Vol. 16 OCTOBER, 1901 No. 10

The PACIFIC HEALTH JOURNAL

MONTHLY

CONTENTS

ORIGINAL ARTICLES
Rational Treatment of Disease 241
The Pomelo 242
The Dangers of White Lead 244
Decay of Teeth and Disease of Gums, 245
Malaria and Its Prevention 247
The Advance of Our Knowledge of Typhoid Fever 248
The Evils of the Large Intestine . . . 249
EDITORIAL DEPARTMENT
Dust 252
The Use of Sugar 253
The Communicability of Tuberculosis from Cattle to Man 254
NOTES AND COMMENTS 255
WOMAN'S DEPARTMENT
Instruction to Mothers 257
The Mother a Missionary in the Home . 258
"She" 259
TEMPERANCE 261
THE COOKING SCHOOL 263
BUSINESS DEPARTMENT 264

Edited by G. H. Heald, M. D.

Fifty Cents a Year Five Cents a Copy

THE VEGETARIAN

A liberal but wholesome menu

Obliging waiters :: First-class service

We study to please

All we ask is a trial, for those who come once come again

315-319 W. THIRD STREET
LOS ANGELES, CAL.

VEGETARIAN CAFÉ

A Meal without Meat

We serve the best the market affords of those things nature has provided for man's diet—fruits, grains, vegetables, nuts, etc., prepared in a tempting, palatable manner

735 MARKET STREET
SAN FRANCISCO, CAL.
Phone Main 5378

THE SACRAMENTO BRANCH

KNOWN AS

The St. Helena Sanitarium Treatment Rooms

719½ K STREET, NEAR POST-OFFICE, SACRAMENTO, CAL.

SEPARATE APARTMENTS FOR LADIES AND GENTLEMEN

FULLY EQUIPPED FOR thorough and scientific application of hydrotherapy, massage, electricity, and baths of various kinds by trained manipulators and nurses, supervised by competent physicians.

LABORATORIES for analysis of stomach contents, blood, urine, sputum, etc., etc.

SANITARIUM

Borated Talcum

Refreshing to use after the *Bath* or *Shaving*

Sanitary Cools and softens the skin and prevents soreness and chafing

An Excellent Powder

for Prickly Heat, Nettle Rash, Measles, Chapped Hands, Chafed Skin, Blistered and Sweaty Feet

AN UNEXCELLED BABY POWDER

This powder is in constant use at the St. Helena Sanitarium in giving *massage* and *rubs* after the various hot and wet treatments. It possesses none of the disagreeable features of oil, at the same time thoroughly absorbing the moisture from the skin, closing the pores, and leaving the skin as soft and white as a babe's. Delicately scented with Otto of Rose and White Violets.

Send for a Full-sized Talcum Box
Only 20 Cents Post-paid

THE SANITARY SUPPLY COMPANY

St. Helena, California

PACIFIC HEALTH JOURNAL

A SOUND MIND IN A SOUND BODY

VOL. XVI. SAN FRANCISCO, CAL., OCTOBER, 1901. NO. 10.

RATIONAL TREATMENT OF DISEASE

BY J. R. LEADSWORTH, B. S., M. D.

[Supt. Mt. View Sanitarium, Spokane, Wash.]

WHILE the term "rational medicine" is one which has come into common use of late, it is altogether likely that the real meaning of the term is very little appreciated. The public has become so accustomed to keeping an antidote for the various ills of the body that no amount of argument will persuade them that their malady, no matter how incurable it may be, would not be utterly annihilated if only the right drug could be found.

The fundamental principle of rational medicine is, first, to seek out and find the cause of the diseased condition, and, if possible, remove it; to trace disease from effect to cause and patiently cooperate with the body processes in the removal of that cause. This would seem a more reasonable procedure than to begin a systematic course of pill swallowing, which at best can only neutralize the effects of one morbid action by artificially creating another of an opposite kind. As Leibig, the famous German chemist, has said respecting drugs, "We do but cure one disease by producing another."

Professor Syme, a distinguished Glasgow surgeon, is reported to have said that "the time is not far distant when the medical profession will be divided into surgeons, obstetricians, and hygienists." The implication is that when rational medicine shall have made such progress that all preventable diseases will be eliminated, there will be little or no occupation for practitioners of medicine.

The body is often spoken of as a temple, a dwelling-place for the Creator, leased to us on the very simple condition that we use it with care and protect every part belonging to the premises against injury or abuse; conditions just such as a prudent landlord exacts of his tenants. By carefully complying with the conditions our life lease may be extended through many years. If we fail to make a right use of our tenancy, it will not only become a very uncomfortable abode, but our occupancy will be permanently terminated. The following utterance from Daniel Webster aptly illustrates the condition. During his last hours Mr. Adams called on him, and, seeing his desperate condition, and wishing to cheer him up as much as possible, remarked to the dying statesman, "Good-morning, Mr. Webster; I hope you are doing well." Mr. Webster's eloquent though sad reply was: "Mr. Adams, I am sorry to say that I am not. I feel that I am the tenant of a house sadly racked and

shaken by the storms of time; the roof leaks, the windows rattle, the doors creak on their hinges, until my mansion seems almost uninhabitable. But the saddest part of the situation, sir, is that I have received word that the landlord positively refuses to make any further repairs."

THE POMELO

By B. B. Bolton, M. D.

[Director of Los Angeles Sanitarium Laboratory.]

This is a variety of citrus fruit which has been introduced into the American market during the last few years. The tree, which closely resembles that of the orange, is a native of China and Japan, but is now cultivated in California, Florida, West Indies, Hawaii, and other tropical countries. There are in California about 7,000 trees, 2,500 of which are already bearing.

The fruit, which is quite smooth and round, and of a pale yellow color, is larger than the largest orange, and filled with a similar pulp, which contains a large amount of juice.

Owing to its habit of bearing in clusters it has often been called "grapefruit." This name, however, is misleading, and the State Board of Horticulture has decided that "it should be known solely as pomelo, which is popular, and botanically correct." Moreover, it should not be confounded with the shaddock, a very different fruit known as *citrus aurantium decumana*, while the pomelo is the *citrus aurantium pomelanus*.

Several varieties of pomelos are grown, and the purchaser should reject those containing too much acid, or lacking the real pomelo taste, a peculiar but agreeable bitter, with which is combined a sweetness somewhat like that of an orange, and a *small* amount of citric acid. Lemons contain five to seven per cent citric acid. Pomelos should contain two per cent or less.

The following analysis by Colby gives the composition of pomelo juice of a desirable quality.

Solid contents	10.00 per cent
Total sugars	6.80 per cent
Citric acid	2.00 per cent

As a refreshing drink in summer or a simple tonic for that languid feeling in the spring, the pomelo may easily rank with the lemon. For this purpose it should be prepared in the same way as lemonade. If taken as an aid to weak digestion, the pomelo should be cut in two crosswise, and a little sugar (the less the better) poured on and rubbed in slightly. After remaining in the refrigerator for five to ten hours, the juice should be squeezed out and sipped one-half hour before breakfast or dinner.

An appetizing jelly or marmalade is made thus: Large pomelos are cut, rind and all, into thin slices, allowing the seeds to fall out. Weigh, and add a quart of cold water to each pound. After standing twenty-four hours, boil twenty minutes, or until the skin is tender. Let stand again twenty-four

hours. Then add for each pound a pound of sugar; boil until it jellies. This should give a clear amber jelly, possessing that delicate bitter flavor which is characteristic of the fruit, and, if successfully made, should not be syrupy, and should, when crushed, break with a clear fracture.

The chief merit of the pomelo lies in the bitter principle contained in the juice of the fruit. The nature of this substance has not yet been defined by chemical examination, but it has been found to give desirable results as a bitter tonic, and indirectly as a preventative of fever, thus furnishing the desirable properties of quinin, while, as far as known, producing none of the evil effects of the latter, such as headache, ringing in the ears, deafness, hemorrhage from the kidneys, skin eruptions, etc.

As a bitter tonic it will often give better results than any other, and its effect upon the nervous system is excellent, being very beneficial in cases of debility and neurasthenia.

Cases of hypopepsia are almost always benefited by its use, and when combined with other measures, cures often result in a very short time.

The cases of incipient consumption, said to have recovered or been benefited while taking the "pomelo cure," owe their improvement, no doubt, largely to the improved digestion and nutrition brought about by the regular use of the fruit.

The pomelo is in greater demand in January, February, March, and April, but in later months, as the season advances, the fruit really improves in flavor, and when perfectly ripe may be eaten without sugar, as one would an orange; and it is in this ripe fruit, free as possible from acid, that one best finds that delicate and delightful "bitter sweet" flavor so much enjoyed by those who have cultivated a taste for the pomelo.

