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THE STUDY OF THE BEAUTIFUL.[1]

BY J. H. KELLOGG, M. D.

IN this utilitarian age in which men are so universally dominated by the desire for money-getting and financial supremacy, there is a marked tendency to lose sight of those things which are really best, noblest, purest, and sweetest in life and in the world about us. I think I am not going too far when I say that the only thing in this world really worth having, worth making an effort to obtain, and worth keeping, is that which is in the highest and truest sense beautiful. Whatever is truly good is beautiful. Whatever is really beautiful is good. Whatever is sinful cannot be really beautiful, although it may be hidden by a flimsy covering which appears to some extent to hide its ugliness.

One of the most specious and artful of all the sophistries of the arch deceiver is that God desires to deprive men of something really desirable,— to shut them away from those things which are most beautiful and most enjoyable in life. Our first parents were misled by this deception, and the human family have ever since been falling into the same error; whereas a true view of God, the great Creator, the upholder of the universe, places before us the fact that God himself not only delights in all that is beautiful, all that is truly lovely, but that he has implanted in man, who was created in his own image, the same love for the beautiful, and inspired him with that impulse which leads him to delight in beautiful things.

The bird builds its nest with an eye to beauty and symmetry as well as to utility, and the same is true of the bee in constructing the little cells in which to store its treasures of sweetness. The spider's web, the ant hillock, the marvelous tenement-houses of the muskrat and the beaver,— all show instinctive regard for beauty and symmetry of outline. But man, of all creatures, has the highest appreciation for the beautiful, because God made him in his own image. It certainly, therefore, cannot be wrong that this heaven-planted instinct should be cultivated and developed. If it was not part of the divine plan for man's development that he should admire form and color, and become skilled in their recognition and reproduction, why should the Creator have placed before him such object-lessons in nature? Why might not the rainbow have been simply a great stripe across the sky instead of a painted arch held up before us in its perfection of form and inimitable coloring? and why should

[1] From an address before the students of Battle Creek College at the Commencement Exercises of 1896.

there be so often displayed in the morning sunrise or the evening sunset such transcendent glory that one is sometimes momentarily persuaded that the great canopy of heaven is open, and that he is looking straight into the eternal glory beyond? or why should there be spread out before us in every landscape a copy-book of such infinite variety of shade and coloring, of tint and tone?

In the beginning God made everything in this universe beautiful; and though it has since been marred by sin, yet the earth is still marvelously beautiful, to say nothing of the wonders displayed in the starry heavens above us. Those who have looked through the telescope can well remember the sensations experienced when they first saw an immense planet bowling along through space. You could almost hear the "music of the spheres," as the ancients believed they could do. This great astronomical clock keeps ticking on through the ages, with wheels and wheels, and wheels within wheels,— all in perfect harmony.

We can also, by the aid of the microscope, look into a universe infinitely small. Look at a grain of sand, and notice its beautiful lines, angles, and crystals. A drop of solution of salol, viewed through the microscope when drying, discloses beautiful pellucid crystal plates springing into being, piling up in masses, forming huge crags and peaks, miniature glaciers and ice-palaces iridescent with light, and gleaming with a thousand rainbows. The commonest bit of wood, a splinter or a chip, is transformed into a thing of beauty; we see there beautifully rounded cells, bands, fibers, and spirals, and all the elements of plant architecture, presenting a startling picture of beauty and symmetry. And as the magnifying power is increased, new beauties and wonders continue to appear. A butterfly's wing under the wonderful power of the microscope presents plumes and feathers beside which those of the ostrich and the bird of paradise sink into insignificance.

And the beauties which God has created are recognized not only through the sense of sight, in form and color, design and symmetry, but through the sense of hearing, in the varied voices of nature. The soft notes of the dove, the sweet piping of the thrush, the quaint song of the katydid, the low murmur of the waves, the pathetic sighing of the winds, the deep bass of the thunder, the gentle whispering of the leaves, the musical rustle of the ripening grain, the mingled hum of a million happy voices, piping praises to their Creator, — all these are notes of the marvelous song which is continually going up from the heart of nature.

We do not properly appreciate the unpaid soloists and choristers who daily entertain us, and who soothe us to sleep by their lullabies at night.

Many years ago I visited the famous Mammoth Cave, in Kentucky, where, after several hours' walking, I found myself deep down in the bowels of the earth, miles removed from every human being except the guide who was with me. When my companion left me for a few moments, the silence was something appalling. The chirping of a cricket, the croak of a frog, or even the hum of a mosquito would have been music to my ears. Such was the silence that I could hear my own heart beating, and it seemed as if I could even hear the blood rushing through my veins and arteries.

Of all the voices of nature, man's is the most flexible, the most beautiful, and has the greatest compass. A well-cultivated voice is capable of producing sweeter melodies than the finest instrument of music played by the most skilful musician. The mellow notes of the flute, the tremulous tones of the violin, the almost human-like

tones of the pipe organ, are all but imitations of the musical harmony which God has put into the human voice. In music there is co-operation in the obedience to the will of ear and voice. Nature has not only given us the power of utterance, both in the speaking and the singing voice, but the power of reception, a marvelous nervous mechanism, which might be termed the musical instrument of the ear — a veritable harp possessing more than twenty thousand strings, whereby every modulation of musical tone between the highest and lowest limits of human recognition may be readily discerned. So delicately constructed is this machine that it is possible for the thoroughly trained ear to distinguish the difference between notes which vary by less than one sixtieth of a tone. In musical culture, the ear as well as the voice is trained as a means of automatically correcting and regulating the voice. Those who visited the Midway Plaisance of the World's Fair had an opportunity of observing in the musical attempts of the natives of the Congo and other primitive people, that the difference between the music of the untrained and that of the cultivated ear and voice, is not simply a difference between ears and throats, but represents most graphically the difference between mind and soul.

I think good Christian people sometimes have very erroneous ideas on this subject of the beautiful; they seem to think there is some virtue in depriving themselves of everything that is beautiful, and in surrounding themselves with things that are somber and undesirable and uncongenial. I know of some people who make it a point to eat things they don't like; they evidently think that a virtuous life consists in doing what they do not like to do, and in trying to love unlovable things. Now there is a certain discipline in self-denial; but God never wanted any man to live under circumstances abhorrent to his real nature — mind, I do not say his artificial nature. Having been given the highest capacity for the appreciation of the beautiful, and being surrounded with its manifestations in all the varied forms of nature and in all the tuneful harmonies of the world about us, it certainly cannot be amiss that man should give special attention to its study, and should, by cultivation, increase his power to create and to express the beautiful.

Expression is simply a means by which one soul touches another. The thought, the emotion, the purpose, is the substance of expression to which the body, the voice, give form. An expression, whether embodied in song, in ordinary speech, in a painting, a drawing, a sculptured model, or a work of architecture, is simply a thought made visible to the eye or audible to the ear. Such an expression is beautiful only when the thought expressed is beautiful, or in other words, when it is in harmony with the divine thought which is the soul of all beauty. A beautiful expression without a beautiful thought or emotion behind it is impossible. The relation may not be immediate, but every expression, every beautiful face or figure, every beautiful utterance, every beautiful work of art of any kind, has somewhere behind it a long line of influences, of which it is the ultimate summing up, or focus point,— in short, a grand, a noble, a beautiful thought. Every good thing, every beautiful thing, comes from God.

The training of hand and eye in drawing and handicraft, of the voice and ear in music, in oratory, is at the same time the training of the soul, an enlargement and development of its powers, and not only this but an increase of its ability to exercise itself, and hence an enlargement of its means of teaching other souls, and influencing them for good.

God intended not only that our bodies should be developed, but that every faculty of the mind should be improved and cultivated in fulfilment of the purpose for which it was created, and for the glory of God. Drawing, painting, and handicraft of all kinds require the training of hand and eye under the command of an intelligent mind. A pencil sketch of a fence or a gate-post, or a rustic representation of a landscape on canvas, is the embodiment of a thought,— a mental exercise of the soul of the workman, who is in each instance an artist, whether his skill be only that of a small boy building a cob house, or that of the master architect finishing a cathedral. The difference between the two is not simply one of manual dexterity; it is the difference in soul capacity and soul training. I cannot gaze upon a magnificent structure without a most profound feeling of reverence for the great mind, the great soul, which was capable of conceiving such a work; for in the marvelous symmetry of arch and pillar, in the wonderful harmony of structure and outline, in the magnificent proportions of nave and vault and corridor, appears not simply the dexterity of a well-trained hand and eye, but the evidence of a capacious and well-proportioned mind, of a disciplined and beautiful soul.

Every form of training in which there is an effort to acquire skill and dexterity, in which there is an effort to imitate a model or to reach an ideal, is a method of developing the love of the beautiful, and with the result of ennobling the character, enlarging the faculties, elevating the aspirations, and refining and purifying the soul.

Looked upon in this light, the study of the beautiful cannot be regarded as a mere pastime or entertainment, but as a true means of soul culture, of character building,— a means whereby results can be accomplished which could not be attained by any cultivation which has for its purpose purely utilitarian ends, or which seeks no more than the subjugation of the body by discipline or so-called drill.

As applied to our own individual bodies, the study of the beautiful is a matter of great importance. Beauty is more than skin deep. Beauty on the outside is born of health inside. Beauty of figure means health of body; for beauty is born of health. The man who is hollow-eyed is not healthy. A weak waist and weak carriage mean internal weakness and disease. The entire structure of the body is infinitely beautiful. Its minutest fibers and cells are of most wonderful form, infinitely delicate, transparent, and beautiful, some of the fibers being so small that twenty thousand of them, laid side by side, would make a band only an inch wide. The muscles of a frog when examined under a microscope are seen to be absolutely transparent. It is only when the muscles die that they become opaque. This transparency is the result of life and vitality; it denotes the absence of everything that is not alive.

Fix well in the mind of any child that his body is a thing of beauty; make him see in every cell and fiber, in every organ, in every function, the artistic skill of the Master-artist, and the infinite power of the Creator in their construction; and he will be deterred from defacing the image of God by an influence vastly more potent than that of any set of rules, no matter how authoritative, or any threatenings of present or future punishment. Develop in the mind of a boy or a girl the love for the beautiful, as illustrated in himself, and he will have for his own body the same respect, the same reverence, which he feels for the beautiful painting upon the wall of the parlor at home, or for the stately statue which has

remained for years undefaced in the most public and exposed places of a great city.

Said the great apostle, "Whatsoever things are lovely . . . think on these things;" and we are told that by beholding we become changed; so that, rightly directed, the study of the beautiful ought to result in the development of that which is noblest, most lovely, and most Christ-like in character. For are we not assured that by continually looking into the face of Jesus we may become like him, who is the embodiment of all beauty, the One "altogether lovely"?

PRIMITIVE METHODS OF TREATING DISEASE AMONG THE MAORIS.

BY MAUI POMARE.

THE native Maori physician, or *tohunga* (the selected or made sacred), had a fivefold office; he was not only a doctor, but a seer, a general, a sorcerer, and a priest. After receiving the usual education at the school of the priests, which was also the school of medicine, he began to practise.

According to the native idea, all disease was due to one of three causes; viz., to violation of the law of *tapu*, by which the life of the person so violating was supposed to be in danger; to witchcraft; and to evil spirits gnawing at the vitals. This belief led to many foolish practises; but it is not my object to consider these so much as it to bring out some of the native methods of treating disease.

The medicine used by the native physician was principally the juices of different plants. He was well acquainted with the properties of every kind of plant that grew within the island kingdom, and the few diseases he had to deal with had each its cure in some native plant or incantation. For *pukaki*, or tonsillitis, an operation was considered necessary; consequently, he would always operate for that malady. His surgical instrument, though rude, served the purpose. It consisted of a piece of flint (*obsidian*) or bone attached to a wooden handle. Flint was the material used for nearly all instruments of surgery and in tattooing. They were of different shapes for different uses.

Consumption was supposed to be due to the gnawing of the god Mokotti upon the lungs. Weights were used on the chest, and heavy downward stroking toward the feet, in order to drive the spirit away. Change of country was also recommended, in order to escape from the spirits. Relief was sometimes thus obtained, owing to a more favorable climate, but all benefits received were in all cases attributed to the power of incantation.

For broken bones the natives used bandages and splints. The bandages were generally made from the flax plant (*Tenax phomium*), the same which furnished material for most of their clothing. The splints were made principally from the bark of trees. While putting on the bandage, they would always invoke some power to heal the wound. If the wound was bleeding, a plaster of clay was made to put over the limb, and this was kept on till it healed. Wounds that bled profusely were stopped by herbs and spiders' webs, while those that did not bleed as much as was thought necessary were hit with a small stick and squeezed to excite bleeding, being also sometimes smoked.

In cases of drowning, the patient was hung up by the feet, and the head was smoked until the lungs were irritated, after which the patient would be let down and treated with hot water internally, and by rubbing before a fire externally. The writer has known personally of one or two cases in which the above method proved successful after the person had been in the water for over an hour.

Rheumatism was generally treated by massage with some kind of oil, pigeon-oil being that most commonly used. There were two kinds of massage movements, one called *romi-romi*, and the other *miri-miri*, the former indicating the heavier, deeper movements, and the latter the lighter, superficial or stroking movements. Massage was used to relieve nearly all kinds of pain. It was a favorite remedy in cramp, in which the application was very vigorous. This treatment was also employed in obstetrics, both before and after parturition, the saying being proverbial among the Maoris: "*Naku koe i romi-romi i kia ai he tangata*"—"It was my masseing that made a man of you."

The numerous hot springs, which possess several mineral properties, were often resorted to as curative agents, those containing sulphur being especially popular for skin diseases. Two kinds of baths were in common use; viz., the warm full bath and the vapor bath. If the patient did not live in the vicinity of natural hot springs, the warm bath was prepared by heating stones and putting them into the water. The vapor bath was more complicated; first, a hole was made in the ground, and wood so arranged therein as to leave room for the stones to be heated. These were placed on the wood, and the wood lighted. When the stones became red hot, the burning charcoal and pieces of wood were taken out. During the process of heating the stones, the native physician would go into the woods and gather the leaves from different trees; these, after many incantations, he brought and laid on the hot stones. Then water was sprinkled over the leaves and stones; and while the steam was rising, the patient was made to lie on the bed of leaves, being well covered over with clothes. Thus the patient received a very good vapor bath or pack. Various incantations accompanied all these treatments.

During the time a patient was being treated by the *tohungas*, no one was allowed to go into the house, which probably saved life in contagious diseases. The food of the patient was cooked in a different place from that of any one else, and everything that went into the sick-house was *tapu*, or sacred, and no one dared touch it. Food and other necessaries for the sick and his attendants were placed in a particular place by certain females, who, in obedience to the law of *tapu*, always left the same at a safe distance. It might perhaps be interesting to say something about this custom of *tapu*, or *tapoo*, as it played so important a part in Maori society, law, and medical practise. Dr. Thompson thus describes it: —

"The system of *tapu* has been universally described as a degrading superstition by civilized men who contrast savages with themselves; but it is unjust to test the customs of New Zealanders by the standard of the present day in England, although those who examine the code closely find several of the laws which the *tapu* enforced, flourishing in England under different names. If a New Zealander were to write a history of England for the use of his countrymen, he would relate that, at certain seasons of the year, the fish in the rivers and the birds in the air were *tapued;* that land is held so sacred that persons walking over it are punished; that among

A Maori Belle, Showing Tattooing of the Lips.

Roman Catholic tribes, animal flesh is forbidden for food at certain seasons; and that thousands of persons are shut up in prison and cast into slavery for violating the numerous *tapues* in England. *Tapuing* seeds and fields are types of English laws for protecting outdoor property; women *tapued* to men is matrimony; *tapuing* sick persons is analogous to our quarantine orders against lepers, the plague, and yellow fever."

The violation of *tapu* brought death, not by capital punishment, but by the very fact of the transgression. Thus *tapu* was not only one of the causes of disease, but sometimes became actually a disease in itself; for such is the power of the mind over the body that the victims of it actually died, unless the priests succeeded in curing them by incantations, which in such cases might be considered as a sort of mind cure for the mental disease.

These constituted almost the entire list of native maladies in the old days, but now we have all the diseases introduced by the white man. Here and there you will hear of a *tahunga* who professes to be able to cure all diseases, and many an ignorant Maori falls a victim to his foolish practises. Many of the natives will not go to an English physician, because the effect of quackery has been so disastrous in many instances that they fear the white man and his cures. They prefer to consult a *tahunga*.

The generation now springing up, however, will be more enlightened, and will see the practical side to rational treatment. The writer knows of no more promising field for future improvement than this land of the Maoris. He has conversed with several of the highest chiefs of the land, and has received promise of their hearty co-operation and endorsement of the idea of training natives to go out and teach the principles of healthful living. Hence, he indulges the fond hope that the immediate future will see this kind of work carried out with success, and that the progress of decay among the remaining native inhabitants of the land of the moa may thus be stayed.

A description of the process of tattooing may be interesting here. It is as follows: —

The patient was made to lie on his back, and the surgeon proceeded, amid a chorus of songs (to give courage), first to make delicate linings on the skin with red ocher or charcoal. He then chiseled along the lines very carefully, making incisions about one fourth of an inch deep under the skin. The operation of tattooing extended over a period of many days, and perhaps weeks, before it was completed. The coloring matter used was made from the ink of the octopus, kauri-charcoal (made from the kauri-pine), and some kind of fat. This coloring never fades; once tattooed in, it remains forever. Tattooing was a badge of rank. Women were tattooed only on the chin and lips. Perhaps the more modern fashion of using powders and cosmetics for the face is but a modification of our tattooing, though the former seems to me the more artistic; in fact, the English thought it so artistic that they actually started a trade in Maori tattooed smoked heads, and Judge Manning gives the following amusing conversation between himself and one of the traders in New Zealand: —

"The speeches of the orators were not very interesting, so I took a stroll to a little rising ground at about a hundred yards distance, where a company of natives, better dressed than common, were seated. They had the best sort of ornamented cloaks, and had feathers in their heads, which I already knew 'commoners' could not afford to wear, as they were only to be procured some

hundreds of miles to the south. I therefore concluded these were magnates, or 'personages,' of some kind or other, and determined to introduce myself.

"As I approached, one of these splendid individuals nodded to me in a very familiar sort of manner, and I, not to appear rude, returned the salute. I stepped into the circle formed by my new friends, and had just commenced a *tena koutou* ["How do you do" mode of salutation, literally meaning, Let the sun shine on thee], when a breeze of wind came sighing along the hilltop. My friend nodded again; his cloak blew to one side. What do I see? or, rather, what do I not see? The head has no body under it!

"The heads had all been stuck on slender rods, a cross-stick tied on to represent the shoulders, and the cloaks thrown over all in such a natural manner as to deceive any one at a short distance, but a green *pakeha* [white man] who was not expecting any such matter, to a certainty.

