid tumor or a nasal polypus. These technical terms mean very simple little swellings. An adenoid tumor is an enlargement of the third tonsil, a small glandular body situated behind the posterior orifice of the nose; and a nasal polypus is a tumorous enlargement of the mucus membrane lining the nose.

Another common cause of this condition is nasal catarrh; but more often both the catarrh and the mouth breathing are the result of obstruction to the nasal passage. A deflected septum — a bending of the cartilaginous partition separating the nostrils — may also cause obstruction. If the tonsils are much enlarged, it is impossible for the child to free the nostrils of the collected mucus by blowing the nose, as the post-nasal obstruction prevents the entrance of a sufficient current of air to

eject the mucus. The child who is unable for any of these reasons to breathe properly through the nose becomes a mouth breather, which results deleteriously in several ways; first, the obstruction prevents the proper development of the interior of the nose, so that in adult life it is inadequate for the increased work demanded of it; second, this internal contraction of the nasal organ results in a narrow, disproportioned upper jaw, which causes a projection of the upper teeth; third, the child does not get an adequate supply of oxygen to the lungs, so he becomes pale, anæmic, and dull; fourth, chronic nasal catarrh may supervene.

CHRONIC CATARRH

In Chronic Catarrh the pharynx (or that portion of the back part of the mouth which connects the inner nostrils in the roof of the mouth with the throat) is filled with a glairy mucus. During sleep this mucus flows in such a manner that a considerable amount makes its way into the œsophagus and thence into the stomach, where it forms a coating upon the delicate mucous membrane of that organ. The nausea, so common to this disease, is accounted for in this way.

This condition needs careful attention both in the matter of hygiene and as to local applications. The same care should be exercised in the matter of clothing, bathing, etc., as in preventing cold. The simple method of snuffing warm water and salt up the nose has a soothing and healing effect. Relief may also be obtained by inhaling steam, or through the frequent cleansing of the nose with an antiseptic solution, such as carbolic acid, listerine, creolin, or peroxide of hydrogen.

TONSILLITIS

This is an acute catarrhal inflammation of the tonsils, which are vascular lymphatic glands located on either side of the jaw back of the soft palate and fauces. The glands contain numerous crypts or follicles, which are lined with a delicate epithelium. The follicles readily inflame, and fill with pus, or muco-pus, which forms small, yellow, creamy-looking patches upon the tonsil. This form, the most frequently seen, is called follicular tonsillitis; it is almost always found on both tonsils, although one tonsil may be infected before the other.

The general symptoms—chills, pains in the back, limbs, and head, with high fever, usually precede the local symptoms. The fever may run up as high as 104 or 105 degrees. The local symptoms begin with a tickling or dryness of the throat or pharynx, followed by swelling of the tonsils, pain, and the formation of the follicular patches or pus. The general symptoms are most severe the first day, gradually subsiding and disappearing after the third day, but the local symptoms persist

a day or two longer. This form of tonsillitis is comparatively mild in character, and is self-limited in duration. An antiseptic gargle, or one of hot water and salt, every half hour, is all that is needed in the way of local treatment. Attention must be paid to the general health and hygiene in order to prevent recurring attacks. The chief danger in tonsillitis is its tendency to terminate in quinsy, or phlegmonous tonsillitis. This form of the disease is not so common, particularly in younger children, and unlike the preceding variety, is nearly always confined to one side of the throat.

QUINSY

Quinsy, or phlegmonous tonsillitis, is in reality an inflammation of the cellular tissue surrounding the tonsil, but in severe cases it always invades the gland itself. This form of the disease is produced by the same causes as the follicular variety, but in those suffering from post-nasal catarrh the tendency is greater. The symptoms in the beginning of the attack are about the same as in the former, the difference being that the general symptoms are not so severe in this while the local ones are more pronounced. The pain in the throat is very severe, especially when an attempt is made to open the mouth or to swallow food. At first the inflammation of the tonsil is not noticed, except perhaps a slight redness, notwithstanding that the patient complains of severe pain. The reason for this curious condition lies in the fact that the inflammation begins in the peri-tonsillar tissue, that is, the tissue surrounding the gland itself, and it is only after the abscess forms that it involves the tonsil. When there is severe sore throat, with pains extending down the muscles of the neck, and no apparent signs of inflammation in the tonsils, quinsy should be suspected.

Hot applications in the form of poultices or cloths wrung out of hot water, the hot-water bag, or cold applied in the form of ice poultices or cold cloths, relieve the pain and fever, and hasten the formation of the abscess. As soon as the abscess points, it should be opened by a physician. Gargles, sucking of ice, or the drinking of flaxseed tea sometimes prove grateful to the patient. As tonsillitis in this form is very contagious the patient should be at once isolated to prevent further infection.

CROUP

There are two kinds of croup, true and false. The alarming symptoms of croup sometimes cause it to be confounded with diphtheria and many times it is difficult to distinguish between them. In false croup the cough and other symptoms are chiefly the result of spasms of the muscles of the larynx, which shut off the entrance of air to the throat

and lungs. The effort to overcome this momentary suffocation and the subsequent explosive entrance of air, causes the characteristic barking cough; hence the name spasmodic croup. While this disease is quite alarming in its symptoms, it is seldom dangerous. Although frequently it is the result of exposure to cold or dampness, there is no accompanying inflammation of the mucous membrane.

These attacks rarely occur after the sixth year. An attack usually lasts from two to three nights, the second being perhaps as severe as the first, with an interval during the day in which no cough, or at least, only a slight one, manifests itself. As these symptoms rapidly abate, and are never succeeded by serious symptoms, there is little occasion for alarm, as the ordinary treatment effects a cure.

Hot fomentations and hot foot baths may be given to advantage, as described under treatment of sore throat. Internally, a teaspoonful of melted lard and New Orleans molasses, mixed in equal proportions, may serve to lubricate and clear the throat. Relief can also be obtained by provoking vomiting. The mere effort to vomit, whether anything comes up or not, will soon be followed by relaxation of the tense muscular fibers of the larynx, and the breathing, consequently, will become less labored and more natural.

TRUE CROUP

True croup, otherwise known as membranous croup, is comparatively rare. Clinically, it is scarcely distinguishable from diphtheria, and by many it is considered a form of diphtheria, and as such is termed laryngeal diphtheria. Its onset is gradual, the cough being preceded by languor, fever and loss of appetite for a day or two before the paroxysm. Instead of occurring in the middle of the night, as in the case of false croup, the symptoms of barking cough usually make their first appearance early in the day, increasing in intensity as night approaches till they are in full force. The false membrane rapidly forms in the larynx, shutting off the ingress of air. The child struggles and makes vigorous efforts to catch his breath. In infancy the case usually reaches a fatal termination in from twenty-four to thirty-six hours, while in older children it may be from two to four days. In most cases, death results from the failure to provide prompt treatment, the disease being allowed to develop because of the slight importance attached to the initial symptoms. The death rate is between ninety and ninety-five per cent in untreated cases. As this trouble for all practical purposes may be considered as a virulent form of diphtheria, its treatment is practically the same. Mechanical help, in the way of a tube, to prevent suffocation, may be imperative. This, however, can be inserted only by one

skilled and practised in the operation. In fact, medical treatment throughout the whole course of the disease is imperatively demanded.

BRONCHITIS

This is one of the most frequent diseases of childhood, and is usually the result of a neglected cold, or at least one that is of such severity that its sudden onset has not been preceded by any marked symptoms. The cough—at first dry—is due to an irritation or congestion of the bronchial tubes. When the collection of mucus is sufficient to cause irritation the cough becomes loose and is usually increased in force and frequency. In infants and small children but little mucus is coughed up, most of it being simply swallowed and discharged through the bowels. Unless the cough be very severe there are few attendant symptoms, but there may be slight fever, wheezing, and pain in the chest. The danger of neglecting an acute attack of bronchitis is that it may easily run into a chronic form, or terminate in pneumonia.

The local treatment consists in rubbing the chest with camphorated oil, to a tablespoonful of which may be added ten drops of turpentine. A hot flaxseed poultice placed on the chest will increase the flow of mucus and relieve the pain. To make the poultice, mix a sufficient quantity of flaxseed meal with boiling water to make a soft mush, to which two tablespoonfuls of melted lard is added; this must be spread about one-half of an inch thick on cheese cloth, the loose ends of which are then folded over so as to completely inclose the flaxseed. The poultice should cover the chest and come well up around the neck. To do this easily and neatly cut the cheese cloth as follows: Take a piece of cloth of sufficient size when doubled on itself to cover the chest and cut it with a space in either end to allow for the neck. A piece of tape sewed to the end will allow the poultice to be tied or pinned around the neck so as to keep it in place and prevent slipping; and another piece sewed to the center of either side will allow the poultice to be fastened around the chest or abdomen.

PNEUMONIA

There are several varieties of this disease recognized by the physicians, but for all practical purposes they may be considered as identical. Croupous or lobar pneumonia and catarrhal or lobular pneumonia are the principal varieties and are indifferently called congestion of the lungs, capillary bronchitis, pneumonia, and inflammation of the lungs. It is an acute infectious disease, due to a specific organism. At least the organism is present and seems to thrive on the medium furnished; whereas, if the lung were normal no harm would result from its presence. The usual course of the disease is an extension of rhinitis or laryngitis, or a

bronchitis, downward, into, and involving, the small bronchial tubes and air cells. There is high fever, rapid pulse, weakened heart, loss of appetite, pain, restlessness and loss of sleep. The secretion of mucus rapidly takes place at or near the onset of the disease, the whole forming a clinical picture not unlike bronchitis as above described, with the exception that the symptoms are exaggerated and of greater importance.

The shallow, labored breathing indicates an insufficient amount of air in the lungs. The air cells and bronchial tubes being more or less filled with mucus and cast-off epithelial cells, the capacity of the lungs is that much lessened. More oxygen or a better quantity of air is required to compensate for the loss of lung area. It is, therefore, of the first necessity that the room contain fresh air in abundance, but of course without drafts.

As the heart's action is increased by an extra effort to force more blood into the lungs to supply sustenance to the inflamed structure, which is undergoing rapid change, it is obvious that if this exertion is long continued, the muscles of the heart will be impaired. This is the case where there is pallor succeeding a flushed face, blue lips and finger-tips. To overcome this speedily is an imperative necessity in order to prevent death. This can best be accomplished by plunging the baby into a hot bath.

The disease is of such gravity as to require medical skill at once, and no one should think of attempting domestic treatment. In but few cases can the results of good nursing be more appreciated and be of more service than in pneumonia. Likewise poor nursing or painful blunders nowhere prove more directly fatal.

DISEASES OF THE DIGESTIVE SYSTEM

Indigestion

There are two varieties of this disorder, the acute and chronic. The acute variety may be termed colic. The chronic variety occurs more frequently in later life, and, like the former, is mainly dependent upon injudicious diet. Certain forms of food, as we have seen, are digested in the stomach only, while others are digested in the intestines alone. Albuminous materials are converted in the stomach into substances ready to be absorbed. Fats and starches are digested in the intestines. Since the intestinal function is not fully developed until late in infancy, it follows that materials containing much starch or sugar should be withheld until after the nursing period.

Colic is due, usually, to a collection of gas in the abdomen, the distention causing severe pain. This may occur in infants who are in other respects practically well. In many cases there is high temperature, intense thirst and vomiting. The food, solid or liquid, is rejected imme-

diately after being swallowed, and the nausea and vomiting often persist long after all the food has left the stomach. The extremities are cold, more or less bluish, the abdomen tense and swollen, and there is more or less continual drawing up and straightening out of the arms and legs. The attack often subsides when the gas is expelled either through the mouth or the bowels. These attacks vary as to number, period of duration, and time of onset. They are more frequent at night, especially after feeding.

The ordinary wind colic of infants, though distressing, seldom requires medical treatment. There is practically no reason for the existence of the so-called three months' colic, as it is usually due to improper food or lack of proper care of the breast or bottle. In cases where the cause is due to the character of the food in artificially fed babies, the nourishment may perhaps be required to be changed, but this should never be done except upon the advice of the physician.

