DECEMBER, 1890.

GOOD HEALTH

CONDUCTED BY

J. H. KELLOGG M.D.

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CONTENTS.

BATTLE CREEK, MICH. December, 1890.

Special Notice to Old and New Subscribers.

At the last moment, when the journal is all ready to be mailed, we have decided to give our subscribers and the public a New Year's surprise by announcing

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FOR TWENTY-FIVE YEARS GOOD HEALTH has been before the public as the leading American periodical devoted to the health interests of the individual and of the home. It is, in a most thoroughly practical sense,

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SPECIAL ATTRACTIONS FOR **1891.**

There is probably no way in which the public are more grossly imposed upon than by the innumerable patent nostrums, worthless medical appliances, and fraudulent pretensions to discoveries, which are so widely advertised in the newspapers, and so generously patronized by the public. The managers of this journal propose during the year 1891, to devote a special department to the

EXPOSURE OF MEDICAL FRAUDS AND SECRET NOSTRUMS.

In order to carry out this work successfully, they have established a chemical laboratory, and employ competent chemists for the purpose of carrying on a series of thorough-going investigations, the results of which are most startling, and which will be published in the columns of this journal.

THE HOME GYMNASIUM.

The growing interest in physical culture has created a demand for popular instruction respecting the best methods of building up a good physique, and acquiring a graceful and dignified bearing. This demand is in part met by traveling teachers of Delsarte and Swedish Gymnastics, and by a few schools in which special instruction of this sort is given; but only a small portion of those who might benefit by such instruction, can avail themselves of the opportunities referred to. The majority must be taught at home, or not at all. We propose to make GOOD HEALTH the medium of carrying into every household this invaluable means of building up a strong and vigorous body, which is one of the most essential requirements for success in these rushing times. This department will be

PROFUSELY ILLUSTRATED,

And the instruction will be so practical that the exercises suggested can be carried out in any home. The editor will be assisted in this department by an experienced instructor in Delsarte and Swedish Gymnastics.

A DOCTOR'S CHATS WITH HIS PATIENTS,

Is the name of a new department in which the readers of GOOD HEALTH will receive the benefit of Dr. Kellogg's racy talks to his patients at the Battle Creek Sanitarium, in answer to the regular Monday morning "question box," which always brings out a large lecture room full of listeners. Any reader of GOOD HEALTH, also, may put in a question whenever he feels so inclined.

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DR. FELIX L. OSWALD,

Well-known to the reading public as a leading contributor to the *Popular Science Monthly,* and other leading magazines, and for the past year to the readers of GOOD HEALTH, will continue his interesting illustrated articles on "International Health Studies." It is unnecessary to assure our readers that Dr. Oswald is one of the most talented of American writers, and that his extensive travels and acute observations have given him a fund of material with which he cannot fail to interest and instruct, and often amuse, by his keenly-pointed wit.

GOOD HEALTH FOR 1891 WILL CONTAIN THE FOLLOWING DEPARTMENTS:

General Articles, Devoted to practical hygiene and popular medical papers.

The Home Gymnasium. This department will present, during the year, instruction which, if carefully followed, will in a few months give to any young man or woman a good figure and a graceful and dignified bearing. Illustrations each month.

Dress. In the interest of rational "dress reform," this department will oppose extreme notions, and by practical illustrations and suggestions point out the way to a sensible conformity with the laws of health.

Social Purity. This department represents the interests of all that pertains to the purity of morals in the individual, the home, and society.

Medical Frauds. This department will contain, each month, reports upon the results of the most recent authentic and original investigations of the nature and composition of secret nostrums, and the methods of secret systems of medical treatment. The exposures already prepared for this department for 1891, are of THE MOST STARTLING CHARACTER.

Editorial.
J. H. KELLOGG, M. D.
The editor serves up, each month, a rich variety of hygienic tidbits, pithy, practical, and representing the latest scientific thought in this channel.

A Doctor's Chats with his Patients. This department will contain, each month, a racy discussion of live medical topics, such as Koch's new discovery for the cure of consumption, new ideas in medical philosophy, simple remedies for disease, new theories of disease, etc.

Household Science. In this department Mrs. Kellogg will continue to give to the readers of GOOD HEALTH the invaluable results of years of work in her experimental kitchen, and experience gained in the management of the cuisine of the largest Sanitarium in the world, and the instruction of classes in the Sanitarium School of Domestic Economy. Other writers will also contribute to this department.

A PREMIUM TO NEW SUBSCRIBERS.

The publishers of GOOD HEALTH have no faith in the customary plan of offering cheap chromos or similar inducements to subscribers, but in the interest of popular medical education have decided to offer, to every new subscriber, a copy of

THE HOUSEHOLD MONITOR OF HEALTH,

A new work of 400 pages, bound in muslin, one of the most important and interesting works recently published. PRICE, $1.00. For full description, see next page.

PRICE of Journal, $1.25 a Year; with Premium Book, $1.50. Postage on book, 12 cts.

GOOD HEALTH PUBLISHING CO., BATTLE CREEK, MICH.

A NEW BOOK,

—THE—

Household Monitor of Health.

THIS is not a prosy scientific treatise, but a condensed, lucidly and entertainingly written, practical treatise on health subjects, which every one interested in such topics will certainly find both pleasant and profitable reading. The small portion of this work which formerly constituted the popular "Household Manual," reached a sale of over 100,000, and is still called for, but has been long out of print. The following is a partial list of the very practical and important subjects considered in this work: —

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TEN SCIENTIFIC ARGUMENTS AGAINST TOBACCO-USING.

PRACTICAL HINTS ABOUT HEALTH.

FOOD AND DIET.

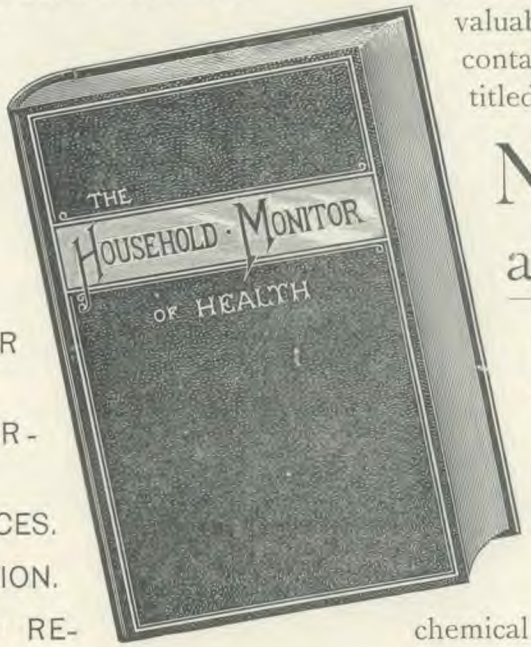
SIMPLE REMEDIES FOR COMMON DISEASES.

ACCIDENTS AND EMERGENCIES.

HYDROPATHIC APPLIANCES.

TESTS FOR ADULTERATION.

USEFUL HINTS AND RECIPES.



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In which will be found the results of careful chemical analyses, made by competent chemists, of

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[See Happy Fireside.]

A JAPANESE LADY'S "AT HOME."

GOOD HEALTH
A JOURNAL OF HYGIENE
MENS SANA IN CORPORE SANO
VOL. XXV. NUMBER 12.
BATTLE CREEK, MICHIGAN. DECEMBER, 1890.

INTERNATIONAL HEALTH STUDIES.

BY FELIX L. OSWALD, M. D.
Author of "Physical Education;" "The Bible of Nature," Etc.

20. — Kaffir-Land.

IN 1720, when the Netherland colonists founded the first permanent settlements in Southern Africa, two enterprising physicians, Drs. Aarberg and Cothenius, brought a wrinkled old Kaffir to Holland, where they exhibited him as a patriarch who had reached the age of 160 years on a diet of meat and milk. The meat *versus* bread craze followed, and other medical men went to Cape Colony in order to study the habits of the supposed macrobiots more closely, but only with the result of dispelling the beef-illusion. The natives of Kaffir-land were found to be extremely fond of bread and fruit when they could get them, and their notions of chronology were proved to be rather vague.

"How long have you known that man?" a cross-examiner asked the neighbor of another alleged centenarian.

"For fifty years; he was nearly a hundred when I saw him first," stated the witness.

"How long has he been married, do you think?"

"Oh, at least two hundred years; I was one of the wedding-guests, and I ought to know."

As a home of longevity, Kaffir-land proved a failure, but physiologists could hardly find a better field for the study of hereditary influences. If traditions can be trusted, the ancestors of the Amazulu Kaffirs and their neighboring tribes, appear to have come from Northeastern Africa, and seem to combine the race-characteristics of the Arabs and negroes. At all events, they have followed pastoral pursuits for a long series of centuries, — perhaps already in the original homes of their Arabian ancestors, — and the result is strikingly manifest in the disposition of their children. A Kaffir boy of eight has no more talent for mechanical handicrafts than a young monkey; but take him out on the *feldt*, and his faculties for out-door pursuits will prove to surpass those of a veteran Caucasian. On the short grass of the sun-parched plain, he will distinguish the track of a stray steer, and follow it all day to the hiding-place of the truant, even if the "*spoor*" should be crossed by scores of other tracks, including those of the wild buffalo and the ox-like gnu.

Children of five years, brought up in the savagery of a Kaffir *kraal*, often exhibit an intelligence tempting Europeans to suspect that their relatives must under-estimate their age as much as they over-estimated that of the above-mentioned patriarch. Dr. Brehm speaks of a little four-year-old girl that could be trusted to find her way through the pathless bushland to a distant berry-patch and back again, and children of three often feed and water cattle in the absence of their parents. But a *ne plus ultra* instance is related by Captain William Baldwin, who passed eight years on the hunting-grounds of Kaffir-land. Near the headwaters of the Key River, he one day came across a band of Masara Kaffirs, who sold him a little boy, or rather declared their intention of abandoning the waif in the desert unless he adopted it, — "a waddling infant, *certainly not more than two years old*, but with an intelligent face, and not yet starved." A week after, during the temporary absence of his

teamsters, Captain B—— had to pass a night at a camp-fire with that child for his only companion. "If you could only have seen the little waddling brat come armed with a stick twice as long as himself, to help me *kraal* the oxen, and the way he toddled along to make the calf fast, without any one telling him! He slept at my feet, and, poor little fellow! he also had a feeling of loneliness, and knew something was wrong, as he kept starting up and feeling for my feet, touching them with the greatest gentleness, and then crouching down again." ("African Hunting," p. 228.) A child of *two* years!

A HUNTING "KRAAL."

But ten years after, the same little prodigy would still have scandalized his school-teachers by his unintelligence and his apparently hopeless lack of memory and logic. "I have taught school in the scape-grace class of an Austrian reformatory, and thought I knew something of a teacher's trials," says the Rev. H. D. Link, of the Moravian Mission; "but as an extreme test of human patience, I would recommend self-educators to try their luck with a primary class of young Kaffirs. Their expression of stolid stupidity is enough to dishearten devotion; but even after you have succeeded in engaging their attention, and taken every precaution to adapt the details of the lesson to their limited faculty of comprehension, you are dismayed to find that their gift of retaining those details is still more limited. An attempt to fill water into a sieve can hardly prove a more discouraging task."

For mechanical performances requiring that kind of skill which our phrenologists describe as *constructiveness*, the young savages are equally incompetent, though it might seem that the construction of a bullock-wagon would not require much more ingenuity than the recovery of a bullock lost in a pathless dessert. The explanation of the paradox is found in the circumstance that the *females* of the Kaffir tribes have for ages been the *kraal* builders and house architects, the males devoting themselves to the departments of herding and hunting. A Kaffir girl, in quest of Christmas presents, would possibly appreciate a tool-box which her brother had flung away.

Frequent droughts have for generations obliged the ancestors of the Kaffirs to save their flocks by migration, and the propensity for wandering — the tramp instinct, as one might call it — has thus become an ineradicable *penchant* of the whole race. In the country-prison of Grot-Fontain, the Boer colonists found that their Kaffir jail-birds pined away like caged falcons. They were not overworked; their fare was far more liberal than that of their nomadic kinsmen, but the irksomeness of close confinement produced a marasmus with all the characteristics of an actual physical disease, and Kaffir convicts are now kept alive by being worked in chain-gangs that are frequently shifted from place to place.

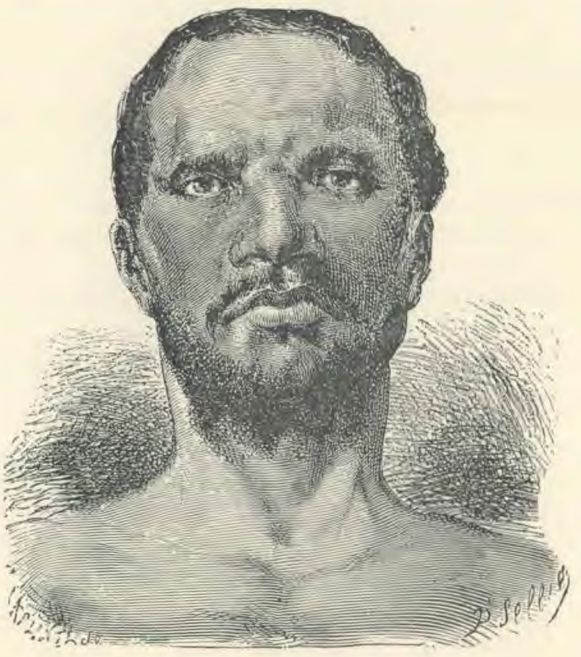
Missionaries have had a similar experience. Their pupils — genuine converts, some of them — linger in the neighborhood of the mission-stations, and from a sense of gratitude strive to look contented; but that endeavor is a constant struggle against nature, and sooner or later instinct will prevail. The hopeful convert is reported missing, some fine morning, and no veteran colonist would be surprised if a good saddle-horse should happen to be missed about the same time. One might as well try to domesticate a young jackal, and promote him to the position of a night-watcher, misled by his dog-like conduct. Is it not possible that the roving *penchant* of our vagrants might admit of a similar explanation? Our Indo-Germanic forefathers, on the tablelands of Central Asia, were great rovers, as were our Scandinavian ancestors on the highways and byways of the sea. There are tramps that would rather pick up kicks and crusts and continue their wander-life, than eat the buttered

NATIVE OF THE MOZAMBIQUE COAST.

bread of sedentary occupations, just as, on the other hand, thousands of Hebrews would rather earn a dime by indoor traffic than a dollar by outdoor work, owing to the after-effects of the long ages when our Unitarian fellow-citizens were not permitted to engage in agriculture.

The chieftains of the free Kaffir tribes are as hospitable as any men of the modern world. They are honestly fond of displaying their abundance of creature comforts, and the experience of many generations has, indeed, put their subjects above the risk of actual destitution, in regard to food, at least. The soil of their native land is more fertile than that of their Arabian kinsmen, and they are far less improvident than their Hottentot and negro neighbors. Before the approach of the dry season, every *kraal* has put in a sufficient supply of grain, curds, and dried berries. The latter are often fetched from a distance of half a hundred miles, and considering that hoarding instinct, it appears rather singular that the Kaffirs, even in hard times, refuse to eke out their bill of fare with a diet of fish. The difficulty of smoking such provisions in a country where fuel is very scarce, might furnish a partial explanation; but the free-tribe Kaffirs eschew fresh fish, too, and shudder in watching the gastronomic feats of a European angler. The reports of travelers of all nations agree on that point. Even on the banks of the great Fish River (on the northern border of Cape Colony), the native nomads encamp only for the sake of the abundant pasturage, and would decline a mess of fish if it was given to them free. "We *did* have bad luck on our last hunting-trip," said one of those fastidious nomads; "but, thank God, we are not down yet to fish and snakes." The idea of feeding on cold-blooded animals would seem to be something repulsive to certain savages, since Sir Emerson Tenent states that the aversion to fish is shared by the Veddahs of the Ceylon coast-swamps, who consider mice, rats, and young birds a delicacy.

With all due allowance for exaggeration, there seems no reasonable doubt that the free natives of Kaffirland often outlive a century by a good many years. One old fellow who has become a public pensioner in the little Boer town of Pretoria, remembers the Dutch-British wars of 1797 and 1806, and seems to be the owner either of a retentive memory or of a very circumstantial chronicle of border-wars. As he can neither read nor write, and has no talent for fiction, it seems probable that the former conjecture may be the correct one, and that old Cicero, as they have called him from his fondness for argumentation, has really outlived the patriarch's average by more than forty years. He is so wrinkled that he resembles a movable mummy, and can rise only with visible effort; but his eyes are still keen, and most of his hair is black — a phenomenon which strongly confirms a certain Italian proverb about the influence of hats. "*Capello uccide capella*" (hats kill hair), say the Venetians; and old Cicero, who avowedly has been a great bushwhacker in his younger days, has



KAFFIR CHIEFTAIN.

roughed out the weather of all his campaigns bareheaded.

