DECEMBER, 1892.

GOOD HEALTH

CONDUCTED BY

J. H. KELLOGG M.D.

Subscription price $2.00
(Including Companion Volume)

PUBLISHED MONTHLY.

SAMPLE COPY 20¢

GOOD HEALTH, VOL. 27, NO. 12.

CONTENTS.

BATTLE CREEK, MICH. DECEMBER, 1892.

FOR GOOD HEALTH 1893

EVERY NUMBER ILLUSTRATED.

EVERYBODY ought to be a subscriber to GOOD HEALTH for 1893. It is the oldest Scientific Health Journal in this country. It represents no sect, party, or institution; but is devoted to the advocacy of principles. It is eminently

A Journal for the People,

And is free from technicalities and hobbies. It presents, each month, a large fund of useful and practical original information not attainable elsewhere.

No journal devoted to health or kindred topics has ever enjoyed so wide a popularity as this journal has earned by its devotion to the interests of the people in the development and popularization of knowledge on all sanitary topics. It has been introduced into NEARLY EVERY PART OF THE CIVILIZED WORLD, and enjoys a large circulation, not only in America, but in England, upon the Continent of Europe, in South Africa, and in Australia.

SPECIAL ATTRACTIONS FOR 1893.

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 1893, to continue the special department for the —

EXPOSURE of MEDICAL FRAUDS and SECRET NOSTRUMS.

The public are continually being imposed upon in the most conspicuous manner, by charlatans and quacks of every description. New schemes for gulling the unwary are continually being concocted by those who devote themselves to this nefarious business. Within the last year GOOD HEALTH has had the pleasure of aiding materially, through its Detective Bureau, in breaking up the business of some of the worst of these charlatans. The same good work will be carried on during 1893.

THE HOME GYMNASIUM.

The great interest shown in this department during the last year, has encouraged the managers to plan liberally for it for the coming volume. This department will present, among other attractions for 1893, a series of articles on the Physicial Training of Children, by the aid of which any mother will be able to secure for her children well developed and graceful figures. Articles showing how to correct various bodily deformities, such as round shoulders, flat chest, spinal curvature, etc., will appear in this department within the year. This department will be each month

PROFUSELY ILLUSTRATED,

And the instruction will be so practical that the exercises suggested can be carried out in any home.

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.

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 1893 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.

The Ideal Home is a new department, to be opened in January, devoted to those interests of the home which relate especially to the mental, moral, and physical welfare of the younger members of the household. The following are some of the subjects which will be considered in this new department:—

Kindergarten methods for the home; manual training for children, adapted to the home; mothers in council; home government; new methods of dealing with child faults; character building; training of the faculties; the nursery; gymnastics for babies; and in addition, all the various interesting and practical subjects which have heretofore been considered in the departments devoted to Dress, Social Purity, and Household Science.

Detective Bureau. 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.

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, new ideas in medical philosophy, simple remedies for disease, new theories of disease, etc.

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—

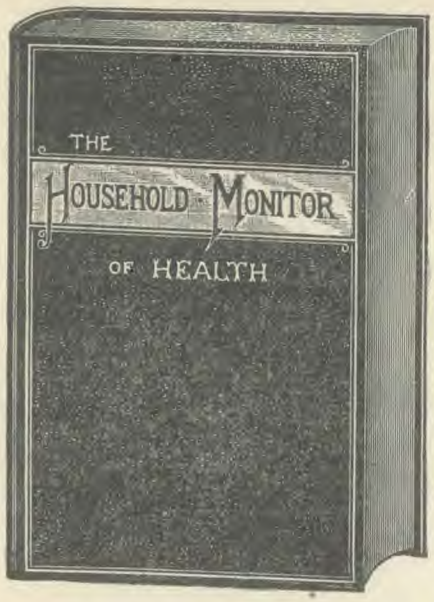
"The Household Monitor of Health,"

A new work of 400 pages, bound in muslin, marbled edges, one of the most important and interesting works recently published. PRICE, $1.50. For full description, see next page.

PRICE OF JOURNAL, $2.00 A YEAR, including Companion Volume.

GOOD HEALTH PUBLISHING CO., Battle Creek, Michigan.

. . A NEW BOOK . .



THE . . .
HOUSEHOLD
—MONITOR—
OF HEALTH.

NEW EDITION, TWENTY-FIFTH THOUSAND.

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 following is a partial list of the very practical and important subjects considered in this work: —

Forty Scientific Arguments against the Alcohol Habit.
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.

SIX COLORED PLATES.

The work also contains a lengthy chapter entitled,—

Nostrums and Secret Medical Systems,

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

MORE THAN 300 SECRET REMEDIES,

Including nearly all the popular nostrums, such as "Garfield Tea," "August Flower," "Jayne's Expectorant," "Safe Liver and Kidney Cure," "Ely's Cream Balm," "Radway's Ready Relief," "Kaskine," Etc.

STARTLING FACTS EXPOSED.

The secret remedies and methods used by irregular doctors and quacks, including the "Brinkerhoff System," "Orificial Surgery," "Hall's Hygienic Treatment," Etc., are fully explained, and the most startling facts exposed.

400 Pages, bound in Muslin. PRICE, $1.50, post-paid.

GOOD HEALTH PUB. CO., Battle Creek, Mich.

EVERGREEN FOREST IN RUSSIA.

GOOD HEALTH
A JOURNAL OF HYGIENE
MENS SANA IN CORPORE SANO.
VOL. XXVII. NUMBER 12
BATTLE CREEK, MICHIGAN. DECEMBER, 1892.

INTERNATIONAL HEALTH STUDIES.

BY FELIX L. OSWALD, M. D.

Author of "Physical Education," "The Bible of Nature," Etc.

44.—Lower Canada.

ABOUT a year ago the philosopher Renan urged his publisher to collect materials for a pictorial chronicle of Spain, during the century of Columbus, because southwestern Europe would soon "have to share the fate of Greece, and her children should at least do their best to secure an honorable niche in the temple of history."

"Don't you think they will revive on the other side of the Atlantic?" asked the bookseller.

"That depends," said Renan. "There is much vacant land in America; plenty of room for European emigrants, but the prosperity of such settlements depends a good deal upon the character of the colonists."

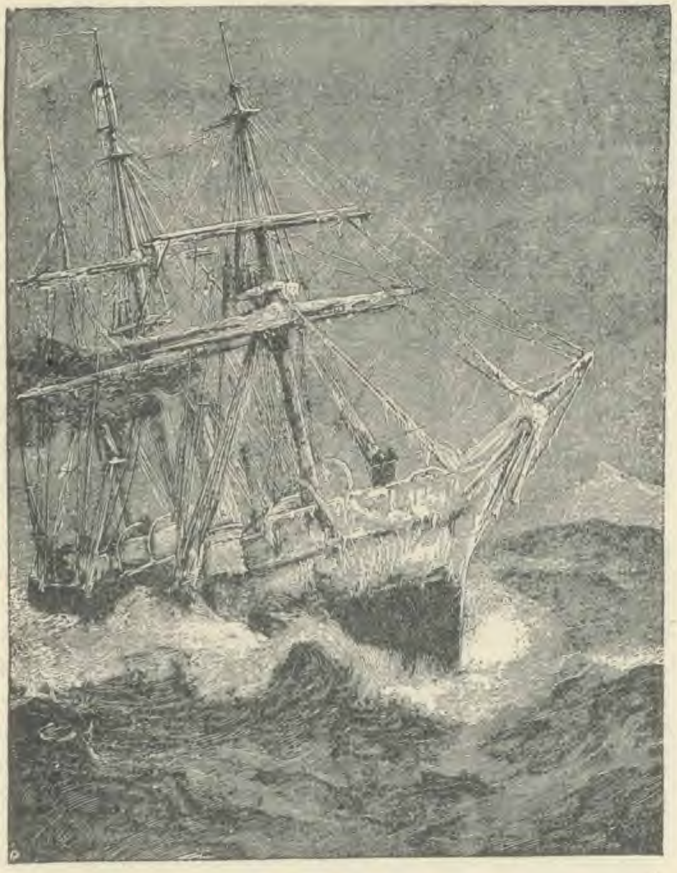
The truth of that remark is strikingly illustrated in the eastern provinces of British North America. Visit a Scotch or an English settlement in New Brunswick, and you may see a whole valley dotted with pleasant farmsteads, each farm with a grove and a bit of garden land of its own. The roads are in excellent order, macadamized most of them, or lined with board walks, where they converge upon a store. Shade trees surround the little meeting-house upon the hill, and all the higher ridges are still clothed with the verdure of the primeval pine woods.

Then take a look at a French settlement in the valley of the St. Lawrence, or one of its lower tributaries. The trees are gone; hills and rolling lowlands have been washed out into deep gullies; the roads resemble long-drawn quagmires; the houses are huddled together in a sort of hamlet at the mouth of a creek that turns the parish gristmill. Here and there a larger building, the good-sized church, for instance, is surrounded by a fence, but as a rule, the houses are separated only by muck heaps — the common playground of pigs and wood-shod urchins.

The little village by the mill brook has, withal, its redeeming features. The inhabitants are constitutionally hospitable. Their poor are not carted off to the workhouse, but relieved by home charity, and welcomed at the fireside of the *mercerie* — the gossip-room of the well-to-do village grocer. Scandals among the country clergy are rare. The village priest is the oracle, the secular as well as the spiritual adviser of his parishioners. His little savings constitute a fund upon which the poor can always draw in times of extreme need. He is their orphan father, the arbitrator of their neighborhood quarrels, but he cannot cure them of their hereditary tendencies. They are gregarious without being co-operative.

Statistics prove that the French-Canadian element is gaining upon that of their Saxon rivals. They marry early, and their fertility contrasts strangely with the "celibacy of vice," but is said to limit the increase of population in certain departments of tax-burdened France. French gayety, the *fond gaillard* that sustained the soldiers of the first Napoleon in their most desperate campaigns, has enabled the Canadian *habitants* to subdue the wilderness of their

new home; but one cannot help thinking that they have settled America a few degrees too far north for the physical interests of their race. In the recollections of my visits to the cities of the St. Lawrence, I am still haunted by a scene in a courtyard near a Montreal hotel, where a nursery-maid romped about with an infant one afternoon in May, whiling away time by warbling an inexhaustible variety of *vaudevilles*, when she was suddenly silenced by a snow-squall, and fled in a fright to the shelter of the next house.



The climatic contrast between lower Canada and the maritime provinces of France is, indeed, too extreme. Even in the Department of Finisterre, the northwestern lands end, summer lingers till the middle of November, and the violets are out before the end of April. Near Bordeaux, March is already a fair-weather month; and at Pau and Toulon, winter sometimes omits its short visit altogether.

The Canadian farmers, on the other hand, have a proverb that crops neglected till after the end of September may have to be harvested *par traineau*—with the help of a sled. At Quebec forty degrees Fahrenheit below zero is nothing exceptional, and the lumbermen of the upper Ottawa have often to wade through snow waist-deep as late as the middle of March. The cold calm days are fairly endurable, but on an average of eight times a winter a northwest storm from Hudson Bay Territory comes howling over the hills, and rages with unabated fury for three days and three nights. The suddenness of these blizzards is as remarkable as their violence. In November, perhaps as late as the middle of the month, the inhabitants of a Quebec village may be lured out by the unusual mildness of the weather: a clear, calm day, sun gleaming in an unclouded sky, wind southwest, but gradually veering due west and in the afternoon a trifle northwest, where hazy white streaks begin to veil the distant horizon. At 2 P. M. that haze has overspread half the sky, though the weather is still warm enough to work in shirt-sleeves. Twenty minutes after, the breeze from the west suddenly feels chilly, at half past two snowflakes begin to fall, and at three o'clock the outdoor laborers are routed by a blood-freezing blizzard.

At Montreal the mercury has been known to fall fifty degrees in less than two hours, and in the valley of the Gatineau River (a tributary of the Ottowa), August is the only month exempt from the risk of occasional night-frosts.

Nature tries to make amends during the short summer. In that portion of Lower Canada adjoining Lake Champlain and the State of Vermont, excellent peaches ripen in the open air without any artifices of cultivation, and the river-island known as the "Isle of Quebec" is famous for its fine plums. The numerous tributaries joining the St. Lawrence from the north are settled for distances varying from fifty to five hundred miles up stream, and the climate becomes more severe with every day's journey upland, but, as a noteworthy fact, pulmonary disorders prevail most in the moist, cold valley of the main river.

The lumbermen of the frosty interior are a hardy set of bipeds as compared with their kinsmen of rural France, but they lack the staying powers and the silent stoicism of their Michigan rivals, and seem to be much more subject to rheumatism. In some of their camps American visitors, including several competent physicians, have observed a singular nervous disorder known as the "jumps"—a tendency, namely, to start violently, as in an incipient fit of St. Vitus dance, upon very slight provocation. "A man afflicted with that disorder," says a correspondent of a Montreal daily, "may get through his

day's work as steadily as any of his fellow-workmen, and on his return to camp enjoy his supper with evidences of an excellent appetite. But touch him on the shoulder, as he sits toasting his knees at the chimney-fire, and he will jump clean off the bench and twist about as if in bodily pain, before he can regain his composure. On the highway, too, a mere word, spoken unexpectedly, may bring on a similar fit, the subject of which will reel about as from the effects of a sudden blow, and for a quarter of a minute continue to slap the air with his hands in his efforts to master a nervous tremor. Vivid dreams will make him leap out of bed, and when he is carrying a burden or assisting in the loading of lumber, his comrades, knowing his infirmity, will avoid unnecessary words and sudden movements that might make him drop his load and double up as if in a fit of uncontrollable cramps. In extreme cases the attack may take the form of a regular fit of convulsions, and a liability to the disorder, though not always hereditary, is often observed in several brothers of the same family. To some degree it appears to have been propagated by a sort of mental contagion among quite a number of hands working in the same camp. It is probable, though, that in such cases the spread of the epidemic, if such it can be called, is assisted by a strong predisposition; for I have been told that many individuals, naturally subject to the disorder, have for years succeeded in controlling its manifestations by dint of will-force."

The existence of the strange complaint seems to admit of no doubt, and the most plausible of numerous theories as to its physiological cause, ascribes it to the combined effects of hard work and sexual exhaustion. The French Canadians, with rare exceptions, marry early. *Eau de vie*, apple or peach brandy is their besetting tipple, but a two-hundred years' sojourn on this side of the Atlantic has not yet obliterated the hygienic traditions of frugal France, and as a rule, the *habitants* are more temperate than their southern neighbors.

"Necessity is not always the mother of invention nor even of imitation," President Diaz told an American visitor of his Oaxaca country-seat. "Up in Chihuahua I saw a tribe of Navajo Indians shiver in the next neighborhood to a coal-bank, where they could have got any desired amount of fuel for the trouble of filling their leather bags. Frost had failed to teach those fellows the value of coal, and summer heat has not yet got my own people to appreciate the blessing of shade trees."

Nor do the long winter nights of eastern Canada appear to have taught the French farmer the value of fireside literature. The percentage of illiteracy has somewhat decreased, but is still very great. Almanacs, of the kind that are distributed gratis in cross-road stores, are the only specimens of the printer's art found in many homes of the eastern province, though if fish-food nourishes the brain, the inhabitants ought to be a highly intellectual race. No such river-fisheries are found anywhere else on this continent; the St. Lawrence, with its funnel-shaped estuary, swarms with salmon and white-fish in an abundance which even reckless waste will not exhaust for centuries to come.

Dried fish is a staple article of food and almost the only winter diet of the numerous curs that hang about every Canadian homestead. The chief mental food of their masters is gossip — neighborhood small-talk, varied with animadversions upon the acts of the British government.

The Celtic *habitants* do not worship their Saxon rulers, and cannot be blamed any more than the South African Boers, who were ousted successively from five different fine colonies, just as their hard

labor had turned the chaos of the wilderness into something of a cosmos. In 1535, when Jacques Cartier entered the St. Lawrence, he took formal possession, in the name of his king, of "all North America," and two hundred years later the French possessions still extended from Quebec to New Orleans; but year by year that empire dwindled till the sovereign rights of the grand nation were reduced to the *plebile beneficium* of the privilege to fish upon certain banks of the island of Newfoundland.

Some of the first French colonists arrived at a time when the peasantry of Normandy and Britagne had not yet been wasted by endless wars, and some of the descendants of those early settlers include families which under specially favorable circumstances have developed splendid specimens of physical manhood. An average height of Canadian militia-men is half an inch below that of our New England recruits, but it is a curious fact that just now the strongest native of the American continent is neither a Kentuckian nor a Californian or Patagonian, but a French Canadian, the all-round athlete Cyr, born some twenty-eight years ago in a small village of the province of Montreal. At sixteen years of age that modern Samson could overthrow a steer by seizing its horns with a sudden sideward twist. The same trick had, however, been performed by several men of the neighborhood, and Cyr's supremacy was only suspected two years later when he came along a road where a cart loaded with bricks had got stuck in a rut of the muddy road. Seeing that the teamster was about to unload his cargo, Cyr asked him to wait a moment, and getting under the cart, braced his two shoulders evenly against the bottom-board, and slowly rising, lifted the car, bricks and all, clear above ground, and thus carried his burden some fifteen yards forward, while the teamster was leading his horses. The next year he began to give public exhibitions of his power in wrenching and lifting, and has in more than one respect broken all previous records of this age of *tour de force* gymnastics. He lifts 2500 pounds with the aid of shoulder straps, 1800 pounds without such apparatus, toys with hundred-pound dumb-bells, and tosses weights of forty and forty-five pounds to unprecedented distances.

Amateur gymnasts are rare among the French Canadians, but in one respect they have a decided advantage over their Yankee neighbors; the wilderness of their northland will afford opportunity for sport and other outdoor exercise for generations to come. While our scant remaining woodlands are melting away like dry grass in a prairie fire, the immense territory inclosed between the headwaters of the Saguenay, the Bergeron, the St. Maurice, the Gatineau, and the Riviere du Lievre are still covered with unbroken forests. And those streams are not mere timber-creeks, but rivers as large as the Hudson and the Rhine, miles wide, some of them, a day's voyage above their junction with the St. Lawrence. The sound of the ax is heard near all good landings, but the population is too thin-sown and the untrodden area too vast for any appreciable difference in the primitive appearance of the country as a whole. The upper valley of the Drouette River, an affluent of the St. Maurice, is bordered by high hills that afford a prospect of hundreds of square miles, and where a prospector can let his eye ange around the entire circle of the horizon without discovering more than a dozen small clearings, looking like small shreds of cloth scattered here and there around the edges of a big green cloverfield.

That land of wild north-woods is not an inviting field for permanent settlers, so far from it, indeed, that the very elk-herds emigrate southward in October and do not think it advisable to return before the middle of April. Still, as a forest land it is far superior to the stunted pine region of Central Siberia; the arboreal flora comprises fifty-five different species, including the sugar maple, and a variety of black walnut that attains a height of 120 feet. Wild vines are found in the river-bottoms, and in June, when

"The larch-trees hang all their tassels forth,"

there are worse sporting grounds; and, not to mention larger game or the abundance of fish, experts pronounce the opportunities for grouse-shooting superior to those of the best Scotch game-preserves.