317 West Third Street, Los Angeles, Cal.

A NEW FRUIT

THERE is every reason to suppose that before long a most delicious fruit, new to America, will dominate our markets; already a few specimens have found their way to the seaboard cities. This is the mangosteen—native to the Moluccas, and extensively cultivated in Ceylon and Java, and latterly introduced to Jamaica and other portions of British West Indies. It is about the size of a small orange, spherical in form, and when the rind is removed, a juicy pulp, "white and soluble as snow," is revealed, possessing a most delicious flavor—something like a nectarine, with a dash of strawberry and pineapple combined. It promises, in a few years, to supersede the orange in popular favor, and attempts are already being made to introduce it into the southern United States. —*Southern Clinic.*

A WRITER in a late British medical journal calls attention to over one hundred cases of gangrene caused by the application of weak solutions of carbolic acid to raw surfaces and wounds, chiefly of the extremities. Poor

circulation, prolonged contact, and extensive surface, make this result more frequent, as the tissues under such circumstances become more thoroughly saturated. Stronger solutions are not so readily absorbed, as a coagulation occurs, which confines the drug to the surface.

Symptoms of poisoning often follow the absorption of small quantities of carbolic acid into the circulation from wounds, raw surfaces, or when taken by injection or by mouth. This is more especially true of children.

THE DANGERS OF WHITE LEAD

BY B. B. BOLTON, M. D.

PETITIONS have been addressed to the Minister of Public Works of France, asking that oxid of zinc be substituted for white lead in all painting done at the expense of the state.

A committee appointed to investigate the subject found that paint derived from zinc can, if manufactured on an extensive scale, be produced as cheaply as that made from lead; that paint made from zinc is comparatively harmless; and that such paint will cover as much surface and in as satisfactory a manner as lead paint.

The committee reports the following conclusions: "The substitution of paint of zinc oxid base for those of white lead is in every way desirable from a hygienic point of view; that this substitution seems possible in the great majority of cases where paint is used; that, consequently, the state can and should set a salutary example in the way of public hygiene by prescribing, in every possible case, the substitution of zinc oxid for white lead in work done under the direction of the Board of Public Works."

Painter's colic, wrist-drop, etc., are well-known results of lead poisoning. Constantine Paul, however, has further shown that poisoning of the mother means almost certain death for her offspring. Seventy pregnancies reported by him resulted in the birth of three live children, two of which were unhealthy. In chronic lead poisoning of the father the result is the same but in a less marked degree. Such children usually die before the third year, or suffer from convulsions, and show a tendency toward imbecility or epilepsy

Those persons who handle the white lead as the dry powder are most often affected. Painters who eat lunch without carefully removing the white lead from their hands often take more or less lead with their food. During hot weather or when working in the hot sun the lead is also absorbed.

An entire family were recently admitted to the hospital, suffering from lead poisoning, the result of having been engaged in the making of kindling-wood from the ruins of a dismantled paint factory. Cases are also observed, from time to time, in which poisoning has occurred from the lead foil used on tobacco, or from lead salts added to thread to increase its weight.

"WITH most of us it is not so much great sorrows, disease, or death, but rather the little 'daily dyings' which cloud over the sunshine of life."

DECAY OF THE TEETH AND DISEASE OF THE GUMS

IT may not be generally known that decay is ever repeating itself in exact and certain parts of each tooth; it does not happen miscellaneously over the tooth's surface. The enamel is so hard that decay can not penetrate it in a day or a week. With this knowledge of the places liable to decay, and the time necessary to penetrate the armor (enamel) of the tooth, the dentist of the future will have as his mission to prevent the dissolution of the tooth substance by the decay germ. His object will be to check the colonization of the decay germs at the favorable places they seek to locate; these are the deep fissures or pits in the teeth and the spaces between the teeth and at the gum margin. Normally the space between the teeth is filled with gum tissue, supported by a little spine of bone arising from the jaw. From prodding with a toothpick or from the sting and poison of débris, this little spine recedes, the gum follows, leaving the enamel where thinnest, also the root, exposed, and the space between the teeth open for the lodgment of foreign matter. Of all decay, the most destructive is found at the gum margin, particularly because it is, as a rule, permitted to ravage unnoticed.

From the soil accumulating and fermenting between the teeth, a little pocket or depression in the gum is formed; this is increased by food stuff crowding in and bruising it, or by picking with a toothpick. It is a painful and disastrous condition, and in the later stages does not invite correction. . . .

Almost the entire care of the mouth, if begun early enough, and carefully observed, will come under the head of cleaning.

Those who have had that terrible disease of the gums known as pyorrhea, would gladly have had this protection and prevention. Pyorrhea is a disease resulting from the deposits upon the teeth underneath the gums. The inflaming gums recede from the ever-present poison, while the deposits become deeper and larger, until the tooth may be lifted from the socket. The early stages are characterized by bleeding gums and looseness of the teeth, which may become loose enough for the tooth to drop out unaided. Indeed the most beautiful teeth you have ever admired may be so afflicted, and may come out, as the patient may describe, "without apparent cause." . . .

The first particle of foreign matter that seeks a place under the free margin of a gum and remains sufficiently long to destroy the natural contact of the gum with the teeth is the forerunner of this disease of the gums.

Cure, when in its first stage, is very possible, and is included in that same cleansing process that prevents decay. However industriously one may cleanse the mouth there will be required, periodically, the careful technique of the dentist. Those who would preserve their teeth through life should give twelve pleasantly spent hours each year to the dentist. . . .

If, between a silk thread and the toothbrush, one must be dispensed with, let it be the brush. In the hands of most people it has served admirably to brush food débris into, instead of out of, the space between the teeth. The

brushing should end with a perpendicular stroke, to cleanse between the teeth as well as the brush will do it. Silk floss used with a see-saw motion between the teeth at intervals of twice a week (the oftener the better), will serve to keep these parts free of foreign matter, in which the decay germ builds its habitat. Just before retiring the mouth should be thoroughly cleansed, as at night-time the most morbid condition exists. During protracted illness, the trained nurse cleansing the mouth frequently, to prevent a fetid and uncomfortable condition, does incalculable good for the teeth and gums.

No toilet is complete without a mouth wash, which should be used at least every alternate day. This wash should not be a germ poisoner, but a germ and débris consumer; it should contain oxygen in sufficient quantity to burn or oxidize the germs and foreign matter habitually in the mouth. If, after the usual method of cleansing the mouth, a wash of pyrozone or peroxide be employed, merely half filling the mouth therewith, it will result in an overflow from the lips of a seething mass of burnt foreign matter. This preparation is but distilled water with oxygen added. Not until this is used have the teeth been cleaned to their surface, and neither has the foul condition at the border of the gums been removed. While cleansing the teeth with either of the oxygen-bearing solutions, you have unconsciously cleansed the whole mouth and tongue, leaving it, the first organ of digestion, prepared for the important mission it has to perform. This treatment would alternate nicely with your favorite mouth wash, giving the soothing effect of the one, and the cleansing influence of the other.

To one who is skeptical and wishes positive evidence to encourage a belief in preventive measures, five facts are submitted:—

First. The glazed surface of the enamel, when clean, is not conducive to the lodgment of foreign matter.

Second. Maintaining a healthy condition of the gums protects the teeth where decay is most destructive.

Third. The gum tissue will not lie next to foreign matter; it recedes therefrom, leaving the root unprotected.

Fourth. Where the tongue or cheeks rub clean a part of the teeth, no decay occurs; therefore, to provide equal protection for other locations, artificial means must be employed.

Fifth. By taking ordinary precautions, you are avoiding the graver conditions which come to those who continually neglect the mouth.

Those who are disappointed in their efforts to care for the mouth are encouraged to try again.

The mouth should be sterile and clean. If need be, supplant some constantly inflaming tooth with a modern appliance. Have all the old roots extracted. "Catch up," as it were, with a healthy condition, then maintain it by thorough cleansing.

The intent of this article is not to alarm; indeed, it can educate, do much good, prevent hours of agony, keep normal and beautiful many faces, and give a greater degree of health if one will but follow it.—*Frank Eaton Burnett, D. D. S., in Medical Brief.*

MALARIA AND ITS PREVENTION

SINCE the work of Laveran (1880) proved malaria to be a fever caused by the invasion of the blood by minute animal organisms, steady progress has been made in the work of probing and elucidating the etiology and pathology of this dreadful scourge. English, Italian, and German workers have competed with each other in their attempts to limit this dread disease, if not exterminate it, and of their work an immense bibliography remains as a monument to-day.