During an attack, place the feet in hot water or against a hot-water bag, and apply heat to the abdomen and well up over the stomach. A good plan is to wring cloths out of hot water and apply one after another without exposing the skin between applications. Have a fresh cloth ready and close to the body before removing the old one. Relief can also be obtained by laying the child upon his abdomen over a hot-water bag. Many times an injection of a gill of warm water, to which ten drops of turpentine have been added, will relieve the attack by assisting in the expulsion of gas. Peppermint water (five drops of essence of peppermint in two teaspoonfuls of warm water, sweetened with a quarter of a teaspoonful of sugar), or milk of asafetida (sold in all drug stores) given immediately after nursing, in three-drop doses, diluted, will frequently prevent an attack. Many of the herb teas, the sovereign remedies of our childhood days, should not be employed. The use of brandy or whiskey as a remedy is to be avoided, and under no circumstances should soothing syrup be given. One of the greatest and commonest errors is the feeding of the child at such times in the hope or belief that it will cure, or at least assist the trouble. This is but adding insult to injury, as either too much or improper food is at the bottom of the whole trouble. Therefore the child must not be fed. He should be warmly dressed, especially the feet and legs, the covering extending above the knees, and the abdomen wrapped in flannel.

A good protector, and one furnishing heat, is an abdominal pad made of the following ingredients:—

- Powdered ginger,
- Powdered cinnamon, equal parts,
- Powdered allspice,
- Powdered cloves, one-fourth part.

The powder should be thoroughly mixed and placed in a bag of cheese cloth, then spread out flat and the whole quilted. A pad made in this way can be worn night and day if necessary.

Improper food, disregard of hygienic principles and improper habits of eating will soon convert acute attacks into chronic forms of indigestion. In these latter the intestines become involved; in fact, gastric is often associated with intestinal indigestion. In such cases the gastric juice fails to prepare or elaborate the contents of the stomach for subsequent digestion in the lower alimentary canal; the stomach acids become so thoroughly mixed with the food that when it passes into the intestines it cannot be neutralized by the bile and pancreatic juice, and the further process of digestion is arrested. More gas then forms and a peculiar noise, due to the passage of gas from one "knuckle" or portion of the intestine to another, is produced.

In nearly every case the giving of potatoes and other starchy foods to children before intestinal digestion is well established, is responsible for the trouble. Those suffering from rickets and other forms of malnutrition are the most frequent sufferers from it. The same general rule holds in this class of cases as in gastric indigestion, namely, the causes are either improper food or too much food.

Besides flatulency, there will be pain, diarrhea, or constipation, loss of flesh and general signs of imperfect nourishment. Constipation, when it occurs, is usually accompanied with considerable flatulency, the stools are hard, white or grayish balls, passed with great effort, and the hardened masses are streaked with mucus and blood. In diarrhea the stools are greenish, excoriating and foul-smelling, showing that fermentation has taken place.

The first step in the treatment of all forms of indigestion is to prepare a food adaptable to the digestive powers of the child. The starches and sugars must be reduced or withdrawn altogether. In those who are eating much solid food, the vegetables, particularly potatoes, must not be allowed. Minced beef, mutton broth and peptonized milk, well diluted, form the chief articles of diet. The amount of food at a meal should be considerably less than usual, but the number of meals may be increased to five or six per day.

Biliousness

Contrary to the generally accepted opinion, biliousness is not due to a superabundance of bile, nor, as it is more commonly expressed, to a sluggish liver, but is invariably due to indigestion. Those who are said to be of a bilious temperament are in reality of an inherited or acquired dyspeptic tendency. In this condition, an excessive quantity of food or an improper diet causes the food to be insufficiently

digested, or constipation causes the absorption of "ptomaines," or an excess of urates. Ptomaines and urates are products of tissue waste, that diminish the vitality of the blood, thus causing the functions of the various organs to become less vigorous. Certain forms of gross food, the continued indulgence in one kind of diet, lack of exercise, close confinement in overheated houses, or any drain on the physical strength that will affect the digestive functions, may cause the attacks.

Loss of appetite, nausea, vomiting, and a coated tongue, are the prominent symptoms. Rest in bed, light diet, and quiet will accomplish a cure in a few days. When fever develops, the case should be brought without delay to the attention of a physician.

Thrush

Thrush, or stomatitis, is a very common disease during the early weeks of life. It is characterized by small white patches formed on the mucous membrane of the mouth and tongue. In severe cases, they may be numerous, some of them coalescing and forming large patches. They are similar in appearance to curdled milk, but they can be removed only with difficulty, whereas the milk patches are easily brushed off, leaving no trace behind. The thrush patch, on the contrary, when removed, leaves a raw, bleeding surface. This disease is usually associated with some derangement of digestion, but it is a germ disease, and is contagious. The immediate cause is usually a lack of cleanliness about the mouth itself, or the use of nursing bottles provided with tubes which allow the accumulation of sour or decomposing milk—a good medium for the rapid development of germs.

Treatment, both preventive and curative, consists in cleanliness. Just before and immediately after nursing, a small mass of cotton saturated in a solution consisting of a pint of hot water in which is dissolved a teaspoonful of borax, should be used to thoroughly cleanse the nipple and the skin immediately surrounding it. If the rubber nipple is used, it should be washed in the same solution, both within and without, and placed in a solution of soda water until again desired for use. Both before and after nursing, the mouth of the infant should be thoroughly cleansed with the borated water.

Hiccough

Another of the disorders symptomatic of digestion, closely associated with the foregoing, is hiccough. It is due to spasmodic contraction of the diaphragm,—the partition wall between the cavities of the chest

and abdomen. While this may result from other causes, especially nervous causes, it is usually dependent upon some digestive disturbance. Although annoying, it is of little real significance except in those cases where persistent hiccough is the symptom of some grave disease. In infants it can usually be relieved by giving hot water and soda-mint, or by patting on the back. Every one is familiar with the old domestic cures applied to older children, such as holding the breath while a certain number is being counted; or drinking a glass of water when the arms are stretched high over the head. Any of these methods will be found of service, especially the latter.

Vomiting

It is no uncommon sight to see a child a month or two old taking from four to six ounces of milk when the stomach will hold conveniently only half that quantity. One of two things must then take place—either the child will vomit a portion of the milk or the stomach will become abnormally distended. Such habitual stretching of the muscle fibres will soon cause them to lose their power of contraction. After a time the organ remains large, requiring an excessive amount of food to fill it, otherwise the sense of something lacking is very speedily noted by the child. Under such circumstances, he cries from a feeling of hunger, or rather a feeling of emptiness, even when the stomach has already received what would be a sufficient amount of food for a normal stomach. If he then receives the extra food he craves, it remains for a long time in the stomach, because that organ cannot digest it or pass it into the small intestines in the time usually required for normal digestion. The acid gastric juice coagulates the casein into hard curds, which pass into the bowels almost unchanged, causing constipation. For this reason many children do not thrive on artificial food; they are literally starving in the midst of plenty.

Vomiting is not a disease but a symptom. In true vomiting there are nausea, coldness of the skin, and clammy sweat, usually more pronounced about the head. This may be due to an effort to expel the undigested food from the stomach, or it may be an indication of the onset of some acute disease. Vomiting, further, may indicate acute intestinal obstruction, or the presence of certain affections of the brain or nervous system. It may be simply reflex, or the result of habit. If from nausea, the act of vomiting is followed by relief; if persistent, it may be the result of some grave lesion.

Special attention should be paid to the character of the material vomited, as it is of great diagnostic value. In ordinary cases nothing but the contents of the stomach, consisting principally of undigested food, will be thrown up. If the trouble be deeper seated, the ejection

may contain blood, bile, or fecal matter; the latter is an indication of serious intestinal obstruction. When the ejected material has the appearance of coffee grounds, it is an evidence of blood in the stomach.

No food should be given for about six hours. Complete rest of the stomach is necessary in every case. Ice water may be sipped, or small pieces of ice may be sucked to allay thirst.

Constipation and Diarrhea

During the first week, an infant's bowels should move three or four times daily, gradually diminishing to once or twice a day by the time the child is a month old. The bowels at birth are loaded with meconium, which is thick and black. The laxative properties of the colostrum (the first secretion of the mother's breasts) speedily relieves the bowels of this mass, as shown by the gradual change to the normal, healthy stool, which is soft, yellow, and without lumps. The normal stool of the infant under six months of age is about the consistency of thick molasses, of a golden yellow color, and has a sour odor. After that age and until the end of the second year, the color gradually changes to a yellowish brown; with a slightly fecal odor and a change to a mush-like consistency. As more solid food is fed to the child, the stools approach the color and character of adult feces.

In infants, the character of the stool forms a better index of intestinal disturbance than in adults. The diet being milk only, the stool is not discolored by a variety of foods, as in the case of an adult. If, therefore, discoloration take place, the cause must be looked for outside the diet. Medicines such as iron or bismuth will turn the stool dark, or the dark color may be due to blood. If the stools are white, liquid, chalky, and lumpy, it is an indication that the food is improperly digested. If they are green in color or frothy, it denotes fermentation; if very yellow or brown and foul-smelling, putrefaction has taken place. When the feces are streaked with blood, it is usually indicative of internal hemorrhoids, or dysentery.

The chief symptoms which indicate intestinal disturbance, are constipation and diarrhea.

CONSTIPATION may be said to be present when the fecal mass is hard, dry, and difficult to pass. Diminished secretion of bile is productive of constipation, the stools being hard, dry and chalky. Gastric indigestion also produces a similar result. Another cause is irregularity of habit. Unless a regular time for going to stool is established very early in childhood, the habit of neglecting this very important duty will increase as the child grows older, until it has become so firmly fixed that it will be difficult to educate the bowel to regularity. By forming a proper habit in

infancy, this evil may be almost entirely avoided. It may be formed by regular hours of feeding, in the first instance, and by placing the child upon a small vessel held between the knees of the nurse, in the second instance. This latter procedure, however, has little effect before the child is six months old.

Relief of the impacted bowel by means other than diet and hygiene is only temporary at best. Suppositories and enemata are often of practical value and many times superior to laxatives or purgatives. The great advantage of these local measures is the immediate result obtained, and the rest given to the stomach and the intestines by the withholding of drugs which always derange the secretions of these organs. The action of these remedies is due to the stimulating effect they exercise on the bowel, inducing peristaltic movement which expels the contents. As they are palliative only, having no tendency to promote regular action, they should only be used as temporary measures.

Suppositories made of tallow or Castile soap should be about one and a half to two inches long, with a short point and of sufficient size to enable their insertion without injury. In some cases the blandness of the Castile soap is not sufficient in its stimulating power to accomplish the desired results. Ordinary bar or laundry soap may be used in such cases, the excessive amount of caustic having a good stimulating effect, but for most babies it is too strong and should not be used frequently. Cocoa butter suppositories, or soap shavings pressed into a conical shape, will act well in some cases, especially in older children. Glycerine suppositories are now much used for this purpose and are the best yet devised, but should not be used too often on account of their activity.

An enema acts mechanically by distending the bowel with fluid which stimulates the peristaltic action. By dissolving or softening the impacted feces it allows the expulsion of the mass to take place with greater ease. When the mass is very hard or the bowel unusually sluggish, some stimulating substance must be added. Glycerine, in the proportion of a teaspoonful to the pint of fluid, has a very beneficial effect. The habitual use of injections, however, will have the same effect as continued dosing, the bowels refusing to move unless one or the other is given.

As constipation is a disease of digestion due chiefly to errors in diet, it naturally follows that the final cure lies not in medicine but in the correction of the diet. The dietetic treatment resolves itself into two natural subdivisions, namely, that for infancy, and that for childhood. As milk is the only food for the infant, the question of a change in diet is simply one of modification of the constituents. Infants nursing at the breast are rarely constipated if the mother's milk is of a good quality. When constipation does exist, it is a fair assumption that the milk of the mother does not contain the food elements either in the proper propor-

tions or in sufficient amount. When the dietetic and tonic treatment of the mother fails to produce a richer milk, and the constipation still continues to exist, a small amount of cream may be given to the infant after nursing. The amount of cream will depend upon the degree of the constipation; in mild cases half a teaspoonful will prove adequate, but in obstinate cases at least two teaspoonfuls will be necessary.

In bottle-fed babies, constipation is an evidence, as a rule, that the milk is too rich in proteids or casein and too poor in fats. Therefore the aim should be to secure a larger percentage of fats than casein, it being an error to feed milk in which these constituents are too nearly equal, and the milk too concentrated.

In those children where the constipation is somewhat obstinate, the milk may be diluted with oatmeal water instead of plain water. Never give raw oatmeal water, as it seems to aggravate the trouble instead of aiding it. Barley water, arrow root, corn-starch, or infant food containing starch should be prohibited. Some persons prefer the action of Graham flour, and make a water of this preparation as a diluent.