Game-laws are, of course, ignored, but summer pot hunters have the excuse that after November nature herself enforces a close of the season by burying the hills in snow. From Christmas till middle March the woods stand deserted, and the only voice heard is that of the ice-storm or the occasional hooting of an owl allied to the *harfango* ("hare-killer") of the Scandinavian highlands.

Some five or six hundred miles from the shores of the St. Lawrence that giant forest assumes a park-like appearance; birch trees and juniper shrubs take the place of the *coniferæ*, and the region of perennial plants gradually fades into the prairies of the bleak Northwest.

(To be continued.)

SANITARY INSPECTION OF HOUSES TO BE RENTED OR PURCHASED.

BY PROF. V. C. VAUGHAN, M. D.

GREAT care should be exercised in renting or buying a house for family occupation. Many houses are now built purposely to rent or sell, and too many of them are constructed in a very flimsy manner. The object of the builder is to attract attention to his house, and money is spent in ornamentation, which should have been used in the more important parts of the structure. No one should place his family in a house until he has made a thorough investigation of its sanitary condition.

The mere advertisement that "the house is furnished with the most approved sanitary appliances," should not be considered as sufficient guarantee. Indeed, the statement of the owner or agent that "everything is all right," is usually not to be relied upon. The time will come when no one will be permitted to rent a death-trap in the shape of a house; but unfortunately at present, the duty of seeing that everything is really all right devolves upon the person seeking a house. For this reason a few practical directions for house inspection may not be out of place here. The writer has known a man, even after having been warned by a former tenant, to place his family in a house whose sole recommendation was its attractive appearance, and to regret his action a few weeks later, when typhoid fever had stricken them. The dangers to health and life are too great to allow any one to be careless or indifferent in this matter.

The house offered for rent or sale should be visited by the one seeking a home, and thoroughly inspected in regard to its sanitary condition, as well as to its general appearance. The surroundings should be studied. The condition of the back yard — especially the location of the outhouses on the premises and those of the neighbors; the location and condition of cesspools, privy vaults, cisterns, or wells, if such be present, should undergo careful inspection. What the sanitary arrangements should be has been already sufficiently indicated.

The cellar should be visited, and if its walls be cracked, damp, and covered with mold, if water stands upon its floor, and if light and ventilation are not provided for, seek some other habitation. It is better far to sleep in the open air, with no roof but the sky and no bed but a few blankets placed on the dry earth, than to live in a house built over a reeking cesspool; and such a cellar is nothing more nor less than a cesspool.

The general construction of the house should be carefully scrutinized. Observe the height of the first floor above the level of the street; the proportion of the lot covered by the house; the arrangement and size of the rooms; the condition of floors, ceilings, and walls. Of course, newly-constructed walls are always damp. A great amount of water is used in the mortar and plastering, and much of this must evaporate before the building is fit for occupation. Neither should a house freshly painted with lead paints be occupied until the paint is well dried. The living rooms should be placed upon the sunny, airy side of the house. The bedrooms especially should be examined with reference to their size and ventilation. The floor should be of seasoned wood, well jointed. This is very desirable, as it prevents the accumulation of dirt under the floors, and permits of the free use of water in scrubbing the upper floors without danger of injury to the ceiling of the lower rooms.

"Skin" houses put up by "jerry" builders simply to rent or sell at the highest price, can easily be recognized by careful inspection. Extra ornamentation will generally be observed, but if a few months have elapsed since its construction, doors will be noticed not to close tightly, the woodwork is shrunken, the window-sashes do not move easily, and too frequently the foundations have settled, and the walls are cracked.

If the house be furnished with any plumbing, this should undergo thorough inspection. A map showing the distribution of the pipes, unless all are in view, should be furnished by the owner. In many old houses, large brick drains are found in the cellar. These are always bad. In them a great quantity of filth accumulates. These are seldom sufficiently flushed. Such a condition should lead one to reject a house for residence. If the drain in the cellar be of earthen pipe, its joints should be examined, for they are often imperfect, and allow of the escape of both gaseous and liquid contents. In this way the cellar floor becomes impregnated with filth, and from it noxious exhalations rise into the rooms above. The writer has known of more than one instance in which these drains have been broken by settling, and the consequence was that a regular cesspool was formed instead of the drain. In one instance the break occurred near a cistern, and much of the chamber and kitchen slops soaked through into

the imperfect cistern, polluting the water; and this was probably the cause of the typhoid fever which attacked four of the inmates of the house. Still worse is the box drain made of plank. Often at the junction of the vertical pipe, with such a drain, the wood decays, and a filthy cesspool is formed.

Unfortunately, in most cities the sewers pass along the street in front of the house, and the sewage is collected in the back part of the cellar, and carried by a drain under the floor for the entire length of the cellar, passing out under the front wall on its way to the sewer. The best place for the sewer is in the rear of the house, but when in front, the drain should be carried round the house; or, if through the cellar, it should consist of an iron pipe freely exposed along its entire length, and with sufficient fall to give a rapid current. Its grade should be uniform, and free from depressions in which accumulations might occur.

The proper arrangement of the soil pipe has already been referred to. It should be of iron, not of lead. Leaden soil pipes are often corroded and leaky. The ventilation of the soil pipe should be by means of a pipe extending above the roof. The water conductor from the roof should not be made to do service as a ventilating pipe. Moreover, when the rain-water conductor empties into the soil pipe, the force of the currents passing through it will siphon the traps above, unless they are all thoroughly ventilated.

The location of all traps should be ascertained, and it should be seen that none of the pipes are either clogged or leaky. The desirability of the separation of the water-closet from the bath tub and washbowls has already been referred to. It is not desirable to have even stationary washbowls in bedrooms.

If there be a water supply, it is well to see, before renting or buying the house, that all the pipes are in good order and so protected that they will not freeze. If the drinking water be stored in a tank, see that the tank is not lined with lead. All water pipes should be well protected, or they will sag and break. —*Abstract from Lomb Essay.*

INTERESTING EXPERIENCES IN DIETETICS.

BY HELEN L. MANNING.

A GREAT deal has been said of late of the value of a simple, non-stimulating diet in regulating the "home end" of the temperance question, and, as a practical demonstration is much more convincing than any mere theory, however fine, the writer wishes to present the facts in a recent marked case as an illustration. The subject is a lawyer from Canada, who some time since found himself broken in health from overwork and excessive smoking. He also used alcoholic liquors to some extent, but never felt bound to them by the iron chains of habit, as he did to tobacco. He went to a physician for advice, who recommended him to adopt a diet of fruits, grains, milk, and eggs, but said nothing whatever about giving up smoking or drinking. The ordinary physician rarely considers these things within his province. However, acting upon the advice, the gentleman found, to his surprise, that the narcotic weed which he had formerly considered positively indispensable, and the stimulating beverages in which he had frequently indulged, grew alike distasteful to him, and he dropped them entirely. To quote from his own words, in detailing the experience: —

"I commenced using tobacco when I was twenty-one years of age, and I am now forty-one. The habit grew upon me until I had come to feel that I could do very little without it. I worked hard in the office and in the courts, and my way of resting when I became weary was to take a pipe and sit down and smoke, and after each meal I considered a smoke absolutely essential. I knew it was a bad habit, and that it was hurting me, and I often resolved to quit. To this end I would throw my tobacco and cigars into the fire, and break or give away my pipes. But it seemed to be of no use; in the course of a week or so I would have to purchase a fresh supply, and go at it again. I began to fail in health, and my physician recommended me to give up the rich, stimulating food to which I had always been accustomed, and substitute a vegetarian diet. I made the change solely on account of my health, without reference to giving up my bad habits, but my cleaner, purer diet soon loosened their hold on me, and I have been perfectly free from their influence ever since. The odor of tobacco, in which I formerly delighted, has become so disagreeable that I can smell a smoker twenty feet away. I suffered no physical weakness or discomfort in making the change of food and in giving up tobacco, but instead have made great gain in strength and general

health. Neither was there any diminution of my mental powers. On the contrary, my head is clearer and I can do better work and hold to it more vigorously. I used frequently to lie awake nights, even when I considered myself in good health; now my sleep is perfect, and I rise refreshed in the morning. Then I would come home weary and ravenously hungry at the close of the day, eat a hearty meal of rich, highly seasoned food, and sit down and smoke till bedtime. Now my appetite is normal, not craving, and my simple fare satisfies me perfectly. If any one is skeptical as to the truth of these statements, I will furnish my full name and address for personal investigation."

As further testimony favorable to non-stimulating food, a vegetarian of twenty years' experience relates the following with regard to the difference in the satisfying and sustaining power of a diet of fruits, grains, and milk, as compared with a mixed diet:—

"When I was accustomed to the free use of meat at table, I invariably grew very hungry in about two hours after taking a meal, and by the time the next meal was served, I was in great distress. To go an hour or two beyond my regular mealtime was to make me nearly sick. After abandoning meat of all kinds, I found that this difficulty gradually disappeared, and now I can go twenty-four hours between my meals with less distress than formerly two hours longer than the usual period. When using a mixed diet, I always felt obliged to eat three times a day; two meals now satisfy me perfectly."

The above experience is corroborated by my own and that of many others. I can now put twelve hours, if need be, between my meals, and spend the time under the sharpening influence of fresh air and exercise, with a greater degree of comfort than I could pass a half hour beyond mealtime when living largely on meat. Then a delay would cause me to grow faint and weak, and often bring on sick headache, making me miserable for hours. I am always ready with a healthy appetite and a relish for food, but am entirely free from that famished, gnawing, craving appetite which punished my cannibalistic propensities of former years. My vital and mental powers are much better sustained, too, than when the lives of our lower friends were sacrificed toward my support, although I then took three meals a day, and now I eat but two.

A RHYME OF THE BONES.

How many bones in the human face?
Fourteen, when they're all in place.

How many bones in the human head?
Eight, my child, as I've often said.

How many bones in the human ear?
Three in each, and they help to hear.

How many bones in the human spine?
Twenty-six, like a climbing vine.

How many bones in the human chest?
Twenty-four ribs, and two of the rest.

How many bones in the shoulder bind?
Two in each — one before and behind.

How many bones in the human arm?
In each, one, two in each forearm.

How many bones in the human wrist?
Eight in each, if none are missed.

How many bones in the palm of the hand?
Five in each, with many a band.

How many bones in the fingers ten?
Twenty-eight, and by joints they bend.

How many bones in the human hip?
One in each, like a dish they dip.

How many bones in the human thigh?
One in each, and deep they lie.

How many bones in the human knees?
One in each, the knee-pan, please.

How many bones in the ankle strong?
Seven in each, but none are long.

How many bones in the ball of the foot?
Five in each, as the palms were put.

How many bones in the toes, half a score?
Twenty-eight, and there are no more.

And now altogether, these many bones fix,
And they count in the body two hundred and six.

And then we have the human mouth,
Of upper and under, thirty-two teeth.

And now and then have a bone, I should think,
That forms on a joint, or to fill up a chink,

A sesamoid bone, or a wormian, we call,
And now we may rest, for we've told them all.

—*Medical Recorder.*

MANY savages are quite astonished at the fondness of the average white man for flesh food. Voltaire makes one of his most interesting characters, a Hindu, complain bitterly of an English missionary who had disturbed a whole community by having been caught in the very act of wringing the necks of two pullets; and it is stated as further and more convincing evidence of his cold-blooded and utter depravity, that he cooked the pullets and ate them. The reverend gentleman was only allowed to remain in the city by solemnly promising that he would murder no more hens.

DAIRY HYGIENE.

[DR. GEORGE G. GROFF recently contributed to the *Independent* an article upon this subject, which presents the known facts relating to dairy hygiene in so concise and practical a way that we take pleasure in placing a considerable part of it before our readers. — ED.]

All elements of uncleanliness must be carefully excluded from the milk and from all utensils of the dairy, not only because they are objectionable in themselves, but because they promote fermentation and decay. Every point about the dairy should be so constantly clean and well cared for that the owner would at all times take pride in showing a customer around, and with the full confidence that an inspection would add to the good opinion formerly entertained.

Not only are these products often of inferior quality, but at times they become actually dangerous as articles of human food. All have heard of cases of cheese poisoning, ice-cream poisoning, and "milk sickness." The former two of these, beyond any doubt, are the result of poisons developed in the milk and cheese. We cannot state positively that the "milk sickness" is so caused. It has recently been asserted, however, that cholera infantum is caused by partly decomposed milk, in which a specified poison, "tyrotoxicon," has been developed; and when we remember the very large number of children who die from this disease, the importance of purity in the milk supplies is recognized. Nearly one third of all the children born in the United States die under five years of age. In our large cities, fully half of the deaths during the hot months are of infants. This is at the very time when milk is the most difficult to keep sweet and wholesome. The summer bowel troubles of children are undoubtedly, partially at least, due to their food, of which milk is a very important part.

The reason given for exercising this extreme cleanliness is, that it is now known that all the changes of decomposition in milk from healthy animals, are due to the introduction into the milk, after it is drawn from the cow, of low forms of life. These germs cause souring, make the milk ropy, blue, etc. Milk drawn absolutely clean, into chemically clean vessels, and then sealed, will remain sweet indefinitely.

DISEASES OF THE COW POSSIBLY AFFECTING MILK.

Tuberculosis (consumption of the lungs), pleuro-pneumonia, and "contagious pneumonia." The first of these diseases is often prevalent among cattle which are confined in stables without an opportunity of exercising in the open air. Especially if the stables are damp, dark, and unventilated, are the cows liable to contract consumption. With care, they may live several years with this disease, but the milk should never be used for human food, as the risk of contracting the disease is too great. When the disease has appeared on the udder, it has certainly been transferred *in the milk* to human beings.

If the udder is affected with tubercle, the tubercle bacilli will be found in the milk. No difference can be detected between the bacillus of human and of bovine tuberculosis. The disease produced in the lower animals by inoculation with germs taken from the tuberculous mammary gland of the cow, is precisely the same as that produced in the same animals by inoculation with germs taken from the expectoration of human beings suffering from consumption of the lungs.

At calving time, the cow needs proper attention. In summer time it may be well to stable her in a cool and dark stable during the day, allowing her to spend the night in the pasture, thus protecting her from the great annoyance of flies. In a word, she needs to be comfortable and healthy to give milk of a good quality. The time has certainly come when some attention should be paid to the quality of this important food.

THE STABLE.

First, this should be warm, dry, well ventilated, well lighted, but without drafts of cold air. Dryness, sunlight, and fresh air are as necessary in a stable to maintain the vigor of cattle, as in a human habitation. Shutters with movable slats which will darken the stables while still permitting the circulation of air, are very desirable for summer use.

Secondly, the stable should be kept scrupulously clean, if first-class dairy products are desired, and abundance of straw or sawdust or dried peat, and even of dry earth, may be necessary to absorb all of the liquid excreta, the effort being to absorb this at once.

Thirdly, as disinfectants and purifiers of air in stables, a frequent use of whitewash on the walls and woodwork, and of ground plaster, sprinkled over the floors, is necessary. By the frequent use of whitewash and plaster we may keep the air of a stable sweet and pure. The mangers should be kept thoroughly clean. They should be frequently washed

out with strong salt and water, otherwise mold will grow in them, especially in the corners. This mold taken into the stomach may produce inflammation of that organ, and it is also possible that it may produce the disease known as "lump jaw."

In pleuro-pneumonia and "contagious pleuro-pneumonia," the milk should not be used, nor in bacillar anthrax (malignant pustule, carbuncle, bloody murrain). In this last disease, the germ is in the flesh, and even cooking will not certainly kill it. According to Professor Law, of Cornell University, 15,000 of the inhabitants of St. Domingo died of eating such flesh in six weeks' time. And among the Tartars of Asia, there are annually many deaths from eating the flesh of animals that die of bloody murrain. According to Professor Law, milk from cows with foot and mouth disease may produce in human infants "a most dangerous intestinal irritation and diarrhœa." In "milk sickness" (trembles), the meat, milk, butter, and cheese all transmit the disease to human beings. The cause of this disease is yet unknown. It prevails most in newly settled regions, and generally disappears as the country becomes well cultivated. It is generally supposed to be caused by some wild plant which the cows eat; but this has never been proven, and it may be possible that this disease is due to a poison, which, like tyrotoxicon, has developed in the milk. There is a good deal of mystery and but little light on the subject of "milk sickness."

There is a growing tendency among dairymen to keep cows in the stable from one year's end to the other. This we know is at the expense of the animal's health. It is here held that though there may not be so much milk as from cows kept constantly in stables, yet from cows leading *natural* lives, the milk will have a greater vitality and hence a greater food value, and will be less liable to produce disease in human beings.

In going to and from the pasture, cows should be driven quietly. If made to run and worried by dogs, the milk is injuriously affected.

SAVAGE OPINIONS OF CIVILIZED DIET.

THE dietetic habits of various portions of the human family vary almost as much as do their facial and other characteristics. Articles of food which are held in high value by civilized people are considered repulsive by savages, and *vice versa*. Even some articles of food eaten by civilized beings in certain parts of the world, would be considered loathsome by the natives of other civilized countries. A writer in the New York *Sun* gives the following interesting information respecting savage opinions of civilized dietary: —

"Some preparations of food, too, that we enjoy, are not relished by uncivilized people, because in their experience they have met with nothing like them. The natives of New Guinea, for instance, cook a few cereals in their own fashion, but they made very wry faces when they attempted to eat some fresh-baked biscuit that the missionaries gave them. They finally wrapped their biscuit up in paper, intending to keep them as curiosities. On some of the islands of the Malay Archipelago there are hundreds of natives whose only industry is to collect the edible birds' nests that are esteemed a great dainty by the Chinese. They would n't dream of eating them themselves, and they think the Chinese must be very peculiar people to use that sort of food.

"The Esquimaux near Littleton Island once discovered a supply of bread and salt pork that Dr. Kane had cached, and they proceeded to enjoy a feast at the white men's expense. They liked the salt pork, and did not leave a morsel of it. This was probably the first chance they had ever had to vary the monotony of their meat diet. They nibbled the bread a little, promptly pronounced it a failure, and told Dr. Kane afterward that they would as soon swallow so much sand. The Esquimaux generally dislike all the preparations of vegetables that the explorers bring among them. They think it is a perverted appetite that craves anything but meat.

"A tribe living not far from Port Moresky, New Guinea, that think boiled snakes are to be preferred to roast pig, draw the line at sugar. When they saw Dr. Chalmers, their first white visitor, sweetening his tea one morning, they asked him for some of his salt. Dr. Chalmers told them it was not salt, but they were incredulous, and so he gave some sugar to one of the natives. 'He began eating it,' says Dr. Chalmers, 'and the look of disgust on his face was worth seeing; he rose up, went out, spat out what he had in his mouth, and threw the remainder away.' Then he told the crowd what horrible stuff it was, and they were satisfied to take his word for it without trying it themselves.

