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INTERNATIONAL HEALTH STUDIES.

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

16.—Arabia.

WHEN Prince Rupert was forced to retreat from the battle-field of Marston Moor, his honor was vindicated even by his recent adversaries. "In personal bravery he has no match," remarked one of Cromwell's matadors, "and we should not deny that he is a superior general, just because he happened to be pitted against one supreme."

The historians of the all-conquering Caucasian race should be equally generous in acknowledging the merits of his greatest rival. About the middle of the fourteenth century, the struggle for dominion was conclusively decided in favor of the strong-fisted Northlanders; but for nearly two thousand years, the chances of the contest hung in a doubtful scale. All the chief tribes of the great Aryan race, including the heroic nations of the Mediterranean peninsulas, had reason to doubt the constancy of fortune whenever they entered the lists against their Semitic rivals. The combined power of the European and Asiatic Greeks was more than once humbled by Semitic invaders from Arabia and Northern Africa, who twice conquered the Grecian colonies of Sicily, in spite of their appeals to the aid of their mother-country. Three armies of Republican Rome were routed by the horsemen of Hannibal, as Roman troops had never been routed before; and the monarchy of the Spanish Visigoths collapsed at the first shock of its encounter with the valor of the Semitic Saracens. Two hundred years later, the successors of Mohammed ruled an empire extending from Northwestern Spain to the sources of the Ganges, and including all Central Asia, all Northern Africa, a large portion of Eastern Africa and Asia Minor, besides numerous islands and coast towns of the Eastern Mediterranean.

The success of those conquerors was, in many important respects, a survival of the fittest. The anatomist Bichat proved, to the surprise of many of his countrymen, that by the evidence of such tests as the formation of the skull and the convolutions of the brain, the Arabs rank first among all modern nations, whom they also surpass in physical agility and the acuteness of their senses.

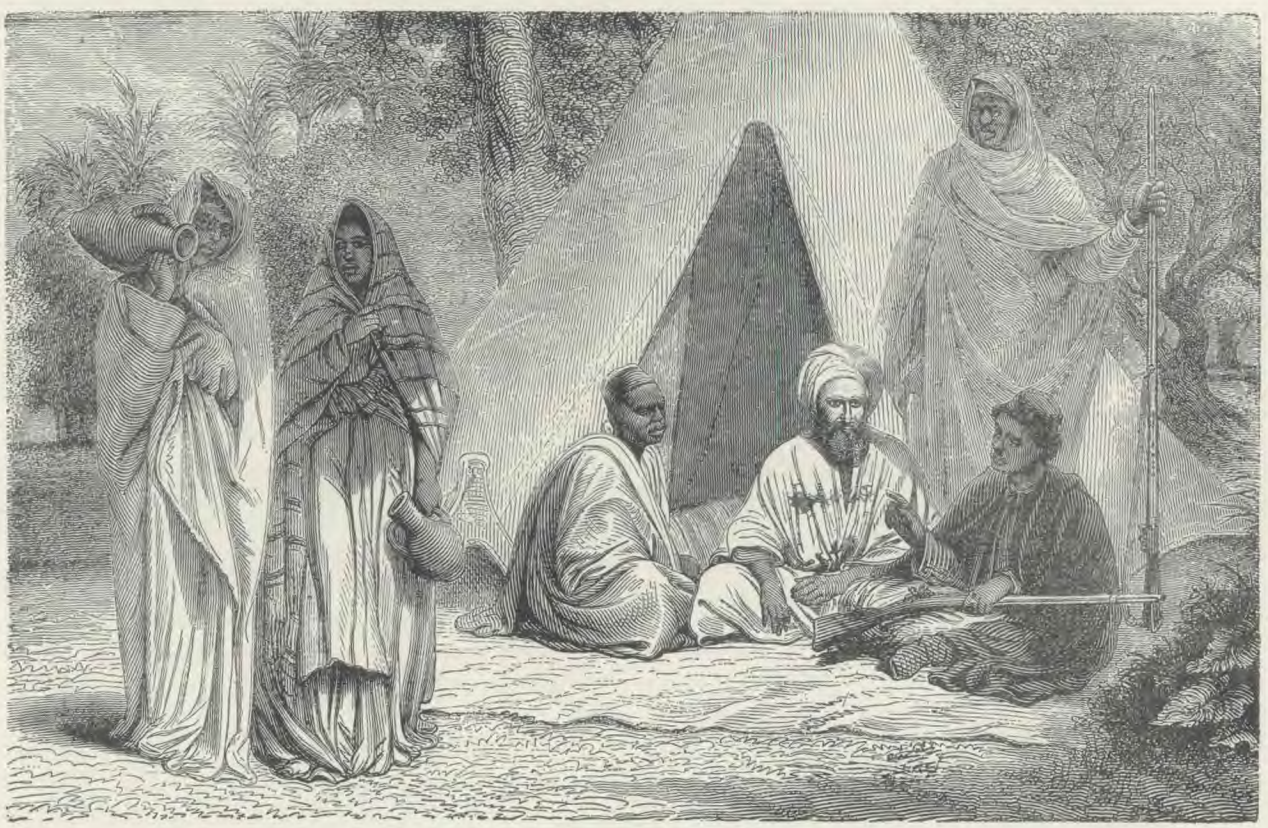
"Look yonder: a caravan of six horses and eight camels coming this way, but only five camels loaded," said the Bedouin guide of the traveler Burkhardt, who prided himself on the keenness of his eye-sight, but was unable to distinguish more than a dozen black specks coming in sight at the edge of the horizon. Arabs will distinguish the taste of dates from all possible different parts of Northern Africa, and almost exactly alike in shape and size, and often reject fruit as "stale," when a European gormand would fail to detect a trace of incipient decay. The bazaar-merchants of Cairo are always ready to purchase bundles of olibanum, and other fragrant herbs, deciding the quality of the sample by a single sniff, as conclusive as any series of analytical tests in the laboratory of a chemical specialist. In the atmosphere of our North American gas-factories and fat-rendering establishments, a faculty of that sort might prove an affliction oftener than a blessing. Still there is a good deal of suggestiveness in the old philosophical axiom to the

effect that "all the conceptions of the intellect enter through the portal of the senses;" and keen organs of sight, hearing, and taste constitute, after all, the true basis of that practical experience which is by far the larger, if not the better, part of education.

It is true that the Semitic races have been distanced in the race for the highest goals of culture, but we should remember that they have never descended to the lowest depths of national degradation. "The natives of Araby have no *proletariate*," says Baron von Wrede, "no lower classes, in our mob-and-rabble sense of the word. The poorest tiller of the soil maintains his dignity as a man, declines to cringe before superior wealth or power, and never loses sight of the rules of decorum in the presence of a guest. The wealthy sheiks of Hadramant, with all their overbearing treatment of menial foreigners, at once drop their hectoring manner on approaching a fellow-countryman. They know that a burly negro will put up with kicks for the sake of bread, and a Frankish peddler with taunts for the sake of profit; but they also know that the self-respect of an Arab is poverty-proof."

Nor should we forget that the Arabs of Spain had public libraries, museums, and liberally endowed high-schools, at a time when all Christian Europe was groveling at the feet of clerical despots; and that in an age of epidemic alcohol-worship, those same Arabs were persistent champions of temperance.

It is true that the teetotalism of the Mohammedans often resembles the piety of the ancient Egyptians, who shuddered at the idea of hurting a cat, but had no hesitation about maltreating any species of dogs. The same moralists who groan at sight of a beer-bottle, freely indulge in the worst kinds of narcotic poisons; but the native Arabs have always, more or less clearly, recognized the inconsistency of that practice, and a hundred years ago, Abd el Wahab took the war-path as a champion of total abstinence in a sense of the word rarely dreamt of by the disciples of the Maine liquor law. Brandy and alcoholic medicines,—in short all fermented and distilled beverages,—were put under the ban of the armed reformer; but also opium, hashish, and especially tobacco. Tobacco-fields, wherever found, were utterly destroyed; caravans were stopped and despoiled of the obnoxious weed; and in 1803, when the chief of the Wahabees captured the Holy City of Mecca, a whole



WANDERING ARABS.

ship-load of smoking-tobacco and thousands of Turkish pipes were solemnly burnt before the residence of the conqueror.

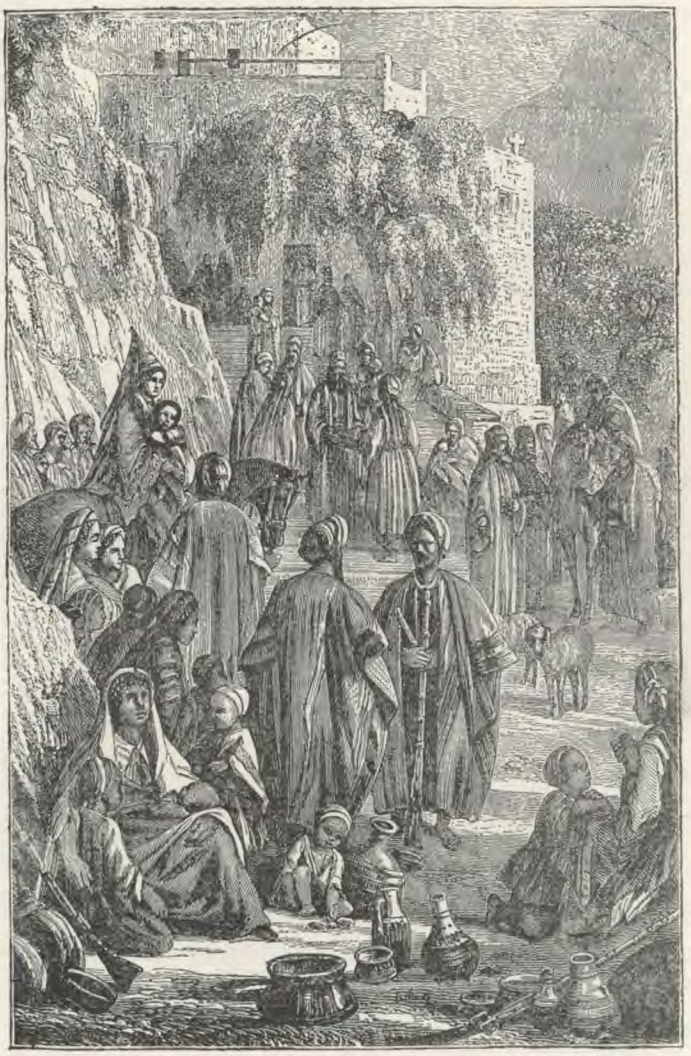
The tactics of Ibrahim Pasha at last arrested the progress of a sect whom Colonel Pelly aptly describes as "Warlike Mohammedan Quakers;" but the precepts of their founder are still scrupulously observed throughout a large portion of Central Araby; and in the highlands of Yemanah and Jebt-Harik there are settlements where an attempt to smoke a pipe in public would provoke a scandal similar to that which the killing of a cow would excite in a Hindoo village.