After the twelfth month, a little fruit may be added to the diet to increase the bulk of the residue and to obtain in a slight degree the laxative fruit acids. Orange juice, baked apple, ripe peach pulp and prune juice are excellent for this purpose. Porridges of oatmeal or Graham meal, thoroughly cooked and served with cream, will be of great service, both for their laxative effect and their nutritive value. Stale bread with butter is also useful in the same manner. Molasses and bread, or the old-fashioned ginger bread, in small quantities, may be given toward the close of the second year. Stewed fruits, such as prunes, or figs deprived of their seeds, are laxative. As the diet increases in variety, a better opportunity for adding laxative and correcting foods presents itself. Poorly nourished children should be given cod-liver oil. Beginning with half a teaspoonful, or even less when the stomach will not tolerate a larger dose, the quantity may be gradually increased till the amount reaches a teaspoonful. Spinach well cooked and mashed may be served with olive oil for those who like it, or with butter. Water should be drunk every morning before breakfast, especially in those cases where the stools are hard and dry. Mush and milk, or mush with a little molasses, is also very well borne and is usually relished by the child.

Massage is often of great value. The abdomen should be manipulated in the evening just before bedtime and in the morning upon awakening. Knead the abdomen as in making bread, but gently, and then rub with the finger-tips in a circular motion going from point to point till the entire walls have been treated. About five minutes should be expended in these manipulations.

Open air exercise is essential to a successful cure, and if the child is too small to take active exercise, he should at least be kept out of doors as much as possible.

Diarrhea is the opposite of constipation, and while it is sometimes the result of the latter, it is more often the effect of the irritation produced by improper food. Bottle-fed babies are the greatest sufferers.

In this condition the kidneys and liver are required to do an extra amount of work in throwing off the poisonous products absorbed from the bowels by the blood, which renders them liable to permanent damage, particularly where there is inherited predisposition to disease of either of these organs. Frequently occurring green stools, especially very thin and foul smelling ones, demand prompt and intelligent treatment, as they are an indication of imperfect digestion. Children suffering with stools of this character are an easy prey to gastro-intestinal inflammations, and the death rate from these causes is very high.

In all cases of diarrhea where the attacks come on suddenly with a rise of temperature, a physician should be summoned at once, as grave results sometimes follow delay. In the meantime place the child in bed, rather than in the lap or in the arms, and keep him as quiet as possible. Do not give paregoric, diarrhea mixtures, cordials, soothing syrups, or similar preparations containing opium. The diet should be light and simple and given every two hours, with water in small quantities between times to quench the thirst. Too much water must not be allowed at a time or too often, as it may provoke vomiting. Albumen, peptonoids, barley and rice water, whey, and, if the child be old enough, a little wine gelatine, may be given. Koumiss and matzoon are usually more easily digested at this time than is plain milk.

SKIN DISEASES

Prickly Heat

This is an inflammation of the sweat glands occurring commonly in the summer months, although not infrequently in the winter as the result of injudicious methods of clothing. When the child perspires freely and there is no opportunity for evaporation, the impurities, deposited in the form of salts, bring about a redness, and congestion which finally develops into actual inflammation. The skin is covered with fine, red, slightly elevated spots or pimples, something like the eruption of measles, or they contain a little clear watery matter, or both may be present. This eruption is found more frequently in those regions where the skin lies in folds and where the perspiration does not become so readily absorbed by the clothing. They may gradually fade away, or break and form fine, brownish, bran-like scabs.

In treating a case of prickly heat the first thing is to reduce the temperature. If the clothing is excessive (and it usually is) some of it should be laid aside. It is safe to conclude whenever a child perspires freely that it is due to some constitutional trouble and should be investigated.

The itching in this disease is intense and the child is sure to be restless and irritable. To give relief, the parts should be sponged every two or three hours, with equal parts of vinegar and water, or a ten per cent solution of menthol.

When the folds of the skin are involved, such as exist in the armpits, neck, or groin, a dusting powder will afford considerable relief. A favorite powder is composed of:—

Oxide of Zinc,
Powdered Camphor,
Rice Starch. Each one-half ounce.

Another powder in common use is:—

Boric acid,
Starch. Equal parts.

Tooth Rash

This is an eruption occurring any time before the first teeth make their appearance; hence the name. It has no connection with teething, for it occurs during the first two or three weeks of life, when it is known as "red gum." Digestive disturbance is the cause of the rash, and as such disturbance is frequent in teething children, the teeth have erroneously been assigned as the cause.

Small red papules, few in number, make their appearance on the face, neck, and shoulders. An itching and burning sensation is the only discomfort they produce. It sometimes causes anxiety on the part of the parent, who supposes it to be some form of infectious disease. This is all the more liable to be the case if any form of epidemic, such as measles, scarlet fever, or chicken pox is known to be in the vicinity.

A correction of the digestion and a soothing ointment, such as lanoline or cold cream, will suffice to give relief.

Hives

Hives, or urticaria, is a common disorder of childhood, found less frequently in adult life. It is characterized by intense itching, and the presence of large flat elevations called wheals, which appear with startling suddenness and disappear with a like rapidity. The wheals are generally pale white, forming a marked contrast to the red ring, or

aureola, about them. These eruptions change to pink or red and then disappear in a few minutes, leaving no trace of their existence.

In some cases the eruption is composed of a large number of small red elevations from one-sixteenth to one-eighth of an inch in diameter, on a patch of red skin. Again, the white wheals sometimes appear so close together that they run one into another, forming a large, elevated, fantastic figure.

As a rule, the disease is of short duration, coming on at night when the child is undressed, and warm in bed; the first symptom is the itching, and an examination then discloses the eruption which was unnoticed before. The wheals appear and disappear quite rapidly, and the disorder may last only a few hours, or a day or two, or it may become chronic, when there will be a succession of crops of wheals, the cause not having been removed.

Other symptoms may accompany the outbreak, giving evidence of some disorder of the general health, but the most usual cause is a disturbance of digestion. Sea food, crabs, fresh fish, oysters and clams, perhaps, most frequently bring on the disorder; so do some kinds of meat, as lamb, pork, and sausage; also certain fruits and vegetables, as strawberries, tomatoes, nuts and mushrooms, and many other articles of diet. But there can be no set rule as to diet, for what can be eaten with impunity by one person will cause an immediate attack in another. Moreover, food otherwise unobjectionable may be either too great in quantity or unsuitable to the age of the child.

To relieve the itching and burning, either bathing in cold water, to which salt has been added, or in equal parts of water and vinegar, or sponging the surface with a ten per cent solution of menthol, will be found of value.

Ringworm

Ringworm is a contagious parasitic disease of the body or scalp, due to the growth of a vegetable fungus on the skin. It begins at a point and radiates in every direction, forming a complete circular patch, quite regular in outline, something like the circle produced when a stone is thrown into the water. The circle gradually widens and the center becomes clear, while the eruption dries and undergoes a scaling process, which proceeds concentrically from center to circumference.

Children are the most frequent victims of ringworm because of their personal contact in play—in the wearing of one another's garments, the use of the same towel and comb, and through other means whereby the parasite is transferred from one to another.

When a child suffers from ringworm, the disease is likely to recur and to run a more or less chain-like course. In ordinary or circular ring-

worm, as generally known, the treatment by a fungicide is not only simple but satisfactory. After cleansing the parts with soap and water the following ointments may be rubbed in:—

Ammoniated mercury, 20 grains,
Lard or lanolin, 1 ounce;

or

Sulphite of sodium, 1 dram,
Cologne water, 1 ounce.

Directions—To be applied night and morning.

Ringworm of the scalp differs in no essential from the above, except that the parasite invades the hair follicle and causes the hair shaft to become dry and brittle and to break off just outside of the skin. This causes round patches to form as the disease spreads.

The persistence of this form of ringworm is greater than that on the body, for the reason that the fungi are so deeply imbedded in the roots of the hair that it is difficult to reach them by treatment. The only sure way is to pull out the hair affected. This can be accomplished by the use of tweezers; the operation is tedious and troublesome, but many cases will not respond to other treatment.

Many fungicides are valuable if they could only reach the roots, but sometimes this is impossible. The following well-known formula will be found useful:—

Acid, carbolic, 1 dram,
Citrine ointment, $\frac{1}{2}$ ounce,
Sulphur ointment, 1 ounce.

To be rubbed over the patches twice a day.

In all cases the physician should be consulted, as, otherwise, permanent baldness may result.

Stings

Stings of small insects are caused by the insertion into the skin of a small quantity of a poisonous substance called formic acid. If this acid is applied to the skin in an undiluted state, it will produce redness and a prickling sensation, followed by pain and blistering. The sting is a little barbed tube containing the poison, and acts something like the barb of a fishhook. When plunged into the flesh it is difficult to withdraw; for, in addition to the spreading out of the barbs as the attempt at removal is made, the act of pulling out compresses the tube and injects the poison into the flesh. Instead, the sting should be scraped off with a knife blade; the parts can then be treated with an alkaline bath or covered with wet clay or mud. All acids are neutralized by

alkaline substances; if the parts are bathed in a solution of bicarbonate of soda or ammonia water the irritating acid is thereby changed into a harmless product.

Eczema

Eczema is the most common of all skin diseases, as it is also the most varied. Aside from the disfigurement produced, it is perhaps the most irritating, painful, and troublesome of all skin diseases. No attempt will be made to describe its many forms, as even physicians are at times puzzled to classify a given case. In children a vesicular form is the most frequent under a multitude of common names, such as moist tetter, milk crust and scald head.

There are a few characteristic features common to all cases of eczema; the itching and burning, and in the vesicular variety, an exudation of sticky serous secretion which leaves a yellow stain upon the clothing. Another form found in children, although by no means confined to this period of life, is the fissured eczema, or chap. When the disease affects that part of the skin which is flexed or bent upon itself, it causes a fissuring or cracking, as shown in the lips, fingers, and hands. In this form the disease is more prevalent in winter than in summer, and it is never contagious.

One of the frequent causes of eczema is the improper and *too frequent* washing of the skin, insufficient drying, and the use of soaps strong in alkalis, or of powders or lotions which contain irritating substances. It is never due to a humor in the blood, although at times impoverished and impure blood may be coincident with the disease. If the health is poor, the constitution debilitated from any cause whatever, the trouble is always increased.

Regulation of diet is of the first importance; all articles difficult of digestion must be avoided, especially salt meats, pastry, beer, and liquors. Water should be used sparingly, and then only for cleansing purposes. Soap, except pure Castile, does much harm, and if used at all should be completely rinsed from the skin.

When the eruption is clearly due to local causes, no form of internal treatment is necessary, but when the disease is diffuse and the cause not clear, constitutional treatment under the supervision of a physician is indicated.

Warts

Warts are generally nothing more than exaggerated growths of the papillæ of the skin. It is not easy to assign an exciting cause in any given case, unless there be a history of some continuous irritation at the site of the growth. An example is the development of warts from the use of

the thimble, although in older people a callous or corn is more likely to develop. Probably the reason why more warts are found among children is because all the developmental phenomena are more active at this period. Warts, like mushrooms, seem often to be the growth of a night, appearing suddenly, remaining for a time, and then disappearing. This sudden disappearance of the warts is attributed to the virtue of the various charms used as cures. The rubbing of a piece of meat over the growth and then burying it, in the belief that when the meat rots the wart will drop off, is one of the most familiar and widespread of the magic cures.

If let alone, most warts will in time disappear. If it is desired to remove them, scraping out with a thin, sharp knife is the surest method. This leaves a little depression in the skin which will heal rapidly if no dirt is allowed to accumulate in it. Hot water will stop the bleeding. Ordinary lunar caustic (nitrate of silver) will prove efficacious in most cases of warts. The following preparation of salicylic acid is almost always a sure cure:—

Acid, salicylic (gr. X.), 1 dram,
Tincture of Indian hemp, 1 dram,
Collodion, 1 dram.

Apply to the wart every night and morning.

The liquid should be applied with a toothpick or match stem, but care should be taken that the fluid does not touch the surrounding skin, as it will form a painful blister. To prevent this, the surrounding area may be covered with vaseline. A word of caution must be given as to the above solution. Unless the bottle is quickly and securely corked each time after using, the ether in the collodion will evaporate and the preparation will become a solid jelly-like mass which cannot be used. Fuming nitric acid, or a fifty per cent solution of chromic acid, will successfully remove warts, but in applying the same, precaution must be observed as in the above.