"Many savage tribes think eggs are wholly unfit for food. They keep fowls that are very much like our own, and sometimes chickens are almost their sole animal food, but they never dreamed that anybody could get hungry enough to eat eggs until they saw the missionaries eat them. The spectacle of their white friends making eggs a part of their breakfast still troubles a number of tribes in Africa. Mr. Wallace says that among some of the Pacific Islanders, hens' eggs are saved to sell to ships, but are never eaten by the natives.

"There are a number of tribes in Africa whose chief riches are their herds of cattle, but who never drank a drop of cow's milk in their lives. They think the milk of their herds is for calves and not for human beings, and they are disgusted at the idea that anybody should consider it a proper article of food. A few tribes near the Great Lakes think it is a spectacle worth seeing to look at the missionaries milking cows and drinking the milk. Among many tribes, however, milk is an important article of food. They estimate a man's wealth by the number of cattle he owns, and think he is squandering his capital if he kills one of them for food. They use their cattle to buy wives and other commodities, and eat them only when they die in natural course.

"Strawberries and raspberries are found in some tropical regions, but they are never eaten, and in fact, are hardly worth picking, as they are poor, almost tasteless things. The wild fruits of tropical regions are generally far inferior in quality and abundance to those of the temperate zone.

"These same tribes that are astounded at some of the articles white men put into their stomachs, eat grasshoppers, ants, monkeys, elephants, and many other things that have not been introduced into our cuisine."

VEGETARIANISM IN AMERICA.

Mrs. Mary Hinman Abel, writing for the Louisville *Courier Journal*, speaks as follows concerning vegetarianism in this country: —

"Vegetarianism is attracting fresh attention, though the interest in this country is mainly an echo from England. Lady Paget's article in the April number of the *Nineteenth Century* has been widely noticed. The London *Lancet* has given lately interesting facts on the diet of Roman soldiers who pined for corn and called roast mutton 'starvation diet;' and a recent number of *Hygiene* has treated with considerable fullness vegetarianism from a therapeutic point of view.

"What Lady Paget has to say is what has long been familiar to us — the aversion to taking life and the horrors of the slaughter house, together with her personal experience in changing over from a mixed to a vegetable diet. Discussions of this kind cannot be said to have any permanent value; not so, however, such as bring to bear on the subject recent scientific knowledge on the digestibility of various foods by both men and animals, and the mass of observations now at hand on the diet of people in many lands and times. This body of facts, though yet far from complete, is so much in advance of what we had twenty or even ten years ago, that it affords some promise of an answer to the long-vexed question as to whether a vegetable diet is practicable or even desirable for the majority of people. Let that be settled as it may, the present discussion will be of use in several ways.

"Vegetarians make a point of the quality of their food materials, and meat is rejected largely because of present methods of keeping, killing, and transportation. Of course if one must live on a limited number of foods, their quality does become a matter of great importance. If grains are to be the staple, all the processes of milling have a new interest for us; if vegetables are to rely on their own flavor to commend them to the palate, they must be of undoubted freshness and the best quality. It is well to have these ardent hygienists rouse us to new vigilance in this matter. Our food comes to us from a thousand sources, and with us there is less government check or scrutiny than in some countries. All is left to the shrewdness of the individual buyer; and our vegetarian friends tell us that, this being the case, it is a safe step to diminish the number of things that need this scrutiny. Since we cannot be sure, for instance, that the most highly lauded of baking powders is 'absolutely pure,' do without altogether, and use yeast and other well-known methods for making bread light.

"When we lessen the variety of foods to be cooked, we shall be more apt to improve our cooking methods. If the albumen now furnished by meat must be gotten from peas and beans, it will be worth while to experiment in the cooking of these most valuable legumes.

"Count Rumford one hundred years ago made what we would now call a research on the right

method of cooking the dried or split pea. He found that, at least for the kind used in Bavaria, the only way to disintegrate them perfectly was to put them, after soaking, into boiling water, and continue the cooking a long time slowly. . . . Then again, if the pea and the bean are to play an important role in our nutrition, we shall have pea and bean flour as common as wheat flour, while now it is found only in expensive little packages, and only at specia depots in large cities. In Prof. Strumpell's experiment it was found that while only 40 per cent of the proteid of beans, as cooked in the ordinary way, was digested, 91.8 per cent was digested when the beans were ground to powder and baked. It is now an undoubted scientific fact that by a liberal use of the pea, bean, and lentil, taking for granted that they are liked and digested, we shall get all the proteid for the bodily needs, at least of adults.

"But a graver question with the vegetarian is how to get that one hundred grains of fat which the body needs daily. The very highest percentage given by and of the grains is six per cent in the case of oats; fine wheat flour yields but eleven per cent, while the amount in green vegetables and fruits is hardly worth speaking of. Nuts are the great resource, and the oil expressed from the olive. But if enough olive oil is used to supply the fat, the diet will indeed be an expensive one, even if it were practicable to use much of it; and cotton-seed oil has not yet reached the grade of a good salad oil. Perhaps this need of the vegetarian for a pure oil that will be palatable and not too expensive, will do something toward filling this want in the dietary of all of us. What of the beech-nut oil so commonly used in Europe? And is not oil being expressed from our own peanut? Doubtless if intelligent search were made, it would be found with an Italian name on the bottle.

"The vegetarians who eat milk and eggs, supply with ease the needed amount of fat, adding greatly to the flavor of their food at the same time. With the addition of cream, delicious soups are made out of almost any vegetable. Cream is freely eaten with grains and fruits, and it is used in mixing the unleavened rolls, gems, and puffs, making out of that highly nutritious but somewhat tough, tasteless class of foods, something that would tempt a gormand.

"The time will probably not come when all will feed alike, but diet will be more and more modified by intelligence. Without doubt too much meat is eaten by the well-to-do classes, but as every housewife knows, it is largely because her list of palatable dishes from the vegetable kingdom is so short that she cannot get a suitable variety without the aid of meat. Meat eating will no doubt be diminished with increasing skill in the preparation of vegetables and fruits for the table."

Physician — "Now you will have to eat plain food, and not stay out late at night."

Patient — "Yes, that is what I have been thinking ever since you sent in your bill."

HARRY, aged five, had never happened to see the moon in the daytime. He came down the other morning shrieking with laughter.

"Why, Harry, what's the matter?" inquired his mother.

"Oh, mamma," said he, as soon as he could speak "what a joke; they've forgotten to take the moon in!"

HEALTH AND WORK.—There are many persons in the world whose only capital is health. They are engaged in work of various kinds; and so long as health lasts, they earn a good living. They must learn how to avoid illness by living in the right way. There are others who have found out their errors in time to have a fairly good constitution left. These may live to a ripe old age healthfully, if they only take care. There are still others with everything that riches can give; these must learn to live rightly, too, if they want to be well. Plain food, exercise, etc., will enable these to live long, as they are not troubled by the necessity of working so that they may live. Wealth comes not from our income, but from the amount we save of it; so health comes not from the amount we have to go on with, but from the amount we save, by not spending it on trifles which waste our strength, and give us no return.—*Dr. Allison.*

A WRITER in *Musical Millions* says that he "never loses time in looking for a fine vocalist in a country where fish and meat diet prevail. Vocal capacity disappears in families as they grow rich, because they eat more meat. Those Italians who eat the most fish (those of Naples and Genoa) have few fine singers among them. The sweet voices are found in Irish women of the country, but not of the towns. Norway is not a country of singers, because the people eat too much fish; but Sweden is a country of grain and song. The carnivorous birds croak; grain-eating birds sing."

EXERCISE AND FATIGUE.

BY J. H. KELLOGG, M. D.

(Concluded.)

A SECOND way in which too much exercise is injurious, is found in the fact that exhaustion or bodily fatigue may be injurious to the body as inducing premature decay. We have two kinds of work to be performed by our bodies, internal work and external work; and if too large an amount of material furnished by nature for this purpose is consumed by external work, then it is not on hand for internal work, and the result will be injury and premature decay.

A third way in which exercise of the muscles may be injurious, is in causing excessive waste of the muscles themselves. If the muscles, instead of being developed by regular, methodical work, are overtrained, they sometimes deteriorate with very great rapidity. A muscle which is hard and strong and firm, will in a short time, by overtraining, become weak and flabby, and never recover its vigor again. This is the result of overtraining. Great care and skill are required in training, to avoid this; so that training has become really an art or profession. The effect of over-exertion of the muscles may be shown by a very curious experiment upon the muscle of a frog. Here is one of the long muscles from a frog's leg. It is suspended by a bit of thread attached to one end, and has a weight attached to the other end. Now it is stimulated by a current of electricity. Every time the electricity is applied, the muscle shortens, and raises the weight. As the weight is made heavier, it does not raise the weight so far, and finally not at all. Adding a little more weight, we note that the muscle lengthens instead of shortening when stimulated. Why is that? You might say, perhaps, that the weight stretches the muscle, but observe that the muscle lengthens only when the stimulus is applied. When the current is withdrawn, the muscle shortens again. Every time the muscle fiber is stimulated by the electrical current, it stretches instead of shortening. This may be one reason why overstraining a muscle, as by violent lifting, may injure it permanently.

One can understand, also, that from working a muscle when it is nearly exhausted it may be greatly injured. When the exhaustion of the stores of oxygen and glycogen is carried too far, and the muscle-poisoning which is developed through the excessive formation of wastes has been carried too far, the muscle may never be able to recover itself.

Still another way in which injury may arise from excessive work, may be illustrated by a skeleton. You will notice the cushions which are placed between the bony vertebræ of the spinal column. You observe that they are quite thick in the lumbar region; these represent the inter-vertebral cartilages, or the fibro-cartilages of the spinal column. They constitute, altogether, about one fourth of the entire length of the spinal column. In the lower portion of the spinal column they constitute about one half the thickness of the vertebræ; in the upper part of the spinal column they are not so thick. Now during violent exercise, especially when on the feet, these cartilages become thinner from compression, and what is true of these cartilages is also true to some extent of the cartilages which cover the ends

of the long bones,— especially those of the leg. This thinning of the cartilages by overwork is sometimes so considerable in degree, that a person is appreciably shorter at night than he was in the morning. During rest at night, the cartilages recover their natural thickness: during the day, they become thinner by the pressure of the weight of the body. This difference in measurement between night and morning, has, in some instances, been known to be as great as two or three inches, as the result of violent and prolonged exercise. We may therefore understand that if exercise is prolonged to too great an extent, the result may be a permanent shortening of the body, for the cartilages may be thinned to such a degree that they may never be able to recover themselves.

There is one form of fatigue to which I wish especially to call your attention. It is a fatigue which does not immediately follow exercise, but which may follow the exercise a few hours or a day or two later. Ordinarily, a person feels fatigue at the moment of exercise, but there is a form of fatigue which is usually experienced the next day after the effort, which has been termed "consecutive fatigue." When this form of fatigue occurs in a horse and to a considerable degree, it is called "founder." When exercise is carried to such an extent that the blood becomes saturated with poisons, and these poisons are precipitated in the tissues, inflammation of the connective tissues is set up, and then we have stiffness and soreness, and usually more or less fever in connection with it.

Persons often say, when suffering from consecutive fatigue, "I have taken cold, I feel very sore and lame." When a person exercises very violently, and feels stiffness and soreness the next day, and has perhaps a slight fever in addition, this is consecutive fatigue. The slight soreness and fatigue which a person feels immediately after exercise is not consecutive fatigue. Even exprienced gymnasts experience this feeling when they resume exercise which has been discontinued for a time. This is simply due to a slight congestion which marks the beginning of the repair of the muscle, and the means by which nature makes it larger and stronger. But consecutive fatigue is a much more serious matter. It is usually the result of violent work on the part of those who are unaccustomed to it, as in the case of a student who comes home from school, works hard all day, and the next day finds himself weak and exhausted. The same thing will happen to one who is unaccustomed to hill-climbing or horseback-riding. Consecutive fatigue should always be avoided; it weakens the system, and for some persons, especially those enfeebled by disease, it is almost dangerous.

HEALTH FOR A DOLLAR.

SINCE the athletic girl has become so dominant a figure in the feminine world, and fragility has grown a reproach rather than a charm, says a recent writer, the treatises multiply on all hygienic matters, and volumes are set forth without number to tell every woman what she shall do to be saved from all ills that flesh is heir to. The woman with the interesting pallor, the violet-shadowed eyes, and the willow-wand form, who fainted if one said "Boo!" to her, and solved all sentimental difficulties with a brain-fever, has given place to a buxom lassie, whose cheeks are red as the dawn, with brown, muscular hands that stop runaway horses, rescue helpless bairns from mad dogs, and amid a wreck of matter and crash of worlds would never feel a tremor of her steel-strung nerves. And this magnificent person is all the product of athletics, and athletics, and yet again athletics. Ride on horseback, say the lecturers on this subject, play tennis, swim, fence, practice in a gymnasium, take cold baths, live in the open air. And those who follow their advice attain the stalwart loveliness of Atalanta and Hyppolita, bring forth rosy sons and daughters, and are as the pillars of their husbands' house.

But it costs money to ride on horseback; there is the habit to buy, the horse to keep, and, if one lives in the city, a groom to be hired to ride after one in the park. Tennis presupposes various advantages of environment that all women do not possess; swimming means a country home near the sea or a river; and fencing, work in the gymnasium, and life outdoors argue leisure, some money, and liberty to follow one's own devices. The pale, nervous, flaccid-muscled woman has not disappeared yet, and these read with hopeless envy the directions given by the books for the attainment of rosy beauty, their own lives being too filled with work, too narrow, or too straitened to make the use of any of these prescriptions possible.

But athletic exercise, with its resultant health, happiness, and beauty, is to be had, and at a price within the means of every woman, no matter how poor or

hard worked. Ninety cents will purchase all she needs to string her muscles up firm and make them elastic; to set her blood pulsing warmly under the skin; to fine away too lavish outlines, or fill up hollows. A pair of five-pound dumb-bells are to be had for thirty cents. These are a good weight to begin with, but should not be used violently at first. Two towels of heavy Turkish crash cost the same sum each. On rising in the morning begin practice at once. With a dumb-bell in each hand lift the arms, touch the shoulders with the bells, and straighten the arms out smartly at right angles from the body. Do this smoothly and regularly ten times. Then touch the shoulders, and lift the bells ten times straight up on either side of the head. Hit out from each shoulder ten times; drop the bells at full length of the arm and draw them up to the armpits; and vary these motions in the twenty or thirty different directions possible, as one's own cleverness suggests, thus exercising every muscle. Begin with only two or three the first morning, and increase them as the strength increases. Finishing with the bells, set a mark on the wall at the height of four or five feet, and standing on the left leg, try to touch the mark with the right toe ten times, doing the same afterward with the left. The mark can be raised nearly a foot more as one's agility increases. Then set hands on hips and jump up and down ten times. Next spring into a bath — a warm one is best — sponging one's self with cold water afterward, and dry the skin with vigorous manipulation of the rough towel. Try that for a month, and see whether health and beauty are not the consequence. — *Boston Herald.*

THE DUST QUESTION.

We have long known that dusty air is not healthful air, but the significance of a dusty atmosphere, particularly in closed, inhabited rooms, is seen in a new light since we have learned that, attached to or floating among the particles of dust, is a multitude of micro-organisms, some of which may be the germs of infectious diseases. To show how the raising of a dust fills the air with germs, it may be mentioned that Tucker found that the air in the wards of the City Hospital, Boston, had about seventy times as many germs after the morning sweeping as it had when all was still. The objections and dangers of gymnastic training in a dusty atmosphere are well told by Dr. F. A. Schmidt, of Bonne: —

"Now, in quiet breathing, we take in with each inspiration one third or one half litre (about one pint) of air, while there are already three litres of residual air in the lungs, to which each breath is added. From the uniform admixture of the old and the fresh air, a quantity is expelled at each expiration equal to that taken in with the inspiration. Remembering, now, that we breathe in and out from sixteen to twenty times a minute, this half litre of air with a certain quantity of dust suspended in it, during the one and one half to two seconds while it is passing into the lungs, sweeps through the narrow cavities of the nose and the naso-pharynx, through the larynx and trachea, and only after it passes through the narrowest twigs of the air passages does it reach the air cells, — all the way over moist membranes. It therefore appears improbable that, in ordinary quiet breathing, in air with only a small or moderate quantity of dust suspended in it, the particles of dust penetrate so far as the air cells.

"But it is another matter when the quantity of dust in the air is very great, and when such air must be breathed for a long time. Then, indeed, particles of dust penetrate through the finest divisions of the air passages to the air cells, and the irritation of these particles causes the migration of white blood corpuscles from the pulmonary bloodvessels. These white blood corpuscles surround the dust particles, tending thus to render them harmless, and, mixed with the mucus of the lining membrane, are coughed up as "dust cells," or they re-migrate into the tissue of the lung, and there permanently store up the foreign matter. Thus it results that the lungs of adults contain a considerable quantity of the insoluble particles of dust that give them an appearance very different from the lungs of the new-born infant.

But in breathing air loaded with dust, the fullness or depth of respiration is of more significance than length of time. Even when compelled to breathe deeply through the mouth while exerting ourselves in speaking or singing, we lose entirely the protection of the nasal passages against the penetration of dust; for the air is then drawn directly into the larynx and trachea, and reaches the lungs well-laden with dust. This is notably the case, also, when the depth of respiration is increased by physical exercise or work. While quiet, in a lying or sitting posture, only a portion of the lung takes part in the act of breathing — those parts indeed of our lungs that are the most fully under the influence of the great muscles of res-

piration, and that can, therefore, the most easily free themselves from foreign matter by the act of coughing. These are the middle and lower parts of the lungs.

"During active muscular exercise the respiratory range is greatly increased. Then come into play the reserve forces, and the upper lobe and its apex participate — parts from which harmful matter is not so easily expelled after it has once been breathed in. There the particles remain unhindered in their harmful action upon the lungs.

"Rapid walking requires the inspiration of four times as much air as when at rest, and running increases the respiratory action about seven-fold. With the increase in the quantity of air breathed during these and similar movements, there is also a corresponding increase in the quantity of dust inspired, and not only that, but it penetrates to the more remote, less movable, and less resistant parts of the lung."

There is another reason why the inhalation of a dusty atmosphere during gymnastic exercises is undesirable. When we exert ourselves to the utmost in lifting heavy weights, the muscles of respiration, including the diaphragm, are fixed in a rigid, involuntary spasm. As a result, breathing is temporarily suspended, and a stagnation of unaërated blood occurs in the pulmonary circulation. With the cessation of the exertion, the breath is drawn in with long gasps. Or, if the trainer makes a sprint around the gymnasium track, at the end of his course he snaps at the air with open mouth, breathing it in with the deepest possible inspirations, each of which is alternated with only short expirations. In these deep spasmodic disturbances of the natural breathing, the best conditions possible are present for the deep and plentiful inhalation of dust when it is present in the atmosphere.

There are, therefore, weighty reasons why rooms devoted to indoor gymnastics and other physical exercises should be as clear of dust as possible, and as the keeping of the air of gymnasiums reasonably free from dust is very difficult, why physical exercises should be conducted in the open air when practicable. — *A. G. Young, M. D., Sec. Maine State Board of Health.*

NEED OF PHYSICAL CULTURE AMONG WOMEN.