It seems, indeed, a pretty general rule that artificial substitutes tend to supersede natural faculties. Hash-machines, and other artificial chewing-contrivances, have made our teeth rather superfluous, and consequently brittle; and an intelligent officer of the Austrian navy notices that since the introduction of telescopes, sailors have become less able to rely on their natural eyesight.

(To be continued.)

RELATION OF BAD COOKERY TO INTEMPERANCE.

THE relation of bad cookery to intemperance is not often considered, and, in fact, not generally understood. Nevertheless it is true that intemperance and unhealthful, unhygienic cookery are often related to each other by laws of cause and effect. In the first place, bad cookery leads to indigestion, and frequently the indigestion leads to the taking of bitters of some sort to correct it — a remedy which is worse than the disease. The victim goes first to a doctor, who prescribes some variety of tonic bitters, ready prepared or otherwise, and in a little time the man gets to buying bitters for himself. I was reading the other day of a man found drunk on the streets, with a bottle which had held "Plantation Bitters" in his pocket. A man can get drunk on almost any variety of the popular bitters advertised. Richardson's bitters contain sixty per cent of alcohol more than the best Scotch whisky. Saloons keep patent medicine bitters of various sorts on their shelves; for many of their customers prefer them to other drinks.

Bitter substances do stimulate the stomach, and are thus a temporary aid to digestion; but their help is simply what the whip is to an overworked horse. They impart no strength, and in the end leave the stomach worse than they find it. Using bitters to day only makes the demand still more urgent for them tomorrow.

Spices and condiments in the seasoning of food also lead to intemperance in the cultivation of a taste for hot, irritating substances. They create a craving for more food than can be digested, and for liquors as well. Persons who do not know how to cook, seek to make food palatable by using spices and condiments to hide defects. Really good cookery consists in increasing the digestibility and improving the palatableness of food. Bad cookery ignores the natural flavors of foods, and adds a variety of high seasonings which render it still more indigestible than the unskilled preparations would be without them.

The more serious and deeper reason why high seasonings lead to intemperance, is in the perversion of the use of the sense of taste. Certain senses are given us to add to our pleasure as well as for the practical, almost indispensable, use they are to us. For instance, the sense of sight is not only useful, but enables us to drink in beauty, if among beautiful surroundings, without doing us any harm. The same of music and other harmonies which may come to us through the sense of hearing. But the sense of taste was given us to distinguish between wholesome and unwholesome foods, and cannot be used for merely sensuous gratification without debasing and making of it a gross thing. An education which demands special enjoyment or pleasure through the sense of taste, is wholly artificial; it is coming down to the animal plane, or below it, rather; for the instinct of the brute creation teaches it merely to eat to live.

Yet think how wide-spread this habit of sensuous gratification through the sense of taste is. If we call upon a neighbor, the first thing is to offer refreshments of some kind, as though the greatest blessing of life came from indulging the appetite. This evil is largely due to wrong education, which begins with childhood. When Johnnie sits down to the table, the mother says, "Johnnie, what would you like?" instead of putting plain, wholesome food before the child, and taking it as a matter of course that he will eat it and be satisfied. The child grows to think that he must have what he likes, whether it is good for him or not. It is not strange that an appetite thus pampered in childhood becomes uncontrollable at maturity; for the step from gormandizing to intoxication is much shorter than most people imagine. The natural, unperverted taste of a child will lead him to eat that which is good for him. But how can we expect the children to reform when the parents continually set them bad examples in the matter of eating and drinking?

The cultivation of a taste for spices is a degradation of the sense of taste. Nature never designed that pleasure should be divorced from use. The effects of gratifying the sense of taste differ materially from those of gratifying the higher senses of sight and hearing. What we see is gone; nothing remains but the memory, and the same is true of the sweetest sounds which may reach us through the ears. But what we taste is taken into the stomach, and what has thus given us brief pleasure through the gratifica-

tion of the palate, must make work in the alimentary canal for fourteen hours before it is disposed of.

We may smile with contempt upon the practice of the Romans, in their degenerate days, of providing an "annex" to the dining-room, where guests who had surfeited until their stomachs could retain no more, could retire and empty them by emetic; but, after all, it was better than the practice of continual eating for the sake of gratifying the sense of taste, and keeping the stomach constantly at work upon all sorts of indigestible things. Feasters of the present day are on a level with those who gathered around Nero's table.

Many people treat their stomachs as if they were pockets; in truth, they put things into them that they would be shy of putting into their pockets — Limburger cheese, for instance. But no one has a right to eat or drink except to meet the demands of the body, and wholesome, nutritious, unseasoned food can always be prepared so as to be palatable to an unperverted taste. Of course, it takes more skill to cook simple foods so that their natural flavors shall be preserved than it does to rob them of natural flavors by poor cookery, and supply the deficiency by using a plentiful amount of condiments. So it behooves every one who has these important matters of health and temperance at heart, to learn scientific cookery. We have senses through which we may seek enjoyment, and which will lead us to a higher plane; but using the sense of taste for personal gratification can never be anything but debasing to young or old.— *J. H. Kellogg, M. D., in Union Signal.*

SHORT TALKS ABOUT THE BODY, AND HOW TO CARE FOR IT.

BY A DOCTOR.

Colds: Their Diagnosis and Cure.

THE ordinary cold contracted by exposure to the weather, is really a nervous disease. The surface of the body is chilled, and relaxation of the blood-vessels of the interior follows. The first dash of cold air when one goes out-of-doors, contracts the blood-vessels; if long continued, this is followed by extreme relaxation. When long exposed, the body takes on a pinched look, is covered with "goose flesh," and then becomes swollen and red. What is indicated by the surface is an exact analogy of what happens on the inside; for there is an immediate connection through the nervous system between the skin and the mucous lining of the body, at various points.

A cold may be general, and the mucous and serous surfaces involved all through the body. The skin is congested, the face flushed, dry, and feverish, and the pulse full. Or the cold may be only local, and the mucous membranes connected with those parts may become thickened and set up a catarrh. Soreness and stiffness are due to the congested state of the blood-vessels.

It is not always necessary to be exposed to a draught, dampness, or inclement weather to get a cold. A person who after exercising vigorously out-doors, sits down to rest in the shade, runs the risk of taking cold. The air may not be below 80°, the slight breeze seems very refreshing, but it is lower than the temperature of the body, and mischief is done. Yet a person may take vigorous exercise all day in the keen, cold air, and not take cold. One never takes cold in motion, unless insufficiently protected.

A delicate person may take a cold simply by walking upon a damp pavement with thin-soled shoes, while a lumberman or a ditch-digger may go with wet feet all day without experiencing any ill effects. Lumbermen often reach camp at night with their clothing saturated with water, wrap their heavy blankets around them, and lie down to sleep, suffering no inconvenience whatever. To one unaccustomed to such exposures, it would be almost certain death.

People often take cold through over-protection or neglect to make their outer wraps correspond with the variations in temperature. The very fact of protection involves danger. A person puts on an overcoat, and exercises in the open air till he perspires profusely. When he comes into the house, he throws off his overcoat, and perhaps sits down in a light draught from a window or from a door opening into an adjoining apartment of lower temperature, and the moisture in which he was enveloped is thus evaporated rapidly. The next day he finds he has contracted a cold, and thinks, "I took cold yesterday when out-of-doors," while the truth is, he took cold after he came in.

Another good way to contract a cold is through the wearing of impervious clothing, — rubber coat, waterproof, etc. Such garments prevent the passing off of the insensible perspiration, which, if not allowed to evaporate, would, in a few hours, amount to half a pint, and put the body in precisely the same condition as it would be were half a pint of water distributed over the body. Then when these outer wraps

are removed, evaporation goes on too rapidly, and a cold is the result.

Another kind of cold is that caused by germs, and is commonly known as influenza. Such colds are liable to prove epidemic. We are taking in germs most of the time, but the body is educated to care for itself more or less in disposing of them, so that they do us little harm. Some germs have an especially irritating effect upon the mucous surfaces, and increase the flow of secretion. If there is already a slight rawness of the surface, as in catarrh, they will set up disease at once, while a person with a perfectly healthy mucous membrane will escape. The congestion of the mucous membrane induced by the cold, renders the tissues unable to defend themselves against germs, while the watery secretion thrown off affords a most excellent medium to encourage their development, and thus the foundation is laid for a chronic catarrh.

As for the treatment of a cold, if proper measures are taken soon enough, it is not a difficult matter to cure it; but after a cold gets three days old, it is impossible to do anything but to palliate it. Most persons think that a slight cold is of little moment, and may be allowed to care for itself; but the fact is, a cold is always serious. Colds neglected become chronic, and lay the foundation for many incurable diseases. Catarrh is commonly induced in this way, also bronchitis, and often consumption. A person takes a heavy cold, and allows it to "wear off." The next year he takes cold a little earlier in the season, and it lasts a little longer. The following year there is still greater increase in severity and duration, and by the fourth year his "winter cough" lasts all summer. He continues to grow worse, and finally awakes to the fact that he has chronic bronchitis or old-fashioned consumption.

The majority of persons who do anything at all for a cold, begin with a hot bath. Then, as like as not, they go out doors, and take more cold; for it is exceedingly difficult not to add to a cold when once begun, sensitiveness to its causes having been greatly increased. So they take another bath, which relaxes the system still more, and thus are soon "down sick." A cold is not to be cured by a hot bath, unless taken at the outset.

One must begin the cure of a cold by recognizing the cause. Suppose it was contracted by the wind's blowing upon the back of the neck. The first effect is contraction of the blood-vessels, and this is followed by a sort of paralysis of the circulation. The nerves connected with the spine at this point are also closely related to the throat, so such exposure will be quite certain to bring on sore throat. The proper thing to do when a person has taken cold in this manner, is to apply heat to the spine, especially to the upper part, to bring about a reaction. The patient must be sure to remain housed after treatment, else he will soon be worse off than before.

If one's cold is from getting his feet wet, he should put his feet in hot water as the quickest way to bring about a reaction. If the cold results from the lack of sufficient clothing, and is general, he must have a hot full bath, — the sooner, the better, — and go immediately to bed. After the bath, while still in bed, the patient should be given hot water to drink — a glassful an hour. The reason for this is that the action of all the excretory organs — liver, kidneys, lungs, and skin — is diminished, and the effect of the hot water is to stimulate the action of these organs. A cold is a serious matter, and one must go about its cure in a business-like way. When the patient goes out-of-doors again, he must protect himself well, for he will be more sensitive to cold than before.

After taking cold, the skin needs to be toned up. But do not attempt it by a shower bath, or by any means productive of shock. After two or three days, tonic treatment may be begun, of which nothing is better than a salt glow. Rub the body vigorously with common salt moistened to a paste, until every inch of the surface is in a fine glow. Rinse off with a spray or a pail-pour, wipe dry, and the whole surface of the body will be found to be as smooth as polished marble, and firm to the touch. Then finish by rubbing on a coating of cocoanut oil, with the hand, as further protection.

There is another way to cure a cold if the patient is tough enough to stand it, and that is to keep out-of-doors in keen, frosty weather, exercising vigorously all the time. A larger amount of oxygen than ordinary is thus taken in, which has an effect upon the depuratory organs similar to the drinking of hot water. However, very few have sufficient constitution to undergo that kind of cure.

THE PHILOSOPHY OF EATING.

THE following from the pen of the brilliant London journalist, Mrs. Crawford, is worthy of indorsement, and leads one to infer that her own pluck, endurance, and consequent success in her chosen profession, must be largely owing to the individual practice of the principles she here advocates: —

"The persons living to a green old age who have come within the range of my observation, were abstemious themselves, and had either sprung from poor families or come from the South, where heavy meat meals are not enjoyable. Guizot, who was not a vigorous trencherman, started in poverty, and was a Southern. Thiers started in the same condition, ate twice a day and very heartily, but was so heavy after eating as to be obliged to go to sleep. He died of apoplexy after eating. I attribute the extraordinary difference in quality in the early and late works of Victor Hugo to his having only scant meals when he wrote the former, and to his having plentiful and delicious ones, to which he did the fullest justice, when he turned out the latter. Victor Hugo was *spirituel* before lunch or dinner; he was inflated in speech, and bereft of all sense of the ridiculous, when digesting either repast. M. de Lesseps is almost oriental in his abstemiousness at table, he being of a Southern family, and having lived long in hot countries, which are as healthy as any to those who adapt themselves to the climate. I dare say he owes his longevity and high spirits to his sobriety in food as well as in drink.

"Volumes have been written against drunkenness; but any doctor who understands well the human frame, will tell you (if he can cast aside humbug) that drink is not as bad in its effects as gormandizing. Nothing so hastens senility as the latter. I should like to know how Ninon l'Enclos ate and drank, but fancy she must have been temperate to be so brightly intellectual, as well as good looking, into a great old age. Catherine de Medici made it a rule to rise from table with an appetite, and to prefer lentils and onions and chestnuts to meat, and was always rating her married daughters, when she corresponded with them, for eating so much and fatiguing themselves so little. M. Barthelèmy Saint-Hilaire, though eighty-four, works as hard and with as little fatigue as he ever did in his life. Twenty years ago he said to me: 'I am persuaded that the civilized man eats three times more than what he needs when he is not checked by poverty. For my part, I was too poor until I was elderly to be a gourmand, and when I now go to dine at a friend's house, I only play with my knife and fork. Dinner is a mistake.'

"The czar, his brothers, and his uncles are all gormandizers, and what a heavy, wearied lot they all look, unwieldly as megatheriums, and about as intelligent. I have never doubted, since I began to think upon the subject, that George III. ate himself into the mad-doctors' hands, and Louis XVI., into semi-imbecility. Who were the great victors of the eighteenth century?—Voltaire, who had too weak a stomach to bear much food; Washington, who was spare and abstemious; and at the Revolution, the people of Paris, who were starvelings. The Scotch were a proverbially hungry people when they turned India into a British dependency.

"I know a literary woman who leads a singularly laborious life, and thrives in health and spirits on it. She says that she owes, in a great degree, her good spirits and capacity to get through any amount of work, of worry, and of strain on the nervous system, by cutting dinner. What with serious occupations, running to exhibitions, theaters, balls, and what-not, she is hardly ever in bed before half-past two in the morning, and more often three; and yet she gets up at nine, and keeps fresh, lively, and active, though weighted with *embonpoint*. My friend tells me that she most enjoys living when slightly hungry; then her mental consciousness is most keen, and her wits are most wakeful. She walks three or four miles daily. It is torture to her to engage in intellectual work after a repast, when the stomach, if the brain has to work, gets in conflict with it.

"I have been discussing the dinner question with a Jew, aged eighty, who is an enthusiastic Mosaist. The reason he gave why his brethren bear so well all climates, is that they spoil their meat when they prepare it according to the prescriptions of their religion. It is first bled, and then steeped in salt and water until no redness stains the water. This unfits it for the spit or the grill, and does not make it toothsome in a stew — the only way it can be done, unless boiled. Meat thus prepared has no savor, and does not tempt the Jew to eat of it gluttonously.

"I once knew an *impresario* who was also a Jew. He held carnivorous feeding in horror, and told me that he never lost his time seeking for fine voices in countries where a fish or a meat diet prevailed. The most fish-eating Italians — those of Naples and Genoa — have not often among them sweet singers. The most meat-eating part of Great Britain — England — is also a voiceless country. Though the singing is so fearful in the Scotch kirks, my friend found some divine songsters south of the Grampians, and a greater number in the Highlands. He often heard common Irish women 'lilt' and sing like nightingales, but never in the towns. Sweden was a country of song, because a country of grain. Norway was not. Too much fish was eaten there. Vocal capacity disappeared in musical families who got rich. They ate too much meat. The vocal birds are eaters of grain, fruit, and vegetables. No carnivorous one could ever sing a song. It croaks, has a bad liver, and is generally melancholy."

MORAL ASPECT OF DECOLLETE DRESS.

A DOZEN years ago, a movement known as the "dress reform" impressed the moral natures of our women to an unprecedented extent. The wave, which began with a few of the wide-eyed people who are called fanatics, passed on up, or down, as you choose to put it, into less worldly circles. It became "the thing" to have some knowledge of improved methods in dress. Corsets were judged inartistic; the tight French waist was discovered to be unæsthetic. "Where ten years ago we had only strong-minded women for our patrons," said the chief of a large furnishing store for "reformed" garments, "we now have orders from fashionable ladies, ten to one." Hygiene and art, pathology and morality, were summoned to the aid of this movement, and responded heartily. Thoughtful women, who believe that the progress of their sex is seriously impeded by the abuses of their dress, have observed with dismay the ebb which seems within a few years to have borne away all these improvements or elements of improvement in feminine attire which concern the personal modesty of the wearer. It is a fact, gloss it over anyhow as we may, that decent women have never dressed so indecently in our country and our century as they do in fashionable life to-day.

