

LIFE AND HEALTH

JULY NUMBER



PRICE TEN CENTS

W. SCHAEFER

THE BATTLE CREEK SANITARIUM



COOL
WIDE
PORCHES

OPEN AIR
LECTURE

WRITE FOR SOUVENIR PORTFOLIO

An Ideal Home for Chronic Invalids

Free from the noise and excitement of the popular summer resort; a delightful summer climate; large outdoor gymnasium for open-air treatment; sun baths; large indoor and outdoor swimming baths; muscle training under expert gymnasts; scientific regulation of diet to suit individual needs; walking clubs; free carriage rides daily; boating; school of health with daily lectures and demonstrations free to guests; all the advantages of a scientific medical institution with all the comforts of a first-class hotel; a home like atmosphere; skilled physicians; well-trained nurses.

The Battle Creek Sanitarium has no branches, and is not allied with any other institution. It is a private, incorporated, philanthropic institution, and is not under sectarian or denominational control.

A souvenir booklet showing 60 interior and exterior views of the Battle Creek Sanitarium, its life and environments, mailed free upon request.

Address Box 310,

**The Battle Creek Sanitarium,
Battle Creek, Mich.**

The
Sanitarium

Box 310
Battle Creek, Mich.

*Without obligation to
myself, please send me
your Souvenir Portfolio.*

Name

Street No.

City State

MAIL THIS COUPON

GOULD

GLENDALE SANITARIUM

S. D. A.

Glendale, Los Angeles,
California



☞ Located in the beautiful suburban town, Glendale, eight miles north of Los Angeles, and easily accessible by electric cars.

☞ The climate of Glendale is delightful in summer and winter. Ocean breezes fan the valley by day, and cool mountain air gives refreshing sleep at night. Physiological methods of treatment. Skilful attendants, new gymnasium, buildings steam-heated and electric-lighted, electric elevator, reasonable rates, profusion of flowers. Apply for catalog E.

PARADISE VALLEY SANITARIUM

S. D. A.

National City, San
Diego, California

☞ A well-equipped, well-regulated, medical and surgical establishment within easy access of San Diego, conducted upon rational principles and enjoying an ideal climate all the year round. This is just the place for the invalid, convalescent, and overworked, or any contemplating spending a week, month, or season in a true health resort. Two hundred and fifty clear days in the year. Write for illustrated catalog, P. 12, containing rates and full information.



LOMA LINDA SANITARIUM

S. D. A.

Loma Linda,
California



☞ Loma Linda is not a city or a village. It is a well-equipped country sanitarium, with its own private station, livery, dairy, orchard, gardens, groves, parks, and pleasure grounds. It is situated in one of the most beautiful valleys of Southern California, on the main line of the Southern Pacific Railroad.

☞ Here the patient can enjoy outdoor life almost every day of the year. Those visiting southern California in search of better health should stop at the Loma Linda Sanitarium. Send for booklet C.



The **Boulder-Colorado Sanitarium** is a well-equipped and well-regulated institution for the treatment of all chronic disorders. It is the only Sanitarium in the Rocky Mountain region intelligently employing the same system of rational treatment and conducted on the same general health principles as the Battle Creek (Mich.) Sanitarium.

The buildings are equipped with all modern conveniences, including **Steam Heating, Electric Lights, Elevators, Gymnasium; Baths** of every description, including the **Electric-Light Bath, Massage, and Manual Swedish Movements; Electricity** in every form. **Classified Dietary, Laboratory of Hygiene** for bacteriological, chemical, and microscopical investigations; experienced **Physicians** and well-trained **Nurses** of both sexes. No contagious or offensive diseases are received in the institution.

Write for catalogue and card of rates. Address—

BOULDER-COLORADO SANITARIUM

Boulder - - Colorado

FOUR GREAT ESSAYS ON

VEGETARIANISM

and a Vegetarian Cook-Book, FREE

- "Pork, or the Dangers of Pork-Eating Exposed."
- "Plutarch's Essay on Flesh-Eating."
- "Ethics of Flesh-Eating."
- "Biblical Flesh-Eating."
- "Natural Food Recipes," by Mrs. E. E. Kellogg (Containing 120 Recipes).

The above set of booklets, which should be in the hands of every Vegetarian and student of diet and matters of right living, will be sent post free, in connection with one three months' subscription to **GOOD HEALTH**, at the regular price of 25 cents. Canadian subscribers pay 10 cents extra, to cover foreign postage. Fill out the coupon at once.

The Publishers of **GOOD HEALTH**,
41 College Hall Battle Creek, Michigan

Publishers of **GOOD HEALTH**, 41 College Hall,
Battle Creek, Mich.

I enclose 25 cents, for which please send me **GOOD HEALTH** three months, beginning with the current number. You are to send me **FREE** of further cost:—

- "Pork, or the Dangers of Pork-Eating Exposed."
- "Plutarch's Essay on Flesh-Eating."
- "Ethics of Flesh-Eating."
- "Biblical Flesh-Eating."
- "Natural Food Recipes," by Mrs. E. E. Kellogg (containing 120 Recipes).

Name

Address

When you write to our advertisers, please say, "I saw your 'ad.' in **LIFE AND HEALTH**."

Stop that Cold

For it is the Forerunner of
Consumption



The Perfection Pocket Inhaler is ever ready for use. It is effective in the treatment of Asthma, Hay Fever, and acute attacks of Colds, Coughs, Catarrh, both moist and dry, Bronchitis, soreness in the Chest, and affections of Nose, Throat, Lungs, and Ears.



Special formulas of medicine for treating the above-named maladies,

50 cts. per bottle, post-paid. Can be used in other inhalers, vaporizers, and nebulizers.

Enclose money-order for \$1, and we will forward to you by mail, post-paid, one inhaler, with medicine for six weeks' treatment. When ordering medicine, specify the disease you want it for. (Mention Life and Health.)

If you are not satisfied with the Inhaler after ten days' trial, return it in good condition, and we will return your money.

BATTLE CREEK INHALER CO.

29 Aldrich Street

Battle Creek, Mich.

CONTENTS FOR JULY

GENERAL ARTICLES

How to Live Twice as Long and Twice as Well, <i>D. H. Kress, M. D.</i>	293
Goats' Milk, <i>G. H. Heald, M. D.</i>	297
CONSULTING ROOM, <i>G. A. Hare, M. S., M. D.</i>	299
Tea and Coffee—Cereal Coffee.	
DIVINE HEALING, <i>Augusta C. Bainbridge</i>	300
No. 6 — God's Way Is Health.	
HEALTHFUL COOKERY AND HOUSEHOLD SUGGESTIONS, <i>Mrs. D. A. Fitch</i> ,	302
Fruits and Fruit-Canning — Kitchen Adjuncts — Recipes — Practical Suggestions — A Home-Educated Drunkard — Help Wanted (poetry).....	306
FOR THE MOTHER	
The Daily Life (poetry)	307
How Shall We Order the Child? <i>Mrs. E. G. White</i>	307
Some Reasons Why Children Are Untruthful, No. 1, <i>Mrs. M. C. Wilcox</i> ..	309
Should Children Be Punished? <i>By a Mother</i>	310
RATIONAL TREATMENT IN THE HOME, <i>Lawretta Kress, M. D.</i>	312
Infant-Feeding During Warm Weather	
CURRENT COMMENT	315
The "Fourth" and Lockjaw — Milk and Infantile Diarrhea — Reducing Infant Mortality — Tell-Tale Curdling — Dangers of Beach Resorts — Mosquitoes Dangerous — Damp Cellars — Worse Than the Mosquito.	
THE MEDICAL MISSIONARY AT WORK	
Kobe Sanitarium, Japan, <i>W. C. Dunscombe, M. D.</i>	318
One Week's Medical Work in India, <i>H. C. Menkel, M. D.</i>	320
QUESTIONS AND ANSWERS, <i>D. H. Kress, M. D.</i>	322
EDITORIAL	324
Hand Infection — Pathogenic Germs in Healthy Hosts — Flies as Disease Transmitters — Disturbed Sleep in Children.	
CHATS	329
Unfounded Fears.	
SOME BOOKS	330
Christian Science and Allied Subjects	
NEWS NOTES	331
PUBLISHERS' PAGE	334

TERMS: 75 cents a year; 10 cents a copy. Special rates in larger quantities.

POSTAGE IS PREPAID by the publishers on all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutulla, Samoa, and Mexico. To all other countries in the Postal Union the price is \$1 a year.

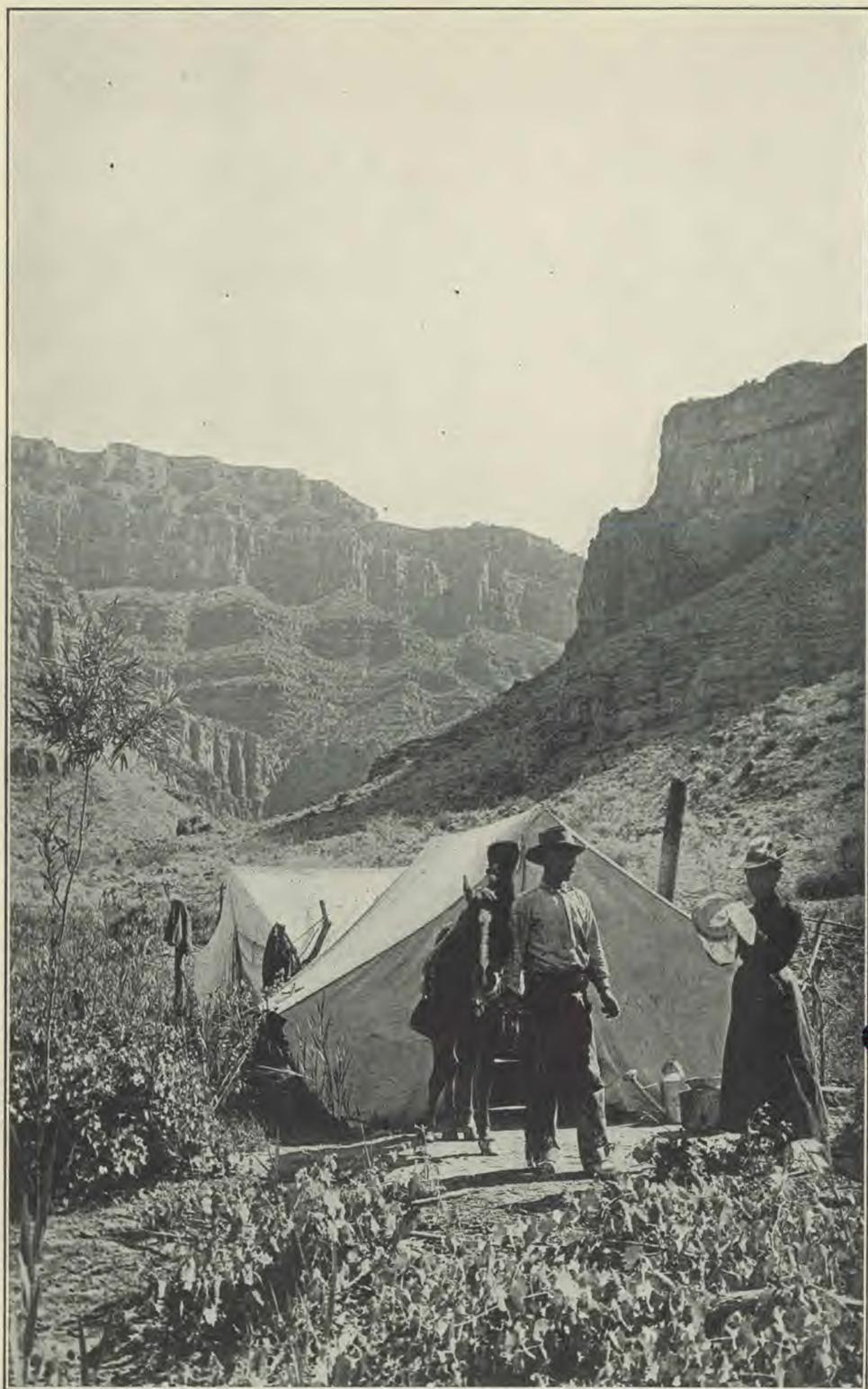
CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old address must be given. The notice should be sent one month before the change is to take effect.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express-order, or Money-order, payable to order of REVIEW AND HERALD PUBLISHING ASSOCIATION. Cash should be sent in Registered Letter.

Address, REVIEW AND HERALD PUBLISHING ASSN., Takoma Park Station, Washington, D. C.

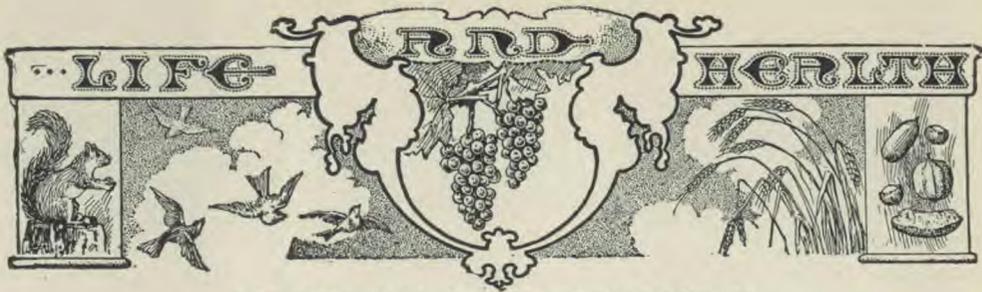
OUR GUARANTEE TO EACH SUBSCRIBER. We guarantee the reliability of every advertisement inserted in LIFE AND HEALTH. We want every subscriber to feel that he can deal with our advertisers with the fullest confidence of fair treatment. If, notwithstanding our most thorough investigation of all advertising submitted for publication, an advertisement should be published through which any subscriber is dishonestly dealt with or imposed upon, we request that full particulars be sent us at once so that we may take proper action for the protection of our readers.

The conditions are: 1. That subscribers in writing to advertisers shall say that the advertisement was seen in LIFE AND HEALTH; and, 2. That the particulars shall be sent us during the month the magazine is dated which contained the advertisement.



*From stereograph, copyright by
Underwood and Underwood, New York City*

CAMPING IN A WESTERN CANYON



"Something better is the law of all true living"

Vol. XXIII Takoma Park Station, Washington, D. C., July, 1908 No. 7

How to Live Twice as Long and Twice as Well¹

D. H. Kress, M. D., Superintendent Washington (D. C.) Sanitarium

DR. HAIG, one of England's most noted medical authors and physicians, says:—

"Those who consider that poor blood, mental and bodily lethargy, and a life of almost constant pain and disease, terminating in the forties or fifties, represents the sum total of human existence, can, no doubt, get the little that they ask for; but it will soon be no longer possible for them to say that nothing better was known or obtainable. A stronger, more active, and more noble life, lived for one hundred years, rather than fifty years, and ending in a natural death, which will be painless and unconscious as birth, is what knowledge of the truth promises to-day to all who dare follow it."

The aim of this paper is to call attention to how these blessings may be secured.

Mental power, physical strength, happiness, and length of days do not come by mere chance. They depend upon immutable laws. In order to cultivate

thrifty plants, the gardener recognizes the agencies that minister to plant life,—suitable soil, air, and sunshine. When these are ignored, degeneracy results.

Man's happiness, well-being, and longevity depend upon laws which are just as real. "Whatsoever a man soweth, that shall he also reap," is a law that is universal in its application. While the violator of human law may escape punishment by fleeing from justice, he who violates a physical law, though he may appear to escape its penalty for a time, will sooner or later be overtaken; his sin is sure to find him out. Many a life has been rendered useless at the age of forty or fifty because at an earlier age it was insisted, "Nothing hurts me."