AMONG the country lanes of England, any and every fine day, are seen as many women as men enjoying their horseback exercise; and in the streets of the cities they are familiar sights, riding alone occasionally, but more frequently attended by a groom or a carriage with friends. But the pleasures of outdoor exercise are more talked of than experienced; for, as a rule, women are not fond of long walks, or even of driving for any other than a fashionable duty.

When all the fine turnouts are in the park, those who have such, order them out for the purpose of joining the throng; but beyond this, there is no display of riding made. Long drives for the purpose of driving and of taking all the sunshine and air possible, are not rated among the "pleasures" of the average American woman's life; and the sharp criticism made by a disgusted Benedict, that a woman would have nothing to do with outdoor exercises so long as she could get trimmings to sew on dresses or friends to gossip with, is not so unjust as it would at first appear.

Women have nerves, and all that is calculated to disturb their action they decline to undertake. A walk in the morning ends with a headache in the afternoon; a walk in the afternoon unfits one for the evening's sociability, is the argument used by the opponents of physical exercise. The notion is a fallacy; but what has that to do with changing the decision of those most concerned? Perhaps some few have tried the plan for one day, overdoing the business, and have then given over the effort and voted it a mistake. Wrinkles and increased nervousness do not convince them that something is lacking in their daily régime, nor does the quiet assertion of the physician, to the effect that what they need is exercise, make any more than a passing impression upon them. Everything else but exercise is what they will take — that is too common a remedy to be adopted.

Walking, the best of all exercises for the well, because the most natural, should be a duty, just as are eating, drinking, or sleeping; and the cares and supposed duties of the home should be laid aside until it has been enjoyed. Within a prescribed circle, dwelling upon unworthy cares oftentimes, allowing duties to magnify until they become curses, dwarfing the soul to gain a passing show for the body — these are the things that women indulge in too often.

Physical exercise, open doors and plenty of air, are the panacea for all these ills. — *Sel.*

DRESS REFORM FOR MEN.

THAT a reform in men's dress is needed, as well as in the dress of women, is clearly evidenced by the fact that whenever a man wants to exercise himself without restraint, he is compelled to adjust his clothing especially for the occasion ; for example, a blacksmith, in order to secure the full use of the arm and shoulder muscles, throws down his suspenders and sustains his pantaloons by tying tightly about his waist the strings of his leather apron. Likewise the farmer, in swinging the scythe or the ax, not infrequently finds the restraint of shoulder straps unendurable, and so abandons them and adopts a belt as a means of supporting his nether garments, to the immense relief of his arms and shoulders, but to the infinite damage of his internal viscera.

Silk hats in hot weather, or indeed at any time, are as much an absurdity as the towering head gear worn by the women in the latter part of the eighteenth century.

Carlyle, in one of his books, makes his hero say, in talking about man's enslavement to his tailor : "The horse I ride is his own sempster and weaver and spinner — nay, his own bootmaker, jeweler, and man-milliner — while I, good heaven ! have thatched myself over with dead fleeces of sheep, the bark of vegetables, the entrails of worms, the hides of oxen or seals, the pelt of furred beasts ; and walk abroad a moving rag-screen, overheaped with shreds and tatters raked from the charnel house of nature, where they would have rotted, to rot on me more slowly ! "

There will doubtless be a great revolution in the near future, in man's dress. For the last quarter of a century, hundreds, we may even say thousands, of intelligent women have been directing their attention to the reform of woman's dress, which was, and still is, unquestionably one of the crying needs of the age. The result is, new modes of dressing, new articles of apparel, and new and ingenious devices have been invented, until at the present time a woman who avails herself of all the improvements in feminine attire which have been perfected within the last few years, is far more comfortably and healthfully dressed than is possible for a man without making a very wide departure from the conventional mode of dress and without the aid of special devices which are as yet unknown. In other words, the progress of improvement in woman's dress has brought it to a state of perfection which places it in advance of masculine attire, judged from a hygienic standpoint. The only objectionable feature which still remains, and which doubtless will remain for a long time to come, is the inconvenient length of the skirts which women seem compelled to wear, not for health's sake, but in obedience to the demands of a false taste and a mock modesty. The world is waiting for the advent of some genius who will emancipate men from the slavery of tailors' fashions and the fetters of suspenders and shoulder braces. — *Sel.*

THE IMPULSE OF A NEW LIFE. — The present age is richer in promise and fruition for womanhood than any previous cycle. While science has been unlocking the silent chambers of nature, and bringing to light a world's story of light and evolution ; while invention has been knitting nations and races into one great family, and establishing means by which our earth may be transformed into an Eden as soon as the savagery of man's passion and the selfishness of his instinct are subdued ; while civilization has in ten thousand ways been making greater the possibilities of life's attainments and joys, woman in Europe and America has been slowly awaking to her rightful estate, not as the silent subordinate of man, but as his free, open-souled, clear-sighted companion and equal. And what a world has opened before her wondering gaze ! What marvelous progress has marked her onward march !

A few generations ago he who had the temerity to even tentatively put forth the right of woman to enter upon any of the hundreds of walks which to-day she treads with honor and distinction, courted social ostracism and raised a storm of indignation in which one heard much about social and moral disorganization of society, the degradation of womanhood, the destruction of the home, and the righteous wrath of God which would follow those who so lightly treated the solemn admonitions of his servant Paul.

Now those days are memories only of a well-meaning but dim-visioned past, and womanhood has successfully, step by step, passed into the van of civilization's onward moving column. That which was forbidden yesterday is grudgingly granted to-day, while on the morrow even conventionalism tries to forget that she ever opposed the just demand. And so to-day, as I study unfolding womanhood, only beginning as yet to appreciate the splendid possibilities that lie before her, I am thrilled with an exultant hope. In her progress, and in the dawning consciousness of her power and her rights, I see the prophecy of a higher and purer civilization. The day-star of reason and sober judgment is breaking upon her vision ; she is ceasing to be a mere echo of husband, father, and brother, or a reflex of conventional thought. She is no longer swayed solely by sentiment. She is now asking herself, when questions arise which relate to her, and about which she has never seriously thought before, *Is it right? is it just? is it in accordance with common sense?* The dead past, over whose mound she has so long knelt, no longer holds her in thrall. The impulse of a new life, strong as the voice of spring to budding trees and springing flowers, is urging her forward.— *B. O. Flower, in the Arena.*

Recently, during a rainy season extending over several weeks, the young women of the Iowa State University organized themselves into a rainy-day club, and at once adopted the rainy-day dress, wearing it day after day in such unwonted freedom and comfort that they were very loth to give it up and return to the conventional "scavenger" robes when at last the rain ceased, and the sun came out, drying the streets. The suit was of gray cloth, princess cut, jacket front, full vest, cuffs and collar of silk to match, and high gaiters of same material as the dress, the skirt about two inches higher than the boot tops.

Make the dress aid in developing the body, and not use the body to show off the dress.— *T. D. Crothers, M. D.*

The N. Y. *Commercial Advertiser* aptly remarks, "Human beings are not prepared to promenade country roads or city marts in pre-Raphaelite garments, however beautiful, for utility reigns in this age."

If it were only possible to quarantine for a suitable period those vulgar, filthy, and dangerous women who sweep their trailing skirts along the nameless vileness of the streets, carrying into houses what dangers of infection chance may have strewn along their ruthless path, it would be an undisguised blessing to the helpless sufferers from this strange lapse from a sense of decency, so deplorably wide-spread. — *Christian Union.*

Short Skirts at Ann Arbor.— During the prevalent rainy weather, dozens of the Ann Arbor University girls have appeared on the streets in the Jenness-Miller "rainy-day dress." The skirt is plain and tight-fitting, but the striking feature is that it reaches only about halfway from the knee to the ankle. To make up for this gap, the college girls wear long gaiters, and can now splash through the mud as well as the boys.— *N. Y. Sun.*

Short Skirts for Muddy Weather.— Over 10,000 young women have signed an agreement to adopt a short skirt for walking in muddy or snowy weather during the coming winter. At a conference of representatives of these dress reformers it was decided, after considerable debate, that the skirt should be at least five inches off the ground, or reaching only to the tops of the shoes. The movement has spread to Nottingham, and it is thought that before many weeks boot-topped skirts will be the rage all over the country, except among that portion of the community that is unfortunate enough to possess pedal extremities of abnormal size.—*St. Paul Dispatch.*

A rather unique resolution appears in the papers, the action of the W. C. T. U. conventions in Minnesota. It reads as follows : —

"*Resolved*, That, inasmuch as the wearing of trained dresses is compulsory in the courts of kings, it is a fashion that may well be set at naught by the women of a republic ; and since a style of dress which keeps a woman continually clutching at her garments, detracts from her dignity and moral influence, as well as from her freedom and comfort, and, whereas, by the wearing of trains our sisters are made weak, we will wear no trains while the world stands."

MOTHERS' MEETINGS.

HAVE you a Mothers' Meeting in your town? in your community? If not, this is a special message to you. Perhaps in some hour of perplexity over the training of your own little ones, you have longed for just such help and support as might have been gained through prayerful consultation with other mothers, older and wiser than yourself.

You have wished for a Mothers' Meeting and have felt that you would be in cordial sympathy with it if it existed, but it has never occurred to you that you ought to take the initiative, and help it into existence.

Or it may be you have hesitated because of a supposed lack of fitness, not realizing that the awakened thought is the first requisite of fitness, and that if you will follow its leading in willing obedience, you will find yourself praying, and thinking, and reading, and talking, for very love of the subject, until at length, all unconsciously to yourself, the fitness will be gained. Fitness does not come by magic, but is the quiet outgrowth of a great devotion, which has its beginning in the awakened thought.

Perhaps, on the other hand, you are one of those rare mothers, blest with a wise early training and breadth of education, with helpful friends, and all the new and suggestive literature on the subject of child-training, and you are so well equipped for your work that you never thought of needing a Mothers' Meeting. But you have forgotten the sweet and solemn responsibility resting upon those who have "freely received," that they should as "freely give." So many mothers are hungry for the help which you can give them; and still others who need your help none the less, are not yet awake to their own need, their very ignorance and indifference being their strongest claim upon you.

But stronger still is the claim which comes unspoken, yet full of appeal, from the children of these mothers, drifting on toward manhood and womanhood, without self-knowledge or self-control, either selfish or purposeless, and lacking every element which would make their lives tolerable to themselves or useful to others.

The Mothers' Meeting is not omnipotent to prevent all this evil, but it is one of the most radical and far-reaching forces at our command, and can do a world of good by quietly turning the current of thought into new and safer channels.

Now is the time to make plans for your winter work, and will you not include the Mothers' Meeting? Summon all the forces at your command, and above all, give yourself to the work, lovingly and prayerfully. If you have a meeting already, make it richer and better and more helpful than ever before. If you have no meeting, kindle the hearts of half a dozen women from your own enthusiasm, and make a beginning.

Talk personally with them, and secure their interest and their promise to attend, and then announce your first meeting. Enlist the interest of your pastor, and ask him to give notice of the meeting from the pulpit, with a word of explanation and approval. Let there be a notice in the local paper, give as many personal invitations as possible, and above all realize your dependence upon God's blessing for the success of your efforts. Always open your meetings with reading of the Bible and prayer.

Malachi 3 : 1–18 and Mark 10 : 1–16 are suggested as the Scripture reading for the first meeting. Let the reading be followed by two or three brief, earnest prayers. Make sure, if possible, of having a strong, clear, consecrated voice present, to lead in the inspiring and blessed hymns which every one knows. "Jesus, Lover of my Soul," "Nearer, my God, to Thee," and a score of others like them, are better in the beginning than the best of new songs, with which only a few are familiar.

Devote your first meeting to the arousing of the deepest and most solemn realization of the need of a Mothers' Meeting in your town, and the highest faith and enthusiasm as to the possibility of having a meeting which shall be a help and a blessing.

Aim to secure a general discussion as to your plan of work. It is very important to enlist as large a number as possible in really doing something; for only in this way can you hope to secure a broad and

vigorous life for your meeting. It is desirable that your leaders should be appointed in rotation, thus securing variety in the treatment of the subjects, and a fair division of the labor and responsibility. Announce at each meeting the topic for the following one, and suggest that written questions bearing on that subject may be handed to the leader, to be answered by her, or to be read by her, and submitted to the meeting for general discussion. Appoint an Invitation Committee of at least five of your most cordial and gracious women, who shall personally visit all mothers, especially young mothers, and lovingly set forth the advantage of attending your meetings, and heartily invite them to come, thus insuring that your second meeting shall be larger and better than the first.— *Home Guardian.*

CIRCULATION OF PERNICIOUS LITERATURE.

UPON this subject Mrs. L. S. Rounds, Pres. of the Ill. W. C. T. U., said in her annual address: —

"Never in the history of our country was pernicious literature so systematically and widely circulated as now. The mails are burdened with tons of reading matter that barely escapes the legal definition of impurity, and hence avoids confiscation, but which in point of real truth is intensely dangerous to the minds and morals of the young. Mr. Thomas K. Cree, Field Secretary of the International Committee of the Y. M. C. A., says: 'In Great Britain, Zola's grossly impure French novels are not allowed to be sold, and the publishers are fined and imprisoned. In this country we carry all his books in the mails by the ton at one cent a pound, while Bibles, miscellaneous, and school books cost eight cents a pound!'

"It will surprise you to know that five thousand tons (ten million pounds) of paper-covered books are carried in the mails annually from New York City alone, at one cent a pound. The amount of second-class mail is a matter of record, but the exact amount of books so mailed cannot be known, yet it is the opinion of those best able to know, that five thousand tons is a fair estimate for New York, and half as much for other cities."

"All over the land are scattered far and wide engravings, photographs, pamphlets, leaflets, and microscopic charms, all teaching with Satanic skill every stage of impurity, while over this seething mass of printed pollution there hangs to-day a criminal apathy on the part of good people which will in the near future give place to a mournful wail for the children debauched and hopelessly ruined."

A BILL has been introduced and is now pending in the Louisiana Legislature, to raise the "age of consent" for young girls, from twelve to thirteen years. The New Orleans *Picayune* says, "No greater concession than thirteen years seems possible at the hands of the General Assembly."

THERE is an enchanted middle-ground between virtue and vice, where many a soul lives and feeds in secret and takes its payment for the restraint and mortifications of its outward life. The love of temptation for the excitement it brings is general. This polluting preparatory process leads to actual sin. I presume that there is not one licentious man or ruined woman in a hundred whose way to perdition did not lie directly through the forbidden field of imagination. Here Satan is transformed into an angel of light.— *J. G. Holland.*

IT is in vain that we attempt to stay the licentiousness of youth when we leave unchecked in their growth those seeds of vice which are sown in the bosom of the child.— *Dr. Ware.*

RUFUS ELLIS, one of our great moralists, says, "You do a person no good unless you make him better."

IT is now expected that a Social Purity Congress will be held in Chicago, in connection with the Columbian Exposition.

IF we can only get our boys and girls to realize that from the soles of their feet to the crown of their heads they belong to Christ; that their feet belong to him by the print of the nails in his own, their hands, by the wounds in his palms, their bright young heads, by the crown of thorns he wore for them, their whole body and soul, by the great passion of his love poured out to win them to God — we shall have gained more than half the battle in making them modest, pure, and brave.— *Sel.*

WASTE no tears
Upon the blotted record of lost years,
But turn the leaf, and smile, oh, smile to see
The fair white pages that remain for thee.

—*Sel.*

THE GOLD-CURE SPECIFIC.

THE notoriety of this empiricism is rather a sad reflection on the general intelligence of the public, and also of many so-called physicians.

Charlatanism managed with psychological skill, assuming some discovery in science that is a rational possibility, and covering up the real motives, is always attractive to the credulous and non-experts. But when it boldly proclaims theories outside the range of science and common sense, to be accepted entirely on faith, and the whole supported upon a great pecuniary scheme to enrich the authors, it is difficult to understand how it should receive any serious attention.

Compared with other empiric schemes, the bichloride of gold is very inferior. It is the same old quackery, bold, ignorant, and dogmatic, without a single original feature. The wild, hysterical claims of cure by those who have used the secret remedy, is the same old story that is heard after every church and temperance revival. This posing as cured men by this or that means, with certificates from clergymen and others, is common history in every community.

It is a curious fact that mystery and concealment should add to its popularity, and still more unexplainable that both pulpit and press should be caught by such means. It is not strange that inebriates who have received benefit from the treatment should become enthusiastic defenders of its merits, particularly when it is a pecuniary object to do so.

The rapid growth of branch institutes for the treatment is purely commercial. They are managed in nearly all cases by so-called cured men. Precisely what the secret remedy is, used under the skin and other means, is of no interest except psychologically, and as a phase of the evolution of the drink evil.

The success of the author financially in this country has developed the same boldness to "conquer other worlds." But, unfortunately, he assumed that entrance into societies and scientific support was a merchantable thing, to be bought. Also that the medical as well as the secular press was governed by public opinion, and ready to sell out when the price was offered. This was the "Waterloo for Keeleyism" abroad. The *British Medical Journal*, the London *Lancet*, the *Medical Press*, and several of our large dailies have denounced the whole scheme as the boldest quackery that has appeared for a long time. In the meantime, a house has been opened in London for the cure of inebriates, and the secret remedy offered for sale.

An analysis of the remedy has been made, and it is found to contain no gold, but 27½ per cent of absolute alcohol; and this statement is not denied by the managers of the cure. The Berlin authorities refused to permit a branch institute to be opened in Prussia, unless the remedy was first submitted to the public chemist for analysis.

In all this the gold-cure managers have displayed stupidity rarely seen among the common quacks. No attempts have been made to cover up the real pecuniary objects of enlisting capital and organizing companies for the sale of rights and remedies as a matter of great profit. This combination of charity, business, and science is new to our English relatives, and of course rejected. There is one feature of this gold-cure specific worthy of study, that is, the hurry and dash of the movement,—doing its work in three or four weeks, sending out the patient inflated with an idea of permanent cure, filled with extravagant expectancies and hope, and receiving full pay for this operation. This shows rare skill and full recognition of the brevity of this movement. The bichloride of gold will soon be among the things of the past, and also be a source of wonderment how it could grow and attract attention in this materialistic age.—*Journal American Medical Association.*

A KEELEY GRADUATE INTERVIEWED.— The *Fortnightly Review* publishes the following account of an interview with a Keeley graduate, which sounds very much like several interviews which we have had with graduates from Dwight, in relation to its methods. It is apparent that Dr. Keeley gives his patients, under the guise of "Bichloride of Gold" (an impossible substance), poisonous doses of atropia. It is also stated by those who have made an investigation of the matter, that the liquid which he injects into the patients' arms is large doses of strychnia. A gentleman connected with the Clark street mission in Chicago stated to the writer not long ago, that a large number of Keeley graduates came under his notice, a very small proportion of whom have received any permanent benefit from the treatment received at Dwight. Our opposition to Dr. Keeley's work is based upon the following reasons: —

1. It is conducted in a quackish and mercenary manner which is entirely inconsistent with his professed benevolent mission.