Chilblains and Frostbites

A chilblain is a superficial inflammation of the skin and underlying tissue, the result of exposure to cold. As the circulation of the blood is more feeble the further the vessels are removed from the central source of power, the heart, it follows that the hands and feet have a much less energetic circulation than other parts of the body. Any cause, therefore, that will impede or cut off the blood supply in such localities will cause the death of the tissues of those parts. When the feet are exposed to cold, the circulation will be slowed; the delicate nerves are unable to act, and tissue change is arrested. When the parts are only slightly affected the condition is termed chilblain; when they are severely

affected it is called frostbite. The condition may vary from a slight temporary deadening, to complete death of the part, with sloughing of the tissues, known as gangrene.

Chilblains may occur on the hands, feet, nose, and cheek, although the first two are the more usual sites. In mild cases there is tenderness, slight redness and swelling, and itching. Sometimes the swelling is quite marked and bluish. The itching and burning are most intense when the parts become warm. When blisters form and rupture they are known as broken chilblains, and this is often the beginning of serious mischief. Many cases of bunions are neglected chilblains of childhood, which have been irritated by imperfectly fitting shoes. An inflammation has developed and causes permanent changes in the parts.

Chilblains are more likely to occur in children of weak, anæmic, debilitated constitutions. In such conditions the circulation is poor throughout the body, and the child cannot withstand the same degree of cold as would merely produce a healthy glow in a more robust one. Tight shoes and stockings constrict the parts and impede the circulation. An adult knows how much colder a pair of new shoes renders the feet than does an old and comfortable pair. Children have less resisting power than grown persons, and if the stockings are wet, the moisture, being a good conductor of heat, will carry off the warmth of the parts. Persons with a tendency to foot-sweat are also frequent sufferers from chilblains, for the reasons just stated.

If the child's general health is poor, tonics and other constitutional treatment are necessary. If the feet perspire, warm, dry stockings should be put on just before going out and changed on coming in, precaution first being taken to rub the feet briskly. Such children should not be allowed to remain out long at a time. Warm woolen stockings and comfortable, broad shoes must be worn. When the chilblain first makes its appearance it should be rubbed in snow; if that is not obtainable, the foot should be plunged into ice water, and then be gently massaged with flannel, but not too briskly as it may rub off the skin and produce ulcers.

To allay itching, the parts may be bathed in vinegar and water. Alum water and camphorated oil are good to harden the surface of the skin and to make it more resistant to cold. The painting of the parts with tincture of iodine or tincture of iron is efficacious. Under no circumstances must the child be allowed to go near the fire. It is a common practice of children, and even of grown people, to dry their wet shoes at a fire. This is laying a foundation for chilblains and should be avoided.

Frostbite

The ears, tip of nose, lips, cheeks, fingers and toes, being most exposed to cold, are the chief sites of frostbite, which may, for practical

reasons, be considered as a severe form of chilblain. A red nose, changing to blue, then white, is characteristic of frostbite. The sharp tingling of cold gives way to numbness, and if not treated, the part shrivels up and decomposes, turning black. When there is danger of frostbites, it is better to protect the exposed parts with two layers of material equal in thickness to one, as the air between is a good non-conductor. Instead of a single pair of heavy stockings, two pairs of lighter weight should be worn.

The same course of treatment is indicated as in chilblains. Many of the ulcers developing from this source can be prevented if the proper treatment is instituted promptly.

Fever Blisters, or Cold Sores

Fever blisters, herpes, or cold sores generally form on the lips where the mucous membrane and the skin meet. The corners of the mouth are favorite sites of these disagreeable and painful lesions. Any part of the body may be affected with them. It is generally supposed that the deterioration of the nervous system has a marked influence upon their formation. Certain acute febrile diseases which show marked nervous symptoms always present some form of herpes as one of the characteristic phases of the ailment. When found upon the body they usually follow the course of one of the intercostal muscles, crossing half-way round the body, and are then called shingles. An old superstition declares that when the ends of the eruption meet after encircling the body the individual will die. The vesicles ordinarily form on the lips and extend to the nose, the cheek, the forehead, and the ear. When no definite symptoms of cold are found they are called fever blisters. If the vesicles are formed in the mouth they soon lose their top and develop into ulcerous patches called canker-sores. Indigestion is the most frequent cause of this form of herpes.

The fever blister is a self-limited disease lasting from eight to fourteen days. No abortive treatment will prove of value; the only course being to relieve the disagreeable symptoms. The relief of the irritation and tension can best be accomplished by some protective dressing such as vaseline, cold cream, or other ointment. Painting with collodion is the best protective dressing, and court-plaster comes next in efficacy. General systemic conditions must of course be improved and the source of irritation removed.

Boils

There is no essential difference between a pimple, a boil, and a carbuncle, except as to size and extent of tissue involved. A pimple is an

inflammation of a hair follicle, without much involvement of the adjacent tissue; the amount of pus formed is small and no scar is left. Boils involve the deeper tissues, which become hard, red, swollen, and painful, and later suppurate, discharging a yellowish, tenacious mass called a core. Carbuncles may, for practical purposes, be considered as a number of severe boils, which coalesce into one, forming a large cavity filled with dead tissue and virulent pus. The danger of carbuncle is from the rapid absorption of the pus, tending to produce a form of blood poisoning which, if permitted to continue, may prove fatal.

Boils are painful and tender; the underlying tissue involved being out of all proportion to the size of the lesion. As they occur most frequently on such parts of the body as are in constant motion, they interfere with the free use of those parts, and cause a stiffness which is very characteristic of the disease. As the inflammatory process continues, intense throbbing is felt, until the formation of pus is far enough advanced to lessen the tension of the skin. It soon becomes soft, and "points"; shortly after there is a discharge of pus, succeeded by the expulsion of the "core" and then the reparative process begins. When the inflammation subsides before suppuration takes place, it is called a "blind boil."

Certain seasons of the year are thought to increase the tendency of certain individuals to the development of boils; but the change of habits, occupation, and diet, with poor hygiene, is more likely to be the cause.

It is usual to apply poultices to boils to "bring them to a head," but the modern treatment is to make an early incision in order to let out the congested, germ-laden blood, and then to wash the parts with some antiseptic fluid. Diluted peroxide of hydrogen is perhaps the best for this purpose. Some prefer the application of an ointment of acid salicylic, composed of

Acid salicylic, 48 grains,
Lard, 1 ounce.

Directions — Mix well and apply night and morning on a piece of plaster.

The boil may be aborted if the hair growing in the center of the lesion be pulled out. To allay the pain from tension it is well to apply four narrow strips of adhesive plaster in the form of a hollow square about the boil, as near to the center as possible, leaving only room enough for the point of the boil to protrude.

Moles

Moles may occur upon any part of the body, but are more common upon the face and trunk. The large, hairy moles are congenital; while the smaller are both congenital and acquired.

Whenever possible, the growth should be removed by an experienced surgeon. The smaller ones can be removed by application of nitric acid, glacial acetic acid, or caustic potash, but, as these are poisonous, they should never be used in domestic practice except under specific directions of the physician. Hair moles are best treated by electricity, which is applied with needles inserted into the hair follicles.

Shingles

The peculiarity of shingles is the intense, throbbing neuralgic pain which accompanies the eruption of the vesicles and often precedes it by several days. The disease is often mistaken for neuralgia, rheumatism, pain in the lung, or a pain or ache accompanying an incipient cold, and is generally treated as such. The pain is entirely disproportionate to the amount of eruption, and is often so severe as to make movement of any kind impracticable.

The eruption occurs as a minute pin-head cluster of vesicles which, from being entirely distinct in the beginning, are crowded together and then coalesce into patches of irregular form. This continues from four to six days, when the height of the eruption is reached. After remaining for several days at this point, the vesicles shrivel up, forming brown scabs, but they never break and run as in eczema. The eruption occurs in various portions of the body, as the arm, head, or face, but the usual site is the intercostal region, where it follows closely the course of the nerves.

Shingles rarely occurs twice in the same person, although in a few neurotic individuals it may recur year after year. The neuralgic pains and the burning sensation of the eruption are about the only points to be treated. Belladonna plasters, or an ointment of belladonna and opium may be used over the seat of the eruption. Tincture of iodine painted over the parts affords considerable relief.

Birthmarks

Birthmarks are found on children at their birth. They may be of unusual size, shape, or color, or they may be almost imperceptible. Whether these marks are due to prenatal influences or are the result of heredity cannot be successfully proved. The only positive thing that can be asserted is that they are due to imperfect development. There seems to be, however, a weight of evidence against a belief in maternal impression as a cause of their foundation, and a growing belief that the only effect a mother can exert on her unborn child is one which affects its organic constitution through the quality and quantity of its nutrition.

These blemishes are called by the general name of *nævi*. They are superficial and vascular. Some of them are colored and elevated—the so-called mole. The latter forms the most common variety. The vascular *nævus* is formed by the blood dilating the small superficial vessels of the skin, particularly about the face and neck, where they form the well-known “spider marks,” and “port-wine marks.”

As a rule birthmarks as above described are of no special significance, causing no trouble other than the disfigurement. If they are so situated as to become subjected to irritation or injury, they may bleed and become sore. If the mark is in a locality where it will be hidden by the clothing, it is better to attempt no treatment. If it is on the face or other part of the body where it can be seen, or if it becomes inflamed or troublesome, it should be removed. It is a mistake to suppose that surgical interference of a mole will cause the development of cancer or other malignant growth. On the contrary, it is the proper procedure to insure against the possibility of the development of dangerous growths; for, while the child is young, the tumor must of necessity be small, and its removal will be attended with less danger, loss of tissue, or disfigurement. Then, too, the normal growth of the adjacent tissue will have a tendency to cover up the scar. Only a skilled surgeon can remove these blemishes, either with the knife or by electrolysis. By electrolysis is understood the removal by means of an electric current, applied by the use of a sharp needle inserted into the *nævus*. This is attended with but little pain and no danger, but it requires skill and patience.

Some of the smaller birthmarks entirely disappear as childhood advances, and need, therefore, no attention in the beginning. In the vascular variety the capillaries are weak and distended, having no power to react. The appearance of the skin is one of superficial redness, simulating a blush. When moderately large areas are involved about the forehead, chin, or side of the face, no treatment, either surgical or otherwise, should be attempted, for any interference, to be at all effective, is almost sure to leave a scar. If this variety appears upon an extremity or any place where pressure can safely be applied, it will often prove efficacious to wrap elastic bandages around the part and preserve a continuous and uniform pressure for several months, or until the vessel walls have regained sufficient tone to contract properly and drive out the blood.

CONTAGIOUS DISEASES

Chicken-pox or Varicella

This is an acute, contagious, febrile disease, accompanied by a vesicular eruption of slightly elevated rose-spots numbering from twenty to two hundred. The vesicles become filled with a watery fluid, within

twenty-four hours after their first appearance. The disease has no premonitory symptoms by which a diagnosis can be made, and when the eruption appears, it runs a rapid course.

A severe case of varicella may be confounded with a mild case of smallpox. There is this difference, however; the watery fluid in the vesicles of chicken-pox is never changed into a yellowish, purulent matter, as in smallpox; nor is there the characteristic noxious odor of the latter disease. Smallpox has a preliminary stage of pain in the loins, chills, vomiting and fever. When the eruption occurs, the temperature perceptibly drops. In varicella there is no fever until after the eruption takes place; in the latter the eruption is complete on the third day, and in smallpox on the ninth day. Varicella runs its course in six or seven days; while smallpox takes fifteen or twenty days.

The treatment of varicella is simply rest in bed, a light, non-stimulating diet, cool drink, and cleanliness.

Measles

This is an infectious disease preceded by catarrhal symptoms of the head, and accompanied by a rash similar to that found in scarlet fever. The contagion is carried by fomites; *i. e.*, the various articles of clothing, and no susceptible person can be exposed to the infection without risk of taking the disease. The symptoms are first premonitory, as just stated above, resembling those of an incipient cold. This condition is observed ten to fourteen days after exposure, accompanied by fever of about 103 degrees F.; three or four days later an eruption appears, first on the face, then on the neck and breast, and finally over the whole body. The eruption consists of small pimples or raised spots close together, but not coalescing as in scarlet fever. When the hand is pressed over the skin the eruption feels rough, and when the finger-nail is drawn through a thickly spotted area, the white streak produced quickly disappears. The thicker and more general the eruption, the better, for by this means the impurities of the blood are eliminated. Three or four days later the fever declines and the eruption begins to disappear, its disappearing being followed by scaling of the skin. This stage lasts several days, and the epidermis is cast off in little bran-like particles. The contagious period lasts until the scaling is complete, and it is a safe rule to keep the patient isolated even a week later.