We have already published a considerable number of papers upon malaria and its prevention, and upon the anopheles, but a few brief notes relative to some investigations which have recently been carried on, may prove of interest. The prime cause of malaria being known, its method of invasion having been satisfactorily demonstrated, and the official seal of scientific approval of these facts having been obtained in Lord Lister's recent address to the Royal Society, it remains now to apply our knowledge in a practical way so as to evolve some method or methods of prophylaxis and thereby crown a piece of scientific work as far-reaching in its power to benefit the whole human race as any of those brilliant discoveries which have made the Victorian age conspicuous above all others. Some of the members of the various expeditions have advocated the wholesale destruction of mosquitoes by surface drainage and by the treatment of their breeding puddles with substances fatal to their development. Others have suggested a careful and more extensive use of mosquito-proof curtains and blinds, while one distinguished authority holds that the continuous administration of quinine is likely to give the best results. The efficiency of surface drainage appears to have been known as far back as 500 B. C., and it is doubtless one of the surest methods of exterminating the mosquito, but in districts unsuitable for any cause, the application of larvicidal substances (petroleum, tar, lime, etc.) has been suggested; but so far as experiments go the effect of such application has proved too transient to be of much value. The general point is to avoid being bitten by infected mosquitoes by night, and also by day, for, notwithstanding statements to the contrary, Mr. R. Fielding-Ould says in *Nature* that he has repeatedly noticed anopheles gorging themselves in full daylight, though no doubt their habits are chiefly nocturnal. For this purpose the constant use of mosquito curtains of a prepared kind is essential, but only too frequently one finds in the tropics curtains of an utterly useless kind. Either they are torn, or the mesh is too large, or by their arrangement the free ingress of mosquitoes is possible. They are best fixed on four posts on the four corners of the bed, and as the netting descends around the bed, it should be tucked in under the mattress. The inclosed space should be of sufficient size to allow a certain freedom of movement during sleep so that the danger of coming in contact with the netting is impossible. Celli recommends that windows should be protected by wire netting and meshes which measure only from one to one and a half millimeters (one-sixteenth inch) square, and that all doors opening exteriorly should be protected by a cage of similar netting, so as to oppose two screens to the ingress of the mosquitoes. He further suggests that,

to facilitate the capture of any stray mosquitoes, all walls should be bare and painted white, and trees should not be allowed to grow near dwellings, as they afford a retreat in which mosquitoes may hide. Experiments carried out on the Roman Campagna have proved that these and similar devices have been sufficient to protect inhabitants from fever for considerable periods, but it is to be feared that unless unceasing vigilance be exercised all such precautions may prove ineffective, and one mistake may render them entirely abortive.—*Scientific American.*

THE ADVANCE OF OUR KNOWLEDGE OF TYPHOID FEVER

THE improvements in the methods of treatment of typhoid fever are best shown by the reduction in fatality from this disease. Large collections of statistics of cases treated between 1850 and 1880, before the general use of hydrotherapy, show that the hospital death-rate varied from 18 to 36 or 37 per cent, the last excessive mortality being found under specially unfavorable conditions, as military hospitals. Previous to 1885 the average mortality in the French army is said to have been about 37 per cent. In contrast to this, it is reported by Brandt that in the second German Army corps, where hydrotherapeutic measures have been thoroughly and systematically carried out, the mortality is less than 4 per cent.

But while there can be no question that the use of cold baths has contributed more to this result than any other measure, yet I can not but believe that improvements in the treatment in other respects have contributed, to no small extent, to this result. We have learned to use drugs less and less, and to watch carefully the nutrition of the patient.

Typhoid fever, which previously prevailed particularly in the cities and large towns, is becoming more and more a disease of rural districts. In the large cities which are provided with a pure water supply and an efficient sewerage system, the disease has become to a large extent one of those which results from importation of the infection from outside.

I believe there are few cases occurring in New York City which do not result from infection by some one of the means described, and for the most part derived from without the city limits. If a city is content to use for drinking purposes a water into which its own sewage or that of its neighbors is discharged, as is the case of a number of cities in this and other states, the prevalence of typhoid fever can not be considered remarkable. The permanent and considerable prevalence of this disease in any city, in view of our present knowledge, stamps the authorities as ignorant, corrupt, or grossly indifferent to the welfare of the inhabitants.—*Medical Standard.*

IDLENESS is the greatest prodigality in the world; it throws away that which is invaluable in respect of its present use, and irreparable when it is past.—*Jeremy Taylor.*

THE EVILS OF THE LARGE INTESTINE

PROF. E. METCHINKOFF is authority for the statement that the human body harbors some seventy species of microbes, of which forty-five inhabit the large intestine. The products of most of these germs are poisonous to the human organism, causing disorders of every conceivable type. Many grave diseases, whose origin was formerly wrapped in obscurity, have been traced to the absorption of poisons from the alimentary tract. Those animals which have the most completely developed large intestine are the shortest lived.

As there have been a number of cases in which patients have had a considerable portion of the intestines removed and still maintained good health, the ambitious surgeon, anxious to enter new fields, asks, "Why not abolish the large intestine by extirpation? Why not lengthen life by abbreviating this pestilential sewer?" Men may be found who will submit to such an operation, and there are, no doubt, surgeons who will not hesitate to perform it; but for the present, the operation is not apt to become popular.

The venerable custom of giving a brisk purge at the beginning of a course of treatment was not so far out of the way; for, whatever the cause of the disease, intestinal absorption is probably a complicating factor, if not the sole cause of the trouble. The efforts to sterilize the intestinal tract by germicidal agents, has been a failure, but the rapid removal of the decomposing filth is a rational proceeding.

While flushing the colon has been overdone in the past, while its routine and indiscriminate employment has been productive of much harm, there can be no doubt that many cases of sickness, by a proper cleansing of the colon, might be averted, or at least be materially shortened.

INTEMPERANCE is, perhaps, the most formidable enemy to the safe insurance of lives. It ranks before phthisis in its deadly effects upon the human system. Not only is it often inherited, but organic ailments are by it originated, and organic weaknesses crystallized into disease. The tendencies to disease, as phthisis, gout, rheumatism, diabetes, etc., are by it converted into actualities. Its slow, insidious effects upon the organs in hardening their connective tissue, and thereby contracting as by a band on their blood-vessels and choking off their supply of blood, are exemplified in cirrhosis of the liver, but act also on the kidney and lung. By promoting fatty degeneration of muscular tissue in the heart and the whole system of arteries, and favoring schlerotic changes in their coats, the circulation from its center to its ultimately terminating branches is affected either by failure of the heart itself, or, depriving the vessels of their elasticity and contractile power, and favoring atheromatous changes in their coats, which lead to rupture and hemorrhages, intemperance becomes a deadly agent. The vessels of the brain are sure to be involved, and apoplexy rendered most likely.

The degenerations of age are anticipated and precipitated, and the dram drinker is thus sure to have a shortened life.—*Pollock and Chisholm's Handbook of Life Insurance.*

MILK HANDLING

THE dairy division of the Department of Agriculture at Ottawa has formulated the following excellent instructions for milk producers in Canada, and they should be observed by all patrons of creameries:—

1. Only milk from cows in good health should be sent to the creamery.
2. Milk should not be sent till the eighth milking after calving.
3. Only pure water should be given to cows.
4. Cows should always have free access to salt.
5. Cows should never be driven fast, nor treated unkindly
6 It pays to make cows comfortable at all times.
7. All the vessels used in handling milk should be thoroughly cleaned immediately after use. A washing in tepid water to which a little soda has been added, and a subsequent scalding with boiling water, will prepare them for airing, that they may remain perfectly sweet. A brush is preferable to a cloth for cleaning. They should be protected from dust, which always carries large numbers of the bad forms of bacteria.
8. Milk with dry hands, and only after the udders have been washed or brushed clean.
9. Tin pails only should be used.
10. All milk should be strained immediately after it is drawn.
11. Milking should be done and milk kept only where the air is pure. Otherwise the presence of tainting germs and odors will injure.
12. All milk should be aired immediately after it has been strained. That treatment is equally beneficial to evening and morning milk.
13. In warm weather all milk should be cooled to a temperature of sixty degrees Fahr. or lower.
14. Milk-stands should be constructed to shade cans or other vessels containing milk, and to protect them from rain. Swine should not be fed near the milk-stand.—*Selected.*

Microbe Lamps.—Professor Raphael Dubois, of the University of Lyons, has produced some of the most curious lamps ever imagined, by cultivating luminous marine microbes in a liquid medium, contained in little glass vessels. If a few of these living lamps are arranged about a bust in a dark room, the bust is made plainly visible, and photographs can be taken of it. The actinic power of the light is, nevertheless, so feeble that several hours' exposure is needed. With another form of lamp, filled with phosphorescent bacteria, enough light is obtained to render a printed page easily legible.—*Youth's Companion.*

Nutriment in Rice.—It has been positively ascertained by expert chemical analysis that rice contains more nutritive elements than any other grain. It will sustain life better and longer than any other cereal, a fact well known throughout the eastern countries from time immemorial.—*Ex.*

EFFECT OF THE WEATHER ON HEALTH

THE relation of climatology to health and disease is no new subject. Hygiene and meteorology have for a long time been known to be co-related to an important degree. In fact, atmospheric influence upon the health is mentioned in ancient history. Over four thousand years ago, the frequency and fatality of diseases during the manifestations of certain atmospheric phenomena were noted and attributed to arbitrary punishment from heaven.