2. It is absolutely wrong in principle. Men cannot be reformed from drunkenness by chemical antidotes, any more than they can be reformed from lying, stealing, swindling, gluttony, licentiousness, and other sins.

"I had been on a toot in New York," he said, "and my father got me to go to Dwight. When I got to the institute, the doctor cut the sleeve of my shirt, and gave me an injection from a bottle which contained three or four different colors of liquors. The 'barber pole' the boys call the bottle. They also gave me a little two-ounce bottle of whisky. Four times a day during my stay I took the injection, and I also kept up the internal medicine every two hours. They also gave me a little whisky three times a day for several days, gradually tapering off until the supply finally ceased altogether.

"I noticed in a few days after taking the treatment that my vision became very blurred and indistinct, and I could not see at all well. It was hard work to read; a fellow could hardly make way with a column a day. I found everybody else in Dwight affected in the same way. One also has twitchings and contractions of the muscles, and your throat becomes very dry and parched, and you could almost light a match on your tongue. The voice is also affected somewhat, on account of the throat being so dry.

"I staid four weeks; and it cost me $25 a week — $100 in all — for treatment, and $7 a week, or $28 for my entire stay, for board. Then membership in the Bichloride of Gold Club cost another dollar, and the badge $1.50 more. It is a dull sort of town, and the boys had to get together in some sort of a society to pass away the time. We would usually play cards in the day time, and have meetings two or three times a week in the evening. The main talk in these gatherings would be eulogies of Dr. Keeley, who had done so much for the world.

"While at Dwight, I did not think or feel the same as before I entered. I was so thoroughly impregnated with the chemicals that had entered my system, that my mind would not work clearly. I had queer dreams and hallucinations, peculiar and outlandish fancies and grotesque ideas, such as I never had before. I could not think or reason clearly or lucidly.

"After leaving Dwight, and ever since, I have felt entirely irresponsible for my actions, and have felt, as the boys say, 'like I had a wheel in my head.' I came to St. Louis, and went on the road for a local lithograph concern. I had no desire for liquor as long as the medicine lasted, and after it was gone, my will power was sufficient to enable me to resist until I was at Memphis. I alighted from the train with backache and my head muddled and dizzy. I called for a cocktail — the first since leaving Dwight. When handed me, I threw it out, resisted it, and walked to the other end of the room. Then I came back and called for two more, which I drank. Since then I have drank whenever I wanted, but liquor has not tasted as it did before. It seems to make me very sick."

DANGEROUS HAIR TONICS.— Persons who imagine that hair dyes are necessary to their good looks and happiness, not infrequently suffer great injury from the use of poisonous substances which are sold under various delusive titles as hair dyes, tonics, invigorators, etc. The *Chemical Gazette* states that "many of the so-called hair tonics of the market consist of sulphur, acetate of lead, and water, with a little glycerine. Their 'tonic' effects are chiefly exhibited in slowly dyeing the hair by means of the lead, the use of which for such purposes is quite dangerous, as it is liable to be absorbed, and cause the insidious disease known as lead poisoning. Lac sulphur alone is thought to exercise some beneficial effect on the hair, but this is doubtful."

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

RETROSPECTIVE.

GOOD HEALTH has again reached the close of another one of its annual rounds as a promulgator of sanitary truths. It is now little less than twenty-seven years since the advent of this journal marked the beginning of the diffusion of sanitary principles in the West. While preceded by one or two Eastern journals interested in health principles, but chiefly devoted to the diffusion of knowledge respecting hydropathy, then comparatively new to the American people, GOOD HEALTH was really the first journal in the United States that undertook to deal with the question of health from a broad and comprehensive standpoint. The journal has acquired a wide circulation, and to-day its subscription list numbers four or five times as many readers as any other journal devoted to the same subject in the United States. The popularity of the journal is doubtless due to the fact that it has always sought to keep near the people, and to bring the most abstruse scientific health problems within the mental grasp of every intelligent person desirous of acquainting himself with the facts and principles of the rapidly growing and progressive science of health by right living.

GOOD HEALTH has not been made a money-making enterprise. For twenty years it has been under its present editorial management, and the editor can truly say that his task, although an arduous one, since he has been almost constantly burdened with other duties, and has been obliged to give to the journal almost every moment which otherwise might, and perhaps ought to have been, devoted to relaxation and recreation, has nevertheless been a labor of love and interest. GOOD HEALTH has never been a source of pecuniary profit to its publishers. Every dollar earned from it has been expended in making the journal a better exponent of the principles which it has undertaken to teach. The same policy will be pursued in the future. There are a number of improvements in contemplation for the coming year, some of which are mentioned in the Publishers' Department of the present number.

Congratulating themselves upon having carried this journalistic enterprise through the first quarter century of its existence, and into the second, and soliciting a continuance of the liberal support which the public have always accorded the journal and its mission, the editors and publishing corps of GOOD HEALTH extend their hearty congratulations to the thousands of readers who each month peruse these columns, and wish each and every one of them a happy and prosperous new year.

SCIENTIFIC EXPOSURE OF MAGNETISM FRAUDS.

AT the meeting of the American Electro-Therapeutic Association, held at the Academy of Medicine, New York City, October 4 to 6, which we had the pleasure of attending, Dr. Frederick Peterson and Mr. A. E. Kennelly, of the Edison Laboratory, reported the "results of some physiological experiments with magnets," which they had conducted at the Edison Laboratory, employing for the purpose magnets of great power, and of sufficient size to require two men to lift them. The magnets were arranged in such a manner as to secure the greatest possible amount of magnetic energy in action. Frogs' blood and other fluids, as well as human beings, were subjected to the influence of the magnet. We quote the following brief abstract of the paper read by these gentlemen, from the *Electrical Engineer* for October, 1892:—

"After a few words in regard to the effect of mag-

netism upon certain forms of hysteria, etc., and quoting Profs. Benedikt, Roberts, Bartholow, and Dr. Vansant on the subject, the authors described experiments made by them with magnets of great power at the Edison laboratory at Orange. The pole-faces of the magnet, which two men were required to lift, were 1.2 cm. apart, and between these poles, objects were placed for observation. The intensity of the field was about 5000 C. G. S. lines per square cm. A drop of water on a glass slide in this field was visibly distorted. Experiments were made on blood, which was found to be unaffected in any way. Experiments upon frogs failed to give any result. Then the effect of a continuous current was noted, and circulation was found to cease. Benedikt's statement that magnetism will produce paralysis was then tested. A set of idle field magnets converging into a cylinder two feet in diameter and seven inches deep was employed. In this cylinder a dog was placed for five hours without the slightest visible effect. Experiments were next tried upon the brain. The armature and one journal were removed from a dynamo converting about 70 h. p. at full load, and in the space between the pole-pieces the subject placed his head. The intensity of the magnetic field produced was about 2500 C. G. S. lines per square cm. A switch was arranged to open and close the exciting circuit. Sphygmographic tracings, taken continuously, showed no change in regularity.

"The respirations were not changed in the least, and there were no sensations that could be attributed to magnetic influence. Experiments in connection with reversed magnetism also failed to show any effect upon the subject. From these experiments, the authors conclude that the human organism is unaffected by the most powerful magnets known to modern science; that neither direct nor reversed magnetism exerts any perceptible influence upon the iron in the blood, upon the circulation, upon ciliary or protoplasmic movement, upon sensory or motor nerves, or upon the brain."

The experiments above described seem to settle in the most positive manner the question as to whether the magnet is possessed of any therapeutic virtues. If experiments with a magnet with an electrical current capable of doing work equal to a twenty-horse power produces no effect whatever upon the nerves, the heart, or the blood, it is evident that the toy magnets which are peddled about the country in the form of magnetic insoles, magnetic garments, etc., can have no possible influence upon the human body. These contrivances are simply mind-cures, so far as magnetism is concerned; all that is possible is that in some instances some benefit may be derived from the abdominal supporters, insoles, and other appliances in which the magnets are concealed. — *Bacteriological World and Modern Medicine.*

"No Smoking Allowed Here."— This was the sign posted up above the door of the exhibition room in Los Angeles, Cal., in which a dog show was in progress. Certainly no smoking should be allowed in such a place — it would hurt the dogs. This the keepers and owners of the dogs very well knew, and hence made the prohibition and enforced it. Cigars, pipes, and cigarettes were all extinguished or left at the door. Dogs that are worth exhibiting must not be exposed to the baneful influence of tobacco smoke. Nicotine is death to dogs as well as snakes. How marvelously tough, physically, must be the male members of the *genus homo*, who often inhale tobacco smoke from morning until night, not in the diluted form in which an unfortunate dog is sometimes compelled to take it, but in undiluted purity, if so nasty a thing can be said to be in any sense pure. How much less sensitive and susceptible than canines must be those delicate ladies who sit in drawing-rooms made cloudy by the fumes of nicotine, and ride in street cars redolent with tobacco fumes, and sometimes even promenade upon the streets, clinging to the arm of some tobacco slave who vomits continually out of his mouth and nostrils, volumes of tobacco smudge to be taken at second hand by his companion, and whoever may be so unfortunate as to be compelled to follow in his wake.

If tobacco is, in its essence, bad for dogs, by what sort of reasoning can it be made out to be good for men and women? It is to be hoped that American people will sometime become sufficiently civilized to consider every smoker and tobacco chewer a public nuisance as much as a slaughter house or a tannery when in proximity to human habitations.

Taking Cold.— The following very sensible remarks from the London *Lancet* are particularly appropriate at this season of the year:—

"Catarrhs should receive careful consideration instead of the neglect which they generally meet with until they have fastened on the part affected so much as to excite the attention, and perhaps alarm, of the sufferer. Here, however, we propose to say a few words about the causes of chills. A person in good

health, with fair play, easily resists cold. But when the health flags a little, and liberties are taken with the stomach or the nervous system, a chill is easily taken, and, according to the weak spot of the individual, assumes the form of a cold, or pneumonia, or, it may be, jaundice. Of all causes of 'cold,' probably fatigue is one of the most efficient. A jaded man coming home at night from a long day's work, a growing youth losing two hours' sleep over evening parties two or three times a week, a young lady heavily 'doing the season,' and young children at this festive season overfed, and with a short allowance of sleep, are common instances of the victims of 'cold.'

"Luxury is favorable to chill taking. Very hot rooms, soft chairs, and feather beds create a sensitiveness that leads to catarrhs. It is not, after all, the 'cold' that is so much to be feared as the antecedent conditions that give the attack a chance of doing harm. Some of the worst colds happen to those who do not leave the house, or even their bed; and those who are most invulnerable are often those who are most exposed to changes of temperature, and who, by good sleep, cool bathing, and regular habits, preserve the tone of their nervous system and circulation.

"Probably a good many chills are contracted at night or at the fag end of day, when tired people get the equilibrium of their circulation disturbed by either overheated sitting-rooms or underheated bedrooms and beds. This is especially the case with elderly people. In such cases, the mischief is not always done instantaneously, or in a single night. It often takes place insidiously, extending over days, or even weeks. It thus appears that 'taking cold' is not by any means a simple result of a lower temperature, but depends largely on personal conditions and habits affecting especially the nervous and muscular energy of the body."

Adulterated too Many Times.— A story is told of an Illinois man who purchased large quantities of baking powder of a Chicago firm, in bulk, and who called at the office of the dealers the other day, complaining that there was something wrong with the article.

"I don't think so," was the reply; "we make the best article sold in the West."

"I think we ought to have a more perfect understanding," continued the dealer. "Now then, you adulterate before you send to me, then I adulterate before I ship, then the retailer adulterates before he sells, and the consumer can't be blamed for growling. I wanted to see if we could n't agree on some schedule to be followed."

"What do you mean?"

"Why, suppose you put in 10 per cent of chalk, then I put in 20 per cent of whiting, then the retailer puts in 30 per cent of flour; that gives the consumer 40 per cent of baking powder, and unless he 's a born hog, he 'll be perfectly satisfied. You see if you adulterate 50 per cent on the start, and I adulterate as much more, and the retailer adulterates as much as both together, its mighty hard for the consumer to tell whether he is investing in baking powder or putty; we must give him something for his money, if it 's only chalk."

A Shoemaker on Women's Feet.— Shoemakers have an excellent opportunity to study the hygiene of the foot. One intelligent shoemaker, at least, seems to have profited by his opportunities, and this is what he says: —

"The feet of Americans are, as a rule, of smaller and lighter build than the feet of Englishmen, and have more arch and higher insteps. I worked in the best London shops before coming to this country, and I know there are plenty of big feet among the English aristocracy. The feet of the American ladies are smaller than those of English ladies, but the American ladies are apt to distort their feet in a way that English ladies do not. Now, by rights, the last on which a shoe is made ought to be three sizes larger than the foot. There are four sizes to an inch, so that would give three quarters of an inch room to the foot. An Englishwoman will take such measurement, but if you make shoes in that way for American ladies, you will have them left on your hands. You cannot make the shoe more than a size and a half to two sizes above the exact length of the foot. 'Anything I can get my foot in, I can wear,' they say, and so we give plenty of width between heel and ankle, so that they can slip their feet in, and they do n't seem to mind how their toes are pinched together when the foot settles into the shoe. The result is, the English women have a freer, easier gait than American women."

The Poison of Tobacco.— Everybody knows that tobacco will kill snakes and vermin, but every one does not know that the nicotine contained in a single pound of tobacco is sufficient to kill 300 men, if taken in such a way as to secure its full effect. A single cigar contains poison enough to extinguish two human lives, if taken at once.

The essential oil has been used for homicidal purposes. Nearly forty years ago it was employed by the Count Bocarmé to murder his brother-in-law for the purpose of securing his property.

The Hottentots use the oil of tobacco to kill snakes, a single minute drop causing death as quickly as a lightning stroke. It is much used by gardeners and keepers of greenhouses, to destroy grubs and noxious insects.

A number of instances are recorded in which instant death has been produced by applying a little of the oil from the stem or bowl of an old pipe to a sore upon the head or face of a small child.

Do We Eat too Much? — To this question many modern physicians answer, No, although nearly all ancient and most modern writers upon health have insisted that the contrary is the case. Those who advocate liberal feeding, claim that nature has made provision for the disposal of any surplus of nutriment, and hence, that no harm can come from over-indulgence in gustatory pleasures, at least as regards quantity, these theorists, in their anxiety to afford encouragement to the glutton and the epicure, seem to forget that vital energy is of any value. They seem to quite lose sight of the fact that the vitality consumed in digesting the excess of food taken into the stomach might possibly be put to some better use. They also appear to be oblivious to the fact that the elimination of the crude products of imperfect digestion from the blood is a task which requires the expenditure of a still larger amount of vital energy upon the part of the kidneys, liver, and other eliminative organs, thus not only overworking them, but diverting them from their proper work, and so working serious mischief in the vital economy. We are thoroughly convinced, from personal experience and observation, that the majority of persons eat too much. Overeating is one of the most frequent causes of the almost universal dyspepsia in this country.

The following interesting paragraphs from the London *Standard* we heartily indorse : —

"Under the query, 'Do we eat too much?' the writer gives many interesting facts. He says, for instance, that the amount of nourishment which a person needs, greatly depends on his constitution, state of health, habits, and work. A sedentary man requires less than one whose duties demand the exercise of his muscles, and a brain-worker needs more than an idler. But unquestionably the majority of us take more than we need. Indeed, food and work are distributed most unequally. The man of leisure is also the man of means, and accordingly fare sumptuously every day ; while the laborer toils for eight hours and finds it difficult to get enough to repair the waste of his tissues. Yet a Chinaman or a Bengalee will toil under a tropical sun and find a few pice worth of rice or 'jowrah' sufficient to sustain his strength. A Frenchman will not eat half what an Englishman engaged in the same work will demand ; and a Spanish laborer, content in ordinary times with a watermelon and a bit of black bread, will toil in the vineyards, and grow fat on a dietary of onion porridge and grapes.

"The British-Columbian and Californian gold-diggers, than whom a more magnificent set of athletes does not exist, live in the remote mountains of the far West, mainly on beans flavored with the flesh of some animal. But they also obtain the best of water and the purest of air, and their outdoor life and active exercise enable them to digest every ounce of their frugal fare. The English soldiers, though better fed than those of any army except the American, do not get one half the solid nutriment which the idlest of club-loungers considers indispensable for his sustenance. An athlete in training is allowed even less food ; yet he prospers on the limited fare, and prolongs his life by the regimen to which he has been subjected.

"King Victor Emmanuel was a monarch of the most robust physique ; yet he only ate one meal per day, and it is manifestly absurd for any man to require three more or less weighty meals, and an afternoon cup of tea, to support the exertion of walking to the club, riding an hour or two in the park, writing a note or two, and dancing a couple of miles around a ballroom. The ancients had their 'amethustoi,' or 'sober-stones,' by which they regulated their indulgences at table. The moderns have not even this. But they have their gout and their livers to warn them, when it is too late, that nature has been overtaxed."

Tobacco and Heart Disease. — An eminent physician and Medical Examiner for the U. S. N., affirms that one per cent of all applicants for admission to the navy are refused on account of irritable heart from the use of tobacco. We have met many similar cases of this kind, and have seen recovery rapidly take place on the discontinuance of the use of the poison. No physician of intelligence now attempts to defend the use of this vile and poisonous weed.

According to the Jewish Talmud, disease was unknown before the flood.

HEREDITY.

THE question is constantly asked, "To what degree is heredity responsible for the moral and physical infirmities from which human beings suffer?" According to Galton, we inherit one tenth of our original nature from our grandparents, and one fourth from our parents. The fact of heredity is well recognized in the common expression, "a chip of the old block." The influence of heredity is well shown in India, where a caste exists for every trade. Fathers consider it a waste of effort to undertake to teach their sons a trade different from their own, recognizing the advantage of hereditary aptness in the children for their father's trade or profession.

India also affords another illustration of the national deterioration which has resulted from the practice of secluding the women, and condemning them to a life of ignorance and comparative idleness, which has existed for many generations. Fathers and mothers sharing equally in the transmission of hereditary qualities, male as well as female children suffer from this deteriorating influence, and thus the race has steadily retrograded, from the golden age of Hindu civilization, when the masterpieces of Sanscrit literature were produced, to the present time. An Indian writer recently concluded an address with this remark: "I feel justified in concluding my address as Milton's Satan concluded his speech to his followers lying at his feet in the oblivious pool of Lethe, with the words,—

"'Awake! arise! or be forever fallen.'"

Unquestionably, heredity accounts for much of the nervous weakness and other functional disorders from which so large a proportion of the natives of civilized countries suffer at the present day.—*J. H. K., in Bacteriological World and Modern Medicine.*

EARTHWORMS AND TUBERCULOSIS. — Lortet and Despeignes recently reported to the Academy of Science, Paris, some very interesting studies in relation to the function of earthworms in the dissemination of tuberculosis. These authors had previously shown that earthworms may preserve in the different parts of their bodies, the bacilli of tuberculosis during many months, and that they may thus bring them to the surface of the soil. Recently these scientists have extended their researches in this direction, and have determined the important fact that earthworms that have become infected with tubercle bacilli leave behind them in their fæcal matters, as they move through the earth, tubercle bacilli possessed of virulent properties.