On the latter point, the Arabian purists differ from the devotees of Hindostan: beef, according to the doctrine of the Moslem Protestants, being one of the least objectionable varieties of animal food. They also indulge, though sparingly, in mutton, goat-flesh, and donkey steaks, and occasionally horrify foreigners by fattening and roasting a large-sized lizard, the *guaril*, or tree-crocodile, an eastern relative of the American *iguana*. The Arabs, however, might silence dietetic criticism by a counter-protest against pork, and point to the fact that the *guaril* is one of the cleanliest, if not the very cleanliest, of vertebrate creatures. Few natives of the Arabian peninsula could be driven by hunger to eat oysters and eels (both of them aquatic scavengers), and would as soon eat vulture meat or hyena steaks, as hog's flesh. In Eastern Africa, Arabian colonists now and then permit their dogs to chase the long-tusked wart-hog, but would consider it a defilement to sully their spears in the blood of the disgusting brute. How civilized nations of the progressive West can be guilty of such dietetic abominations, passes the comprehension of the native Arabs.

"Oh, come now! a joke is a joke," said a Bedouin chieftain whom the naturalist Brehur assured that salted pork constituted a principal article of food in many parts of Western Europe; "don't paint the Devil blacker than he is. I have been told that the Giaurs stupefy themselves with strong liquor, and always thought their miserable climate must have something to do with it: they want to forget their misery, or hope to warm themselves with fire-water. But why should they wish to sicken themselves with nauseous food, if it is true that their fields abound with grain?"

In disease, Arabs abstain from meat altogether, and during the long fasts of the Rhamadan season, live as frugal as Hindoos, but withal feel well enough to praise the wisdom of the Prophet in recognizing the advantages of a vegetarian diet.

Arabian physicians were also the first to point out the occasional benefits of absolute denutrition, and



MARONITES OF LIBANUS.

according to Dr. Schrodt, contrived to eradicate the worst blood-poisons (arrow-poison and the virus of the *Lues Veneris*) by fasts *a la* Tanner, occasionally combined with a sweat-cure. As a nation, the Arabs are remarkably free from contagious diseases, and avoid skin disorders by habitual cleanliness, and also, perhaps, by their predilection for smooth linen fabrics, in preference to wool. Only abject poverty constrains the Bedouin nomads to wear garments of wool

and camel-hair, and on their first visit to a trading-post, their savings are invested in a tunic of linen or stout cotton — silk being a privilege of the rich. Their peculiar head-dress seems rather to refute the belief in the optical benefits of a broad-brimmed hat, for a turban forms a very indifferent sun-screen, projecting hardly two inches over the forehead of the wearer, who, nevertheless, as a rule, preserves his eye-sight to an extreme old age. In a certain spot of the constellation Ursus Major (the "wagon," or "great bear"), there is a star so small that few city-dwellers of the weak-eyed West would be able to discern it upon the starriest nights. El Alcor, or the "Tester," the Arabs call that star, and consider an old man about fit for the retiring list if he fails to locate it at the first attempt.

Like the Romans and the Macedonian Greeks, the Arabs frittered away their strength in far-spread conquests; but the zenith of their culture was probably reached under the Spanish caliphs, and their intermarriage with certain Northern tribes of the Semitic race has developed some of their finest types of physical manhood. The British traveler Waddington, indeed, describes the "bright, clear black tint" of the Sheyga Arabs, on the upper Nile, as "the most beautiful color, which, prejudice aside, could be chosen for a human creature;" but most of his countrymen would cast their votes for some of the Arab tribes of the Syrian highlands, the Maronites of Mount Libanus, for instance,—a valiant race of heretics whose creed might be described as an eclectic mixture of Christian and Moslem doctrines, and whose political code has for centuries secured their practical independence. Nearly all their young men are athletes, and their white-bearded emirs would furnish the finest models for a painter of oriental patriarchs.

(To be continued.)

HABITS, MENTAL AND PHYSICAL.

[Abstract of a lecture by J. H. KELLOGG, M. D.]

THE majority of people hardly appreciate how much we are creatures of habit, nor how much habit has to do with our daily lives; yet it is our habits which give us our individual characteristics, and which make us differ one from another. Habit even affects our walk and the carriage of our body, and one can often tell a man's trade or occupation by observing his manner on the street. The old farmer, who has used the muscles of the chest more than those of the back, becomes stooped-shouldered, and he carries his arms half-flexed, because his work has developed the flexor muscles and not the extensors. There is excuse for this, but sometimes a mere foolish physical habit becomes so fixed that it is most difficult to root out.

It is to habit, also, that we owe our characteristic expressions of countenance. It is mental habit which makes one face happy and another sad; that gives one a penetrating expression and another a vacant stare; that makes one appear savage and fierce, and another calm and mild. When one feels cross most of the time, the muscles which are under the control of the "bad-tempered" centers of the brain, put an habitual frown upon the face. The muscles which draw the face into the perpendicular wrinkles of the scowl, become so much stronger than the muscles which are used in smiling, that one can hardly smile if he tries. On the other hand, he who is in a happy frame of mind most of the time, is educating the muscles of his face which draw on the horizontal wrinkles, which are at right angles with the vertical wrinkles of ill-temper. A person's face in sleep always assumes the habitual expression to which he has been educating his muscles, and so reveals in this way much of his inward nature. These facts show the intimate relation between the inside and the outside, and that the face is merely a mirror of the mind. The study of the lines of the face is of importance, then, as well as of interest, since the permanent, fixed expression of the face corresponds with the permanent, fixed condition of the mind.

Other muscles, like the heart, can be wrongly educated. If by running and other violent exercise long continued, it gets into the habit of working too hard, it will pump away at that rate all the time; and besides the damage of forcing too much blood to certain parts, it will wear out too soon. A person may also acquire the habit of eating enormous quantities of food, and may distend his stomach to accommodate the burden, until, by and by, it becomes relaxed and habitually torpid. It is first slow from necessity, and by and by becomes slow from force of habit. As an opposite extreme, sometimes people coddle their stomachs too much with soft, bland food, and too little in quantity, until it loses its ability to digest a good meal. Such a stomach needs a course in gymnastics, by giving it an increased amount of work to do upon substantial food. We do not mean that improper food should be put into the stomach, for this or any other purpose. Rich pastry, mince-pies,

fried foods of any description, should never be eaten. But an invalid need not live perpetually upon milk and gruel.

But suppose the liver to be the sufferer, perhaps from eating too much sweets,—and a very common thing in America is this extra "sugar tooth." Perhaps the habit dates back to childhood, and day after day, for years, excessive quantities of sweets are eaten. After a time the liver collapses, and refuses to do its appointed work. The undermining was not appreciated, perhaps, until shortly before the break came. Instances of this character are not rare; for it is not so much softening of the brain as hardening of the liver which sends so many professional men and others to Europe for a change every year. True, there are some cases of actual breaking down from overwork, but in those cases it is not so much the work as the concentration of attention to one particular phase which does the mischief. Farmers' wives form a larger per cent of the inmates of our asylums for the insane than any other one class, and it is because of the monotony of their lives, which confines them to narrow grooves of toil and interests.

How strong is the bondage of habit, few realize until they try to free themselves from some custom formed in youth. It may be compared to a parasitic vine growing upon a tree. At first it seems to add to the beauty or picturesqueness of the tree, but as the years go by, it pinches tighter and tighter; it destroys the circulation of sap, and finally there may be seen only a luxuriant vine twining about a leafless, decaying tree. Perhaps it might be said that the majority of people die of bad habits—bad habits of eating or drinking or sleeping; by neglecting to do things which they ought to do, as well as by doing things which they ought not to do. How many people study physiology and hygiene sufficiently to know how to care for and preserve their bodily health? Yet are they not neglecting a plain duty, and suffering severe penalties for that neglect?

Another serious consideration is that habit is transmitable by heredity, and we owe a duty to posterity as well as to ourselves. Our children should be given a good inheritance and proper training. It may be helpful to bear in mind that good habits are just as firmly fixed as bad ones, and if the training of a child has been wise and right, he will go steadily on in the right way. The proper way to break a bad habit is to put a good habit in its place. It is the surest and safest antagonism.

THE ROOT OF THE TEMPERANCE QUESTION.

FROM A KINDERGARTEN STANDPOINT.

[The following thoughts on the right and wrong training of the senses, gleaned from an abstract of a lecture given before the Mothers' Department of the Chicago Kindergarten Training-School, by the Principal, Miss Elizabeth Harrison, so fully coincide with our own views of the subject, that we reproduce them for the benefit of the readers of GOOD HEALTH.—ED.]

THERE is perhaps no instinct of the child more important and yet less guarded than the exercise of its senses. The baby begins this life-work as soon as its eyes can fix themselves on any point in space, as soon as its tiny hand can grasp any object of the material world. The training of the inner being begins at the same time, by means of the impressions conveyed through these avenues of the senses to the young brain.

In a vague sort of way, the world at large has acknowledged a distinction between the higher and lower senses, by training the eye, and to some extent, the ear, and it is now struggling to place a systematized training of the sense of touch in the school curriculum. And yet, the misdirection of the lower senses is far more dangerous, not only because they do not aid directly in the upbuilding of the intellect, but because they have more direct effect upon the will of the child. Any child turns more quickly from a bad odor than from a bad picture, and comes with more alacrity to get a sweetmeat than to hear some pleasing sound. With most adults it is the same. Our sympathies are aroused more readily by a tale of physical suffering than by one of demoralizing surroundings.