TAMATI WAKANENE,

One of the native chiefs who helped the English in the Maori and European War. A fine specimen of native tattooing, taken from life.

"I fell back a yard or two, so as to take a full view of the silent circle. I began to feel as if I at least had fallen into strange company. I began to look more closely at my companions, and to try to fancy what their characters in life had been. One had undoubtedly been a warrior; there was something bold and defiant about the whole air of the head. Another was the head of a very old man, grey, shriveled, and wrinkled. I was going on with my observations when I was saluted by a voice from behind with —

"'Looking at the 'eds, sir?'

"'Yes,' said I, turning round just the least possible thing quicker than ordinary.

"''Eds has been a-getting scarce!' says he.

"'I should think so,' says I.

"'We ain't 'ad a 'ed this long time,' says he. 'One o' them 'eds has been hurt bad.'

"'I should think all were rather so,' says I.

"'Oh, no! only one on 'em,' says he; 'the skull is split, and it won't fetch nothing,' says he.

"'Oh, I see now,' says I.

MAORI RELICS IN THE MUSEUM AT AUCKLAND, NEW ZEALAND.

The above portrait is of a native chief, who bore the longest name on record — Ngauriangaringarawakawhatapukai. Other relics shown are stone and wood swords, battle-ax, carving, orators' staffs, fish-hook; garments, baskets; smoked heads; the kiwi, from whose feathers were made the robes of the highest princes; and taiahas, or spurs. Directly under the kiwi, and resting against one of the two-edged swords, is a small image-like relic, the *heitiki*. It is supposed to represent man in the abstract, and is handed down from generation to generation. It is worn chiefly by women as a charm, a protector against evils.

"'They had to tattoo a slave a bit ago,' says he, 'and the villain ran away, tattooing and all.'

"'What?' says I.

"'Bolted afore he was fit to kill,' says he.

"'Stole off with his own head?' says I.

"'That's just it,' says he.

"'Capital felony!' says I.

"'You may say that, sir,' says he.

"'Good morning!' says I.

"I walked away pretty smartly. 'Loose notions about heads in this country,' said I to myself; and involuntarily putting up my hand to my own, I thought somehow the bump of combativeness felt smaller, or indeed had vanished altogether."

These smoked heads were prepared in the following manner: —

First, the brain and all the soft parts inside of the skull were removed. Then the head was steamed in a native oven. After being in the oven a sufficient length of time, it was taken out and dried, and then steeped in water, then steamed as before, and afterward smoked and dried. Two of these heads are shown in the picture on the preceding page.

THE UNCONSCIOUS HOLOCAUST.

THERE is nothing more frightful to the philosopher than the unconscious tragedies of human reason. Men are somnambulists. Stupefied by the long night of instinct out of which it arose, the human mind is only half awake to the world of reality and duty. George Washington was the father of his country, and a great and good man, but he held human beings as slaves, and paid his hired help in Virginia whisky. It took Americans one hundred years to find out that "all men" includes Ethiopians; yet men who risked their lives in order to achieve personal and political liberty for black men, deliberately doom white women to a similar servitude. A rich man will give millions of dollars to a museum or a university, when he would know, if he had the talent to stop and think, that the thousands who make his wealth work like slaves from morning till night, and feed on garbage and suffocate in garrets, in order that he may be munificent.

But without doubt the most frightful inconsistency of civilized minds to-day is seen in the treatment accorded by human beings to their sub-human associates. Human nature is nowhere so hideous and the human conscience is nowhere so profoundly asleep as in their ruthless disregard for the life and happiness of the non-human animal world. It is enough almost to make villains weep — the cold-blooded manner in which we cut their throats, dash out their brains, and discuss their flavor at our cannibalistic feasts. As Plutarch says, "Lions, tigers, and serpents we call savage and ferocious, yet we ourselves come behind them in no species of barbarity." From our cradles up we have been taught that mercy to the lamb and the heifer is a disease, and we have become so accustomed to deeds of violence and assassination that we perpetrate them and see them perpetrated without the semblance of a shudder.

See that dainty lady going down the aisles of the cathedral! She looks in her silks and loveliness the very picture of purity and innocence. But look closer, and you will discern in her faultless art the disfigurements of crime. See those furs! They did not fall like snowflakes

from the bounteous lap of heaven. They were stripped from the quivering form of some outraged Northern creature to whom life and happiness were as dear as to her. Look at her head-dress! Those fluttering wings are the remains of song-birds whose beauty and joy once filled the woods and fields. But their throats were silenced, and their beautiful and happy lives ended forever to amuse the vanity of this spiced and be-ribboned worshiper. She ate breakfast this morning, and she ate that which compelled the darkest crime on the calendar — murder! Her innocence, therefore, is in the eyes of those who behold her, and her conscience is spotless only because it is asleep.

And so with us all; we are criminals — criminals of the most shocking hue. And if we were only able to shake off this somnambulism and see ourselves as we are, and as the future will certainly see us, we should be terrified by the crimes we are committing. Take the delicate organism of the heifer, — an organism more beautiful and in some respects more tender and wonderful than that of human beings, — yet we take that sensitive organism, all palpitating with life and full of nerves, and torture it and mutilate it and chop it into twitching fragments with a composure and nonchalance that would do honor to the managers of an inferno. We call ourselves the paragons of the universe, yet we are so hideous and inhuman that all other beings flee from our approach as from a pestilence. We preach the Golden Rule with an enthusiasm that is well-nigh vehement, and then freckle the globe with huge murder-houses for the expeditious destruction of those who have as good a right to live as we have. Every holiday is an occasion for special massacre and brutality. Thanksgiving, the day above all others when it seems men's minds would be bent on compassion, is a furious farce. Instead of being a day of grace, mercy, and peace, it is a day of gluttony and ferocity. Killing tournaments by "crack shots" are the order of the day. Imprisoned pigeons, suddenly freed, are shot down without mercy by unfailing marksmen. In many places rival squads of armed men scour forest and prairie, indiscriminately massacring every living creature that is not able to escape them, and for no higher or humaner purpose than just to see which side can kill the most! This is a crime unparalleled on the face of the earth. No species of animal, except man, plunges to such depths of atrocity. It is bad enough in all conscience for one being to send a bullet through the brain of another in order to tear it to pieces and swallow it, but when such outrages are perpetrated by organized packs just for pastime, it becomes an enormity beyond characterization!

Look at the scenes to be met with in all our great cities! They are enough to horrify a heart of flint! An army of butchers standing in blood ankle-deep, and working themselves to exhaustion cutting the throats of their helpless fellows, — unsuspecting oxen with limpid eyes looking up at the deadly poleax and a moment later lying a-quiver under its relentless thud; struggling swine swinging by their hinders with their life leaping from their gashed jugulars; an atmosphere in perpetual churn with the groans and yells of the massacred; streets thronged with unprocessioned funerals; everywhere corpses dangling from sale-hooks or sprawling on chopping-blocks; men and women kneeling nightly by their bedsides and congratulating themselves on their whiteness and rising each morning and leaping on the bloody remains of some slaughtered creature, — such are the spectacles in all our streets and stock-yards, and such are the enormities perpetrated day after day by Christian can-

nibals on the defenseless dumb animals of this world!

It is simply monstrous, this horrible savagery and somnambulism in which we grope. It is the climax of mundane infamy — the "paragon of the universe"(?) dozing on the pedestal of his imagination and contemplating himself as an interstellar pet and all other beings as commodities. Let us startle ourselves, those of us who can, to a realization of the holocaust we are perpetrating on our feathered and fur-covered friends. For remember the same sentiment of sympathy and fraternity that broke the black man's manacles and is to-day melting the white woman's chains will to-morrow emancipate the sorrel horse and the heifer; and as the ages bloom and the great wheels of the centuries grind on, all the races of the earth shall become kind, and this age of ours, so bigoted and raw, shall be remembered in history as an age of insanity, somnambulism, and blood.—*A Vegetarian Tract by Professor J. Howard Moore, of the Chicago University.*

BODY AND BRAIN WEARINESS.— The child fatigues much more readily than the adult; that is, his organism is more quickly depleted and poisoned during the period of most rapid growth. The average boy has his most rapid growth between the ages of fourteen and sixteen. In these two years he increases in weight as much as he did during the entire six years preceding the age of fourteen. At this time the brain loses in weight, because of the fact that the usual blood supply is lessened by a portion's being withdrawn to nourish the viscera and other organs undergoing rapid revolutional changes during this period. While the weight of the brain is but one forty-fifth that of the whole body, it requires one eighth of all the blood to nourish it.

At no time in his whole school career is the boy so deserving of sympathy as at the time of most rapid growth. In all learning, two features are involved: Proper presentation of material by the teacher, and proper attitude of mind on the part of the pupil. Seldom, if ever, can the latter condition be supplied by the boy or girl in the midst of the physical and mental revolutions and evolutions of the rapid-growing period.

The great curse of this age is the demand for rapid education. Parents and teachers crowd the children through a long, hard year's work. Health is sacrificed for promotion. What is learned when a child is fatigued, is soon lost, the mind's forces being equally dissipated. Vital force is required faster than it is generated. The work of to-day is done on to-morrow's credit, and the system of the child is wholly at a loss to protect itself against disease and accident.— *The Journal of Hygiene.*

THOUGHTLESSNESS is not mere lapse of memory. The thoughtless man makes no study to be thoughtful. His condition is rather one of character than of physical inability to recall or recollect. The thoughtless man forgets the needs and comforts of his neighbor because he does not care enough about them to remember them. Every one can remember more than he thinks he can, if he tries to. But the thoughtless man cares little that he has not remembered to be more thoughtful.— *Sel.*

EIGHTY-FIVE per cent. of the people who are lame are affected on the left side. — *Current Literature.*

BATTLES are thoughts insisted upon.

ON LAUGHTER.

Don't forget to laugh. Laugh when you are happy, laugh when you are amused, laugh at yourself for being miserable, and laugh at yourself for being bored. There is always something to laugh at; and even when one is reduced to laughing at one's self, that is very much better than to be "glum."

This is what laughter does for a woman: It keeps her heart young. It makes her like people for the sake of the pleasure they give her, and they in turn like her. It makes her step buoyant. It keeps her eyes bright. It keeps her face from wrinkling. It is a beautifier second to no other one. It does for the muscles of the face what exercise does for those of the body — keeps them supple, and prevents them from falling into those stiff and settled lines which mean old age.

There is no situation in life except, of course, the inevitable tragic moments, that may not be bettered by laughter. It is hard to burlesque one's griefs and annoyances, but it can be done, and it is worth doing. To travesty one's emotions and to make a mockery of one's annoyances may not seem to be the highest form of philosophy, but it is not so low a one as to fret over trials, and grow pessimistic over personal woes.— *The Annals of Hygiene.*

Two Cases of Mind Cure.— An English gentleman who had been long confined to his house by chronic rheumatism, one sunny day ventured out for a walk, hobbling painfully along upon crutches. He was crossing a lot, when, hearing a noise behind him, he turned and found himself pursued by a vicious bull. Quite forgetting his rheumatism, he dropped his crutches, ran with all his might, leaped over a fence, and the next day, instead of finding himself worse, to his surprise found himself greatly improved, and in a short time he was quite restored to health.

A gentleman who was suffering from a severe attack of fever had reached so critical a condition that his life was despaired of. One day, during the temporary absence of the nurse, an old uncle, who was nearly stone deaf, and who spoke with a very loud voice, and had a very blunt way of saying things, and had, on that account, been carefully excluded from the sick-room, improved the opportunity of stepping into the room. Drawing near to the bed of the sick man, and bending over him with a very grave face, he shouted in a voice which rang out through the house, "Augustus, have you ever considered the advantage of being buried in sandy soil?" The incongruity and absurdity of the question so amused the patient that he shook with laughter from head to foot, and from that moment he began to improve.

An interesting experiment on the effects of cigarette smoking was recently made at Brown University, Providence, R. I. A healthy young man, whose pulse was normal, was selected, and after inhaling cigarette smoke a few minutes, his pulse registered eighty-five, and the action of the heart was equally disturbed.

In answer to the question, "Shall a young man smoke?" Dr. Oliver Wendell Holmes replied, "Certainly not. It is liable to injure the sight, to render the nerves unsteady, to enfeeble the will, and to enslave the nature to an injurious habit likely to stand in the way of duty to be performed."

THE TRUTH ABOUT ALCOHOL.

BY CHAS. E. STEWART, M. D.

THE once popular idea that alcohol is both a stimulant and a food has of late years been pointed out by both clinical experience and scientific research to be erroneous. On the contrary, if we examine carefully the results of the experiences and investigations of the many able scientific men who have made this subject a careful study, we must come to the conclusion that alcohol is neither a stimulant nor a food. It is true that it has a slightly stimulating effect when first administered, but its subsequent narcotic effect is so much greater that it cannot be called a true stimulant, any more than can chloroform or ether.

Shortly after alcohol is taken into the system a feeling of warmth is experienced; this sensation is not, however, due to any increase in the body temperature, but rather to a decrease, due to the fact that the peripheral blood-vessels become dilated, more blood flowing to the surface, where it rapidly cools, thereby causing a diminution of the body temperature. This dilation of the blood-vessels is due to the paralyzing effect of the alcohol upon the nerves supplying these vessels. There is also a diminution of mental activity, due to the alcohol which is brought to the brain by the dilated arterioles, and weakens the action of the brain-cells. A similar effect is produced on the spinal cord. The reflex action of the cord is reduced, and the power of co-ordination impaired, which accounts for the staggering gait noticed in those who have taken an intoxicating draft.

The opinions of several prominent scientific men on this subject were recently brought out in a trial in which Dr. Hirschfeld, of Magdeburg, Germany, was the defendant. The court charge was acceleration of death, or homicide by negligence, in not using spirits freely. Dr. Hirschfeld asserted that he had never in his long practise used any form of alcohol in the treatment of his cases. He considered it dangerous, and that it never gave strength, but always detracted from the power and vigor of the patient. In this trial Professor Bins, of Bonn; Professor Strümpel, of Erlangen; Professor Harnack, of Halle; and Dr. Smithe, president of the German Medical Society; also the Medical Council of Saxony, consisting of five physicians with the president, made a series of statements, all confirming the following general facts:—

"The idea that alcohol gives strength is deceptive. While any form of alcohol may produce an apparent form of stimulation, there is always a reaction in a profoundly marked diminution of energy. The special paralyzing action of alcohol on the brain and spinal cord is no longer a theory, but a fact, which can be measured and proved. We are confident that experience will fully sustain our belief that no single human life which would have fallen a prey to death without alcohol, has ever been saved by alcohol."

The prominence of the source from which this statement comes should certainly cause it to carry a great deal of weight.

The theory that alcohol increases vital resistance is also erroneous, the vital resistance being really greatly diminished thereby. This has been abundantly demonstrated in the cases of those suffering from the cold. Alcohol, instead of stimulating the heart-regulating centers of the body, paralyzes them, in reality hastening death from cold rather than preventing it.

In a number of experiments carried out with the idea of ascertaining the effect of alcohol upon muscular force, it was found that in every case where alcohol was taken, muscular force was diminished, even when so small an amount as one-half dram of alcohol was used. In these experiments it was found that non-abstainers were affected as well as abstainers. The deceptive nature of alcohol was manifested in every case, each individual feeling sure that he could accomplish more than he could before taking the alcohol.

The alcohol renders the brain-cells incapable of performing their normal functions; consequently the individual feels confident that he is capable of doing more than he really can; he is "fooled," so to speak, and alcohol might indeed be properly termed a "mind fooler."

It has also been ascertained by experiments that alcohol, even in very small quantities, retards digestion. Alcohol diminishes the excretion of proteid substances from the body in the excretions, and it was from this fact that the conclusion was drawn that alcohol acted as a food; but instead of diminishing the amount of tissue disintegration, it simply prevents the elimination of the waste products. These, being retained in the body, are reabsorbed, and more work is thus thrown upon the liver and kidneys. As a result, these organs become diseased, and we have "hob-nailed-liver" and chronic Bright's disease.

These facts certainly show conclusively that alcohol is neither a food nor a promoter of energy.

LIQUOR ARITHMETIC — AN OBJECT-LESSON. — Said the teacher, addressing the boy at the head of the class, "What are we paying for liquor, as a nation?

"$900,000,000 annually."

"Step to the blackboard, my boy. First take a rule and measure this silver dollar. How thick is it?"

"Nearly an eighth of an inch."

"Well, sir, how many of them can you put in an inch?"

"Between eight and nine."

"Give me the benefit of the doubt; call it nine. How many inches would it require to pile these $900,000,000 in?"

"100,000,000 inches."

"How many feet would that be?"

"8,333,333 feet."

"How many rods is that?"

"505,050 rods."

"How many miles is that?"

"1578 miles."

"Miles of what?"

"1578 miles of silver dollars, laid down, packed closely together, our national liquor bill would make. This is only one year's grog bill."— *National Temperance Advocate.*

TOBACCO, TEA, AND CHAMPAGNE IN ENGLAND. — The great increase in the consumption of tobacco, especially among growing lads, cannot fail to have its due effect on the development of both mind and body. The net revenue yielded last year by the tax on tobacco amounted to $52,500,000, this being more than $1,500,000 in excess of the sum afforded from the same source during the preceding year. This excess is attributed by the chancellor of the exchequer mainly to the increase in the consumption of cigarettes. Another point revealed by the budget is the increase in the consumption of tea, ten million more pounds having been consumed during the past year than in the one previous. That we are not becoming a more temperate nation is shown by the fact that in 1895 no less than 1,200,000 extra bottles of champagne were consumed. — *Sel.*

SWIMMING ROBBED OF ITS DANGERS.

MANY who, from lack of time or courage, deny themselves the healthful exercise of swimming, will hail with pleasure the novel idea of a well-known physician who has hit upon a scheme by which its benefits may be largely obtained without going into the water. That the idea is a practical one is shown from the fact that the medical man has already a large number of patients who have taken advantage of it, and with whom dry swimming has become an every-day routine.

Dry swimming is all that the name implies, and needs no further or more special arrangements than a few preliminary instructions, a heavy rug, an easily arranged costume, and the seclusion of one's own apartment.

First, as to the costume. It may be any sort of a sleeveless garment, sufficiently loose to give freedom of motion to body and limbs, flexible, light, and short. The rug is required for the double purpose of giving a resting-place to the body, and adding elasticity to the motions to be gone through with. The dry swimmer lies with his back on the rug on the floor, and as closely as possible produces the motion of a swimmer in the water, varying them only when the changed conditions make it necessary.

From the time these motions are perfectly mastered, the real benefits to the dry swimmer begin, by a strengthening and a quickened natural development of almost every muscle of the body and a scientific toning of the nervous system.