The *sequelæ* are more to be dreaded than the disease itself. Unless precaution is observed, there is danger of bronchitis, pneumonia, glandular swellings, or some chronic disease to which the patient is predis-

posed. This is particularly true in the case of children of weakened constitutions, or those afflicted with certain *diathesis*, such as scrofula and tuberculosis. What may be termed a mild case of measles, with scanty eruptions and but little fever, may pass into a grave form of disease because of neglect, due to the slight importance attached to the symptoms.

The treatment in all cases from the very beginning should be, first, isolation; a darkened room to protect the eyes; cold sponge baths and a liquid diet. Second, when the fever abates and the eruption dries, a little solid food, such as fish, eggs, and the cereals, may be allowed and the room be a little less darkened; but isolation should be enforced until the scaling process is over. Sometimes a diarrhea supervenes as the rash declines, but it should not be checked unless it becomes excessive, as it is more likely to prove beneficial than otherwise.

Scarlet Fever

Scarlet fever, like measles, is an infectious disease. It is accompanied by a scarlet rash, sore throat, and depression, both physical and mental. Disturbances, varying in different individuals, will exist in the mucous membrane of the stomach and bowels, in the kidneys, the circulation and the nervous system. The incubation period is from twenty-four hours to six days.

The first symptoms are chills followed by high fever,—104 to 106 degrees F.,—inflamed and even ulcerated throat; thirst; rapid pulse; nausea and vomiting; frontal headache and, possibly, delirium. In about forty-eight hours the rose-red rash appears, first on the breast, gradually extending to the neck, face, trunk and extremities. It consists of innumerable red spots, smooth to the touch, and sometimes running together. In appearance the rash has been aptly compared to a boiled lobster shell. The finger-nail drawn through one of these patches leaves a white streak which remains a full half minute or so. The tongue is coated brown at first, with red tip and edges; afterward the coating peels off and it is left all red and beef-like. About the fifth day the efflorescence begins to decline, and entirely disappears about the eighth or ninth day. The cuticle subsequently exfoliates, but this process varies in duration. From the face and trunk it takes place in the form of scurf; from the hands and feet in the form of large flakes.

The treatment includes isolation, inhalation of steam, frequent sponging with water and alcohol; a wet compress to the throat; and a liquid diet—cold water, gum water, rice water, lemonade, milk, and small pieces of ice. Upon the decline of the fever the following food may be permitted: toast, gruel, grapes, strawberries, peaches, roast apples. Disin-

fectants such as Platt's Chlorides should be used freely throughout the course of the disease. A sheet dipped in the solution and wrung out should be placed in front of each door, and clothes saturated in the same way should be hung around on the furniture and gas fixtures. As little furniture as possible should be left in the room. All changes of bed-clothes and patient's nightdresses should be dipped in a solution of Platt's Chlorides or carbolic acid — (proportion of a tablespoonful to a quart of water) — before leaving the apartment. When the patient has passed the peeling stage, he should be thoroughly rubbed with alcohol, followed by a weak solution of carbolic acid. He may then be removed to another room, while the sick chamber is being fumigated and scoured, including all the furniture. The woodwork of the room should then be freshly painted and the walls papered.

Mumps

This disease is an acute, specific infection, characterized by a swelling of the parotid and salivary glands. It is extremely contagious, being transmitted from one person to another by the breath or secretions of the mouth. It is endemic in all countries, and frequently occurs as an epidemic. It is more often found in children from five to fifteen years of age, being rare before the first year and seldom occurring in adults. The spring and autumn are the favorite seasons for its development, probably because of the fact that these two seasons are conducive to carelessness and exposure on the part of the child. The period of infection lasts from two to three weeks, during which time the patient must be isolated.

As this is a self-limited disease, no special treatment is indicated other than to guard against the possibility of complications, and to meet the indications as they arise. If the swollen glands are very painful they should be poulticed with flaxseed. Liquid food is the only kind that can be taken in severe cases, on account of the extreme pain occasioned by solids.

Pertussis or Whooping Cough

This is a specific, contagious disease of childhood, found more frequently in children of more than six months and less than five years of age, although no age is exempt. While one attack usually affords immunity, second attacks have been known to occur. As a rule, the younger the child the more fatal the disease. The greater number of deaths is, however, attributable not so much to the disease itself as to the *sequelæ*. It seems to start up certain latent conditions, the presence of which may

or may not have been suspected. As a result, such complications as pneumonia, convulsions, tuberculosis, or digestive derangements may develop.

Whooping cough is extremely infectious, and is communicated with great facility from one child to another. It may even be conveyed by the wearing apparel, toys, or other objects used by the infected one. All such children should be isolated, and not permitted to mingle with others, nor allowed upon the cars, in the public parks, or kindred places.

The question is often asked, "When is whooping cough catching?" In general terms it may be stated that the contagious state lasts for at least three months and, sometimes, longer. It is communicable from the beginning of the catarrhal stage, and lasts as long as there is any cough. The beginning of pertussis is so gradual that it is almost impossible to say just when it does begin. Most authorities agree that the invasive stage corresponds very closely to that of measles, which is from seven to fourteen days. If a child has been exposed to the source of infection and fails to develop the disease before the end of three weeks, it is fair to assume that, in all probability, he has escaped an attack.

Usually the attack begins with a slight cold in the head, and a cough, which is more troublesome at night, and one that the usual remedies fail to relieve. At the expiration of a few days the cough appears to become more or less periodical. During coughing spells the face is suffused, and there is difficulty in breathing, which is usually, though not always, followed by vomiting. This may be termed the catarrhal stage. While in some children the characteristic whoop may be noted from the beginning, it is usually about two weeks before it appears, thus ushering in the spasmodic stage. The paroxysms now become longer and more severe. The whoop is caused by the short cough frequently repeated without taking a breath, and it is the long-drawn inspiration at the conclusion which gives the characteristic whoop. In some cases of a mild type it sometimes happens that no whooping takes place, yet the paroxysmal character of the cough indicates the nature. When the disease is fully established, a tough, tenacious mucus more or less streaked with blood is expectorated after coughing.

The spasmodic stage is usually about one month in duration. Gradually the severity of the attack abates; the whoop ceases and the cough bears a close resemblance to that of ordinary bronchitis. This stage lasts from three to four weeks.

One of the peculiarities attending this disease is the habit which so often occurs in whooping cough long after the attack has ceased. In such cases the characteristic whoop returns after a period of intermission in which no cough is manifest. This must not be regarded as a return of the disease but simply as the cough habit which the disease fosters.

Cough mixtures and cough syrups have no effect upon the paroxysms or the duration of the disease, and only make the stomach more irritable. Inhalations of steam or of vaporized carbolic acid or creosote are sometimes beneficial by clearing the nose and pharynx of mucus, thus permitting freer breathing.

Diphtheria

Diphtheria is a disease best known by the grayish-white membrane which it causes, and is most commonly found in the throat. It is liable to be conveyed by the patient's breath, which passes over the membranes and becomes impregnated with germs. The virus adheres to the clothing, furniture, and all objects which the patient touches. Domestic animals have what corresponds to this disease, and it seems probable that they may convey it to man. After exposure, the disease may develop in from one to eight days. No sure means of warding off this attack is now known.

The attack is ushered in with fever, sore throat, loss of appetite, and general *malaise*. The local lesions usually manifest themselves first upon the tonsils in the form of patches or follicles, giving it the appearance of an ordinary case of tonsillitis. The tonsils may be only slightly swollen, or they may be greatly enlarged. With the development of the membrane, the patches coalesce and extend into the pharynx, over the uvula, and, unlike the membrane found in ordinary tonsillitis, are tough and tenacious; extending into the mucous membrane so that, when detached, it leaves a raw, bleeding surface behind.

No treatment will be given here, because the gravity of the situation is such that no person should for a moment think of attempting to treat a case without the assistance of a physician. During an epidemic, every case of sore throat should be looked upon with suspicion, the patient should be isolated and the energetic use of antiseptic sprays or gargles be at once instituted, pending the arrival of a physician. All cloths used to receive the expectorations should be burned at once. Where there is depression of breathing the following vapor may be used: Acid carbolic, 1 ounce; oil of eucalyptus, 1 ounce; turpentine, 8 ounces; two tablespoonfuls to a quart of water placed in a shallow pan which is kept simmering over a slow fire. In nursing infants the milk must be obtained by a breast pump and fed to the child, for on no account should the child be placed to the breast.

SELF-PRESERVATION AND FIRST AID TO THE INJURED

THE suggestion that another branch of study should be added to the public school curriculum will be received at first as absurd, in view of the prevalent feeling that this curriculum already contains more branches than any one "small head" can find room for. But our educational system is a growing thing, and far indeed from its complete form; in the process of development it may happen that we shall discover some good and necessary branches of knowledge which may be added to it, as well as many that are useless or of secondary worth which should be discarded.

It is strange, considering all the effort made by modern thinkers to follow Nature's plan with the child, that the care with which she teaches and enforces her first law — self-preservation — has been overlooked. She begins her lessons with the first breath, working in the beginning through instinct, but as the will and mental powers develop, she gradually withdraws the intuition and leaves the individual to preserve his body alive by knowledge and experience. Is it not a duty devolving upon parents who have learned this lesson themselves to train their children in it? Surely there is no question of the value of the knowledge. It would almost seem reasonable to claim that the failure to give each new generation proper training in self-preservation has deprived the whole race of a great advantage. When we compare the number of instincts which protect the child through his sense organs with the ignorance of the laws of health and the proper conduct in accidents and emergencies of the average adult, it is plain that the child has the germs of much greater power of self-preservation than the adult develops.

The charming animal stories of Ernest Seton-Thompson and others show us how carefully the brute mother drills her young in all the knowledge that will help them to avoid and escape danger and to preserve life. It is because this has been faithfully done in each generation that the wild animals are able to withstand the destruction of their natural conditions and to escape the snares and encroachments of man. And though we human mothers may scorn our poor brute sisters, we must yet recognize their motherhood. Their children have but one nature, and are doomed to perish, yet with all their powers, and at any cost, they train and broaden and strengthen that one gift and benefit all who come after them. Our children have the threefold endowment of body, mind, and spirit, and we have an obligation to develop each part of it to the fullest; and though the physical nature has sometimes been

ranked below the others, certain it is that mind and soul depend upon it. It is true that much of the early home-training relates entirely to the preservation of the body; we always teach babies that fire will burn, knives cut, falls hurt, etc., but there is little thought as to how this should be done, little effort to systematize the instruction, and less to continue it as the children grow older. Many of us make the mistake of using fear to impress these facts upon the minds of young children; we teach them to avoid dangers in order to escape pain, and we make no effort to show them that the real injury is to the tissues or bones, that pain is merely a symptom, a warning that we must take better care of the body intrusted to us.

We make too little of the gift of life; it is every being's first and greatest wealth, and we should be able to free ourselves from the idea that the body and its necessities should be treated with contumely—which has come down to us from old and savage religious rites.

In all our efforts to teach self-preservation, let us be careful to eliminate fear of pain as a means of impressing children. The real evil lies in the injury to that body which every one of us should strive to keep in the best possible condition, not because we shall suffer pain if we do not, but because it is the home of the mind and soul, and can neither develop freely nor do its perfect work in an illy-cared-for body.

Little children show a natural love for their own members, which should be utilized in teaching them how to preserve and care for them. John, being a normal boy, wants to swim, to hunt, to ride, to drive, to brave the storm and the snow; to sail a boat, to experiment with chemicals, with fire, and steam, and electricity.

It is rare indeed that a boy is not forbidden these pleasures, and much rarer that he does not take them in spite of prohibition. And it is by no means an uncommon event for boys to be drowned, shot, thrown, made ill by exposure, maimed, or burned, or otherwise injured in the pursuit of them. It is because we understand the dangers that lurk in all these things that we forbid them, but there are few things more difficult than to convince the average boy that they really exist, or that he is liable to be their victim. If we could do this there would be a wonderful lessening of disobedience and accidents.