Pasteur called attention to a similar action of earthworms in relation to the bacteria of charbon, many years ago. It is of interest to know that the bacilli of tuberculosis sustain the same relation to earthworms as that of charbon. With these facts determined, it is easy to appreciate how a locality may become infected with the germs of tuberculosis. Earthworms harboring the microbes in their bodies, scatter them about through the soil, and bringing them to the surface, where the excreta containing them may be dried and pulverized into fine dust and lifted into the air in the shape of minute particles which may be readily inhaled, it is easy to see how a locality once inoculated with tuberculosis becomes permanently infected.

The purpose of this arrangement of nature in the seeming co-operation of organisms of a low type against human life, is indeed difficult to comprehend. The fact, however, is one of importance, and should lead to the absolute destruction of sputum in every case of tuberculosis. There ought to be a law in

every civilized community requiring every person suffering from tuberculosis to destroy his sputa, as it is chiefly through this means that the disease is extended.

Nearly a century ago, the prevalence of tuberculosis in Naples led to the establishment of a quarantine against the disease, similar to that which is maintained against leprosy in countries where this latter disease prevails. Known facts about the two diseases indicate that pulmonary tuberculosis is a more infectious malady than leprosy. Its ravages are more rapidly fatal in their effects, and recovery from the disease, when it has once obtained a foothold in the system, is almost as rare. A malady which destroys from one fifth to one seventh of all that die, is a veritable plague of the most stupendous proportions; so that how to restrict or restrain this disease, is one of the gravest problems with which the sanitarians of the present day are called upon to deal.—*J. H. K., in Bacteriological World and Modern Medicine.*

Vaccination against Cholera.—The recent narrow escape of the United States from an invasion of cholera has created an interest in the minds of all in the question whether protective vaccination can ever be made practicable in a case of cholera, as has been done with smallpox. Ferran and others have long claimed to be able to secure protection against cholera by vaccination with cholera virus which has been weakened by some one of the several methods by which the virulence of the contagious element may be lessened. Further experiments made by French bacteriologists during the recent epidemic in Paris, and by others, have shown quite conclusively that vaccination against cholera is an accomplished fact, and it is very probable that should the disease make its appearance in a virulent form in any civilized country next year, this protective measure may be employed more or less extensively.

Vaccination against cholera seems to be attended with no more inconvenience than that resulting from vaccination against smallpox. The protective influence of vaccination against the Asiatic germ is not so permanent, however, as the protection afforded by vaccination with cow-pox virus. Ferran finds it necessary to repeat the vaccination in a modified form quite frequently, in order to maintain its protective influence. It is quite possible that more thorough protective methods may be discovered as the result of the extensive investigation of this subject which is now being prosecuted by *savants* in various parts of the world.

Value of Fresh Air in Fevers.—At a late sanitary convention, in the discussion of a paper on ventilation, an old army surgeon related a very interesting experience illustrating the importance of securing to the sick, and especially persons suffering with fever, an abundance of pure air. He stated that during the war, he had charge of a large hospital in which at one time in the winter season he had under treatment three hundred and twenty cases of measels. Just at this time the hospital took fire and burned to the ground. The patients were placed in tents, and all but one or two recovered. He had no doubt that the number of deaths would have been thirty or forty at least, had the patients remained in the hospital. He afterward sent one hundred men who were only slightly ill, to the general hospital at Nashville, and seventy-five of them died. Upon visiting the hospital, he found it so poorly ventilated that the air was exceedingly foul, producing a sickening sensation when he had only been in for a few minutes. The doctor concluded by remarking that he regarded pure air and water as most important agents, and believed them to be capable of controlling the ravages of raging disease.

Gray Hair and Baldness.—There are doubtless many causes of premature degeneration of the hair, resulting in the loss of color and in baldness; but by far the most frequent is dyspepsia. Defective nutrition is the great cause of degenerations of all sorts, and the general principle holds good of the hair as well as of other structures. Our observations on this subject fully accord with those of a physician, who, in an article on the subject of premature gray hair and baldness, in a foreign journal, attributes it to bad diet. Bad diet causes dyspepsia, and this occasions the defective nutriment upon which degeneration of the hair depends.

To Cure Sleep-walking.—A correspondent of the New York *Evening Post*, commenting on an instance in which a sleep-walker was killed by falling from the roof of the house, says: "Such accidents can be easily prevented by laying upon the carpet by the side of the sleep-walker's bed, a strip of sheet-metal, iron, zinc, or copper, so wide and long that when he puts his feet out of the bed, they will rest upon the metal. The coldness felt, will wake him thoroughly, and he will go to bed again. A friend broke up the habit of sleep-walking in his son, by placing a strip of wet carpet by the side of his bed."

ANSWERS TO CORRESPONDENTS.

NASAL CATARRH, ETC.—S. A. B. asks the following questions: "1. Is a weak solution of chlorate of potash a good douche for nasal catarrh? 2. Do you consider it healthful for a child to suck its thumb? If so, in what respects, and is it any less so before the child has its full number of teeth? 3. Which is cheaper for table use, sweet cream or butter?"

Ans.—1. Yes, for certain cases, but not for all cases.

2. Such a habit is certainly not healthful for the thumb, and although it may not do the general health of the child any serious injury, it cannot possibly contribute to its well being in any way.

3. The article of food which is most healthful is of course the cheapest. Sweet cream is, for the majority of persons, much more healthful than butter; hence it is cheaper, whether it costs more or less in dollars and cents.

PAIN IN LEFT SIDE AROUND HEART.—J. E. F., Wash., inquires what should be done for a patient suffering with dull, heavy pain in left side around heart. Pain sometimes leaves side and goes to stomach and throat, and then settles in side again. Suffers from constant headache, which sometimes causes itching; numbness and swelling of left hand and sometimes cheeks and ears, and cramping of feet.

Ans.—This patient is evidently suffering from dyspepsia. If he were under our professional care, we should have him take a test breakfast, analyze the stomach fluid, and should then be able to tell him something definite with reference to the condition of his stomach. The pain indicates an irritated state of the ganglia and sympathetic nerves connected with the stomach.

LIVE ANIMALS IN THE STOMACH.—Mrs. H., Oregon, asks: "If nothing can live in a human stomach, why can it in a cat's? Our cat vomited a half dozen worms about three inches long and about the size of ordinary twine, which wriggled and twisted themselves up in hard knots."

Ans.—Human beings, especially children, not infrequently expel intestinal parasites through the mouth. This does not prove, however, that parasites can live in the stomach. On the contrary, it proves the opposite. When vomiting of intestinal worms occurs, it is because violent retching and vomiting have caused reversion of the peristaltic movement, which naturally operates downward, bringing the parasites into the stomach; or to the fact that the worms, having entered the stomach, are so much disturbed by the conditions which they find there that they are violently agitated, and in their efforts to escape, excite the stomach so powerfully as to induce vomiting.

CATARRH OF STOMACH AND BOWELS.—M. K., Ill., asks why the stomach, bowels, and back ache worse when lying down. Also wishes to know if koumiss is good for the above mentioned disease.

Ans.—The cause of pain in the stomach and bowels, and also pain in the back, which frequently accompanies chronic diseases of the stomach and bowels, is the irritated state of the solar plexus, the portions of the nervous system which preside over these organs. It is not always the case that the pain is aggravated when lying down; more frequently it is increased by the erect posture. If pain is increased by lying down, it is probably due to pressure of the overlying organs upon the ganglia which lie next to the spinal cord.

Koumiss is not a specific for any disorder. There are some morbid conditions, especially burning of the stomach, in which koumiss affords relief, but there are other diet preparations and remedies wholly as useful as fermented milk. We rarely find occasion to use any koumiss.

"MEGRIM."—A patient inquires, "Is megrim injurious? also, Is the powder, a sample of which is inclosed, injurious?"

Ans.—Most of the remedies sold for relief of megrim, or megraine, and so far as we know, all the remedies which have been offered for sale for the relief of this disorder within the last two or three years, are composed of anodyne substances obtained from coal tar. Some of these are useful remedies when used under proper conditions, but almost without exception these agents have a very depressive influence upon the heart, now and then producing death when administered even in the usual doses. A case recently occurred in England, in which the person died from the use of what was supposed to be a perfectly safe dose of one of these agents which had been purchased and used as patent medicine. The judge very properly decided that hereafter patent medicines must be labeled, "Poison" to warn the public that they possessed dangerous properties. It would be well for the people of this country if every patent medicine containing these remedies bore a similar label.

SKIN DISEASE — PERICARDITIS.— H. C. M., Mo., inquires: "1. What is the cause and cure of a skin disease in which there is great itching, swelling, and inflammation just beneath the skin? 2. What can be done for a child of seven years who has been troubled with pericarditis since infancy?"

Ans.— 1. It will be impossible to make a diagnosis without further data respecting the symptoms of this disease. We can only say, in general terms, that the great majority of skin maladies find their origin in some disturbance of the alimentary canal. Poisonous substances are produced in the stomach or intestines, or both, which are absorbed and irritate the skin, producing a condition favorable to the development of microbes which come in contact with the surface of the body, but ordinarily do not find favorable conditions for growth and development. Soothing remedies should be applied wherever there is itching, swelling, and inflammation; sponging the parts with very hot water is one of the very best means of relief. If the surface is red and very sensitive, great relief is often afforded by simply dusting the parts with starch, sub-carbonate of bismuth, or some other fine powder. Cloths moistened in soda water are often serviceable. When the parts are dry, relief will often be afforded by the application of some simple unguent, such as sub-carbonate of bismuth, one part to three parts of vaseline.

2. Nothing but to improve the general health as much as possible, and carefully protect the child from all forms of excitement.

MALARIA, SALT RHEUM, ETC.— Mrs. N. H., Oregon, asks the following questions: 1. "How can malaria be gotten out of the system without the use of quinine? 2. What is the proper diet for a person suffering from malaria? Do fruits and milk aggravate the trouble? 3. What is the cause of salt rheum? 4. Is there a cure for nervous twitching of the eyes and of the muscles of the face and neck?"

Ans.— 1. Removal from a malarious district, checking the paroxysms of the disease by dry packing and other proper means, and improvement of the general health, will cure the majority of cases of malarial poison without the use of quinine. Quinine, however, is a convenient remedy, as its proper use brings the disease to a termination more quickly, in some cases, than could be accomplished by other means. It often fails, however, in the very worst cases, which yield, notwithstanding, to the patient use of non-medicinal agents.

2. Such food as agrees best with his digestive organs, and will produce the purest and best blood.

3. Disordered digestion in the majority of cases, and microbes growing upon the skin.

4. The condition named can usually be cured. The remedy required depends upon the special cause upon which the morbid muscular action depends.

GASOLINE— DILATATION OF THE STOMACH— HARD WATER, ETC.— A reader of GOOD HEALTH asks the following questions: "1. What is the gas or element that produces the unpleasant odor resulting from the burning of gasoline? and is this odor detrimental to health? 2. Please state cause of dilatation and prolapsus of the stomach, and also cure. 3. How does hard water affect the kidneys and liver?"

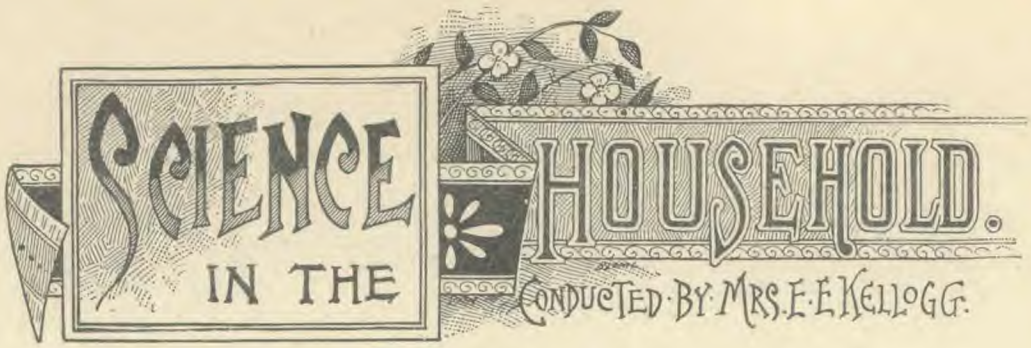
Ans.— 1. All carbonic substances, when burned, give rise to carbonic acid gas. The odor connected with the gasoline, is, however, due to evaporation of the gasoline itself before it is burned, as carbonic acid gas is without odor.

2. The dilatation and prolapsus of the stomach may be due to one of several causes. Usually, several causes act together in producing this condition: constriction of the waist by means of corsets, the weight of dress skirts supported by bands about the waist, belts, sedentary habits, bad positions in sitting, and indigestion are the principal causes. The cure consists in the removal of the causes and by a skillful application of massage, gymnastics, etc., to restore the prolapsed organs to their normal position.

3. Hard water disturbs digestion and imposes extra work upon the kidneys in elimination.

INCONTINENCE OF URINE.— Mrs. L. G. C. inquires, "What can be done for a child of seven years who has the habit of wetting the bed?"

Ans.— Incontinence of urine in children is sometimes due to heedlessness on the part of the child. In such cases, moral means are required. In some cases, however, it is due to a weakness of the nerve centers, which control the bladder. An eminent German physician has suggested that a good "spanking" is an excellent means of strengthening this nerve center. Possibly this form of counter-irritation might prove beneficial, if administered with sufficient frequency; but the spanking ought to be applied before the fault instead of after, which would considerably diminish its value as a moral remedy. When really due to disease, as it is in a certain proportion of cases, careful attention should be given to its correction, as it may lead to very much more serious affections in later years. Some cases require medicinal agents. Such cases should be placed under the care of a competent physician.



NUTS, AND SOME NEW WAYS TO USE THEM.

BY MRS. E. E. KELLOGG, A. M.

THE oleaginous seeds, or nuts, are a class of foods containing, in general, no starch, but are rich in fat and nitrogenous elements in the form of vegetable albumen and caseine. In composition, the nuts rank high in nutritive value, but owing to the oily matter which they contain, are difficult of digestion, unless reduced to a very minutely divided state before or during mastication. The fat of nuts is similar in character to cream, and needs to be reduced to the consistency of cream, to be easily digested. Nuts should be used at the regular mealtime, and not partaken of as a tidbit between meals. It is likewise well to eat them in connection with some hard food, to insure their thorough mastication. Nuts, as well as most other seeds, contain a large proportion of nitrogenous matter, even more than most grains. The peanut, for example, contains 28.3 per cent of this element, which is more than any other food substance, either animal or vegetable. Some nuts are more digestible when cooked than when served raw, and owing to the large proportion of fat which nuts contain, they may be utilized in a variety of ways in connection with other food materials, to make pleasing and palatable dishes. Walnut, pecan, and hickory-nut meats may be easily reduced to a meal by chopping quite fine and afterward pressing with a potato masher through a wire sieve or a very fine colander. Such nut meals may be served as a dressing on grains, or may be utilized in the preparation of numerous breads, soups, purees, etc., recipes for some of which are given below.

Hickory-nut Crisps.— Mix together thoroughly one and one half cups of coarse graham flour and one half cup of hickory-nut meal. Make into a rather stiff dough with ice water, knead well, roll into a sheet as thin as brown paper, cut with a knife into squares, and bake on perforated tins until lightly browned on both sides.

Nut Sticks.— Larger quantities of the flour and hickory-nut or pecan meal used in the same proportion as above may be prepared into a dough in the same manner; after being well kneaded, it may be divided, and shaped by rolling with the hand into a long roll about the size of one's little finger. Cut into three or four inch lengths and bake on perforated sheets for about twenty minutes.

Cooked Peanuts.— Shell the nuts and blanch by pouring over them some boiling water. After standing a few minutes, the skins can be easily rubbed off. Add to a pint of the blanched nuts about two quarts of water, put them into a bean pot; heat to boiling, then place in a slow oven and cook for nine or ten hours. When done, they should be soft, mealy, and rich with juice. No seasoning but a little salt will be required.

Peanut and Tomato Puree.— Prepare and cook peanuts as directed in the preceding recipe. When done, rub them through a colander. To three cups of the peanuts add one of strained, stewed tomato, season with salt, reheat, and serve.

Bean and Peanut Puree.— Mix well together one cupful of mashed beans and one half cup of cooked peanuts which have been rubbed through a colander. Add salt to season and two tablespoonfuls of lemon juice. Thin with a little water if necessary; reheat and serve.

Bean Puree with Brazil-nuts.— Prepare and cook white beans until tender. When done, rub through a colander. To two cups of the beans thus prepared add one fourth cup of Brazil-nut meal, season with salt, reheat, and serve.

Fruit and Nut Biscuit.— Mix well together one cup of finely chopped fresh figs and two cups of pecan meal. Shape with the hands into small biscuit, one third to one half an inch in thickness, and bake in a moderate oven from twelve to fifteen minutes.

Peas, Tomato, and Pecan Puree.— Cook one and one half cups of Scotch peas until done, in as little water as possible, so that they will be quite dry when tender. Rub them through a colander, add one cup of strained stewed tomato, salt to season, and one half cup of pecan meal. Reheat and serve.

Roasted Almonds. — Shell fresh, sweet almonds, and pour boiling water over them; let them stand for two or three minutes, skim out, and drop into cold water. Press between the thumb and finger, and the kernels will readily slip out of the brown covering. Place the blanched almonds on tins, and set in a moderately hot oven until nicely browned.

Baked Chestnuts. — Use the large Italian chestnuts; cut a small hole in one side of each nut, to allow the steam to escape, place on perforated tins, and bake in a rather hot oven for ten or fifteen minutes, or until perfectly tender. Remove the shells and serve hot.

Nut Crust for Apple Pie. — Mix together thoroughly one third white flour, one third graham grits or graham meal, and one third pecan meal. Make into a soft dough with ice water, knead thoroughly, roll thin, shape, fill, and bake the same as ordinary crust.

Fruit and Nut Sponge Drop Cakes. — Beat the yolks of four eggs to a thick cream. Add two teaspoonfuls of lemon juice, and beat again. Add one cupful of pecan meal and one cupful of dates, stoned and rubbed to a smooth cream. Beat all together very thoroughly; lastly add the whites of the four eggs beaten to a very stiff froth and two tablespoonfuls of gluten meal No. 1, or browned whole-wheat flour, folding and chopping this in very carefully. Drop in spoonfuls on slightly oiled plates and bake ten or twelve minutes. Handle carefully until cold.

The Care of Lamps. — There are a great many people who have used lamps all their lives, who know absolutely nothing about their proper care. They wash chimneys with soap and water, and cut the wicks down beyond the charred part, and lean back with satisfaction, believing that their work has been well and properly done. In point of fact, the chimney of a lamp should never be touched with water. A few drops of alcohol, or even kerosene oil, will remove the dimmed, smoky effect, and make the chimney bright as possible when it is polished with a soft flannel or chamois skin. There will then be no danger of any moisture being left in the chimney, so it will crack when the lamp is lighted.