What is to be said? Enter any fashionable drawing-room and look for yourselves. What is the evening dress of a fashionable woman but a burlesque on civilization? It exposes the body with an indifference which nothing seems to abash. The reproofs of the pulpit, the complaints of the press, the denunciations of modest members of our own sex, flit over these bared bosoms like the feathered tips of their own fans. The impression goes no deeper.

In the most decorous city in our country, a lady representing what may deservedly be called one of the "best" families in the state, herself a middle-aged, queenly, home-loving matron, the wife of an affectionate husband, the mother of grown sons and daughters, wears her dress — but my pen shrinks from *writing* what this high-bred lady *does*. This case, which represents scores of others, is of importance because the offender herself is so unconscious of her offense, and so far in other respects above it. There is no life of concealed dishonor, no intrigue, no shoddy birthright, no fast and loose views of duty. The woman is otherwise immaculate. How explain this ethical enigma? Are our ladies morally insane, or mentally? Do they not know what they are doing? And if not, why not? How shall we characterize the too-low corsage, with some nothing for a sleeve; the lower bodice with no sleeve at all; nudity covered by transparency; and what is known as the V-back? They are below excuse, as they are beyond explanation.

O women! queens of life! bestir your hearts. Rouse your dulled perceptions of the monstrous things you do and suffer to be done. Call the fact by its right name. Blush for it and abhor it, for it is abhorrent. So long as you take your fashions from the *demi-monde*, wherein are ye better than these? The Irish cook in your kitchen is your superior, madam, when she goes to *her* ball-room on St. Patrick's Day clothed to the throat, as by the customs of her people she is required to be. And the rules of the Roman Catholic Church forbid *her* to waltz.

Between the ballet girl who dances for bread, and the society girl who dresses as she does for a title or a fortune, there is a moral gap, to be sure; but, for one, I would take my chances with the ballet if I had to face the social standards of another life with either record behind me. Let us have done with playing about the fire, and call a low thing low and out with it. Face the truth. An immodest dress does not cover a modest woman. If your costume is coarse and vulgar, you can blame no voice or pen which calls you coarse and vulgar too. If the dress is disgraceful, the wearer is disgraced.

The woman who dresses indecently—never mind who, never mind where, never mind why,—is indecent. The woman who dresses without shame is shameless.

By their robes you shall know them. And, pray, why not? As you characterize the danseuse, as you stigmatize the poor creature who flaunts herself in the eye of vice, why shall not yourselves be judged by their judgment? Have women of fortune any special immunity from heaven or earth which releases them from the common, human, moral conditions of their sex? To be rich and fashionable—does this give one the privilege of being immodest and respected?

We are a club-burdened age, and of forming many societies there is no end; but let one association more be suggested; and Heaven hasten, as it will surely prosper it! Let a dozen of the most influential women in the city of New York be banded together—that would be enough; as many in Washington, Philadelphia, and Boston. Let these women, having agreed to regulate their own costume with regard to the essentials of decorum, bind themselves never to receive a second time into their parlors a woman who is immodestly dressed. Let them agree that they will accept no invitations coming from indecently dressed hostesses. It is perfectly easy. Any of us can think, at hap-hazard, of a dozen society ladies, any one of whom would gladly do this if the other eleven would. Suggest, for such an association, simply this name—*The Ladies*. Suppose that there were added to the efforts of these ladies, in full harmony with them, the sympathy of a dozen clean-hearted, high-minded, socially powerful men? We are glad to believe that it would be quite possible to find them. Let these gentlemen firmly take the stand, "We accept no invitations from hostesses who invite us to meet immodestly dressed guests." What would happen, think you? Society would be revolutionized in three months. When we consider how much easier to put in motion this would be than most social reforms, it is a matter of surprise that some such simple project has not been tried.

If civilization implies a high degree of delicacy, if the lack of delicacy betokens the savage, and if we are falling behind our times in personal modesty, it is well to put the situation in a few of those blunt words which appeal to human pride. Our sense of superior delicacy is, after all, a tremendous moral support. Many of us would rather be called criminal than coarse. To be known as unrefined is the pit of social degradation. Convince the half-nude waltzing woman that she is not a lady but a savage, and she will clothe herself and invent a new dance. Convince the writer of indelicate literature that he is not an artist but a savage, and he will burn his manuscripts and discover a new literary fashion. Let us draw the lines clearly, and having done that, abide by them. Society always respects her own restrictions, no matter how she may treat those of a higher and truer life. Make it fashionable to be decent, and the day is won.—*Abridged from an article by Elizabeth Stuart Phelps, in the "Forum."*

THE Japanese ladies are in a worry. Some years ago, European dress began to come into vogue in Japan, but a reaction has set in. The Japanese women are not satisfied with the ordinary dress styles of civilization, but they are unwilling to return to their old dress, and hence they are now considering "rational dress" advocated by the various feminine dress-reformers.

HOW TO LEAVE OFF CORSETS.—When a woman who has been accustomed to a corset lays it off, she should set to work at once to strengthen the muscles of her waist by diligent exercise. It will cause new pains at first, just as leaving off his toddy caused the poor drunkard to feel uncomfortable; but if she will persevere, she will be amply repaid in increased health and strength, and freedom of movement. There is nothing which tends to keep the abdominal organs in place and keep up a perfect circulation, as does a vigorous condition of the muscles and tissues. To have good muscle, exercise is necessary. Most women exercise a few muscles, and shamefully abuse others. The large, strong muscles of the waist, which were meant to hold the body upright, are bound down until their life is lost, and the woman says she cannot sit up unless she has the support of her corset. She is ready to collapse the moment she takes it off. She is something in the condition of a man I knew who had become a hard drinker. I called one morning to see his wife, who was my friend, and the man said to her: "Nancy, I don't believe it agrees with me to go without liquor; my head aches, and I am weak, and cannot think clearly. If I only had my glass of toddy, I would be all right." Now, of course, the sooner he endured the discomfort of the reaction from stimulants, and had his body properly nourished, the better it would be for him; and the sooner a woman puts off her corset and endures a little present pain, and goes to work to strengthen the poor, abused muscles of the middle portion of her body, the better it will be for her. Do not suppose for an instant that the Creator made a mistake in making women, and that their bodies need the artificial supports of stays of whalebone and steel. Dr. K. L.

THE CHILDREN'S CHRISTMAS PARTY.

BY S. ISADORE MINER.

MRS. HOPE was well endowed with this world's goods. Otherwise I fear she might have been considered as "cranky" by the *haut ton* of East Mason. As it was, she was simply voted very peculiar,— a woman whose ideas were so advanced that they seemed never in danger of being overtaken. She had not been a member of East Mason's select social circle long, ere it was discovered that it was vain to expect any aid from her in the getting up of church fairs and festivals, private theatricals, fancy balls, banquets, progressive euchre parties, and other of the endless affairs conceived by the mind that must always be amused.

But when by a series of politely worded regrets, it was forced upon East Mason's consciousness that Mrs. Hope did not even approve of the children's pleasurings (said pleasurings being defined as copies in miniature of the social attempts of their elders), people could no longer remain quiet. Mrs. De St. Barnard thought it "positively cruel, you know." Mrs. Bowdoin-Smith declared that she had more feeling for *her* children, and that she never could, would, or should deny them anything she indulged in herself.

Mrs. Smith having been warmly applauded for her generous intentions, Mrs. Lorillard, whose guest they were (it was at the monthly meeting of the Society for the Improvement of the Minds and Morals of African Youth), divulged the confidence Fannie Hope had reposed in Gussie Lorillard,— that she never tasted tea nor coffee in her life, and never even saw anybody dance, "while Gussie," proudly added Mrs. L., "is only twelve, two whole years younger, yet I could n't attempt to tell how many parties she went to last season. It was laughable enough to see the little minx go off with Allan Houston, a-hanging on his arm as fine as you please. She is just as much of a lady now as she ever will be, if I do say it;" and here the "little minx," who of course had been in the room all the while, shook out her silk skirts and affected a smile scarcely less than ghastly to those who noted her sallow cheeks and dark-circled eyes.

It was therefore a matter of much surprise and considerable comment when, next day, there was left at many of their homes a dainty note inviting in simple but cordial manner some little son or daughter to spend the afternoon of Christmas Eve with the four little Hopes.

Speculation ran high in East Mason. "Now, I suppose," said Mrs. Lorillard, "we will learn what is perfectly proper amusement for children. But an afternoon house party! Really, I am quite at a loss to know what would be a suitable toilet. I suppose I could get Gussie's blue silk done; it is elaborately embroidered, and will be exceedingly dressy."

But Mrs. Lorillard was saved the trouble. How it was managed, nobody ever quite knew; but Mrs. Hope had tact and perception, and some way or other everybody found out that the Hope children were to wear their school dresses, and that for afternoon parties, no one ever thought of anything more elaborate than woolens.

When the Hopes had taken possession of the Colonel Blatchford ruined estate, there was a long, narrow, well-lighted room that had been devoted to billiards. It was at once dismantled of its shabby appointments, and put to a better use as the children's play-room and gymnasium. Quite a complement of devices for light gymnastics were put in, while wire window-guards admitted of even ball games and archery when the weather was unpleasant. The polished hard-wood floor was drilled for parlor tennis, and various games were laid out in chalk lines whose intricacy only a boy could solve. A curtained alcove contained a grate, and made the ideal of doll-houses, and no one who peeped into the sunny play-room wondered that the Hope children wore such bright, contented faces. There were hammocks, ropes to jump, and poles to turn, where (let it be whispered) even Fan-

nie Hope in her neat gymnastic suit of divided skirts and blouse, was known to turn many a deft "hand-spring."

It was in this children's paradise that Mrs. Hope arranged to receive her little visitors. The walls were hung with evergreens and pretty Christmas mottoes, while potted plants from the conservatory lighted the room with flashes of gay color. Sofas and chairs were brought in, and a large table piled with toys, puzzles, and picture books. When at last the grate-fire added its cheer, everything was in readiness.

At two o'clock the children came by one's, by two's, by a whole group of laughing girls and boys, till twenty of the Hopes' little mates were gathered in the play-room, drinking in its pleasant arrangements with eager, admiring eyes. There was no need of formal greetings and demure behavior there. As Gussie said, "one just *could n't* keep still." So there were games and pretty plays,— even old-fashioned "blind-man's-buff" and "drop-the-handkerchief"; and when tired of the merry exercise, there were wonderful toys, and all the animals in the ark to wind up and set spinning around the floor, and dolls of wonderful mechanism, and a whole family of needy paper ladies whose wardrobe, unlike ours, was made first and cut out afterward. This pastime proved most enchanting of all, and as there was a doll for each all around, it was not till a bell tinkled in an adjoining room that the play-work was laid aside.

"Can it be that it is nearly five?" cried Fannie. "That means we have only ten minutes to get ready for lunch. Come, Arthur and Robert, mamma always wishes us to leave the room in order."

It was Mrs. Hope's custom, on the arrival of each birthday in the family, to form the decorations for the dinner table from the flower best loved by the one to be remembered; but on holidays, the children together agreed on some flower that could be obtained. This Christmas it was chrysanthemums, and the dining-room was fairly ablaze with the bright beauties. Several rare varieties had been secured from the green-house, and stood tall and straight before the windows and along the wall. The shades were drawn and the lights turned on in the great chandelier, which seemed to be suspended from a festoon of smilax-wound ribbons just over the table, while just beneath it swung a great basket of yellow flowers. A handsome flower-piece stood in the center of the table, flanked on each side by a large rose bowl filled with loose blossoms. Several pots of choicer variety also adorned the table, encased in *ruches* of bright tissue paper, crimped and curled and fringed to a fluff. At each plate lay pretty favors of cut flowers, and a vine of smilax crossed the table at intervals, dividing each plate from its neighbor.

"A great deal of fuss for only children!" many would exclaim; but Mrs. Hope felt amply repaid by the evident appreciation of her little guests, and the proud and tender glances of her own dear ones, who thought nothing was ever quite so beautiful as what mamma planned. If we would look for goodness, grace, or beauty, we must plant its seed and hold it ever up for imitation. Every thrill awakened by the beautiful, be it through a flower, a picture, a song, a thought, is an inspiration toward the right that will not fail to bear fruit, though cherished in tiny hearts.

After the lunch, where fruits in abundance, nuts, and pop-corn made the absence of cakes and bon-bons unnoticed, the lights suddenly grew dim, and a curtain drawing slowly back from an ample doorway revealed a trim little fir-tree, twinkling with lights and bending with pretty decorations the children had made. There were gay little egg-shell baskets and boats, gilded and silvered and bronzed; there were stars and flowers and horns of bright silver foil, and wreaths and long swinging festoons of woven tissue-papers, and flowers to imitate every blossom that ever grew and some that never grew. Right on top of all was a big "wonder-ball," which being dislodged by jolly Mr. Hope, who was master of ceremonies, proved to be a sort of bundle within bundle, each cut of the string disclosing some droll or fanciful gift, until all the children were served. Added to these were pretty trifles from the Hope children, purchased with their own money; for a generous spirit was carefully cultivated, as well as guided, in that household.

At seven the music of bells brought the young people to the door in their wraps, where after many warm "good nights," they were stowed away in Mr. Hope's ample sleigh to be carried safely to their homes. The early moon was bright in the sky, the road fairly spun backward in its snow-white smoothness, while the bells jingled merrily, "just as if they know what a good time we 've had," whispered irrepressible Gussie.

And that is why children's dances and suppers are things of the past in East Mason. Not that Mrs. De St. Barnard or Mrs. Bowdoin-Smith, or others of their ilk were converted, but, somehow or other, the children themselves did not want a party unless it could be like the Hopes'. Mrs. Lorillard sealed it as the fashion upon Gussie's insistence, while quiet Mrs. Hope looks on well pleased at the success of her innovation.

WOMEN AND CHILDREN OF JAPAN.

(*See Frontispiece.*)

BY E. L. SHAW.

In the position accorded to women in Japan, that empire, though far from approaching our Western standard, leads all Asiatic nations; but so entirely is she still in that country under the dominion of unnatural laws and customs that, were the Japanese as a people less kindly and affectionate in their domestic relations, the lives of their wives and daughters would be a burden to them from the cradle to the grave.

As it is, the glimpses we get of her home life are very interesting ones. Though it was thought a misfortune for her to be born at all (all rejoicings and congratulations being kept for the male child), the mother heart beats much the same in all lands, and the Japanese father, if he be an ordinarily good man, gives even a little daughter a share of his affection. She is reared in a mild, gentle home atmosphere, is taught profoundest obedience and reverence to her parents, and though she knows little of the beautiful world we live in, or of who or what inhabit it, she learns various accomplishments. She can sew and embroider beautifully, serve tea gracefully, make paper flowers, repeat the "One Hundred Poems," and play on the *samisen*. She knows, too, a little about her own country—not much about its history, but a good deal about its gods and heroes, its legends and traditions. Sometimes it happens that even during her babyhood her father promises her to the son of some friend, or to some personage who will be a "good match." She grows up knowing all about it, hears it talked of as a fine thing, and rarely thinks of rebelling, even in thought. When the time comes, there is a grand wedding, and she goes away with the stranger, making him a placid and amiable wife.

A LITTLE MAIDEN OF JAPAN.

Japanese women, as a rule, are pleasant voiced, frank and winning in manner, and often before marriage (when their teeth are blackened and their eyebrows plucked out), very pretty. They have slight figures, small heads crowned with masses of luxuriant black, glossy hair, black, brilliant, and roguish eyes, red cheeks, and clear complexions. Dispensing in the hot season with all extra clothing, their outside garment is a loose gown confined by a wide and elaborate girdle, and falling to the feet. This may be varied in material and make up, other garments added underneath, wraps of all styles worn over it for the street, and its length increased indefinitely and inconveniently upon ceremonial occasions; but until she began to copy our fashions, the dress of a Japanese woman was mainly unrestrictive. No doubt much of her placidity and amiability will be sacrificed when she once learns to lace and pinch as Americans do.

The children in this beautiful Eastern land have a merry childhood. They almost live out-of-doors, playing in great numbers in the streets or in the flower gardens, and are fully as bright and winsome as the children of any other nation. Chubby and rosy from their free life, they are also the most polite and respectful youngsters in all the world. Their school work consists in learning to read and write, and to commit to memory maxims and precepts without end. Children with such careful home training are easily governed, but the teacher seeks to maintain no order nor discipline. The schoolroom is a very babel of confusion; for the scholars all read together, and study their lessons aloud.

The girls are quaint little things, with robes reaching to their ankles, wide sleeves, and bright-colored girdles; their hair is drawn tightly back into a little old-folks' knot, and stuck through with big, gay hair-pins. Their lips are painted a bright red, and their faces powdered with rice flour. The boys only wear a short, loose blouse, with a belt.