The first motions that are taught are those of the arms. Allowing the arms to rest beside the body, they are first made to describe a circle, then brought above the head, with the palms of the hands close together, a deep breath being taken by the swimmer at the same time. As the arms are returned to their original position, the breath is exhaled. In this one action not only are the muscles of the arm affected, but the lungs strengthened by the unusual motion. It is unusual, for while it may have been practised by many as they stand erect, the effect upon the reclining body is vastly different.

In the next series of motions the palms of the hands are placed on either cheek, then the arms are shot suddenly upward, until the palms are brought together far above the head, to be parted again with another circular motion which brings the arm beside the body, similar to the first position taken.

The motions of the lower limbs consist in a series of kicks of more or less complicated order. There is also a motion of the head, which consists in lifting it as high as possible from the rug, and of keeping it up as many seconds as possible without feeling a strain. Another motion for the right arm is to extend it at a right angle to the body until it touches the opposite shoulder. This is repeated with the left arm.

These are the motions in detail, but the execution of them by an experienced dry swimmer is so truly wonderful that they would never be recognized. The idea is to perform them rapidly, one series after another, breathing appropriately at the same time. The sight of an experienced dry swimmer is one calculated to provoke laughter unless one understands the benefits to be derived from the exercise.

The physician who brings forward the idea predicts that dry swimming will grow to be a regular treatment, prescribed by all practitioners of advanced medical ideas. The patients who have tried it, speak highly of it.— *Sel.*

PHYSICAL EDUCATION.

EDUCATION was formerly regarded purely as brain culture, the mind being dependent upon the cultivation of the brain, as if it were a distinct and independent part of the body. Since, however, it is now known that the growth of the intellect depends upon the development of the nerves, muscles, viscera, and other organs as well as the brain, the term "education" has a broader significance. But, notwithstanding it is now well understood that the full and satisfactory growth of the mind depends on the systematic development of the body as a whole, physical education is still considered subsequent to mental culture, instead of being the fundamental and necessary part of universal education.

Complete harmonious growth of intellect is made possible only by the help of the performance of function of all the organs of the body, the least function of the entire organism not being without its influence upon the brain. The healthy performance of an organ depends mainly upon its development, and of the entire organism upon its systematic developments. The correct physical development of the body, however, does not rest solely with a generous supply of nutrition under favorable hygienic environments, but also upon exercise, systematic exercise, which brings into activity and systematically develops every part of the human anatomy.

Physical education as scientifically taught is of recent origin; previously it was generally conducted by men having little or no knowledge of anatomy and physiology, and consequently without any regard for health, mental culture, or symmetry of body. The physical development of special muscles or parts of the body, so as to be able to perform certain feats, with but little attention to the rest of the organism, is a dangerous procedure. By the overdevelopment in certain directions and the complete absence of it in others, the entire system is thrown out of proportion, which often leads to disease, and not infrequently ends in death. The mere mention of physical culture to these men directed their minds at once to the bones and the large muscles directly attached. The viscera and other organs were not taken into consideration, if indeed they were even thought capable of improvement; hence healthful culture was out of the question.

The bones and muscles of the arm form no exception in respect to their development from the rest of the body. Place this member completely at rest for a long time, and, as every one knows, it will gradually waste away until it becomes helpless; but the more exercise the arm performs, the more will it develop and the stronger will it grow, provided, of course, it is not overtaxed. The same is true of every other part of the body. Strong lungs do not come from rest, but from exercise that excites full, deep breathing, even rapid breathing, for vigorous exercise. Strong stomachs result from eating food that is difficult of digestion as well as that which digests easily. Predigested foods are intended for temporary use only by the sick. Feeble circulation as well as many diseases of the heart are benefited by judicious climbing.

Every part of the body is capable of development, and many disproportions may be permanently corrected by some special form of exercise. To so great an extent has physical development been neglected, or abused, that its scientific application is frequently seen to remedy defects and perform cures that have resisted all other known treatments. — *J. Clark Slay, M. D.*

PULMONARY DEVELOPMENT.

RESPIRATION and circulation are most intimately associated functions, nature having established a definite ratio of action between them. Under ordinary circumstances eighteen respirations are required to furnish the blood with oxygen to supply the system one minute. The most natural and most scientific method of increasing the volume of inspired air is by producing a greater demand on the part of the body for oxygen. This demand is created by physical exertion.

Comparatively healthy persons are subject to scarcely any restriction as to the methods of taking physical exercise, provided the exertion be neither too severe nor too prolonged. For those who are not so strong, the gymnasium furnishes an admirable means of physical development, and the various arm exercises, especially those which cause elevation of the ribs, are indispensable. Dumb-bells, Indian clubs, the horizontal bar, and Swedish movements offer an almost endless variety of healthful exercises to either sex. A daily graduated program would do wonders for the flat chests and round shoulders of the present generation.

Mountain climbing is perhaps the most beneficial of all forms of exercise for increasing breathing capacity. Within proper limits, it is suitable even for persons possessing very little muscular strength and vitality. Lifting the weight of the body up an incline creates a demand for oxygen, which the lungs freely furnish by means of more voluminous inhalations of air. This exercise should be performed slowly, with short but frequent intervals of rest while taking it.

A PUBLIC GYMNASIUM.— The commissioners in charge of the park system of West Chicago are providing a number of innovations that are sure to be appreciated by the public. They include a bicycle race-track, a gymnasium, and a natatorium. The last two institutions have just been dedicated to the public. The natatorium provides accommodations for several hundred bathers, with separate pools for men and women, and all the necessary appliances will be furnished without charge. The gymnasium is combined with a quarter-mile running track, and is essentially an outdoor affair, provided with apparatus in great variety. Both these institutions are situated in the part of Chicago that lies well away from Lake Michigan, and is consequently most in need of such accommodations. It would be well for the park authorities of other large cities to follow this admirable example, and make their municipal pleasure grounds thus minister in the widest sense to the physical needs of the poorer classes. There is no wiser form of public expenditure, and none that will bring a larger return from a given investment. — *Harper's Weekly.*

ONE result of the craze for athletics in women is that their feet are growing larger; shoemakers say they rarely keep the very small sizes in stock, as there is no demand for them.

THERE, little boy, don't cry,
They have broken your leg, I know;
But the football game
Which made you lame
Has laid many little ones low.
Your name will be published when you die;
There, little boy, don't cry.—*Men.*

GAMES VS. GYMNASTIC TRAINING.

Mosso, a noted Italian physiologist, in a recent work on the "Physical Training of Youth," emphasizes his belief that games and sports are a far better means of physical culture than physical training after the methods of the modern gymnastic teacher. He extols the merits of the English games and athletic sports. To him these furnish ideals for physical culture everywhere. He speaks of the gymnastic training in his own country, so far as it goes, as worse than useless, it being in cold, dismal rooms, with teachers who have no enthusiasm, or power to enthuse their pupils. The German system he also condemns. The gymnasium hour in German schools, he declares, "is the most wearisome hour of the day, and the best teacher cannot make it otherwise." Herbert Spencer takes a similar view. He also thinks the sports of youth are the true means of physical culture. These the pupils enter into with zeal and enjoyment. The mind acts in harmony with the body, and this delight in the sport is as essential as the sport itself, and is entirely lacking in the exercises of the gymnasium. Bergenstein, an Austrian professor, also condemns gymnastics. He says, "They afford, as conducted in Austria, no relaxation and no physical exercise, and it is not only a lost hour, but one of the least interesting of the day." Other writers might be quoted in support of the same idea.

It is very true that sports are excellent means of physical culture. Animals of almost all kinds use them freely, and no doubt to advantage. Those of us who have been brought up on farms cannot fail to have observed how lambs, pigs, calves, colts, cats, and dogs have their sports, and how very interesting they make them. Among wild animals it is the same. The almost reckless sports of wild geese and ducks and other birds furnish examples of this. The sports of native Indians are very interesting. The sports of young boys and girls are very valuable means of physical culture. The sports of school and college boys, fifty years ago, were probably as valuable to them as the gymnastic training of to-day, perhaps more so. The running, climbing, jumping, swimming, and lifting all had high value as exercises, and body and mind were alike benefited. But while we should not go back to these methods alone for physical culture, we should not give them up. The parent or the teacher who would do so is no true educator. Modern physical training is the result of the highest evolution of man. It supplements, or should supplement, these sports, and do for the body what they cannot do. In sports we are liable to use almost entirely the stronger parts of our bodies. This only adds to any unsymmetrical condition. True physical culture in the gymnasium would rectify this inharmony, would bring up the weaker parts, perhaps suppress the overdeveloped ones, and destroy, as far as possible, asymmetry. Systematic training overcomes awkwardness, and promotes grace and ease in action.

However, the modern teacher of gymnastics commits an error if he undertakes to make his art do the whole work of physical culture. He should promote all outdoor sports so far as he can. In the city schools this is not always easy, but even here it can be done at times, and should be done. The modern schools of physical culture should do more than they are doing to fit teachers for making use of the tendency of youth to indulge in sports. They are a necessary part of all true physical culture. — *Journal of Hygiene.*

YOUTH THE TARGET OF THE PRESS.

MRS. S. M. I. HENRY.

"THE children of this world are in their generation wiser than the children of light," said Christ; and in nothing is this more clearly demonstrated than in the efforts made to secure control of the minds of the young. The object of the printed page is to turn their thoughts into desired channels, to capture brain and heart, and train them to certain habits of opinion and belief, and so produce a given course of action, which shall be to the advantage of the power behind the scenes. The world has awakened to the fact that the child of to-day is the man of to-morrow, and so childhood is courted by the selfish schemer as assiduously (if not more so) as by the philanthropist and leader of Christian thought. Thus the child has become the target of the printing-press.

Everything which comes from the press must be classified as either good or bad. Such is the far-reaching, arbitrary force of a thought that nothing which has the ability to create or control it can occupy neutral ground. If not thoroughly good, so representing truth that it will make good mental food, by the use of which the reader will become stronger in every part of his being, it is bad. I am aware that this may be considered radical, but it is true, and a truth so vital to the well-being of the race that we cannot afford to pass it over with superficial attention.

The thoughtful parent will find two great agencies at work to secure the attention of his child through the printed page — one greedy and selfish, seeking only to enlarge the market for its products; while the other aims to build up truth in the world, as well as to save soul and body from death. Both know that to secure the children and youth of to-day as disciples and coadjutors is essential to prolonged success. The first agency aims to produce only that which will sell, and more, that which will sell most readily. Their first object is to make money at all hazards; and the result is a hardening of the heart toward consequences and the demands of purity. The agency which aims for the real upbuilding of the youth must contend with the ignorance and carelessness of parents, as well as the ever-present money question. It costs more to produce gold than its counterfeit. In the very nature of things, the publishing and dispensing of truth unmixed with error must be largely on the missionary basis. Profits, if any, must be small. Certainly no one can become rich out of it. Its market must be extended beyond certain limits only by the hardest self-denying labor. Irreligion, to say nothing of vice, can pay large prices for illustration and embellishment. Anything that will "make the thing go" can and will be had; while truth must often go forth in sober dress and by slower means.

The feverish appetites engendered by wrong thinking and living, as well as by actual impurity, have made a demand to meet which a market has been opened for the circulation of printed poisons. This commerce is under the very best business control that can be given to any human enterprise. There is "money in it," and it must be hedged about with every precaution which can insure financial success. It would seem natural that childhood and youth should be protected, by their very helplessness and innocence, from those who would make such prey of thought and imagination as is done through pernicious literature, and it is difficult to con-

ceive how any man or woman could attempt to adapt the language of youth to the delineation of unholy things; but the lust of greed has no regard for youth or innocency; it will rob the "temple of God, which temple ye are," of its most sacred vessels, if by this means a few dollars may be added to its hoard.

Just as soon as any father or mother becomes aware that it is necessary to reform the taste of a growing boy or girl in regard to reading-matter, that "wiser" wisdom of the "children of this world" will be found a mighty force which man alone cannot overcome. Those who are "pushing" the evil in literature know how to do their work, and are ready to fight for their opportunities to corrupt the thoughts of our children. They have left nothing undone to crowd the pure and helpful into as narrow a sphere as possible, and to seize upon the most respectable and highly influential means by which to accomplish their purposes. Notice the attitude of a certain class of critics concerning those stories, for instance, which are intended as aids to the home in teaching pure and sweet truths. It has gone forth from these leaders of opinion that for any story to really teach Scriptural truth, and be capable of leading a soul out of the darkness of sin to Christ, is to be so inartistic that it must be arbitrarily ruled out of literature. Our children hear this in school or college — if not from teachers, from associates, who pose as connoisseurs in literature. "Literature is art," says a certain critic, wise in the wisdom of this world. "It is not the office of art to be useful, but to entertain. Therefore a useful book cannot properly be called literature."

It may be very well written, attractive in every way, but the truth which it carries with it, and with which the world has a quarrel, whether it be temperance, moral purity, or the salvation of Christ, spoils it for the lover of "art in literature."

Very much in school and college life aids this evil. Literature represents to the student about all there is in culture; to be uncultured, according to this law of the world, is worse than to be sinful; and every aspiring, intelligent child must sooner or later feel the force of this influence, and overcome it, or be overcome by it. He is given to understand that a book may be really impure, and yet very charming as a bit of literary art; in fact, it may be all the more charming for the "spice of naughtiness."

Such is a part of the deplorable combination against which those must contend who would keep the thoughts of their children in health and strength. These are some of the influences that many a bright boy and girl has been thrust out to meet, all unprepared and alone, and to which, in their ignorance, they have yielded; and when by and by ruin has brought heart-break, no one seems to be able to locate the cause.

The object in presenting this subject is not only to uncover an evil which may have been as yet hidden to the eyes of some fathers and mothers, but also to indicate how truly the evil which may seem altogether too formidable in the eyes of some, belongs to the "all things which work together for good to them that love God."

This portion of the subject must, however, be reserved for another paper.

ARTISTIC DRESSMAKING AND MILLINERY.

THERE is a universal truth in the old tale of the mountebank who in time of prosperity pitied the tailor, but found their positions reversed when hard times came. People must always be fed, clothed, warmed, and sheltered, after their own fashion; these things are essential even in savage life. In proportion as mankind rises in the scale, coarse and ill-cooked viands cease to be acceptable; the tent-maker and the hut builder are supplanted by carpenters and masons, and architects and artists come into existence; while the makers of waist-cloths and aprons are superseded by tailors and mantua-makers. Now — so rapidly do things change! — the days of even these last are numbered; that is, mantua-makers of the old sorts. The love of beauty and fitness has at last extended, in some degree, even to wearing apparel. Mere fashion and expense are not artistic, and artistic our apparel makers and mongers must become if they would maintain their footing in the world.

Millinery and dressmaking of the ordinary sort are already overdone callings. Those who aspire to make either name or fortune along these lines must become something more than mere modistes, the trimmers of bonnets and hats, and the cutters and fitters of gowns, who but apply the fashion of the moment alike to all figures and to every shade of complexion. Such a person may continue to make her living; she will certainly do so if she possesses industry and a fair degree of skill in her handicraft. But if she wishes to do more than this, she must elevate her calling from a handicraft into an art; and to do this she must be trained as carefully and specially as for any other branch of applied design.

An artistic tiring woman — let us revive the useful old word for convenience' sake — cannot be made simply by mastering somebody's "dress-cutting system," and becoming an expert in neat fitting and finishing, even with the addition of the careful study of the latest fashion plates. This truth has long been recognized by those who have done the most to improve the condition and prospects of self-supporting women.

In such beneficent industrial schools as the Pratt Institute, in Brooklyn, and the Drexel Institute, in Philadelphia, this recognition has led to the establishment of classes for the instruction of those who wish to become something more than merely mechanical seamstresses and bonnet builders. That the classes have yet proved as useful as it was hoped that they would do, is not to be expected. The struggle between true ideas of beauty and those imposed by fashion is yet too unequal. It is extremely difficult for the best prepared teacher to impress upon the mind of a pupil who hardly knows the difference between purple and scarlet, that there are certain shades which must not be laid side by side on the head-dress if at the same time the pupil's favorite fashion magazine assures her that such is this season's *mode;* or to make her see that an "Empire waist" would prove less becoming to the stout and elderly figure of Queen Victoria than it would be to that of the latter's slender and graceful granddaughter, if it should chance that the tyrant Fashion has decreed that "Empire waists" shall be worn this season.

Some fairly successful efforts have already been made outside of the schools in the way of so educating the public taste that it shall no longer see beauty in the wasp-like waists which tortured the last generation; but these have been steps in the promotion of health rather than of

THE GERALDINE GOWN.—This gown, designed in the Dress Department of the Battle Creek Sanitarium, is the perfection of ease and grace. It illustrates the adaptability of this system of dress cutting to a stout figure. (See Publishers' Department.)

art. In the latter direction more has been done in Chicago than farther east. A club of Chicago ladies, impressed by the possibilities offered by the Columbian Exhibition, caused to be made and shown some really artistic specimens of dress. They did not find a dressmaker ready to their hand, but were obliged to select the most promising person they could discover, and teach her the new trade. The exhibited work, as carefully fitted as any could be, and far more graceful, attracted the attention of thousands, and undoubtedly the influence of this little art center has been carried far and wide.

From both of the grand schools we have named have been graduated a number of teachers of similar classes in other schools; but the number of professional tiring women turned out from these admirable schools is, so far, proportionately small; a fact to be much regretted, but the reason is obvious. No *art* can be learned without devoting much time to it. Most women who wish to earn money by the needle are in present need; and even if they were not, many of them are not sufficiently advanced in ideas to ap preciate the advantages of a two years' course, which includes so much more than the things which they deem to be essential. They can learn somebody's "system" of cutting by measurement, in five or six weeks, for a comparatively small sum, and they can acquire the rest of their handicraft while working in an establishment where the hours are very long and the work confining, but where they can earn a moderate compensation meanwhile. The rest they learn by practise — at the expense of their patrons.

This is the old method; and some, having much natural aptitude, have, even in this crude way, become so skilled that they can command high prices for their work, whether by the piece or the day. Some few of them really have a certain measure of artistic attainment as well as mechanical skill; but the principal element of their success is generally an exceptional degree of business ability.

At the Pratt and Drexel Institutes the instruction is far more thorough, even in the minor details, than can be gained in the workroom of any modiste, as well as much more comprehensive. Beginning with lessons in hand and machine sewing, the classes carry the pupil forward in the practise of taking measures, drafting, cutting, and fitting. To these things is added a short time — far too short — in each week, devoted to free-hand drawing. Throughout the course, lectures are given by competent persons upon hygiene, the selection of fabrics, and the requirements of good taste in form and color. Instruction in physical culture and in keeping accounts and making out bills, is also given. The literature of hygiene and of artistic costume is brought to the notice of the pupils, and they are expected to inform themselves upon these subjects by making use of the libraries attached to the institutions.