Notwithstanding these facts, the two lower senses of taste and smell have been left almost entirely to the hap-hazard education of circumstances. And sad indeed have been the results. As we look abroad over the world, what do we perceive as the chief cause of the wrecks and ruins we see around us, of the wretchedness and misery which lie about us? Why have we on every hand such dwarfed and stunted characters? For what reason do crimes, too hideous to be mentioned in polite society, poison our moral atmosphere until our great cities become fatal to half the young men and women who come to them? Why do our clergy and other reformers labor so hard to attract the hearts of men to what is in itself glorious and beautiful?

Is it not, in a majority of cases, *because men and women have not learned to subordinate the gratification of physical appetite to rational ends?* You see it in

every phase of society,—from the rich and favored dame, whom soft chairs and tempered lights and luxurious surroundings have so enervated that she is blind to the sight of misery and deaf to the cry of despair, down through the grades where we find the luxuries of the table the only luxuries indulged in, and "plain living and high thinking" the exception, still farther down from these respectable phases of self-indulgence to the poor drunkard who sacrifices all comforts of the home, all peace of the family life, for the gratification of his insatiable thirst, still farther down to the pitiable wretch who sells her soul that her body may live. Do not their lives, all of them, contradict that significant question of the Son of God—"Is not the body more than the raiment? Is not the life more than the meat?"

Let us turn from such distressing pictures to the scientific investigation of the senses. We find that the sense of taste has two offices; first, *that of relish*, or the producing of certain pleasant sensations in the mouth or stomach (for the two are one for all practical purposes); and second, the *discriminating between the good and bad*, wholesome and unwholesome food, which is taste proper. The former is the gratification of the sense for the sake of the sensation, and leads, through over-indulgence, directly into gluttony, which, in its turn, leads directly into sensuality. In history, not until a nation begins to send far and wide for delicacies and condiments for its markets and tables, does it become a voluptuous and sensual nation. When we speak of "the degenerate days of Rome," do not pictures of their over-loaded tables rise before the mind's eye? We do not need to turn to other times and other places for illustrations of this truth. Who are the "high livers"? As a rule, are they not sensualists also?

The latter use of this organ of sensation leads to discrimination, which discrimination produces wholesome restraint upon undue eating, this restraint engendering self-control, making the *moral will power supreme over the bodily appetite*—man's greatest safeguard in the hour of temptation. In the world of nature we see that the rank vegetation needs to be pruned and checked if it is to give to man its best fruits.

The prophets and seers of the world have always seen the close connection between the feeding of the body and its control or non-control of the sensual appetites. Plato, long ago, in his ideal Republic, would have banished all books which contained descriptions of the mere pleasures of food, drink, and love, classing the three under one head. What an enormous amount of so-called literature would have to be swept out of the libraries of to-day, were that mandate sent forth! Dante, with that marvelous vision of his which seemed to see through all disguises and all forms of sin, back to the causes of the same, places gluttony and sensuality in the same circle of the the Inferno.

To me, the story of Daniel derives its significance not so much from the fearless courage with which that great heart dared death in the lion's den, as from the fact that as a child he had moral control enough to turn from the king's sumptuous table, and eat the simple pulse and drink pure water. Such self-control *must* produce the courage and the manhood which will die for a principle. So in telling this story ever loved by childhood, we always emphasize the earlier struggle and victory rather than the latter. The *perfect character is the character with the perfectly controlled will;* therefore, the heroes of the kindergarten stories are mightier than they who have taken a city; for they have conquered themselves. The greatest battles of the world are the battles which are fought within the human breast. And, alas, the greatest defeats are there also!

"That a child inherits certain likes and dislikes in the matter of food cannot be questioned, but does not in the least forbid the training of the child's taste towards that which is healthful and upbuilding; it merely adds an element to be considered in the training." Hear what a gifted writer of our own nation has said. Horace Bushnell, in his book called "Christian Nurture," utters these impressive words: "The child is taken, when his training begins, in a state of naturalness, as respects all the bodily tastes and tempers, and the endeavor should be to keep them in that key,—to let no stimulation of excess or delicacy disturb the simplicity of nature, and no sensual pleasure in the name of food become a want or expectation of his appetite. Any artificial appetite begun is the beginning of distemper, disease, and a general disturbance of natural proportion. Intemperance! The woes of intemperate drink! How dismal the story when it is told! How dreadful the picture when we look upon it! From what do the father and mother recoil with a greater and more total horror of feeling, than the possibility that their child is to be a drunkard? Little do they remember that he can be, even before he has tasted the cup; and that they themselves can make him so, virtually without meaning it, even before he has gotten his language. Nine tenths of the intemperate drinking begins, not in grief and destitution, as we so often hear, but in vicious feeding. Here the scale and order of simplicity is first broken, and then what shall a distempered or

distemperate life run to, more certainly than what is intemperate? False feeding genders false appetite, and when the soul is burning all through in the fires of false appetite, what is that but a universal uneasiness? And what will this uneasiness do than betake itself to the pleasure and excitement of drink?"

Froebel, from whose eagle eye nothing which related to the child seemed to escape, saw this danger, and in his "Education of Man" says: "In these years of childhood, the child's food is a matter of very great importance, not only at the time (for the child may by its food be made indolent or active, sluggish or mobile, dull or bright, inert or vigorous), but, indeed, for his entire future life. For impressions, inclinations, appetites, which the child may have derived from his food, the turn it may have given to his senses, and even to his life as a whole, can only with difficulty be set aside, even when the age of self-dependence has been reached. They are one with his whole physical life, and therefore intimately connected with his spiritual life. Again, parents and nurses should ever remember, as underlying every precept in this direction, the following general principle, that simplicity and frugality in food and in other physical needs during the years of childhood, enhance man's power of attaining happiness and vigor — true creativeness in every respect. Who has not noticed in children over-stimulated by spices and excesses of food, appetites of a very low order, from which they can never again be freed — appetites which, even when they seem to have been suppressed, only slumber, and in times of opportunity return with greater power, threatening to rob man of all his dignity, and to force him away from his duty?"

Then comes with an almost audible sigh these words: "It is by far easier than we think to promote and establish the welfare of mankind. All the means are simple and at hand, yet we see them not. You see them, perhaps, but do not notice them. In their simplicity, availability, and nearness, they seem too insignificant, and we despise them. We seek help from afar, although help is only in and through ourselves. Hence, *at a later period half or all our accumulated wealth can not procure for our children what greater insight and keener vision discern as their greatest good.* This they must miss, or enjoy but partially or scantily. It might have been theirs without effort, as it were, had we in their childhood attended to it a little more; indeed, it would have been theirs in full measure, had we expended very much less for their physical comfort." Then he exclaims in ringing tones, as the enormous significance of the subject grows upon him, "Would that to each young, newly married couple, there could be shown, in all its vividness, only one of its sad experiences and observations in its small and seemingly insignificant beginnings, and in its incalculable consequences that tend utterly to destroy all the good of after-education!"

Next he points out the way to avoid the sad consequences which he so laments: "And here it is easy to avoid the wrong and to find the right. Always let the food be simply for nourishment — never more, never less. Never should food be taken for its own sake, but for the sake of promoting bodily and mental activity. Still less should the peculiarities of food, its taste or delicacy, ever become an object in themselves, but only a means to make it good, pure, wholesome nourishment; else in both cases the food destroys health. Let the food of the child be as simple as the circumstances in which the child lives can afford, and let it be given in proportion to his bodily and mental activity."

(To be continued.)

THE BODY AND THE MIND.

We darken our personal sunlight by ill-health. I do not speak of the ill-health which we cannot avoid, those swift attacks which break on us from without, in a fever, or an hereditary disease, though even of those we may lessen the chances by wisdom, but of the general lowness of tone, that daily ill-at-ease, and the nervous irritability and exhaustion so frequent in a society which lives unnaturally, and stimulates and depresses itself unnaturally. For our own sake, and for the sake of others whom we trouble and irritate, we are bound to obey the "laws of nature," — bound to find out why we are ill, and if we are ill, bound to cure ourselves if we can; bound to live carefully, temperately, and godly. And for the most part, we can keep well. Most of the general ill-health is cured by very simple means, by fresh air, exercise, and temperance in food and drink.

"This is not morality," you say, "but medicine." It *is* morality. It is as much a medicine for the mind as for the body. It means watchful self-conquest; conquest of sloth, conquest of appetite, conquest of indulgence,— and that daily. It is more — it is spiritual. For its motives should be that you may keep yourself in the sunlight in which good work is done for God and man, in which you are able to use your powers well; in which you will yourself, rejoicing in good health, give and spread joy, gaiety, and good temper around you. — *Sel.*

THE CARE OF THE HAIR.

BY S. ISADORE MINER.

THERE is nothing more desirable in the list of a lady's personal attractions than a good head of hair, and no more valuable knowledge of the toilet than to understand how to care for it, and dress it becomingly and healthfully. Heredity has as much to do with our hair as with our features, but with good

AN EGYPTIAN WIG.

care, nearly every lady can possess sufficient of "the glory of woman" to arrange tastefully.

In the first place, the scalp should be kept clean, both by the daily use of the brush and by frequent shampoos. The hair follicles should not be allowed to become impacted with dirt and excretion, thus hardening around the root of the hair, causing it to die and drop out. When the hair is washed, the frequency of which should depend upon its exposure to dust, etc., the natural oil which is thus lost by the scalp, should be made up by the application of sufficient fine unguent. Only the best soaps should be used, and all pomades or patent preparations carefully avoided. For one who needs must shampoo her own head, and who has an abundance of hair, the best way is to plait it loosely in several braids, work the lather well into the scalp with the fingers, then rinse the head through several waters, by dipping it into a vessel deep enough to receive it. The water, lukewarm at first, should be gradually cooled, and the hair should be wiped dry with a towel, and then unbraided, and dried in the sun or before the fire.