The people, young and old, are all children together in their love of amusements, and there are holidays in plenty. Flower festivals occur at intervals throughout the year, when they celebrate the arrival of some pretty favorite. There is a grand mid-summer festival, besides innumerable national and religious holidays. The New Year is welcomed by days of gayety and rejoicing. The boys have a festival — the "Feast of Flags" — distinctively their own, which they celebrate much as we do our Fourth of July, with games, fireworks, processions, and great general jollity. For the girls, there is a "Feast of Dolls" lasting through several days, when the shops are running over with gaily dressed dolls and images of all shapes and sizes, as well as other beautiful and fanciful toys. For, though these young folks have no Christmas of their own, yet their country contributes not a little to the enjoyment of our Christmas, in the number and variety of toys which it furnishes our boys and girls. In the words of the little song, —

"Oh, Japan is the home of the vase,
Japan is the land of the tea,
Of lacquer, and bronzes, and placques,
And turtles with wickerwork backs,
"With silk that is fine as a lace,
And porcelain fair to see,
With dollies of rank and grace,
And dollies of low degree."

JAPANESE SCHOOL-BOY.

REPROVING CHILDREN.

PROBABLY most parents, even very kindly ones, would be a little startled at the assertion that a child ought never to be reproved in the presence of others. This is so constant an occurrence that nobody thinks of noticing it,— nobody thinks of considering whether it be right or best. But it is a great rudeness to the child. I am entirely sure it ought never to be done.

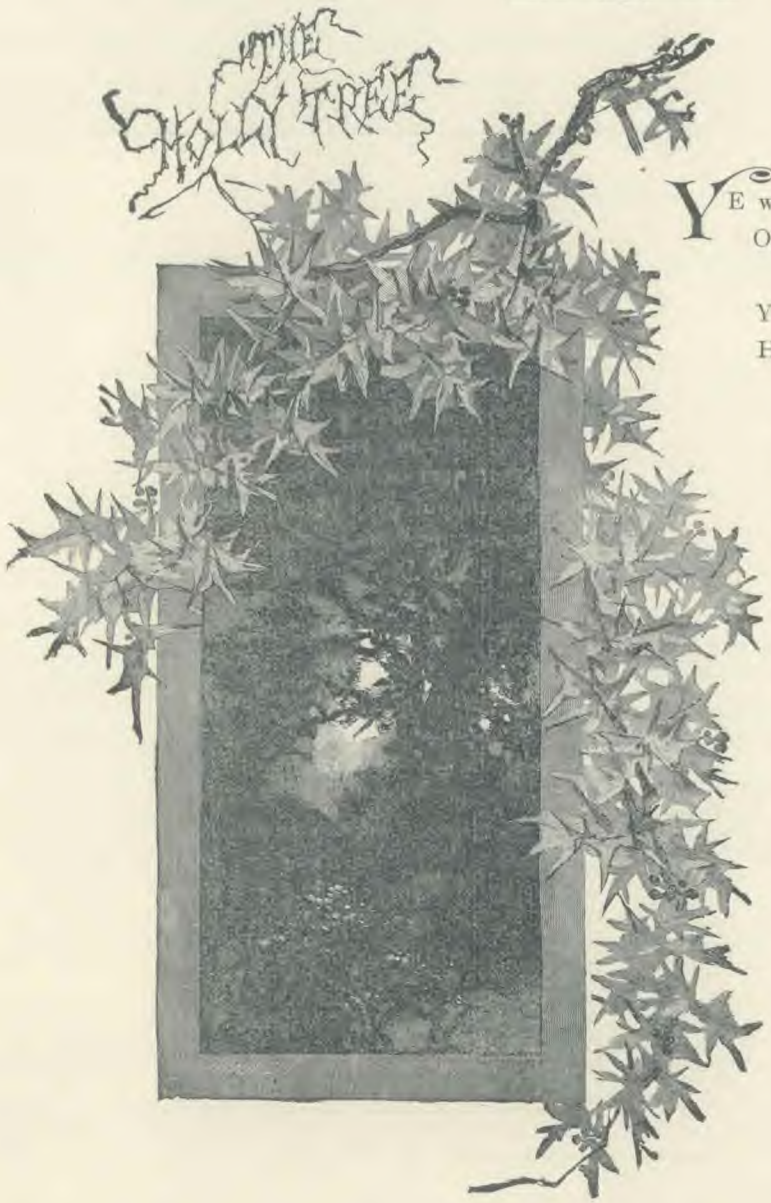
I knew a mother who made this a rule. Once I saw her little boy behave so boisterously and rudely at the dinner table in the presence of guests, that I said to myself, "Surely this time she will have to break her rule and reprove him publicly." I saw several telegraphic signals of rebuke, entreaty, and warning flash from her gentle eyes to his; but nothing did any good. Nature was too much for him. He could not at that moment force himself to be quiet. Presently she said in a perfectly easy and natural tone, "O Charley! come here a minute; I want to tell you something." No one at the table supposed it had anything to do with his bad behavior. She did not intend they should. As she whispered to him, I alone saw his cheek flush, and that he looked quickly and imploringly into her face; I alone saw that tears were almost in her eyes. But she shook her head, and he went back to his seat with a manful but very red little face. In a few moments he laid down his knife and fork, and said, "Mamma, will you please excuse me?" "Certainly, my dear," said she. Nobody but I understood it, or observed that the little fellow had to run very fast to get out of the room without crying. Afterward she told me she never sent a child away from the table in any other way. "But what would you do," said I, "if he were to refuse to ask to be excused?" "Do you think he could," she replied, "when he sees that I am only trying to save him from pain?"

In the evening Charley sat in my lap, and was very sober. At last he whispered to me, "I 'll tell you an awful secret, if you won't tell. Did you think I had done my dinner when I got excused? Well, I had n't. Mamma made me because I acted so. That 's the way she always does. But I have n't had to have it done to me for ever so long — not since I was a little fellow [he was eight now], and I do n't believe I ever shall again."

I shall never forget a lesson of this sort my mother once gave me. I was not more than seven years old, but I had a great susceptibility to color and shape in clothes, and an insatiable admiration for all people who came finely dressed. One day my mother said,

"I will now play house with you." Social life became a round of festivities when she kept house as my opposite neighbor. At last after the washing-day, and the baking-day, and the day when she took dinner with me, and the day when we took our children and walked out together, came the day for me to take my oldest child and go across to make a call at her house. Chill discomfort struck me on the very threshold of my visit. Where was the genial, laughing, talking lady who had been my friend up to that moment? There she sat, stock-still, staring first at my bonnet, then at my shawl, then at my gown, then at my feet; up and down, down and up, she scanned me, barely replying in monosyllables to my attempts at conversation, finally getting up and coming nearer and examining my clothes and my child's still more closely. A very few minutes of this was more than I could bear; and almost crying, I said, "Why, mamma, what makes you do so?" Then the play was over; and she was once more the wise and tender mother, telling me playfully that it was precisely in such a way I had stared, the day before, at the clothes of two ladies who had come in to visit her. I never needed that lesson again.

When we consider seriously what ought to be the nature of a reproof from a parent to a child, and what its end, the answer is simple enough. It should be nothing but the superior wisdom and strength explaining to inexperience and feebleness wherein they have made a mistake, to the end that they may avoid such mistakes in future.—*Abridged from Helen Hunt Jackson's "Inhumanities of Parents."*



YE who have scorned each other,
Or injured friend or brother,
In this fast-fading year,—
Ye who by word or deed,
Have made a kind heart bleed,
Come, gather here.
Let sinned against and sinning
Forget their strife's beginning,
And join in friendship now;
Be links no longer broken,
Be sweet forgiveness spoken,
Under the holly bough!

Ye who have loved each other,—
Sister, and friend, and brother,
In this fast-fading year;
Mother, and sire, and child,
Young man, and maiden mild,
Come, gather here,
And let your hearts grow fonder,
As memory shall ponder
Each past unbroken vow;
Old loves and younger wooing
Are sweet in the renewing,
Under the holly bough!

—*Charles Mackay.*

TEMPERANCE NOTES.

In a certain town in Germany, the municipal authorities will not grant a drunkard a license to marry. It would be well if such a law obtained in this country.

It is the testimony of Commissioner Wright in reference to liquor licenses, that "for every dollar paid into the State treasury by the saloon-keeper, about twenty-one dollars are paid into saloons by the people."

A prominent clergyman who has given the subject most careful attention, states that the people of Washington, D. C., spend more than $6,000,000 a year for liquors, which is at the rate of about $20,000 for each working day.

Josh Billings said: "Cider may be a good temperance drink, but I kan git so drunk on it that I kan't tell one of the Ten Kummandments from a bi-law of a base-bawl Klub." A good many other folks have been muddled in much the same way.

The Chicago *Tribune* states that Chicago has 5,400 licensed saloons.

In his annual report for 1889, Dr. T. S. Clonston, Physician Superintendent of the Edinburgh Royal Asylum, says: "We never, except in 1876, had so many cases sent here in which the assigned cause of the malady was alcoholic excess as this year, and the percentage of such cases was never so high. We never before had so many cases of general paralysis, a disease largely due to dissipation, as this year."

An English paper reports a late celebration by a pair of devoted temperance workers,—a Mr. and Mrs. Cherry,—of the fiftieth anniversary of their wedding. A dinner was prepared at which upwards of one hundred persons sat down, fifty-seven of them belonging to the Cherry family, and *every member of the fifty-seven was a total abstainer.* At the close of the meal, a rousing temperance meeting was held, eight different members of the family in turn addressing the people.

POPULAR SCIENCE.

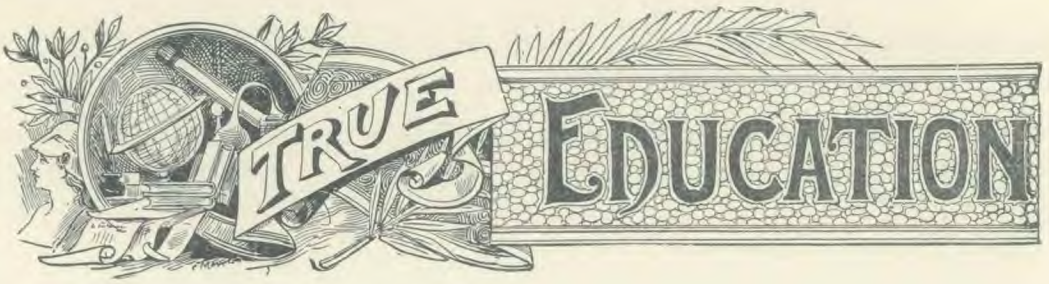
A man using a large quantity of ice, last year when ice was very scarce, tried the experiment of filling his ice-house with snow. The experiment succeeded perfectly; the snow, turning to ice, made a solid mass, and kept well.

A European engineer has invented and brought to perfection an instrument by which he can readily locate water underneath the earth's surface. At a late trial in this country, he surprised our engineers by correctly tracing several aqueducts of whose location he could have had no previous knowledge.

The skeleton of a mastodon has lately been discovered in the vicinity of St. Thomas, Canada. The bones were found at a depth of six feet below the surface of the ground, and occupied an area of about 35 x 21 feet. Judging from the measurements of the bones found, the animal is supposed to have been about twenty-two feet in length.

Speed.—A German scientist has collected the following facts respecting the speed of various objects: A snail moves at the rate of one two-hundredth of a foot per second; a human being, about four feet, when walking rapidly; the most rapid river, twelve feet per second; a balloon, when there is a gentle breeze, without wind, nineteen feet; a fly, twenty-three feet; a bicyclist, thirty feet; a race-horse, thirty-eight feet; an ocean wave, sixty-five feet; a carrier pigeon, eighty-two feet; a swallow, two hundred and one feet; a cannon ball, fifteen hundred feet.

The St. Louis *Republic* gives an account of a wonderful mountain located nearly in the center of Wyoming. It is composed of solid hematite iron ore, with 600 feet of it above ground, more than a mile wide, and over ten miles in length. "Beside the iron, the mountain contains a bed of lignite coal large enough to warm the entire world for a century, a dozen dried-up lakes of soda, where the soda is deposited to a depth of over 300 feet, some of the lakes being over 600 acres in extent. In a mountain adjoining, there is a petroleum basin larger than those of Pennsylvania and West Virginia combined. Out of some of the springs, pure rectified coal-oil is trickling at the rate of twenty to thirty barrels per day."



DEVELOPMENT OF CHARACTER IN SCHOOLS.

THE situation, as openly acknowledged, forces upon us the conviction that we, the people, are losing the saving attributes of character, and that the State is thereby endangered. If another conviction would but force itself upon us, namely, the conviction that the State is neglecting what can be made a means of its salvation, and that in striving to suppress wrong-doing by penal enactments, it is misdirecting its energies and wasting its substance! Conduct is simply character working out into appearance, and even plain common sense might teach the folly of dealing with results when causes are within reach. If a clock fails to keep time, we do not meddle with the pointers; we regulate the inside works. So with people; their actions are but indicators, and if the State would prevent irregularities of conduct, it must bestow its energies on the motor-power, character; and in order to be effective, this character-work should begin in childhood, the formative period. Even trainers of animals declare the success of their efforts to depend on an early beginning; and Horace Mann speaks in this connection of an "arborist working on stooping and distorted trees, striving with tackle and guy-ropes to undouble their convolutions, and to straighten flexures in trunks whose fibers curled as they grew, . . . when, could he have guided and trained them when they were saplings, he could have shaped them into beauty."

Let the State apply this practical wisdom. She owns the public schools, let her run these institutions in her own interests. Let her develop the essentials of character in their pupils, so that as citizens these shall be her salvation.

The mere mention of such a work will be sure to raise objections. Bring religion into the schools? Bring in the Bible? Have systems and text-books? This work is not practicable. School hours are already crowded. Moral training is for the home. The trained intellect is sufficient guide. As to systems and text-books, there are better methods, let us hope, of reaching the heart of the child; and no one supposes that sectarian religion should be introduced, or any teaching in this line, except what can be done on common ground. But there is a united belief in the fundamental principles, such as honesty, integrity, love, justice, and the inculcation of these could excite no opposition; for the ideas necessary to be enforced, are held in common the world over.

Let a teacher relate to her young class a story illustrating truth, self-sacrifice, honor, fidelity, courage, heroism, and their cheeks will flush, their eyes moisten, and the whole class will be touched as by an electric thrill. With this thrill the heart is reached and a purpose accomplished. We might repeat to a class the golden rule, the ten commandments, and any number of maxims every day in the week, and their lessons be not half so surely conveyed as by a few simple stories. Character influences character. Keeping this in view, make children familiar with the lives of noble men and women. Feed them with nobleness. Accustom them to a high moral atmosphere, and they will never breathe freely in any other. There might be also occasional talks on such trial situations as especially demand fidelity to principle, or in which plausible doubts might arise. Shall not moral problems, as well as mathematical ones, receive attention? One cause of wrong doing is a lack of that kind of truth known as exactness. As one means, relate a simple story, requiring them to repeat it until it be told without one variation from the exact truth. This differs materially from a lesson recitation, or from memorizing a printed story; for in repeating the incidents as heard, there would be a moral quality involved, a personal responsibility. It is a pity that attempts at reaching character in its formative period should be made through the unwilling intellect, — by precepts, commands, restrictions, reproofs, when the more effective way is right at hand.

It is true that character work of the kind mentioned will demand a special preparation on the part of the teacher. Those officially in charge of "education"

should give prominence to this matter of character, should call special conventions for its consideration. It should be the frequent theme of every educational journal, and of the press generally, and of the pulpit. The true work, the thrifty work, is not to re-form, but to right-form; not to supply needs, but to prevent needs; not to punish wickedness, but to remove its causes; and the test of any system of education — a test which will be applied in the *light ages* — is that it send forth human beings each with an inside force impelling to right conduct, and with all the faculties in full and harmonious development. Such responsibility should not be placed in the hands of immature girls, who can be hired at cheap rates and are lacking in special preparation and in other requisites. Those in charge of this higher education, heart education, should possess the highest, broadest, deepest culture; they should be culled from the best. The very choicest spirits among us, the most sympathetic, the sweetest, the wisest, those most excelling in every desirable quality, are needed by the State for the training of its young children. They should be skilled workmen, and they should be worth, and should receive, salaries such as would draw to this work the highest ability.

The influence of our schools is largely for good. Their value is incalculable. If in the direction we are now considering there is room for improvement, it is not our part to denounce them, or to withdraw our children, but to insist on the improvement. If the plea is urged that school-rooms are already crowded with the ordinary routine of studies, it should be replied that this matter is far above the ordinary. Character is not only the saving, but the controlling element of the individual. Whatever he may have of influence, opportunities, talents, money, capabilities, the uses made of these depend on the kind of person he is; and the State should secure the right kind of citizens, — upright, honest, unyielding in integrity, even if the training process leave them in ignorance of (let us say it with reverence) the very equator itself. "School hours are already crowded." Well, if the streets are crowded when Royalty passes, "Give place!" is the cry. But it is not Royalty which gives place. The crowd gives place to Royalty. Character is the royal or reigning part of a person. Let the highest in rank have the right of way, and if there is no way, a way must be made.