All these things, but especially the physical culture lectures and lessons, are expected, in time, to do a great deal toward the formation of better ideals of dress. But the really artistic tiring woman has not yet made her appearance in our midst in sufficient numbers to be noticeable. If, when she comes, she shall be properly equipped, her success may not be immediate, but it will be sure and great.

This equipment will necessarily first include the degree of mechanical skill already possessed by those who are known as first-class modistes. She cannot afford to be deficient in one smallest point of this; but to it she must add a knowledge of the human figure, only obtainable by such studies as are offered to the "life classes" in an art school.

In one of the upper galleries of the museum of the Louvre hangs a very large, unfinished picture by David. He was at work upon it when death touched his hand. The scene is Mirabeau addressing the Assembly of the States-General, and the picture was intended to be the artist's masterpiece. Many of the portrait heads were already finished and a few of the figures, but most of the latter are only sketched in. To my surprise all of these unfinished figures were unclothed. "Yes," said an artist friend who was with me, in answer to my expression of astonishment, "it is only in portraits where we can't help ourselves that we paint the draped figure without having first drawn the undraped. Grace and freedom of pose and line can only be secured in that way."

If dressmakers understood the lines of the human figure, they would soon cease to deform them as they do now. An artistic dressmaker must be able, if not to paint pictures, at least to draw the female figure in "the altogether" with a reasonable degree of accuracy and grace. She will then be able to design fitting and graceful garments, and invent or adapt styles which shall at once measurably conform to the prevailing fashion, and be suited to the individual wearer. —*Helen Evertson Smith, in the Independent.*

SENSIBLE WOMEN.— I greatly admire the average Englishwoman for her utter refusal to worry or be worried, in consequence of which she looks young at fifty. She undertakes no more than she can comfortably carry out, and thoroughly believes in the coming of another day. By this I do not mean that she procrastinates. She simply will not let the domestic machinery grind her down to ill health and early old age. She is a frequent bather, and regards health as the prime factor of life, to be looked after before everything else. She sleeps nine hours, and takes a nap during the day at that. She arranges her day's work in the most systematic manner, and her little memorandum slip always shows two vacant hours — they are for rest. She eats heartily, but of the most digestible food. She is a true economist; regulates her expenses carefully, and is a true believer in the allowance system. — *Edward W. Bok.*

THE hope of the future lies mainly in well-ordered homes — homes in which children are trained to be just, reasonable, and humane; in which they are taught to look with an intelligent eye upon the phenomena alike of nature and of society; in which they learn lessons of industry and self-reliance, of honor, purity, and self-respect; and are guarded against the vulgar worship of wealth and worldly success. It is for the wise and noble women of our time to help to make such homes, and it is for men to see to it that they are worthy of partnership in so sacred a cause. It is no time for any silly rivalry or futile opposition between men and women, who are as necessary to one another now as at any previous age in the world's history — nay, more necessary. There is ample scope to-day for the efforts of all; and if any stand idle in the vineyard, it must be from lack of will, not from lack of opportunity. — *Popular Science Monthly.*

A POPULAR TOAST.

"WOMAN: God's best gift to man, and the chief support of the doctors."

One physician has announced that this very suggestive toast is given at every convention of medical practitioners, and no doubt serves a very useful purpose in keeping up the flagging energies of a class of professionals whose occupation seems to be receding from them as the firm shores of a land of freedom from disease lift their fair stretches above the waves of decay and death.

The great factor in bringing about this "alarming" state of things is the increased health of our women, which is daily becoming more apparent in the firmer step, the upright poise, the bright eye, and the kindling animation that attend upon our young women.

That unhealthful dress lies at the root of most of the ills from which women suffer is admitted by many leading physicians. When we remember the years upon years in which the "wasp waist" has been the prevailing mode, the ages during which woman has been bound to the decrees of that relentless maker of fashions, her form encased in an armor of steel, her arms pinioned at her sides, or her limbs fettered by narrow skirts, we can but wonder that the human race in civilized lands has not long ago succumbed to the deteriorating influences. The pangs of a disordered stomach, the distress caused by cramped lungs, the untold miseries of displaced pelvic organs, — all follow in the train of the corset.

But thanks to the popular interests of the day, golf, the bicycle, and "reform" dress, our women are breaking away from the customs of ages, and defying the goddess of fashion till she herself, alarmed at her flying votaries, has altered her decrees to suit the new conditions, and is giving women what they demand, — a healthful, artistic dress.

THE HYPOCHONDRIAC.

BY LEILA R. PEABODY.

No interest does she take
In mountain, plain, or lake;
But on microbes can she fluently converse.
The workings of her spleen,
Her temperature mean,
And the history of her case will she rehearse.

Such pains are in her head
She wishes she were dead
(O, tell it not in Gotham, so do I!),
She is surfeited with nerves;
Her stomach only serves
To rouse hostile demonstrations from the pie.

Her liver 's on a strike;
Neuralgia and the like
Hover threateningly o'er her like a pall.
Her pulse is so erratic,
Her breathing so asthmatic,
That daily on the doctor must she call.

Her tastes are very notional;
Her temperament, emotional;
True sympathy she ne'er expects to find.
She has doctors by the score,
But shows them all the door
When they tell her that the trouble 's with her mind.

She says one must be daft
To allow the deadly draft
To meander through the sleeping-room at night
She lives on asafetida,
Valerian, bromidia,
And hibernates in rooms that are air-tight.

The blood rushes to her head;
"Quite naturally," we said,
"Since a vacuum by nature is abhorred."
She finds children "so distracting,"
Grown people too exacting;
From such as she, deliver us, good Lord!

A SCHOOL DRESS.— The chance criticism of a newspaper reporter who, a few months ago, in his "write-up" of the Iowa State Normal School, remarked that the young lady students "looked frail and nervous, and as if lacking in physical strength," proved the means of setting on foot a reform which we trust will be permanent and far-reaching in its effects.

The girls read what was said of them, and were forced to admit its general truth. Perhaps their pride was touched; at any rate the matter did not drop here. They began to cast about for a cure of the evil. They discussed the subject in their societies and in their school organ, and finally decided that their manner of dress was largely responsible for their physical condition, and that a change in this respect was the first move toward the ruddy cheeks and elastic step which were said to be so conspicuously lacking among them. To think was with them to act, and on last Thanksgiving day over one hundred of these progressive young women appeared in a new costume, which is at once healthful, inconspicuous, and becoming.

Dark blue storm-serge or cheviot is the prevailing material, though it is not expected that all will wear the same color or material. The dress skirt is six inches from the floor, and is worn with a shirt waist or fancy waist and a jacket. Rational underclothing is also insisted upon; the extremities are to be warmly dressed, heavy skirts abolished, and the weight of the clothing evenly distributed.

In reply to certain criticisms upon the movement, one of the girls replied: "If our example shall free even one schoolteacher who plods through dust and mud and snow to her daily work, we can afford to bear the strictures of our friends and to take no heed of the others." But these young women have received far more congratulation than criticism for what they have done. Who will follow their lead?

A RAINY-DAY DRESS.— A modest and artistic rainy-day dress has just been passed upon and approved by the Rainy-Day Club of New York City, and will was publicly worn for the first time November 1. Mrs. Bertha Welby, of the Professional Woman's League, is the originator of the dress, and many prominent women of the East are identified with the movement. Women in all parts of the country are said to have pledged themselves to wear this dress, which is described as being "a becoming combination of jauntiness and comfort." The *New York World* gives the following description of the new costume as lately shown to a reporter for that journal:—

"The high bicycle boots lost themselves under a tailor-made skirt that just escaped the ankle, short enough to be graceful. The skirt, three yards in width, was of rain-proof material that resembles broadcloth. A reefer jacket was worn with the high collar and necktie, and an Alpine hat gave the finishing touch of graceful severity. It was both modest and artistic. The storm-cape, with high collar reaching to the edge of the skirt, will be added in severe weather."

The average length of the dress will be five inches from the ground, and eight inches will be the limit.

A LADY bought a paper of a ragged newsboy, and dropped a few extra pennies into his sooty hand with a smile, saying: "Buy yourself a pair of mittens; aren't you cold?" "Not since you smiled," he replied. — *The Outlook.*

START THINGS RIGHT.

THELWALL once said to Coleridge: "I think it is unfair to influence the minds of children by inculcating opinions before they shall come to years of discretion, so they may choose for themselves." Coleridge made no reply, but asked his friend to visit his garden. When inside, he said, "This is my botanical garden." "How can that be," asked Thelwall, "for it is all overgrown with weeds?" "O," said Coleridge, "that is only because my garden has not come to the age of discretion. The weeds, you see, have taken the liberty to grow, and I thought it unfair to prejudice the soil in favor of roses, berries, and delicious fruits."

You get nothing good out of a garden till you put something good in. There must be seed or there are sure to be weeds. Do not make a mistake. The word of God must be planted in the heart if good results are to be attained. A precious harvest only comes from sowing precious seed, and caring for it after it is sown. For the fairest garden on earth, left to itself, will soon become a tangled mass of weeds and thorns and briars; and a heart unseeded and uncultivated brings forth thorns and briars, and is nigh unto cursing, and its end is to be burned.— *The Christian.*

THE GOOD HOUSEKEEPER.

How can I tell her? —
By her cellar,
Cleanly shelves and whitened wall.
I can guess her
By her dresser,
By the back staircase and hall;
And with pleasure
Take her measure
By the way she keeps her brooms;
Or the peeping
At the "keeping"
Of her back and unseen rooms.
By her kitchen's air of neatness
And its general completeness.

— *Good Housekeeping.*

"REFORM" IN THE HOME.

MOTHERS' cooking-classes, girls' luncheon clubs, health culture clubs, sick-diet lectures, emergency and home-nursing classes, home sanitation conferences, health protective associations, household art leagues, and the fourth annual meeting of the National Household Economic Association, mark the winter of 1896–97 as pre eminently devoted to the improvement of the home. It has long been a popular supposition that a woman too stupid or indolent to do anything else was at all events equal to the management of a home, but the number of badly managed homes that, endowed with life, could rise up and cry out against their mismanagement refutes this fallacy.

And now, does all this multiplication

of schools and classes and leagues and conventions, springing up with the celerity that marked of old the crop of dragon's teeth, portend reform? We hope so; and in the fulness of time we shall see. Some have supposed that the study of this new science of Household Economics was a study of cooking; only that and nothing more. Far from it. Household science stands on a broader basis than that. It seeks to deal not only with the physical well-being of the family, but with its mental and moral health. Its ramifications extend in every direction, not only into the kitchen, important as that is, but into the very foundations on which the house is built. It finds its way into the plumbing and the drainage; the best methods of heating, lighting, and ventilation. It grapples with the servant-girl problem, and studies the decorative capabilities of the house. It looks the family income fairly in the face, and sees that it is properly apportioned. It confronts the butcher, the baker, and the milkman — to see that their service is what it should be. It has a keen eye for food adulterations, and a fine scorn for sham and veneer of every sort. In short, its end and aim is to make home healthier, happier, and better.

If a multiplication of societies, or the interesting of old societies in this specific purpose tends to bring about the betterment of the home, the winter's work will not have failed of its purpose.

PROPER BED MAKING. — The trained-nurse method of bed making is one which might well be studied carefully by all bed makers. There is no real reason why only invalids should be comfortable. The under sheet is tucked in carefully and tightly at both ends. On the sides, at each corner, it is folded back carefully in the same way that paper wrappings are folded at the corners of a package. Then the sides are tucked in. The other sheet, the blanket, and the spread are tucked in at the foot in the same way, and drawn very tightly under the sides. — *New England Farmer.*

ANYTHING that tends to make girls in love with the housewifely arts is a move in the right direction, and should be encouraged. A weekly Luncheon Club has been organized among some New York girls with great success. A menu is made out a week in advance, each girl assuming the furnishing and preparation of one of the dishes. The hostess for the day provides the one hot meat dish, but is forbidden by the regulations of the society from furnishing anything more. The dishes provided by the guests may be cold or of such a nature that they can be reheated at the place of entertainment. Each girl does her own cooking quite independently, and the results are usually a credit to the young cook. After luncheon is served, criticisms, suggestions, and questions are always in order, and the best of feeling prevails.

It is quite safe to predict that these girls, so early and pleasantly initiated into the mysteries of the cuisine, will never have the distaste for housekeeping and cooking that ignorance is apt to foster.

WASH willow furniture with warm water and castile soap, wiping very dry with a soft cloth; then dry in the sun or near the fire. To bleach it, after washing in warm suds, set in a box, without drying; put a small dish of burning sulphur inside, and cover the box for half an hour.

AFTER a stove is blacked, rubbing with a newspaper will keep it bright for a long time.

CARE OF CONSUMPTIVES.

BY KATE LINDSAY, M. D.

In cases of tubercular disease involving the bowels and mesentery, also in the latter stages of pulmonary consumption, there is usually a troublesome catarrh of the bowels. This, as well as the ordinary fecal matter, may contain tubercular germs, and should be carefully disinfected, and so disposed of as to make sure that no part of it will be ground into dust and carried by the wind into the air, food, or water which some one else must breathe, eat, or drink. It is the duty of both the nurse and the patient to do all in their power to hinder infection from spreading. The discharges from the lungs or any other organ which is breaking down from tubercular infection are filled with disease germs, and these ought never to be emptied into a privy vault or anywhere else where they will be likely to prove a source of danger to others. It is best to burn them if possible; and if this is impracticable, they should be thoroughly disinfected by a five-per-cent. solution of either chlorid of lime or carbolic acid, and buried in a place where they will never be uncovered, or by any means reach the surface, and where they will not contaminate any water supply.

These patients should not be allowed to eat any food that will ferment easily, or that is coarse and likely to increase the irritation of the inflamed and denuded surfaces of the mucous lining of the alimentary tract. All coarse grains and bread containing the outer bran, and all raw, sour, or seedy fruit should be avoided. The mild fruit juices, such as the juice of blackberries, raspberries, and well-baked sweet apples, may be used in moderate quantities to give a relish to the food and to furnish the vegetable acids needed by the body. The finer grains, if well-cooked, and bread made from fine whole-wheat flour well-baked and thoroughly toasted, will, if well masticated, agree with the weakened state of the patient's digestive organs better than new fermented breads. In some cases a moderate amount of milk and eggs may be allowed. If milk is not well borne, it may perhaps be tolerated in the form of malted milk, kumyss, or peptonized milk. Often eggs will be most easily digested either curdled or beaten up and taken raw. When the stomach is very weak, only the whites beaten to a froth may be accepted.

To relieve the irritation of the inflamed and denuded surfaces of the inner covering of the bowels, also to free them as much as possible from the morbid discharges, large enemas of hot water may be given once or twice daily, followed by some emollient injection, as thin, well-cooked, and strained corn-starch, or flaxseed or slippery-elm tea. Of the hot water, two or more quarts may be given, and of the medicated injection, from a half pint to a quart.

If the bowels are very much relaxed, some astringent solution may be added to the soothing injections, as a half teaspoonful of tannic acid in the hot starch water, or a tablespoonful of fluid extract of witch-hazel in the same solution. If nothing better can be had, a decoction of oak-bark may be used with the starch water. This is made by boiling a small handful of oak-bark chips in a pint of water, and straining, using half a teacupful of the tea for each enema.

Disinfecting solutions are also useful in such cases. Many drugs have been

recommended for this purpose, the most popular of which is the beech-wood creosote emulsion; but this is a very poisonous substance, and it should not be used except under the direction of a competent physician. A teacupful of the saturated solution of boracic acid given when the discharges are very foul, is harmless, and will often relieve rectal irritation, and soothe sensitive surfaces.

Where the discharges are very foul, the anus is apt to become sore and give much discomfort, therefore great care should be taken to keep it clean and well oiled. Infants are more likely to suffer from this condition than adults. Such cases should be treated by a thorough cleansing with borax and hot water, followed by a weak solution of hydrozone (one part of hydrozone to twelve of water), then oiled with boiled vaseline or some other mild unguent. The borax water should be used at least every time the bowels move, and the hydrozone solution twice daily. In severe cases, diapers should be dispensed with, and a triangle of cheese-cloth, enclosing a layer of absorbent cotton, be used in their place. With such cases occurring among older children and adults, cleanliness should not be neglected.

Enlarged and discharging tubercular glands and bone and tubercular abscesses should be treated by a surgeon, but the dressing and care of the wounds afterward come within the province of the nurse. As the discharges are always more or less infectious, great care should be exercised to prevent the contagion from coming in contact with any sore, either on the hands of the nurse or on any other part of the patient's body. The soiled dressings should be burned; and when redressing the wound, care should be taken so to adjust the dressings that none of the foul matter can soak through and dry on the outside, as it will thus infect the air of the patient's room, as well as soil his clothing.

If the tubercular disease affects the membranes of the brain, the termination is always death. The only treatment that can be given in such cases is to relieve the patient's sufferings. As the eyes become unable to tolerate light, he should be put into a dark, quiet room, and the head kept cool; the food should be bland and easily digested, and taken in moderate quantities. The flesh of the patient is often very sensitive, and every movement painful. The nurse should remember this, and move him as gently as possible.

A change of climate and an entire change of surroundings may be very beneficial to consumptives. The warm, balmy climate of Florida, and some of the other Southern States has been helpful to some patients, especially in winter, because they can then spend much time out-of-doors; but in the autumn and summer months malaria is apt to abound in these localities, so that, on the whole, a moderately high altitude and sunny, bracing climate has been found to be helpful to the greatest number of consumptive patients, especially for a permanent residence.

To receive decided benefit from change of environment, certain conditions must be sought. The locality must be healthful and free from all malarial influence, and it should be decidedly a land of sunshine. The weather, while cool enough to be bracing, should admit of an outdoor life for the greater part of the year. The water supply should be faultless, and the location should have a moderate elevation, as five or six thousand feet above the sea-

level. It should be away from the smoke and dust of large cities; and as outdoor work is very beneficial for consumptives, it should be in an agricultural region, where exercise may be had in tilling the soil. Our inter-mountain States, as Colorado, Wyoming, Idaho, and Montana, also New Mexico, and some parts of California, Oregon, Washington, and other States and Territories, furnish numerous localities where the consumptive will do well when all the conditions are sanitary. The seashore has been sought by many consumptives, and doubtless large numbers have received benefit from a stay at these various resorts.

But there are other things to be considered besides the climate. The dwellings in any locality may become foul and saturated with germs from many tubercular patients' resorting thither. When such has become the case, it were better for the patients to remain at home than to visit such localities. As the people at large become intelligent on the causes of germs and germ diseases, they will cease to charge destiny, Providence, or fate with so many deaths, and will not only seek out suitable climates and surroundings for the sick, but also investigate and find out just why a resort is favorable or otherwise.