The true purpose of the comb is for dividing and untangling the hair. The brush is what is of real value from the stand-point of hygiene. It clears the head from dandruff and dust, stimulates the scalp, polishes the hair, and renders it softer and more tractable, thereby less apt to split and break. The properly made brush is one in which the bristles are set in bunches, not too close together, the inner bristles of each bunch being longer than the surrounding ones. Brushes made of wire are to be condemned, since the scalp is likely to suffer injury from its sharp, unyielding projections. A brush of recent manufacture combines the advantages of the common bristle article and that of wire, by being made of bristles set in a rubber air-cushion.

A lady who does not carefully smooth out and brush her hair before retiring, braiding it in a loose plait to prevent tangling, should not expect a good head of hair. Neither should one who impatiently tears the snarls from it, and wrings and twists it in the process of doing up, thereby loosening it from the head. When the hair splits much at the ends, it should be clipped an inch or two occasionally.

The scorching and wrenching of the hair occasioned by the use of a hot iron or frizzing-tins, to make it curl, cannot be too much decried. If the hair must be curled, as harmless a way as any is to wind the

dampened lock around the finger, slipping it off in a flat ring, and pinning it securely between a bit of folded paper until dry. As for the silly motives which prompts a dark-haired, dark-eyed person to produce a striking effect by blanching the hair to a peculiar golden, it is sufficiently punished by the frequency with which the vanity is obliged to clothe itself in a wig, as the result of killing the hair follicles with strong chemicals. And here it may be added that the wearing of a wig to complement a deficient head-covering, is a sure way of destroying what little hair one may have. It sweats the head, prevents the air from reaching the scalp, and new hair from growing, and heats the brain. Precisely what the old Egyptians did to obviate the consequences of wig-wearing, we do not know, and studying the reproduction of a photograph taken of the genuine *curio*, leads one to wonder if that ancient people were entirely hairless, that they should need so elaborate an artificial head-covering. Again, what little hair one does possess, should not be endangered of being dragged out by the weight of a switch. Scanty hair is more apt to be unable to sustain its own weight.

The shape of the face should go far to determine the wearing of the hair. If the face is disproportionately large, the hair should not be dragged tightly back, but allowed to fall somewhat carelessly around the forehead. Hair worn so tight as to seem to draw the skin, is unpleasant to see in any person. A person with a large head should manage to do the back hair in some fashion that it does not spread out at the sides, and thus add to the seeming size. A person with a small face or low forehead should cultivate more severe styles for the front hair, and by dressing the back hair rather loosely, seemingly add size to the head. Neither a short nor a tall person should wear the hair piled on top; it only places the face in a disproportionate position. The short one may dress the hair high enough for the outline to appear over the crown of the head; the tall one, avoid even that. As a rule, blonde hair looks better dressed in more fluffy styles than dark hair; the latter shows to better advantage in shining braids or polished coil. Let those who have been denied a luxuriant head-covering, make the most of what they have in choosing a style to wear it in, not twisting it into a little tight knot; and those who have been abundantly blessed, let them remember that simplicity best becomes any charm. But no lady, no matter how long and luxuriant her tresses may be, will wear her hair down her back, running the risk of soiling her clothing as well as exhibiting inexcusable vanity.

THE HAND AND THE FOOT.

NOTHING is more admirable nor surprising in its adaptability to an infinite number of purposes, nor more noble in the sense of power conveyed by its form, than the human hand. It cannot therefore be artistic to squeeze it into a glove so much too small for it that it becomes useless for any purpose beyond holding a visiting card, the division of the fingers extending only down to the middle of the space between the knuckles, the back and inside of the hand pinched into shapelessness. Though the hand is not injured by the tight glove, the effect is ignoble and absurd. Delicacy is delightful, but weakness excites either pity or contempt. The hand should not be too small or too limp a thing to be capable of any kind of duty. When fashion suggests that it is, there can be no doubt of the bad taste. Tiny hands and feet are terms constantly used by poets and novelists in a most misleading manner. Certainly they intend to express only general delicacy and refinement. Proportion and fitness were to the Greeks essential elements of beauty. Therefore to them a small hand was not necessarily beautiful. Nor did they enjoy pointed and polished nails, suggestive of bird's claws. The hand that is in good proportion to the figure, that is finely formed, that is flexible, that is useful, that is full of ministry to others, *this* is a beautiful hand. To clothe it in coverings elastic enough for use is the only way to clothe it artistically.

The beauty of the feet consists in the neatness and fineness of their shape, and not in smallness nor shortness. The absurd notion that smallness and beauty are the same, leads to the crippling of the foot till it is often a mass of crumpled deformity. To this pernicious habit has been added the disastrous practice of wearing a peg under the heel and towards the middle of the sole. This is in utter contradiction of the hint given by the formation of the heel, which projects backward to give steadiness to the gait; also to the destruction of that nice balance which was given the human form by an all-wise and benevolent Creator. Of course, Nature avenges herself. It is simply *impossible* for a woman to walk well on French heels. If you will notice, the woman wearing French-heeled slippers looks, from a front view, as if she were bow-legged. The woman who wears a French heel says, in effect, to her Master, "I know better than you what is the proper balance for my body." —*Frances M. Steele, in "Artistic Dress."*

IDLE HANDS.

MR. THORNTON returned home at his usual midday hour, and as he passed by the parlor door, he saw his daughter, a young lady of nineteen, lounging on the sofa with a book in her hand. The whirr of his wife's sewing-machine struck upon his ear at the same moment. Without pausing at the parlor door, he kept on to the room from which came the sound of industry.

Mrs. Thornton did not observe the entrance of her husband. She was bending close down over her work, and the noise of the machine was louder than his footsteps on the floor. Mr. Thornton stood looking at her for some minutes without speaking. "Oh, dear!" exclaimed the tired woman, letting her foot rest upon the treadle, and straightening herself up; "this pain in my side is almost beyond endurance."

"Then why do you sit there killing yourself?" said Mr. Thornton. Mr. Thornton's aspect was unusually sober.

"What's the matter? why do you look so serious?" asked his wife. "Has anything gone wrong?" Mrs. Thornton's countenance grew slightly troubled. Things had gone wrong in her husband's business more than once, and she had learned the occurrence of disaster.

"Things are wrong all the time," he replied, with some impatience of manner.

"In your business?" and Mrs. Thornton spoke a little faintly.

"No, nothing especially out of the way there, but it's all wrong at home."

"I don't understand you, Harvey; what is wrong at home, pray?"

"Wrong for you to sit in pain and exhaustion over that sewing-machine, while an idle daughter lounges over a novel in the parlor; that's what I wished to say."

"It isn't Effie's fault. She often asks to help me. But I can't see the child put down to household drudgery. Her time will come soon enough. Let her have a little ease and comfort while she may."

"If we said that of our sons," replied Mr. Thornton, "and acted on the word, what efficient men they would make for life's trials and duties!"

"Well, I have always had to work hard," said Mrs. Thornton, somewhat bitterly; "but I don't mean that my daughter shall. She shall have a happier, easier life, if I can make it for her. She shall have all the enjoyment and pleasure I can give her while she is with us."

"You are wrong in this thing, all wrong," continued the husband. "And if Effie is a right-minded girl, she will have more true enjoyment in the consciousness that she is lightening her mother's burdens, than it is possible to obtain from the finest novel ever written. Excitement for the imagination is no substitute for that deep peace of mind that ever accompanies and succeeds the right discharge of daily duties. It is a poor compliment to Effie's moral sense, to suppose that she can be content to sit with idle hands, or to employ them in light frivolities, while her mother is worn down with toil beyond her strength. No girl who has been taught to see the beauty of self-denial and to appreciate the unselfishness of a mother's love, will ever sit down and dawdle her life away in luxurious ease while her mother struggles with a mountain of overwork. But if you teach Effie to look upon work as drudgery, she will come to think it is menial and degrading, something to scorn and escape from if possible. And then, she will begin to look upon the mother who takes this all upon herself that she may indulge her daughter, as her inferior, and in the presence of her fine friends will be ashamed of the hard-working woman whose hands are red and rough that hers may be white and soft. Hester, this is the portion you are preparing for yourself in your foolish pride in keeping Effie from all knowledge of work. You are wronging yourself and wronging her; for you are developing in her a narrow and selfish life, which superficial ob-

servers now criticise the girl for possessing, when it is but the result of her unfortunate training. Hester, it must not be!"

"And it shall not be!" said a quick, firm voice.

Mr. Thornton and wife started, and turned to the speaker, who had entered the room unobserved, and been a listener to nearly all the conversation we have recorded.

"It shall not be!" And Effie came and stood by Mr. Thornton. Her face was crimson; her eyes flooded with tears, through which light was flashing; her form drawn up erectly; her manner resolute. "I've asked mother a great many times to let me help her, but she always puts me off, and says it is easier to do a thing herself than to show another. May be I am a little dull, but every one has to learn, and if she would only teach me how, I could help her a great deal; and, indeed, father, I am willing."

"Spoken in a right spirit," said Mr. Thornton, approvingly. "Girls should be as rightfully employed as boys, and in the very things most likely to be required of them when they become women in the responsible positions of wives and mothers. Depend upon it, Effie, an idle girlhood is not the way to a cheerful womanhood. Learn to do now the things that will be required of you in after years, and then you will have an acquired facility. Habit and skill will make easy what might come hard, and be felt as very burdensome."

"And you would have her abandon all self-improvement?" said Mrs. Thornton; "give up music, reading, society?"—

"There are," said Mr. Thornton, as his wife paused for another word, "some fifteen or sixteen hours a day in which mind or hand should be rightly employed. Now let us see how Effie is spending these long and ever-recurring periods of time. Come, my daughter, sit down; we have this subject fairly before us. It is one of great importance to you, and should be well considered. How is it in regard to the employment of your time? The records of the work of a day will help us to get toward the result after which we are now searching."

Effie sat down, and Mr. Thornton drew a chair in front of his wife and daughter.

"Take yesterday, for instance," said the father; "how was it spent? You rose at seven, I think?"