Nowhere can we find a more forceful illustration of the fact that right physical habits promote mental superiority, and are conducive to longevity, than in the useful and fragrant life of Daniel, the Hebrew captive in the court of Babylon. When he and his three companions were selected to be educated in "the learning and the tongue of the Chaldeans," there was appointed them a daily allowance from the royal table, both of meat and

¹A paper read before the Washington health club, at a meeting held in the parlor of the Washington Sanitarium, May 17, 1908.

wine. They fully understood the influence of such a régime, and dared not risk its enervating effect on the physical, mental, and moral development. Therefore "Daniel purposed in his heart that he would not defile himself with the portion of the king's meat, nor with the wine which he drank." They requested that they might have the simple, non-stimulating products of the earth for food, and water for drink. At the end of three years of training, not only were their faces fairer and better than the rest, but their keen apprehension, their choice language, their thorough knowledge, testified to the unimpaired strength and vigor of their

mental powers; for "in all matters of wisdom and understanding, that the king inquired of them, he found them *ten times better* than all the magicians and astrologers that were in all his realm." Daniel was speedily promoted to the position of prime minister of the kingdom of Babylon. Seventy years later, when Babylon was conquered by the Medes and Persians, Darius, king of the empire, recognized Daniel's courtesy, wisdom, statesmanship, and moral worth. The record states: "It pleased Darius to

set over the kingdom an hundred and twenty princes; and over these three presidents, *of whom Daniel was first.*" At the age of ninety years, instead of being a feeble, withered old man, dependent upon charity, Daniel occupied the position of prime minister of that

vast empire, and was at the height of his usefulness. So well and accurately was his work as a statesman done at this advanced age, that even his enemies, who, through jealousy, tried to secure his office by unfair means, were forced to confess that "they could find none occasion nor fault; forasmuch as he was faithful, neither was there any error or fault found in him." Dan-



From stereograph, copyright by Underwood and Underwood, New York City

A GLITTERING SUMMIT

iel's long, successful career as a statesman, and his spotless character, were due largely to his simple habits of life, and his abstinence from the foods and drinks commonly used in that day.

John the Baptist, the man of whom Jesus could say, "among them that are born of women, there has not risen a greater," was also a man who touched neither wine nor strong drink, and whose food consisted of the simple, non-stimulating products of the earth.

We have other almost equally illustri-

ous examples of men of modern times who have demonstrated the reward of simplicity in diet. The life of Louis Cornaro furnishes one of these. It is said that Cornaro possessed a feeble constitution. He was a descendant of an intemperate family. His father, three of his uncles, and all his elder brothers, died of intemperance and gluttony before their fiftieth year. Before Cornaro had reached his fortieth birthday, the doctors informed him that his condition was so serious that they could offer him no hope. Cornaro began to reason from effect to cause, and then resolved to cure his complaint by removal of the cause. Believing that his food and drink had much to do with his condition, he limited the quantity of the food he ate, and was extremely careful as to the quality. His



From stereograph, copyright by Underwood and Underwood, New York City

A CAMP IN THE WEST

diet was so restricted that at first his friends predicted that he would certainly die of starvation, but Cornaro stuck to his plan of simple living, and in less than a year, to the surprise of his friends, he contrived to get rid of all his ailments. He improved so rapidly, and felt so well at the age of fifty, that in a letter to a physician he said: "A man ought to be in his prime at fifty. I feel fully able to continue my earthly

pilgrimage for another quarter of a century." He realized even more than this; for Cornaro enjoyed bodily and mental health to the age of more than one hundred years. In speaking of the change that took place in his disposition after adopting the new régime he said: "Formerly I was of a most irritable disposition, insomuch that at times there was no living with me. Now for a very long time it has been otherwise, and I can see

that a person swayed by his passion is little or no better than a madman at such a time." At the age of eighty-six, he said, "I now find myself sound and hearty at the age of eighty-six,—forty-six years beyond the time I expected,—and during this long respite all my senses have continued perfect; and even my teeth, my voice, my

memory, and my heart. But what is still more, my brain is clearer now than it ever was. Nor do any of my powers abate as I advance in life. I expect to die without any pain or sickness, and this is a blessing of great importance; yet may be expected by all who lead a sober life. And, since a long and healthy life ought to be coveted by every man, then I conclude that all men are in duty bound to exert themselves to that effect; nevertheless, such a blessing can not be

obtained without strict temperance and sobriety."

Not only could he detect in nature beauties to which before he was blind, but he was able in the simplest foods to detect flavors which he never dreamed of having an existence. Every one of the nerves of special sense was keener and more acute. This led to a higher appreciation of every thing that could appeal to these senses, and naturally to a keener enjoyment of life.

We have another example in the useful life of Honorable David Wark of the Canadian Senate, who for sixty-three years was a member of some legislative body, and during this entire time, it is said, never missed a session. On his hundredth birthday he addressed a letter to the young men of Canada, which was published in the *Toronto Globe*. In it he gave his secret of usefulness in old age, as follows: "I have made it a rule to eat nothing that disagrees with my digestion, no matter how palatable." Pork, beef, and mutton for many years found no place in his bill of fare. He also abstained from rich pies and puddings; though palatable, he said he considered them unwholesome. For many

years his practise was to eat but two meals a day, dispensing with his evening meal. He had been an abstainer from intoxicants of all kinds and on only one occasion had he used tobacco, being persuaded by his friends to try it as a preventive of quinsy; but the sickness was so severe that he could never be prevailed

upon to repeat the experiment.

Much has been said from time to time during the past few years in regard to Captain Diamond, who has passed his one hundred tenth year of life, and is still active and in possession of excellent health. At the age of one hundred two he said, "I am now in the enjoyment of a good



From stereograph, copyright by Underwood and Underwood, New York City

A HALT FOR REFRESHMENTS

health as when in my thirties, forties, or fifties. There is not a pain disturbing; not a joint ailing from rheumatic twinges; not a languid feeling of the nervous system; not a sign of heavy hearing; not so much as a dim vision, and I feel as if I could hold the handles of a prairie plow day in and day out, from the beginning to the end of the year." He attributes his remarkably long and happy life chiefly to total abstinence from alcohol, tobacco, tea, coffee, and flesh foods.

GOATS' MILK

G. H. Heald, M. D.

THOSE who are interested in the problem of securing wholesome milk should consider the feasibility of using goats' milk.

The cow is notably susceptible to tuberculosis. Wherever dairy herds are tested, some of the animals are almost invariably found to be suffering with the disease. Some physicians go so far as to say that practically all human tuberculosis is the result of transmission from the cow by means of infected milk.

While this is almost certainly an overstatement, there can be no reasonable doubt that the use of milk from tuberculous cows is an important cause of tuberculosis in children.

Naturally there is more or less prejudice against the use of goats' milk, because it has been, as a rule, the milk of the poor man. We are used to cows' milk, and look upon it as a proper article of food notwithstanding the diseased condition of nearly all herds, and the general nastiness of milk, as usually handled. This prejudice will be removed when it is realized that the goat is practically immune from tuberculosis, and is in general a more healthy and hardy animal

than the cow, and for these reasons its milk is more likely to be wholesome.

It is more nearly like mothers' milk than cows' milk, and consequently is better for bottle-fed babies.

The cream is in a finer state of emulsion, and does not rise freely, as in cows' milk; but the milk itself is so much richer than cows' milk that it is practically equivalent to a thin cream; and one who has been accustomed to purchase one or two quarts of milk for the cream, to use on cereals, etc., will find the goat's milk will readily take the place of the cream.



From stereograph, copyright by Underwood and Underwood, New York City

MILKING GOATS IN THE MOUNTAINS OF WESTERN NORWAY

Physicians in various cities are anxious to secure goats' milk for the bottle-fed babies among their patients.

One physician in Washington now pays twenty-five cents a quart for all the goats' milk that is delivered to him. There are other physicians who are glad to do the same thing.

Regarding the use of goats' milk as a health producer, George Fayette Thompson, editor of the Bureau of Animal Industry, United States Department of Agriculture, in Bulletin No. 68, calls attention to the fact that a number of

sanitariums in France and Switzerland advertise goats' milk as a prominent feature of treatment, being used in cooking and also given to the patients raw. Results are obtained which speak well for the value of goats' milk as a curative agent; but, as Thompson says, "It should be remembered that the animals in those mountainous localities must themselves be in excellent health, having, as they do, the purest air, food, and water; and the patients, too, are no doubt greatly benefited by the same pure air and water," and he might have added, pure food, including the goats' milk.

Mr. Thompson continues: "The milk is specially recommended for infants because of its similarity in composition to mothers' milk; and the literature is full of instances of success attending the use of the milk with children that, previous to its use, were rapidly wasting away. The writer has in mind several specific instances of the same character which have occurred in the United States."

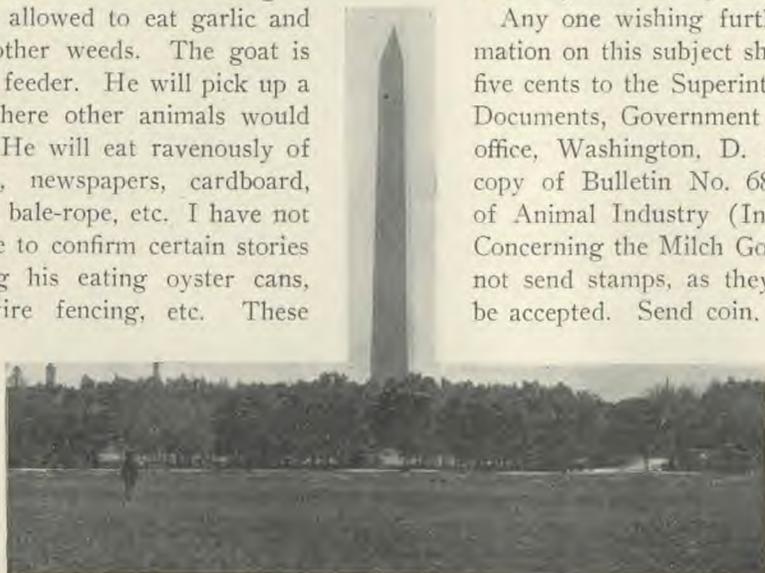
There is some prejudice against the milk on account of its strong flavor; but this is a matter that can be controlled. Any one who has had to do with cows knows that the milk is strong if they are allowed to eat garlic and certain other weeds. The goat is a thrifty feeder. He will pick up a living where other animals would starve. He will eat ravenously of weeds, newspapers, cardboard, clothing, bale-rope, etc. I have not been able to confirm certain stories regarding his eating oyster cans, barbed-wire fencing, etc. These

are probably a little overdrawn; but the fact remains that goats seem to have excellent digestive powers. If they are not fed good food,—such as will produce good milk,—they will eat what they can get. In some parts of Europe the people who own goats, being unable to provide proper food for them, allow them to forage for themselves, and consequently the milk is strong; but when goats are fed good food, as one would expect to feed a cow, the milk is good flavored, and very rich. In fact, those who are accustomed to use goats' milk can hardly be induced to use cows' milk.

Another point in favor of the goat is that it takes less food to produce a quart of goats' milk than to produce a quart of cows' milk. And a goat or a pair of goats may be kept on a city lot, where it would be impracticable to keep a cow.

As to yield, it may be said that an American goat under good conditions will yield about two quarts a day. Some of the imported breeds give much larger yields, but at present these can be obtained in this country only with difficulty and at high prices. The common goats may be purchased, perhaps, at from ten to twenty dollars a pair.

Any one wishing further information on this subject should send five cents to the Superintendent of Documents, Government Printing office, Washington, D. C., for a copy of Bulletin No. 68, Bureau of Animal Industry (Information Concerning the Milch Goats). Do not send stamps, as they will not be accepted. Send coin.



THE CONSULTING ROOM



Conducted by G. A. Hare, M. S., M. D., Fresno, Cal.

Tea and Coffee

YES, madam, I can assure you that there is no doubt whatever that tea and coffee are injuring your health. The fact that you experience great difficulty in giving up these habits is positive evidence that they are causing a profound injurious effect on your system. No good food forms a habit hard to get rid of. Whoever heard of a grape habit? Or an apple habit? A potato habit? Or an oatmeal habit? These are all useful foods; but any one of them can be dropped from the dietary and its place filled by other equally good and harmless food, and the change need not cause the least discomfort; their use forms no habit. But tea, coffee, tobacco, wines, or liquors, used even in small amounts, soon establish a habit hard to discontinue. Just in proportion as they cause a habit, in that proportion they are injurious. Nervousness, sleeplessness, headaches, irritable tempers, sour stomachs, and a host of other stomach disorders, together with torpid livers and sallow complexions, may all be caused by, and often are due wholly to, the use of strong tea and coffee.

In order to overcome these habits you should chew the food thoroughly, eat deliberately, enjoy your meals socially, cultivate the use of the salivary glands, and nature will soon give you a much greater amount of saliva, which she in-

tended should moisten the food and prepare it for perfect digestion. You will then not crave much drink of any sort with your meals. The use of tea and coffee encourages hasty eating, and hasty eating always causes slow digestion. Just break the habit square off, and keep it broken, and you will soon be free from it. That is the only way we know of to get rid of any habit.

As a rule, people drink altogether too much at meals, and most people drink too little at other times. There are conditions under which it may be best to drink at meals. Cold water, hot water with or without cream, hot milk, hot malted milk, carbonated water, lemonade, orangeade or fruit juices, all are excellent drinks, far superior to tea or coffee.

✽

Cereal Coffee

Yes, you are right in your surmise. I have known many persons who could not use cereal coffee because it caused sour stomach. I have no criticism of cereal coffee when it agrees with the stomach, but all who are troubled with sour stomach should know that cereal coffee is very prone to increase acid fermentation, and is often a cause of sour stomach. Bear in mind that no one food, however good it may be for the average person, can be depended upon to agree with every stomach.



"But unto you that fear my name shall the Sun of Righteousness arise with healing in his wings ["beams," A. R. V., margin]." Mal. 4: 2.

Conducted by Augusta C. Bainbridge, 4487 Twenty-third Street, San Francisco, Cal.

No. 6 — God's Way Is Health

Augusta C. Bainbridge

GOD has a "way" that may be known upon the earth,—“saving health,” that may be known “among all nations.”¹ He changes not. In the beginning, his “way” was *health* for the race he created; and though man has wandered far from the life that God gave him, yet God has not failed to hold before him his “saving health” as the way back to the original standard.

Outdoor employment, a clean, non-stimulating diet, a pure life, cheerful surroundings, and constant communion with God, the Source of all life,—this was his plan in the beginning. Disobedience came; and the race, once in the full enjoyment of health, now needed “saving” from evil things that had brought disease.

Life, as bestowed by the Creator, was characterized by perfect health. Disease is, in reality, a death process. It was not brought on man as a means of salvation, but is something from which he is to be saved.

The church may glory in the blood of her martyrs, but never in the diseases of her members. In the former, God

may be glorified, and the church edified, strengthened, and purged; but the latter can be only a hindrance to the best service.

“Sickness sanctifies us,” some say, “and so fits us for service.” But is sanctification, or holiness, a question of our own person? There was One who said, “For their sakes I sanctify myself.” The supreme end is not the development of our own spiritual life, but rather the service of God. Sanctification is a continual attitude, in which we are at God’s disposal. It is an experience which comes to us through faith, the gospel revealing to us Christ our Redeemer, and separating us from our own life, from our own will.