The following propositions are generally held to be true: A preternaturally dry air, with a high temperature, predisposes to the development of fevers and intestinal disorders.

A very moist atmosphere, accompanied by a low temperature, is likely to induce bronchial and rheumatic affections.

In summer and autumn the tendency to sickness and death is chiefly connected with digestive organs.

In summer and autumn a rise of mean temperature above the average, increases the number of cases of, and the mortality from, diseases of the digestive organs.

A cold and rainy summer controls the prevalence and fatality of diarrheal diseases.

Diarrheal diseases become epidemic when the subsoil temperature at a depth of four feet below the surface reaches 56° Fahr. for the season.

The physiological effects of climate embrace the degrees of humidity, fogs, cloudiness, sunshine, force and direction of wind, purity of atmosphere, and the quality and energy of all the meteorological influences.—*Ohio Sanitary Bulletin.*

SHOULD LEARN TO COOK

THE ability to make a loaf of good bread is an accomplishment which every woman should possess before she gets married. It is of no use for a woman to think that she can hold a man's affections very securely when she feeds him on death-slug biscuits, soggy pie-crust, and burned or half-cooked meats. Men do not live to eat, but they have to eat in order to live, and what thay have to eat has much to do with their temper, their piety, and their health. A woman should take a pride in being expert and accomplished in her cooking and the care of her home, just as a man does in being expert in his business or profession.—*Anon.*

OLIVE-OIL AS A FOOD

PURE olive-oil, as a food, with the meals, should be used by both the mentally depressed and the abnormally excitable. It helps nutrition and gives a gentle aid to elimination. If it can not be taken with food preparation, a teaspoonful or two can be taken regularly at the close of each meal.—*Medical Standard.*

EDITORIAL DEPARTMENT

DUST. NO. 2

THERE is no question but that clothing, especially the loose-woven fabrics, are traps for all the filth that is passing in the air, and garments which reach the ground are—well, if one were to try to invent a machine for carrying all the filth of the streets and sidewalks into our homes, he could not improve much on that abomination, the long trailing dress. How a sensible woman—no, I'll not say that, sensible women don't wear them. Any woman who lets fashion say to her what the size of her waist shall be, or how long her dress shall be, or how much she shall torture her feet by small, high-heeled shoes, is not entitled to the appellation "sensible." People are more inclined to shape their actions so as to have the good opinion of others than they are to follow what they know to be right. "I know it isn't just the thing to do, my conscience smites me a little when I do it, but then everybody does it, and if I didn't I would be considered odd." Have you ever heard it? Have you ever expressed it, in word, thought, or action? "Be not afraid of them that kill the body, and after that have no more that they can do. But I will forewarn you whom ye shall fear: fear Him, which after He hath killed hath power to cast into hell." "The fear of the Lord is the beginning of wisdom," and he or she who follows custom rather than conscience has not yet made a beginning in wisdom, and can not properly be called sensible.

Those of past generations whom we now honor were not the ones who attempted to be just like their fellows, neither did they try to be odd and peculiar. They had an aim in life, something to live for, some great object to be attained, and they worked to this end, unmindful of the praise or the contempt of their fellows—perhaps not unmindful, for none of us are entirely insensible to praise and condemnation, but unswerved from their purpose by these influences. He who works for the good opinion of his own generation will likely meet disapproval or oblivion in the succeeding generation.

To return to our subject, if it is not too late. The best clothing for the dry, dusty months is of linen wash goods, which can go to the laundry quite frequently. During the winter months, when it is not so dusty and when comfort demands it, woolen suits are better.

The question may be asked, Why is it that California and other places having a long, dry summer, with great quantities of dust, are not more unhealthy during the dusty months? The answer is that the sunshine and the extreme dryness combine to destroy a considerable portion of the microbes and desiccate the organic matter. Every germ that is exposed to direct sunshine for one or two hours will be killed, and although the sunshine does not reach all the germs in the dust, it reaches the top ones, which are most likely to be drawn around by the wind. This refers, of course, to dust outside of buildings. Inside dust, not being exposed to direct sun's rays, is far more dangerous.

THE USE OF SUGAR

SUGAR is undoubtedly used too freely; but we are not certain that all the objections urged against the use of cane sugar are valid. It is true that cane sugar must be converted into grape sugar before it can be absorbed, but this is just as true of malt sugar, which is much nearer related to cane sugar than it is to grape sugar.

It is objected against the use of cane sugar that it is not inverted, or changed into grape sugar, until it reaches the intestines; that it remains in the stomach for eight hours or more, causing fermentation. Now it remains to be proved that cane sugar remains in the stomach of a moderately healthy person anywhere near eight hours. Being in a fluid condition, it will pass out before the solid portions of the food. This objection, if valid at all, would hold with equal force against starch and the products of starch digestion; for at the most the digestion of starch is only carried to the point of malt sugar in the stomach, and the malt sugar must necessarily remain in the stomach as long as the cane sugar, for it can not be absorbed until it is transformed into grape sugar by the inverting ferment in the intestines.

If we want to use sugar ready for absorption we should use glucose (grape sugar); but that this is not wise is evident from the fact that if glucose is eaten in any but small quantity, the excess is promptly excreted by the kidneys, as it is absorbed so rapidly into the blood current that the system does not have time to store it up. If the food be eaten in a form requiring digestion, it can be stored as fast as it is absorbed.

A point argued in favor of malt sugar is that it contains a ferment through which the digestion of starch is hastened. This is true so far as the production of dextrin is concerned, as the writer has had abundant opportunity to observe; but there is a law governing the action of ferments, to which the digestion of starch is not an exception, that, in proportion as the products of digestion accumulate, the digestion is retarded, and finally ceases altogether, so that the presence of a quantity of malt sugar in the stomach, while it may hasten the conversion of all the starch into dextrin, will retard the production of sugar.

As to fermentability, there does not seem to be much difference experimentally between cane sugar and malt sugar, unless it be that malt sugar is a trifle more fermentable.

We would not condemn the use of cane sugar in small quantities, neither would we recommend malt sugar in large quantities. Sugar, in whatever form it is taken, should be used rather sparingly.

THE New York Central Railroad employs thirty thousand men. About one per cent are dismissed yearly for spirit drinking. Twenty years ago nearly twenty per cent were discharged yearly for this cause. The demand for temperate men grows steadily every year, and the supervision of the habits of all persons engaged on the road and train service is more and more exact.

THE COMMUNICABILITY OF TUBERCULOSIS FROM CATTLE TO MAN

PROFESSOR KOCH'S startling statement at the Tuberculosis Congress, which has been given such publicity both by the medical and the lay press, is characterized by Dr. Ravenel in a communication to the *Philadelphia Medical Journal* as "Koch's ill-advised and unfounded dictum," which, he says, "has raised universal opposition among those who *work*."

He continues, "Lord Lister followed him in a strong protest against his conclusions, and after him, Nocard, Bang, and Sims Woodhead, all spoke in the same strain." "I have spoken to men of almost all nations, and all condemn the method of his announcement, as well as the insufficiency of his grounds. I am told on responsible authority that even the Germans are against Koch's views." "I have visited the State Veterinary School at Brussels, and spoken with most of the leading men there. Without exception they oppose Koch's view, and Professor Gratia said to me, 'He has made trouble for all the world.'"

There is very little doubt among the members of the medical profession that Professor Koch's statements were premature, to say the least. Utterances made with the knowledge that his propositions were not completely demonstrated (for he afterward admitted that the matter needed further study), were published as established facts by the sensational press.

While medical men have, as a rule, been little influenced by Koch's dictum, the general result will no doubt be a diminution in the efficiency of the measures to prevent the consumption of tuberculous meat and milk.