It is evident enough that, at present, school hours and school-rooms are so crowded as to allow small chance for additional work, or for the close acquaintance and individual relations between teacher and pupil so necessary to our purpose. These hindrances can be removed by placing very many less pupils in a school, and largely increasing the number of teachers. Should any object to the money cost, let it be asked if the State can better spend its money than in the making of good citizens. The State practically answers that it prefers to spend its money in the punishing of bad ones. A few years ago the statistics were given as one hundred million expended in education; two hundred million in the punishment of crime. As if some stupid farmer were to spend money scantily for his seed sowing, reserving plenty for the weed-pulling of by and by. Nay, would advise the wiser culturist, spend freely for grain and let the wholesome plants stand so thickly and strongly as to leave no room for the weeds. Let the State devote the larger sum to a school-room culture which will insure the wholesome and sturdy elements of character, and the smaller will be all too large for our deserted jails and almshouses. Said a man who, after spending his life in various prisons, came at last to the gallows, "If they had done as much in educating me as they have in punishing me, I should have come to a very different end." Paupers might make a similar statement, substituting the word *supporting* for *punishing*. Could tax-payers but see the shiftlessness and extravagance of dealing directly with pauperism and crime, rather than with their causes, they would demand that strength and nobility of character be secured by well-directed efforts in the school-room, even if the school tax were trebled thereby.—*Abridged from a paper by Abby Morton Diaz, in the "Arena."*

NOTHING keeps a person from knowledge and wisdom like thinking he has both.

"WHERE is the island of Cuba situated?" asked a school-teacher of a small, rather forlorn-looking boy. "I dunno, sir." "Don't you know where your sugar comes from?" "Oh, yes, sir; we borrows it from our next-door neighbor."

To elevate above the spirit of the age must be regarded as the end of education, and this must stand clearly developed before us ere we mark out the appointed road. The child is not to be educated for the present; for this is done without our aid, unceasingly and powerfully; but for the remote future, and often in opposition to the immediate future. —*Jean Paul Richter.*

ONE STANDARD FOR BOTH.

It is one of the saddest mistakes of our world, one for which all humanity suffers, that purity, demanded imperatively of women, is deemed impossible of man. Where is the safeguard to society, where its exalted standard, while men are left to believe, and to act accordingly, that virtue, in the sense in which it is expected of women, is not within their powers? The practical working of this theory makes each sex but the prey to the other. This will always be, till the standard of virtue in woman is made also the standard of virtue in man.

It was a great and pure man who uttered these words: "The world will never be better till men subject themselves to the same laws which they impose upon women." It was a man said this. Were it a woman, all the apostles of license would at once declare that she said it because, being a woman, she could not know what man is. I do not forget what human nature is, in its universal and unchanging essence. I do not forget in its best estate how frail it is, how easily overcome, nor forget the inevitable modifications of life and character resulting from the varying laws of temperament, of sex, of physical and mental organization. But neither the history of polygamy or of monogamy, Campbell's "Philosophy of Marriage," or Leckey's "History of European Morals," or the history of the whole life of man in every race, and through every age from the beginning of the world till now, can make me believe that man, created in the image of God,— man, little lower than the angels,— man, the head of all human intelligence, through all his earthly life, is at best but little more than a bundle of blind instincts and of lawless appetites, at whose mercy he is, which he is as powerless to control as the beast at his feet.

This brutal idea is the underlying impulse of polygamy, and of all the lasciviousness, license, and barbarism on the earth. The sister is taught, whatever her temptation may be, that she must be good; and the brother is left to believe that, however he tries, he cannot help being bad. It is expected of him that he will grow to be a respectable man some day; but before that event, through the law of his nature, he must necessarily be very wicked. The sister is taught that she must preserve herself blameless for the future husband, to whose life she is to be the crown; the brother is left to spend the time sowing his "wild oats." To his wife he is to bring no virginity of heart, no purity of person, no record of a stainless past.

Many a man looks into the eyes of the wife, who trusts him as she does her God,— into the faces of his daughters, who believe him to be scarcely lower than the angels, with a secret remorse which cannot be measured, as memory forces in upon his thoughts what he has been, perhaps what he is. With what shame he is conscious that, if they knew his secret history, he would stand transformed before their eyes; that, to remain what he is in their thoughts, he must hide forever from their knowledge the crimes of his youth.

Young man, remember this: The dearest reward that can come to you in this world is a real home— the love and faith and help of wife and children. Remember this, while striving with foes without and foes within. If you *will* you *can* live worthy of your heritage. You can cherish a faith in human goodness; you can cultivate personal friendship with noble men and women; you can fill your life with honorable occupation and cheerful recreation; you can "steep your soul in one pure love," and, trusting in God, you will never be a fallen man.

The grandest object this side the throne of God, is a perfect man — a man powerful in brain, powerful in frame, with conscience and will ruling over the animal force which makes the puissant basis of his manhood. The saddest sight on earth is such a man in ruin. By the hight of what he might have been do we measure and deplore the fall which makes him what he is. Passion may be grand; but it is passion in obedience. Appetite is not ignoble till it debases the soul and triumphs over purity. With our finest theories we cannot make this crooked world straight. But each one may make it so much the better and brighter by at least the character of one individual.

When shall we have purity in our lives? when peace in our hearts? when joy in our homes?—It will be when woman feels a deeper responsibility for her personal power over every man who comes within her influence; when that power is tested and controlled by a healthy conscience and a pure heart. It will be when she ceases to regard every man she meets as the legitimate prey to her vanity, as a tyrant to be turned into a slave, as a Sampson to be shorn of his strength. It will be when with true recognition and reverence she meets the royalty of manhood with the royalty of womanhood, saying: "If thou art the world's king, I am the world's queen!" It will be when man tests all his relations with woman by the same code of impartial honor which makes him honorable among men. It will be when he who scorns to be false to his comrade will scorn equally to be false to a woman; when he shall cease to stoop to subterfuge, to deceit, to falsehood, to keep peace with numbers of women, to each of whom he is personally committed, over all of whom he desires to exercise a secret, illegitimate power. It will be when each man seeks in each woman something of that divine quality of womanhood which even the basest man desires to find in his mother, in his sister, in his wife. It will be when each shall seek in the other their noblest friend, their truest and dearest companion; when the woman shall revere the man, as man, because he is worthy of such honor, and the man revere the woman, as woman, because she commands his reverence before she wins his love. Then we shall not have the cause that we now have to weep over the fallen woman, and to bow our heads in shame before the fallen man.—*Mary Clemmer.*

TENDENCIES OF MODERN SOCIAL LIFE.

It is a sad truth that in the life of the average modern girl, temptations to impurity have more to contend with in her pride than in her moral nature. Everything in her education has tended to increase the former and dwarf the latter. Her parents have taken her to the theater far oftener than to even the fashionable church on the avenue. From the latter she carried away more about dress than about anything else. From a child she has been familiar with the French school of morals, as taught by the sensational drama. Society, that will turn a girl out-of-doors the moment she sins, will take her, at the most critical period of her unformed character, night after night to witness plays in which the husband is made ridiculous, but the man who destroys purity and home happiness is as splendid a villain as Milton's Satan.

Parents themselves familiarize their daughter's mind with just what she is tempted to do, by taking her to plays as poisonous to the soul as the malaria of the Campagna at Rome is to the body. We unhesitatingly charge many parents with the absolute ruin of their children, by exposing them, and permitting them to be exposed, to influences that they know must prove fatal. No guardian of a child can plead the densest stupidity for not knowing that French novels and plays are as demoralizing as the Devil could wish them to be; and constantly to place young, passionate natures, just awakening in their uncurbed strength, under such influences, and expect them to remain as spotless as snow, is the most wretched absurdity of our day. Society brings fire to the tow, the brand to the powder, and then lifts its hands to hurl its anathema in case they ignite.

But parents sin even more grievously in permitting men of besmirched character to haunt their homes. If one of the lambs of their flock suffer irretrievably, they will be as much to blame as would a shepherd who daily saw the wolves within his fold. Fathers are familiar with the stories afloat about the well-dressed scoundrels who visit their daughters,—familiar with their character, or rather their lack of character. Some of the worst villains in existence have the *entree* into the "best" society. It is pretty well known among men what they are, and fashionable mammas are not wholly in the dark. Therefore, every day, "angels that kept not their first estate" are falling from heaven.

It is the undermining, unhallowed influence of such associations that makes the young girl so weak in her first sharp stress of temptation. Crime is not awful and repulsive to her. There is little in her cunningly perverted nature to revolt against it. She hesitates mainly on the ground of her pride, and in view of the consequences. And even these latter she in no sense realizes; for the school in which she has been taught, showed only the flowery opening of the path into sin, while its terrible retributions were kept hidden.—*E. P. Roe.*

DR. KATE C. BUSHNELL is soon to make a tour around the world, under the auspices of the World's W. C. T. U., for the promotion of social purity interests in various countries.

GOOD HEALTH
J. H. KELLOGG, M. D., EDITOR.
BATTLE CREEK, MICHIGAN.

A WORD WITH OUR READERS.

With this number closes the twenty-fifth annual volume of this journal. During all these years it has been the aim of the editors and managers to make it in the highest degree a popular exponent of practical hygiene, and to keep it abreast of the most advanced lines of progress in all that pertains to human health. Special attention has been given in the journal to such features of hygienic and sanitary reform as have not as yet numerous advocates, and are most in need of popular exposition. Dietetic reform, dress reform, domestic sanitation, social purity, temperance reform, and allied lines of reformatory work are the themes upon which the writers for this journal have chiefly dwelt; and the publishers are constantly in receipt of letters from all parts of the world which testify in a most emphatic manner to the good results which have been accomplished through the medium of this journal. During the year to come, the same lines of work will be pursued, and new features will be added from time to time, as heretofore. Beginning with the next volume, some new and important lines of work will be undertaken by the management of Good Health, the nature of which is referred to at greater length elsewhere in this number.

We hope to retain with us during the year of 1891, all our present readers, and to add many thousands more. With a hearty New Year's greeting to each of our old patrons, we say good bye for 1890, and hope to shake hands in 1891.

VEGETARIANISM AND OLD AGE.

Our esteemed contemporary, *Public Health*, recently reprinted a translation of an article by Dr. Alanus, published in the *Rhenish Courier*, entitled "*Warum Ich Nicht Mehr Vegetarisch Lebe*,"—"Why I No Longer Live as a Vegetarian."

"Having lived for a long time as a vegetarian, without feeling any better or worse than formerly with mixed food, I made one day the disagreeable discovery that my arteries began to show signs of atheromatous degeneration. Particularly in the temporal and radial arteries this morbid process was unmistakable. Being still under forty years of age, I could not interpret this symptom as a manifestation of old age, and being, furthermore, not addicted to drinking, I was utterly unable to explain the matter. I turned it over and over in my mind without finding a solution of the enigma. I, however, found the explanation which I had sought so long quite accidentally in a work of that excellent physician, Dr. E. Monin, of Paris. The following is the verbal translation of the passage in question: 'In order to continue the criticism of vegetarianism, we dare not ignore the work of the late lamented Gubler on the influence of the vegetable diet on the chalky degeneration of the arteries. Vegetable food, richer in mineral salts than that of animal origin, introduces more mineral salts into the blood. Raymond has observed numerous cases of atheroma in a monastery of vegetarian friars, amongst others that of the prior, a man scarcely thirty-two years old, whose arteries were already considerably indurated. The naval surgeon, Treille, has seen numerous cases of atheromatous degeneration in Bombay and Calcutta, where many people live exclusively on rice. The vegetable diet, therefore,

ruins the blood-vessels and makes prematurely old, if it is true that man "is as old as his arteries." It must produce, at the same time, tartar, the senile arch of the cornea, and phosphaturia.' Having unfortunately seen these newest results of medical investigations confirmed by my own case, I have, as a matter of course, returned to a mixed diet. I can no longer consider purely vegetable food as the normal diet of man, but only as the curative method, which is of the greatest service in various morbid states. Some patients may follow this diet for weeks and months, but it is not adapted for everybody's continued use. It is the same as with the starving cure, which cures some patients, but is not fit to be used continually by the healthy. I have become richer by one experience, which has shown me that one single brutal fact can knock down the most beautiful theoretical building."

We entirely agree with the following comment by the editor of *Public Health* : —

"We can neither deny nor accept the conclusions of Monin or Alanus. If true, they of course furnish a weighty argument against vegetarianism ; but it is to be feared that the generalization has been made too hastily, and upon researches which have been of a partial and incomplete character. In any case, such a rapid and complete conversion from one faith to another is interesting as a psychological study."

Some of our readers may be inclined to read this article thus far, and here stop. Nevertheless we beg, kind reader, that you will read with care the following paragraphs, which present some facts well worthy of consideration in connection with the statements made above by Dr. Alanus.

The fact that Dr. Alanus publishes his article in a newspaper rather than in a scientific journal, might at once raise some doubts as to its authoritative character from a scientific standpoint ; and as soon one as makes a serious investigation, the thoroughly unscientific and unreliable premises upon which the article is based, at once becomes most glaringly apparent. Dr. Alanus finds signs of atheromatous degeneration. This means that the arteries have undergone a change by which a chalky matter has been deposited in them, this symptom also being accompanied by fatty degeneration in various parts of the body. In some cases of this sort, a deposit also occurs in a circular form near the outer edge of the cornea, producing what is known as the *arcus senilis*. This is most frequently observed in very advanced age, but occasionally occurs in younger persons. This is especially the case with spirit drinkers. Finding himself possessed of atheromatous arteries, Dr. Alanus at once jumps to the conclusion that his arteries have become chalky in consequence of his having been a vegetarian for a number of years. He undertakes to find countenance for his opinion, in the assertion made by Dr. Monin, that "vegetable food, richer in mineral salts than that of animal origin, introduces more mineral salts into the blood," without stopping to inquire whether or not the statement is correct. Let us look at the facts. When one speaks of vegetable food as employed by vegetarians, it must not be understood that vegetables proper, those portions of plants other than the seed or seed-bearing parts, are alone referred to. The three classes of vegetables, or vegetable productions, fruits, grains and vegetables, are freely used by vegetarians, and according to our observation, vegetarians make a much larger use of fruits and grains than of vegetables proper.

Let us compare meats and vegetable foods of different classes, as regards the amount of salts which they contain. According to Letheby, and other recognized authorities on food analysis, lean beef contains 5.1 per cent of salts ; lean mutton, 4.8 per cent ; veal, 4.7 per cent,— an average of about 5 per cent. According to the same authority, wheat flour contains about 1.7 per cent of salts ; bread, 1.3 per cent ; rye meal, 1.8 per cent ; Indian meal, 1.7 per cent ; rice, only 0.5 per cent ; peas, 2.1 per cent ; beans, 3.5 per cent, while of the fruits in common use, including grapes, apples, pears, peaches plums, mulberries, blackberries, cherries, apricots, gooseberries, strawberries, raspberries, and currants, not a single one contains more than 1 per cent of salts. It will appear, in fact, from a careful investigation of this matter, that not a single vegetable contains so large a percentage of salts as do lean beef and mutton, while the two most commonly used grains, wheat and corn, contain only one third as much salts as does beef. And if we take into consideration the fact that a pound of wheat or corn is equal in nutritive value to three pounds of beef or mutton, in consequence of the large proportion of water which beef and mutton contain, it appears that the real amount of salts is about twelve times that found in the two grains mentioned, which very fairly represents an average percentage of salts as found in vegetable food stuffs. The banana, which furnishes the staff of life for thousands of the natives of South America, contains only 0.8 per cent of salts,— less than one sixth as much as meat, although its total nutritive value is nearly as great ; indeed, meats have a nutritive value only 2 per cent greater than that of the banana. Such commonly used fruits as grapes, apples, pears, and raspberries, contain less than one half as much salts as beef.

Where, then, is the foundation for this argument, intended to be a stunning blow against vegetarianism? If it proves anything at all, it establishes a strong case against the use of flesh foods; for, as a matter of fact, as we have shown, flesh foods contain salts in much larger proportions than do vegetable productions. Even beans, and other legumes, which are much richer in salts than wheat, yielding 3.7 per cent of salts, contain only two thirds as much of this element as does lean beef, while the nutritive value of the bean is more than three times that of beef. Consequently, a given amount of nutriment in the shape of beans contains, after all, but one fourth as much salts as the same amount of nutriment in the form of beef-steak.