It is not by the sufferings of our members, but by the sacrifice of Christ’s members, that we are sanctified. Sickness, like any other trial, may have a purifying, sanctifying influence upon us; but the fact remains that it is the Word of God, the blood (life) of Christ, which purifies us. Purification is never in the trial itself. The purifying influence of sickness or any other trial consists in the discipline it brings, and the lesson it teaches; and it ought to press us closely until we yield our bodies, grasp our re-

¹“That thy way may be known upon earth, thy saving health among all nations.” Ps. 67: 2.

demption, and take the place to which he calls us.

May we not reckon ourselves sanctified unto God, separate from self and sin, living bodily as well as spiritually by the power of his grace? Is not this his "saving health"? May we not say that every man and woman needs "saving health"? Have we not all "sinned, and come short of the glory of God"? Are not our bodies, marred by sickness, "short of the glory of God"? For his glory is his character, and it is certainly contrary to the character of God to create a race capable of falling into disease without at the same time providing "saving health" for that race.

Since, then, there is a remedy provided, may we not, in humble gratitude and unfaltering faith, seek for it as for hid treasure? It may call for years of patient continuance in well-doing, for there are some "who through fear" are "all their lifetime subject to bondage;" and yet this "saving health" is the rule that is strengthened by these exceptions, and let no one dare decide for himself that he is the exception. God alone can settle that. Blessed is the man, blessed the woman, who can face the question of God, accepting his promise, and abiding in his love. "To his own master he standeth or falleth." While we regard principle as being fixed and eternal, we can not make rules or restrictions for one another.¹

The digestive tract, the circulatory

system, the respiratory organs, all that belongs to our bodies having been made by God, he alone can provide food, air, water, and other things necessary to keep these organs working in perfect harmony.

Though it is true that when one member suffers, "all the members suffer with it," it is also true that when "saving health" comes to one member, all the members rejoice with it. This is a principle of healing that is implanted in the body itself. Note the quiet that comes to the nerves through rhythmic breathing, the activity of stomach and intestines that comes through the abdominal breathing, the rest of brain that follows a drink of water, or an application of water to the face.

But if, in the use of certain means, we individually have received the blessing of health, we must not conclude that these means are the best for every one. As the nature of the deviation from health is different in each person, the means which restores health in one may not be applicable to another. We are all standing in different places, so to speak, and we each have an individual by-path that is personally our own, yet these paths all reach the same goal.

If one seems to be helped by the use of cereal coffee, another finds this beverage a hindrance to health. One can not take fresh, clear grape juice without becoming dizzy and stupid, and can not even eat ripe grapes without becoming sleepy. Shall one judge the other? — Not for a moment. "To his own master he standeth or falleth." So while we may not judge one another, let not one of us stop short of knowing for ourselves, in our own bodies, His "SAVING HEALTH."

¹" Him that is weak in the faith receive ye, but not to doubtful disputations. For one believeth that he may eat all things: another who is weak, eateth herbs. Let not him that eateth despise him that eateth not; and let not him which eateth not judge him that eateth: for God hath received him. Who art thou that judgest another man's servant? to his own master he standeth or falleth." Rom. 14: 1-4.

HEALTHFUL COOKERY



AND HOUSEHOLD SUGGESTIONS

Conducted by Mrs. D. A. Fitch, Glendale, Cal.

FRUITS AND FRUIT-CANNING

MRS. D. A. FITCH

IN "Farmers' Bulletin," No. 193, issued by the United States Department of Agriculture, Washington, D. C., under the subdivision, "Place of Fruit in the Diet," we find the following: "In most families fruits are thought of as a food accessory, and are prized for their pleasant flavor or for supposed hygienic reasons rather than for their food value; yet a study of available figures shows that they constitute a by no means unimportant part of the diet, since they supply, on the basis of recent statistics, four and four-tenths per cent of the total food and three and seven-tenths per cent of the total carbohydrates of the average American diet." In conclusion the writer says: "Intelligently used, fruits are a valuable part of a well-balanced diet, and may well be eaten in larger quantities than at present." (Send a postal-card to the address given above, and receive the publication free of charge.)

The season of fruit-canning is now upon us, and in some localities has been for several weeks. It is also the season for eating just as much fruit as is wanted or can be obtained. Fruit is never so good as in its season. We can see but

one reason for waiting until winter to eat fruit, and that depends on the theory that all fruit should be cooked in order to destroy bacteria, especially on those berries which grow near the ground. But who cares as much for strawberries or other fruits canned as when they are fresh? The writer has had an experience of more than sixty years in eating fresh or raw strawberries, fully demonstrating the fact that the infesting germs are not sure to kill.

Home-canned fruits are superior to the factory article for various reasons: (1) glass is much more safe and better in many ways than tin; (2) the prudent housewife will not introduce any strong or poisonous preservative; (3) whether or not she uses an abundance of sugar, it is not necessary, as many can testify that canned fruit will keep indefinitely without an ounce of it; (4) usually it is cheaper to buy in quantity, at least a crate at a time. Wait to begin the canning until the family have eaten all desired. Can what may be left, then buy another crate for winter use, but let the family "can" as many as possible. Repeat the process as long as the season lasts, being sure to have a long row of

shining jars filled with the choicest fruit.

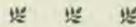
All fruit should be washed or at least wiped to remove dust and grit, though not quite as thoroughly as did the young girl who, being directed to wash some dried prunes, did it so well(?) that she made jam of them before changing waters. Careful handling in several waters can do the fruit no harm while the skin is intact.

Not only the fruit, but jars, rubbers, and covers should be scrupulously clean, — microscopically clean. To scald jars it is better to submerge them in cool water, gradually bringing to a boil. Then they are ready to be filled with the boiling hot fruit. If placed on a wet cloth, they are not likely to break while being filled, though it is much better not to allow drafts of air to strike them.

It is well to place the rubbers on the jars to scald with them, baking the covers meanwhile. After it is covered, invert the jar to find any leak which may appear. Canned fruit should be kept in a cool, dark place, and not be moved unless absolutely necessary.

An excellent method of sweetening is to make a thick sirup and add it to the fruit just before filling the jars. Boiling sugar with acid fruits lessens its sweetening properties.¹ It is better to *stew* the fruit than let it boil, since by so doing more of its fine flavor is retained.

¹It should be remembered that when cane-sugar loses "its sweetening properties" by being boiled with an acid, it is because it has been converted into invert sugar,—a mixture of grape-sugar and fruit-sugar considered by some to be more wholesome than cane-sugar.—ED.



KITCHEN ADJUNCTS

Mrs. D. A. Fitch

SOME one suggests that July is the best time to write about ice-chests, cellars, etc. Yes, it is a good time,—perhaps the most important,—but such instruction should not come niss any month in the year; for if proper attention is given during the cool months, there will be less trouble in July and August. No doubt much food is spoiled, and some disease induced, by the use of unclean food receptacles.

The cellar, to be of much use, should be warm in winter and cool in summer. This is best accomplished by having the doors and windows closed during the day. The cellar should not be simply a hole in the ground, but rather it should be well cemented or otherwise protected from ground-air circulation. Such walls and floors are easily cleaned and dried.

The condition of the cellar has much to do with the wholesomeness of foods kept in it, and the purity of the rooms above. If practicable it is well to have a stream of clear water running along a trench at one side of the cellar.

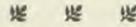
In this Western region many families make use of an improvised cooler built in the following manner: In the shade of a tree or other shelter, set up a skeleton cupboard so constructed as to be protected from ants, mice, etc., with slat shelves and a slanting roof of the style which will permit water, which is kept constantly dripping on the peak, to run down all sides. Cover the entire structure with muslin, and outside a layer of burlap. Make the door in the same style. If the walls are kept wet, it is surprising how cool foods will keep inside.

Ice-chests and refrigerators may profitably be emptied, and the inside surfaces brushed or rubbed with a cloth five or six times a week; they should never go more than a week without a thorough overhauling and scrubbing. Sunshine does much to purify any food receptacles. Especial attention should be paid to the ice-water outlet. It may become so clogged with slime that no water can pass. This causes inconvenience, and is an impurity not to be tolerated. A piece of soft muslin pushed through the pipe with a stick or wire, will remove the most of it, but it will then need an ap-

plication of soap and scalding water to destroy the remaining germs.

Never permit onions, turnips, cabbage, or other strong vegetables to find their way into the refrigerator, or anywhere in close proximity to butter, milk, or other foods liable to take on odors. They do not spoil readily, but their presence spoils other foods, and the refrigerator as well.

Economy in ice is sometimes quite necessary; hence the importance of keeping the refrigerator in a cool place. A thick cloth or paper cover saves the ice from melting so rapidly. Food should not be set in until cool.



RECIPES

Shortcakes

SHORTCAKES are not confined to strawberry season, but may be enjoyed the year round, using any fresh fruit in its season, also canned and stewed fruits when conditions make it necessary. There are digestive and other objections to crusts made by using soda, cream of tartar, or baking-powder; but excellent results may be obtained in other ways. Slightly shorten and sweeten as much bread dough as will meet the needs of the family, roll enough to cover a pie-tin very thin, brush with cooking-oil or butter. Put on another layer, brush it and add a third. Let it stand to rise as though it were a loaf of bread, and bake when light. Crushed strawberries or other fruit sweetened and spread bountifully between the layers and on top make a dainty and appetizing dish. Serve with or without cream.

Common pie-crust rolled, perforated with a fork, baked on separate tins, and filled with fruit, is also excellent.

Slices of zwieback, bread, granose biscuit, shredded wheat biscuits, triscuits,

and some kinds of crackers, moistened in cream or other liquid, are ready-made crusts which are convenient, wholesome, and palatable.

Hygienic Cookies

Without separating them beat two eggs very light, add two-thirds cup of granulated sugar, and beat again. Mix in sufficient flour to make a reasonably stiff dough, and incorporate one-half cup of currants or sultana raisins. Roll quite thin, perforate well with a fork, cut in desired shapes, and bake

Candied Fruits

Canned or dried fruits are less expensive than jellies or preserves, though most families think it necessary to have a portion of "pound for pound" products. As they come in their season, try candying a few of each kind of fruit. Lack of space forbids directions for each kind, but in general the fruit should have the skin removed, and be cut in rather thick pieces, dropped into maple or other sirup, and cooked until semitransparent, skimmed out, and drained to be served without any accom-

paniment. When thoroughly dry, candied fruit may be packed in glass or earthen vessels. It will keep indefinitely.

Banana Cream

After peeling the bananas, mash them

fine with a spoon, then take equal parts of bananas and sweet cream, and to one quart of this mixture add one-quarter pound granulated sugar. Beat all together until cream is light. Very nice.



PRACTICAL SUGGESTIONS

LET surplus laundry starch stand until every article has the necessary amount in it. A piece might become soiled, or the day become windy or damp, or for other reasons a little starch be needed.

It is unwise to leave a book lying open while not in use. It breaks the binding, changes the shape, and makes the book prematurely old. If you wish to remember the place, slip in a piece of paper.

THE blade had loosened from the handle of a French knife. Wax such as is used for sealing bottles was poured hot into the handle, and the blade pressed in place. It still holds, and is doing good service.

SOME sewing-machines are likely to knot the under thread when starting a seam. This may be obviated by running one seam directly after another. In case another is not ready, slip in a scrap of waste cloth to take its place. This is a convenience and something of an economy in thread.

SINCE I learned to soak white clothes overnight in clear water, and then in a suds of some good naphtha soap, to rub the little that is necessary, rinse them, and let them stand several hours in the bluing water, I find a decided improvement as to whiteness and a lessening of labor. It is cheaper to let time do the cleansing than to do it myself.

It is sometimes a problem to remove a cork which has found its way to the inside of a bottle. Try the following method: To a strong cord tie something which will just pass through the neck of the bottle, or make a large knot in the string. Lower it well into the bottle, and by inverting the bottle get the knot behind the cork. Now pull both into the neck. A corkscrew may prove an assistance at the last.

SOME housekeepers have wondered why their bakestuffs were pale and doughy in appearance, especially next to the tins. Probably it was not the fault of the oven, but because the new tins reflected the heat instead of transmitting it to the bread and pie as they should. *The Remedy*: Either purchase black tins or manage some way to make the bright ones dark. I put new tins in the oven empty, and let them burn until dark.

IT does not answer the purposes of hygiene to chew something (gum, supposedly) before or after a meal,—to chew excessively on a few mouthfuls and let many slide down the esophagus with a pressure or two between the tongue and roof of the mouth. The most important reason for chewing is that the food may be mixed with the saliva. Take time to chew while eating. It pays in taste, comfort after dinner, strength, clearness of mind, and longevity.

A Home-Educated Drunkard

A YOUNG man apologized to his landlady because of the condition in which she found his room the next morning after his absence of the previous day. She accepted his excuses, but was sorry he must assign the reason he did: "You see I took dinner at home yesterday, and we had some of mother's famous mince pie and brandy peaches. I was just drunk all night." It would not be pleasant for the writer

or reader to have the future course of that young man traced as it is in my power to do. He was a home-educated drunkard, and that mother reaped according to the seed she had sown. Are other mothers, readers of this magazine, engaged in the same line of education? It will be better to turn about and train the family in the way that leads to health, temperance, morality, and finally to life eternal. D. A. F.



Help Wanted

SHE bought a device to mix the bread,
And one to stir the 'cake;
A fireless stove and a coffee machine,
And one to broil the steak.

And into her kitchen, so up-to-date,
It's a pleasure, indeed, to look;
But the family's boarding while she seeks
A machinist who can cook.

— Lippincott's.



Conducted by Mrs. M. C. Wilcox, Mountain View, Cal., to whom all questions and communications relating to this department should be addressed.

THE DAILY LIFE

I ASKED the Lord to let me do
Some mighty work for him,
To fight amid his battle host,
Then sing the victor's hymn.
I longed my ardent love to show,
But Jesus would not have it so.

He placed me in a quiet home,
Whose life was calm and still,
And gave me little things to do,
My daily round to fill.
I could not think it good to be
Just put aside so silently.

Small duties gathered round my way
That seemed of earth alone;
I, who had longed for conquests bright
To lay before His throne,
Had common things to do and bear,
To watch and strive with daily care.

So then I thought my prayer unheard,
And asked the Lord once more
That he would give me work for him,
And open wide the door,
Forgetting that the Master knew
Just what was best for me to do.

Then quietly the answer came,
"My child, I hear thee cry;
Think not that mighty deeds alone
Will bring thee victory;
The battle has been planned by me,
Let daily life thy conquest be."

— Selected.



How Shall We Order the Child?

Mrs. E. G. White

THE directions given concerning the Hebrew children teach us that nothing that affects the child's physical well-being is to be neglected. Nothing is unimportant. Every influence that affects the health of the body has its bearing upon mind and character.

Too much importance can not be placed upon the early training of children. The lessons learned, the habits formed, during the years of infancy and

childhood, have more to do with the formation of character and the direction of the life than have all the instruction and training of after-years.

Parents need to consider this. They should understand the principles that underlie the care and training of children. They should be capable of rearing them in physical, mental, and moral health. Parents should study the laws of nature. They should become acquainted with the organism of the hu-

man body. They need to understand the functions of the various organs, and their relation to, and dependence upon, one another. They should study the relation of the mental to the physical powers, and the conditions required for the healthy action of each. To assume the responsibilities of parenthood without such preparation, is sin.

Far too little thought is given to the causes underlying the mortality, the disease and degeneracy that exist to-day, even in the most civilized and favored lands. The human race is deteriorating. More than one third die in infancy; of those who reach manhood and womanhood, by far the greater number suffer from disease in some form, and but few reach the limit of human life.

Most of the evils that are bringing misery and ruin to the race might be prevented; and the power to deal with them rests to a great degree with parents. It is not a "mysterious providence" that removes the little children. God does not desire their death. He gives them to the parents to be trained for usefulness here, and for heaven hereafter. If fathers and mothers would do what they might to give their children a good inheritance, and then by right management would endeavor to remedy any wrong conditions of their birth, what a change for the better the world might see!