Till it has been definitely proved that tuberculosis can not be transmitted from cattle to man, it will be the part of wisdom to avoid the possibility of infection. When you have a choice of two ways, one of which *is* safe, and the other of which *may be* safe, the wise course is to choose the former. "Better be sure than sorry."

He who has learned that he can secure sufficient nourishment and ample variety from a non-meat diet, can be thankful that he does not have to consider before partaking of his food whether it has been sufficiently sterilized to kill the tubercle bacilli in the inner layers.

THE *Vegetarian Messenger* for July states that some English, American, and also German insurance companies are offering reduced premiums to vegetarians.

THE city chemist of Baltimore, after extensive work examining chemically-treated sausages, states that one colored dye is used to make the meat look fresh and another kind of dye to make the skin look smoky. But perhaps the dye is not much worse than the rest of the sausage.

NOTES AND COMMENTS

LADY PHYSICIANS

THE demand for lady physicians has greatly increased in recent years. There are said to be now 6,000 of these in the United States alone. In English countries there are 396 lady physicians. Many of these connect with their medical work that of administering spiritual consolation, thus giving counsel for the soul as well as the body. The first lady physician was Elizabeth Blackwell, who graduated as such in 1849. Three years later, Philadelphia boasted of six lady doctors. In 1889 there were 3,000 registered in the United States. The first lady physician in France was Madeline Bres, who graduated in 1875, and there are now eghty-five in that country, seventy-one of whom are practising in Paris. Under Lady Dufferin's influence, hospitals in India entirely in charge of women, increased to thirty, as early as 1888. In 1896 the number had swollen to 133. In 1894 the sultan of Turkey forbade women to study medicine in his dominion, but foreign lady physicians are yet permitted to practise there. Egypt has two lady doctors, twenty are in Italy, while Roumania, Norway, Sweden, Denmark, and Finland each have lady doctors, who are doing good work. In fact, lady physicians are no longer an experiment, but are fast becoming an important factor in moral influence. No one is better fitted to become just what a physician should be,—an angel of mercy to the afflicted,—than a Christian lady. Gentle by birth, and refined by proper education, she may exercise the most benign influence upon those with whom she comes in contact, even to the salvation of their souls. C.

THE INCREASE OF CANCER

IT is said that cancer is becoming more and more in evidence as a human scourge. A late *Leslie's Weekly* has an article in which Charles Elley Hall refers to the death of the Dowager Empress Frederick, of Germany, and refers to King Edward's message to the Tuberculosis Congress, in which he says, "God grant that before long you may be able to find a cure for cancer, or check its course." These words from the king are thought by some to confirm the rumor that he himself is suffering from this cause.

It is now quite generally admitted that with this difficulty the entire system of the patient is affected, making a resort to the knife but a temporary stay of the ravages being made. The editor of the *Medical Times* speaks quite positively of a certain newly-discovered fluid capable of destroying the living germs of cancer throughout the general circulation. This fluid is claimed to be a "vegetable remedy," which all reputable physicians, surgeons, and cancer specialists are permitted to use. Remarkable cures are said to be effected by its use.

Granting all to be true that is said of this wonderful cancer remedy, it must be admitted to be far better to avoid the necessity of its use. Although it may be true, as some believe, that cancer is hereditary, yet even where inherited tendency to its development is known, its ravages may be long, and, perhaps, permanently delayed by the constant use of a proper diet of grains, fruits, and nuts. C.

TRANSMISSION OF YELLOW-FEVER GERMS

MUCH has been said of late directing suspicion to the mosquito as being responsible for the transmission of yellow-fever germs. Severe tests have been made, which seem to leave no doubt of the truthfulness of the suggestion. Several persons in Havana have submitted to be bitten by germ-laden insects, who have died with the dreaded disease. A Brazilian expert, Dr. Caldas, has come forward with a serum which he claims will ward off the disease, even though a person may have been inoculated by the infected mosquito. Experiments have been conducted by a yellow-fever commission, which make it quite clear that these insects are largely responsible for the spread of the often fatal malady. C.

DR. J. P. THOMAS, advocate of the exclusive use of uncooked food, has this to say regarding his theory:—

"Living tissues can only be built from living cells; cooking destroys the cells in food."

That this statement can not be true is easily proved; first, by the fact that many people, young and old, thrive on a diet consisting entirely of cooked food, and the children increase in weight, which is proof positive that their living tissues are built up by cooked food. The writer took a child at five months old, almost starved, and fed it exclusively on granose and sterilized milk, and the child, in a few months, became a marvel of vigor and health. Where did the living cells come from, to build up its tissues?

Living cells must all be destroyed before they can enter the blood current to become reorganized as a constituent part of the body. The starch granule is not a cell in the strict sense, because not composed of living matter, and it never goes to make up living tissue; but as the uncooked-food theory favors the use of raw starch, it is proper to consider it here.

Before the starch can be utilized in the system, the woody outer wall of the granule must be burst open and the contents liberated. Unless this is accomplished by the cooking, the saliva is incapable of acting on the starch, and it must remain undigested until it reaches the intestine, to be acted upon by the pancreatic juice. Whether the starch is raw or cooked, the final result of its digestion is the same,—glucose,—the only difference being that the process is more rapidly performed with cooked than with raw starch.

The proteids, as a rule, are not improved by cooking, except as they have the surrounding fibrous substance softened by the cooking process. Whether cooked or uncooked, the proteids are completely changed in the digestive process, so that they are no longer living cells.

WOMAN'S DEPARTMENT

CONDUCTED BY MRS. M. C. WILCOX, 418 EAST 23D STREET, OAKLAND, CAL.

WOMAN'S RIGHTS

THE right to watch while others sleep,
The right o'er other's woes to weep,
The right to succor in distress,
The right when others curse to bless,
The right to love when others scorn,
The right to comfort all who mourn,
The right to shed new joy on earth,
The right to feel the soul's high worth,
The right to lead the soul to God,
Along the path her Saviour trod—
Such woman's rights our God will bless,
And crown her champion with success.

—*Anon.*

INSTRUCTION TO MOTHERS

BY MRS. E. G. WHITE

THROUGH the power of appetite, Satan has gained control of men and women. How difficult it is to obtain the victory over appetite when once it is established! How important that parents bring their children up with pure tastes and unperverted appetites! Parents should ever remember that upon them rests the responsibility of training their children in such a way that they will have moral stamina to resist the evil that will surround them when they go out into the world.

Christ did not ask His Father to take the disciples out of the world, but to keep them from the evil in the world, to keep them from yielding to the temptations which they would meet on every hand. This prayer fathers and mothers should offer for their children. But shall they plead with God, and then leave their children to do as they please? God can not keep children from evil if the parents do not cooperate with Him. Bravely and cheerfully parents should take up their work, carrying it forward with unwearying endeavor. Temperance and self-control should be taught from the cradle. Upon the mother largely rests the burden of this work, and, aided by the father, she may carry it forward successfully.

The lesson of self-control should begin with the infant in its mother's arms. The child should be taught that its will must be brought into subjection. It must learn that it does not live to eat, but eat to live. But how many parents, by the food which they place upon their tables, prepare the way for their children to crave stronger stimulants! Soon you will see the boys of such a family smoking. And, as twin evils, tobacco and alcohol go together.

To the mother belongs the duty of making the home a pleasant place for her children. The home may be plain, but it can always be a place where cheerful words are spoken and kindly deeds are done, where courtesy and love are abiding guests. Mothers, instead of devoting so much time to the adornment of your own and your children's dresses, take time to get acquainted

with your children. Study their dispositions and temperaments, that you may know how to deal with them. Some children need more attention than others. They need gentle, encouraging words. How easy it is for mothers to speak words of kindness and affection which will send a sunbeam to the hearts of the little ones, causing them to forget their troubles!

Who are these children committed to our care?—They are the younger members of the Lord's family. He says, Take these children and train them for Me. Educate them so that they will be polished after the similitude of a palace, prepared to shine in the courts of My house.

In front of a block of granite marble stands a sculptor with hammer and chisel in hand ready for work. He knows that with his keen eye and skilful hand he can transform the rough block into a form of loveliness and beauty. And *how* does he know this?—Because he has made it a study. His eye has been trained to closely and critically examine every curve and outline. His skilful hand wields the chisel in a manner which training and education alone can give. "What sculpture is to a block of marble, education is to a human soul."