The most astonishing argument found in the article, and what goes to show its utter worthlessness from a scientific standpoint, is the citation of the fact that atheromatous degeneration is frequent in Bombay and Calcutta, "where many people live exclusively upon rice." The writer continues: "A vegetable diet, therefore, ruins the blood-vessels and makes prematurely old." The ridiculousness of this argument will be apparent to the reader when his attention is called to the fact that rice contains a still smaller percentage of salts — 0.5 per cent, or merely half of one per cent, which, compared with beef, containing 5.1 per cent of salts, is one to ten. Further, taking into consideration the fact that the nutritive value of a pound of rice is more than three times that of a pound of beef, we must multiply ten by three, which gives us thirty. It thus appears that a man whose daily rations consist principally of beef, is consuming thirty times as much salts as one who is taking an equal amount of nutritive material in the form of rice. It is clearly apparent, then, that the vegetarian, and especially the rice-eater, instead of hazarding a premature hardening of the arteries, and in consequence early decay, is by his adherence to a strictly vegetarian diet, employing the best possible preventative measure against such a danger.

It is probably not necessary to pursue this matter further, as the reader can no doubt now readily appreciate the aptness of the concluding sentence of the comment made by our contemporary, *Public Health*. Certainly a person capable of turning so sudden a somersault in the habits of a lifetime, and with reasons for so doing so little cogent, must have been pursuing his former course of life blindly, and without any considerable appreciation of the reasons for so doing. Such a person, indeed, is interesting as a psychological study. Unfortunately, however, persons capable of just such psychological somersaults are quite numerous in this country, as well as in Germany.

Ptomaine Poisoning.— Ptomaines is a term applied to a certain class of poisons found in dead bodies. These poisons were first discovered in 1875 by an Italian chemist. They have been found to be the frequent cause of death in cases which were formerly obscure. The distressing and not infrequent symtoms which sometimes result from eating canned fish, meat which has been kept for too long a time after the death of the animal, and in some instances cheese, and occasionally the eating of ice-cream, or even milk under certain circumstances, is due to the presence of these extremely poisonous substances. Some days ago, a physician died in Chicago, as the result of eating, at a restaurant, oysters which happened to contain ptomaines. The symtoms produced were violent vomiting and purging, and intussusception, or telescoping of the intestines, occurred, resulting in obstruction of the bowels and death. The writer has met a number of cases of poisoning by ptomaines as the result of eating oysters. Oysters are very likely to contain ptomaines. This is also true of all shell fish. This is one good reason, at least, why the bivalves should not be used as an article of food.

Ethics of Cannibalism. — The difficulty of convincing a savage of the immorality of taking human life, or even of consuming human bodies for food, or holding any scruples concerning the lives of animals, is shown by the following, which we clip from the editorial columns of the *Physician and Surgeon*: "The point of view from which custom is regarded, makes a great difference. Father Angourard, a French missionary to Africa, laboring on the Oubanghi, an affluent of the Congo, recently encountered tribes whose cannibalism was so inflexible that scarcely a day passed without a village immolating some victim for a repast. These savages regarded human food as something very superior. When told that it was horrible to eat their fellow-creatures, they replied, 'No, it is delicious, with salt and spices.' This reminds us of Brillat de Savarin's famous sauce, 'so good that a man could eat his father with it.' When Father Angourand expatiated on the difference between man and the animals, they neatly turned his arguments in favor of their peculiar dietetic doctrines, saying, that just as man was nobler than the animals, so his flesh was 'more noble to eat'!"

LEAD IN PRESERVED FOOD.

Dr. Cresson recently brought before the Board of Health of Philadelphia, the matter of lead poisoning from the use of preserved food. We quote his remarks as follows: —

"The evident intention, in canning, is to use a metalf or the inside cap which is not affected by the preserving fluids or by the juices of the vegetables, and tin has been selected by the packer for that purpose. If pure tin had been selected, it is probable that but little action would have taken place upon the metal; but unfortunately the tin employed in the jars which I examined, contained the metal lead, and this metal had been dissolved to a greater or less degree by the preserving fluid. The asparagus and peas were notably contaminated with lead, and to a degree which I consider unwholesome. In addition to lead, the sprouts contained copper, which was probably introduced either by boiling the vegetables in copper vessels, or by the use of copper salt for improving the color of the goods.

"It should not be forgotten that the action of nearly all the metals, when introduced into the human system, is cumulative — that is to say, that the dose of one day is added to that of the day following; and that however small and comparatively harmless the quantity of metal introduced at a mealtime may be, the time at length arrives when the system becomes so impregnated as to occasion injurious and even poisonous results. This view of the matter demonstrates the necessity of insisting upon the absolute freedom from even the minutest amount of avoidable metallic contamination. I think that the public should be advised of the danger that may be incurred by the use of this class of goods."

Prof. Bergemann, an eminent European surgeon, says that the diseases of wounds are principally due to infection from physicians' hands.

A Weak Physician.— As every one is likely to be some time in need of a physician, and as it is important to employ a good one when one is needed, it is in the interests of public health that as wide as possible publicity should be given to the following brief description, by Dr. Broadbent, in an address before the British Medical Association, of a "Weak Medical Man," the characteristics of which are, according to Dr. Broadbent, "the indiscriminate use of stimulants in fevers, a ready resort to narcotics and sedatives, treatment directed to symptoms only, and a fondness for new drugs of high-sounding names."

Alcoholic Liver in a Child.—Dr. Biggs, of New York, presented before the New York Pathological Society, a liver taken from the body of a boy of thirteen years who had recently died from chronic alcoholism. This case teaches an important lesson of making use of alcohol as a medicine. It appears that the boy acquired his appetite for alcohol through having received a prescription of whisky for bronchitis, from which he was suffering when two years of age. He readily acquired an appetite for the liquor, which his parents continued to gratify. At the time of his death, he was taking ten or twelve ounces of alcohol daily. On the day of his death, he bought a somewhat larger quantity than usual, and took it all at one drink. He died a few hours later.

Flies Carriers of Contagion.—Dr. Alesses has discovered that the germ of consumption is often present in the intestines of flies that have fed on the expectorated matters of a consumptive. Investigations have also shown that the great prevalence of inflamed eyelids in Egypt is in part, at least, due to contagion carried by flies. Father Damien, the martyr missionary to the lepers on Leper Island, attributed his contraction of the disease to inoculation by flies through an abrasion on the scalp. There is an evident danger in association with flies, hence the premises should be kept so clean that these carriers of contagion will not be swarming about.

Sunlight as a Germicide.—Prof. Koch has been making experiments respecting the influence of sunlight upon the growth of germs. The results are very significant, showing very clearly the important relation of sunlight to health, especially as a disinfectant. We quote a portion of his remarks as follows: "As to direct sunlight, it has been well known for some years that it kills bacteria with tolerable quickness. I can affirm this as regards tubercle bacilli, which were killed in from a few minutes to some hours, according to the thickness of the layer in which they were exposed to the sunlight. What seems to me, however, to be particularly noteworthy is that even ordinary daylight, if it lasts long enough, produces the same effect; cultures of tubercle bacilli die in five to seven days if exposed at the window in compact masses." Shall we continue to live in window-shaded rooms and over-shadowed houses?

DANGER OF LEAD POISONING FROM LACE.—A French writer has recently called attention to the fact that English lace is frequently charged with white lead.

DR. CHARCOT, who has recently finished a long series of experiments with hypnotism, gives as his opinion that not more than one person in 100,000 would be likely to be benefited by this mode of treatment.

A NOTED VEGETARIAN.— The inventor of phonography, Mr. Isaac Pittman, of Bath, England, a vegetarian, is in his 78th year, and still in the enjoyment of excellent health, and able to supervise correspondence of about 40,000 letters per year, to edit a phonographic journal, and to compile and publish annually a number of works. He is a teetotaler, and a total abstainer from tobacco and other narcotics. His life is being written by Mr. Reed, eminent in phonographic circles.

THE CIRCULATION OF TYPHOID FEVER THROUGH THE AIR.— Dr. Bordas, a French physician, has recently made an experiment which indicates that the germs of typhoid fever may be transmitted by moist air, although his experiments show very clearly that dry air will not transmit the disease. This probably explains the reason why an epidemic of typhoid fever increases in virulence when the air is rendered humid by mist or fog. Typhoid fever is generally communicated by contamination of drinking-water through pollution of the soil. But there are plenty of cases on record which indicate that the disease may sometimes be transmitted through the air, and it is important to know that a condition of extreme moisture in the air favors development of the disease.

GERMS IN MILK.—An eminent German physician has been making a careful study of the germs found in milk. He found that a quantity of milk which contained 6,300 germs, when fresh, at the end of three hours contained 10,000 germs. At the end of six hours the number of germs had increased to 206,000, and at the end of twenty-four hours the same milk contained 5,700,000 germs. These facts emphasize the importance of sterilizing milk as soon as possible after it is received from the cow. The longer milk is allowed to stand before boiling, the greater the number of germs which it contains, and the greater the probability that more or less of the microbes will escape destruction when the milk is boiled.

REPAIRING AN EAR.—A German medical journal asserts that Prof. Haug has devised a means of repairing lost portions of the tympanic membrane by the use of the lining membrane of the shell of a hen's egg. A piece of the lining membrane of the proper size is transplanted to the injured ear, the edges of the opening being freshened so as to secure immediate union.

BULGARIAN LAW VS. PATENT MEDICINES.—In Bulgaria, there exists a law which requires the manufacturers of patent medicines to make good the guarantees which they publish in commendation of their medicines. If a medicine fails to cure the disease for which it is sold, the manufacturer is liable for damages, and may be sent to prison for deceiving the public.

CIGARETTE CASUALTIES.—An eight-year-old boy, the son of a farmer, recently died at Plainfield, N. J., from cigarette smoking, to which he had been addicted for three years.

An Alabama editor has recently been committed to an insane asylum, having been made insane by the use of cigarettes.

John Dawson, the fourteen-year-old son of an alderman of Cohoes, N. Y., died, not long since, from spasms of the heart, as the result of cigarette smoking.

James Matthews, a ten-year-old boy of Union Hill, N. J., recently died from the same cause, as certified by Dr. Burns, the physician who attended him.

VACCINATION IN HYDROPHOBIA.—Doctor Gibier, director of the New York Pasteur Institute, reports that between February last and October, 610 persons who had been bitten by dogs applied at the institute to be treated. Of these, 480 wers shown to have been bitten by animals which were not mad. The remaining 130 were demonstrated to have been bitten by rabid animals. In several cases, other persons who had been bitten by the animals died. In some instances, the symptoms of the disease were proven by vaccination made from the animals to other dogs. Of the 130 persons who were were known to have been bitten by rabid animals, all are to-day alive, and in the enjoyment of good health. Without the assistance rendered by vaccination, at least 75 per cent of these persons would have died one of the most horrible of deaths. The Pasteur Institute, of which Doctor Gibier has charge, is located in New York City, and is the only one in this country.

CONTAGION FROM CATTLE.—According to the *Pall Mall Gazette*, a German butcher and his wife were recently taken to the hospital in Berlin, suffering from symptoms of blood poisoning which had evidently been contracted from diseased cattle.

COMPARATIVE VALUE OF A COW LIVING AND DEAD.—The *Annals of Hygiene*, without especially intending to do so, makes the following excellent argument in favor of a non-flesh diet: "Three and a half pounds of milk are said to be equal to one pound of meat; and if we estimate a cow to give but 4,000 pounds of milk in a year, her product would be equal in food value to 1,000 pounds of meat, which would require a steer, under ordinary feeding, four years to produce; so that the cow produces as much return for her food in one year as a steer does in four."

DANGER IN DUSTERS.—The modern subject of germs has brought to light a great number of avenues through which the causes of disease may come in contact with the body. The feather duster is evidently an excellent means of keeping germs stirred up and floating about in the air so as to facilitate their incubation. Evidently the use of this article in the sick-room is wholly out of place. Housewives and chamber-maids should invaribly protect the mouth and nose by tying a handkerchief over them, or by employing some other form of strainer for the breath, whenever the use of the duster is required, and after the duster has been used, the doors and windows should be opened to allow a free circulation of air until the floating dust has been removed. A room occupied by consumptives should never be dusted in this way, as there is great danger of inhaling the air containing germs of the disease, and thus communicating the affection to well persons. Undoubtedly, consumption has frequently been caught in this way.

SEWERS.—Many small towns are prevented from introducing sewers and enjoying the approved sanitary conditions thereby secured, by the false impression of the expense involved in introducing a sewerage system. The old-time sewerage system which provided for storm water as well as sewage proper, required very large sewer pipes. The objection to this system was the washing into the pipes of considerable quantity of sand and gravel, which formed dams at frequent intervals, causing the sewage to accumulate in pools, and filling the pipes with offensive gases which sooner or later found their way into the homes connected with the sewerage system. The modern system of sewerage provides two separate pipes, one for carrying away the storm water, the other for the sewage. It is found that small pipes answer the purpose of sewerage conduction much better than large pipes, as the stream flows more rapidly, is deeper, and thus keeps the pipes free from sediment. An eight-inch sewer laid at a grade of one foot in one hundred, will carry away much more sewage than will be discharged from a row of houses, forty feet front, two miles long, each house occupied by five persons, it being supposed that each person will furnish not less than two barrels per day of sewage, or contaminated water. This system is much less expense than the old system. An eight-inch sewer pipe can be laid at an expense, including cost of pipe, of less than two thousand dollars per mile. The expense to each forty feet of front, would be only about $10.60, the interest on which, at 4 per cent, would be forty-two cents a year, or eight cents per person.

SPREADING DIPHTHERIA.—At the present time, diphtheria is one of the most fatal of diseases which prevail among young children, and is the cause of the death of many scores of children every year in this country. It is the most unfortunate thing that in a large number of these cases the disease might have been prevented just as well as not, if only the proper precautions had been taken. The report of the State Board of Health of Michigan shows very clearly that by the observance of careful precautionary measures in isolating those sick from this disease, and by thorough disinfection of the premises after the death or recovery of the sick, a very large number of lives have been annually saved. The neglect of these precautions is generally the cause or beginning of an extensive epidemic. This neglect is sometimes due to ignorance, but ignorance of this sort is hardly excusable at this time, when sanitary knowledge is so generally diffused. However, it seems from an account written by one of our sanitary contemporaries, published in Maine, that ignorance or stupidity of the most profound character still exists upon this subject, in that State as well as in others. It appears that a child which had died of diphtheria was buried at a public funeral, at which the lid of the coffin was removed, and the young children of the audience were allowed to kiss the corpse. It is not surprising that one of the children exposed was taken sick and died the same day. The priest and friends of the child apologized for their conduct, by insisting that the diphtheria of which the child died was not the "catching kind." The facts demonstrated, however, that the disease was of the most malignant type.

For Hay-Fever.—A London physician recommends peroxide of hydrogen as a remedy for hay-fever. To be used in the form of a spray.

For Ring-Worm.—Apply a strong solution of borax in salt and water, three times a day, or bind on with a compress, borax ground to a fine powder, and moistened with the solution.

Water-Drinking in Typhoid Fever.—An eminent French physician employed as his principal treatment in the management of typhoid fever, water-drinking. He required his patients to drink not less than five or six quarts of water daily. By so doing, great activity of the kidneys is maintained, and the poisons formed by the germs of this disease are rapidly eliminated from the system.

Clergyman's Sore Throat.—What is known as "clergyman's sore throat" is due more to unwholesome food and consequent indigestion than to preaching. Ministers are invited out to dine frequently, and of course the "best," which is translated the "richest," viands are spread before them, and the wonder is that they have any stomachs or any throats. If the stomach is out of order, the tongue is out of order, and the condition of the throat is affected. The remedy is the removal of the cause.

To Harden the Skin.—Some agent which will harden the skin and thus prevent chafing, blistering, or profuse sweating, is sometimes serviceable. Chromic acid is useful for this purpose. A solution consisting of one part of chromic acid dissolved in twenty parts of water, should be applied to the skin by means of a compress of cotton soaked in the solution, which may be kept on over night. The application may be repeated a number of times, or until the desired degree of hardening is acquired. In this treatment the skin becomes hard and dry; the perspiration is reduced, as well as abnormal sensibility.

White of Egg for Burns.—The white of an egg is an excellent application for a burn. It is better than collodion, varnish, or sweet oil and cotton, or the old fashioned caron-oil, consisting of equal parts of linseed oil and lime-water. Its efficiency is due to protection of the injured surface from contact with the air.

Treatment for Chilblains.—Just before going to bed, use alternate hot and cold foot-baths. Place the feet in hot water about two inches deep, and hold them there half a minute; then plunge them into cold water for ten seconds or so. Alternate the hot and cold in this way about fifteen times; lastly, take them from the cold water, dry them thoroughly, and then go to bed. A week or two of this treatment will cure chilblains effectively. The condition in this disorder is that of inflammation; the blood-vessels are congested and relaxed. The effect of this treatment is to stimulate the blood-vessels to act properly.