Nature's great remedies are sunshine, pure air and water, wholesome food, and a temperature that is bracing, yet not so cold but that the patient can spend the greater portion of his time in the open air. Man can soon spoil the best health resort by defiling the food, air, and water, and even the dwellings, so that instead of furnishing benefit to those who resort thither, the once famous resort for lung complaints may become a veritable breeding-place for the disease. This can only be avoided by destroying all sources of contagion; and if this is thoroughly done, there is no reason why a consumptive resort should not be a perfectly safe place for any one to live.

(*To be continued.*)

THE TRAINED NURSE.[1]

A NURSE should possess all the qualities of mind and heart that every good woman possesses, but she should take particular pains to develop certain of these by exercise and training, that she may meet the special demands in her field. For example, every one needs a certain amount of tact, but a nurse must possess it in abundant measure. On the fly-leaf of a recent text-book on nursing is the following quotation from Rossetti: "Tact is a gift, it is likewise a grace." As a gift, it may or may not have fallen to our share. As a grace, we are bound to possess or acquire it. The nurse who possesses tact is already well on the road to professional success. She who lacks it, no matter what her excellences in other directions, is well started on the path that ends in failure. Don't understand that I mean she cannot overcome this deficiency. This is just what I do not say. On the contrary, by observation and by study, she may acquire as a grace what has been denied her as a gift, which is only another acknowledgment that *training* plays its part along with *birth*.

What do we mean by tact?—Simply that ready perception which teaches one to do the right thing at the right time, and especially that quality which avoids

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[1] From an address by Geo. D, Stewart, M. D., before the Nurses' Class of 1896, Lackawanna Hospital, Scranton, Pa., as reported in the *Trained Nurse*.

giving offense. The tactful nurse wins the patient and the patient's friends; the tactless nurse antagonizes one or both. As a concrete example, the following will illustrate: A patient who is irritable objects to having the nurse wear her cap, votes it a hideous thing, and tells her so. It is manifestly her wisest course to remove the cap; later she meets the mother, who prefers to see the nurse wearing her complete uniform, cap and all. Tact would suggest that the nurse inform the mother of the invalid's preference, but would also suggest that she express herself as willing to please both. That would probably satisfy the mother. Tact will also parry questions, the truthful answers to which might kill the patient and shock the friends.

Courage is another quality which a nurse should cultivate, both in its moral and physical aspects — the courage to do right under any and all circumstances. The patient may refuse to comply, the family may interfere, and the circumstances may be such as to create a good excuse for disobeying orders. But don't do so; go ahead, unless you are prevented physically, and let your patrons settle with the physician. I do not wish to be understood as saying that orders are always to be carried out. Some change in the patient may contraindicate this. Your duty then is to send for the physician, and communicate to him the facts. It is just at this juncture that the value of the trained nurse is so forcibly exemplified.

Sympathy is another quality without which no woman can be a good nurse. It should, however, be exhibited in actions rather than words, and it cannot be affected, but must be felt. Such compassion causes you to feel for the woes of others, but prompts your best efforts to alleviate them. It spurs endeavor, not paralyzes it. It is, of all the qualities of which I have spoken or am to speak, the most lovely. Possessing it, you possess all. You remember that when the Great Physician was on earth, it is related of him that a poor woman who dared not show herself publicly, touched the hem of his garment and was made whole, and he perceived that virtue — strength — had gone out of him.

So with you. Your own strength, sometimes sorely taxed, working through this quality of sympathy, will often do more for your patient than all other measures combined. It is this kind of doctor or nurse of whom patients say, "It does me good to see them." But do not mistake this quality for another for which I have no good name, but which I shall call "mawkish sentimentalism." Its distinguishing feature is lack of sincerity, and by the flickering firelight it talks much in saddened tones, meant to be sympathetic, of the horrors of disease, even venturing sometimes to hint at the desolation when the loved one shall be taken. It masquerades as sympathy, but the forger's marks are all over and through it.

A cheerful disposition and a sunny face are valuable adjuvants in the nursing of the sick; so are a light step and a soft voice; in short, as already remarked, a nurse must possess all the attributes of a good and gentle woman.

The profession you have chosen is the noblest in which women can engage, and you have the entire confidence of the medical profession. There is nothing so comforting to a medical man as to know a good nurse is watching his case while he is away. He knows that the least change will be quickly detected, and expects to be immediately summoned if anything goes wrong. No matter, however, what your training or your native gifts, there will be many hard places through which your feet must travel.

Nights of weary watching, the mistrust of friends, and ingratitude will often be your portion. Your earthly rewards are seldom distributed, but they are rare in quality, and beyond the reach of sordid souls. If you look for all sunshine, you will be disappointed; that was prohibited ages ago, when the angel with the flaming sword drove from the garden the first man and woman.

HOW TO MOVE A PATIENT WHEN CHANGE OF POSITION IS PAINFUL.

BY KATE LINDSAY, M. D.

PERSONS ill with painful disorders, as rheumatism, peritonitis, etc., as well as those helpless from severe injuries and surgical operations, often suffer untold agony from any effort to change their position. To be able to move such patients without injuring them requires skill, care, and practise on the part of the nurse. The greatest suffering usually occurs from the twisting of some injured or diseased structure in such a manner as to stretch or bruise it. Often the patient is the best judge of the methods of moving which give the least pain. This is one of the things it is best to leave to the feelings of the one who is being hurt, as he has the benefit of experience in the matter. The nurse should see that all clothing and bedding are free, so that there is nothing to hold, hang, or drag. If there is a broken arm, a sore joint, or a sensitive abdomen or thorax, always see that it is in a position not to be injured either by hanging down or dragging unsupported. Injured legs are usually most easily moved when laid straight, or the well leg used as a splint to which to bind the injured one.

In peritonitis, the legs should be free and flexed at the knees, and the patient moved in a perfectly straight position of the spine, so as to avoid any strain on the abdominal muscles. Two persons can then put their hands under the back at the hips and shoulders and lift both together and straight up, while another steadies the knees. To turn on the side, put the hands well under the shoulders and hips, and turn them both together. Do not twist or touch the sensitive abdomen in any way. Keep the grasp of the body above and below it, on the shoulders and hips. In pneumonia and pleurisy the distress for breath is most marked when the patient lies on the well side. This should be remembered when moving patients ill with these diseases. Patients suffering with dropsy or large tumors of the abdomen are most comfortable in an upright position. This should not be forgotten when moving them. In any case of loss of blood, or tendency to faintness or heart failure, the upright position is dangerous, especially if taken suddenly. Such patients should always be moved with the head low, and never allowed to assume the upright position abruptly.

A BRAVE WOMAN. — All the brave women did not die with Joan of Arc, and the English people are grumbling because the home secretary did not mention to the queen the name of Miss Alfard for the Albert medal, given for heroic conduct. It is the universal opinion that she deserved it. Miss Alfard is a nurse

in Kimberley, South Africa, and was sent to attend a case of pneumonia in Bechuanaland. When she arrived there, she found herself in the midst of a smallpox epidemic. She had no one to help her, but she was not dismayed. She immediately started a hospital on a rude plan, and nursed, unaided, two hundred native and twenty white patients, losing out of that large number only one woman and two children,— a record of which many physicians, with all modern conveniences and a corps of trained assistants, would be proud.

THE LESSER MINISTRIES.

A FLOWER upon my threshold laid,
A little kindness wrought unseen;
I know not who love's tribute paid,
I only know that it has made
Life's pathway smooth, life's borders green.

God bless the gracious hands that e'er
Such tender ministries essay, —
Dear hands, that help the pilgrim bear
His load of weariness and care
More bravely up the toilsome way.

O, what a little thing can turn
A heavy heart from sighs to song!
A smile can make this world less stern;
A word can cause the soul to burn
With glow of heaven all day long!

— *Sel.*

CARE OF THE EYES.

THE eyes are such delicate and tender organs that a good deal of care is required to keep them in good order. A strong light is apt to weaken and redden them. To read or work by a poor lamp or insufficient light is a terrible strain. A bad habit, that is, bad for the eyes, is to read in a reclining position. The strain on the muscles weakens the eyes. Vigorous rubbing of the eyes should never be indulged in. Many people are troubled with burning and soreness of the lids. A good remedy for this is to bathe the eyes several times a day with hot water. This simple remedy is also recommended for redness or for bloodshot eyes.

Often on awakening in the morning there is a secretion on the edge of the lids. Instead of rubbing them, as is the usual way, bathe the lids with warm water until the foreign matter is removed. If one is subject to this or to granulated lids, a little vaseline rubbed on the edge of the lids with the finger-tip will do much to relieve the trouble if it does not cure it entirely. If any foreign substance has gotten into the eye, it is better not to rub it, as that will only create inflammation. Close the eye for a short time, and the annoyance, whatever it is, will work downward until it may be easily removed with the corner of a handkerchief. Another way is to hold the lids gently apart and allow lukewarm water to trickle over the ball of the eye. This method is effective and painless. As soon as any one discovers that the eye dims or that the sight is not as keen as it has been, he should consult an optician. Glasses may not beautify, but the loss of eyesight is too terrible an affliction to be allowed to come from neglect. — *Sel.*

THE HYGIENE OF THE NURSERY.

BY J. H. KELLOGG, M. D.

(Continued.)

The Countenance, Posture, and Gesture. — The face of a healthy child, when asleep, has an expression of complete repose. The eyelids are closed, the lips closed or partially separated, and the nostrils make no movement in breathing. When awake, there is an expression of wondering interest, which, as age advances and intelligence increases, gives place to varied expressions.

Incomplete closure of the eyelids in sleep is a common symptom in severe disease, whether acute or chronic.

Twitching of the eyelids and squinting or quivering of the eyeballs indicate the possible appearance of convulsions.

Movement of the nostrils in breathing indicates disease of the lungs.

Contraction of the brow shows pain in the head.

A drawn upper lip indicates pain in the abdomen.

Restlessness during sleep and unusual drowsiness often indicate the beginning of an acute illness.

The presence of enlarged tonsils, obstructing the breathing, is indicated by sleeping with the mouth open, the head thrown back, and a snoring respiration.

Feverishness during sleep, indicated by a disposition to kick off the bed-clothing, is an early symptom of rickets.

Headache or earache is often indicated by the hand's being carried to the affected part.

Frequent rubbing of the nose indicates irritation of the stomach or bowels.

Strong flexion or extension of the toes, or drawing of the thumb into the palm of the hand, indicates a coming convulsion.

The Cry. — A healthy child seldom cries unless injured or irritated

Incessant crying is usually due to hunger, earache, or the picking of a pin.

Crying with coughing indicates pain in the chest.

Crying before or after movement of the bowels indicates intestinal pain.

A nasal tone when crying indicates obstruction of the nose.

A loud, brassy cry gives warning of spasmodic croup.

A faint or whispered cry is heard in membranous croup.

A hoarse cry indicates disease of the larynx.

In pneumonia or pleurisy, crying is restrained on account of the pain caused.

The absence of tears with crying, after the fourth month, is a bad indication.

The reappearance of tears after having been absent, is an indication of the approach of convalescence.

The Cough. — A brassy cough indicates spasmodic croup; a hoarse cough, catarrh of the larynx.

The absence of cough or a suppressed cough indicates true croup.

A tight cough is present in the early stage of bronchial catarrh; a loose cough indicates improvement.

Children under seven years of age do not usually expectorate when they cough.

Breathing, Drinking, and Swallowing. — The healthy child sets a good example in respiration, the chief expansion being at the waist. This mode of breathing is observed in adult men as well as in children of both sexes, but in most civilized women the breathing is chiefly confined to the upper part of the chest. This is wholly the result, however, of a mode of dress which constricts the waist.

The rate of breathing at birth is about forty-four per minute; from two months to two years, thirty-five per minute; from two to twelve years, twenty-three per minute.

When an infant is asleep, respiration is about four fifths as frequent as when it is awake.

A healthy child breathes through the nose without movement of the nostrils. Disease of the lungs is always accompanied by increase in the rate of breathing. In pneumonia, the rate of breathing is often more than doubled.

In affections of the brain, respiration is diminished — sometimes as low as eight or ten per minute. This is especially true in tubercular meningitis and chronic hydrocephalus.

Mouth-breathing indicates almost complete obstruction of the nose, and snuffing indicates partial obstruction of the nasal passages.

Frequent yawning indicates feebleness, and is a very unfavorable symptom.

In severe disease of the lungs, the infant swallows quickly several times, then pauses for breath.

When the nipple is dropped with a cry of pain after holding it for a minute, the indication is soreness of the mouth.

Crying after swallowing indicates pain in the throat.

The absence of a sucking movement when the finger is placed in the mouth is a bad omen.

Indications Relating to the Stomach and Bowels. — Loss of appetite is an indication of fever or of acute disease of the digestive organs. Improper food, that is, such as a child cannot digest, often gives rise to excessive hunger.

An inordinate demand for food is also the result of over-stimulation of the appetite. Young children as well as older persons may become gluttonous by improper training.

Eructations may be due to the swallowing of air by taking food too rapidly. Regurgitation of the food seems to be more or less natural in young children, especially when overfed. Vomiting is often one of the first symptoms of measles or scarlet fever.

Mucus in the mass vomited indicates gastric catarrh; hard, undigested curds indicate indigestion.

"WHAT a pity baby has such a broad nose," exclaims the mother. "O, I'll fix it," says the nurse, as she compresses the nostrils. She does fix it. By and by the family physician is called to cure snuffles. Baby's nose is so stopped up she can breathe only with her mouth open. The tonsils are enlarged, but that is not the worst of it — the upper nose bones are crowded together so that the least cold blocks up the passage completely.

Mothers should teach their children to breathe deeply and through the nose the breath of heaven, so that catarrh, and finally consumption, may not be their portion.

SLEEP FOR CHILDREN. — A healthy infant sleeps most of the time during the first few weeks of its life, and during the early years people are disposed to let children sleep as much as they will. But from six or seven years old, when school begins, this sensible policy comes to an end, and sleep is put off persistently through all the years up to manhood and womanhood. At the age of ten or eleven the child is allowed to sleep only eight or nine hours, when its parents should insist on its having what it absolutely needs, which is ten or eleven at least. Insufficient sleep and an impoverished nervous system are one of the crying evils of the day.

A DINNER WITHOUT MILK.

MRS. LAURETTA KRESS, M. D.

ADULTS who are able to eat ordinary food usually maintain better health by abstaining from the use of milk. Sir Henry Thompson, a well-known medical writer, says that "milk as an article of diet is altogether superfluous, and is most mischievous as a drink for those who have reached adult age and can digest solid food." Ewald goes still further, and says that "a diet of bread and milk for a man in health is slow starvation."

Milk is especially liable to give trouble to those who have a dilated stomach. In these cases there is nearly always a deficient amount of gastric juice, or hydrochloric acid, in the stomach. The milk, upon passing into the stomach, forms large curds; and if there is little or none of this acid present to act upon and decompose them, digestion will be very slow, and they are quite likely to become a decaying mass before the operation is completed. The poisons thus formed are taken into the blood current, and thus carried to every part of the system. The liver neutralizes a portion of the poisons, and some of them are thrown off through the lungs; but the remainder are stored up in the body, and retard the work of every organ. These poisons also act as a sort of narcotic, which explains why we so often see persons fall asleep over their paper or book after dinner.

Another argument against the use of milk, even for those whose stomachs are in a normal condition, is the fact that it combines well with so few other foods. It combines very well with grains and bread, but with fruits the combination is very poor, and with vegetables only fair. When, in addition, we consider the difficulty in obtaining pure milk, and the danger of contracting fatal maladies, especially tuberculosis, from the milk of diseased animals, it becomes apparent that the more nearly milk is excluded from our tables, the better it will be for us. I know of families who have used no milk for two or three years, and are certainly in the enjoyment of better health than when using it. This seems to be the universal testimony of all who have given the matter a trial.

The question is often asked, "How can food be prepared without either milk or butter so as to be palatable?" A few recipes are given herewith for the benefit of such inquirers.

RECIPES.

Fruit Soup.— Three cups of water, four tablespoonfuls of sago, one and one-half cups of sliced tart apples, two cups of strawberries and juice either canned or fresh, sugar to taste. Cook the sago in two cups of water until transparent, and the apples in one cup of water until tender. Rub the apples through a colander or sieve. Add the sago, strawberries, and sugar; reheat and serve. If too thick, thin with hot water. Serve with croutons.

Croutons.— Take slices of good stale, fermented bread, not more than one-half inch thick. Cut these so as to form cubes; place in the oven, and toast to a light brown. They should be dry and crisp throughout.

Nut Breads.— Three cups of graham flour, or fine graham meal; one cup of cold water, one cup of nut meal. Mix the flour and nut meal together thoroughly, and pour slowly into this the

water, mixing it all the time. Knead until smooth and elastic, and form into rolls, sticks, or beaten biscuits. Bake in a moderate oven.

Egg Breads.— One cup of cold water, the yolks of two eggs, five and a half cups of seconds, fine graham meal, graham or white flour. Mingle the yolks thoroughly with the water, and mix the same as nut breads. Knead well, pound the dough, or pull to pieces, and knead again a number of times. Form into rolls, sticks, or beaten biscuits, and bake in a moderate oven.

Lemon Pie with Granola Crust.— One pint of water, two tablespoonfuls of cornstarch, one large or two small lemons, two-thirds cup of sugar, and two eggs. Flavor the sugar by scarring the lemon and rubbing it in the sugar to absorb the oil, being careful not to cut deep with the fork. Extract the juice from the lemons and to it add the sugar. Heat water to the boiling point, and thicken with the cornstarch, which has been made into a paste with a little water; cook for a few minutes, add the sugar and lemon-juice; cool and add carefully the well-beaten yolks of the eggs. This will make one large pie.

Granola Crust.—Two thirds of a cup of granola, one-half cup of water (scant). Mix the granola and water together quickly with a spoon. As soon as the water is quite well absorbed, pour into an oiled tin, and spread with the spoon, shaping the edge with the fingers and spoon. Put into this the filling, and bake in a quick oven. When done, spread over this a meringue made of the whites of the eggs, and brown lightly in a quick oven.

Gluten Sandwiches. — One cup of water, one-third cup of gluten meal, and salt to taste. When the water is boiling, add salt, and stir in the gluten flour. Boil a minute or two, then while still hot, spread on thinly sliced squares of bread. Between these place a layer of thinly sliced hard-boiled yolks of eggs, or if preferred the yolks may be rubbed smooth, and mixed with the gluten mush, and spread on the bread.

Baked Peas. — Soak one pint of Scotch peas overnight. In the morning, cook until tender, mash through a colander; mix with the peas an equal part of bread crumbs, add salt to taste, and a little sage to flavor. Put in a baking-dish, and brown in the oven. When done, serve by cutting in slices, pouring over it a tomato sauce made of strained stewed tomato thickened with a little gluten, and seasoned with nut butter and a little salt.