"Yes, sir; I came down just as the breakfast bell was rung," replied Effie.

"And your mother was up at half past five, I know, and complained of feeling so weak that she could hardly dress herself. But for all of this, she was at work until breakfast time. Now, if you had risen at six, and shared your mother's work until seven, you would have taken an hour from her day's burdens, and certainly lost nothing from your music, self improvement, or social intercourse. How was it after breakfast; how was the morning spent?"

"I practiced an hour on the piano after breakfast."

"So far so good; what then?"

"I read the 'Cavalier' till eleven o'clock."

Mr. Thornton shook his head, and asked: "After eleven, how was the time spent?"

"I dressed myself, and went out a little after twelve o'clock."

"An hour spent in dressing?"

"Yes, sir."

"Where did you go?"

"I called on Helen Boyd, and we took a walk down Broadway."

"And came home just in time for dinner? I think I met you at the door."

"Yes, sir."

"How was it after dinner?"

"I slept from three till five, and then took a bath, and dressed myself. From six until tea time, I sat at the parlor window."

"And after tea?"

"Read the 'Cavalier' until I went to bed."

"At what hour?"

"Eleven o'clock."

"Now we can make up the account," said Mr. Thornton.

"You rose at seven and retired at eleven,—sixteen hours. And from your own account of the day, but a single hour was spent in anything useful—that was the hour at the piano. Now, your mother was up from half past five, and went to bed, from sheer inability to sit at her work any longer, at half past nine. Sixteen hours for her also. How much reading did you do in that time?" and Mr. Thornton looked at his wife.

"Don't talk to me of reading! I've no time to read;" Mrs. Thornton answered, a little impatiently. The contrast of her daughter's idle hours with her own life of exhaustive toil, did not affect her mind very pleasantly.

"And yet," said Mr. Thornton, "you were always fond of reading, and I can remember when no day went by without an hour or two passed with your books. Did you lie down after dinner?"

"Of course not."

"And did you take a pleasant walk down Broadway, or sit at the parlor window with Effie? How about that?"

There was no reply.

"Now the case is a very plain one," continued Mr. Thornton. "In fact, nothing could be plainer. You spend from fourteen to sixteen hours in hard work, while Effie, take yesterday for a sample, spends about the same time in what is little better than idleness. Suppose a new adjustment were to take place, and Effie were to be usefully employed in helping you eight hours of each day; she would still have eight hours left for self-improvement and recreation, and you, relieved from your present overtaxed condition, might get back a portion of your health and spirits, of which these too heavy household duties have robbed you."

"Father," said Effie, speaking through the tears that were falling over her face, "I never saw things in this light. Why haven't you talked to me before? I've often felt as if I'd like to help mother, but she always says that I can't do it. Indeed, father, it hasn't all been my fault!"

"It may not have been in the past, Effie," replied Mr. Thornton; "but it certainly will be in the future, unless there is a new arrangement of things. It is a false social sentiment that lets daughters and sons become idlers, while mothers and fathers take up the daily burden of work, and bear it through all the business hours."

Mrs. Thornton did not come gracefully into the new order of things proposed by her husband and accepted by Effie. False pride in her daughter, that future lady ideal, and the inclination to do herself rather than take the trouble to teach another, were all so many impediments. But Effie and her father were both in earnest, and it was not long before the overworked mother's weary face began to lose its look of weariness, and her languid frame to come up to an erect bearing. She could find time for the old pleasure in books, now and then for a healthful walk in the streets, and a call on some valued friend.

And was Effie the worse for this change? Did the burden she was sharing with her mother depress her shoulders, and take the lightness from her step?—Not so. The languor engendered by idleness, which had begun to show itself, disappeared in a few weeks; the color came warmer into her cheeks, her eyes gained in brightness. She was growing, in fact, more beautiful; for her mind, cheerfully conscious of duty, was molding every lineament of her countenance into a new expression.

Did self-improvement stop?—Oh, no! From one to two hours were given to close practice at the piano every day. Her mind, becoming vigorous in tone, instead of enervated by idleness, chose a better order of reading than had been indulged in before, and she was growing toward a thoughtful, cultivated, intelligent womanhood. She found time too, amid her home duties for an hour twice a week with a German teacher, and she began also to cultivate a natural taste for drawing. Now that she was employing her hours usefully, it seemed wonderful how much time she found at her disposal for useful work, and both mother and daughter found no regret for the day when an earnest talk with father brought about a new order of things in the Thornton household.—*T. S. Arthur.*

THE GOOD BOOK: WHAT IT IS.

THE good book of the hour, is simply the useful or pleasant talk of some person whom you cannot otherwise converse with, printed for you. Very useful often, telling you what you need to know; very pleasant often, as a sensible friend's pleasant talk would be. These bright accounts of travels; good-humored and witty discussions of question; lively or pathetic story-telling in the form of novel; firm fact telling, by the real agents concerned in the events of passing history,—all these books of the hour, multiplying among us as education becomes more general, are a peculiar possession of the present age. We ought to be entirely thankful for them, and entirely ashamed of ourselves if we make no good use of them.

But we make the worst possible use if we allow them to usurp the place of true books; for strictly speaking they are not books at all, but merely letters or newspapers in good print. Our friend's letter may be delightful, or necessary, to-day: whether worth keeping or not, it is to be considered. The newspaper may be entirely proper at breakfast time, but assuredly it is not reading for all day. So, though bound up in a volume, the long letter which gives you so pleasant an account of the inns, and roads, and weather last year at such a place, or which tells you that amusing story, or gives you the real circumstances of such and such events, however valuable for occasional reference, may not be, in the real sense of the word, a book at all, nor in the real sense, to be read.

A book is essentially not a talked thing, but a written thing; and written not with a view of mere communication, but of permanence. The book of talk is printed only because its author cannot speak to thousands of people at once; if he could, he would;—the volume is a mere multiplication of his voice. You cannot talk to your friend in India; if you could, you would; you write instead: that is mere conveyance of voice.—*Ruskin.*

ANCIENT EGYPTIAN LIFE.

BY E. L. SHAW.

ONE cannot but be interested in the life of the ancient Egyptian, when he considers how much we owe both our present scientific and mechanical advancement to the civilization of that long-gone period. The mystic rolls of papyri, but far more the paintings and chiselings upon their ancient tombs, tell us that nearly all the arts and sciences which minister to our comfort or our need, had their origin thousands of years ago, in that country of the mysterious past.

Nothing relating to the ancient Egyptian is more interesting than his social life, and that life takes on still an added interest when we come to know that his home, in its ordinary aspect, so greatly resembled our own. The male head of the household was the affectionate husband, the careful father. His wife stood by his side, on equal terms, took her rightful place in the entertainment of guests, and very probably—as women had great latitude in those days—had her "say" in relation to things in general, much as wives everywhere still do. Occasionally, a man of more lax morals might admit other women inmates to his household, but these were only held as a better class of slaves, and were required to perform all the indoor work, and to wait upon the real mistress. The children of all shared equally. They were trained very carefully as regards morals and behavior, being especially taught reverence toward parents, as well as a general respect toward all their elders. Plato tells us that their "children were not suffered to hear or learn any verses or songs, other than those which were calculated to inspire them with virtue;" and certain it is, that great pains was taken, even at the ceremonies attending their public feasts and sacrifices, that nothing should occur which was unfit for their young sons and daughters to witness.

The poorer classes lived simply, and almost wholly in the open air; therefore needed only a shelter from the sun, and a sort of closet for their goods, made by laying a pole across the top of a low shed, and piling on palm branches. They slept upon the roof. The houses of the middle class consisted mostly of a basement and one upper floor; few, even among the rich, exceeded two stories besides the basement. They were of brick, stuccoed and painted in gay, bright colors, both outside and in. Often the roof of the second story would form a terrace or balcony, which, with an awning thrown over it, would serve as bedroom for the master at night, and sitting-room for the ladies of the family by day. As it scarcely ever rained, this unique arrangement was quite as safe as agreeable.

The dwellings of the rich were more elaborate, and had an open court in the center, planted as a garden, with trees. Currents of air were made to circulate through the corriders, and on the top terraces, *mulkufs*, or wooden wind sails, were fixed, which brought down fresh draughts into the center of the building.

AFLOAT ON THE NILE.

Women led not useless nor unpleasant lives in that country and time. The well-to-do class ordered their households, and occupied themselves in the care of their children, spinning, weaving, and fine needlework. They also played upon a great variety of musical instruments. The love of flowers was a national passion. Flowers abounded everywhere. Guests, upon arrival, had a chaplet of flowers placed about their heads, and another about their necks; vases and stands were filled with them; wreaths and festoons ornamented pillars and columns. And though we have no account that the ladies of the family aided in their cultivation, yet we can imagine that a portion of their time was pleasantly passed in

THE SHADOOF.

the construction of innumerable boquets, and in the various arrangement of flowers throughout the different apartments. Their affectionate natures drew around them many household pets. Birds sung in their homes, and dogs and cats frolicked, or lay upon silken cushions. Pussy used even sometimes to go with her master a-hunting, and bring in to him the smaller game after he had shot it. Tabbies innumerable must have accumulated in those days, as being esteemed sacred, they could not be harmed. Cairo is to-day almost as much celebrated for its immense droves of cats as anything else, and there is still in that city an institution, founded by ancient royalty, for the support of homeless and destitute cats.

The grounds of the rich were of great extent, containing spacious gardens, beautifully laid out, and watered by canals communicating with the Nile. Huge water-tanks, built in fanciful and ornamental shapes, were also distributed at various points, adding to the beauty of the view. There being no rain-fall, all vegetation depended wholly upon artificial irrigation, and fields were intersected at right angles with immense ditches, which slaves kept filled with water, drawn from the Nile or numerous wells, by means of the *shadoof*, or "well-sweep," and carried in buckets suspended from a wooden yoke worn upon the shoulders. This afforded employment to many hundreds of poor laborers in the Nile valley.