Night-Sweats.—In such cases, the sweat glands of the skin receive more blood than their due, and hence pour out more secretion than necessary. Night-sweats generally indicate great weakness. For instance, a person with consumption or other lung disease frequently has a rise of temperature in the evening, and sweating is the process by which the fever is cooled off. The way, then, to prevent the night-sweats is to prevent the fever. This may frequently be done by sponging the patient in the evening with alcohol, or vinegar, or some mineral acid. Local or irregular sweating is sometimes produced by other causes; for instance, injury to the vaso-motor centers by partial paralysis. Irregular sweating is a very common symptom of neurasthenia. It is due to nervous debility and want of nerve tone. This class of patients have moist and clammy hands. Improvement of the patient's condition is unmistakably discernable in the difference in the appearance and feeling of the hands.

CHAPPED HANDS.—The best thing to do for hands or skin inclined to chap, is to keep them scrupulously clean, and then protect them with a preparation of gum benzoin. Take one dram of the tincture of gum benzoin, one ounce of glycerine, and three ounces of water; mix them together, and apply.

MEDICATED INHALATIONS FOR CONSUMPTION.—The use of medicated inhalations in the treatment of consumption, has been objected to on the grounds that the medicines thus employed are not sufficiently strong to destroy the microbes which produce the disease. It would seem, however, from Prof. Koch's address on bacteriology, at the International Medical Congress, recently held at Berlin, that this is an error. According to his experiments, volatile oils and certain mechanical salts, such as nitrate of silver and preparations of gold, even in doses of less than one part in a million, will destroy the germs by which consumption is produced, in a short time.

LIGHT IN THE SICK-ROOM.—The following from the pen of Dr. B. W. Richardson deals with an ignorance on the subject exceedingly common, and from its long standing sometimes quite difficult to overcome:—

"A more injurious practice really could not be maintained than that of darkness in the sick-room. It is not only that dirt and disorder are the results of darkness; a great remedy is lost. Sunshine is the remedy lost, and the loss is momentous. Sunshine diffused through a room, warms and clarifies the air. It has a direct influence on the minute organic poisons, a distinctive influence which is most precious, and it has a cheerful effect upon the mind. The sick should never be gloomy, and in the presence of the light the shadows of gloom fly away. Happily, the hospital ward, notwithstanding its many defects (and it has many), is so favored that it is blessed with the light of the sun whenever the sun shines. In private practice the same remedy ought to be extended to the patient of the household, and the first words of the physician or surgeon on entering the dark sick-room, should be the dying words of Goethe: 'More light, more light!'"

CAUSE OF AND REMEDY FOR EARACHE.—In earache, the portion known as the middle part of the ear, that which contains the bones, is affected. The inside of the middle ear communicates with the throat, through an opening called the Eustachian tube. The pressure of the finger against the ear will reveal this spot as being tender in earache or sore throat. If a person takes cold, and has catarrh, it will gradually creep up until the ear is seriously affected, unless proper care is taken. Sometimes a mother will poultice the ear of a child suffering from earache, and think that when it "breaks" it will be all right. This is one of the worst things that can happen, because the issuing of matter in this way indicates that the drum membrane has been destroyed. This may be the case without producing deafness, but it often leads to it. An earache should have prompt attention. Apply hot fomentations over the ear; gargle the throat with hot water; fill the ear with cotton saturated with water, and then cover with fomentations. It is also good to let a gentle stream of hot water run into the ear. After such treatment, when the ear is relieved, avoid going into the cold without protecting the ear carefully. A great many cases of deafness begin with earache which either has no attention or not the proper attention.

A CURE FOR BALDNESS.—The following method of treating baldness is highly recommended by Dr. Lassar, an eminent skin specialist. It should be employed only under the supervision of a physician:—

"1. The scalp must be lathered with a very strong tar soap, for ten minutes.

"2. The lather is removed, first with lukewarm, followed with colder, water in abundance, after which the scalp is thoroughly dried.

"3. The scalp is then rubbed with the following solution:—

℞.—Hydrarg. bichlor. corr. 1 part.
Glycerin. . . . . 200 parts.
Spirit or cologne . . aa 300 "
M.—Sig. Ext.

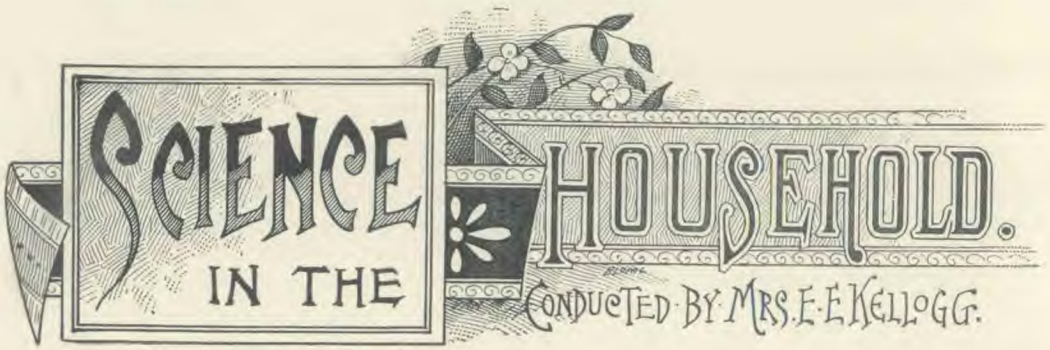
"4. The scalp is rubbed dry with a solution of—

℞.—Beta naptholi . . . . 1 part.
Absol. alcohol . . . 200 parts.
Mix.

"5. After this the scalp is thoroughly anointed with a liberal application of the following preparation:—

℞.—Acidi salicylici . . . 2 parts.
Tr. Benzoin . . . . 3 parts.
Neat's-foot oil . . . 100 parts.
Mix.

"This procedure must be kept up for from six to eight weeks, and be repeated every day."



HELPS FOR THE INEXPERIENCED. — 12.

COOKING UTENSILS.—The earliest cookery was probably accomplished without the aid of any utensils, the food being roasted by burying it in hot ashes, or cooked by the aid of heated stones; but modern cookery necessitates the use of a great variety of utensils to facilitate the preparation of food. Most of these are manufactured of some kind of metal. All metals are dissolvable in certain substances, and some of those employed for making cooking utensils are capable of forming most poisonous compounds when used for cooking certain foods.

Iron utensils are usually unobjectionable from a health standpoint, if kept clean and free from rust. Porcelain and granite ware are safe and suitable for all foods. Tin-ware, which is in reality thin sheet iron coated with tin, is readily acted upon by acids, aud when used for holding or cooking any acid foods, harmful substances are liable to be formed, varying in quantity and harmfulness with the nature of the acid contained in the food.

In these days of fraud and adulteration, nearly all the cheaper grades of tin-ware contain a greater or less amount of lead in their composition, which, owing to its abundance and inexpensiveness, is used as an adulterant. Lead is also used in the solder with which the parts of tin-ware are united. The action of acids upon lead, forms very poisonous compounds, and all such utensils should be discarded for cooking purposes.

Lead-adulterated tin may be tested in this manner: Place upon the metal a small drop of nitric acid, spreading it with a wooden toothpick to the size of a dime; dry with gentle heat, apply a drop of water, then add a small crystal of iodide of potash. If lead is present, a yellowish color will very soon be seen. Lead glazing, which is frequently used on crockery and ironware, may be detected in the same manner.

In point of healthfulness, neither brass nor copper utensils are to be recommended, since they are even more liable than tin to combine with acids to form most deleterious compounds.

CORN BREADS.

CORN CAKE.— Dissolve half a cake of compressed yeast in a cupful of thin, lukewarm cream. Add two small cups of flour, and beat very thoroughly. Keep in a warm place until well risen. Add one cup of lukewarm water or milk, and two cups of best yellow corn-meal. Turn into a shallow square tin, and leave in a warm place until again well risen. Bake in a quick oven. A tablespoonful of sugar may be added with the corn-meal, if desired.

CORN PUFFS.— Beat the yolk of one egg in a cup of rich milk. Then add one cup of flour, one half cup of fine yellow corn-meal, and one fourth cup of sugar, all of which have previously been well mixed together. Place the batter on ice for an hour, or until very cold. Then stir in, lightly, the well-beaten white of the egg, and pour quickly into hot gem irons, and bake in a quick oven for twenty or thirty minutes.

CORN PUFFS NO. 2.— One cup cold mashed potato and one cup of milk, rubbed together through a colander to remove all lumps. Add the yolk of one well-beaten egg, and then stir in slowly, beating thoroughly, one cup of good corn-meal. Lastly, add the white of the egg beaten to a stiff froth, and bake at once in heated gem irons.

RAISED CORN BREAD.— Take two cupfuls of hot mush made from white granular corn-meal, add to it two cupfuls of cold water, and one half cake of compressed yeast dissolved in one half cup of warm water. Add a teaspoonful of salt and two of sugar, if desired. Stir in sufficient whole-wheat flour to make it stiff enough to knead. Knead thoroughly, cover up warm, and put in a warm place to rise. When light, mold into three loaves, put into pans, and allow it rise again. Bake in a moderate oven three fourths of an hour.

THE SCIENCE OF DISHWASHING.

BY S. ISADORE MINER.

A GREAT many persons beside children dislike the washing of dishes. The fact is, no other part of the domestic work has so little thought or science employed to its perfection, and no other part must be accomplished with so few of the appliances that make labor light and agreeable. It is quite safe to determine whether or not dishwashing is a pleasure, by one glance at the housewife's kitchen table. If as she proceeds with her meal-getting, she scrapes out her dough-pan, rids her utensils of the vegetable refuse, puts her egg-beater and rice-boiler to soak, and other "sticky" dishes as fast as emptied, and at the same time stacks them compactly away on the remote corner of her table, you may be sure there is a "method in her madness."

Watch her when the meal is done. The brisk way in which she attacks the dinner table is in itself reassuring. The silver, the cups and saucers, the sauce dishes, dessert dishes, dinner plates, vegetable tureens, — all are soon well freed from *debris*, and range in groups by themselves in order around her dish-pan. In this order they are washed, wiped, and put away, obviating the "sorting" operation when consigning the ware to the closet. We once heard a woman say she "hated dish-washing"; and when we saw her method, we did not wonder. Each plate, with its complement of side-dishes, knife and fork, was separately carried from the dinner table, separately washed and put away. It was long into the afternoon ere the laborious task was ended, and then, foot-worn and exhausted, she often found a half dozen or so dirty dishes left on the table, overlooked.

With the capable dishwasher, you may be sure there has been plenty of hot water provided for,— not a few lukewarm pints that gradually growing dirtier and colder, become such a detestable greasy mess that it is no wonder dishwashing is a bugbear into which even the little daughter dreads to dip her finger. The dishcloth is a clean one, well rinsed and tightly wrung, not a dingy, sour, germ-breeding rag that has done duty for weeks, and been slung up in a bunch on some nail, just as it was loosely freed from the dishwater. It is of light color, not selected from stuffs that "wo n't show dirt." Pieces of old knitted garments make serviceable dishcloths, will not fray, and are so pliable they may be trusted to remove the soil from corners and crevices. It even pays to knit or crochet dishcloths from coarse white knitting-cotton.

Next let us peep into our dishwasher's towel drawer. We do not find its contents crowded in unlaundered, to be stiff and intractable in her hands. There are the soft, "unlinty" towels for glass, others for china, and coarser crash for the tin-ware. Perhaps the finer ones are made of old table-cloths and napkins, the former cut into strips, hastily hemmed, may be even patched, to enchance their wearing qualities; for such material is too valuable as "wipers" to be uncared for. When soiled, they are put through all the processes of the regular wash, not squeezed out of a little warm water,— rinsing water, too often,— and stretched over a line in the dark corner of the kitchen to sour. There is nothing like soap and water, a good scalding, and a whip in the wind and sunshine to sweeten things generally. Dishtowels should always be ironed. It gives a "surface" to the cloth that enables it to slip easily over the well-rinsed dish, making that part of the operation quite the most enjoyable.

A friend who was the happy possesser of a "planned" kitchen, had a contrivance made for dishwashing, which for simplicity and convenience might be copied in every home. It was more like a sink than anything, deep enough to hold quite a lot of dishes, and provided with hot and cold water faucets and a drain-tube, with stopper. At one side, a draining board was arranged,— a smooth board placed at a slight inclination, with grooves that carried the water into the sink, thus reheating the dishwater at every rinse. When the rinsing water was piping hot, as it always should be, the dishes would often be dry of themselves by the time one got around to wipe them, although if not, all moisture was removed while hot, to secure a well-polished surface. Where one has not a drainer of this sort, a large colander set in a pan makes a good substitute. And right here let it be said, Do n't place your dishes in such a way that it is the outside instead of the inside that gets the good rinse.

If it is the time spent at dishwashing more than the work itself that you regret, the following suggestive little clipping from an exchange's correspondent, may assist you in transforming what once has been an irksome hour to the veritable oasis of a busy day: "I really have learned to enjoy my dishes. While my hands are busy with the routine, I have time to think. I plan my other work, think what needs doing most, and what can wait; think up pretty styles for my dresses, think over my Sabbath-school lesson, and the last new book or magazine read; recall my actions, and think how I could have done better. Thus the time passes quickly, for my mind is profitably occupied. It is not spent alone in getting my work done."

QUESTION BOX.

[All questions must be accompanied by the full name and address of the writer, as it is often necessary to address by letter the person asking the question.]

COCOA.— C. W. S., Wash., is in his seventy-third year, and is in the habit of taking warm drink in the morning. Wishes to know the effect of taking cocoa. What would we recommend as a substitute?

Ans.— We recommend hot milk as a substitute for cocoa, or its congeners, tea and coffee.

MITES IN FIGS.— Mrs. F. D. S., Mich., says: "I have heard, and as far as I have examined, found it true, that every fig, no matter how fresh, contains numerous live mites, visible only by magnifying glass. What are they? how do they get there? and are they liable to injure the eater?"

Ans.— The insect referred to is the sugar mite. The source is the same as that of other insects. These mites are not found in fresh figs which have been properly kept. They are not likely to do any harm, but one would certainly prefer to eat figs which did not contain them.

DANDRUFF.— Several subscribers wish a remedy for dandruff, causing a falling out of the hair. In the case of J. N. H., Iowa, it assumes the form of scales, and is spreading down to his eye-brows. He uses a preparation of one ounce vaseline and one dram tannin. Is there anything better?

Ans.— Shampoo the head thoroughly with castile soap two or three times a week, applying after each application a solution consisting of three grains of chloral to the ounce of distilled water. The chloral should be carefully applied to the scalp with a little moist cotton or a soft sponge. The hair should not be saturated with it.

USE OF FAT FOODS.— F. M. H., N. Y., writes: "It is claimed by some that nature makes provision for the use of fats, and that those who avoid them, such as fat meat and butter, are liable to clog the bowels by using a great bulk of other foods. Where can I get information on the use of fats, with their influence on the liver and the blood?"

Ans.— Fat is a necessary element of nutrition. It is, however, found in sufficient quantity in milk and and various grains, and need not be taken in a free state. The form in which nature provides fat, in milk and cream and grains, is that in which it can be most easily assimilated. You can get information on this subject in the "Home-Hand Book of Domestic Hygiene and Rational Medicine," published by the Good Health Pub. Co.

A BOY subscriber who is over-fond of reading, wishes to know about what length of time should be consumed in reading an ordinary book of about 500 pages, to get its full benefit.

Ans.— Very much depends upon the character of the matter of the book and the manner in which it is presented. Some books of five hundred pages contain less than one idea to the hundred pages, and can be easily mastered in the time occupied in reading them. Such books are hardly worth reading, however. Other books require so much careful study that a day may be required for the thorough digestion of a page. The general disposition is to read too rapidly. Too much reading spoils the mind,— is most destructive to memory.

HYDROCHLORIC ACID — EXTRACT OF MALT, ETC.— A. V. L, Wis., inquires: "1. Is there any danger in the frequent use of dilute hydrochloric acid as an antiseptic, taken half an hour before meals, trouble supposed to be duodenic catarrh, torpid liver, and extreme nervous exhaustion? Cannot digest fat in any form or quantity except as contained in koumiss. 2. Would you consider Trommer's extract of malt useful for my trouble? and can it be used habitually without danger of further impairing digestion? 3. Why is a bad attack of indigestion, in my case, usually accompanied by a numbness and soreness in my legs, from the knee down, making standing or walking impossible? and what would you advise for it? 4. Dr. Geo. H. Taylor, of movement-cure fame, says that skin massage increases nervous troubles. Would you consider the oil rub open to this objection in my case? 5. Would permanent injury be liable to result from taking, at one dose, on an inflamed stomach a heaping teaspoonful of soda bicarbonate, as I did through mistake, several years ago?

Ans.— 1. Hydrochloric acid taken before meals, is likely to diminish the natural hydrochloric acid in the gastric juice, and so made to do harm instead of good. 2. Trommer's extract of malt is a harmless food medicine, and might probably prove useful. 3. The nervous system is undoubtedly affected through reflex irritation of the solar plexus. Apply fomentations over the stomach, and also to the spine. Sponge the legs with hot water, and rub vigorously. 4. No. We do not agree with Dr. Taylor. Massage of the skin, if properly applied, is not likely to aggravate nervous trouble, as a general rule. 5. Probably not.