The more quiet and simple the life of the child, the more favorable it will be to both physical and mental development. At all times the mother should endeavor to be calm, quiet, and self-possessed. Many infants are extremely susceptible

to nervous excitement, and the mother's gentle, unhurried manner will have a soothing influence that will be of untold benefit to the child.

Babies require warmth, but the serious error is often committed of keeping them in overheated rooms, deprived to a great degree of fresh air. The practise of covering the infant's face while sleeping is harmful, and should be avoided, since it prevents free respiration.



"SHE SHOULD KNOW HOW TO MINISTER
TO HER SICK CHILD"

The baby should be kept free from every influence that would tend to weaken or to poison the system. The most scrupulous care should be taken to have everything about it sweet and clean. While it may be necessary to protect the little ones from sudden or too great changes of temperature, care should be taken that, sleeping or waking, day or night, they breathe a pure, invigorating atmosphere.

In many cases the sickness of the child can be traced to errors in management. Irregularities in eating, insufficient clothing in the chilly evening, lack of vigorous exercise to keep the blood in healthy

circulation, or lack of abundance of air for its purification, may be the cause of the trouble. Let the parent study to find the causes of the sickness, and then remedy the wrong conditions as soon as possible.

All parents have it in their power to learn much concerning the care and pre-

vention, and even the treatment, of disease. Especially ought the mother to know what to do in common cases of illness in her family. She should know how to minister to her sick child. Her love and insight should fit her to perform services for it which could not so well be trusted to a stranger's hand.



Some Reasons Why Children Are Untruthful—No. 1

Mrs. M. C. Wilcox

NEXT to disobedience, do you know of any more crying evil in the children of this generation than that of untruthfulness? And shall we say children only? If these were all, the work of reformation would not appear so utterly discouraging. But how is it possible for "a stream to rise higher than its source"?

Are parents truthful to their children? Do you appreciate, dear mothers, that your own example is far more to your child than any precept you can teach? How many promises have you made and broken to those children of yours? Do you not often say, "Now, my little son, if you do that thing again, mama will certainly have to punish you severely"? Then the thing occurs again, and you are busy or occupied by conversation, and you either forget or neglect to do what you promise to do, and pass on, never once thinking what kind of impression that neglect on your part will have on your child.

If it were simply once that such carelessness happened, you could quite easily overcome the evil. But do you not do

it again and again? You almost daily make promises to your child which you do not keep. Now you must remember that your little one is not burdened with care as you are; his memory is keen and quick, and he will not forget these little things, but will put you down as untrustworthy and untruthful.

And why should he not imitate you? Why should you expect him to keep *his* word? Of course he is not old enough to discriminate between great and small things, and if he tells a great untruth, on which hang great and important things, why should he be punished? He is not to blame.

Again, you may look out some very busy day and see a caller coming, and may remark in a petulant way that you do not wish to see her; then you answer the door and meet her with a smiling face and a pleasant greeting. How can that child of yours understand you? And is he not justified in using deception about other things?

Think of these things, mothers. Do you wonder children are deceptive and untruthful?

Should Children Be Punished? How? When? Why?—No. 6

Causes of Misdemeanor (*Concluded*)

By a Mother

7—Temper Uncontrolled



ONE of the most serious causes of disobedience is ungovernable temper. The management of this condition requires almost unlimited patience. All of a mother's energy is often required to oppose a child's wilfulness. It is a stupendous task. Unaided, she can not cope with it. Victory must be the direct result of prayer and strength from above.

Thoughtful conscientious effort should be put forth to avoid anything which might be an unnecessary source of irritation to the child, and to cultivate, in every possible way, incentives to right-doing. It is unwise to give arbitrary commands or to thwart the child's plans, unless these involve some real wrong. Use compulsion only when necessary. It is far better to yield a point not involving a principle than to force the child into a situation where he must choose between submission to what seems to him an unreasonable demand, and rebellion.

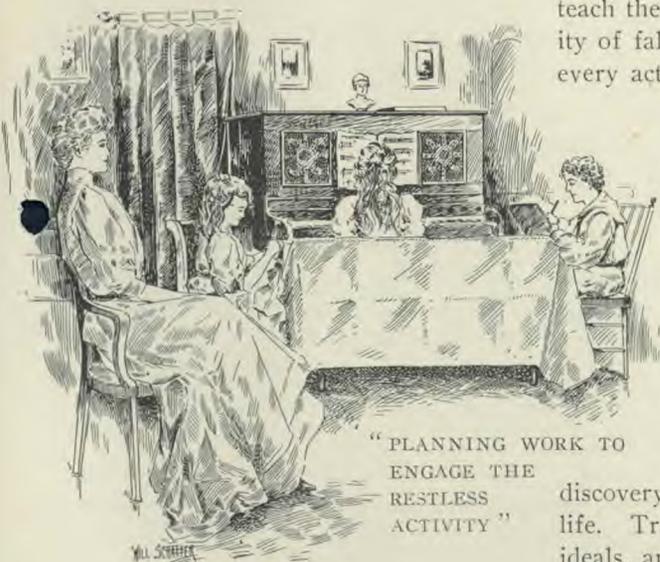
When the little heart is surging with defiance, a little tact, a soothing application of gentle words,—the soft answer that turneth away wrath,—will do far more to dispossess the rebellious spirit of its stronghold than any amount of compulsion. But the wise parent will discern an approaching storm, and change the current of thought; for it is safer and easier to avert than to quell an outburst of passion. When mother and child are in a state of nervous irritability, vigorous exercise in the open air will quiet the condition in both, as the Saviour calmed the storm-tossed sea.

It is important for the health, and for the future welfare of the child, that outbursts of passion be avoided; for violent emotional states are followed by most serious physical results, even death, sometimes; moreover, one experience of this kind materially changes the brain, so that a repetition of the experience naturally follows, and an evil habit is formed. Undoubtedly most murders, and violent assaults committed in a frenzy of anger, without adequate cause, are traceable to the habit, formed in childhood, of giving way to passion.

8—Misdirected Energy

Many a child comes to grief through the spontaneous exercise of its undirected energies. Having a highly developed activity, and the desire to investigate and *do things*, and lacking the caution that comes with a riper experience, the child, even when intending no harm, is likely to get himself into no end of trouble. Henry, having learned the use of the paint brush, took his younger sister out to the shop, and gave her hair a coat of paint. At another time he spread about a quarter of an inch of axle-grease over the buggy seat. The thought never occurred to him, while he was doing these things, that it was wrong; but his father, who thought otherwise, proceeded to demonstrate their wrongfulness by means of an exciting drama in which Henry's back and a birch switch were the principal actors. The inventive genius of the mother should be exercised in planning work ahead to engage this restless activity. Wise cultivation of all the child's

abilities will promote its happiness and usefulness, and will act as a barrier to evil influences and the growth of wrong tendencies. If the early activities are turned in the direction of the pure and lovely, the habits of thought and the affections will be made strong in that direction.



"PLANNING WORK TO
ENGAGE THE
RESTLESS
ACTIVITY"

9 — Impatience

This is often the direct result of parental example, and the solution of the problem lies in the same source. It is, however, important to remember that the physical condition of the child has much to do with its reaction to environment. A child who is naturally mild tempered, may, by the loss of sleep, even for one night, or by the use of indigestible or stimulating foods or drinks, be transformed into a little tyrant on the war-path with everything and everybody. Many a parent invites endless trouble by allowing the child to remain up after its bedtime, or by permitting it to be awakened too soon in the morning, or by indulging it in harmful foods, or by feeding it at irregular times, whenever it happens to think it is hungry.

10 — Deception

The mother should fear a lie, or an act of secret disobedience above everything else, and should let no act on her part pave the way for deceit. Even open rebellion is to be preferred to hidden sin. Above all, be truthful yourself, in the smallest details, and by every means teach the value of truth and the insecurity of falsehood. Let the child know by every action that you expect him to tell the truth as a matter of course. Never wrongfully accuse, or even suspect, a child of untruthfulness.

To inculcate hatred of sin because others look askance at it, instead of because of its own belittling, polluting character, is to present a wrong motive, which will itself suggest concealment of sin rather than reform, and the fear of discovery rather than desire for a true life. Train the child to a life of high ideals, and never to a life of hypocrisy.

11 — Cowardice

Deceit is often the result of physical or moral cowardice at the critical moment, followed by want of wisdom in righting matters afterward.

The case of Reuben, as given in the Bible story of Joseph, illustrates this principle. He hesitated to face the displeasure of his brothers by voicing his disapproval of their cruel treatment of their younger brother, Joseph. Instead of openly avowing his sentiments, he parleyed with the matter, and suggested a counter plan, intending later to deliver Joseph to his father by means of some stratagem. It was a good motive that prompted his wish to save the life of the lad; but his moral cowardice caused later the bitter wail, as he rent his clothes in despair, "The child is not, and I, whither shall I go?"

RATIONAL TREATMENT IN THE HOME

Conducted by Dr. Lauretta Kress, Washington Sanitarium

Infant-Feeding During Warm Weather

Lauretta Kress, M. D.

FORTUNATE is the baby whose mother supplies it with breast milk; for statistics show that of the large number of babies that die unnecessarily every year from intestinal diseases, much the larger proportion are bottle-fed infants. Of one hundred sixty-nine deaths of infants from diarrheal disease in the city of Graz in 1903-04, four were breast-fed, forty-eight were partly breast-fed, and one hundred seventeen were bottle-fed. The health officer of one English city says that breast-fed infants contribute but one tenth of the diarrheal infantile mortality; and another authority states that of the one hundred fifty thousand infants dying annually in Great Britain from all causes, three fourths are bottle-fed.

There are several reasons why the chance for life is less with bottle-fed infants than with those who are breast-fed.

In the first place, as Dr. Leonard says in the *New York Medical Times*, "Raising babies by the bottle is like hatching chickens in an incubator. The hen and the human mother seem to have no special trouble when they are employed; but it becomes a complicated problem when blundering, deficient man steps in." This is not far from the truth. Cows' milk differs considerably from human

milk in composition; and though much has been written about producing an artificial human milk, or "a humanized milk," from cows' milk, it remains true that "there is no way yet known of producing a perfect substitute for human milk."

Modified milk, at its best, is not a perfect substitute for mothers' milk; and when it is considered that much of the modified milk is unskilfully prepared, it is not surprising that its use is the cause of nutritional disorders which weaken the resisting powers of the child, and make it a more ready prey to any harmful bacteria or germs which may be present.

In the second place, cows' milk, as obtained in the cities, being quite old by the time it reaches the customer, and probably not always handled with the best of care, is often very rich in germ life, including germs capable of inciting intestinal disorders, especially in delicate children. A few hours after milking, the germs begin to increase rapidly, especially when the milk is warm, so that in hot weather, if the milk is not kept artificially cooled, it is more dangerous; and as the heat renders the children less resistant to germ action, the baby furnerals from intestinal disorders increase tenfold during the heated season.

A circular issued by the Department of Health of the city of Chicago has the following excellent advice to mothers:—

“The proper food for babies is mothers' milk. No sensible mother needs advice on this point. If she is fairly healthy, her breasts will give all the nourishment the child should have until it begins to cut its teeth. Up to this time it is a sin to give an infant one morsel of solid food of any kind, or anything but breast milk (if the mother is healthy) except water in moderate quantity occasionally, *but never soon after nursing.*”

“Many infants are killed every year by bringing them to the table with the family and giving them little bits of this, that, or the other,—meat, vegetables, pie, pickles, etc., which the little stomach is not fitted for. They are *killed* just as surely, though not so quickly, as if they had been fed poison out of a drug-store.”

The mother should by all means try to encourage the flow of milk if she seems to be deficient in that regard. She should eat freely of well-cooked cereals with rich milk. Zwieback, or twice-baked bread, and toasted granose biscuits, will make a quantity of rich milk. Often a lack of milk is due to the mother's inattention to healthful exercise; or she may overexercise, and become exhausted, the result being indigestion, and the production of a small quantity of thin milk. A nursing mother

should drink freely of water between meals. Beware of the fallacy current in some localities that the mother can improve her milk supply by drinking beer. The principal effect of this procedure is to establish in the child an appetite for liquor.

When the mother can not possibly supply a sufficiency of milk for the child, the best substitute is a healthy wet-nurse;

but this is far beyond the means of many, and sometimes can not be obtained at any price. The most available substitute is fresh milk from a healthy cow, or healthy herd kept free from contamination, and properly modified to suit the child's age and condition.

It is important that the milk for the baby should be “right” at all times of the year, but especially is this true during hot weather. For this

reason a few hints on the care of the milk will not be amiss at this time.

Get the best and freshest milk you can obtain,—milk that has come from a good, clean dairy, and that has been kept on ice, and delivered as promptly as possible. As soon as the milk arrives, scald it, and then cool it as quickly as possible. A good way is to put the separate feedings each in a different bottle with nipple in place, all in a vessel of water reaching as high as the milk, and keep on the stove until the water boils. Cool as quickly as possible, preferably under running water, and place in the ice-chest. If there is no ice-chest, keep in running water, or in the coolest place



possible; but it is far better to have the milk kept cold by ice, in an ice-chest that will keep out the dust. Bottles and nipples should be washed thoroughly and boiled for ten minutes after use, and should be again scalded before the milk is placed in the bottles. When not in use, they may be kept in a weak solution of baking-soda.

The question of modification of milk is a difficult one, and nearly every physician has his own method, which is the result of his own experience. That babies live through it all is a proof of the adaptability of the vigorous child to environment. A common method is to use "top milk,"—the upper part of milk that has stood for, say, six hours,—scald it, and add milk-sugar if it can be obtained pure, until it tastes as sweet as mother's milk. This often needs diluting with water to make the proper consistency. "Humanized milk," which is said to resemble human milk very closely, is prepared by taking one pint of milk, allowing it to stand in a cool place till the cream rises, skimming, adding rennet to the milk, and passing through a strainer. The whey and the cream are then added to a pint of fresh milk. This is said to be much more digestible than milk diluted with water.

It is important to preserve scrupulous cleanliness in handling the milk and in feeding the child. Dishes and other utensils for feeding baby should be used for nothing else. The habit of using any dish for baby's food is often disastrous. This is not merely a matter of

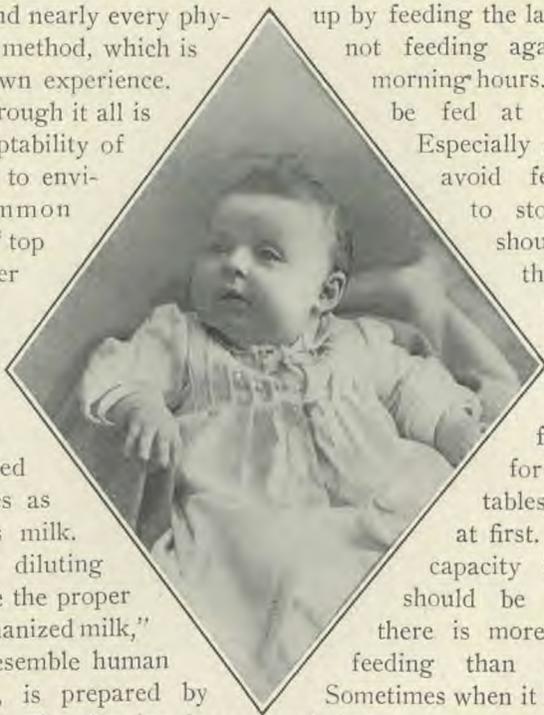
sentiment—it is a matter of life and death for the child.