IT must be honestly admitted that, weight by weight, vegetable substances, when they are carefully selected, possess the most striking advantages over animal food in nutritive value. . . . I should like to see the vegetarian and fruit-living plan brought into general use, and I believe it will be. We only need to learn better how to prepare vegetable, food for us to live on it altogether. For my part, I do live on it pretty well altogether.— *Sir Benjamin Ward Richardson, F. R. S.*

VEGETARIAN dishes have lately been introduced into the dietary of the English army, as it is found by experiment that the carnivorous Englishman is surpassed in height, weight, and strength by the abstemious Scotchman and the potato-fed Irishman.

ONE of the proofs that the taste of flesh is not natural to mankind is the indifference which children exhibit for it.— *Rousseau.*

SUNSHINE AND DIGESTION.

VERY intimate are the relations between sunshine and digestion.

Mr. P., one of our merchants, came to see me about his stomach. Dyspepsia was written all over his face, seen in his movements, heard in his voice.

"Doctor, I am played out. I can't digest, I can't work; I must give up."

"Tell me about your diet."

"That is all right. I have studied the subject, and I know my food is all right."

"How about your exercise?"

"I have a little gymnasium in my store, and exercise an hour every day."

"How about your sleep?"

"Why, doctor, I go to bed every night with the chickens; at any rate, I am always in bed before nine o'clock; I rise by six in the morning, take a bath, a plain breakfast, and go to my counting-room. Once in the forenoon and once in the afternoon I exercise in my gymnasium half an hour, but I am getting worse and worse all the time. Isn't it curious? My wife thinks I must have a cancer in the stomach. Nothing seems to help me; I live the most physiological life, but my digestion grows worse and worse."

"About your counting-room; is that light? is it sunny?"

"The store is light enough, but the counting-room is so dark that we have to use gas."

"That's it, Mr. P.; that explains your cancer."

"Of course you don't mean that; but I suppose it would be better if the counting-room were sunny."

"Mr. P., no vegetable thing, even, can exist in the dark. Try it. Plant a potato in a dark cellar. Surround it with the best soil, and give it water. How slender and pale it is. Now open a window in another part of the cellar, and notice how the poor, hungry thing will stretch that way.

"Mr. P., have you noticed where grain is growing in an orchard, that the part under the trees is smaller than that outside and away from the trees? And yet the soil under the trees is actually the richer. What is the trouble? That part under the trees does not receive as much sunshine as that away from them.

"Have n't you noticed that the only grapes which become ripe and sweet, and the only peaches that take on those beautiful red cheeks, are those on the outside, exposed to the sun?

"The law is the same in the animal world. It is just as true that the only girls with red cheeks and sweet breath, the only girls who become fully ripe and sweet, are those who baptize themselves freely in sunshine.

"You have seen those pale girls in the stores; girls with a bloodless, half-baked sort of face, whose walk, whose voices, whose whole expression, are so void of spirit and force. Those girls are in the green state. Look at them! It gives you pain and distress. You feel they can never be what nature intended. So with you, my dear man. Get into the sunshine! It is one of the most powerful stimulants of all the functions of the body, we have; a stimulant that leaves no trace of evil, no toxic effect behind it like alcohol and many other drugs."— *Dr. Dio Lewis.*

SIR B. W. RICHARDSON asserted that "for the positive wants of man the torture of animals for food is altogether needless, a remnant of an ancient barbarism."

WASHING FRUIT. — Fresh fruit to be served on the table may be rendered much more wholesome and appetizing by washing it in the following manner: Drop the fruit into a pan of water an hour or so before it is to be served, and let it remain a few minutes. Then with a small, rather stiff brush, scrub the fruit thoroughly, and set it away in a cool place. When required for the table, it will be fresh and crisp, and will have almost the same appearance as if gathered in the morning while the dew is on, which is the most perfect condition in which fruit can be served.

Oranges are often sent to the table covered with black specks. These specks are the shells of small insects that feed upon fruits and vegetables, and should always be removed. Apples should be thoroughly washed before they are sent to the table, as should also any fruit designed for table use. It is not unusual to see fruits served in such a way as to offend a delicate taste, rather than add to the relish of the meal.

COLD WATER AS A BEVERAGE. — The Pittsburgh *Dispatch* quotes an eminent physician, Dr. R. H. Dalton, as recommending, on the ground of health, the methodical use of cold water as a beverage, and as saying that it will prove the means of augmenting the chance of longevity, that it is of a soundly physiological origin, and is well supported by experience. Dr. Dalton says that, solid and dry as the human body appears, water constitutes more than one fourth its bulk, and all the functions of life are really carried on in a water bath; and although the sense of thirst may be trusted to call for a draught of water when required, the fluid may be imbibed advantageously for many reasons besides merely satisfying thirst. He maintains that the habit of drinking water in moderate quantities between meals contributes to health, and indicates the fact that those who visit health resorts for the purpose of imbibing the water of mineral springs might profit by staying at home and drinking more water and less whisky. There is no need of using alcoholic beverages of any kind. — *National Temperance Advocate.*

GOOD BREAKFAST HINTS FOR THE HOUSEKEEPER. — The *New York World* offers the following excellent advice to housekeepers, which we heartily endorse: —

"If you must omit either fruit or meat from the breakfast menu, omit meat.

"Do not invariably serve oatmeal. It is the least wholesome and the least appetizing of the breakfast cereals. It eventually thickens the complexion.

"Unless you are courting dyspepsia, avoid hot griddle-cakes, however delicious.

"Remember that the crust of bread is more digestible than the soft part, and that coarse grain breads are better than the fine flour ones.

"Make the breakfast hour early enough to avoid the rushing of the men to business and the children to school."

HENRY WARD BEECHER once said: "I have known men who prayed for a good temper in vain, until their physician proscribed eating so much meat; for they could not endure such stimulation."

THE chief food of the Roman gladiator was barley cakes and oil, a diet eminently fitted to give muscular strength and endurance. — *Hippocrates.*

PLAIN food is quite enough for me;
Three courses are as good as ten:
If nature can subsist on three,
Thank heaven for three. Amen.
— *O. W. Holmes.*

EDITORIAL.

THE FOOD VALUE OF GRAINS.

GRAINS are, without doubt, among the most valuable and important food substances designed for the use of human beings. That they properly belong to a natural dietary is evident from the fact that, together with fruits, they constituted the original bill of fare as given to Adam by the Creator. (See Gen. 1 : 29.) Further proof of this is found in the fact that from time immemorial the greater portion of mankind have subsisted chiefly upon grains and farinaceous seeds. This is as true to-day as it has always been. The free use of flesh, as an article of food, is confined almost exclusively to savages and the Germanic nations. The natives of Patagonia and Terra del Fuego, and the Anglo-Saxon race, are perhaps the greatest meat-eaters in the world. The millions of China, Japan, and Persia, together with the peasantry of France, Spain, Italy, and the natives of Mexico and the Central South American countries are practically vegetarians. The average native of these countries eats less meat in a whole year than the ordinary Englishman uses in one week, and large numbers of these natives have never tasted flesh.

The ease with which grains can be raised, and the quickness with which a crop can be produced, has perhaps led to a dependence upon grains as a staple food, and certainly no substantial reason can be shown for discarding them from the physiological bill of fare. There are some persons who cannot digest grains easily because of inability to digest starch. This difficulty is sometimes due to the lack of digestive power in the saliva, and in other cases to excessive acidity of the gastric juice; but the most frequent cause of starch indigestion is doubtless the neglect properly to masticate the food. In order that the salivary glands may be stimulated to activity, it is, however, necessary that food should be taken in a dry state. Perfectly dry bread, when thoroughly chewed, produces more than double its own weight of saliva, whereas moist bread, gruel, or porridge gives scarcely any increase of salivary secretion.

Fishes have no salivary glands for the reason that they have no opportunity to make practical use of saliva, their food being necessarily taken in a moist state, completely saturated with water. Nature never squanders energy; and when human beings take their food in the same condition as does the fish, their salivary function is reduced to almost the same condition as that of the fish —it is practically abolished for the time being.

Ignorance upon this point has led to the free use of such foods as mush, porridge, gruel, etc., and the almost universal practise of taking grain foods in a moist state, in which they require little or no mastication. When thus taken, imperfect digestion is practically unavoidable, for, there being little or no mixture of saliva with the food, the preliminary starch digestion whereby foodstuffs should be thoroughly broken up and prepared for the action of the gastric juice upon the proteid elements, is prevented, and the whole digestive process is deranged.

One of the best remedies for indigestion of starch is the use of dry food in the form of zwieback, or twice-baked bread, or, if preferred, granose, a cereal product in which the whole grain is reduced to the condition of thin flakes, which, when thoroughly baked, are exceedingly crisp and delicate in flavor, and perfectly stimulate the gastric glands when eaten dry.

The writer is strongly of the opinion that the free use of mushes, porridges, and similar foods, taken in combination with milk and sugar, is one of the most harmful of dietary practises; and that they are almost as con-

ducive to indigestion as pie, Saratoga chips, griddle-cake, and similar dietary abominations. Nature has given us teeth for the mastication and grinding of our food, and we cannot neglect to make use of these important organs without suffering serious injury.

THE MEDICINE HABIT.

One of the most pernicious practises prevailing in this country, and, to a large extent, in all civilized countries, is the habit of medicine-taking. Many people are addicted to the habit of swallowing a drug of some sort for the relief of every physical discomfort which they may happen to experience, without any attempt to remove the cause of the disorder by correcting their faulty habits of life.

The jaded society woman or the tired business man seeks to cure the languor which is an evidence of a low vital state, by swallowing, every morning, before or after breakfast, and perhaps at sundry times during the day, a dose of somebody's elixir, tonic, rejuvenator, hyperphosphite, etc., with the expectation that by some mysterious magic influence the drug will restore the wasted energies and revitalize the deteriorated tissues.

The man who does not sleep well at night, instead of finding the cause of his sleeplessness in an indigestible six-o'clock dinner and the neglect to take proper exercise out of doors, or some other violation of nature's laws, swallows some sleep-inducing drug, as bromide, phenacetin, antikamnia, chloral, opium, or perhaps a toddy as a "night-cap," until he soon finds that he cannot sleep at all without some hypnotic. Likewise, the man who finds his stomach disordered and his digestion disturbed, instead of seeking to find the cause for the deranged function in the violation of the laws of dietetics,— overeating, too rapid eating, unsuitable combinations of foodstuffs, too frequent meals, insufficient exercise, badly cooked and too highly seasoned foods, and similar causes,— flies for relief to the drug-store, and doses himself with pepsin and other artificial digestive agents, until after a time his poor stomach becomes, to use the phrase of an eminent European physician, "completely pauperized," almost as inert as a pocket in his coat.

The old system of treating sick men and women by the employment of drugs exclusively was well characterized by the late Dr. Jacob Bigelow, of Boston, as "artificial." It is very gratifying to note that this artificial and irrational method is rapidly giving place to more physiological and rational methods, which seek to effect the cure of the sick by a removal of the causes, rather than by the antidoting of effects. According to the latter plan, the nervous woman or languid man seeks relief, not by the employment of stimulating drugs, but by recuperative exercise in the open air, in the absorption of vitalizing oxygen,— the most powerful of all tonics, the source of all energy and strength; by changing the impure blood for blood of better quality through the use of pure food and the employment of such measures as will purify the poison-laden tissues; and the sleepless man, a cure for his insomnia, not by the use of drugs which induce poisoned sleep,— unconsciousness without recuperation,— but by so regulating the regimen as to promote healthful, refreshing sleep at proper intervals. Intelligent physicians everywhere are learning to depend more upon nature, and less upon medication.

The late Dr. Cullen declared that he would "drive nature out of the sick-room as he would a squalling cat." Fortunate will it be for the world when the whole race of doctors who regard nature as an enemy rather than a friend shall have become extinct.

PUBLIC BATHS.

It is a singular fact that in some respects the civilized man is more a savage than the so-called savage of the forest. In warm countries at least, the natives are much given to being in the water, especially when the proximity of a river or lake affords ready opportunity. Though a love of aquatic sports rather than of cleanliness may be their original motive in so doing, the latter is at least incidentally accomplished.

The ancient Romans provided public baths in every city which they founded, and the city of Rome itself exhibits to-day, among its most magnificent ruins, the remains of ancient public baths which were capable of accommodating fifteen or twenty thousand bathers daily. Most European cities furnish public baths for their citizens.

Chicago has within a few years made a small beginning in this way, but American cities are for the most part destitute of this important means of public sanitation, which is capable of contributing to the moral as well as the physical welfare of the community.

We are glad to know that Mayor Quincy, of Boston, is becoming thoroughly aroused upon this subject. Under his direction, a magnificent public bath-house is now in process of erection in Boston, and he urges the negotiation of a loan of two hundred thousand dollars for the purpose of erecting five other similar baths in different portions of the city. The town of Brookline, Mass., already has a public swimming-bath, and Mayor Quincy urges that others should be provided in Boston. The school committee of Boston has likewise become awakened to the importance of this subject, and has decided to try the experiment of introducing baths into one of the public school buildings.

We are glad to note that the public baths of Boston are to be free. Water sufficient for cleanliness should be free as air to every member of a civilized community. It is earnestly to be hoped that the time will soon come when every public school system will include a system of baths, which shall be administered intelligently under the supervision of a medical inspector of schools, and in which swimming shall be taught, not only as a preparation for self-preservation, but also as a means of physical development.

AN INTERESTING DIETETIC EXPERIMENT.

A patient for whom nuttose had been prescribed, one day appeared in the office of his physician soon after dinner, and announced that he had eaten a pound and a half of nuttose for dinner, and felt no ill effects in consequence. The gentleman had been a long time a dyspeptic, and was greatly emaciated when he placed himself under treatment, two or three weeks previously, having recently suffered a very severe attack of gastritis, during which he was for some days unable to retain any food on his stomach.

The gentleman took pains to spread about very extensively the news of his experiment in eating so large a quantity of nuttose, and many persons were greatly interested in watching the results. Quite a number of special friends hovered about the entire afternoon, evidently expecting to witness some grave consequence; but all were disappointed, as the gentleman declared himself perfectly comfortable, and on waking the next morning, assured all his friends that he was in better health than usual.

The consumption of an equivalent amount of beefsteak or meat in any form, in addition to an ordinary meal, would certainly have produced most dire results. Death has sometimes followed an attack of gastritis resulting from the excessive use of flesh food, and it is a well-known physiological fact that even eggs not infrequently give rise to the appearance of a small amount of albumin in the urine, indicating that a larger amount of it

has been received into the body than can be appropriated.

This incident, and others similar, suggested the propriety of subjecting nuttose to a more critical test. Six persons were accordingly allowed to take nuttose in quantities varying from two ounces to one pound in twenty-four hours. The most critical examination showed not the slightest ill effects; even the urine, in which a slight amount of albumin frequently appears as a result of taking eggs or albumin in any form in excess, was found to be perfectly free from that or any similar substance; from this it appears that the proteid, or tissue-making, elements, of nuttose are in a form more easily digested and assimilated than any of the forms of animal albumin or fibrin in common use. Nuttose is unquestionably one of the most wholesome and digestible of all foods. It could scarcely be otherwise, since it is composed exclusively of choice edible nuts. There is no admixture of other substances, and the nuts are subjected to no processes other than those necessary to reduce them to a condition to be easily digested and assimilated.

Nuttose is particularly helpful in all cases in which rapid gain of fat, blood, and muscular strength is essential. Its use is especially indicated in all cases in which rapid gain in flesh is necessary, and in which it is important to resist a tendency to emaciation, as in consumption, anemia, certain forms of Bright's disease, and especially in diabetes.

THE FOOD VALUE OF NUTS.

Nuts are the very quintessence of nutrition, as they present the most highly nutritive elements in the most concentrated form. Unfortunately, however, nuts in the natural state are somewhat difficult of digestion. They possess a firm flesh which must be thoroughly pulverized by sound teeth in order to secure its prompt digestion; and sound teeth being a rather scarce article, many people cannot make use of nuts without injury, because of their inability to masticate them thoroughly. But ground into meal or made into paste and cooked at a temperature above the boiling point, as in nuttose, bromose, and similar nut products, nuts are very digestible, wholesome, and nourishing.

From the meat of the chestnut it is possible to make a very satisfactory flour. In some portions of Italy, particularly in Lombardy, this flour is largely used as a substitute for wheat flour. It can be made into cakes closely resembling wheat cakes, but much more delicious in character, and fully as nourishing, as will be seen by the following analysis made by Professor Church: —

Moisture	14.0
Oil or fat	2.0
Proteids	8.5
Starch	29.2
Dextrin and soluble starch	22.9
Sugar	17.5
Cellulose, etc.	3.3
Ash	2.6
	100.0

The almond is another nut which possesses a very high nutritive value. It contains a much larger amount of fat and proteid matter than does the chestnut. It is on this account unsuited for bread-making, though it can be made into a meal and mingled with wheat flour, corn flour, and other cereal products, thereby greatly enhancing their nutritive value. An almond butter made by blanching almonds and subjecting them to the proper processes, constitutes an exceedingly palatable and wholesome article of food for use in connection with breads and other grain preparations, and is a substitute for cow's butter and other animal fats. The almond contains a special substance which is capable of producing a fine emulsion. In consequence of this fact, it may easily be converted into a very satisfactory substitute for cow's cream and milk. The composition of the almond is, according to Konig, as follows: —

Water, 6.2; proteid elements, 23.5; starch,

7.8 ; free fat, 53 ; non-nitrogenous substances, 3 ; salts, 6.5 ; cellulose, 6.5 ; total nutritive value, 87.3.

Another exceedingly valuable nut, which has been heretofore very little appreciated, is the peanut. Its composition, according to Konig, is as follows : —

Water, 6.5; proteid elements, 28.3; starch, 1.8 ; free fat, 46.2 ; salts, 3.3 ; cellulose, 13. 9 ; total nutritive value, 79.6.

From the foregoing, it will be seen that the peanut contains a large amount of fat. This fact has given rise to the general opinion that this nut is difficult of digestion ; but when subjected to the proper processes of blanching, high-temperature cooking, etc., the peanut has been demonstrated to afford an exceedingly palatable, wholesome, and digestible food product. In fact, a whole line of food products has recently been developed from the peanut, among the most valuable of which are nuttose and a sterilized nut butter. For those who find the amount of fat contained in the nut objectionable because of difficulty in the digestion of fat, a new preparation has been made from this nut, which is termed "nuttina."

Persons who have difficulty in the diges tion of starch, particularly those suffering from hyperpepsia, find these nut products of almost inestimable value. Those subject to nervous headache and sick-headache usually find immediate relief by the disuse of meat, milk, butter, cream and allied products, and the substitution of the nut products referred to, and others, which, together, constitute a complete series of substitutes for all animal food preparations.