LITERARY NOTICES.

THE December *Ladies' Home Journal* is a fine Christmas number. The very atmosphere of Christmas pervades story, song, and sketch. An unusually fine array of talent has contributed to its perfection, as the distinguished names appended to its letter-press testify. Rich in illustration, wise in selection, helpful in tone, it is also an authority upon all matters of Christmas and holiday decorations. A special Christmas cover binds the number. The Curtis Publishing Co., Philadelphia.

The Pansy, a model magazine for younger children, will be brimful of good things for the boys and girls during the coming year. Mistress Pansy herself, to the delight of the children, will begin a new serial—"Twenty Minutes Late"—in the January number, and the ever welcome "Margaret Sydney" will write in her own enjoyable way, about "The Frisbie School." Pansy's varied departments will be kept up to their usual standard, and other new ones added for 1891. $1.00 per year. D. Lothrop Company, Boston.

"A WOMAN'S TRIP TO ALASKA," by Mrs. Septima M. Collins, Cassell Publishing Co., New York. This is the attractive title of a volume of travels which will be issued in a few days. Gen. W. T. Sherman, who knows the greater part of the country described, was allowed by Mrs. Collins to read the proof-sheets of her book, and he is enthusiastic in his praise of its accuracy and the agreeable manner in which it is written. He is of the opinion that it will turn the tide of travel to the Northwest, as one who reads the book will want to see the country described. The book is profusely illustrated from photographs made during the trip, and afterward photo-engraved by the American Bank Note company.

THE initial number of the new monthly, *The Temperance Teacher*, devoted to scientific temperance, has reached us. It promises to be a valuable auxiliary to temperance journalism. Its editor, Miss Julia Colman, so well and favorably known as both writer and lecturer upon the truths of total abstinence, and so long recognized as an authority on temperance teaching, brings to her new enterprise the fruits of the study and experience of many years. In this field she will embody them in practical form for the use of all working societies, both adult and juvenile. This journal should be taken in clubs by temperance workers, and widely circulated. 60 cents per annum (ten numbers). In clubs of five, 50 cents. In clubs of ten, 40 cents. Address all communications to the Editor, or *Temperance Teacher*, 47 Bible House, New York.

Good Housekeeping has just closed its eleventh volume. This valuable journal, which has hitherto been published as a fortnightly, will, with the first of January, become a monthly, taking a magazine form. Some new features will also be introduced, among which mention may be made of a series of articles on "Ten Mornings in a Kitchen," by Miss Parloa. The journal will undoubtedly support its usual character for excellence. Clark W. Bryan and Co., Springfield, Mass.

"A MERRY CHRISTMAS!" is the cheery greeting shining from every page of Demorest's *Family Magazine*, the December number of which is at hand. The frontispiece, "Raphael Painting the Virgin and Child," is a copy of a noted painting, and will be appreciated for its historic value as well as beauty. Beside this, there are, throughout the magazine, in the interests of art, literature, Christmas gifts, and innumerable pretty costumes, some two hundred and fifty other fine illustrations. What with Christmas *bijouterie*, directions toward making or choosing Christmas gifts, trimming the Christmas tree, the bringing in of good cheer and hearty enjoyment of Christmas-tide, this magazine is a genuine holiday number. W. Jennings Demorest, Publisher, New York City.

THE *Cottage Hearth* will furnish, for the coming year, a large number of interesting and valuable contributions in its literary and domestic departments, including papers of African exploration and adventure, and life in the frozen North, promising its subscribers, as frontispiece in the January number,—a beautiful art print in colors. In a special offer made for the New Year, to those who have at some previous time been upon its subscription list, the publishers offer the magazine for one dollar, sending as prize the book so deservedly popular on both sides the ocean, which is doing so much toward educating youth to love and appreciate domestic animals, and treat them with kindness,—"Black Beauty," which has been called the "'Uncle Tom's Cabin' of the horse." The Cottage Hearth Co., Boston.

PUBLISHERS' PAGE.

GOOD HEALTH FOR 1891.

We feel sure that every person who has been a reader of Good Health for any considerable portion of the quarter of a century during which it has been published, has noticed a steady improvement in the character of the journal as an exponent of the most advanced principles of hygienic reform. It has not been the aim of either the editor or the managers of this journal to make it popular by catering to fashionable or vitiated tastes, but to make it so valuable as a teacher of healthful living as to render it a necessity in every household where the importance of maintaining right relations to Nature's laws is recognized. While the journal underwent, during the early years of its existence, some perturbations which may have in some degree militated against its success, it has now been, for nearly eighteen years, under the same editorial management, and has been working steadily and persistently in one direction; namely, the promotion of all hygienic and sanitary reforms based upon sound scientific principles.

The journal has always spoken in a definite and unambiguous manner upon all subjects which it has discussed. Certainly no one who has read it, has ever found any difficulty in deciding as to what its principles were. It has been clearly outspoken in defense of every principle which it has endeavored to maintain. By these means, it has sought to win for itself a permanent niche in the galaxy of reformatory literature. Good Health has never entered the arena of politics, and has always ruled out religious discussions of every color. Its sole mission is to teach the gospel of health, which it has tried to do with no uncertain sound. During the year to come, the journal will be conducted in the same spirit as heretofore, and the publishers trust their efforts will receive the same liberal appreciation with which they have hitherto been rewarded.

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Don't Forget. — If your subscription to Good Health expires with this number, do not forget to renew it immediately, by remitting the subscription price to the publishers. Everybody who has read Good Health during 1890, will want it during 1891. The important changes which will be made in the journal, beginning with the January number, it is believed will render it more acceptable than ever to all who are interested in the subject of health.

* *
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An Important New Departure. — Beginning with the January number, an important new department will appear in Good Health, which will be devoted to physical culture. The great interest now shown in this country in regard to physical improvement, renders it important that the subject should be presented in a popular and scientific manner; and, fortunately, Good Health is in a position to do this probably better than any other journal published. For many years the editor of this journal has given special attention to the matter of physical development. Fifteen years' experience with all sorts of methods and systems of physical culture in connection with the largest sanitarium in the United States, together with extensive special studies in this line at home and abroad, enables him to speak authoritatively on this important and interesting subject. This new department will be illustrated, and will contain a series of articles giving particular and definite instruction for undertaking a course of physical culture at home. The marked decadence in the physique of American young men and women, particularly the latter, renders this subject one of immense importance, and we believe the new department will be found a most attractive and instructive feature. Numerous other improvements are contemplated, which, together, will render the volume for 1891 superior to any of its predecessors.

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GOOD HEALTH

Edited by J. H. KELLOGG, M. D.

VOLUME XXV.

Good Health Publishing Company.
LONDON, ENG.; NEW YORK; BATTLE CREEK, MICH.
1890.

INDEX TO VOLUME XXV.

GENERAL.

DRESS.

HAPPY FIRESIDE.

TEMPERANCE NOTES.

POPULAR SCIENCE.

TRUE EDUCATION.

SOCIAL PURITY.

INDEX TO VOLUME XXV.

EDITORIAL.

DOMESTIC MEDICINE.

INDEX TO VOLUME XXV.

ADVERTISEMENTS.

CROFUTT'S OVERLAND GUIDE TO THE WEST.— Crofutt's Overland Guide, just issued, graphically describes every point on the Union Pacific,—"The Overland Route," between the Missouri River and the Pacific Coast. Persons should not start West without a copy of this guide in their possession. It furnishes in one volume a complete guide to the country traversed by the Union Pacific System, and cannot fail to be of the greatest assistance to the traveler. It is for sale on trains on the Union Pacific, or by inclosing $1.00 to the undersigned, a copy will be mailed to any address in the United States.

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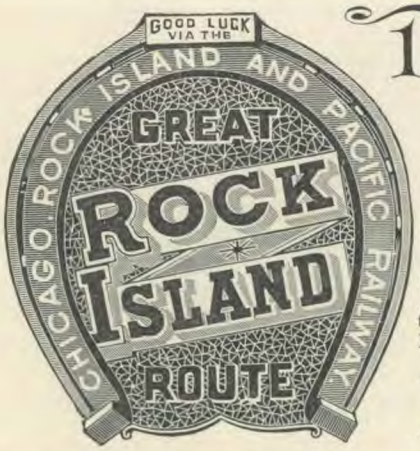
Sanitarium Food Co., Battle Creek, Mich.

Digestion and Dyspepsia.

A thoroughly rational, practical, and popular treatise on this prevalent malady. Illuminated frontispiece. Muslin. 176 pages, 75 cents. Address, GOOD HEALTH PUB. CO., Battle Creek, Mich.



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ADVERTISEMENTS.

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MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected Nov. 30, 1890.

EAST.	†Mail.	†Day Express.	*N. Shore Limited.	*N. Y. Express.	*All'ntic Express.	‡Eve'g Express.	†Kal. Accom'n
STATIONS.							
Chicago	am 7.05	am 9.00	pm 12.20	pm 3.10	pm 10.10	pm 9.25	pm 4.50
Michigan City	9.10	11.10	1.56	4.48	am 12.20	11.25	7.00
Niles	10.21	pm 12.45	2.53	5.56	1.45	am 12.40	8.25
Kalamazoo	11.50	2.20	3.58	7.04	3.35	am 2.17	pm 10.05 / am 7.15
Battle Creek	pm 12.55	3.03	4.30	7.37	4.29	3.04	8.00
Jackson	3.10	4.20	5.33	8.52	6.2.	4.45	9.55
Ann Arbor	4.45	5.32	6.29	9.45	7.50	6.05	11.03
Detroit	6.15	6.45	7.30	10.45	9.20	7.30	pm 12.10
Buffalo	a m 3.25	am 3.25	am 3.25	am 6.25	pm 4.55	pm 2.15	8.30
Rochester			6.00	9.20	8.00		11.20
Syracuse			8.00	11.35	10.20		am 1.30
New York			pm 4.00	pm 8.50	am 7.20		9.42
Boston			6.00	10.57	9.35		pm 2.50

WEST.	†Mail.	†Day Express.	*N. Shore Limited.	*Chicago Express	*Pacific Express.	†Kal. Accom'n	†Eve'g Express.
STATIONS.							
Boston		am 8.30	pm 2.15	pm 3.00	pm 7.00		
New York		11.50	4.50	6.00	10.00		
Syracuse		pm 8.30	11.55	am 2.10	am 8.00		
Rochester		10.40	am 1.42	4.20	10.45		
Buffalo	pm 11.30	11.30		5.30	11.50	am 8.45	
S spen. Bridge	am 12.28	am 12.28	3.05	6.25	pm 12.50		
Detroit	8.30	7.50	9.25	pm 1.20	9.15	4.4.	pm 7.45
Ann Arbor	9.43	8.55	10.19	2.17	10.30	5.58	8.58
Jackson	pm 11.25	10.05	11.18	3.20	11.50	7.1.	pm 10.20
Battle Creek	12.56	11.35	pm 12.22	4.30	am 1.23	8.47	11.57
Kalamazoo	2.1.	pm 12.12	12.59	5.02	2.17	pm 9.30 / am 6.00	am 12.50
Niles	4.10	1.2.	2.0	6.17	4.05	7.40	3.10
Michigan City	5.25	2.31	3.08	7.20	5.45	8.55	4.30
Chicago	7.35	4.35	4.50	9.00	8.05	11.20	6.40

*Daily. †Daily except Sunday. ‡Daily except Saturday.

Accommodation train f r Jackson and all intermediate points leaves Battle Creek at 6.16 P. M., arriving at Jackson at 7.55 P. M., daily except Sunday.

Accommodation train for Niles and all intermediate points, leaves Battle Creek at 8.00 a. m., arriving at Niles at 10.05 a. m., daily except Sunday.

Trains on Battle Creek Divisions depart at 8.03 a. m. and 4.35 p. m., and arrive at 12.40 p. m. and 7.00 p. m., daily except Sunday.

O. W. RUGGLES,
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CHICAGO & GRAND TRUNK RY

Chicago & Grand Trunk R. R.

Time Table, in Effect May 11, 1890.

GOING WEST.						STATIONS.	GOING EAST.				
.....	p m 3.00	.....	p m 7.00	.....	.....	Boston	.....	a m 8.30	p m 7.30	p m 10.00	p m 7.30
.....	p m 5.00	.....	p m 8.00	.....	.....	New York	.....	p m 11.10	a m 7.40	p m 10.15	a m 10.10
.....	a m 6.20	a m 3.45	p m 1.00	.....	.....	Buffalo	.....	a m 9.50	p m 5.40	a m 4.05	p m 9.00
.....	a m 7.45	a m 8.10	p m 2.45	.....	.....	Niagara Falls	.....	a m 8.15	p m 3.17	a m 3.10	p m 7.10
.....	.....	a m 8.30	.....	p m 1.00	.....	Boston	.....	.....	a m 9.50	p m 12.10	p m 12.10
.....	p m 8.30	p m 8.30	.....	p m 11.55	.....	Montreal	.....	p m 8.00	a m 7.45	a m 7.45	a m 7.45
.....	.....	.....	.....	p m 1.00	.....	Toronto	.....	a m 8.40	p m 7.25	p m 7.25	p m 7.25
.....	.....	.....	.....	.....	.....	Detroit	a m 9.45	.....	a m 7.45	.....	a m 11.50
Chi. Pass.	B. C. Pass.	Lmtd Exp.	Pacific Exp.	Pacific Exp.	Mail Exp.		Mail.	Lmtd Exp.	Atlte Exp.	Day Exp.	Prt. H Pass.
am	p m	pm	pm	pm	am	Dep. Arr.	pm	am	am	pm	am
5.59	4.14	1.04	8.59	7.24	7.10	Port Huron	10.31	1.05	7.35	8.21	10.50
7.28	5.40	2.14	10.10	8.55	8.31	Lapeer	8.55	11.48	6.17	7.01	9.17
8.05	6.27	2.40	10.43	9.45	9.05	Flint	8.0	11.17	5.40	6.27	8.35
8.48	7.20	3.09	11.28	10.30	9.35	Durand	7.20	10.48	5.03	6.00	8.00
10.00	8.25	4.00	12.33	11.30	10.30	Lansing	5.37	9.57	4.00	5.00	6.35
10.37	8.58	4.35	1.06	12.05	11.00	Charlotte	5.00	9.27	3.25	4.3	6.02
1.00	10.00	5.30	2.00	1.00	12.05	BATTLE CREEK	4.05	8.45	2.35	3.55	5.15
1.48	pm	.....	2.50	1.48	12.50	Vicksburg	2.55	8.01	1.48	.....	am
1.58	.....	.....	.....	1.58	1.00	Schoolcraft	2.42	.....	1.33	.....	.....
2.52	.....	6.47	3.43	2.45	1.50	Cassopolis	1.50	7.17	12.45	2.35	.....
3.40	.....	7.26	4.25	3.35	2.35	South Bend	1.00	6.40	12.00	1.57	.....
5.00	.....	.....	.....	4.52	.....	Haskell's	11.41	.....	.....	.....	.....
5.20	.....	8.45	5.55	5.10	4.00	Valparaiso	11.25	5.20	10.30	12.40	.....
p m	.....	10.45	8.10	7.30	6.25	Chicago	8.40	3.15	8.15	10.30	.....
.....	.....	pm	am	am	pm	Arr. Dep.	am	pm	pm	am	.....

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Oatmeal Biscuit	12	*White Crackers*	10	*Wheatena (Bulk 10)*	12
Medium Oatmeal Crackers	10	*Whole-Wheat Wafers*	10	*Avenola (Bulk 10)*	12
Plain Oatmeal Crackers	10	*Gluten Wafers*	30	*Granola (Bulk 10)*	12
No. 1 Graham Crackers	10	*Rye Wafers*	12	*Gluten Food No. 1*	50
No. 2 Graham Crackers	10	*Fruit Crackers*	20	*Gluten Food No. 2*	20
Plain Gr'h'm Crackers Dyspeptic	10	*Carbon Crackers*	15	*Infant's Food*	40

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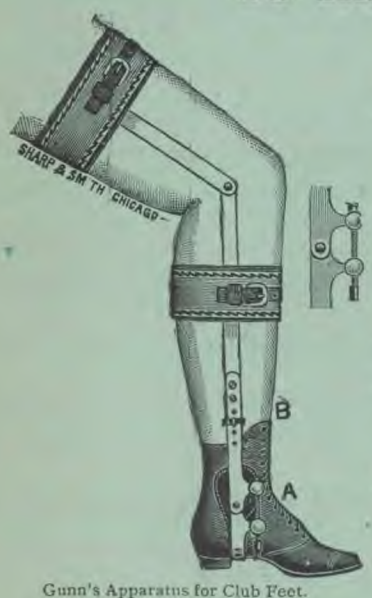

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