THE REALITY OF LIFE.—To the reflecting mind, there is nothing more extraordinary than to observe with what obtuse, dull, and commonplace impressions most men pass through this wonderful life. Life, which, to such a mind, means everything momentous, mysterious, prophetic, monitory, to the many is but a round of cares, of familiar pursuits and formal actions. They look upon this world as a vast domicile, or an extensive pleasure-ground; the objects are familiar, the implements worn; the very skies are old; the earth is a pathway for those on earthly errands; the world is a working-field, a warehouse, a market-place; —and this is life. But it is not life indeed, the intellectual life, struggling with its earthly load, with an eternity unimaginable behind it, with an eternity to be experienced before it; all its strange and mystic remembrances now exploring its past years, as if they were periods before the flood, and then gathering them within a space as brief and unsubstantial as if they were the dream of a day, with all its dark and its bright visions of mortal fear and hope.— *Orville Dewey.*

THE TWO WORKERS.

Two workers, in one field,
  Toiled on from day to day;
Both had the same hard labor,
  Both had the same small pay
With the same blue sky above,
  The same green earth below,
One soul was full of love,
  The other full of woe.

One leaped up with the light,
  With the soaring of the lark;
One felt it ever night,
  For his soul was ever dark.
One heart was hard as stone,
  One heart was ever gay;
One worked with many a groan,
  One whistled all the day.

One had a flower-clad cot
  Beside a merry mill,
Wife and children near the spot
  Made it sweeter, fairer still;
One a wretched hovel had,
  Full of discord, dirt, and din;
No wonder he seemed mad,—
  Wife and children starved within.

Still they worked in the same field,
  Toiling on from day to day;
Both had the same hard labor,
  Both had the same small pay,
But they worked not with one will,
  The reason let me tell:
The one drank at the still,
  The other, at the well.

—*Selected.*

TEMPERANCE NOTES.

THE Woman's Temperance Temple, Chicago, costs $1,100,000.

SIR MORELL MACKENZIE attributes the reason why men more than women suffer from sore throats, to smoking.

A RESOLUTION to prohibit the sale of intoxicants on the grounds of the Chicago World's Fair, has been voted down.

IN the Transvaal, fully one million sterling per annum, is spent for drink. This is two thirds of the actual earnings of the country.

MAJOR KNOX, Governor of Gloucester prison, in a late speech at Cheltenham, England, stated that, in his opinion, nearly all crime was traceable to drink. When men entered a jail they were obliged to abstain from liquor, and mainly owing to this abstinence, the death-rate of English prisons was only about one third of that outside.

THE money paid in one month for two glasses of beer a day, would buy a ton of coal.

IT has been estimated that one fifth of the inhabitants of the United States use tobacco, and average twenty-five pounds each, per annum.

THE Sons of Temperance of North America have created an entirely new organization for boys and girls over five and under fifteen years of age, known as the Loyal Crusaders. The pledge is: "I solemnly promise that I will not knowingly taste or touch any wine, beer, cider, brandy, whisky, or any other drink that contains alcohol." There is also an additional pledge of hostility to tobacco and profanity. It is proposed to organize a company of Loyal Crusaders in connection with each and every division of Sons of Temperance. Where there is no division, the National Superintendent desires to correspond with other Christian and temperance workers relative to the formation of companies. F. M. Bradley, National Superintendent, Washington, D. C.

POPULAR SCIENCE.

ACCORDING to Chinese reckoning, the present year is the year 7,910,341.

VOLAPUK, the "world language," is only eleven years old, and already 5,000,000 persons are able to use it with greater or less facility.

THE small *i* was originally written without the dot, but this was added in the fourteenth century, as a means of distinguishing *i* from *e* in hasty and indistinct writing.

AN inexpensive process for reducing marble to a fluid composition which can be cast in molds, has been discovered by a Paris sculptor. The new product he has named "beryt." This is reckoned a most important discovery for both artists and mechanics.

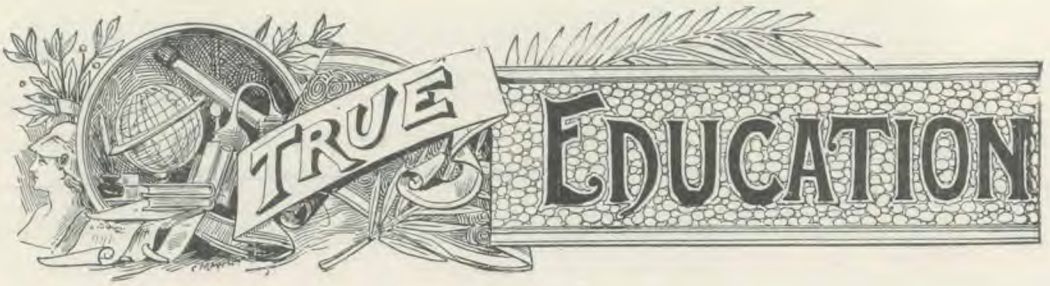
TIN is one of the most ancient of metals. As has been recently established by cuneiform manuscript, it was in use five thousand years ago. One of the oldest and richest of tin-mining districts is in the Malay Peninsula. The world's present annual production of this metal is estimated at 45,000 tons.

PEAT-FIBER has lately been utilized by English mills in the manufacture of the coarser papers.

PROF. KOHN, a German botanist, has recently discovered that spontaneous combustion of hay and other vegetable substances, is due to the action of a germ, *aspergillus fumigatus*.

THE largest advertisement in the world is that of the *Glasgow News*, cut in the shape of flower beds on the side of a hill in Scotland. The words, *Glasgow News*, can be seen and plainly read a distance of four miles; the length of each letter is 40 feet; the total length of the line, 323 feet; the area covered by the letters, 14,845 feet.

THE average velocity of the Gulf Stream is about three miles, yet there are places where it attains a speed of fifty-four miles, per hour. Through the Yucatan Channel, the current is only about one fourth of a mile per hour. In the Straits of Bemini, however, it has a breadth of fifty miles, a depth of about 2,000 feet, and a velocity of between four and five miles.



LEARNING TWO LANGUAGES AT ONCE.

UPON this much-discussed subject, which has a pointed bearing upon our present high-school methods, the eminent educator, Prof. John B. Peaslee, gave utterance to the following in an address before the National German-American Teachers' Association, basing his opinion on years of personal experience and investigation:—

"The fact is, a child can study two languages at the same time, and do as well in each as he would if all his time were devoted to either language alone. I know from personal experience that the very statement of the fact seems to one who has not investigated the subject, and who does not understand the workings of the infant-mind, absurd, paradoxical, or foolish. Why?—Because an adult is prone to look upon the mind of a little child as he does upon his own mind. He says to himself, 'The more time I devote to any one subject, the more I can learn of it; therefore, the more my child can.' Your conclusion, my dear sir, as my friend Raab would say, 'Is mathematically true, but educationally false.' You forget the all-important fact that the mind of the child is only in its infant stages of development; that, therefore, it can comprehend but little of any one subject; that the process of development of the infant-mind is slow and gradual; that age is an important element in the education of children."

"A child can learn each day a little of a large number of subjects, but not much of any one; it can learn, for instance, as much arithmetic in one-half hour daily, as in ten hours; it will learn in the half hour all its mind can assimilate,—make its own,—and any attempt to give it more than this becomes a cramming, stultifying process, and defeats its own ends. You cannot force the mind of a child without injury to it. You cannot teach it beyond its powers of comprehension; any attempt to do so must result in failure. 'A little to-day, a little to-morrow,' is the motto.

"Again, the number of subjects relieve the mind of the child. The child needs change; tension in one direction must not be long maintained. It plays at one thing, then at another. This is the nature of the child, and the nearer we follow nature's method in its training and education, the better for the child, and the better for the public schools. Those editors, physicians, and others who complain of overburdening and cramming the minds of children in the primary schools, on the ground that they have too many branches of study, do so through ignorance of the real facts, and against the experience of the best school systems of the world; aye, against the very nature of the child-mind. The danger of cramming and over-burdening the minds of children lies exactly in the opposite direction,—lies in attempting too much in one or a few subjects, and not in the direction of too many studies."

NATURE'S PRIMER BOOK FOR CHILDREN.

THERE is no one means of education so potent for good and yet so universally ignored by educators in general, as the study of nature at first hand, by direct observation of the pupil himself. Nothing so enlarges the mind and increases the capabilities as independent, original thought. A child that has been trained to observe closely, and to reason intelligently in regard to what he observes, can master anything.

Teaching does not always consist in imparting information. There is a way of drawing from the child things he has learned of himself, that is not to be approached by any mere system of cramming. The true teacher puts himself in the background and endeavors to draw his pupil out. By judicious questioning, the child may be taught unconsciously how and what to take note of, and in a little while he will come to you with a quite well classified knowledge of various things, that is simply surprising; and the best of it all is, things learned in this way are never forgotten. Some hold that whatever is easily acquired is easily forgotten; this is not true in regard to what becomes a part of one's self by individual observation.

No matter how young the pupil may be, he is not too young to observe. Send him at once to nature for his text-book. It may be only a leaf, or a twig, or a pebble; but it has a message for him. Give him the key to its alphabet, and as fast as he spells out the words, draw the story from him, but let him read it for himself. In this way a hunger for scientific knowledge is awakened early in life that no amount of superficial "skimming" can satisfy. If we could read between the lines of the life-history of our famous naturalists, scientists, and explorers, I think we would find that away back in the years—ever so far,—long before, perhaps, any of their friends had any notion of what they were sometime to be, some trivial thing in nature (or as trivial as anything in nature can be), excited a youthful curiosity that would not be satisfied with a "yes" or a "no," and so led the boy himself to search for a key to the riddle; and the key, when found, opened the door of the vast store-house of knowledge which he was in the future to give to the world.

So much do little things impress themselves on the mind and go to shape the "what-is-to-be," that no opportunity should be lost sight of by the teacher in seeking to set the child at work for himself. An unfortunate bird humanely cared for, a pretty little turtle from the neighboring pond, even an unsightly polywog nearly ready to acquire the rank of his frogship, to say nothing of insects, flowers, shells, and stones, may all be the simple means, in wise hands, of instilling a love of the things of nature that shall never die, but go on in its silent work of developing thoughtful, educated men and women, noble in the simplicity of a true student of God's works. S. I. M.