But how does the block of marble compare in sacredness and importance to the human soul? The most beautifully chiseled work of art, for which many thousands of dollars have been paid, is but a dead, inanimate object. It is but marble still, and its only value is in the skill of the artist that formed it, in the beauty he gave it. Not so with the human soul. Its value is in the soul itself. It has life, influence, and power, and the shaping of its destiny, the molding and chiseling, belong to those to whom the precious charge is given. The mold it receives from their hand will shape its future, eternal destiny. Mothers, what great privileges and opportunities are yours!

THE MOTHER A MISSIONARY IN THE HOME

By H. S. Maxson, M. D.

To move multitudes by word of mouth is a power greatly to be desired. The pen of a ready writer, consecrated to a noble cause, has, perhaps, a wider and more lasting influence. He who leaves home and fireside and devotes his life to the salvation of the heathen shall wear a crown any might covet. But the work of either and all pales into insignificance beside that of her whose privilege it is to make the home. It is not too much to say the home is the greatest missionary field in the world, and the mother has the privilege of being the greatest missionary. All others can do but partial work. Their efforts must be neutralized in large degree by what has gone before and what must follow after; but the wise and consecrated mother stands ever with a positive influence. Indeed, she is co-creator with God Himself, standing before all other influences. Here is where her work begins and where her greatest power lies. Here she may face even the inexorable laws of heredity with that

stronger law of the inheritance of good. Remembering that all are children of our heavenly Father, she may through Him counteract, during this most precious period, every evil tendency.

It is true the world stands with outstretched hands offering every enticement to children and youth to throw about them scattering influences, but to the mother belongs the exclusive control of the first years, which some one of great wisdom and experience has said count more in character building than a lifetime beside.

Let the mother rule her own spirit with a quiet, unwavering trust in "the all is well," and a calm pervades her household. The kindly, softly-spoken word, accompanied with the unspoken demand for prompt and unquestioning obedience, promotes quiet, impassionate development. High ideals steadily held in the heart of her whose spirit broods over her loved ones, unconsciously implants within their minds and hearts a strong purpose.

Mrs. Booth lived in spirit the life of the Salvation Army years before its birth, and out of her dream, while she nursed her babes upon her bosom, has grown that whole grand system of work for the lost and degraded.

Abraham Lincoln did not hesitate to give his mother full and loving credit for his life-work.

Five sons of one family are active and successful missionaries in different fields of the world's vast need. Who shall say that any one has accomplished a work to compare with that of her who gave them life and purpose? And this is the privilege of every mother.

"SHE"

"SHE" is away—absent. When a man says "she," he is understood. To every "he" there is but one "she," or should be. And "she" is away, leaving us to thought and good resolutions. Like Hawthorne, we have been washing dishes. Says "he":—

"The washing of dishes does seem to me the most absurd and unsatisfactory business that I ever undertook. If, when once washed, they would remain clean forever and ever (which they ought in all reason to do, considering how much trouble it is), there would be less occasion to grumble, but no sooner is it done than it requires to be done again. On the whole, I have come to the resolution not to use more than one dish at each meal."

The quiet fidelity with which "she" will dish-wash her life away for "him" is a marvel of endurance and grace. Just here is the servitude of woman heaviest—no sooner is her work done than it requires to be done again. Man works up jobs, ends them, and takes his pay. The pay can be translated into something else desirable. A man works all day and draws his pay for his day's work. This pay allures him, as oats a horse homeward bound. Thus men work by terms and jobs, and, although the work is endless as to quantity, yet, when cut up thus into terms and jobs, we men go heartily on our journey and count the mile-stones.

Not so with our mates. "She" mends our socks, and we put an irrepressible toe upon the darned spot, and she darns it again. "She" washes for the family, and the family makes haste to send back the same garments to be washed again. "She" puts the room in order, and we get it ready to be "rid up" again. The same socks, the same washing, the same room every time. "She" has no successive jobs, no terms, no pay-day, no tally-stick of life. "She" washes the same dish three hundred and sixty-five—yes, three times three hundred and sixty-five—times every year. No wonder she breaks it and is glad of it! What a happy relief to say, "I've done that dish."

Not only have we, like Hawthorne, washed dishes, but also we cooked and served and helped eat a meal (with bated appetite because of cooking), and now we are astonished at the number of thoughts, and steps, and acts, and processes involved in a very plain supper. And we had it, and with it came wisdom.

Gentlemen, all, we go into a room and see a table ready set. It seems to us one thing—a supper. It is, in fact, from fifty to two hundred separate things, taken down one by one for us to use, and for "her" to wash and put back whence they came. There is a plate of biscuit. To that plate of simplicity we, with our hands and feet, brought together a new, quick fire for baking, viz., kindling-wood, raking out stove, and hod of coal, flour from the bin, shortening from the gravy-dip down cellar, salt from one box, sugar from another, soda from the jar, acid (tartaric) from a bottle, a spoon, a pitcher of water, a dripping-pan, and a thin pan for mixing up these ingredients, and, after all, happening to forget the things for ten minutes, we burned the biscuit half through in a way which we men reckon quite unpardonable in a cook. Meanwhile that one plate of biscuit added to the eternal dish-wash two spoons, two pans, one plate, and a little cup. Just a little piece of steak contributed eight pieces to the dish-wash. A few strawberries sent in six pieces to be got ready to soil again. Four eggs impressed themselves on six separate articles.

Gentlemen, we began at ten minutes of six, and at a quarter to eight we found ourselves triumphant—everything cleared away except the dish-cloth. You see, we washed up the bread-pan, the dish-pan, and the sink, scalding them all (and our fingers too), and dried them off with the dish-cloth. Now, where on earth can we go to wash out that dish-rag? Not in the clean pan! Not over the clean, dry sink! We stood aghast for five minutes, and then wadded up the rag, round like a snowball, and tucked it into the far corner of the sink, and shut down the cover (our sink has a cover). But that rag, though hidden, was heavy on our conscience. "She" never would have done so. We have seen clean dish-cloths, but how they wash them passes our skill.

And so, as we said, "she" is away, leaving us to thought and good resolutions. We shall be a wiser and a better man for at least two days after her return. And whenever we stop to think, shall rank a successful housekeeper and home-maker as a worker second to none on the scale of achievement and deserving. Her services are like the air, the rain, and the sunshine, indispensable, yet too often enjoyed without thanksgiving.—*Thos. K. Beecher.*

TEMPERANCE

ALCOHOLIC POISONING

THERE is no doubt that chronic alcoholism is largely responsible for the increase in insanity. A recent report of the London Asylums Committee states that out of nine hundred and fifty-eight lunatics admitted to one asylum during the year, two hundred and seventeen were the result of drink. A table of averages for the various British asylums, covering a period of five years, shows that at least one-fifth of all the patients became insane through intemperance.

The drink habit not only ruins its victims, but its injurious effects are transmitted through the blood, making the children of such men and women neurotic, idiots, or morally insane. The nervous system and brain in the children of drunkards is lacking in normal resistance, and is imperfectly developed. Alcohol condenses and hardens tissue, first limiting and then destroying its functional capacity. Dr. Forbes Winslow states that out of three hundred idiots, whose history was followed up, one hundred and forty-five had drunken parents.

The power of thought is considered to depend upon the degree of mobility of the brain cells, which are nominally exceedingly plastic, surrounded by a fluid medium, and continually changing shape, making and breaking connection with other cells, and giving out gentle shocks which keep thought currents and vital energy circulating. The habitual use of alcohol first dulls then paralyzes the brain function, hardening the cells and preventing their free motion, drying up the fluid which keeps them in condition, until finally, the higher centers being destroyed, or rendered useless, like a dry, creaking, rheumatic knee, the individual becomes insane, reverting entirely to the animal plane of existence.

Many people begin to use alcohol as an aid to digestion, but scientific experimentation proves, beyond a doubt, that alcoholic beverages retard stomach digestion, just in proportion to the percentage of alcohol they contain. In many cases double the time was required for digestion where alcohol was taken. Alcohol hardens albuminous foods so that the gastric juice can not act freely. Just the opposite condition is required for quick digestion. The food should soften, swell, and crumble promptly, as, if these changes are delayed, putrefaction and fermentative processes are inaugurated.

Civilization will be freed from many of its evils and hardships when we learn to let alcohol alone.—*Medical Brief.*

"MUCH of what we call evil is really good in disguise, and we should not quarrel rashly with adversities not yet understood, nor overlook the mercies often bound up in them."

A TERRIBLE HEREDITY

A SPECIAL study of hereditary drunkenness has been made by Professor Pellmann, of Bonn University, Germany. His method was to take certain individual cases, a generation or two back. He thus traced the careers of children, grandchildren, and great-grandchildren in all parts of the present German Empire, until he was able to present tabulated biographies of the hundreds descended from some original drunkard.