Collapse of the Keeley Cure. – Every now and then there comes along a medical humbug of some sort, the province of which seems to be, as remarked by the editor of the *Popular Science Monthly* a few years ago with reference to the blue-grass mania, "to test the length, and breadth, and depth of the foolishness of the nineteenth century." The Keeley Cure was certainly one of these foolometers, though it has been by no means so innocent as the blue-grass mania ; for it has left behind it a multitude of human wrecks to linger out a miserable existence in insane and inebriate asylums. Not a few young men have allowed themselves to drift under the influence of the drink habit, cherishing the delusion that when the danger-point was reached escape from it would be easy through the Keeley Cure or some similar agency. In this way the popular faith in a medicinal antidote for inebriety has done an untold amount of mischief.

It would be impossible to prepare a more thorough refutation of the claims of the originators of these so-called cures than that which is furnished by the following paragraph from an editorial of Dr. T. D. Crothers in the *Quarterly Journal of Inebriety* : —

"A valued correspondent writes us that he has gathered from correspondence and newspaper clippings the following facts about gold-cure institutes : —

"During the year 1896, twenty-two so-called Keeley gold cures suspended and dissolved ; twenty-seven gold-cure homes, where specific treatment for alcohol and opium was given, have gone out of business ; five new companies have been formed to sell rights to use secret inebriate cures ; three ex-superintendents of gold-cure establishments have committed suicide.

"To this we would add that in three years we have made notes of the relapse of nineteen physicians who have been medical directors of gold-cure establishments. Ten of these persons sought treatment in regular asylums, where no specifics were used."

The Jurkes.— Dugdale, in his interesting study of this remarkable family, presents a most striking example of the terrible effects of heredity. He found the descendants of the public woman, Margaret, to number 1200, and estimated, from reasonably accurate data, that these 1200 persons, who were, almost without exception, either criminals or paupers, entailed a loss and expense to the government within a period of seventy-five years, equal to $1,250,000.

A Wise Law.— The State of New York has a law requiring every city of over fifty thousand inhabitants to equip and maintain free public baths. Smaller towns are urged to raise money for the purpose, although not absolutely obliged to do so.

A Fertile Source of Disease.— There are few physicians who have not, in their practise, met cases of infectious maladies, the germs of which have been carried to the patient by some intermediate person not suffering from the disease. There is an abundance of clinical evidence to prove that this mode of transmission is not uncommon, especially in diphtheria, measles, and scarlet fever. Rigid isolation of infectious cases, even to the seclusion of immediate relatives of the sufferer, is the only safe method by which to prevent the spread of contagion.

The Care of the Teeth.— Dentifrices of every sort containing soap should be carefully avoided in cleansing the teeth, for the reason that soaps of all sorts are injurious to the gums. In cleansing the teeth, a soft brush and pure water at the temperature of the mouth should be employed two or three times a day. Use a little powder; there is nothing better than precipitated chalk (not French chalk), which may be advantageously flavored with a little cinnamon or wintergreen, or both. These, being antiseptics, may possibly add some value as germ destroyers. Preparations which foam usually contain soap; the only exception to this statement with which we are acquainted is the antiseptic dentifrice prepared by the Sanitary Supply Company, Battle Creek, Mich. The basis of this dentifrice is the extract of the bark of the soap-tree of South America, which possesses the cleansing properties of soap, but is free from its deleterious properties.

Degeneration of the Human Eyes.— Recent investigations made by a German physician show that there is only one person in fifteen whose eyes are in a sound condition. Not infrequently one eye is found to be stronger than the other; in other words, we might be called right- or left-eyed as well as right- or left-handed. One of the greatest causes of degeneration of the eyes exists in the sedentary habits of civilized human beings. It is found that the eyes of school children are affected just in proportion to the length of time they have been in school, it being very unusual to find perfectly sound eyes among the higher classes in the universities. The eyes of savages and of woodsmen and other people who live chiefly out-of-doors are preserved sound and intact to old age, while those of sedentary habits are frequently compelled to wear glasses even in early childhood.

Begin with the Seeds.— An old woodman once said, "If I am to raise pines fit for masts, I must begin with the seeds." So it is with the little ones; if they are to become manly men and womanly women, their training must begin in earliest infancy. This work places the mother on a level with the most eminent educator, the most profound scientist.

ANSWERS TO CORRESPONDENTS.

NEW ENGLAND RUM OR BAY RUM FOR THE HAIR — NASAL CATARRH. — A subscriber from Illinois wishes to know the effect of New England Rum or Bay Rum on the hair. "1. Has either any injurious effect? 2. Will they help the growth of the hair? 3. What is the best treatment for nasal catarrh? I am troubled very much with dropping in the throat, hawking, and an excess of matter in the head."

Ans. — 1. Alcohol in any form is injurious to the hair.

2. No.

3. The application of antiseptic remedies and the cleansing of the nasal cavity, together with such general applications as will promote an increase of vital resistance and lessen the susceptibility to taking cold.

STOPPAGE OF THE EAR. — A correspondent in New York asks, "What is the cause of a person's ear becoming stopped up when he goes out in the cold, as in riding a bicycle or taking other exercise?"

Ans. — There is doubtless a disposition to catarrh of the middle ear and of the Eustachian tube. The sudden obstruction of hearing is probably occasioned by a congestion of the mucous membrane.

OBSTRUCTED BREATHING. — F. K., of Minnesota, writes as follows: "About three weeks ago I began to be disturbed at night by finding myself unable to breathe freely. This difficulty generally awakens me about midnight, and the heavy breathing, which is accompanied by a whistling sound, continues throughout the remainder of the night. During the day I experience no trouble, and otherwise enjoy good health, as I have done all my life. Do you know of any home treatment that would benefit me? or is there anything that would effect a complete cure?"

Ans. — The difficulty is doubtless primarily due to indigestion. The writer has seen many similar cases cured by a course of treatment at the Battle Creek Sanitarium. The cure would consist in the proper regulation of diet, and a building up of the whole body. A change of climate is sometimes helpful in accomplishing this, but in the majority of cases a radical cure can be effected only by removing all causes of irritation of the sympathetic nerve.

MORBID SENSATION IN FOOT — NOISE IN THE HEAD — GRANOLA. — Mrs. S. G. L., Ohio, writes: "1. My right foot suffers as much in cold weather as if it were frozen, especially the little toe, and the foot feels larger than the left. 2. Is there any relief for a sawing noise in the head? 3. What is the reason that I cannot eat granola continuously? It seems to affect my head, increasing the noise in it. I eat neither cream nor milk with it.

Ans. — 1. The symptom named may indicate the beginning of a grave nervous disease. The patient should consult an intelligent physician for a thoroughgoing investigation of her case.

2. The noise may be due to a catarrhal condition of the ear. This condition can generally be relieved by proper treatment.

3. If granola does not agree with you, try granose. In some persons granola produces a slight tendency to inactivity of the bowels. Granose has the opposite effect, and is somewhat more easily digested.

FOOD FOR DIABETICS — PRICKLING IN THE HEELS. — B. M. T., of Wisconsin, asks: "1. What food would be best for a boy of eleven who has diabetes? 2. What is the cause of a prickling sensation and numbness in the heels and ends of the fingers?"

Ans. — 1. Nuttose, gluten biscuit, green vegetables, buttermilk, kumyss, and acid fruits. Send to the Battle Creek Sanitarium Health Food Company for circular.

2. This symptom may be due to disease of the spinal cord. The case should have prompt attention. The services of a wise physician or specialist are required. The patient should have treatment in a well-conducted sanitarium, as home treatment is not likely to be sufficient for such a case.

YOUTH AND AGE AS BEDFELLOWS. — A correspondent asks if there is likely to be serious injury to a boy of sixteen from sleeping with his father, who is over sixty. The sleeping-room is well lighted and aired.

Ans.— The only hygienic plan for sleeping is one person in a bed. The bed atmosphere is likely to become densely impure from the waste matter thrown off from the body even when one person occupies the bed; and with two persons in the same bed, one of whom is feeble or diseased, the evil is enormously increased.

RUNROUND.— A reader inquires, "1. What causes a runround? and what treatment should be given for it?"

Ans.— A vegetable parasitic fungus. Soak the part affected in a hot solution of one part of bichlorid of mercury to two parts of water for ten minutes twice a day; afterward apply zinc ointment. Remember that the bichlorid of mercury, or corrosive sublimate, is a deadly poison.

DIET FOR ACIDITY OF THE STOMACH.— Mrs. L. A. F., Washington, asks: "1. What treatment and diet would you recommend for a person suffering from an habitually sour stomach? The diet has been carefully chosen, and even granose seems to sour as soon as other foods. The trouble is of ten years' standing. 2. Can charcoal be prepared at home so as to be useful in this trouble? 3. Several years ago I received a blow on the top of the head a little to the left of the crown. I was obliged to lay aside my work for about two weeks, but since then have felt no inconvenience from it. There is a small ridge where the blow was received. Of late, at times that part of my head becomes so sore that I can scarcely touch it, and the pain is very great when I lie down. It is relieved by sitting up. Can you tell me the cause of the trouble, and what treatment to take?"

Ans.— 1. The patient is probably suffering from hyperpepsia; the stomach is sour from the secretion of an excessive quantity of hydrochloric acid. Dry food thoroughly masticated is an excellent remedy for such a condition. Nuts and sweet fruits may be eaten; but meats, very acid fruits, and condiments should be carefully avoided. Food should be taken cold rather than hot; use a cold application over the stomach for an hour after eating. Eat sparingly. If not relieved, write again.

2. Charcoal is not generally useful in cases of acidity of the stomach due to hyperpepsia; it cannot be readily prepared at home for the reason that it must be reduced to an impalpable powder, and this cannot be satisfactorily done without proper machinery.

3. The pain in the head is doubtless due to congestion, or hyperemia, of the brain. A prolonged cold application will probably be useful. Do not apply electricity. Short applications of heat followed by cold may prove useful.

BATHS FOR RHEUMATISM — TWO MEALS A DAY, ETC.— J. C. S., of Iowa, asks: "1. What kind of baths are best for inflammatory and sciatic rheumatism? and how often should they be taken? 2. Would you advise a working man to eat only two meals a day when he has to take breakfast at 6 : 30 and dinner at 12 : 00? 3. Will the continued use of pop-corn at meals have any deleterious effect? 4. What causes a person's hands to feel cold and clammy while he seems to be in perfect health?

Ans.— 1. Hot baths followed by prolonged sweating are useful in rheumatism, provided proper care be taken to avoid chilling afterward; but owing to the difficulty of so doing, it is better to take baths containing some chemical substance which will excite the skin and so increase the peripheral circulation without excessive heat. Such a bath may be arranged by adding to thirty gallons of water three pounds of salt, a pound of carbonate of soda, half a pound of chlorid of sodium, and half a pound of commercial hydrochloric acid. The bottle containing the hydrochloric acid, after withdrawing the cork, should be laid on its flat side in the bottom of the tub containing the water, when the acid will gradually pass out into the water and mingle with it. The water should be occasionally stirred. The bath will be ready for use in half an hour; the temperature should be about 92° F. The bath should be continued from ten to fifteen minutes. Such a bath should be taken two or three times a week. In the absence of the materials for such a bath, the hot-blanket pack, the sweat bath, and especially the electric-light bath may be employed. This bath is recommended for subacute, or chronic, rheumatism, but not for acute rheumatism.

2. He might take a little fruit at night without serious injury; the heartiest meal should be taken in the middle of the day.

3. No.

4. This condition is an indication of ill health; there is doubtless disturbance of the sympathetic nervous system arising from irritation from disorder of the stomach.

LUNCH BETWEEN MEALS, ETC.— Another letter from Iowa contains the following questions: 1. If, because of weakness of the stomach, it is difficult to take enough nourishment at regular meals to gain any in weight, would it be well to take an orange or other light lunch between meals? 2. When the application of a hot-water bag to the stomach after meals (retained for perhaps fifteen minutes) seems to relieve the distress, are any evil results likely to follow from a too habitual use of this practise? 3. Is it better to partake of a variety of dishes at the same meal, or to confine oneself to only a few?

Ans.— 1. When only a very small quantity of food can be retained by the stomach, more than two meals may be taken; we sometimes prescribe four meals, distributed as follows: 7 A. M. and 2 P. M. for the major meals, and 11 A. M. and 6 P. M. for the minor meals. Only some simple food,— such as buttermilk or kumyss, bromose, vegetable cream, or some similar food— should be taken at the minor meals. Such fruits as oranges, which are possessed of little or no nutrient value, are useful simply as peptogens or appetizers.

2. No.

3. The latter course is the proper one, especially for those troubled with any form of indigestion.

BOILED MILK FOR BABIES.— H. B. M., of Missouri, inquires: "1. Why is it that boiled milk causes the baby to become costive? 2. How can it be remedied while the child must be fed by bottle?"

Ans.— 1. Milk has a natural tendency toward constipation; and when boiled, this tendency seems to be increased, probably because it is more completely and thoroughly digested, leaving no residue behind.

2. Add two or three tablespoonfuls of bromose to each feeding, or a couple of tablespoonfuls of liquid nut food. Babies thrive on bromose alone; it is a perfect food, partially digested, and an excellent remedy in securing regularity of the bowels. It agrees with children much better than cow's milk, and is more nourishing and fattening; it contains a larger amount of bone- and brain-building material; it is on this account an excellent thing for children with rickets. The writer has under observation a child cured of this disease by bromose, upon which it lived for six months, after which granose was added. The child is now a rosy-cheeked boy of two years, and has taken no food besides bromose and granose for a year.

PHOSPHORIC ACID. — The following inquiries are from W. W. G., Virginia: "1. Will the moderate, regular use of diluted phosphoric acid, taken at meals, cause any serious injury to the system? 2. Will rock brimstone put into a well, impregnate the water with sulphur to such a degree that it would be useful as a mineral water?"

Ans.— 1. Any considerable amount of phosphoric acid will be likely to do harm; it might not be possible to trace injury to the use of a small amount, but all chemical agents of this sort are, in the end, deleterious, if long used.

3. We know of no useful properties which sulphur can add to water for any purpose whatever, except for bleaching vegetable colors or destroying germs.

EFFECT OF ERYSIPELAS ON THE HAIR — CHALK-LIKE MUCUS IN THE MOUTH.— R. E. L. writes from West Virginia: "1. Ever since I had a severe attack of erysipelas, a year ago, my hair has been falling out. At present my head is sore, the hair mats together, is turning gray, and appears to be dead. Can you advise anything to help me? 2. An old lady wishes to know what to do for a collection of mucus in the mouth, which when exposed to the air, becomes brittle, and looks white like lime. The same substance runs from her eyes. Her taste is unimpaired, and she is not conscious of any stomach trouble. Her appetite is good."

Ans.— 1. Erysipelas frequently causes disease of the hair follicles and falling hair. The only remedy is to restore the scalp to a healthy condition; this may be done by

shampooing with cold water, — a vigorous rubbing every day ; massage of the scalp, carefully administered, is highly valuable in cases of this sort. This will increase the falling of the hair, but a growth of healthier hair will afterward be produced.

2. The disorder is the result of an unhealthy state of the secretions of the mouth. Disinfect the mouth thoroughly by means of a soft tooth-brush, and an antiseptic tooth-paste, which can be obtained of the Sanitary Supply Co., Battle Creek, Mich. Adopt a fruit dietary ; drink abundance of water ; live out-of-doors as much as possible ; take a cold sponge bath every morning followed by an oil rub ; eat an abundance of wholesome, simple, nourishing but digestible food, and thus improve the blood and build up the general health.

Drinking at Mealtime — What is the Best Drink ? — Cause of Sleepiness. — A reader in Illinois asks : "1. Is any drink whatever desirable either during or directly before or after meals ? 2. Which is most healthful as a drink, tea, coffee, or warm or boiled milk ? 3. What is the cause of almost constant sleepiness ? Is coffee good for this difficulty ?

Ans. — 1. No ; unless the meal consists almost wholly of very dry food.

2. Tea and coffee are now generally recognized as poisons and wholly deleterious in their effects. Milk should never be taken as a drink. It may be employed by some persons as a food, but many are injured by its use, especially those suffering from bilious attacks, sick-headaches, nervous headaches, rheumatism, and other disorders connected with this condition of the stomach. If used at all, it should be thoroughly sterilized by boiling. Drowsiness is often due to the indigestion resulting from the use of milk. Coffee should never be used to produce wakefulness ; the stimulated condition resulting from the use of either tea or coffee is an evidence of their poisonous properties.

Eczema — The Cuticura Remedies. — Another inquirer from Illinois, a former Sanitarium patient, is much troubled with eczema, though she is using only granose, zwieback, grains, fruit, and eggs as a diet. She wishes to know (1) if charcoal tablets will help her ; (2) if the Cuticura remedies would be likely to do her any good ; and (3) what is the composition of Cuticura.

Ans. — 1. We can recommend charcoal tablets as likely to be of service by correcting fermentations taking place in the stomach, which are perhaps the cause of the eczema.

2. We cannot recommend the Cuticura remedies or any other proprietary medicines.

3. This nostrum at one time was supposed to be composed chiefly of chrysophanic acid.

Mrs. L. I. S., of Iowa, asks : "1. Can gastro-intestinal catarrh be cured ? 2. If so, by what treatment ? 3. What is the best diet for a person suffering from this difficulty ?"

Ans. — 1. Yes.

2. By an aseptic dietary and a course of treatment at the Battle Creek Sanitarium or one of its branches.

3. The diet should be bland in character, excluding cheese, meat, fish, and milk, with the exception of buttermilk and kumyss. Raw eggs may be used, if beaten well, and taken with kumyss or buttermilk. Nuttose, bromose, liquid food, and vegetable cream are excellent foods in such cases. Coarse fruits and raw fruits must in many cases be avoided.

LITERARY NOTICES.

THE FAT OF THE LAND.— By Ellen Goodell Smith, M. D., Dwight, Mass.

This little work of 245 pages is evidently written in the interest of food reform and vegetarianism. It combines excellent instruction on dietetics with sensible recipes for the preparation of wholesome foods. The work is ably written, and evinces a practical knowledge of the culinary art as well as the art of literature, which cannot always be said of the writers of such treatises. The book cannot fail to accomplish a world of good wherever it becomes known. We are glad to commend it as up to date on the subjects of which it treats, and are pleased to notice the frequent reference to nuts and nut preparations, which are fast coming to be recognized as among the most important and valuable of foodstuffs.

THE February *Current Literature* is an excellent number of this most excellent magazine. It contains portraits of several of our most noted writers, besides the rich mine of literary wealth in which it is pure delight to revel. There is a page of heart-to-heart poems by Paul Laurence Dunbar, the colored poet whose writings are receiving such wide recognition. The departments on Current Literary Thought, Educational Topics, Music, Medicine, Science, Sociology, History, Poetry, etc., make this magazine a compendium of the best in literature, a veritable feast of the wit and wisdom of the press.