SOMETHING TO THINK ABOUT.

SOMETHING to think about—how many elementary teachers know that that is what the children who meet them every day most long for and most need. Consider how large a part of the work which they are put through every day is mere drill, necessary reiteration, doubtless, and essential to the foundation of a basis for further growth, but in itself purely formal, sapless, uninteresting. That reading lesson—it meant only drill upon word forms; the number lesson kept them busy, but gave them nothing to turn over in mind and be nourished by; that spelling lesson, that language lesson, that writing lesson—they all have much formal value, but little matter to live by and enjoy.

Now reflect on the eagerness of children for stories, and their fondness for hearing the same ones over and over again until they have mastered every detail; on the questions about objects and occurrences around them with which they overwhelm you; on the eagerness with which in their play they put in shape and seek to realize in action the ideas they are spontaneously gathering; and then ask yourself if there is not something unnatural in school training which so completely ignores the manifest demands of nature, and insists on giving only what is formal and not wanted. Would it not be a valuable rule for every elementary teacher to see to it that her pupils every day get something fresh and interesting to them, something which will enter into their real present life; something, in short, to think about as children can and do think? There is a time for it, and provision for it in well ordered schools. The nature lesson, the language lesson, reading to children, talks before and in school about matters which they ought and want to think about,—these are designed to meet the want indicated, and if they do not, it is because the teachers do not see how to use them.

The formal training is necessary, but it ought not to constitute the whole of school life. Seek to make this contribute to the active, emotional, thought life of the pupil out of school. You will be surprised to find how valuable such work is in toning up your school, in shedding a new and glorious light over all its routine, in smoothing over difficulties, in relieving your own toil and vivifying your own soul. Feed the lambs. Give them something every day which they can take into their minds, and let their consciousness play about. Let the school daily make their lives broader and richer.—*Wisconsin Journal of Education.*

AN individual who was not trained in childhood to self-control, is forever hopelessly a child in his combat with himself; and he can never regain the vantage-ground which his childhood gave to him, in the battle which then opened before him, and in the thick of which he still finds himself.

THERE can be no high degree of success in any specialty, without a liberal education to guide investigation and study. The uneducated physician is a quack; the uneducated scientist, a charlatan; the uneducated farmer, a boor. Education is everywhere needed; he who neglects it will be left in the race.

HOW TO GAIN THE VICTORY.

UNDER this head, Rev. J. F. Flint, in a recently published book entitled "Potiphar's House," especially addressed to young men, gives the latter some excellent and timely advice how they may live pure lives, and elevate themselves to the high standard from which mankind has so woefully fallen. Such wholesome and fearless words are so lamentably rare in this degenerate age, that we take the liberty of culling a brief abstract from this worthy little volume:—

"We believe the first steps toward the acquirement of a spotless character, should be taken for the child by its parents, early in life. Then the foundation should be laid of right habits and sound knowledge on this all-important subject. That mariner who is prepared for the worst has the best hope of weathering the most violent storm. The mother should most carefully guard her growing son against acquiring evil habits. It is in vain that we attempt to stay the licentiousness of youth when we leave unchecked in their growth those seeds of vice which are sown in the bosom of the child.

"But the time soon comes when the boy, now grown into a man, must needs act and plan for himself. He himself must now continue and complete the glorious conflict against the black angel within. It is his fight, and it will be his victory.

"It is very fortunate if one early discovers the direct power of the will in checking lawless desire. He will find that this mental faculty can be cultivated until, like the rudder that controls the course of the ship, it becomes supreme over every wayward thought and purpose. Never give inner consent; know how to control yourself. Bring your will to bear especially upon the forbidden.

"A perverted imagination is the open gateway to Potiphar's House. A depraved imagination, fed and fostered by impure art and literature, is the most deadly enemy chastity has to encounter. It is the task of a strong will to strangle this subtle Apollyon that confronts every young man. We all know that dreams are largely shaped by the events and impressions of the previous day. Here is a hint for us: the imagination feeds upon what the senses supply. If the eyes were never indulged by feasting with relish upon the products of the fleshly school of art (not to say upon the partially exposed reality), the imagination would not run riot as it does. Even a St. Anthony could not escape the fierce inner conflicts, though he fled to the desert, for the simple reason that he had brought with him into his retreat the mental pictures of what he had seen in the frightfully depraved cities. Guard the imagination with the most sedulous care. Do you say that this is to be absurdly strict with one's self, and prudish? We answer that it is simply to take every necessary precaution to keep yourself pure, as a sensible man who is exposed to the temptation of strong drink, carefully guards himself against getting into the gutter. Why throw oil upon a burning building? Why go near a brink over which you do not wish to fall? 'Keep yourself from opportunities, and God will keep you from sins.'

"There are many feeders of a depraved imagination. Be warned especially against evil books. Next to poisonous literature, evil companions should be avoided. 'Decaying fruit corrupts the neighboring fruit. You cannot make your head the metropolis of base stories, the ear and tongue a highway of immodest words, and yet be pure. No man is your friend who will corrupt you. An impure man is every good man's enemy — your deadly foe.'

"Seek the best and truest society among the fair sex accessible to you. The wise Thackeray says: 'Of all the influences in society calculated to purify and elevate man's character, that of virtuous and well-educated women is perhaps the strongest.' The best-cultured and truest young women do not flirt and permit familiarities. The company of flirts should be shunned; no young man should put himself in a way to be entrapped by their wiles. The danger that flirtation will lead to undue familiarity, is increased when there exists a disparity in the social position of the parties, the young man being attracted

solely by the material charms of one to whom he would not think of offering his hand in marriage. Fortunate indeed is that man whose acquaintances are all of so high a grade of personal worth and bearing as to remove effectually all temptation.

"As to that ignoble class of masculine pirates who boast of their female conquests and the ruin they have wrought, they thereby virtually proclaim their utter lack of manly instincts. Infinitely removed from them is the proud record of such men as President John Adams, who could say that although he was not married until the age of thirty, he had never given any woman cause to blush at the mention of his name; and of John Milton, who affirms that when a young man in the midst of the temptations of Italian cities, he lived, as God saw him, a perfectly fleckless life. Talmage says: 'Flirtation is damnation. It has its origin either in dishonesty or licentiousness. However high up in society such a one may be, and however sought after, I would not give a three-cent piece, though it had been three times clipped, for the masculine flirt!'

"Again, carefulness in diet is very desirable, and total abstinence is absolutely necessary. It is evident that every dish of our modern *menu* has its own dietetic properties, and some of these dishes should certainly be placed on the black-list, as injurious to one who would keep the body under. Foremost in the list of forbidden articles of diet, we must place swine's flesh. The ancient Hebrews had good reasons for considering the hog unclean. The excessive use of other fatty meats and of sweets of all kinds should be avoided. Herein is the saying true that a man is what he eats. In fact, let the diet be mainly vegetarian. The copious use of tea and coffee is discouraged by our best physicians. As to alcohol in all its forms, every one is aware of its debasing effects, and sensible young men need not to be warned against its use.

"Lastly, an abundance of daily exercise, sufficiently severe to send the blood bounding to the extremities, is another excellent factor for the promotion of purity. A "constitutional" walk is good; better still is constant and congenial labor that engages every faculty, and brings into play every muscle and tendon, so as to tire the body. It is a grand thing when a young man has sufficient poetry in his soul to relish a ramble over the fields and hills. How unspeakably soothing and refreshing is Nature in her balmiest mood! The whispering pines seem to speak directly to him, and the birds interpret their language in songs of cheer and faith. Nature takes delight in drawing the pure in heart very close to herself, removing all oppressive self-consciousness, and it its stead giving a blessed sense of hopefulness, of goodness, and of God."

ILLEGITIMATE BIRTHS.—Probably the majority of those who read the following paragraph will be astonished at the facts presented, which are indeed a sad commentary upon our boasted Christian civilization. Surely there is need for earnest work in the direction of social purity reform: "Holland, 4.0; Switzerland, 5.5; Prussia, 10.0; England and Wales, 6.5; Sweden and Norway, 9.6; Scotland, 10.1; Denmark, 11.0; German States, 14.8; Wurtemburg, 16.4; Italy, 5.1; Spain, 5.5; France, 7.2; Belgium, 7.2; Austria, 11.1; Ireland, 3.

IGNORANCE and innocence are often wrongly deemed synonymous. The innocence which results only from ignorance is no virtue. The purity of the child is that of the mountain lake, which has never seen anything to reflect but the brightness of sunny skies, and the whiteness of snowy peaks. The purity of manhood is like that of the ocean, which in spite of inevitable contact with sullying influences, by virtue of its own inherent constituents, and by ever laying open its heart to heavenly agencies, maintains its healthfulness and purity.

No one is a more dangerous enemy to all that is true and good in human life, than the one who lends to impurity the sanction of splendid talents.

A STEP IN ADVANCE.—Senator Frye, of Maine, has presented a bill before Congress, asking for "a commission to investigate the social vice in all its phases, its relations to labor and wages, to marriage and divorce, its effects upon individuals, unborn children, and the general welfare of the people, and its general economic, criminal, physical, and moral aspects in connection with pauperism, crime, and the public health and morals; and also to inquire into the practical results of legislation, and the various methods relied upon for the repression of the evil in the several States and Territories, and in the District of Columbia." This bill is the work of Ada M. Bittenbender, legal adviser of the N. W. C. T. U. All churches, and temperance and social purity associations, are asked to help on the good work by petitioning promptly for the appointment of this commission. Send names to Mrs. Ada M. Bittenbender, Washington, D. C.

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

MEDICAL FRAUDS.—VIII.

Dr. Hall's Wonderful Discovery.