If all boys were trained in self-preservation and the proper course in case of accident, would not the training convince them of the existence of danger? Take, for instance, the method of resuscitating the drowning,—suppose school children were given a certain amount of drill in it, would not boys see more clearly the dangers of water and instinctively use more caution?

We have, heretofore, taught self-preservation through fear alone. Now fear is a low and despicable motive for any action; would not

knowledge be a better one? To tell a boy that he may not go in swimming because he may drown is seldom of any use. In the first place, he cannot believe in the danger; the knowledge that you have gotten by accumulated experiences cannot take hold of his mind; there is no way for it to impress him unless he have the implicit faith in what other people believe that is about as rare as it is dangerous. But the frequent drill at home or at school in prevention and resuscitation impresses him with the real existence of danger, not as a vague fear, but as one of the common every-day facts of life, which he accepts sensibly and provides for.

In many public schools, children are already given instruction in the injurious effects of alcohol upon the body. They usually show a great interest in this study, and there is no indication that it produces any morbid or hypochondriac effects.

It frequently happens in river towns, where the boys spend much of their vacation leisure in the water, that a plainly preventable death occurs through their ignorance. In a typical case, five boys, from ten to fourteen years of age, were swimming in the Ohio River. Probably every boy of them had "run away," and had a more or less uneasy conscience. Charlie, who was one of the older boys, was seized with "cramps," cried out for help, and sank instantly. He was in the midst of the party and not far from shore; within call were a house-boat and a number of teamsters hauling gravel. At Charlie's cry all of the other boys made for the shore in a panic; each snatched his clothing, hid himself in the willows until he was dressed, then ran away from the river as fast as he could. Perhaps in all their minds there was no other thought than the fear of being caught near it. Twenty minutes later they came together in a near-by park and discussed the accident in whispers. Reason dawned in them at last, and they rushed down the levee and told the teamsters that Charlie was drowned. The body was easily found, but by this time half an hour or more had passed, and life could not be restored. Had Charlie's companions been instructed in the methods of restoring the drowned, they might have been cool enough to rescue him, and to call help; and, failing to get it, would have been capable themselves of resuscitating him, for, as in many other unexplored branches of knowledge, the first aid to the injured is simple enough to be understood and practised even by children.

Broken arms, sprained ankles, and cuts that cause dangerous bleeding, are common to boys. They usually occur when there are no grown people about, and nine times in ten, serious consequences are entirely due to the ignorance or mishandling of boy-companions. A boy falling from a tree and breaking his arm may have at first only what is known as a simple fracture, that is the bone alone is broken,

but this is not visible on the outside, the child is helped home by his playmates, and in doing so the jagged edges of the bone are driven into and lacerate the surrounding tissues, and the simple fracture becomes compound, much more painful and difficult to heal.

But suppose this same party of boys to have had some instruction in fractures, and to have been drilled for just such an emergency. They will lay the injured child flat upon the grass, knowing that a broken limb is a common result of such a fall, and that any movement of one so injured may greatly increase the trouble, and, also, that the break does not always show on the outside, they will first examine their comrade gently to find where he is hurt. If it be found that a limb is broken, they have been taught to cut away the clothing from it, and how to construct temporary splints from two pieces of board, or even of fishing rods or boughs from a tree, padded softly with handkerchiefs or underclothing and bound on each side of the injured limb, so that it may not be jarred in removing him to the nearest house. They will know, too, that wet handkerchiefs laid on the injury will soothe a little, and how to make a stretcher of a board or shutter, or even of boughs. There is a regulation drill for the United States Hospital Corps which might be easily adapted to classes of children, and any American boy or girl will be delighted to drill with stretcher and bandage in imitation of the army they love so well.

It is true that here and there a boy or girl might go through a life of average length without having occasion to use the knowledge thus gained, but such a case would be exceptional. As we do not educate our children for the emergencies of childhood only, but to meet all possible accidents and conditions of an entire life, we could hardly give them too much knowledge of the structure of the body and its requirements, how to preserve it in health, and how to repair injuries. Certain it is that this knowledge is of first importance to mothers, and seems quite as necessary to the proper education of girls as is arithmetic, domestic science, or psychology. In neighborhoods where there are mothers' clubs, it would be easy to give the children this kind of training.

Any physician will generously instruct the mothers what to do in case of accident. This does not mean that the whole art of surgery is to be imparted in a lecture, but that in the many cases of injury it is of value to know just what to do before the surgeon can arrive. The child that has fallen from a tree and broken his arm, or has been bitten by his dog, or has cut an artery or a vein, or has inhaled carbonic acid gas, or has got a button up his nostril, or has eaten rat poison, has seldom any time to lose if he is to be relieved of suffering. In all of these cases there are perfectly simple things to do that will soothe pain, lessen the injury, and in some cases save life, but they must be done instantly,—prior to the com-

ing of the doctor. The adjustment of a bandage about a sprained ankle is a matter simple enough for any child to learn, yet not one which many persons are likely to understand by intuition, but having once seen it properly done by a physician, any mother in any neighborhood could gather the children together and teach them to bandage their dollies or each other, and the knowledge would last.

In many cases of shock from injury, in "sunstroke," or as we call it now, heat prostration, in acute poisoning, in asphyxiation, in severe fright, and any accident which brings long unconsciousness, the artificial respiration is quite as useful as in drowning. Any one who has once seen Sylvester's method could apply it successfully in an emergency. A little book called "Accidents, Emergencies, Illnesses," published gratuitously by The New York Mutual Life Insurance Company, gives the following directions for resuscitating the drowning: As soon as the person is recovered from the water, turn the face and head downward for a moment, thrusting the finger backward in the mouth, pressing the tongue slightly forward in order to remove a small quantity of water or mucus which collects at the base of the tongue, and tends to obstruct the passage of air into the windpipe (trachea). It used to be the practice to hang the patient head downward, or to roll him over a barrel, in order to "expel the water from the lungs," but it has been proven that no water gets into the lungs; hence these practices are useless, and certainly barbarous. Drowned persons die from want of air, therefore to restore the breathing is the first duty. Strip and roll rapidly in dry blankets, lay flat and rub extremities with the hand. Since there are numerous accidents of this kind at places where blankets are not immediately procured, children should be taught to think of all possible substitutes, as the dry coats or skirts of the rescuers.

The tongue of the patient should be pulled forward and held by the tip with a handkerchief, allowed to slip gently backward when the breath is expelled. This holding of the tongue is an extremely delicate and difficult operation in some cases, and probably could often not be done at all by one who has never practised it. The little book quoted remarks that "it is sometimes necessary to thrust a hat pin or needle threaded with coarse thread through the tip to hold it by," since unless it be drawn forward it may shut off the air from the "windpipe."

The mode of producing artificial respiration is as follows: Draw the arms away from the sides of the body and upward so as to meet over the head, which will raise the ribs and expand the chest, creating a vacuum in the lungs and purifying the blood by driving the impure gases out of it, and supplying it with oxygen. Bring the arms down to the sides and make the elbows almost meet over the stomach, thus contracting the walls of the chest and expelling impure air from the lungs. These two

movements cause an act of respiration; they should be made at the rate of about sixteen to the minute — four seconds to each complete movement — and persisted in until breathing takes place naturally, or the surgeon arrives. A little brandy in water — a teaspoonful every minute until five or six are taken — may be given to stimulate; or better, some beef-tea, or hot milk; with these there should be constant effort to warm the body and extremities by hot applications or rubbing. A class of children would take the drill in producing respiration as an interesting physical exercise. If they could have with it some instruction in how drowning produces death, they would probably gain from it a certainty of dangers which they cannot otherwise believe in. This knowledge has nothing whatever to do with fear, but is only such a reasonable view of indisputable facts as every grown person gains by experience. Boys risk drowning because they have had no experience to prove the reality of the danger.

In the same way children should understand the first aid in case of accidental wounds. They should be taught to judge something of the seriousness of such an injury by the color and character of the bleeding which follows; the blood from the capillaries and small vessels is bright in color and comes freely, but soon ceases. Blood from the veins is purple, and flows evenly without force, while arterial blood is bright red, flows in jets or pulsations, and quickly drains away the life force. It is generally possible to tell by these indications the character of the vessels injured. Nature stops the mouths of broken blood vessels with little clots of blood formed round their edges. A sharp instrument makes a clean cut through the blood vessels, and there are no little shreds and projections where clots can gather, hence these wounds bleed most freely. In the case of a small wound (such as a cut finger), elevate the part above the head and press upon the wound firmly with a cloth wet in cold water, for a few minutes. If this is not enough to stop the bleeding, use a piece of ice wrapped in cloth, or water as hot as can be borne. Heat or cold will contract the blood vessels and pressure will obstruct them. In cases of more severe wounds, roll a cloth or handkerchief into a hard wad, wet thoroughly in cold water, and bind closely over the wound; the pressure should suffice to completely stop the bleeding, and may be kept on for several hours.

As arterial bleeding is very fast, quickness is necessary in order to save life. This fact should be impressed upon the minds of children receiving "First Aid to the Injured" drills, and mothers who are themselves making a study of it. This impression made in moments of calmness will be uppermost in the emergency, and, having fixed itself upon the reason, will have its effect in sobering and calming. It would be a most incapable and ungoverned mother, who, having once apprehended the nature and consequences of certain injuries, and learned by

practice how to treat them, would "lose her head" and allow her child to suffer or die while she is indulging in nervousness and fright.

In cases of arterial hemorrhage from the upper extremities, compress the large artery, along the side of the upper arm. It may be located by the pulsations which are easily felt. The pressure should be applied upon it outward, and slightly backward, against the bone just below the shoulder and armpit. It may be done temporarily by the finger and thumb firmly pressed upon it. In the meantime a piece of stone, a round piece of wood, or even a watch may be tightly tied in a cloth, or a number of knots made in a handkerchief and all tied into a bunch will answer, and laid over the artery right by the fingers, and tied round the arm by the ends of the handkerchief, or by another; tie a smooth stick in the knot, and by twisting it the bandage may be tightened until the bleeding has stopped entirely, — but no tighter. This contrivance is called the Spanish Windlass. If the wound is in the forearm, compress the artery just above the elbow; if high up in the arm it may be necessary to compress the subclavicular artery — under the collar bone — by thrusting the fingers or handle of a large key firmly down behind the collar bone and pressing the artery against the first rib. In the lower extremity, the artery reaches the thigh just where it joins the abdomen and may be felt pulsating about the middle of the groin. It then passes down the inner side of the thigh, gradually turning backward until it can be felt throbbing between the cords under the knee. If the wound is below the knee, the "Spanish Windlass" can be applied under this artery, which is called the popliteal. Where this is difficult to reach, it may be applied on the femoral artery, at the inner side, near the top of the thigh.

In connection with this, both mothers and children should be taught something of the dressing of wounds and the use of antiseptics. In drilling children, they should be required to scrub the hands with a nail brush and soap, before beginning, and should secure as absolute cleanliness as a competent surgeon invariably demands. All this will enlighten them as to the presence of germs in the air, and the mischief these may work, and will be an added incentive toward general cleanliness of person and habits. If this course of instruction is attempted by mothers for the children of a neighborhood, the little book distributed by the New York Mutual Life Insurance Company, and freely quoted here, would prove an excellent text-book.

Another argument in favor of such a course of instruction for school children lies in the probability that it would prove an excellent assistant in preventing and curing secret injurious habits — as well as other unhygienic practices. When a child can look upon his body as a wonderfully planned yet very delicate machine, put into his care, and can get practical ideas of how to care for it, he has a defense

against the temptation of self-indulgence, more active for him than prohibitions or precepts.

The family medicine chest has gone out of fashion, but might be revived in a modernized form to the benefit of most households. A drawer which is easily reached, and which everybody knows where to find, should be kept for the things likely to be needed in emergencies, and none of these should be lacking at any time, fresh ones being supplied as fast as needed. There should be a variety of narrow muslin bandages, torn lengthwise of the cloth, rolled tightly and pinned; a package of absorbent cotton; a quantity of old cloths, linen or muslin, that have been boiled a long time in clean water and smoothly ironed; a small soft sponge that has also been well boiled; a cake of Castile soap; a package of baking soda; and a box of beef-extract—the soda as an antidote to acid poisons, and the beef for beef-tea, in cases of injury where the strength is rapidly exhausted.