Notable among the persons described by Professor Pellmann is Frau Ida Jurka, who was born in 1740, and was a drunkard and a thief for the last forty years of her life, which ended in 1800. Her descendants numbered 834, of whom 709 were traced in local records from youth to death. One hundred and six of the 709 were born out of wedlock. There were 144 beggars and 62 more who lived from charity. Of the women, 181 led disreputable lives. There were in this family 76 convicts, 7 of whom were sentenced for murder. In a period of some seventy-five years this one family rolled up a bill of costs in almshouses, prisons, and correctional institutions amounting to at least 5,000,000 marks, or about $1,250,000.—*Selected.*

ONE of the valuable remedies to break up the impulsive craze for spirits is a strong infusion of quassia given in two-ounce doses every hour. All desire for spirits soon ceases, and an intense disgust follows. The quassia can then be reduced to half the quantity once or twice a day, and soon discontinued altogether. With this should be given the usual eliminative treatment by calomel and salines. Baths are equally important, and the family physician should be able to give temporary relief to all these cases. No other remedies can exceed the value of these simple measures, which every physician has at his command.—*Bull. Amer. Med. Temp. Asso.*

DR. LE GENDRE, of Paris, has come to the following conclusions regarding the use of alcohol:—

The abuse of alcoholic beverages predisposes to and aggravates most of the diseases found in hospitals.

All alcoholic beverages are harmful.

Alcohol is a poison, the habitual use of which, sooner or later, but nevertheless unfailingly, impairs the structure of organs most essential to life,—the stomach, the liver, the kidneys, the blood-vessels, the heart, and the brain.

Alcohol is an excitant, a stimulant, but not a strength-producing agent.

It does not take the place of food; it creates a distaste for food.

Alcohol, by weakening the lungs, prepares the soil for phthisis; many a consumptive has been an alcoholic. Alcohol weakens tissue resistance.

Among the children of alcoholic parents are recruited the idiots, the epileptics, the mentally and physically dwarfed.—*Bull. Amer. Med. Temp. Asso.*

THE COOKING SCHOOL

TOMATOES

TOMATOES are valuable as food, not on account of their nutritive power, which is quite small, but as a relish. While ordinarily classed as a vegetable, the tomato is botanically a fruit.

Persons having a tendency to acidity of the stomach, may suffer from sour stomach and burning as a result of using tomatoes, not from fermentation, but because the tomato stimulates the glands of the stomach to an increased production of hydrochloric acid. This seems to be especially the case with very early or very late tomatoes, and with canned tomatoes. As with many other foods, the tomato is not so good out of season.

Many people experience distress as a result of combining potato and tomato, the explanation usually given being that the acid of the tomato interferes with starch digestion.

The belief that tomato causes cancer is without any foundation whatever. Aside from its effect on acid stomachs and the irritating effect its seeds sometimes have on inflamed conditions of the intestinal tract, the tomato is harmless.

TOMATO RECIPES

BY MRS. S. H. COLVIN
[Sanitarium, Cal.]

Tomato Macaroni.—Cook one pint of macaroni in boiling salt water for thirty minutes. Then turn into a colander and pour cold water over. Have ready one quart of strained tomatoes; add salt. Pour the tomatoes over the macaroni and let simmer a few moments.

Tomatoes with Onion.—Onion; olive-oil, two or three tablespoons; tomatoes, one quart; salt. Chop fine one large or two medium-sized onions, and cook in olive-oil until clear. Add tomatoes, salt, and cook slowly for fifteen or twenty minutes. Add water if they boil down too much.

Baked Tomatoes. — Tomatoes, one dozen; dry bread or zwieback crumbs, one cup; butter size of hen's egg; boiling water, one cup. Peel tomatoes and slice about an inch thick, place in oiled agate pan, sprinkle the bread crumbs over top, and spread butter over the crumbs; add boiling water, and bake in oven twenty or thirty minutes.

Tomato Stew.—One onion minced fine; three potatoes cut in inch cubes; protose, one-fourth pound; tomatoes, one pint; olive-oil, two tablespoonfuls; water, one pint; salt; browned flour, scant spoonful. Heat the olive-oil in pan, stir in minced onion. When onion is clear, add potatoes, then protose. Stir about five minutes; add one pint water; salt, and cook slowly ten or fifteen minutes, until potatoes are tender but not mushy. Add tomatoes, boil up, and thicken a little with browned flour.

PACIFIC HEALTH JOURNAL

MONTHLY—DEVOTED TO

HEALTH AND HYGIENE

Subscription price: Fifty cents per year in North America. Single copies, five cents.

E. E. PARLIN, Business Manager

ADVERTISEMENTS are selected with great care, and we will not knowingly insert anything that will be likely to prove a disappointment to our readers. Any one meeting with dissatisfaction through answering any of our advertisements will confer a favor by informing us of the same.

In ordering your address changed, kindly give former as well as present address.

Subscriptions may begin with any number. The safest mode of remittance is by check, money order, registered letter, or coin carrier.

All business communications should be addressed PACIFIC HEALTH JOURNAL, 1436 Market Street, San Francisco, Cal.

Contributions should be sent to G. H. Heald, M. D., Healdsburg, Cal.

Entered at San Francisco as Second-class Mail Matter.

VOL. XVI. SAN FRANCISCO, CAL., OCTOBER, 1901. NO. 10.

ATTENTION is called to the new advertisement in this number, of the Sacramento Branch, found on the second page of the cover. The institution there is well equipped and prepared to do excellent work for all needing treatment.

THE Eureka Branch of the St. Helena Sanitarium is having unexpected prosperity. Dr. Dail is seriously contemplating the enlargement of that plant in order to meet the growing demands upon its facilities. The Eureka Branch is gaining rapidly in popularity with the people of northern California.

THE San Francisco Branch is also having greater demands made upon it than its present facilities will sustain, and additions are being made to its capacity from time to time. As fast as more room is secured, it is quickly taken, and more asked for. It is hoped to have before long a commodious place for the San Francisco work, with every modern convenience, and an enlarged corps of physicians, in order to meet the growing calls upon its resources.

THE Los Angeles Sanitarium, under the supervision of Dr. F. B. Moran, is growing more and more popular as the work of the institution becomes known to the people of southern California. As many health-seekers from the east and north resort to that region as a last resort, the superior treatment available at the sanitarium is soon brought to their attention. The present facilities at 315–319 West Third Street are overflowing with patronage, and the managers are looking about for a site for new buildings.

Metal Badges **Metal Signs**

PATRICK & CO.
RUBBER STAMPS
STENCILS, SEALS, BRANDS, ETC.
221 SANSOME ST. SAN FRANCISCO.

Metal Checks **Steel Stamps**

Be a Vegetarian, and be stronger, healthier, happier, clearer-headed, and save money. Learn about vegetarianism through the VEGETARIAN MAGAZINE. Send $1.00 for year's subscription, or 10c for one month.
The Vegetarian, 78 Madison St., Chicago

AMERICAN HOME PRESS

For pressing juice from grapes or other fruit. Makes finest flavored and most beautiful colored unfermented grape wine imaginable. Heartily endorsed by all vegetarians and health authorities. Large size used by the Battle Creek College. Circulars and testimonials furnished on application. Agents wanted.

Price $4.50

Johnson Machine Works
Battle Creek, Mich.

J. H. STEVES

Dealer in

Hardware, Agricultural Implements, Paints, Oils, Varnishes, Glass, Lamps, Stoves, Tinware, Cutlery, Terra Cotta Pipes, Aermotor Windmills.

Plumbing, Gas and Steam Fitting and Roofing Done to Order

ST. HELENA, CAL.

NATHAN LAUTER
St. Helena

A. GOODMAN
San Francisco

A. Goodman & Co.

Dealers in

DRY and FANCY GOODS

Clothing, Furnishing Goods
Boots and Shoes

ST. HELENA, CALIFORNIA

Shaving 15 Cents Hair Cutting 25 Cents

BON TON SHAVING PARLOR

C. C. JORDAN, PROPRIETOR

ST. HELENA, CAL.

Latest Styles Perfect Service

BELL BROS.

Largest Stock
Lowest Prices in

Dry and Fancy Goods
Clothing, Shoes, Furnishing Goods
Groceries, Crockery, Glassware

St. Helena, Cal.