Be especially cautious not to overfeed the baby. Once in two or three hours is often enough to feed a baby of four weeks, and after that it should not be fed so often. In fact, a child satisfied with its nourishment will sleep three to five hours without waking. Very soon the habit of night nursing can be broken up by feeding the last meal at ten, and not feeding again till the early morning hours. The child should be fed at regular intervals.

Especially should the mother avoid feeding the child to stop its crying: it should be remembered that there are other things besides hunger that cause crying. The young infant has a capacity for only two or three tablespoonfuls of milk at first. As it grows, the capacity increases; but it should be remembered that there is more danger of over-feeding than of underfeeding.

Sometimes when it is not time to feed, the baby may appear to be hungry when it is really only thirsty. It will take the breast or the bottle and be injured thereby. Do not forget to give the child a drink of water, occasionally, preferably by means of a nursing-bottle. If the crying is the result of pain in the stomach, a drink of hot water will relieve it, and the crying will cease.

Do not make a practise of soothing the baby by sticking a nipple in its mouth, and never use a bottle with a hose attachment, as it soon corrodes inside with sour milk, and thus becomes a germ-breeder.



CURRENT COMMENT



Opinions here quoted are not necessarily all approved by the publishers of LIFE AND HEALTH.

The "Fourth" and Lockjaw

DURING the last six years, beginning in the summer of 1900, the health department [of Chicago] has taken occasion, with the approach of each recurring Chinese celebration of our national holiday, to point out the danger of "fourth-of-July lockjaw," to explain its cause, and to advise as to methods of its prevention.

Lockjaw, or tetanus, is caused by a bacillus, or germ, which exists abundantly in street dirt, and especially in and around stables. It is inactive so long as exposed to the air, but when carried beneath the skin, and buried in the flesh, as in the wounds caused by bits of percussion caps, blank cartridges, or by rusty nails, and the air being thus excluded, the germ is roused to activity, and produces the most virulent poison known. This is the cause of lockjaw.

Advice: Have any fourth-of-July wound, no matter how apparently insignificant, dressed by a doctor who will know how to cleanse it thoroughly, and apply the proper treatment to prevent the growth and activity of this bacillus and the resulting lockjaw.

Keep all such wounds open to the air until dressed by the doctor.—*State of Chicago's Health.*

✻

Milk and Infantile Diarrhea

It may be asked: "If infantile diarrheas are due to milk produced, handled, or stored under improper conditions, why is it that they are so vastly more prevalent in July and August, when, at least,

the cows at pasture are more likely to be clean than when housed?" Milk produced under ordinary conditions is sure to contain large numbers of bacteria before the operation of milking is completed. Under favoring conditions these organisms multiply enormously, and *one favoring condition of growth is warmth.* If milk is cooled at once to 45° F., and kept about that temperature until needed for use, the original bacteria not only may not have increased materially, but may even have diminished in numbers; but at how many dairies is milk properly cooled, and to what extent is milk kept cool during long-haul transportation, retail delivery, and home storage?

Milk "cooling" in cans immersed in a tub or trough containing water, unchanged perhaps for days at a time, and exposed to the rays of the broiling August sun, is a common sight in the country. After collection and delivery at the railroad station, the cans may stand a long time on the platform in the sun, and then may make a long trip in a car not provided with ice. Next comes the handling by the retailer, and perhaps another period of storage in a stable; then delivery of small cans and jars, left on the customers' doorsteps; and, lastly, the storage in the home, perhaps without ice,—for it must be remembered that cholera infantum is largely a disease of the poor,—with exposure to dust and dirt and flies. Under these very common conditions, it is not strange that a city's milk supply is often richer in bacteria than its sewage.

Far less infantile diarrhea occurs in the country than in cities and large towns, in proportion to population, because the milk used in the country is at least comparatively fresh, while that used in the towns is in part decidedly stale and unfit for drinking. It is hard to convince the dairyman that dirt in milk breeds disease. He will tell you that he was brought up on it, as was the entire neighborhood; he points out the living adults and children, forgetting the infant dead; he can not believe that a mere trace of visible cow manure can do any harm, or that bacteria which are so small that billions may be suspended in a teaspoonful of milk can be large enough to accomplish any results; he thinks clean milk is a fad; and complains, with right, as a rule, of the meager reward of his labors. He has, most likely, no near-by source of ice supply; he can not buy ice out of his small profits—quite likely he would not buy it anyway; and his method of cooling is, in his opinion, quite good enough. And thus it happens that the unequal distribution of infantile diarrhea is largely a consequence of inadequate cooling of storage milk.—*Bulletin Massachusetts State Board of Health.*



Reducing Infant Mortality

THIS problem can be summed up in a few words. Clean milk, properly proportioned, for those infants and young children who can not be fed from the breast, and intelligent care and feeding by the physicians and parents. To produce these results, we would suggest the following as the necessary means:—

Rigid State or municipal inspection of all milk, from the producer to the consumer.

Milk dispensaries properly to modify clean milk in feeding-bottles ready for use. The milk may be Pasteurized if it is to be used in the tenements.

Campaign of education to educate both physicians and parents in the art of feeding, and to urge on the officials the necessity and economic value of clean milk.

Employment of trained nurses in the summer months to follow up cases of digestive disturbances in infants, and to aid physicians in their work.

The continued improvement of tenement houses so that the dwellers may have the benefits of proper sanitation and plenty of fresh air and sunlight.—*S. E. Getty, M. D. in Journal of the American Medical Association.*



Tell-Tale Curdling

IN investigating the milk supply of certain portions of the city, it is found that milk delivered in some of the poorer districts is as wholesome and often fresher than that supplied to the better districts elsewhere.

This is found to be due, in great measure, to the fact that many foreigners realize the advantage of boiling their milk—heating it just short of the boiling-point. If the milk has not been properly cared for, and shows even a tendency to souring, it will curdle and coagulate upon cooking. The milk dealer knows this, and knows that he will lose his customers should it happen. Therefore he takes better care of his milk, and delivers it in better and more wholesome condition.

It is strongly urged that all milk—especially for infant feeding—if not absolutely above suspicion, should be cooked or “scalded,” if Pasteurization is not practicable.—*Bulletin, Chicago School of Sanitary Instruction.*



Dangers of Beach Resorts

THE city health department [of Los Angeles] is somewhat disturbed over the number of cases of typhoid fever existing in Los Angeles at present. Members

of the health department are united in the declaration that many of the typhoid cases that appear in Los Angeles are contracted at the beach resorts, where there is frequently bad sewage, and other unsanitary conditions prevail.

This is undoubtedly true. Many lives have been sacrificed, where people have gone to the beach for their health, and soon after returning have developed symptoms of disease, derived from lack of hygienic conditions at these places. Change of air and scene is a good thing to rest the mind and body; but one buys such rest at an awful price when it leads to a prolonged illness, or perhaps death. Unless the prospective camper can find a beach resort where the sanitary conditions are right, it is far better to fix up a tent, and go and camp in some quiet mountain cañon or valley, where one can get near to nature.

It would be well if some of the enterprising founders of new beach resorts would boast more of sanitary conditions, and less of pretentious palaces and pavilions, and gondolas.—*Los Angeles Times*.



Mosquitoes Dangerous

MOSQUITOES are a needless and dangerous pest. Their propagation can be largely prevented by drainage or filling of wet areas; by removing, emptying, or screening of water receptacles; and by spraying standing water with oil, where other remedies are impracticable. Attention should be paid to cisterns, house vases, cesspools, road basins, sewers, watering-troughs, roof gutters, old tin cans, holes in trees, marshes, swamps, and puddles. As malarial mosquitoes may be bred in clear springs, the edges of such places should be kept clean, and they should be stocked with small fish. The breeding and protection of insectivorous birds, such as swallows and mar-

tins, should be encouraged. Thorough screening of houses and cisterns is necessary to prevent the spread of malaria or yellow fever. The continued breeding of any kind of mosquitoes, with the attendant menace to public health and to the life and comfort of man and beast, is therefore the result of ignorance or neglect.—*Scientific American*.



Damp Cellars

CELLARS are very apt to be damp in summer during the driest weather. This is caused by leaving the windows open in the daytime, thus allowing the heated air of midday to rush in and strike the walls of the cellar, depositing moisture on them in the same way moisture is deposited on the outside of a pitcher of ice-water, or any dish containing ice and standing in a hot room. The beads of moisture on the walls of the cellar into which the hot air of midday is admitted often run down in streams to the floor, and are visible in tiny pools of water. The remedy for this is to keep the cellar carefully closed during the day, and open at night, when the outside air is almost as cool as the air of the cellar. A cellar treated in this way will be cool and dry at all times, unless there is some means by which the moisture is admitted inside the cellar in the daytime. Damp, moldy cellars have been converted into dry, wholesome ones by simply whitewashing them, closing them up during the day, and airing them during the night.—*Family Doctor*.



Worse Than the Mosquito

THE mosquito comes with a nerve-racking hum and you fear him; the fly comes with no noise at all and you ignore him. But the silent fly in your dining-room is a far more deadly enemy than the noisy mosquito in your bed-chamber.—*Good Housekeeping*.

THE MEDICAL MISSIONARY AT WORK



Conducted by T. E. Bowen, Takoma Park.

Kobe Sanitarium, Japan

W. C. DUNSCOMBE, M. D.

AS our patients are chiefly missionaries who come to us broken down physically, we feel that the restoration of these devoted people to health is indeed a great work. We receive letters from many after they leave here thanking us sincerely for the good they have received, and telling us that when they break down again, they will surely return to the sanitarium. Many of the missionaries and other foreigners have become health reformers, and it is encouraging to see them bravely stand for principle and drink "cambric tea" at their afternoon socials instead of the real article.

In a letter just received from a prominent missionary physician in Korea, who recovered from a severe attack of typhoid in this institution a short time ago, he writes that he is now practising on the Koreans what hydrotherapy he learned here, with excellent results. He says that he believes that God brought him here for the purpose of teaching him these simple but effective treatments. The Koreans are flocking

to him for physical help, and one poor sufferer came a journey of several weeks to reach him. The Koreans appreciate physical help, and while they are waiting to be treated, a good opportunity to preach the gospel to them is afforded.

In our daily work we have many experiences that cause us to realize our

dependence upon God. One night as I was sitting up with a patient upon whom I had performed a major operation, it seemed that complications were setting in that would take the patient's life. Feeling that the power of God was our only hope, I opened the Bible to find some scripture that would strengthen my faith. As I opened the Bible at random, my eyes fell on the verse of the ninety-first psalm which says, "He shall



NUNOBIKI MENTAKI WATERFALL,
KOBÉ, JAPAN

call upon me, and I will answer him: I will be with him in trouble; I will deliver him, and honor him." As I read the remainder of this beautiful psalm, my faith was renewed. I laid hold upon God's promises, and I was assured that her life would be spared; and it was spared, and the patient gives all the glory to God for answering our prayers.

We have quite a number of Japanese servants working in our institution, and as they come to the daily worship, and attend all the religious exercises, we can not but believe that their hearts are being drawn to God, and that some of them will take a firm stand for him.

Since I have been here in Japan, I have been impressed with the great frequency of intestinal diseases and especially of intestinal worms. The most obscure and complicated complaints are often cleared up by medication for this affection. The cause is undoubtedly in their method of fertilizing the land. I believe that more attention should be given to intestinal parasites in America in all obstinate and obscure intestinal troubles. It also behooves us to exercise the greatest care in preparing green vegetables and fruits for the table. A very good method is to immerse them in a five-per-cent solution of tartaric acid, and afterward rinse them in fresh water.

Tuberculosis is getting to be a great plague here, and the Japanese have a superstitious terror of it. The cause of

this lies partly in the climate, which is very damp, and partly in the fact that they have little charcoal stoves, or *hebaches*, which are constantly throwing off carbon dioxide into the room. They close up their rooms at night, and the air is soon laden with carbon dioxide. Another strong factor is the lack of development of the lungs. They sit on their feet with their bodies partly bent over, a great deal of the time. The adult Japanese rarely ever walks erect, with his shoulders back, as this is regarded as a mark of pride. However, the younger generation are being taught gymnastics in the schools, and as a result their bodies are much better developed, and they walk with a more erect gait.

Japanese physicians are inclined to rely almost wholly upon drugs, just as American physicians did a few years ago. But these health principles are winning many adherents, and many have become adverse to taking so much drug medication, and are learning to depend on natural methods.



PATIENTS AND HELPERS, KOBE SANITARIUM,
EATING A MEAL IN JAPANESE STYLE

One Week's Medical Work in India

H. C. Menkel, M. D.

ON my way to Mussoorie, the hill station where our sanitarium is now located, I stopped off at Karmatar for a visit with the workers.

Karmatar is the oldest mission station we have in India. It is located in Bengal, one hundred and sixty-eight miles from Calcutta. Our workers are

appreciated by their looks and actions.

The great need of India's millions in medical lines is for workers to locate right among them. The large European centers, Calcutta, Bombay, and Bangalore, are overcrowded with medical laborers, the government having made ample provision; but when we get out

into the native cities, villages, and country districts, where the great mass of Indians live, there is very little provision for such service, and the people must depend upon their medicine men, whose practise is barbarous, or die for want of efficient treatment.

The medical worker who is in the work with a desire to be of service to his fellow men and relieve some of their suffering, can find no field more interesting, as the variety of conditions one is called upon to treat is almost without limit,

and the supply of cases is equally great. I will mention a few of the especially interesting cases I saw while visiting the nurses at Karmatar.

Some of the natives build fires under their beds, to keep warm during the damp, cold weather. After one man had gone to sleep, his clothes took fire, and his whole back was badly burned.

A baby had fallen into the fire, receiving serious burns.

A boy about ten years of age was brought in who had recently suffered



AN INDIAN PATIENT

the only Europeans here. Two lady nurses — Misses D. Ella Smith and D. Burroway — with the assistance of several native laborers, render the only medical assistance in many miles; and to see the sick brought here, suffering from all manner of diseases, reminds one of the experience of Christ. The people bring their sick upon beds, carry them in their arms, upon their backs, or on bullock-carts. Often they come several days' journey; and the deep gratitude they feel when help is given them, can be

from fever. Five days ago his feet became sore. When brought to the mission, his feet and legs were badly gangrened, so that great pieces of flesh dropped away, requiring amputation, which they were fearful of having him undergo. The poor child was given something to ease his suffering.

A young girl was brought in with an immense abscess on the back.

One man had received a wound in a finger, and tetanus had developed. Another had been badly bitten on the leg, and came to have the wound dressed.

A child had been bitten by a dog, and the hand was torn.

Aside from the cases mentioned, many more came, with digestive, nervous, and bowel troubles. Many have diseases of the eye, elephantiasis, paralysis, fevers of all kinds, and a great many other ailments. A greater variety of conditions one would hardly find in one of the large hospital clinics.

Then there are the visits to the homes of the people, to minister to those unable to be moved. This work offers a continual round of experiences and opportunities to be a "fellow helper"—and all the remuneration for this service is, "Salaam," the salutation meaning, "Peace be unto you." The people have nothing more to give, but this remuneration brings greater peace than all the high medical fees at home. Naturally, the facilities are limited, and one soon learns how to make a few instruments and appliances do a large variety of work.

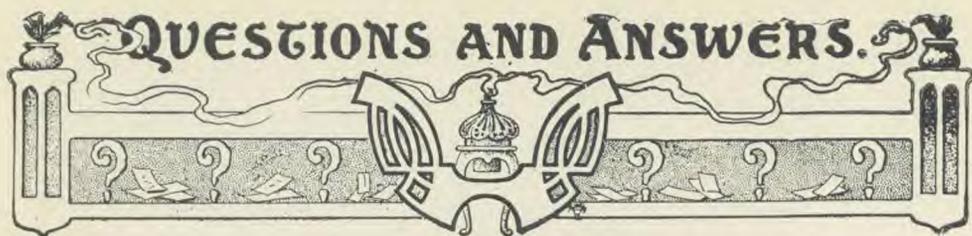
India's need, I repeat, for medical workers is not in the European centers, but in the vast native districts, where there are no hospitals, no physicians, no nurses, and many different diseases are carrying off thousands every day. This is a work which demonstrates that Christianity is a helping hand stretched out to save those who are in greatest need.