All parts of the burner of a lamp should be thoroughly clean. A little kerosene or alcohol on a cloth is as good for this purpose as anything else to clean the burner, providing it is polished clean and dry afterward. Neglected old burners may be boiled up in soda and water and renew their usefulness, though not their appearance, as this process removes the lacquer put on most brass. It is not necessary to allow a burner to get in such a condition that it must be boiled in this way to clean it, but if it does, there is no better remedy.

Every part of the outside of a lamp should be rubbed dry and free from oil when it is filled, daily. Do not cut the wick of a lamp after it is first put in and has been evenly trimmed once, but each day brush off the charred portion. The wick will last longer and the light be evener and clearer if this last rule is strictly adhered to. Metal or porcelain lamps in which the oil is put in a font of metal resting within the porcelain, are the most desirable and least dangerous lamps to use.

Always avoid filling a lamp to the brim, or burning it when the oil is nearly exhausted. There is no special economy in turning down a lamp; nearly the same amount of oil is consumed, what is not burned in the blaze passing off in gas, which is often strongly noticeable on going into a room where the lamp has burned low for some hours. In case only a little light is desired, a night lamp adapted to a small wick should always be used. — *Sel.*

Strange Diet for a Child. — A writer in the *Chautauquan* relates the following incident: —

"A beautiful child of four years was recently reported by her mother as alarmingly ill. 'It is strange, but my children, though so healthful in appearance, are almost always complaining of something,' said the mother.

"'Are you careful of their diet?' was asked.

"'Oh, no, they eat and drink anything that is on the table,' was the reply; 'I never could bear to deny them anything, but I never thought that it made much difference so that they had enough.'

"The *menu* in this family one August day for breakfast was as follows: Breakfast bacon, fried eggs, fried potatoes, soda biscuit (hot and soggy), hot griddle cakes and grocery syrup, strong coffee. At luncheon, the men never coming home, about the same articles were served, only cold, and with the addition of pie. Dinner at six consisted of ham and eggs, beets, beans, cabbage (fried), potatoes, pickles, catsup, jelly, biscuit (hot), cake, pie, coffee. This was generously served to the little four-year-old maid, whose mother afterward wondered, when she was stricken down with bowel and gastric troubles, why her children were so often ill!"

LITERARY NOTICES.

A NEW book by Barry Pain, called "Playthings and Parodies," is just ready from the press of the Cassell Publishing Company. Barry Pain stands in the front rank of popular authors, and a new book from his pen is all that a publisher need announce to attract attention. The present volume is made up of burlesques and short stories. Of these latter the Chicago *Tribune's* literary critic says: "Barry Pain has brought the modern short story, and the modern story is a short one, to perfection," and this seems to be the general opinion of press and people.

"THE REPUTATION OF GEORGE SAXON" is the title given to a collection of stories by Morley Roberts, which is published by the Cassell Publishing Company. The story from which this volume takes its name is certainly an original one. It tells of a man who carved the laurels of literature without any claims for wearing them. To win them, however, he got another man to write for him and with disastrous results. The stories in this volume are bright and entertaining.

THE December number of *Jenness Miller Illustrated Monthly* contains many special features, some pertaining to Christmastide. Mrs. Jenness Miller has three pages of matter about dress, books, and chat particularly interesting to women and young girls. There are numerous timely articles of interest to the housewife. Miss Mabel Jenness's sterling book on Physical Culture is still given as a premium to subscribers. Price, $1, with premium. The Jenness Miller Illustrated Monthly, 114 Fifth Ave., New York.

"A NEW ENGLAND CACTUS AND OTHER TALES," by Frank Pope Humphrey, is the next issue in Cassell's "Unknown" Library. This clever story will fully sustain the popularity of this series, which has proved such a successful one. The title indicates the scene of the story, which will doubtless be attributed to one of the half dozen best writers of New England dialect tales.

"SHORT TALKS ON CHARACTER BUILDING," by G. T. Howerton, M. S. Illustrated, 12 mo., 227 pp., cloth. Price, $1. Published by Fowler & Wells Company, 27 East 21st street, New York. Mr. Howerton has taken up his pen as a practical observer and student of life. The reader is impressed, on opening the book, that the author is in thorough earnest, and does not deal merely in words. He analyzes the three fundamental elements of a true individuality,—birth, education, regeneration,—and transfers their relation to the future of the youth or maiden. How one may "stand in his own light" is pithily illustrated, and what sort of work should be done by education for every boy and girl is set out in a sharp light. It is a book that we can commend to the parent and teacher, and to young people, as a real help toward the understanding of character and toward its improvement in the most desirable lines.

"THE ROYAL ROAD TO BEAUTY, HEALTH, AND A HIGHER DEVELOPMENT," by Carrica Le Favre, is number 12 of the Science of Health Library, published by Fowler & Wells Co., 27 East 21st street, New York. The basis of this Royal Road is reform in diet and better habits of life. The author takes a stand against the extravagant meat-eating propensities of the American people, and she suggests that we will find advantages in living for health, which always means for beauty. The work is by the author of "Delsartean Physical Culture," and it is rather an exception to find a work on Beauty not filled with suggestions of cosmetics and drugs.

"THOUGHTS OF BUSY GIRLS" is the title given to a volume of short essays from the pens of working girls, which Miss Grace H. Dodge, the well-known philanthropist, has edited and prefaced. These essays are quite remarkable, considering the disadvantages under which the writers worked. While they may occasionally trip in their grammar, they show intelligence and thought, and have the merit of having been written with all seriousness of purpose. They should act as a stimulant to other working girls. The Cassell Publishing Company will issue the book.

Good Housekeeping for December is a Christmas number, and the opening paper, which will be found one of the most valuable in the issue, is from the pen of Miss Parloa, under the title of "Pretty Things for the Holiday Table." The frontispiece is a scene entitled "Popping Corn," with poetical setting; while the special papers, both those adapted to the season, and such as pertain to the general welfare of the home, combine to make a number of marked excellence. This magazine, "in the interests of the higher life of the household in the homes of the world," is published at $2 a year, $1 for six months. Clark W. Bryan Company, Springfield, Mass.

PUBLISHERS' DEPARTMENT.

GOOD HEALTH FOR 1893.— Beginning with the January number, GOOD HEALTH will hereafter contain a department particularly devoted to those interests of the home which relate especially to the mental, moral, and physical welfare of the youngest members of the household. The department will also contain practical suggestions on many other home matters.

The following are a few of the subjects which will be considered in this new department: —

Kindergarten Methods for the Home; Manual Training for Children, Adapted to the Home; Mothers in Council; Home Government; New Methods of Dealing with Child Faults; Character Building; Training of the Faculties; the Nursery; Body Building; Gymnastics for Babies; Nursing the Sick; and in addition, all the various interesting and practical subjects which have heretofore been considered in the departments devoted to Dress, Social Purity, and Household Science.

Several new contributors will aid in making this department one of the most interesting in the journal, and highly replete with practical information.

* * *

IMPORTANT NOTICE TO OLD SUBSCRIBERS.— The attention of all old subscribers, that is, those whose subscriptions have expired, or are about to expire, is called to the fact that the plan of dealing with subscribers formerly followed by the publishers of this journal, has been changed so as to conform to the prevalent custom among magazine publishers at the present time. Our former plan, and the one which we have followed until within a few months of the present time, has been to strike off from our subscription list the names of all subscribers who did not renew promptly at the end of the year. This practice, while in accord with strict business principles, works disadvantageously both to the subscriber and to the publisher. The subscriber becomes as accustomed to the monthly visits of his magazine as to the daily visits of his milkman; and if the journal is of practical value, it becomes almost as much of a necessity as the daily supply of milk or bread. To stop the journal suddenly, without knowing that he does not care for its visits longer, does him an injury and an injustice. It disturbs the kindly relations which may have been established between the subscriber and the publisher, by indicating, on the part of the publisher, a lack of confidence in the subscriber's appreciation of his magazine, or in his integrity.

Our Present Plan.—Following the example of other leading magazine publishers, we shall hereafter continue to send the journal until notified that its discontinuance is desired. Each subscriber will receive due notice of the expiration of his subscription, and can have it discontinued at any time by notifying the publisher of his desires, and paying up any arrears.

Due notice will be sent to each subscriber of the expiration of his subscription, as heretofore.

* * *

HOME FOR ORPHANS.— Beginning with the January number, this journal will undertake to carry out a plan which the editor has long contemplated, the purpose of which will be to find suitable homes for young orphans who are without proper care. There are thousands of such scattered throughout this great country, and there are as many thousands of homes where willing hearts and hands would receive them and minister to their physical and spiritual wants. It is only necessary to find the needy little ones, and the homes whose doors are already open to receive them.

GOOD HEALTH will open with the January number a bureau of information for the benefit of both classes, and with the expectation that we may thereby not only aid in giving many unfortunate boys and girls an opportunity to become noble and useful men and women, but that we may send good cheer and sunshine to many lonely homes and desolated hearthstones. Further particulars respecting this plan will be given next month.

* * *

REV. ROBERT WALLACE, of Ontario, who prepared himself for foreign missions and has thus far been hindered from carrying out his cherished plan on account of ill health, has been making a short stay at the Sanitarium. He made two addresses while here, which were of much interest and value to the Sanitarium band of missionary nurses, and also to the guests. The first was "A Century of Missions," in which he contrasted the condition of the heathen world at the beginning of this century with the present time, and also missionary endeavor then and now. In the second, he dwelt upon the great points of vantage which the medical missionary possesses over one who goes only prepared to enlighten the heart and understanding, not being possessed of the open sesame which the ability to heal the body gives, in every land and among all peoples.

* * *

MARCHMONT ORPHANAGE.— Mrs. Ellen A. Bilbrough Wallace, the founder of the Marchmont Orphanage, Bellville, Ont., recently spent a few weeks in the Sanitarium, and one evening, by special request, gave a very vivid account of her work before the Sanitarium Medical Missionary Society. In the last twenty-two years since she and Miss Annie McPherson brought the first installment of English children to Canada, between six and seven thousand orphans have passed through Marchmont Home, on their way to being provided with real homes in Christian families. The managers are very particular about places, and by means of regular visitors, keep watch over the welfare of each child. One young man, once in the Home, is now a missionary in China, and his support comes from donations from the Home children, who regard him as their representative. Marchmont represents a grand benevolence on the true basis of self-support. It has no endowment, the managers looking to God in faith for whatever is needed, and he has never failed them.

* * *

WE are glad to note that the Sanitarium located at St. Helena, Cal., is in a most flourishing condition. It is reported as overflowing with patients, which is not a matter of wonder to any one acquainted with the charming location of this institution, and who knows of the atmosphere of Christian kindliness and earnest helpfulness which pervades it in addition to the skilled medical attention and invaluable curative agencies afforded its patrons. Dr. and Mrs. Maxson, our old friends and fellow-laborers, are working with indefatigable energy to place the institution upon a high level of scientific efficiency, while at the same time promoting the aims and objects which led to its establishment as a philanthropic enterprise. The good which may be accomplished by such an institution in the education of men and women in right modes of living, wholesome eating, correct dressing, etc., is incalculable. All who are engaged in work in connection with such an enterprise may be cheered by the thought that their lives are devoted to an effort of the most practicable kind toward the uplifting of humanity, and the combating of the depraving influences which have brought the human family into its present state of wretchedness and disease, in the most efficient manner possible.

A PETITION to Congress, asking for an improvement in public highways, has come to our table. This is a matter that certainly needs attention, and we would earnestly request all our readers to lend their influence in this direction, by sending to Albert A. Pope, Boston, Mass., P. O. Box B, for a copy of the petition, and signing it, and also inducing others to sign it. The petition reads as follows: —

To the Honorable Senate and House of Representatives in Congress Assembled: We, the undersigned, citizens of the United States, hereby most respectfully petition that there be founded in the city of Washington, in the District of Columbia, a Road Department, similar to the Agricultural Department, for the purpose of promoting knowledge in the art of constructing and maintaining roads: and we ask that in such department provision be made for teaching students so that they may become skilled road engineers.

In connection with this Road Department we request that there be established a permanent Exhibit in which shall be shown sections of roads illustrating various methods of construction and also the best road materials and machinery.

We further petition that Congress appropriate funds sufficient to erect a building at the World's Columbian Exposition for the purpose of a comprehensive road exhibit.

* *
*

THE Sanitarium School of Cookery is one of its most popular departments. It is, indeed, interesting to look into the model kitchen where the school is carried on by the teacher, Mrs. Nuding, under the direction of Mrs. Kellogg, and find each day at the appointed hour, a company of ladies, many of whom, regretting the neglect in their early education, which left them without the slightest knowledge of healthful and scientific modes of preparing food, eagerly embrace the opportunity here afforded for acquiring such a knowledge of scientific cookery as cannot be obained elsewhere in this or any other country. Not infrequently, also, gentlemen of wealth and high position may be found, as well as aristocratic and cultivated ladies, wearing white aprons and with sleeves rolled up, earnestly engaged in learning how to convert simple grains and leguminous seeds into toothsome breads, delicious soups, and sundry other wholesome dishes. The gentlemen evidently take great delight in the acquirement of knowledge which will enable them on their return home to astonish their wives and daughters by their display of culinary wisdom.

* *
*

HOME-SEEKERS, ATTENTION! — The United States Government has decided to open, Nov. 22, 1892, for settlement under the homestead law, the unearned lands of the Marquette and Little Bay Du Noquet Railroad, heretofore reserved from entry, in Northern Michigan. At the same time the right of the Ontonagon and Brule River Railroad has been denied to a large tract of land in the Upper Peninsula of Michigan. This gives an unprecedented chance to locate valuable timber and mineral lands, which are among the best in the Upper Peninsula, and are reached only over the North Star Route (Milwaukee and Northern Railroad) between Chicago and Lake Superior.

For further particulars, address C. E. Rolling, Land and Immigration agent, 161 La Salle street, Chicago.

GOOD HEALTH

EDITED BY J. H. KELLOGG, M. D.

VOLUME XXVII

GOOD HEALTH PUBLISHING CO.,
LONDON, ENGLAND; NEW YORK CITY; BATTLE CREEK, MICHIGAN.
1892

INDEX TO VOLUME XXVII.

SOCIAL PURITY.

DETECTIVE BUREAU.

EDITORIAL.

CHATS.

SCIENCE IN THE HOUSEHOLD.

LITERARY NOTICES.

CH. MARCHAND'S
PEROXIDE OF HYDROGEN.

(MEDICINAL) H_2O_2 (ABSOLUTELY HARMLESS.

MOST POWERFUL BACTERICIDE AND PUS DESTROYER.
ENDORSED BY THE MEDICAL PROFESSION.
UNIFORM IN STRENGTH, PURITY, STABILITY.
RETAINS GERMICIDAL POWER FOR ANY LENGTH OF TIME.
TAKEN INTERNALLY OR APPLIED EXTERNALLY WITH PERFECT SAFETY.

Send for free book of 72 pages, giving articles by the following contributors:

DR. E. R. SQUIBB, of Brooklyn, N. Y. "On the Medicinal Uses of Hydrogen Peroxide." *Gaillard's Medical Journal*, N. Y.

DR. J. H. DeWOLF, of Baltimore, Md. "Medicinal Peroxide of Hydrogen and Glycozone." *Southern Medical and Surgical World* of Baltimore, Md.

NOTE.—Avoid substitutes—in shape of the commercial article bottled—unfit and unsafe to use as a medicine.

Ch. Marchand's Peroxide of Hydrogen (Medicinal) sold only in 4-oz., 8-oz., and 16-oz. bottles, bearing a blue label, white letters, red and gold border, with his signature. Never sold in bulk.

PHYSICIANS WILLING TO PAY EXPRESS CHARGES WILL RECEIVE FREE SAMPLE ON APPLICATION.

PREPARED ONLY BY

Charles Marchand

☞ Mention this publication.

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

SOLD BY LEADING DRUGGISTS.

Laboratory, 28 Prince Street, New York City.

Sunbeams of Health and Temperance,

Which is just the thing for a Valuable and Entertaining CHRISTMAS PRESENT for the Young Folks.

The following are the titles of the principal sections of the work:—

The House We Live In,

Some Strange People,

Hygiene for Young Folks,

The Habitations of Men,

Dame Fashion and Her Slaves,

The World's Bill of Fare,

Health and Temperance Miscellany.

ONE OF THE MOST UNIQUE AND INTERESTING VOLUMES EVER PUBLISHED.

240 Quarto Pages. * Profusely Illustrated. * Cloth, Gilt-Edge.

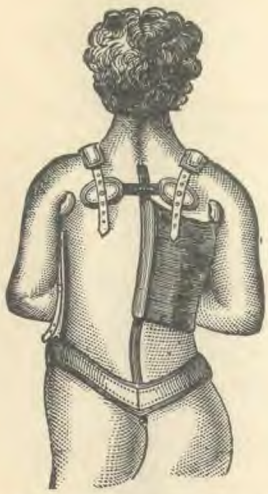
GOOD HEALTH PUBLISHING CO., BATTLE CREEK, MICH.

ESTABLISHED 1844.

SHARP & SMITH,

73 Randolph Street, Chicago, Ill.,

MANUFACTURERS OF



Brace for Lateral Curvature of the Spine.

Deformity Apparatus,
Of All Descriptions,

Artificial Limbs,

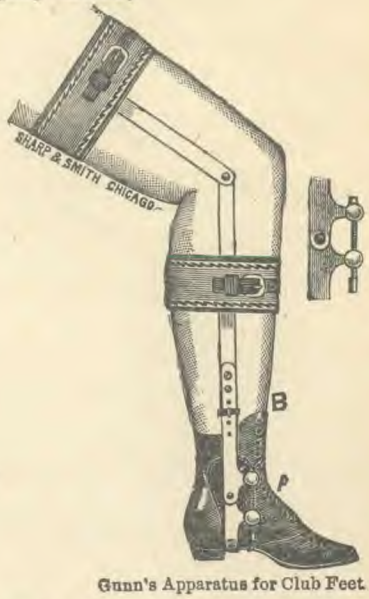
Elastic Stockings,

Abdominal Supporters,

Trusses,

Shoulder Braces, Etc., Etc.

Family Syringes,



Gunn's Apparatus for Club Feet.

Surgical and Veterinary Instruments.

SCRIBNER'S MAGAZINE for 1893.

Partial Prospectus.

Frances Hodgson Burnett will contribute the first serial to appear in a magazine from her pen for many years, entitled "THE ONE I KNEW THE BEST OF ALL."

H. C. Bunner will furnish a series of six sketches, entitled "JERSEY STREET AND JERSEY LANE." Illustrated.

Robert Grant will relate the further experiences of Fred and Josephine in "A SEQUEL TO THE REFLECTIONS OF A MARRIED MAN." Illustrated.

Harold Frederic will contribute a political novel of great power, entitled "THE COPPERHEAD."

By the Author of "Jerry." Miss S. B. ELLIOTT, the author of "Jerry," will write a realistic story of life among the Tennessee mountaineers, "THE DURKET SPERRET."

Personal Reminiscences, Men's Occupations, The World's Fair in Chicago, and Miscellaneous Articles

Will furnish fresh and intensely interesting reading matter during the year.

THE ILLUSTRATIONS of the year will represent the work not only of the well-known illustrators, but many drawings will also appear by artists who are best known as painters.