Boric acid is now much used as an antiseptic; it is a white powder easily dissolved in water; wounds and their surrounding surface are washed in a solution formed by putting a heaping teaspoonful in a glass of warm water. By mixing one teaspoonful of boric acid with three of bismuth, one can make an excellent drying powder for wounds, burns, and like injuries. This powder may be made and kept in a close box. It is also well to have carbolic acid, but to remember that it should never be used stronger than one part to thirty of water—that is, one table-spoonful to a pint of water.

This drawer might also contain a pair of small, blunt-pointed, sharp, and always clean scissors, for clipping the skin of blisters (do not cut the skin away, clip and leave to protect the burned flesh).

Collodion is a solution of gun-cotton in alcohol, with castor oil to make it flexible; with it keep a small clean brush. It makes an excellent coating for a burn; is "painted" on in three or four layers, one layer being allowed to dry before the other is put on. It is much better for small cuts than plaster. There should be a supply of adhesive plaster for larger wounds, which, after the wound and its surrounding surfaces have been well washed, should be put on in strips set close along the line of the wound, holding its edges together, after which it should be dusted well with the boric acid and bismuth powder, or iodoform, covered with several layers of lint or clean old linen or muslin kept in place by a light bandage.

Other medicines for this drawer are aromatic spirits of ammonia, excellent as a stimulant in cases of shock resulting from many kinds of injuries, and brandy, which is a good stimulant at this time, because its aromatic quality prevents it from producing nausea as other alcoholic liquors are likely to do.

The dose of aromatic spirits of ammonia for an adult is about twenty drops in a wineglassful of water. Any druggist will write on the label the dose for a child of a given age. This drawer can hardly contain the little pieces of ice, which, swallowed whole, will relieve nausea, nor the snow with which to rub frosted feet, or frozen chilblains, nor the rug with which fire may be smothered out of their burning clothing, but the provision for other accidents may help us to remember these when the time comes. A large-handled key, or a hairpin, bent into a hook, might be there to fish things out of the top of the throat, or (the key) to lay in cold water or on the ice, to get cold, so that it may be held on the back of the neck to stop nose bleeding. Remember, in this connection, that the child should not hold his head down, nor put it into a bowl of cold water, this will only increase the trouble. Another thing, Nature's only means of stopping a hemorrhage from a blood vessel is by plugging it up with a clot; do not then allow the child to "blow" his nose, and so destroy what she is doing for him.

There is a long list of poisonous substances which are now and then used in housekeeping, and which children occasionally eat, to their great injury. In all such cases it is of course best to send for a physician, but the poison will too often do its fatal work before he can arrive. When the poison is one which may be ejected, the first step is to give an emetic. Carbolic acid, lime, and kindred substances destroy the tissues so quickly that it is necessary to dilute and neutralize them first. Flaxseed should be kept in the drawer; tea made of it is good for all corrosive poisons; while it is being made, the whites of eggs, milk, flour and water, and similar substances may be used. In the case of lime poisoning, or any other alkali, use vinegar or lemon juice diluted in water. A list of poisons and their antidotes, arranged alphabetically, should be kept in the drawer, with such of the antidotes as will keep in sealed bottles.

When poisons are kept in the house in any form there is always the danger that they may be taken by small children. The preventive of such deplorable accidents lies in common sense and training. *All* medicines should be labeled, and be kept in a certain place, out of reach of children. Rat and insect poisons, and other household drugs, not used for medicines, should be put in a different place equally inaccessible to the little ones. Having enforced these precautions the mother should train her children not to "meddle" with the property of others, for moral reasons. Experience shows this to be quite possible. There are many mothers who may safely trust even their smaller children, who never lock up the dainties, hide the fruit, or put things of the kind out of reach, and whose children respect their wishes in regard to them. Such mothers not only save themselves trouble but give their little ones excellent drill in self-control and honor.

Fastidious habits are useful in these cases. A child who has them is not likely to taste anything which he does not know all about. Cultivation of the sense of taste makes it much more acute, and little children should never be forced to eat anything which they dislike; by doing so their delicacy of taste and their dependence upon it are weakened. It is now possible to give many medicines in capsules or sugared globules, and it is due to children to give them all the advantage possible in this direction. There is some subtle connection between delicacy of the sense of taste and refinement of habits and character; perhaps it is because Nature is fond of symmetry and makes constant efforts to establish it in the three-fold nature of man. Where there is purity, strength, and beauty in one of the three parts of it she exerts herself to produce them in the others.

Nature has done much for mothers. Besides the abiding blessings of motherhood, she bestows upon us much instinctive wisdom and develops for us many hidden virtues. But it is a mistake to suppose that she is capable, unassisted, of making ideal mothers of ordinary women—she expects considerable and continuous effort upon our part to supplement all she gives and all she does.

We must expect to carry into the blessed estate of motherhood the same faults of character and deficiencies of education that would hamper us in undertaking any other profession. We should not depend upon our own instincts and the experience and traditional love of older women; surely investigation, thought, and study are as applicable to child-training as to chemistry or engineering. True, many people hold that motherliness comes by gift of nature, and laugh at the idea of improving this gift by study. Perhaps this is the reason why it is such a delicate task to write upon this subject—one goes at it timidly. Since the world began there has been in it but one perfect man, but from the dawn of history there have been teachers of morality, and few of them have been ridiculed because they were not themselves capable of that perfection of conduct which they taught.

The world recognizes that such teachers were only clearing the way and surveying, as it were, ahead of their fellows. Morality has always been recognized as a perfect thing of itself, not subject to personalities. The proper training of children is a thing which is unattainable in its perfection, just as proper conduct is, but this does not affect the obligation to strive toward it; and she who lays down rules and discusses methods should be judged by the value of them, not silenced by the fact that she herself may have human limitations and might not be able to practise successfully all that she may preach helpfully. The writer of this article has striven to say the things which will be of real use to her sisters; she has no wish to be a discoverer of theories

or an apostle of new ideas. She has gathered what seemed to her the best, from observation, from personal experience, and from many writers, both American and European; and to the best of her wisdom, she has selected, combined, and deduced the methods herein suggested. Her hope is that no mother may find them formidable and give up the effort to improve herself as hopeless.

It is impossible to describe at length, any action, and the reasons for it, without making it appear disproportionately complicated. Were an anatomist to describe in a book the whole process of quenching the thirst, or even that of drawing a breath, it would take many words and much space and make the act seem an exertion. Many of the plans suggested here are as natural and simple as drinking or breathing — though they may appear difficult because one sees them in print. Discouragement is a sad and troublesome guest, imposing, in the long run, much more effort than enthusiasm ever does. No matter how sincerely a mother may feel that all this study and improvement are impossible to her, and that she cannot keep up with her neighbors, she must still take care of her children, and if she will not go on struggling for the best ways, she must still suffer a penalty for mistakes and failures.

Such thoughts should not be encouraged; human children have human mothers, hence they are subject to much mistaken management and worthless teaching,— but they can survive a great deal of it, and grow up to be useful men and women in spite of it. If only the mother will untiringly do her best, rising each day to higher things, climbing upon her mistakes and failures, *she* will develop with her children.

Conversely, it should be remembered that human mothers have human children, and there is no reason to expect perfect children even from perfect theories of training. “Be to their faults a little blind and to their virtues very kind” is a charitable old couplet applicable to both mothers and children, and not inappropriate to the case of one who has honestly striven to do a little thinking and reading for earnest and busy mothers.

THE MEDICINE CHEST

IN EVERY household, particularly those containing children, some provision should be made for administering temporary relief in case of sudden illness or accident, to tide over the moments of suffering on the part of the child and of anxiety on the part of the parent till the doctor comes. In the beginning, let it be distinctly and emphatically understood, that under no circumstance should the parent, or even a trained nurse, usurp the position of the physician, by attempting to take his place in prescribing for the child. The medicine chest is not designed as a substitute for the doctor, but it is to be used in emergencies and should contain such remedies and appliances as the physician may need when suddenly called, which he may desire to administer himself, without wasting the precious time that would be consumed in obtaining it from a drug-store or elsewhere. It is true that in cities and towns, doctors and drug-stores are generally within easy reach, and the need of a home medicine chest is thereby lessened; but emergencies often arise when it will be found most convenient and helpful, while to those who live remote from medical aid, it should be considered a necessity.

Many suggestions have been made as to the most desirable methods of keeping a family medicine chest. Some prefer to keep the medicine on a shelf in a closet, in a bureau drawer, in a box, in the bath-room or wherever their fancy or convenience may dictate. Each has its advantages and its disadvantages, but on the whole the plan best suited is a box especially prepared for the purpose. Many styles of medicine chest are to be found in the stores, but if one does not desire to purchase, one can be made at home that will answer every purpose. Any box of suitable size can be utilized, the ordinary wooden cracker box with hinge lid found in any grocery store, being as good as any. The front can be removed and drawers of suitable depth can be inserted; or cleats can be fastened to the sides and small shelves made to slide in and out. The most convenient form, however, and the one adapted to the greatest number of homes, is made as follows:—

Remove the front of the box, and with a saw divide the front into two pieces lengthwise of the board. The part next the lid should be from five to six inches in width. Suppose the narrow or top piece to be six inches wide, replace this piece on the front next the top and fasten cleats the same distance on three sides of the box. A thin board, cut just to fit the inside of the box, is placed on the cleats, dividing the box into two compartments, an upper and a lower. The upper or tray-like part is for the medicines, and the lower or cupboard part for dressings,

bandages, instruments, and other appliances. The remaining piece of the front is now fastened to the bottom by means of hinges, so that both the top and side can be easily raised or let down and the desired article found. The box may be covered with denim or cretonne, and will present a neat appearance in the bedroom. It may be placed in a closet, in a corner out of the way, or, better still, on a small stand. The upper part should be so constructed that it can be readily fastened with lock and key. An ordinary catch will do for the lower part. The variety of designs is limited only by the ingenuity and taste of the household. Any boy with a knowledge and taste for tools can make at trifling cost a medicine chest which for convenience will prove all that can be desired.

Whatever method may be employed in keeping medicines, there are several rules that should and must be observed to avoid the possibility of accident:—

First—All medicines must be kept under lock and key to prevent children from having access to them.

Second—All bottles must be carefully labeled, to avoid the mistake of getting the wrong medicine.

Third—Never put medicine in a bottle which bears the label of its former contents. A well-known druggist once took aconite instead of whiskey, because of a disregard of this rule, and died in consequence.

Fourth—Never put medicine in a bottle without first washing it out thoroughly, no matter how well it is supposed to have been cleansed before. Even if it is cleansed of all traces of its former contents, dust and germs of fermentation may have gathered in it.

Fifth—Never use a cork that has been used for some other medicine, as it absorbs the fluid and may affect the new liquid.

Sixth—Always shake the bottle before pouring out medicine, for even though the label does not so direct, it will do no harm and often does good, as some sediment will frequently form at the bottom of the bottle. It at least assures the thorough mixing of the contents.

Seventh—Never administer a dose of medicine in the dark.

Eighth—Always read the label before pouring out and be sure that the right medicine is used before it is given to the patient. The exercise of a little care in this direction would have prevented many an accident.

Ninth—Always replace the stopper or cork in the bottle immediately after pouring out the liquid, as in many cases the latter deteriorates by coming in contact with the air. All liquids containing alcohol, ether, chloroform, or essential oil are volatile, that is, they quickly evaporate when exposed to the air. This causes the liquid to become concentrated, so that each dose is stronger than the preceding one. A number of cases of fatal poisoning, especially in children, have occurred from this cause. The child took the first few doses with impunity, but the active principle of the drug becoming proportionately stronger with each dose, caused fatal

poisoning with the last dose, because a sufficiently large amount of the drug was taken at that time to cause death.

Tenth—In pouring out a dose of medicine always hold the bottle with the label uppermost, to prevent soiling or staining the label. Sometimes the contents of the bottle are of such a character that they obliterate the ink with which the directions upon the label are written. Pour out the desired quantity, read the label carefully again to be sure no mistake has been made and then replace the stopper by bringing in the bottle to the stopper and letting it gently fall into its place. This is done in case of a shallow vessel or spoon, to avoid spilling the contents. Place the bottle back in its accustomed place before giving the medicine to the patient.

Eleventh—Always place poisonous substances in colored or peculiar shaped bottles, or have some device so arranged that your attention will be called to the fact that the bottle contains poison.

Twelfth—Always replace a bottle in the same spot it occupied, and do so at once. Never wait, as something is liable to distract your attention and the bottle is forgotten.