From stereograph, copyright by Underwood and Underwood, New York City

CAMPING IN MONTANA — PREPARING TO
MOVE CAMP

QUESTIONS AND ANSWERS.



Conducted by D. H. Kress, M. D., Takoma Park Station, Washington, D. C.

Questions on health topics which are of general interest are answered in this department. All queries should be addressed to Dr. Kress, with stamp enclosed for reply by mail.

327. Drink at Close of Meal.—Is a little drink at the close of the meal allowable?

Ans.—If a person drinks at all, it is best to drink at the close of the meal. It is usually better, however, not to drink at all with the meals. Liquid taken at a meal dilutes the digestive juices,—the saliva and the gastric juice,—and thus delays digestion, and is apt to produce fermentation. It is not necessary for the horse to take a mouthful of chaff or oats, and then a draft of water, because the saliva flows readily. Our saliva does not flow so freely because we have become accustomed to moistening the food with drink at meals, and eating soft foods. After a time, if one masticates the food carefully, it will not be desired to have drink at the meal. It is better to take fruit at the close of the meal rather than drinks. This will not only aid in the digestion of the albumen, but will satisfy the thirst.

328. Foods to Increase Weight.—What foods would be best for a person who is desirous of putting on fat?

Ans.—There are a great many people who are desirous of becoming stout, but adipose tissue, or fat, is no indication of health. I do not know why people are so anxious to become stout. Fat is usually an indication of disease rather than of health. The best fat-forming foods, however, are starches and sugars. People usually think that in order to become fat, it is necessary to eat large quantities of fat; they take cod-liver oil and other abominable things. But fat is not put on in that way. When we fatten hogs, we do not feed them on fat, but on peas, beans, potatoes; that is, on starchy food. Potatoes are especially fattening if they are properly prepared, as baked in their skins. So a good fat-producing diet would be composed

of plenty of well-prepared potatoes, with sweet fruits, such as figs, bananas, and other fruits rich in sugar.

329. Prickly Heat.—What is the cause of, and remedy for, prickly heat.

Ans.—Prickly heat is principally due to indigestion. The remedy is to correct the diet. Care should be exercised especially in the combination of food. Prickly heat is frequently due to the fermentation set up by improperly combining foods. Vegetables and fruits taken at the same meal, or milk and sugar eaten together, are examples of combinations that may cause this disorder.

330. Wholesomeness of Fruits.—If fruits are wholesome, why do they often disagree with people?

Ans.—Fruits are often eaten with their skins, which are indigestible and frequently contain germs. The woody fiber is also indigestible. Grapes are frequently swallowed with skins and seeds. In eating grapes, the seeds should be removed, as they are very irritating to the alimentary canal. If a grape seed is examined, it will be found to be very sharp at one end. A monkey, when fed with grapes, will carefully pick out all the seeds. A short time ago an old gentleman told me he could not eat cherries, as they always disagreed with him. I was one day enjoying a few cherries, and offered him some. Perceiving that he swallowed stones and skins, I understood the cause of his difficulty with this fruit. Many people say that apples and bananas do not agree with them, but usually the trouble can be traced to some error in the manner of eating the fruit. Frequently people swallow large lumps without proper mastication, and these undergo fermentation. The stomach has no means of crushing fruits swallowed in that way.

Fruits, if they are thoroughly divided, as they should be, will not remain in the stomach longer than an hour. Fruits should be thoroughly ripe, in order that they may digest well. Improperly ripened fruit is often a cause of digestive disturbance. People often combine fruits poorly with other foods. Fruits and vegetables, for instance, if eaten at the same meal, may produce fermentation. Another reason why fruits cause disturbance is that they are often eaten at the close of a full meal, when the stomach already contains all it should hold.

331. Asthma.—What is the cause of asthma? and what is the remedy?

Ans.—Asthma may be due to many causes. It is supposed, however, that the presence of uric acid in the system is an important cause. The presence of the uric-acid crystals is supposed to set up irritation of the mucous membrane of the bronchial tubes, which produces a spasm of the bronchial muscles, and as a result, there is great difficulty in breathing. Relief may be obtained by the use of cocaine, or alcohol, or tobacco. The narcotic paralyzes the bronchial muscles, and causes them to relax, so that breathing is easier; but the relief is only temporary, and a frequent resort to the drug is necessary, so that there is danger of forming a drug habit. The first thing to do is to remove the causes; and inquiry should be made whether or not uric acid is not the principal offender. In-

asmuch as flesh foods contain large quantities of uric acid, the first step in a rational treatment should be the elimination of meat from the diet. The excessive use of other albuminous foods should also be considered as a possible cause of the trouble. Carefulness in eating will do more to remedy this condition than any form of treatments, no matter how excellent. Most asthma "cures" are merely palliatives, and do nothing to remedy the condition.

332. Eggs Versus Meat.—Are eggs a better food than meat, and if so, why? Is it true that eggs contain uric acid?

Ans.—Yes, eggs are a better food than meat. I speak of wholesome eggs,—fresh eggs, from hens that are well cared for, and fed on wholesome food. The egg is composed of what the fowl eats. Fresh-laid eggs are superior to meat, inasmuch as they do not contain uric acid. There is another reason why eggs are better than meat. In meat we merely get the flesh-forming substances, but in the egg there is all the material necessary to make a complete body; for out of it may be formed the perfect chick, with muscles, bones, skin, nervous system, etc. When an animal feeds on the grains and herbage, it obtains all the elements necessary to build up and repair the whole body. When we eat the flesh of animals, we merely get the flesh-forming elements; for this food is lacking in the bone-forming elements. That is one reason why decayed teeth are so common in flesh-eating countries.



EDITORIAL



Hand Infection

ONE sanitarian has recently said that while we recognize the importance of "air-borne diseases" and "water-borne diseases," we should not forget the fact that there are also "hand-borne diseases."

The door-knob, handled by a consumptive after he has used his handkerchief (which in many cases must be literally "alive" with infectious germs), is only one means by which one's hands may become infected before he takes food. Money, especially paper money, must be a very important means of disease transmission; and undoubtedly if the truth were known, not a few cases of infection where there is no apparent cause would be found to be due to this cause.

For this reason, the present agitation for clean money — paper money renewed at frequent intervals, and coins often cleansed and sterilized — should have popular approval and backing, because, when successful, it will make for better health.

Not only are old, dirty bills an offense against decency, they are a menace to health. The ordinary life of a bill is from one year and a half to three years and a half; and the longer it is used, the dirtier, germier, and more dangerous it becomes. It is true, of course, that a brand-new bill, just out of the treasury, may pass through the hands of a small-pox patient, and thereby become more

dangerous than many a bill so old that it is no longer easy to determine the denomination; but this is the exception. An old bill always contains more germs than a new one, and undoubtedly contains more disease germs than it did when it was comparatively new; for as it passes from one hand to another, it is not subject to germicidal processes, and it is constantly picking up more germs. The old bill, having lost its gloss and hard finish, has a better surface to hold the germs that come into contact with it, and the human secretions which the bill often absorbs furnishes a "soil" splendidly adapted to the growth and multiplication of any germs that may be present. There are many possibilities connected with these old bills, and in a lesser degree with coins.

Women, we are told, especially those of the lower classes, often make a practise of keeping their money in their stockings next to the skin. In this way, the bills may easily become the means of transmitting skin diseases as well as other infections, and the paper, absorbing to saturation the skin secretions, becomes an excellent medium for the multiplication of the germs lodged on its surface. It is reported that immigrants who have not bathed for months, and perhaps not for years, often hide money for long periods on their persons. After this choice preparation, the money again passes into circulation, and may travel

out of the sweat-shop districts into the more aristocratic neighborhoods, or out into the country. Would it be a wonder if those who afterward handle these bills are taken with infection for which no cause can be assigned?

Sometimes the circumstances are such that the relation between the bills and the infection is apparent. Here is an instance related by the Binghamton (N. Y.) *Republican* concerning the cashier of the First National Bank of that city, "who contracted smallpox from a package of bills. His physician said it was a mystery for some time as to how he could have caught the disease, but when the smallpox reached the stage where the peculiar odor characteristic of the disease was noticed, even by the patient, he exclaimed, 'Why, that is just the same peculiar smell that I noticed when I opened a package of bills a few days before I was taken sick.'"

What can be done to mitigate the evil effects of dirty money? In the first place, the government can inaugurate a plan by which the retirement of old bills will be much more thorough. In Eastern cities, especially in the city of Washington, the condition of the paper money is fairly satisfactory. Old bills are such as have come in by remittance from distant parts, and if they remain in circulation, it is because of the indifference of the people who handle them. But in Western cities, it is the exception to see new bills. There is hardly a bill in circulation in places distant from the national headquarters that should not be retired on account of its filthiness.

The principal cause of this condition is the expense incident to the transfer of currency between these points and Washington, and the loss to the bank while waiting for the new bills to replace those sent in. As the dangers lurking in old bills are not readily apparent

except to the thoughtful, most people would much rather take the chances of being infected than take the trouble or go to the expense to secure sterile money.

While the agitation is progressing to hasten the retirement of old bills, there are some things that may be done by corporations and individuals to render the circulating medium less dangerous. If such institutions as banks and transportation companies would sterilize the money they receive each day, before placing it again into circulation, the evils of dirty money would be greatly lessened. Individuals can refuse, as far as possible, to receive dirty bills, and with a hot flat-iron can iron out all bills that come into their possession, and can drop coins into boiling water.

■

Pathogenic Germs in Healthy Hosts

"EVIDENCE is gradually accumulating which goes to show that pathogenic organisms [such as the germs of dysentery or of typhoid fever] may be present in moderate, or even in considerable, numbers in the intestinal tract under some conditions without giving rise to any evidences of disease." "It is likely, however, that in all these cases the pathogenic organisms in question are held in check by the bacteria present in the digestive tract, or by the bacteria and the intestinal secretions, so that they are unable to multiply in a significant manner, or to gain entry into the cells of the mucous membrane. It seems not unreasonable to suppose that errors in diet or depressed general conditions favor the multiplication and penetration of pathogenic bacteria that have for some time been present in a slumbering state. Irritant foods may so alter the secretions of the digestive tract as to favor definite infection by the semi-parasitic bacteria that are present."

The quotations are from "Bacterial

Affections of the Digestive Tract," by C. A. Herter, M. D., a recent work which is already recognized as an authority.

We see here an analogy to the pneumonia germ, which is often a comparatively harmless inhabitant of the mouth and throat, and which manifests virulence only under conditions of lowered vitality, brought on by exposure or excesses.

In the same way we can understand that typhoid fever, though strictly a "germ disease," may, in many cases, be simply the result of reckless living.

Undoubtedly one could avoid danger of typhoid fever provided he never in his life permitted any unsterilized food or liquid to pass his lips, and never put any unsterilized object to his mouth. But who can or does take such precautions? We avoid the grosser and more obvious channels of infection, perhaps, such as impure water, raw oysters, and the like; but having done that, we perhaps take in a few typhoid germs with the drink, which, though prevented from multiplying in disease-producing numbers by the other germs of the intestines, still maintain a squatter's title, and refuse to be driven out completely. While we live in harmony with health laws, that is, those laws that *apply to us individually* (this may mean, for some, the avoidance of strawberries; for others the avoidance of some other foods which are harmless to most people), we may be comparatively safe; but following some indiscretion or excess in eating or work, we may have an attack of typhoid fever, which the doctors are unable to trace to its source.

The physicians of the Public Health and Marine Hospital Service, who have been investigating the causes of typhoid fever in Washington, have done some most exhaustive and painstaking work, following up every clue that offered a possible solution, and they were obliged to confess that there were two thirds of

the cases to which they could assign no definite cause.

Is it not possible that a large proportion of these obscure cases were the result of contamination elsewhere, the typhoid germs being carried around in the intestine as "harmless" guests until some peculiar conditions rendered them virulent?

It is not a very comforting thought that one is possibly the host of a pathogenic germ, unless one is also conscious that he is living up to all the light he has regarding correct living. It is not necessary for us to be thinking about disease and disease germs, and it is not very conducive to health to do so. Having recognized a possible danger, it is far better to turn the mind away, and *think about health*, TALK HEALTH, LIVE FOR HEALTH.



Flies as Disease Transmitters

LAST December the Merchants' Association of New York issued a report on the "Pollution of New York Harbor," which, to the sanitarian, ought to make "mighty interesting reading." The report, which was the result of careful observation and experiment under the direction of Daniel Jackson, S. B., demonstrates that there is a close relation existing between the sewage pollution of the harbor and the presence of intestinal diseases.

Flies caught around the water front were shown to harbor vast numbers of germs. A single fly was found to carry on its body as many as one hundred thousand fecal bacteria. The flies were most abundant where accumulations of floating excreta were greatest; that is, near the sewer outlets.

Typhoid fever and intestinal diseases were found to be confined almost entirely to a belt of the city near the water's edge.

within range of the flies that had visited the river feeding-grounds, being especially frequent near the mouths of the large sewers. In one part of the city at some distance from the water's edge, where these diseases were more than usually prevalent, it was found that there were a number of open privy vaults, permitting conditions similar to those on the water-front.

The increase in the number of deaths from these diseases was found to correspond in time with the increase in the quantity of flies. In the winter, when there are no flies, there is practically no typhoid fever and no intestinal disease; on the other hand, the months when the flies are most abundant are characterized by the greatest prevalence of these diseases.

From all the evidence submitted, which is merely alluded to in this article, in addition to evidence that has been accumulating along this line from other sources, there can be no reasonable doubt that the fly is an important, if not the most important, factor in the transmission of these filth diseases.

The fly is born in filth. Instinctively, it lays its eggs where the nutrition of the young will be best assured; that is, preferably in excrementitious matter, or in other accumulations of filth. In a few days these eggs are transformed into winged flies, which after a feast at the birthplace, and a good rich coating of the legs and wings, are apt to make for the nearest pantry in quest of a dessert of cream or some other delicacy.

The disgust produced by the discovery of a fly in the food is no mere sentiment. It is an implanted instinct, which makes for self-preservation. The fly is a dirty beast, and is always a menace. It should be effectively screened from every dwelling and all filth that might afford a breeding-place ought to be disposed of at frequent intervals.

Disturbed Sleep in Children

ANYTHING which lessens the amount of a child's sleep tends to nervous disorder, and parents should make any effort necessary to secure sufficient sleep on the part of the children; for sound nerves do not exist, except where the sleep is sufficient and undisturbed. Many a "vicious child" is simply a poor little innocent whose nerves are all on the ragged edge from want of sleep. Sometimes a night or two is enough to make a complete change in the disposition of a child.

The healthy infant, if left to itself, does little but eat and sleep for the first year of life, and often sleeps as much as twenty-two hours out of the twenty-four, if undisturbed. There is no need of more than one feeding during the night for the first year; and during the second year, the night feeding can be gradually omitted. When a child awakes several times during the night, demanding attention, it may be because of wrong parental training. The healthy child sleeps during the night. Parents who are kept awake with a child at night are paying part of the penalty for wrong training or for wrong feeding, and they will continue to pay a penalty until a radical change is made in the management of the child.

When a child does not sleep well, the trouble is usually digestive disorder, commonly known as "worms." A child who grinds its teeth, or moans and tosses restlessly at night, is suffering from indigestion, you may be sure, and not from worms. Indigestion is quite common among infants; worms much more rare. When indigestion is present, the food should receive immediate attention, for it is wrong feeding that carries off more babies than anything else.