TERMS: $3.00 a Year. 25 Cents a Number.

SPECIAL OFFER. The numbers for 1892 and a subscription for 1893, - - - **$4.50**

The same, with back numbers bound in cloth, - 6.00

NOW IS THE TIME TO SUBSCRIBE.

CHARLES SCRIBNER'S SONS,
743 BROADWAY, NEW YORK.

IN THE OPEN.

The glorious days of open doors — all outside is smiling welcome — here's health and joy all unconfined — The cycler sees everything — he's where everything is — as free as freedom — from the heights of exhilarated happiness he cannot fall — from his Columbia Safety.

All about Columbias free on application to any Columbia agent, or sent by mail for two two-cent stamp. Pope Mfg. Co., 221 Columbus Ave., Boston.

SAVE $40.00 ON NEW $140.00

BICYCLES

New, *Latest Pattern* **$140** *Bicycles* for **$100.** Cheaper grades in proportion; easy terms. *Agents wanted.*

A. W. GUMP & CO.,
Dayton, Ohio.

BICYCLES, GUNS & TYPEWRITERS taken in exchange.

MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected Nov. 20, 1892.

EAST.	† Day Express.	*N. Shore Limited.	*N. Y. Express.	*N. Fall's & Buffalo Special.	‡ Night Express.	*Detroit Accom'n	*Atl'ntic Express
STATIONS.							
Chicago	am 9.00	pm 12.20	pm 3.10	pm 4.55	pm 9.30		pm 11.45
Michigan City	10.58	2.05	4.56	6.39	11.25		am 1.02
Niles	pm 12.40	2.57	5.48	7.31	am 12.30		2.50
Kalamazoo	2.05	4.00	7.04	8.57	1.57	am 7.10	4.28
Battle Creek	2.45	4.30	7.37	9.28	2.35	7.52	5.20
Jackson	4.30	5.38	8.52	10.42	4.05	9.40	6.15
Ann Arbor	5.30	6.27	9.45	11.27	5.38	10.40	8.05
Detroit	6.45	7.25	10.45	am 12.30	7.10	11.52	9.35
Buffalo		am 3.00	am 6.25	7.35		pm 7.40	pm 5.00
Rochester		5.50	9.55	11.20			8.20
Syracuse		7.50	pm 12.15	pm 2.10			10.20
New York		pm 3.45	8.50			am 8.45	am 7.00
Boston		6.05	11.05	am 6.15			10.50

WEST.	† Mail.	† Day Express.	*N. Shore Limited.	* Chicago Express.	†Kal. Accom'n	*Pacific Express.	* Chic. Special.
STATIONS.							
Boston		am 8.30	pm 2.00	pm 3.00		pm 6.45	
New York		10.30	4.30	6.00	pm 8.00	9.15	am 8.30
Syracuse		pm 7.30	11.35	am 2.10	am 3.50	am 7.20	pm 2.20
Rochester		9.35	am 1.25	4.20	5.55	9.55	5.10
Buffalo		11.00	2.20	5.30	9.00	11.50	7.45
Detroit	am 8.20	am 7.30	9.05	pm 1.20	pm 4.40	pm 9.00	am 2.15
Ann Arbor	9.37	8.27	9.59	2.19	5.48	10.27	3.08
Jackson	11.35	9.35	10.58	3.17	7.15	am 12.01	4.10
Battle Creek	pm 1.18	10.43	pm 12.02	4.3.	8.47	1.20	5.20
Kalamazoo	2.05	11.30	12.39	5.05	9.45	2.18	5.59
Niles	4.03	pm 12.40	1.48	6.17		4.15	7.15
Michigan City	5.20	2.00	2.45	7.20		5.35	8.28
Chicago	7.35	3.55	4.30	9.00		7.05	10.15

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

Accommodation Mail train goes East at 1.18 p. m. daily except Sunday. Night Express goes West at 12.05 a. m. daily except Monday.

Trains on Battle Creek Division depart at 8.03 a. m. and 4.35 p. m., and arrive at 11.40 a. m. and 6.45 p. m. daily except Sunday.

O. W. RUGGLES,
General Pass. & Ticket Agent, Chicago.

GEO. J. SADLER,
Ticket Agent, Battle Creek.

Chicago & Grand Trunk R. R.

Time Table, in Effect June 26, 1892.

GOING WEST.						STATIONS.	GOING EAST.				
p m	p m	a m	p m					a m	p m		
7.15	3.00	11.00	7.00	.....	.....	.....Boston.....	.....	7.00	8.00	9.25	.....
a m	p m	p m	p m					p m	a m	p m	
9.45	5.00	6.30	8.00	.....	.....	.....New York	.....	9.55	7.40	5.07	.....
a m	a m	a m	p m					a m	p m	a m	
12.10	5.20	6.25	1.00	.....	.....	.....Buffalo.....	.....	8.40	5.50	4.20	.....
a m	a m	a m	p m					a m	p m	a m	
1.35	7.45	8.00	2.45	.....	.....	....Niagara Falls....	.....	7.30	4.10	3.10	.....
a m		p m	noon						a m	p m	
8.30	.....	3.00	12.00	.....	.....	.....Boston	.....	8.05	9.50	.....	.....
a m	p m							p m	a m		
9.30	8.40	.....	.....	.....	.....	.....Montreal.....	.....	8.00	7.00	.....	.....
p m			p m					a m	p m		
11.30	.....	.....	1.00	.....	.....	.....Toronto	.....	8.35	5.25	.....	.....
			p m				p m		a m		
.....	.....	.....	8.00	.....	.....	.....Detroit.....	9.25	.....	7.45	9.25	.....
Day Exp.	B. C Pass.	Lmtd Exp	Pacific Exp.		Mail Exp.		Mail.	Lmtd Exp.	Atlte Exp.	Day Exp.	Prt. H Pass.
am	pm	pm	pm		am	Dep. Arr.	pm	am	am	pm	am
.....	3.44	.....	.....	.....	6.19	.....Port Huron	10.01	.....	.....	.....	12.10
6.50	3.49	12.22	8.40	.....	6.25	.Port Huron Tunnel.	9.56	12.35	7.30	8.50	12.05
8.05	5.10	1.27	10.07	.....	7.49	.....Lapeer.....	8.15	11.20	6.15	7.35	10.45
8.35	5.47	1.55	10.47	.....	8.35	.....Flint.....	7.30	10.47	5.40	7.05	10.05
.....	4.05	.....	8.00	.....	6.50	.....Detroit.....	9.25	.....	7.45	9.25	11.50
7.15	4.40	.....	8.25	.....	7.15	.....Bay City.....	8.37	.....	7.15	8.37	11.30
7.50	5.17	.....	9.00	.....	7.50	..... Saginaw	8.00	.....	6.40	8.00	10.43
9.05	6.50	2.22	11.20	.....	9.35	..... Durand.....	6.50	10.20	5.03	6.35	9.30
10.02	7.55	3.07	12.20	.....	10.40	.....Lansing	5.10	9.30	4.00	5.40	8.20
10.29	8.30	3.34	12.52	.....	11.15	..... Charlotte.....	4.34	9.01	3.25	5.11	7.47
11.15	9.25	4.15	1.50	.....	12.25	....BATTLE CREEK....	3.40	8.20	2.40	4.30	7.00
11.53	pm	.....	2.35	.....	1.06	.....Vicksburg	2.33	7.40	1.48	.....	am
.....	.....	.....	.....	.....	1.19	....Schoolcraft.....	2.21	.....	.....	.....	.....
12.40	.....	5.45	3.30	.....	2.06	.....Cassopolis.....	1.29	6.58	12.45	3.07	.....
1.20	.....	6.20	4.10	.....	2.50	.....South Bend.....	12.45	6.20	12.00	2.35	.....
2.45	.....	7.35	5.45	.....	4.30	.....Valparaiso.....	11.10	5.00	10.30	1.20	.....
4.50	.....	9.30	8.00	.....	7.00	.....Chicago.....	8.40	3.00	8.15	11.35	.....
p m	.....	pm	am	.....	pm	Arr. Dep.	am	pm	pm	am	

Where no time is given, train does not stop.

Trains run by Central Standard Time.

Valparaiso Accommodation, Battle Creek Passenger, Port Huron Passenger, and Mail trains, daily except Sunday.

Pacific, Limited, Day, and Atlantic Expresses, daily.

Meals served in C. & G. T. Dining Cars on all through trains.

W. E. DAVIS,
Gen. Pass. and Ticket Agt., Chicago.

A. S. PARKER,
Ticket Agt., Battle Creek.

WANTED, FOUNDRY-MEN

To give Aluminum Alloy Composite a trial. Two per cent in ordinary cupola will give you soft, sound, and solid semi-wrought iron castings. Price, $5.00 per 100 pounds, F. O. B.

Book of information, with government report and other indisputable testimonials for foundrymen, FREE.

THE HARTSFELD FURNACE AND REFINING COMPANY
NEWPORT, KY.

WANTED

A REPRESENTATIVE
FOR OUR
FAMILY TREASURY,

THE GREATEST BOOK EVER OFFERED TO THE PUBLIC.

A CHRISTMAS PRESENT for both old and young.

Our coupon system, which we use in selling this great work, enables each purchaser to get the book **FREE**, so every one purchases.

For his first week's work one agent's profit is **$168.00.** Another **$136.00.** A **LADY** has just cleared **$120.00** for her first week's work.

Write for particulars, and if you can begin at once, send $1.00 for outfit. We give you exclusive territory, and pay large commissions on the sales of sub-agents. Write at once for the agency for your county.

Address all communications to—

RAND, McNALLY & CO., CHICAGO.

THE FRANKLIN TYPEWRITER.

THE NEW STANDARD WRITING MACHINE.

IN CONSTRUCTION: Simple, Light, and Durable.

IN OPERATION: Speedy, Reliable, and Easy,

Thus insuring the widest possible range of practical work.

PRICE, ONLY $60,

Hence the Franklin Typewriter answers the popular demand for a first-class writing machine at moderate cost. Examination solicited. Correspondence invited. Address,

FRANKLIN EDUCATIONAL CO.,

250 and 252 Wabash Avenue,

CHICAGO.

UNFERMENTED WINE.

We are prepared to furnish a **Fine Quality** of unfermented wine, for

SACRAMENTAL OR MEDICINAL PURPOSES,

Guaranteeing the same to be made from **fine table grapes,** to be strictly unfermented, and free from any chemical preservative. This wine is put up in bottles hermetically sealed, and will keep indefinitely.

The method of preservation retains the Natural, Delicious Flavor of the Grape, unimpaired, and there is no better appetizer or more healthful tonic for a chronic invalid or a convalescent from any acute disease.

PUT UP IN PINT BOTTLES.

PRICE:

Single bottles, - - 50 Cts.
Cases of one doz. bottles (pints), $5.00.

Shipped, securely packed, to any address, on receipt of price.

SANITARIUM FOOD COMPANY, BATTLE CREEK, MICH.

INFANT FOOD.

If you are Tired of Trying the high-priced and often worthless Infant Foods so numerously offered at the present time, or if your baby is starving to death on these patent preparations, send for a sample package of our food for infants, which has, in numerous instances, saved the lives of children who derived no nourishment from other foods.

Sample Package, postpaid, 56 Cents.

SANITARIUM FOOD CO., BATTLE CREEK, MICH.

THE "NO. 9" IS THE GREAT PRIZE WINNER.

The "No. 9" WHEELER & WILSON SEWING MACHINE is built on new lines of invention, and this fact was recognized by the International Jury of Mechanical Experts at the Exposition Universelle of 1889, at Paris, France, when they pronounced it the grandest advance of the age in sewing machine mechanism, and awarded it the only GRAND PRIZE given for family sewing machines at that Exposition. Those who use it can rest assured, therefore, of having the very best latest and best

WHEELER & WILSON MFG. CO., 185 and 187 Wabash Ave., CHICAGO.

Spring time is Daisy time,
Nice things come together;
Summer time is Rose time,
Fair and golden weather;
Autumn time is frost time,
Forest trees a-flaming;
Winter time is bleak time,
Ice and snow
a-reigning.

Would you
have it al-
ways be,
Rose and Daisy time?
Always in your dear home nest
Have the bright sunshine?
Buy the Powder named below
And find without a doubt
Daisy time and Rose time
Within if not without.

For all seasons **Gold Dust Washing Powder.**

N. K. FAIRBANK & CO., Sole Manufacturers,
CHICAGO, ST. LOUIS, NEW YORK, PHILADELPHIA, BOSTON,
BALTIMORE, NEW ORLEANS, SAN FRANCISCO,
PORTLAND, ME., PORTLAND, ORE., PITTSBURGH AND MILWAUKEE.

BOOKS THAT SELL.

THE sale of books by canvassing agents, looked upon a few years ago as a sort of peddling business, has almost reached the dignity of a profession, and at the present time quite a considerable portion of the reading public depend upon the traveling salesman for their supplies of recent choice literature. No publishing house thinks of presenting its most valuable works to the public in any other way. **There is no more pleasant, no more useful, and no more profitable business** in which a young man or woman of ability can engage, and **none which brings such large and quick returns** to the energetic worker, as the sale of a good book in good territory, prosecuted by a good agent employing good methods, and putting energy, enterprise, and industry into his work.

The man or woman who engages in the introduction of a good book, — one calculated to instruct, elevate, and materially benefit all who become acquainted with its contents, — is as genuine a missionary as the man or woman who engages in missionary work in the wilds of Africa or the distant islands of the sea. The good book as well as the good impression which a good agent leaves behind him in each of his successful efforts, is a permanent source of salutary influence to the household which receives it.

The undersigned have for many years been engaged in the publication of books for the million, and several hundred thousand copies of their bound volumes are to be found scattered among the households of the United States and other English-speaking countries, although comparatively little effort has been made to push the sale of their publications. They are now organizing a vigorous campaign for the introduction of their various works in all parts of the United States, Canada, and the West Indies. **Liberal commissions are offered agents, splendid territory, and books, the selling qualities of which are not excelled by any subscription books offered by any publishing house in the world,** as will be seen by the following reports of work done within the last few weeks in different parts of the United States: —

John P. Neff, a college student less than twenty-one years of age, now at work in a Western State to earn money to pay his expenses during the next college year, has sold of the two works advertised on this page, books to the following amounts, for seven successive weeks consecutively: —

First week (4½ days)	$240		
Second week	$244	Fifth week	$440
Third "	280	Sixth "	230
Fourth "	370		

This same agent sold *$180 worth of books in one day.*

Another agent (C. C. Nicola) sold 65 books in one week; amount of sales, nearly $300.

F. A. Shaver, an agent working in Wisconsin, took orders for over 200 books, and delivered nearly all of them, in three weeks.

Another agent working in Vermont, when able to put in full time, has averaged nearly $100 per week.

A lady made 25 canvasses in one day and took 21 orders, amount, $95.

A young lady in Dakota reported Sept. 9, 1892, 83 calls, 52 orders, amount, over $200. *Good for 5 days' work.*

A young man took orders amounting to **$458 in 57 hours. In one day of 12 hours he sold 36 copies** of "Man, the Masterpiece" and "Ladies' Guide," **netting a profit of $99** at usual commission.

Scores of cases might be cited in which agents are making from $25 to $50 clear, weekly. No agent of average ability in average territory can fail to succeed with these works, and many who have failed with other works succeed with these. A wide-awake agent, with plenty of pluck and perseverance, is certain to make a success almost from the start, when he has had a proper preparation for the work. For terms and other information, address,

MODERN MEDICINE PUB. CO. (formerly Health Pub. Co.),
BATTLE CREEK, MICH.

Science in the Kitchen.

By MRS. E. E. KELLOGG, A. M.,

Superintendent of the Sanitarium Experimental Kitchen and Cooking School, and of the Bay View Assembly Cooking School, Superintendent of Mothers' Meetings for the N. W. C. T. U. and Chairman of the World's Fair Committee on Food Supplies for Michigan.

A REMARKABLE BOOK.

Brimful of Information on

Subjects of Interest to Every Housekeeper,

And to Every Civilized Human Being.

A Thousand Important Questions Answered Clearly and Simply,

Most of which are not Answered Elsewhere.

THIS book has long been looked for, and anxiously waited for by thousands who have known that it was in preparation. It is not a compilation of the detestable and unwholesome mixtures called "recipes," which are the product of unskilled and aimless experimentation, but is the result of carefully directed researches carried on in the light of the most modern knowledge upon the mixture of food and the hygiene of dietetics. *This work is the product of many long years of patient toil and experimental inquiry.* The large opportunities for observation, research, and experience which Mrs. Kellogg has had in the constant supervision of the cuisine of the Sanitarium and the Sanitarium Hospital, and the ever increasing necessity for new methods and original recipes to supply the growing needs of an immense health institution numbering always from 300 to 700 inmates, have served to develop an altogether New System of Cookery, the outcome of which is this valuable work that we now offer to the public. **Agents wanted everywhere** to introduce this popular and rapidly selling work.

PRICE, in Oilcloth, $2.90; Muslin, marbled edges, $3.25.

MODERN MEDICINE PUB. CO., 65 Washington St., Battle Creek, Mich.

GRANOLA

A HEALTHFUL FOOD

AN INVALID FOOD prepared by a combination of grains so treated as to retain in the preparation the **Highest Degree of Nutrient Qualities,** while eliminating every element of an irritating character.

THOROUGHLY COOKED AND PARTIALLY DIGESTED,

This food preparation is admirably adapted to the use of all persons with weak digestion, defective assimilation, general or nervous debility, brain workers, feeble children, and invalids generally, as well as travelers and excursionists, who often need to carry the *Largest Amount of Nutriment in the Smallest Bulk,* which is afforded by Granola in a pre-eminent degree.

ONE POUND MORE THAN EQUALS THREE POUNDS OF BEST BEEF

In nutrient value, as determined by chemical analysis, besides affording a better quality of nutriment. Thoroughly cooked, and ready for use in one minute.

Send for illustrated and descriptive circular of Granola and other healthful foods to the

SANITARIUM FOOD COMPANY, BATTLE CREEK, MICH.

MEDICAL AND SURGICAL SANITARIUM,

BATTLE CREEK, MICH.

The Oldest and Most Extensive Sanitarium Conducted on Rational and Scientific Principles, in the United States.

SPECIAL ADVANTAGES:

An elevated and picturesque site. Remarkably salubrious surroundings "Water of extraordinary purity."—*Prof. A. B. Prescott.*

Baths of every description.

Electricity in every form.

Massage and Swedish Movements by trained manipulators.

Pneumatic and Vacuum Treatment.

All sorts of Mechanical Appliances.

A fine Gymnasium, with trained directors.

Classified Dietaries.

Unequaled Ventilation, perfect Sewerage.

Artificial Climates created for those needing special conditions.

Thoroughly Aseptic Surgical Wards and Operating Rooms.

All Conveniences and Comforts of a First-Class Hotel.

Incurable and Offensive Patients not received.

Not a "Pleasure Resort," but an unrivaled place for chronic invalids who need special conditions and treatment not readily obtainable at home.

For Circulars, address,

SANITARIUM, BATTLE CREEK, MICH.