Thirteenth—Every bottle should have its own place and should always be kept there so as to avoid delay in hunting for it; also to avoid accident by mistaking some other bottle for it.

A few things to remember about medicines:—

First—That some are damaged by light, dampness, or heat; therefore, they should be kept in a dark, dry, and cool place. A few, like nitrate of silver, must be kept in colored bottles, as the light destroys them very rapidly.

Second—That medicines deteriorate with age; therefore, only a small quantity should be purchased at a time and frequently renewed.

Third—That so-called cheap drugs are usually stale or damaged, and are therefore inert.

Fourth—That liquids evaporate and either lose their strength or become concentrated and hence dangerous.

Fifth—That prescriptions are designed for the case in hand and are not applicable to others as a rule, even when a person is suffering from apparently the same disease. Therefore, when the medicine is no longer needed for the person for whom it was prescribed, the remainder should be thrown away.

Sixth—That mixtures containing sugar, such as syrups, soon become sour; therefore, they should be frequently examined and if found to be sour, they should be immediately rejected.

Seventh—That many remedies used for external purposes contain poisons; therefore, they should be kept separate from those designed to be taken internally.

Eighth—That medicines sometimes affect people differently; age, sex, and temperament have much to do with the action of a drug. Persons who are used to taking a certain remedy will probably require more of it to obtain a given effect than one who is unaccustomed to its use. Thus, one who is habitually taking cathartics or narcotics will require a larger dose of the first to move the bowels, and of morphine or opium to relieve pain,

than one who does not take them. Personal peculiarities must also be looked for. It is necessary to know these facts before concluding that the remedy is not doing the work for which it was designed.

Ninth — That disease often fortifies the system against the action of remedies, so that the dose has to be increased to obtain perceptible effects. Thus pain or delirium tremens will interfere greatly with the production of narcotism by opium; or spinal disease with purgation. Disease may altogether prevent the action of a remedy. In all these cases two rules should never be lost sight of: First, never give the medicine in such doses as would, in health, cause death; second, always be sure, before giving a large quantity, that the dose will not make matters worse,—as a drastic cathartic in case of obstruction of the bowels.

Tenth — That climate, by producing physical habits or tendencies in the patient, often greatly influences the proper selection and dose of remedies. It is only necessary to allude to the great consumption of quinine in malarial regions as an example.

Eleventh — That habit, including mode of life, seems to alter the very constitution of an individual. Not only does it give type to disease, by producing habitual plethora, or its opposite, but it also fortifies against the action of single remedies, or whole classes of them. Thus in a person addicted to the opium habit, a dose sufficiently large to kill an ordinary man serves only to gratify the cravings of appetite. Again, a man accustomed to one narcotic, as alcohol or opium, loses to a greater or less degree, his susceptibility to all narcotic influences; and the patient whose bowels require to be moved daily by a cathartic, finds that he responds more and more slowly to medicines of that class. Again, a nervous system blunted by exposures and toil in the open air is far less susceptible to the action of remedies, and requires larger doses, than does a delicate organization, perhaps weakened by indolence and luxury.

Twelfth — That temperaments are peculiarities of organization characterizing classes of individuals; idiosyncrasies are peculiarities belonging to single individuals. These idiosyncrasies are numerous, cannot be foreseen, and are often very important; hence the necessity, when prescribing for an unfamiliar patient, of always asking as to his or her peculiarities.

Thirteenth — That sex modifies all diseases connected with the organs of generation, but it also does more. A woman is more impressible, less robust, with less power of resisting external agencies, than a man. Consequently, the dose for her should, as a rule, be less.

Fourteenth — That age materially modifies the dose. The proportion of an adult dose to be given at various ages during infancy and childhood is clearly set forth in the following rule: The proportionate dose for any age is represented by the number of the following birthday divided by twenty-four. Thus, for one year it is $\frac{2}{24} = \frac{1}{12}$; for two years, $\frac{3}{24} = \frac{1}{8}$; for three years, $\frac{4}{24} = \frac{1}{6}$; for five years, $\frac{6}{24} = \frac{1}{4}$; for eleven years, $\frac{12}{24} = \frac{1}{2}$, etc.

Fifteenth — That it must always be borne in mind that children do not bear narcotics well, and that the doses of such remedies for them should always be proportionately smaller than for the adult.

Sixteenth— That directions must be carefully followed. Medicine should be given exactly at the hour directed, neither before nor after the time. There is a real reason for ordering medicine to be given at certain designated periods. The hours of administration are not taken haphazard, but are definitely fixed because the drugs prescribed take a certain time to develop their physiological effect, and this time differs with the various remedies prescribed. Always ask the attending physician if the medicine is to be taken at night if the patient be sleeping, or whether during the day he should be aroused from sleep to take it. Sleep is the greatest remedy in all of nature's storehouse, and as a rule it is not desirable to arouse a sleeping patient to take either food or medicine. There are some cases, however, when the illness is of such a character as to require the remedy to be given even at the expense of the rest of the patient. An inquiry therefore is always proper and wise, as valuable moments may be lost on account of a misunderstanding.

Seventeenth— That medicines act more quickly when taken on an empty stomach, therefore cathartics should be taken the first thing in the morning, at least an hour before breakfast. For the same reason, medicines designed to produce sleep should be given several hours after the evening meal. In this connection it is not amiss to note that with such remedies their action is greatly hastened by being taken with a hot drink of some sort. Medicines requiring considerable dilution, such as corrosive or irritating substances, are best taken after meals, as the food acts as a diluent in addition to the liberal quantity of fluid in which they should always be administered.

Eighteenth— That the disagreeable taste of many drugs can be removed or prevented by being taken in the proper vehicle. Lemon or orange juice, essence of wintergreen or peppermint, taken just before and after the dose will, by partially paralyzing or obtunding the nerves of taste, prevent the dose from being disagreeable. Chewing a piece of bread crust is one of the best means of disguising a bad taste.

Nineteenth— That when a child refuses to take his medicine, by holding the nose and placing the spoon containing the medicine as far back as possible, it can be administered without any difficulty. Remember in this connection, he cannot choke, and that if the spoon has been placed on the root of the tongue, and the nose held till the child swallows, he cannot spit it up. Most persons in giving medicine in this way let go of the nose too soon and permit the child to spit out the nauseous dose before he has swallowed it. Most children can be coaxed to take medicine; it is not good to have them struggle in taking it, but in some instances the method just described must be employed.

What should a medicine chest contain? This question is answered in a variety of ways, as each person has his individual opinion on the subject, modified in execution by circumstance and the purpose to be subserved. It should be remembered that children need but very little medicine and that of the simplest kind. The medicine chest should contain only such domestic remedies as are well known in their action and are easy of

administration. By this is understood, medicines which the ordinary house-keeper can readily procure and prepare, not those which may be particularly distasteful to a child, for anything bearing the name of medicine is distasteful to a child.

The following list arranged, first alphabetically, and secondly according to therapeutic classification, contains about all the articles usually needed in domestic medicines.

It can be made as elaborate as the desire and ability of the person may dictate. Some may be omitted and others substituted:—

DRUGS

Aconite	Iron Sulphate
Alcohol	Laudanum
Alum	Sugar of Lead
Ammonia Water	Lime Water
Aromatic Spirits of Ammonia	Morphine
Tincture of Arnica	Mustard
Tincture of Asafetida	Nitroglycerin Tablets $\frac{1}{100}$ gr.
Tincture of Belladonna	Essence of Peppermint .
Brandy	Paregoric
Bismuth Subnitrate	Essence of Pepsin
Boracic Acid	Potassium Chlorate
Bromide of Potash	Potassium Permanganate
Bichloride of Mercury	Peroxide Hydrogen
Calomel	Quinine
Spirits of Camphor	Quinine and Dover's Powder
Carbolic Acid	Syrup of Rhubarb
Cascara Sagrada (fluid extract)	Rochelle Salts
Castor Oil	Salicylic Acid
Chloroform	Soda Mint
Chloroform Liniment	Strychnine
Cod-Liver Oil	Sulphur
Copper Sulphate	Syrup of Squills
Creolin	Squibb's Mixture
Tincture of Digitalis	Seidlitz Powder
Epsom Salts	Silver Nitrate
Fluid Extract of Ergot	Sodium Bicarbonate
Ether	Sweet Spirits of Niter
Essence of Ginger	Turpentine
Formalin	Talcum Powder
Flaxseed Meal	Zinc Oxide
Glycerine	Zinc Sulphate
Tincture of Iodine	Whiskey
Iodoform	Syrup White Pine
Syrup of Ipecac	

EMERGENCY BOX

Mustard plasters, one box	One package of absorbent cotton
Glycerine suppositories, one bottle	Bandages
One box cold cream	One hypodermic needle
One bottle vaseline, plain	One vial of antiseptic ligatures
One bottle vaseline, carbolated	One case of assorted surgeon's needles
One fountain syringe	One pair scissors
One rectal syringe	One package of safety pins
One hot-water bottle	Medicine glass
One roll oil silk	One and two-ounce glass
One roll cloths for poultices	Graduate
Atomizer	Minim graduate

Other things may suggest themselves as desirable, for one never knows when the occasion may arise to demand the immediate use of any of them. As an emergency case the two lists above given will constitute practically all that the average household will be called upon to furnish.

In arranging the medicine and emergency compartments one point must ever be borne in mind and that is, when once a system of arranging the contents has been made, under no circumstances should it be changed. Every article should have its own place, and it must always be returned at once to that position after being used. The arrangement can be either alphabetically; by classification according to medicinal properties; by the size and shape of the bottles or packages, or any other system which may commend itself. In drug stores, the usual method is any arrangement according to the kind of preparation; thus all liquids in one line and solids in another. The syrups are placed together, likewise all tinctures or oils are in a row by themselves. The chief difficulty in classifying them according to their medicinal action is due to the fact that a drug is often used for a number of purposes and is therefore assigned to more than one division. However, the following table is arranged according to the most frequent use of the several drugs in the list above given:—

<i>Anæsthetics</i>	<i>Anodynes</i>	<i>Antacids</i>
Chloroform	Laudanum	Bicarbonate of Soda
Ether	Morphine	Lime Water
	Paregoric	Soda Mint
	Squibb's Mixture	
<i>Antiperiodics</i>	<i>Antipyretics</i>	<i>Antiseptics</i>
Quinine	Cold Water	Boracic Acid
	Phenacetin	Carbolic Acid
	Quinine	Salicylic Acid
	Quinine and Dover's Powder	Iodoform
		Formalin
		Permanganate of Potash
		Bichloride of Mercury

Antispasmodics

Asafetida
Camphor

Cathartics

Fluid Cascara Sagrada
Castor Oil
Epsom Salts
Rochelle Salts
Seidlitz Powders
Calomel
Rhubarb Syrup

Demulcents

Flaxseed

Diaphoretics

Tincture of Aconite
Quinine and Dover's Powder
Alcohol in the form of hot drinks

Expectorants

Atomization
Syrup of Ipecac
Syrup of Squills
Syrup of White Pine Co.
Glycerine

Sedatives

Tincture of Belladonna
Bromide of Potash
Heart Stimulants
Aromatic Spirits of Ammonia
Tincture of Digitalis
Nitroglycerin and Strychnine

Astringents

Alum
Acetate of Lead
Bismuth Subnitrate
Potassium Chlorate
Sulphate of Zinc

Caustic

Alum
Carbolic Acid, pure
Nitrate of Silver
Copper Sulphate

Disinfectants

All the Antiseptics
and Copperas or Sulphate
of Iron, Sulphate of
Zinc, Creolin, Sulphur

Emetics

Syrup Ipecac
Mustard Water
Sulphate of Zinc

Laxatives

Same as Cathartics,
only usually given in
smaller doses

Stimulants

Brandy
Essence of Peppermint
Whiskey
Heart Depressants
Tincture of Aconite

Carminitives

Essence of Ginger
Essence of Peppermint
Asafetida
Soda Mint

Counter-irritants

Tincture of Arnica
Tincture of Iodine
Mustard
Turpentine
Aqua Ammonia

Diuretics

Tincture of Belladonna
Tincture of Digitalis
Sweet Spirits of Niter

Emollients

Flaxseed Poultice
Vaseline
Lard
Glycerine
Talcum Powder
Oxide Zinc

Opiates

Laudanum
Morphine
Paregoric

Tonics

Strychnine

Digestants

Essence of Pepsin



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