The child who kicks off the covers and lies face downward should be examined by a physician, or a specialist,

for throat disorder. There are other forms of discomfort which may result in sleeplessness, such as earache, stopped-up nose, skin disorder, or an uncomfortable bed. Whatever it is that disturbs baby's rest should be remedied, otherwise you may expect to have a child who is "all nerves," instead of a strong, healthy little animal with no knowledge of nerves.

But it is not always some bodily disorder on the part of the child that causes wakefulness. Undue excitement before retiring is a frequent cause of disturbed sleep. The little fellow, unable to help himself, may be dragged out of his cradle, tossed, and passed around to admiring friends. This, dear parent, is a practise that is almost sure to result, in a few months or years, in a child whose health you will not be so proud of. The infant has an inalienable right to be let alone, and parents and friends should not invade that right.

An intelligent mother with an eye to the future will protect her babe from the overzealous attentions of admiring friends, even at the risk of offending them. The mother who is a mother indeed, who stands in the place of protector to her helpless infant, will regard the interests of the child of paramount importance, not to be sacrificed for the gratification of friends or relatives.

As the child grows older, exciting

games before retiring, or "spook" and other unwise stories, may be the cause of broken sleep. A cruel practise of some parents is to tell the child that the "black man," or the "bad man," or the "buga-boo" will take him if he is "naughty." The victim of such unwise treatment may have visions of some of these scarecrows, pictured with all the vividness of a childish imagination, dancing around the room as soon as he is alone in the dark. In nearly all cases, fear of the dark is the result of thoughtlessness on the part of some older person.

When school age comes, trouble with teachers, difficult lessons, fear of an approaching examination, or any similar incitant to worry may cause wakefulness. Girls are more apt to take their lessons seriously than boys. They should be encouraged to get complete rest and abundant exercise, and above all, not to let difficult lessons and coming examinations worry them.

Whatever the cause of sleeplessness, the wise parent will seek it out, and apply the appropriate remedy. "Early to bed," is a rule that should have few exceptions with the growing child. "Early to rise," from a health standpoint, may not be so important. To secure abundance of sleep for the children is to avoid what is perhaps the most potent cause of nervous disorder among our youth.

Chats with our Readers

EDITOR LIFE AND HEALTH:—

Recently I have had the privilege of reading LIFE AND HEALTH, and I enjoy it very much, and in the matter of training children, find it very helpful indeed. I have three children, and wish them to grow up with a thorough knowledge of health principles, and I want to do all I can to help other mothers.

Is it physical weakness, or is it lack of Christianity, that makes my neighbors afraid when they are left alone in the evening? Notwithstanding some of them have telephone service, and could call their neighbors at any moment, none of them would think of being alone all night. If the husband is away from home, the wife, and of course the children, have to go to a neighbor's to stay for the night.

I feel sorry to have so many children brought up to feel so timid. I am a mother, and circumstances make it necessary for me to stay alone much of the time, as my husband's work takes him away from home; but my children never say they are afraid, and they can stay at home alone, and can keep house nicely. We leave them sometimes in the evening alone. They urge us to go, and say they enjoy it.

As my neighbors are all church-members, can I say it is a lack of Christianity? But do they trust fully the promise God has given to protect us?

If it is physical weakness, ought not the parents to overcome it? Surely parents should not endure the mortification of having their children know they are cowards, and is it not true that the children will grow up with the ways of the parents?

Mrs. M. J. D.

[Perhaps it would not be best to say that such a manifestation of fear is a lack of Christianity; for even in the presence of Jesus, the twelve disciples were sometimes overcome with fear; but certainly one who is thus fearful, and especially one who is subject to groundless fears, is not living up to her highest privilege as a Christian. The Bible promises have not become to her the source of strength that they might be.

As to the cause of morbid fear, it may be a matter of education. As Mrs. D— has suggested, the attitude of the parents will very largely determine whether the children will be cowardly or brave. Often the fear-habit is handed down from parent to child. A timid mother, as a result of her numerous cautions and prohibitions and suggestions of fear, will have timid children, unless her children associate with normal children enough to counteract the influence of the mother.

In some cases a state of fear, and a constant dread of some imaginary danger, is

the result of a bad scare in earlier life. Again, it may be the accompaniment of an unstable nervous system, which is the result of bad heredity or wrong habits. The victim of such an undesirable emotion may know in his or her own mind that there is no real danger, and yet be unable to throw off the feeling of groundless fear.

Fear, where it is not the result of false education, certainly has a physical basis. It is natural for strong, healthy men, women, and children to be fearless. As a rule, it will be found that the fearful, especially when they are the subjects of unfounded and unreasonable fears, are not perfectly sound in body. In some way the physical as well as the emotional is a little "off color."

Whether anything can be done to overcome an old habit of fear in one past the prime of life is uncertain; and possibly the hope for betterment of the children lies very largely in the amount of their association with normal children.

SOME BOOKS

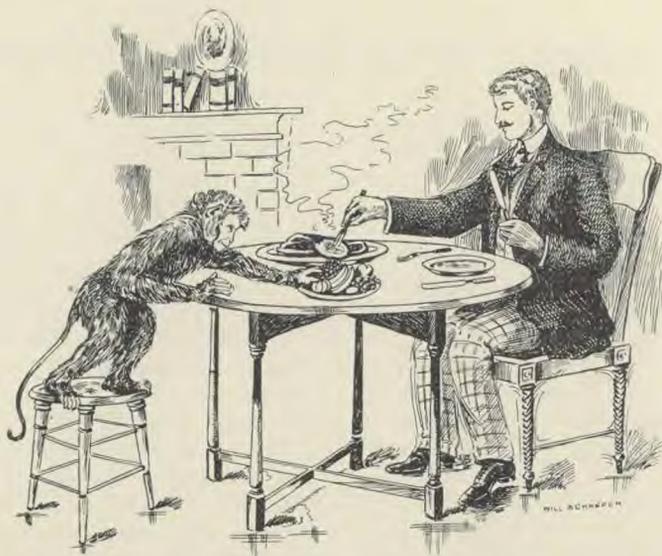
Christian Science and Kindred Subjects: Their Facts and Fallacies, by the Rev. Charles F. Winbigler, Ph. M. New and revised edition. Published by the author, Washington, D. C. Cloth, 220 pages, \$1 post-paid.

The author traces Christian Science to its origin, shows that its teachings are neither in accord with the Bible nor with science, and that its theology has nothing whatever to do with its power over disease. He demonstrates that Christian Science makes use of the laws that underlie all forms of mental healing to bolster up a system of religious belief which is unscientific, unchristian, preposterous, blasphemous.

Any system in which optimism is a cardinal feature, will relieve the distress of a certain very large class of patients, whose troubles are largely mental in origin. Many of these patients, while they may have a "mental screw loose somewhere," are above the average in intelligence and capability. Herein lies the power of the Eddy cult.

It is not always the ignorant who join the Christian Science ranks. Mrs. Eddy can number among her followers not a few persons of considerable note. If such could have the privilege of reading Mr. Winbigler's book before coming into contact with Christian Science healers, they might thereby be protected from the disaster of coming under Mrs. Eddy's spell.

One thing is certain. No one who knows his Bible and believes it will ever be led away by this pantheistic nonsense, falsely called Christian Science. The table of contents will give an idea of the scope of Mr. Winbigler's book: Different Schools; Christian Science Unscientific and Unchristian; the Teachings of "Healers" Unscriptural and Unreasonable; Origin of Christian Science; The Teachings of Christian Science Considered; A Scientific Explanation of Cures; Mortal Thought and Self-evident Propositions; Mrs. Eddy and Revelation; Healing and Doubting the Senses; Objections to Christian Science; The Tendencies of Christian Science; Appendix.



INSTINCT CHOOSES THE NATURAL FOODS



A New Cure for Hydrophobia.—The president of the New York Pasteur Institute has gone to Paris in order to study a recently discovered cure for rabies.

Quarantine Against Venezuela.—The health officer of the port of New York has declared a quarantine against Venezuelan ports, on account of plague conditions existing in that country.

The World's Temperance Congress.—The World's Temperance Congress was held at Saratoga Springs, N. Y., June 14-22, 1908. All the temperance organizations were represented by able workers.

Tuberculosis Legislation in the District.—A bill has passed Congress making compulsory the registration of all known cases of tuberculosis, and the disinfection of rooms vacated by tuberculosis patients.

The Tobacco Habit in England.—It is estimated that one hundred twenty-five million dollars are spent annually in England for tobacco, and that four fifths of the men and one fifth of the women use tobacco in some form.

Cooking Classes.—Mrs. D. A. Fitch, who is well known to the readers of the "Healthful Cookery and Household Suggestions" Department, is having excellent success in conducting cooking classes. The attendance is good, and the interest is growing.

Falls Asleep after Being Awake for Two Months.—An Iowa girl, preparing for her examinations, drank black coffee, and resorted to other means, in order to keep her awake, until she discovered that she was the subject of an obstinate attack of insomnia. For nearly two months, all efforts to secure sleep were unavailing; then, finally, under the treatment of the doctors, she began to secure a little sleep, and after

a few nights was unable to have a good night's rest. Her effort to keep awake on coffee was eminently successful.

Fear Causes Insanity.—At Middletown, N. Y., a healthy boy of fourteen was carried away by gypsies, and after about six months was recaptured and returned to his parents. Fear that he would be again captured so preyed on his mind that he became insane, and tried to kill his mother.

Effects of the Pure Food Law.—The president of the New York City Board of Health asserts that of eight hundred samples of food recently collected, only thirty-five were found to be adulterated. The great majority of food men are evidently working in harmony with the provisions of the food law.

Expects to Live to be Two Hundred.—It is said that Minister Wu Ting-Fang, of China, who has given up the use of tea, flesh meats, and other harmful luxuries, now expects to live to be two hundred years old. When asked why he abstained from the use of wine, he replied, "Champagne is poison. It makes one dizzy in the head. It is good to the palate, but poison to the system."

Cocain-Seller Goes to Prison.—A New York judge, determined to put a stop to the illicit sale of cocain, sentenced a drug-gist one thousand dollars, and sent him to the penitentiary for one year. There is a vigorous attempt to secure prohibition in the matter of selling cocain; but "it does not prohibit," in the same sense that laws against murder, rape, etc., do not prohibit. There is a certain lawless class who will commit crime in the very teeth of all laws. All that the law can do, in any case, is to put these incorrigibles out of the way for a time, and to act as a deterrent to those who are less reckless. Possibly the saloon

element, in keeping up the cry, "Prohibition does not prohibit," means to inform us that a large proportion of the liquor people are of the class that have no respect whatever for law. We know this to be a fact in regard to some of them.

A Chair of Physio-Therapy.—The directors of the New York Post-Graduate Medical School and Hospital have shown a progressive spirit in establishing a chair of physio-therapy, and their good judgment in appointing Dr. S. A. Knopf to the professorship.

A New Movement for "Sexual Enlightenment."—Over in Germany some of the enterprising quacks have adopted the method of giving illustrated lectures on sexual subjects "to men only." The object of these lectures is, of course, to wring money from those who are anxious about their sexual condition. In some places the police have put a stop to the lectures.

Effort to Better the Human Race.—Lady Cook, formerly Miss Tennessee Clafin, has returned from England to her native State (New York), intending to found an institution for the training of teachers, whose work will be to teach children those important truths concerning their functions which are usually kept from them except as they may gain such information from evil-minded playmates. The site chosen for the new institution is on Long Island.

Suit Won Against an Eddyite.—The supreme court of the State of New York recently awarded twenty thousand dollars damages in a suit against an Eddyite healer who had attempted to "think" a sore toe well, with the result that the leg had to be amputated. As there is no such thing as matter, this fine will probably not seriously discommode the Eddyite. He will still go on his way rejoicing in the belief that a sore toe is merely the incubation of mortal mind.

Shrinkage in Liquor Production.—Based on the Internal Revenue receipts, the report comes from the Treasury Department that there has been a remarkable falling off in 1908 in the amount of liquor produced in the United States. In the first ninety days of the year, there was a shrinkage of nearly twenty-five million dollars in the amount of liquor produced, as compared with the output of a year ago. No such shrinkage has been recorded in forty years. Though

the panic may have had some influence in causing this decline, there is good reason to believe that the temperance "wave" that is sweeping the country is largely responsible for it.

Long Sleep Ends.—A Los Angeles (Cal.) woman awoke May 2, after eighty-five days' cataleptic sleep. She says that part of the time she was conscious, but could not say a word. During the whole time, she did not experience sensations of cold or hunger, nor did she feel uncomfortable on account of position. She believes she can now stay awake for a long time; in fact, she dreads the sight of a bed, and rather fears to go to sleep, lest she again go into a trance.

A Departure in the Management of Vegetarian Restaurants.—The Vegetarian Café of Los Angeles, Cal., has been transformed into a "cafeteria." Instead of looking over a bill of fare, and attempting to decide from the appearance of the type what they will order, the patrons, tray in hand, select their food at a long counter at the rear end of the room, picking up one dish after another as they pass along, and receiving the check therefor when they arrive at the end of the counter. Though the café is, and has been, patronized by some of the most prominent people of Los Angeles, the innovation has added largely to the popularity of the institution. Undoubtedly, one can tell much better what he wants for a meal when he sees the foods themselves than when he sees merely the names of the foods on a menu.

Lydia Pinkham Methods.—The United States Circuit Court, New York City, recently awarded six thousand dollar's damages to a saleswoman of that city, who had sued the Lydia Pinkham Company for using her photograph without her consent, and a forged testimonial bearing her name. A photographer had taken her portrait on the condition that he be allowed to keep a copy for his show window. The Lydia Pinkham people obtained this from the photographer, and published it with a trumped-up testimonial in the New York papers, continuing the publication against the protest of the saleswoman. Her fellow workers made fun of her, making her life unbearable, till finally she was obliged to give up her work. The saleswoman testified that she had not written nor signed the testimonial, and that she knew nothing of it

till its publication, and that she had never tasted the Lydia Pinkham stuff. The decision was eminently just, and a few more in the same line would do something toward stopping the impudence of these moneyed patent-medicine concerns. More effective still would be imprisonment of the officers; for they can well afford to lose a few thousand dollars occasionally. It is safe to say that this item will not appear in very many of the newspapers; for too often the bread of the newspaper company is buttered by the patent-medicine concerns.

Acromegaly Cured.—It is reported that a case of acromegaly has been cured in Vienna by means of a surgical operation. The disease is the result of a tumor of a little structure under the center of the brain. To reach this, the eye has to be removed to one side, in order to permit of an opening being made in the skull back of the eye. Heretofore, the operation has not been successful, but in the present case, the patient left the hospital at the end of six weeks restored to health. Acromegaly is a disease in which the bones of the hands and face are very much enlarged.

Unsanitary Dairy Wells.—The director of the Chicago hygienic laboratory reports that of one hundred and fifty-three wells on dairy farms, examined by the inspectors, only eleven were found to be safe for domestic use. In all cases the safe wells were those lined with cement, with cement covers, and protecting flange of cement several feet out from the well. In some of the wells used for washing milk utensils, a high percentage of colon bacteria were found, and in some cases, manure could be detected microscopically and by the odor. The health department insists that the unsanitary wells be replaced by drilled wells.

Portable Bath Tubs in Paris.—It is said that very few houses in Paris have a water-supply above the ground level. Consequently it is rare to find a bath tub installed in a house. Most Parisians bathe in the large bath-houses that line the River Seine. For the accommodation of those who prefer to bathe at home, there are establishments that furnish tubs on wheels. The attendant brings to the front of the house, on a two-wheeled cart, a tub and hot water, carries the tub to the proper apartment on his shoulders, takes up the water, and, after

the completion of the bath, removes the water and the tub. This method seems a little antiquated.