THE *Atlantic Monthly* stands almost alone among American magazines in that it makes no attempt to cater to the modern demand for sensation and profuse illustration in magazine literature. Yet to the scholar and the thoughtful student of the problems of the day this old and somewhat conservative magazine is always welcome. The February number is up to the usual standard of excellence. Of especial value are the articles, "Democratic Tendencies," by E. L. Godkin, and "A Study of American Liquor Laws," by Chas. W. Eliot. The latter furnishes much valuable information and data on the subject treated. "My Sixty Days in Greece," by Basil L. Gildersleeve, will doubtless have an added interest from the recent action of the brave little country in behalf of her persecuted neighbors. "Village Improvement Societies," by Mary Caroline Robbins, relates not only the past and present progress of this interesting reform movement, but its possibilities for the future. Many small towns and villages in the Eastern States bear witness to the practicability of this movement set on foot by the energetic women of New England. Thomas Wentworth Higginson, in his instalment of "Cheerful Yesterdays," in this number, not only recalls many charming reminiscences of the illustrious people who have been his friends and associates during a long lifetime, but relates much that is of deep interest as being connected with the various reforms in which many of them were engaged.

BESIDES its usual quota of stories, *Lippincott's* for February furnishes a number of interesting and instructive articles on various subjects. Prominent among these is a somewhat lengthy consideration of the question, "Are American Institutions of Dutch Origin?" by Sydney G. Fisher. This is called forth by a recent work, "The Puritan in Holland, England, and America," by Mr. Campbell, who by an immense array of facts tries to convince the American people that their most cherished liberties and cus-

toms were neither English nor native, but Dutch. "South Florida before the Freeze," by R. G. Robinson, gives an idea of the possibilities of that section of our country, not only in the way of fruit-raising but in other lines of industry, and reiterates the practical lessons to be learned from the great "freeze," which for a time made the situation appear so hopeless. "The Western Housekeeper and the Celestial," by May Hoskin, relates the experiences and trials of the housekeepers of the Pacific slope in dealing with Chinese servants. "With the Whitefish Nets," by Allen Hendricks, graphically describes the method of taking whitefish in the Great Lakes.

Mind and Body, a monthly journal devoted to physical education, in its February issue presents a number of short, practical articles in its line, in addition to the usual amount of information and instruction to teachers of physical culture. Of particular interest is, "Physical Training for the Blind a Success," by Wm. Astor Crippen, of the Illinois institution for the education of the blind; and "Bohemian Gymnastic Associations, or Sokols." The latter pays a fine tribute to the illustrious man who originated this association, Dr. M. Tyrs, and who met a tragic fate while spending his vacation in the Alps in the summer of 1884.

Good Housekeeping for February opens with an entertaining article entitled, "The Garden of Peace." Other leading articles are entitled, "The Boston Cooking-School," "Household Insects," "Practical Cooking," "The Table," "My Neighbor Over the Way," and "The Game of 'Points.'" The various excellent departments are at their best, and the number is in every way a creditable issue. Clark W. Bryan Company, Springfield, Mass.

THERE is no New York magistrate whose appointment was hailed with more satisfaction than that of Robert C. Cornell, who for years had been a student of the social problems of the poor. Some of his observations during a year's actual experience at the office are embodied in his article in the February number of *Scribner's* magazine, on The City Magistrates' Courts. Almost 10,000 cases come before each magistrate in a year, and Judge Cornell shows what kind of people they are, and the humor and pathos of their pleas. The article will add to the information of many people who think themselves authorities on philanthropy.

THE twenty-first annual report of the American Purity Alliance, just published, contains a resumé of the work accomplished by the Alliance during the year 1896, together with the treasurer's report, lists of officers and donors, the constitution of the society, and the certificate of incorporation.

The greater part of the 46-page pamphlet is a brief history of the Purity Alliance in America, written by the Rev. J. P. Gladstone, in which he gives a very interesting account of the opening of the work in this country in 1876, and the success which attended the efforts of himself and Mr. Henry J. Wilson in their travels throughout the United States in the interests of the movement against vice regulation by the State legislatures. As soon as the nature of their work became known, many of our best-loved countrymen espoused their cause, among whom Wendell Phillips, Aaron M. Powell, Dr. Cuyler, Bishop Simpson, Lucretia Mott, Mrs. Mary Livermore, and Mrs. Lucy Stone. Published by the American Purity Alliance, United Charities Building, Room 219, 4th Ave. and 22d St., New York City.

PUBLISHERS' DEPARTMENT.

THE publishers are glad to learn by numerous letters received from correspondents in various parts of the country, that the new dress in which GOOD HEALTH appeared for the first time last month meets with general approval. With the change of colors selected for the present month we trust our new cover will meet with still greater favor.

A LIVE agent is wanted in every town in the United States to solicit subscriptions for GOOD HEALTH. We are determined to make this the liveliest and most practical health journal published in the world, and we want to introduce it into every family in the United States. A liberal commission is given to agents.

MICHIGAN is this year enjoying a most delightful winter. The cool, bracing air, clear skies, and abundance of sunshine, remind one of the Rocky Mountain region. The winter season ought to be the healthiest portion of the year. It is certainly one of the best seasons of the year for health-gaining by Sanitarium methods. The cool, dense air acts as a powerful stimulus to all the vitalizing functions, quickening the energies of the body, and thus hastening the reparative processes set up by baths, massage, electricity, and various other appliances employed. People are finding out that there is no better time to visit the Sanitarium than in the winter season, if quick results are desired.

DURING the last month, the patronage of the Battle Creek Sanitarium has been something unexampled for this season of the year. The number of patients under treatment has been larger than at any time in the previous history of the institution, either in summer or in winter. Nearly every room in the main building, besides various smaller buildings and cottages connected with the institution, have been occupied. The managers are already perplexed to know how they shall be able to accommodate the large influx of patients which is certain to come with the approach of warmer weather; but some sufficient means will be provided whereby all who come will be cared for.

THE Chicago Branch of the Battle Creek Sanitarium, located at 28 College Place, Chicago, has

recently made extensive improvements in its bath department, putting in elegant new spray and douche apparatus — one of the most perfect in the country; an additional electric-light bath; a second new electric bath, and other important appliances. Four additional rooms have been fitted up for the accommodation of the increased patronage; and it is safe to say that the institution is now better prepared than ever before to give most excellent attention to invalids requiring hygienic sanitarium treatment and management.

WE learn from the managers of the Boulder Sanitarium that the institution is flourishing; but though the rooms are nearly all filled, a few more can still be accommodated. Boulder is located in one of the sunniest spots on the globe. According to meteorological observations made in Boulder during a long series of years, the average number of sunny days in the year is three hundred and forty, leaving only twenty-five days in which the sun does not shine. Certainly few such favored places can be found. Occasional reports of blizzards and snow blockades in the Rocky Mountain region may easily give a wrong impression respecting the climate of this portion of the country. It is true that there is now and then a storm in which considerable snow falls, and the temperature drops to zero; but only two or three such occur during a winter, and they do not generally last over two or three days together, at the longest. The snow then disappears as quickly as it came, and everybody is out-of-doors enjoying the exhilarating air and the vitalizing sunshine. A picnic in midwinter, which would certainly be a novelty in the Eastern States, is not an uncommon occurrence at Boulder.

Persons suffering from pulmonary ailments find the combined sanitarium and climatic advantages at Boulder superior to any to be found elsewhere. The names of numbers of persons might be given who have left their homes, condemned by good medical authority to die of consumption, but have, at Boulder, found complete recovery. Do not fail to tell your suffering friends that at the Colorado Sanitarium, located at Boulder, there is almost a certain chance for recovery, if their disease is taken in an early stage. But the consumptive should not procrastinate, it being most emphatically true in this disease that delays are dangerous.

THE editor recently had the pleasure of visiting the Nebraska Sanitarium, and was glad to find the institution in good running order and the workers of good courage. The newly installed electric

light bath was working to perfection and giving excellent satisfaction to the patrons of the institution, who are daily increasing in numbers. The great territory surrounding the Nebraska Sanitarium is amply capable of sustaining a large institution. We are glad to know that the superintendent, Dr. Loper, is already making plans to utilize the large college dormitory located just across the street, which is not at present required by the college. We shall be happy to see this building used for this purpose, as there is no more important educational work undertaken anywhere than that which can be conducted in a well-arranged and properly managed sanitarium. A sanitarium is, in fact, a school of health, or a health university, in which men and women are pupils, and in which the most vital subjects which interest human beings, are studied under circumstances most favorable for profound and lasting impressions. The Nebraska Sanitarium is based upon correct principles, is being conducted in a sensible and efficient manner, and is bound to win its way to great success.

Do not forget to read our Premium List.

WE learn from Dr. Sanderson, the superintendent of the St. Helena Sanitarium, that the prospects of that institution are brightening, and that a splendid patronage is expected for the coming summer. The St. Helena institution has stood for more than a score of years as the sole representative of rational sanitarian principles on the Pacific Coast, and has done a grand work; and a still greater work lies before it, not only in the treatment of the sick, but in the education of both sick and well in the principles of right living. People are everywhere awaking to the importance of the principles which have so long been advocated at the Battle Creek Sanitarium and the several daughter institutions which have sprung up in various parts of the world. These principles are sure to triumph; therefore any institution or any man who takes a stand upon them, and labors unselfishly for their advancement, will certainly attain success.

THE GERALDINE GOWN.

THE health gown shown opposite page 87 of this number, is a late product of the Dress Department of the Battle Creek Sanitarium. It was designed by Miss Laura H. Johnson, and is especially adapted to stout figures.

The gowns and patterns sent out from the dress parlors of the Sanitarium are wholly unlike the

conventional dress, but the difference lies in the construction, rather than in the outward appearance. The object sought in their construction is to produce a dress which shall be perfectly healthful in every way, making no constriction of the soft parts of the body, and giving the wearer perfect freedom of movement, yet at the same time not attracting a moment's attention because of its inartistic appearance. A lady wearing one of these gowns is as inconspicuous as one dressed in the conventional style, unless it be for her graceful poise and the bright, happy expression of her face.

There are no paper patterns furnished of these gowns; but cloth models, made of lining material and basted together, are sent out, which can be used as patterns. This is done that there may be no mistake made in putting the garment together.

The gown may be trimmed in any way to suit the taste of the wearer. One who prefers a perfectly plain dress will find the model adapted to her needs; and one who desires an elaborate gown will find abundant ways of satisfying her taste.

There is one point which must not be overlooked by purchasers of these models; viz., the importance of a correct poise. These models are all cut to fit a perfect figure, and unless the correct poise is assumed in the gown, the wearer will almost surely feel disappointed with the effect. The following brief directions for assuming the correct poise will help any one to acquire it:—

Stand with the back against some flat surface, as a door or the wall, if it has no base-board, letting

the shoulders, hips, and heels touch the surface. Tip the head back till the top touches the wall, which will force the shoulders away from the support. Bring the head forward into the natural position again, being careful to retain the position assumed by the chest and shoulders.

Now, stepping away from the wall, the body will be found to have the correct physical poise, as shown in the accompanying cut, with the head erect, the chest raised, and the abdomen retracted.

The gown shown this month is to be made without stays of any description. The waist and sleeves are made separate from the gown, and can be replaced at will by others of different color or lighter texture, which makes it an ideal gown suitable alike for cold or warm weather. Customers can be furnished with models of this gown in cloth by sending the following measurements: —

Bust measure.
Waist "
Hips "
Underarm measure, from armhole to waist.
Down front measure from hollow in neck to waist.
Down back measure from bone at back of neck to waist.
Around neck measure.
Length sleeve, inside seam; around arm, below elbow.
Length of skirt, waist to floor in front.

Material for medium size: —
48-inch cloth ..... 7 yd
Lining for waist and sleeves ..... 2 yds.
Silk ..... ¾ yd.

Price of cloth model, $5.00

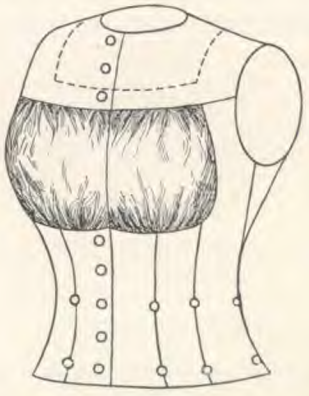
There is great latitude for the display of taste in trimming this gown. Braid, passementerie, guipure insertion, or fur may be used effectively.

Address —

The Sanitarium Dress Dept.,
Battle Creek, Mich.

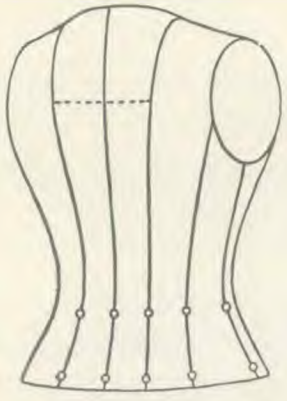
THE IMPROVED FREEDOM WAIST.

THIS waist, designed at the Battle Creek Sanitarium Dress Department, has recently been improved, and patterns can now be furnished of the



new waist represented in the accompanying cuts, for 50 cents. Sizes 30 to 44 bust measure.

This undergarment constitutes the basis for the fine costumes shown in this magazine. It is cut so



scientifically that not a bone or stay of any kind is needed to brace up the form, and furnishes a bust-supporter and underwaist combined. The skirts can be buttoned to the upper row of buttons on the waist, and the under skirt, or muslin drawers, if they are worn, to the lower row of buttons. Thus the weight of every garment worn may be suspended from the shoulders.

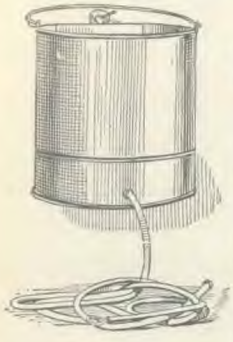
Treatment at the Battle Creek Sanitarium free! see our Premium List.

THE Battle Creek Sanitarium Health Food Company are bringing out some splendid new products which are sure to command favor at first sight,—or perhaps we should say, at first taste,—although they are about equally tempting to the eye and to the palate. One of these new products, "wheatose," is certainly the most delicious uncooked grain preparation we have ever examined. It is intended to be used as a breakfast food, like oatmeal, cracked wheat, and other similar whole-grain products. It requires a long cooking, and is improved by a second cooking; so that it may be cooked the night before, and then warmed for breakfast. Any one who is fond of such preparations as wheatena, wheat germ grits, wheatlet, and similar preparations, will find wheatose vastly superior to them all, and a most delicious breakfast dish.

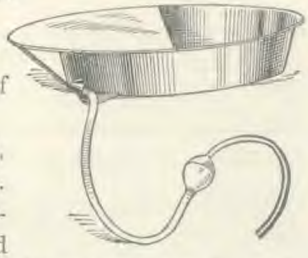
Health books free! see our Premium List.

SANITARIUM DOUCHE APPARATUS

THIS apparatus consists of a pail for water, with a long rubber tube and a convenient bed-pan. It is made of tin, and is light, durable, and easily cleaned and disinfected.



It is especially useful for giving douches in cases of confinement, and to feeble patients who cannot be removed from the bed.



It can be adjusted under the hips without moving the patient, on any form of bed or mattress.

Any amount of water can be used, the water running out as fast as it runs in. To start the water running, close the rubber tube by folding it below the bulb, and then squeeze the bulb, which will at once fill with water when released. Then open the tube, and the stream will continue to flow till the pan is empty. Sent by express.

SEND FOR CATALOGUE.

SANITARY AND ELECTRICAL SUPPLY CO., Battle Creek, Mich.

HULLED WHEAT.— Hulled corn is a familiar dish, and for years an effort has been made to remove the outer woody covering from wheat without losing any of the nutritious portion of the grain. The Battle Creek Health Food Company have at last succeeded in securing an apparatus which accomplishes this in a most satisfactory manner. By an ingenious mechanism, moist wheat is rubbed until wholly deprived of its outer skin, leaving intact the nutritive portion of the grain, which is, by this process, burnished until each kernel shines like a polished gem. Hulled wheat may be used as a breakfast dish, for which it is delicious, or it may, by grinding, be converted into hulled-wheat flour. The flour made by this process is unequaled in purity and in the proportion of the nutritive elements, since the removal of the woody portion of the kernel increases the proportion of the nutritive elements in the residue.

A trip to Europe free! see our Premium List.

THE attention of our subscribers is again called to the unprecedented offers made in our premium list. No other publishers have ever made such offers; but the Good Health Publishing Company is not engaged in business for the purpose of making money, but for the purpose of disseminating the principles of healthful living. We hope there will be found among our readers a considerable number who will be glad to co-operate with us in this humanitarian work.

PRE-EMINENTLY the finest and best-equipped train run by any transcontinental line to the Pacific Coast is the famous Sunset Limited of the Southern Pacific, across the continent for the season 1896–7. The line of the Southern Pacific is never interfered with by snow or ice, and the winter journey via it, is like a trip in southern Italy. The way leads through southwest Louisiana, southern and central Texas, Arizona, and New Mexico, and on through the orchards and vineyards of California to the Golden Gate. The route is a most attractive and romantic one. If you want to read about it or to know of the Sunset Limited service, write to W. G. Neimyer, General Western Agent, Southern Pacific Co., 238 Clark St., Chicago, who will cheerfully furnish you with abundant literature on the subject.

MERIT WINS.— The invention of Alabastine marked a new era in wall coatings, and from the

standpoint of the building owner was a most important discovery. It has practically driven all kalsomines from the market; and from a small beginning has branched out into every country of the civilized world. The name "kalsomine" has become so offensive to property owners that manufacturers of cheap kalsomine preparations are now calling them by some other name, and attempting to sell on the Alabastine company's reputation. Through extensive advertising and personal use, the merits of Alabastine are so thoroughly known that the people insist on getting these goods, and will take no chance of spoiling their walls for a possible saving of, at the most, but a few cents. Thus it is again demonstrated that merit wins, and that manufacturers of first-class articles will be supported by the people.

Note the unprecedented offers in our Premium List.

LANDS in Central Wisconsin are now as desirable as any in the market. The lands, particularly in the central and northern part of Wisconsin, are being rapidly taken up by actual settlers. The most salable are the timber and meadow lands, now ranging in price from $6 to $12 per acre. A few months hence their value will be greatly increased. For a home or for investment no luckier chance in the West has ever before been offered. Now is the time to invest. No better farming land exists anywhere. No greater results can be obtained anywhere. Schools and churches abound everywhere. Near-by markets for all farm products. Wisconsin is one of the banner States of the West.

For further information, address or call upon W. E. Powell, General Immigration Agent, 410 Old Colony Building, Chicago, Ill.

FREE FARM LABOR BUREAU.— In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has established a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced. Address, Labor Bureau, Workingmen's Home, 42 Custom House Place, Chicago, Ill.