ROSSI & ANDERSON

ST. HELENA

The Cheapest Grocery & Hardware *in Napa County*

W. H. SMITH

ST. HELENA *The Leading Druggist*

We sell only the best goods obtainable
Telephone Main 127

Established 1863 A B C Code

C. M. Volkman & Co.

SEED AND COMMISSION MERCHANTS

408 Front Street, San Francisco, Cal.

CREAM OF MAIZE

COPYRIGHTED 1893

FINEST AND WHITEST OF FLAKED PEARL CORN

Cream of Maize is not steam cooked and so retains all the flavor and nutritive qualities of the White Pearl Corn, and therein differs from any relative product.

Mrs. Sarah T. Rorer, Editor of "Philadelphia Household News," who conducted the "Model Kitchen" in Woman's Building, World's Fair, used no other flaked Cereal but Cream of Maize. No relative Product so well answered her needs in her cooking exhibits as Cream of Maize, and all others were discarded.

Established 1850 Incorporated 1888

Langley & Michaels Co.

Wholesale Druggists and Manufacturing Pharmacists

34-40 FIRST ST. SAN FRANCISCO, CAL.

Telephone Bush 389

Lake & Co.

(Incorporated)

Importers of and Wholesale Dealers in

Brushes, Brooms

Feather Dusters

Woodenware, Etc.

221 & 223 Battery Street
Between California and Sacramento
San Francisco

F. J. Schultz J. R. Hansen

John R. Hansen & Co.

GENERAL
COMMISSION
MERCHANTS

And Wholesale Dealers in all kinds of :: :: PRODUCE

Car Lots a Specialty

310 Davis Street
San Francisco, Cal.

TELEPHONE MAIN 5606

P. L. Vucanovich G. Beleney

J. Ivancovich & Co.

Established 1860

Commission Merchants

Foreign & Domestic Fruits

GREEN AND DRIED

Limes : Bananas : Pineapples : Tahiti Cocoanuts
Importers of all kinds of NUTS, FIGS and DATES
California Oranges and Lemons
Potatoes, Beans, Onions, and Domestic Fruits
Poultry, Game, and Eggs

Advice Sales Sent Daily
Account Sales Rendered and
Remittances Made Each Week

209, 211, 213 Washington St.
94, 96, 98, 100 Cedar Street
TELEPHONE MAIN 1378 :: SAN FRANCISCO

The Standard of Excellence

GOLDEN GATE
COMPRESSED
YEAST

As used by the

ST. HELENA SANITARIUM

Telephone Main 5454

PAUL SEILER ELECTRICAL WORKS

Manufacturers and Dealers in

Telephones, Telegraph and Electric Light Supplies Electro Medical Batteries

PAUL SEILER, Proprietor

406 & 408 MARKET STREET
SAN FRANCISCO, CAL.

MEDICAL BATTERIES

Prices ranging from $5.00 upwards.
Repairing and Supplies for all kinds of Electrical Appliances : Wholesale and Retail

W. J. GORHAM
President

E. H. PARRISH
Vice-Pres. and Mgr.

Gorham Rubber Co.

392-394-396 MISSION STREET
SAN FRANCISCO, CAL.

MECHANICAL, DRUGGIST, STATIONERS, BICYCLE, AND

SPORTING RUBBER GOODS

Sanitarium Rubber Goods a Specialty

Pacific Coast Managers

B. F. GOODRICH CO.

AKRON, OHIO

DEMING-PALMER MILLING CO.

Proprietors of the

Capitol Mills

114 and 116 SACRAMENTO ST.
San Francisco, California

Telephone Main 50

Pacific FOLDING PAPER BOX COMPANY

ROTHSCHILD & GREENEBAUM Proprietors

Manufacturers of Paper Novelties Folding Boxes and Envelopes

OUR OWN PRINTING IN COLORS A SPECIALTY

14-16 Fremont St., San Francisco, Cal.

Phone Main 277

Battle Creek Sanitarium

ACKNOWLEDGED to be the oldest and most extensive sanitarium conducted on rational principles in the United States. It has the special advantage of an elevated and picturesque site and remarkably salubrious surroundings.

Artificial Climate for those needing special conditions

A lakeside resort—steamers, sail boats, row boats, bathing, etc.

EVERYTHING AN INVALID NEEDS

Special Dietaries Prepared as Directed; Electricity in Every Form; Massage and Swedish Movements by Trained Manipulators; Pneumatic and Vacuum Treatment; Mechanical Appliances of All Sorts; Classified Dietaries; Unequaled Ventilation; Perfect Sewerage.

A Fine Gymnasium with Trained Directors

BATHS OF EVERY DESCRIPTION

The Institution affords facilities for Turkish, Russian, Electric, Vapor and Water Baths of all kinds, the Electric-Light Bath, and a large Swimming Bath.

All the conveniences of a first-class hotel. Incurable and offensive patients not received. Trained nurses of either sex furnished at reasonable rates.

Thoroughly Aseptic Surgical Wards and Operating Rooms

For Circulars, Address

BATTLE CREEK SANITARIUM, Battle Creek, Mich.

BRANCH SANITARIUMS

EUREKA BRANCH SANITARIUM

Hydrotherapy, Electricity, Massage
Radiant Heat Baths

CORNER THIRD AND J STREETS
EUREKA, CALIFORNIA

SAN FRANCISCO BRANCH

OF THE

ST. HELENA SANITARIUM

1436 MARKET ST.

Baths of various kinds, including the ELECTRIC LIGHT BATH

General and Special Massage by Expert Masseurs

Electricity in various forms

Phone Folsom 151

LOS ANGELES SANITARIUM

Scientific Hydrotherapy, Electricity and Massage by Skilled Manipulators

Especial attention given to diet

Each patient under the personal care of the physician

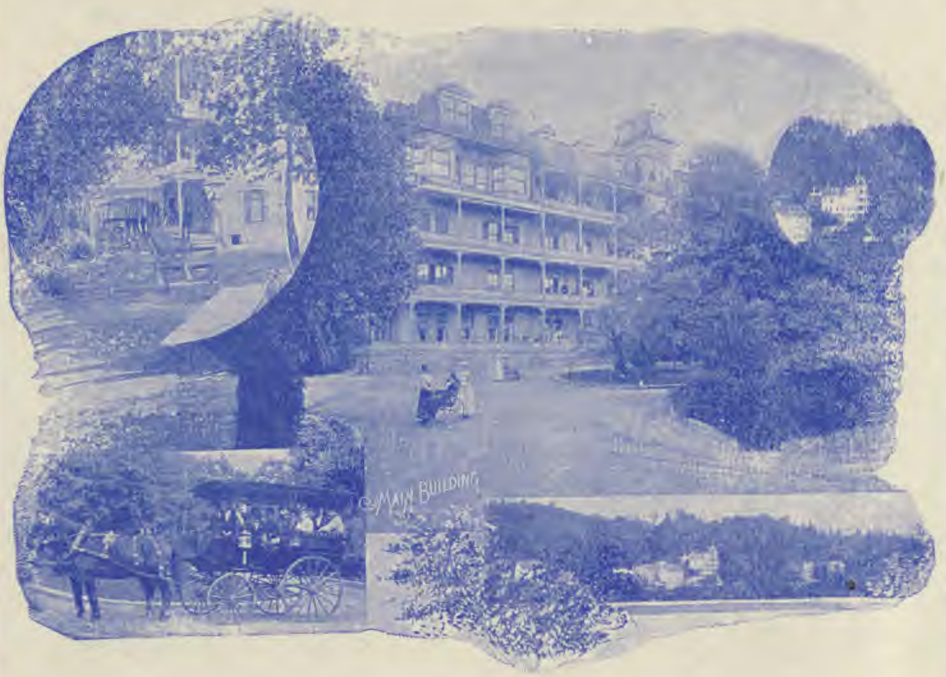
317 W. THIRD STREET

Bet. Broadway and Hill

LOS ANGELES, CAL.

The ST. HELENA SANITARIUM

Medical and Surgical



ELECTRICITY in all its forms
X RAY
HYDROTHERAPY
MASSAGE
SWEDISH MOVEMENTS
REST CURE
SPECIAL DIETARIES
EXERCISE

An IDEAL WINTER and SUMMER RESORT

A thoroughly equipped institution where the needs of all classes of invalids are scientifically met by rational measures of all kinds :: ::

A staff of regularly educated and experienced physicians, assisted by a large corps of professional nurses and experienced helpers

Situated 60 miles north from San Francisco, in the famous Napa Valley, one of the most healthful, beautiful and invigorating sections of Central California :: :: :: :: :: ::

Write for illustrated and descriptive circulars giving rates and other information :: :: ::

ST. HELENA SANITARIUM *St. Helena, Cal.*

BRANCHES 1436 Market Street, San Francisco 315 West Third Street, Los Angeles