Space for the Tuberculosis Congress.—The International Tuberculosis Congress, which is to meet in Washington in September and October, will be given room in the new building now being erected for the National Museum. Inasmuch as the congress in other countries has usually been held in parliament buildings, it was thought that it might here be given the use of the chambers of the Senate and the House of Representatives. The unfinished condition of the new building, with the inadequacy of room, is a source of disappointment to those who are arranging for the congress.

The Electrical Age.—Dr. Charles P. Steinmetz, professor of electrical engineering at Union College, Schenectady, N. Y., predicts that in the not distant future, coal and wood will be superseded by electricity for domestic heating and cooking, as well as for industrial work, and that the problem of the exhaustion of the soil which now faces us, because of the vast amount of material removed in the form of sewage, will have to be solved by the electrical fixation of nitrogen. At present this is impracticable in this country, because electrical power is too expensive, but with better facilities for utilizing the vast water-power at our disposal, the problem will be readily solved.

Is Natural Ice Harmless?—Evidently the Sanitary Engineering Division of the New York State Department of Health is not much impressed with the recent statement of a New York City health officer, that natural ice is comparatively harmless. After extensive investigation, this committee reports: "Certain of the ice-houses or fields are so located, with reference to sewage outlets, as to render the ice cut therefrom subject to contamination, and, therefore, a menace to health. The cutting of ice from these fields should be prohibited. There seems to be no adequate reason for taking any other view of this matter, notwithstanding the ameliorating effects of storage and cold upon the death of germ life; for this is not complete, and does not remove the inherent objection to drinking water impregnated with sewage and organic filth, even though sterilized."

LIFE AND HEALTH

AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home.

GEO. H. HEALD, M. D. - - - Editor
G. A. HARE, M. S., M. D. } Associate Editors
D. H. KRESS, M. D. }

Subscription Price 75 cents a year
To Foreign Countries \$1.00

Published monthly by
REVIEW & HERALD PUBLISHING ASSN.
TAKOMA PARK STATION, WASHINGTON, D. C., U. S. A.

Entered as second class matter June 24, 1904, at the post-office at Washington, D. C., under the Act of Congress of March 3, 1879.

Unsolicited manuscript, if rejected, is not returned unless accompanied by return postage.

All matter pertaining to subscriptions, renewals, advertisements, or other business should be addressed to Life and Health, Takoma Park, D. C.

Manuscript and correspondence relative thereto should be addressed to the editor.

Questions or correspondence relative to any of the departments should be sent to the head of that department.

If questions are sent to this Office in connection with other matter, they should be written on a separate sheet addressed to the editor; otherwise they may be overlooked. The editor does not look over the business correspondence.

All questions must be accompanied by return postage. If the reply is not worth that much to the inquirer, it is not of sufficient value to take up our time in replying. We are glad to answer all reasonable questions of subscribers, but we do not wish to pay two cents each time for the privilege of doing so.

Valuable Meat Substitute

THE green or immature pea and bean are among our most valuable green vegetables, and fully deserve the place they now hold on our bill of fare.

The value of the dried pea, bean, and lentil is such that one or more representatives are found in every country

as a staple food, and they have been thus used from the earliest times. They are especially rich in protein, the nitrogenous constituent which forms the chief nutrient of meat, and are thus fitted to take the place of part [or all] of the meat in the dietary. Since in comparison with their value their price is low, they must be considered as next in importance to bread. . . .

As an occasional food, dried legumes are used in perhaps the majority of American families. Properly combined with other foods, they form a palatable addition to the diet, and help to give variety to the menu. In view of their low cost and high nutritive value and wholesomeness, they may profitably be used even to a greater extent than they are at present.—“*Peas, Beans, and Other Legumes as Food.*”

If a dish is broken, it may be mended by covering one edge with white lead, pressing the two firmly together, and wrapping tightly with strong cord to keep firmly in position. Several days will be required for the lead to set. The heat of a warm (not hot) oven will hasten the work. When well set, the dish can be used the same as before it was broken. Glass dishes are not so easily mended. Keep water on the lead when not in use, in order to prevent drying.

MUCH fuel may be saved by use of the fireless cooker, which you can make at home without a cent of expense if you will read directions in the next number of this journal.

HYGIENIC COOKING OIL

THE SHORTENING USED BY OUR PEOPLE

Over 6,000 gallons sold last year. Recommends from everywhere. A perfect Food Fat. Guaranteed by the government. No chemicals and no Animal Fat. Will take it off your hands if not satisfactory. Send stamp for cook booklet and circulars, and learn all about it before ordering. 5 gal., \$3.40; 10 gal., \$6.50; 6cc a gal. in bbl. and ½ bbl. lots. Shipped from Louisville, Ky.

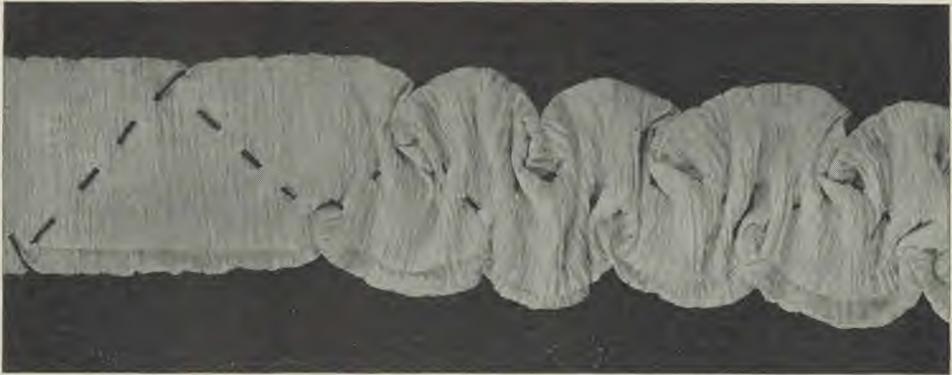
Address Dr. O. C. Godsmark, Chattanooga, Tenn.

A PRETTY EDGE FOR SHELVES

A PRETTY edge for shelves of improvised cupboards may be made from crêpe paper of any desired color. Fold it three thicknesses and about an inch wide. With coarse thread sew as represented in this cut. Now carefully draw the thread until it is practically straight, and the plain strip "puts on scallops."

Thick cloth, or any which is folded so as to make firm work, and gathered as directed, is a pretty substitute for the large cord so much used as a finish on the seams of fancy pillows. Very many years ago, dress waists and skirts were trimmed in this manner.

MRS. D. A. FITCH.



LISTERINE

The original antiseptic compound

¶ Listerine is peculiarly free from irritating properties, even when applied to the most delicate of the tissues, whilst its volatile constituents give it more healing and penetrating power than is possessed by a purely mineral antiseptic solution; hence it is quite generally accepted as the standard antiseptic preparation for general use in domestic medicine, and for those purposes where a poisonous or corrosive disinfectant can not be used with safety. ¶ It is the best antiseptic for daily employment in the care and preservation of the teeth.

Literature more fully descriptive of Listerine may be had upon request, but the best advertisement of Listerine is—LISTERINE

Lambert Pharmacal Company, St. Louis, U. S. A.

When you write to our advertisers, please say, "I saw your 'ad.' in LIFE AND HEALTH."

ST. HELENA CALIFORNIA SANITARIUM



The largest and best-equipped institution west of the Rocky Mountains, making use of a rational system of physiological therapeutics

Every advantage of a thoroughly-equipped medical institution combined with the conveniences of a modern hotel. Physicians of long experience in general practise and surgery. Well-trained nurses of both sexes; polite and agreeable attendants. Delightful climate the year round. Beautiful mountain scenery, No contagious or infectious diseases admitted.

Write for large, illustrated descriptive booklet.

California Sanitarium

SANITARIUM,

NAPA CO., CALIFORNIA.

WASHINGTON SANITARIUM

SEVENTH-DAY ADVENTIST



The Location *Beautifully situated in Takoma Park, one of Washington's most attractive suburbs, amid thickly wooded surroundings and attractive walks, on a bluff overlooking the Sligo, a famous, rippling stream.*

The Building *Imposing in appearance, and of modern fire-proof and sanitary construction throughout.*

Facilities *Treatment rooms are thoroughly equipped with modern appliances, and all physiological healing agencies of recognized value are used, including the various applications of hydrotherapy, phototherapy, massage, electricity, etc.*

The Diet *Each patient is carefully advised by a physician as to the choice and combination of foods. More healthful substitutes replace tea, coffee, and flesh meats. Reforms in eating are made so pleasantly that the patient soon loses the desire for harmful foods.*

Education *Instructive and interesting health lectures are given by the physicians; also instruction in scientific cookery, physical culture exercises and drills. The aim is to teach patients how to keep well after they return home.*

The Life *The Sanitarium has a corps of Christian nurses and attendants who render cheerful service to patients. The atmosphere of harmony, "good will," and home comfort that prevails causes patients soon to forget their illness as they find themselves members of a happy family.*

Correspondence is Invited

WASHINGTON SEVENTH-DAY ADVENTIST SANITARIUM

PHONE: Takoma 127 and 128

TAKOMA PARK, D. C.



MAIN BUILDING

NEW ENGLAND SANITARIUM

MELROSE (BOSTON), MASS.

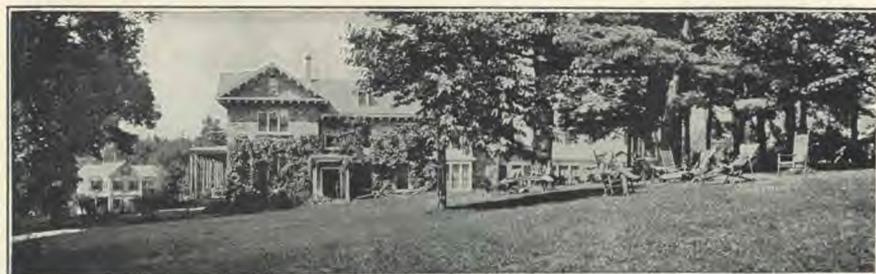
Is the largest and best-equipped institution in the Eastern States, employing a rational system of physiological therapeutics.

The Sanitarium is situated only six miles from Boston in the midst of a magnificent park of 3,500 acres of beautiful forest reserved by the State.

The institution includes five large buildings well equipped with modern conveniences, and with every appliance for the successful treatment of disease, including the Hydro-Electric Bath, Electric-Light Bath, Russian Bath, Massage, Manual Swedish Movements, Electricity, and X-ray. Patients are attended by experienced physicians and well-trained nurses of both sexes.

A postal will bring a beautifully illustrated booklet which will tell you the rest. Address,

NEW ENGLAND SANITARIUM - Melrose, Mass.



A SUGGESTIVE CANVASS
for
THE JULY NUMBER
of
LIFE AND HEALTH

Good-morning! (Holding out a copy of *Life and Health* to the prospective customer, and offering it to him, say something like this.) Perhaps you have seen this health journal, *Life and Health?* It is published with the view of meeting the needs of *every* home,—teaching how to care for the health and how to preserve life as long as possible. It is in no wise an advertisement for patent medicines. It does not sanction them. It advocates simple *home treatments* to assist nature in throwing off poisons rather than adding more poisons by using drugs or unnatural stimulants as medicines—getting the poisons *out* of the system instead of putting more *in*, is now recognized by leading physicians to be the proper practise. It teaches how to avoid disease as far as possible by conforming to the natural laws of health, how to manage when sickness comes, to relieve the pain, and how to combat the disease by the simple remedies which nature provides. This is information every one should have.

(Taking another copy of the journal from your supply, turn to Dr. Kress's article on "How to Live Twice as Long, and Twice as Well.") This number has a very interesting and practical article by Dr. Kress, a physician of a long and successful practise, and now superintendent of the Washington (D. C.) Sanitarium. He is discussing the

question of prolonging life through right methods of living, demonstrating by personal examples that it is possible to not only add many years to one's life through obedience to nature's laws, but to materially improve the mental and physical powers. He builds on the principle of "growing old gracefully." This one article is worth more than the price of the journal.

(Turning over to the next article on "Goats' Milk.") Dr. Heald, the editor of the journal, under the heading of "Goats' Milk," presents some facts about the perplexing problem of securing wholesome milk that are very timely, and will be of value to all, especially to those who are under the necessity of supplying milk, as a food, for the family, or for invalids and bottle-fed infants.

(Turning to other articles.) In the Consulting Room Department, Dr. Hare, another very successful physician, presents some common sense facts about the nature and the effects of tea and coffee, and other drinks.

Mrs. Fitch, in her Healthful Cookery Department, treats the subjects of "Fruits and Fruit Canning;" Keeping and Making Ice Boxes; Care of the Cellar, etc. She gives a list of practical and wholesome recipes, and over a page is devoted to practical suggestions.

Our Mother's Department is well filled with good things for all mothers; "How Shall We Order the Child?"—The responsibilities of parenthood,—The principal causes of mortality of young children,—The quiet, simple life essential to the health of the child,—The possibility of parents preventing sickness, and of their opportunities to administer to the needs of the child that is sick.

"Some Reasons Why Children are Untruthful,"—how to check and correct this tendency.

"Should Children Be Punished? How? When? Why?"—the way to avoid a need for punishment.

Dr. Laretta Kress, a mother and a practising physician in the Washington (D. C.) Sanitarium, contributes the leading article of this number on—

"Infant Feeding During Warm Weather,"—how and what to feed them to insure against many of the common and fatal, yet needless summer diseases of children.

The current mention and news notes of this number are especially instructive. Our editorials on "Hand Infection," "Flies as Disease Transmitters," "Disturbed Sleep in Children," all contain scientific facts that ought to be familiar to every person—all this and much more that is intended to help individuals in the home to avoid contracting disease, and to make plain just what to do in case of sickness, is given in this number of *Life and Health*. It is only *ten cents* a copy, but in reality it is worth far more. Will you buy a copy? It will be worth far more to you than ten cents. (When you are paid, do not fail to thank your customer heartily.)

If after reading this copy, you wish to subscribe for it, you have the address and the subscription price in the copy. Good-day!

A SHORT CANVASS

The July number of *Life and Health*? The Hot Weather Number, containing some of the best things from reliable physicians on the preservation of health during the heated season.

The Drink Habit,—things one should and

should not drink. Dietetic Regulations,— what to eat, and how to eat it. The Simple Life,— nature's laws in labor, rest, and recreation. Contagion,— its sources, dangers, and prevention. How to keep well. *How to live twice as long and twice as well. Only ten cents. Ten cents for ten dollars' worth* of professional counsel in the home treatment of diseases, and the means by which sickness may be avoided. A copy of this number of *Life and Health* is worth more than a week's vacation, and yet it is *only ten cents!* Have a copy? Thank you!

REMARKS

The canvasses given above are merely suggestive. They give something of the manner and method that may be used in introducing the journal. If one has nothing better, however, it will be well for him to become familiar with these canvasses. They may be enlarged upon, or shortened, as occasion may require. It is always best not to attempt to say too much. Usually only a few words are necessary to interest a person in the journal. *Energy* and *enthusiasm* should always be manifested on the part of the worker. Work with a will, and with all the force you can command while you do work. It is better to quit and rest when you are weary rather than to attempt to rest while you work. Be sure to thoroughly understand every portion of the journal. Be ready at all times to talk intelligently upon any of the points treated. From your information of the topics treated, you can readily draw at any time to meet the circumstances before you. Go at your work with confidence. Know that it is a good and exalted work, and that you are going to make it a success. Keep in mind that you are the people's friend, a public benefactor,— a messenger sent.