LAST month we gave our readers something of an account of the so-called discovery of Dr. Wilford Hall. We have a few words more to say upon the subject, when we think our readers will have heard enough to agree with us in the opinion that Dr. Hall's pretensions are only based upon the audacity and impudence of his claims, and the absurdity and ridiculous nature of his so-called discovery. Probably no charlatan of the present or past ages ever undertook to gull the public in so contemptible a manner as this man Hall, whose claims to the title of "Doctor" are certainly not based upon medical learning. Nostrum venders have set any number of people swallowing colored water flavored with anise seed, or other harmless substances. Thousands of the residents of the "bilious South" have been set to wearing liver pads to absorb the malaria from their livers, and many thousands of people have been induced to put on magnetic and electric garments of every description, but it required the genius of Dr. Hall to conceive the idea of selling to the public at the rate of four dollars each, the idea that the human colon might be stretched to hold a gallon, and that nature had made a great blunder in providing for the natural daily evacuation of the bowels, but instead should have provided every human being with a pocket syringe, or some other apparatus, to enable him to deluge his interior once in two or three days, as his sensations might indicate to be necessary. Lest the reader may imagine that we are misrepresenting Dr. Hall, we quote the concluding lines of the penny-pamphlet for which he charges the moderate sum of four dollars. "Man's intellect was given to him as an aid by which he could discover wherein nature had failed to meet his wants and supply the deficiency; and without a single doubt the greatest of all these discoveries, involving as it does the perpetuation of good health and the prolongation of life, is this process of the heroic flushing of the colon." He constantly defends the idea that the evacuation of the bowels by the natural method should be abandoned altogether, and his flushing process substituted instead, confessing that during the forty years since he first employed his "flushing method" he has never once had a natural "call" for evacuation of the bowels, even when "business necessities, engagements and circumstances" have made it inconvenient to attend to the matter for as many as four days.

The great virtue which Dr. Hall claims for his method is that it keeps the house we live in in a thoroughly clean and wholesome condition; at the same time he asserts that an internal bath once in two or three days is amply sufficient, intimating that with himself the indication for the need of a flushing is not a natural call for evacuation of the bowels, but a feeling of *oppression;* in other words he has, by the use of his wonderful discovery, been reduced to such a condition that instead of his system being kept free from impurities through the daily discharge of effete matters, these foul substances are retained until the whole system is poisoned, or, to use his own words, he "begins to feel oppressed." Certainly this is no very great improvement upon nature. Nature's method is to preserve the contents of the alimentary canal from putrefaction through the antiseptic action of the gastric juice and the bile. Proper attention to diet, cleanliness, and the daily evacuation of the bowels, is sufficient to maintain the alimentary canal in a sanitary condition, otherwise what would the world have done for the many thousands of years before Dr. Hall made his marvelous discovery?

Dr. Hall poses as a philanthropist in disclosing to the world his wonderful secret. He intimates that the generosity of his spirit has for many years led

him to greatly desire that the public should become acquainted with this most potent means of curing and preventing disease, asserting that by the aid of his intestinal flushing, "Bright's disease, diabetes, lumbago, etc., with the concomitant troubles of the urinary organs, could at once be wiped from human experience and from medical practice, and only be recorded in future books and publications as diseases that once existed in a variety of fatal forms, but which have become entirely extinct and unknown in consequence of the new treatment of flushing the colon and rinsing out the kidneys, as discovered and demonstrated by one Wilford Hall."

Surely the doctor's conscience must smite him when he thinks of the millions who have died from the maladies named, within the forty years that he has so selfishly withheld this wonderful life preserver from the public; but to fully appreciate the enormous selfishness and knavishness of this man, we must listen to one or two more of his modest claims for his discovery. He says, "And I believe firmly that yellow fever in its worst stages, thus treated with successive flushings of the colon, would break its hold on the poor victim, even after the usual drugs had given him up to die."

"But what is even better, I will say here what I have long desired to let the world know, namely, that it is my unshaken belief that no man in the regular practice of this treatment upon himself, as I have used it for forty years, can be liable to impregnation from the germs of this or any other contagious disease, not excepting small-pox and cholera. I firmly believe that I could sleep with a small-pox or yellow fever patient, during the worst stages of those diseases, without the slightest danger from its contagious effects." It might be a blessing to the world to afford the doctor an opportunity to try the experiment. We will furnish him excellent facilities any time he will announce himself as ready, and will take pleasure in so doing.

Dr. Hall certainly ought to join the Anti-vaccination Society, providing he can get them to adopt and advocate his flushing method as a substitute for vaccination, although we dare say that the average anti-vaccinationist would quite as soon be inoculated with kine pox once in ten years as to have his interior deluged with a gallon of water every other day of his life. But how is it possible for a man to sleep nights who firmly believes that small-pox, yellow fever, cholera, and all other contagious diseases, might be prevented by a secret which he has kept locked in his own alimentary canal for almost half a century? He says, with reference to the last-mentioned application of his discovery, "I will say here what I have long desired to let the world know." For mercy's sake, then, why did he not let the world know it forty years ago? Who has hindered? What prevents him now from letting his light shine? Why does n't he employ a portion of his ill-gotten gains in sending out missionaries to inform the thousands of suffering humanity of the proper method of emptying the alimentary canal? The reader can easily find answers to these questions.

Let us now give a moment's attention to the consideration of Dr. Hall's claim to the discovery of what he asserts to be "the greatest of all discoveries," relating to the perpetuation of good health and the prolongation of life. Dr. Hall claims that he was the first to employ and recommend the introduction of large quantities of water into the bowels, asserting that "up to the time of my discovery, now forty-one years ago, it was not considered safe or even possible to inject more than a pint of water into the rectum." The audacity of this statement is simply astounding. Certainly this is a statement which no man, having respect for his reputation, would wish to make in any other than the private and specially confidential manner in which Dr. Hall imparts this information to the deluded persons whom he victimizes. Anyone at all familiar with hydropathic literature must be aware of the fact that the clyster, or enema, has been employed for a century or more, along with other hydropathic processes. In a little work entitled "The Water-Cure Manual," published by Dr. Joel Shew, in 1847, two years before Dr. Hall claims to have made his wonderful discovery, Dr. Shew gives a lengthy description of the enema and its uses. We quote the following sentence referring to the enema: "It may be repeated again and again in as *great quantity as is desired;* a good mode, too, is to take a small injection, *a tumbler full more or less*, that is retained permanently without a movement before morning." This quotation is from page 52 of "The Water-Cure Manual," copyrighted in 1847. Here we find clearly defined the whole of Dr. Hall's marvelous discovery. In another work entitled, "Processes of Water Cure," also by Dr. Joel Shew, the third edition of which was published in 1849, and the preface of which refers to another edition of the work published prior to 1847, Dr. Shew states (page 147): "The quantity of water to be used will vary; *as much as can be retained, be it more or less*, can be taken."

In another work published by Dr. Shew, copyrighted in 1847, entitled, "The Cholera, Its Causes, Prevention and Cure," Dr. Shew quotes as follows from Drs. Bell and Condie, two eminent English phy-

sicians: "In the stage of collapse, large injections of warm water have been much used in the north of England, and with a very encouraging result. Mr. Lizars directs the water to be as hot as the hand can bear — *in quantity of three or four pints.*"

Surely our readers will not need further evidence as to where Dr. Hall obtained the information which he is now selling in the shape of a penny pamphlet at four dollars apiece, neither is it difficult to understand why he has waited so long before undertaking to foist his bogus discovery upon the public. It is evidently the last resource of a man who for years has made a precarious living by the sale of bogus scientific treatises in which he has undertaken to disprove the theories of Tyndall, and other scientists on the subjects of heat, light, electricity, and other forces, by arguments sufficiently sophistical to receive the credence of a few clergymen and others whose scientific education has been neglected, but altogether too ridiculous to be worthy the serious attention of any scientist. His business in this line having become dull, and imagining that the writings of hydropathic physicians of half a century ago must by this time be quite forgotten, he has undertaken to speculate upon some of the ideas obtained from early water-cure literature, and while posing as a philanthropist and the author of a beneficent discovery, is filling his pockets with the hard-earned dollars of thousands of ignorant people by the sale of an idea which has been public property for half a century or more.

Perhaps the reader will say that we are rather hard on Dr. Hall, since it is possible he might be *honest* in thinking himself to have been the discoverer of the fact that more than a pint of water could be introduced into the bowels, although evidently mistaken in his claims. We should be very glad indeed to take this view, and look upon Dr. Hall as a poor old man who in his dotage, and perhaps by the pressure of indigence, had undertaken a very mean way of earning a livelihood. But unfortunately, there is evidence that Dr. Hall obtained this information from the very source to which we have referred.

1. The arguments which he uses in favor of the use of his so-called discovery are almost identical with those employed by the writers we have mentioned.

2. The method of employing the enema, first a large quantity of water, as much as can be retained, then after this has been discharged, the introduction of a smaller quantity to be retained, is exactly the description given by Dr. Shew.

3. The most curious of all, and yet the most convincing of all, is the adoption and advocacy by Dr. Hall in his pamphlet of the absurd notion of a special circulatory system, distinct from the venous and arterial systems, by means of which water introduced into the bowel may pass directly to the kidneys without entering the general circulation, described by Dr. Hall as a "distinct circulatory system. . . . that eye hath not seen, and that hath not entered into the conception of anatomists and physiologists simply because they have not been able to detect it under their microscopes."

Dr. J. H. Rausse, in a work translated by Dr. C. H. Meeker, entitled "Errors of Physicians and Others in the Practice of the Water Cure," copyrighted in 1848, one year before Dr. Hall made his illustrious discovery, calls attention to the assumption of secret urinary ducts, to which Muller and Strahl, and earlier physiologists resorted, to explain the rapid urination of many of those substances taken as drink into the stomach, and proceeds to explain the folly of such a theory even at that date acknowledged to be "a decided error."

Here is the origin of Dr. Hall's idea of what he calls (page 27 of his pamphlet) "a circulatory system of almost infinitesimal conduits entirely distinct from the blood vessels," "which eye hath not seen," etc. As is customary with quacks, Dr. Hall must introduce some mysterious theory to puzzle the brains and excite the imagination of the ignorant, and thereby shed a halo of mysticism about his so-called discovery. We believe we are fully justified, in view of the facts we have presented, in denouncing this man as a full fledged charlatan, and warning the public against his pretensions as well as against the employment of his so-called discovery in the manner in which he directs, which will almost certainly result in positive and serious injury in a great majority of cases.

A BURDENSOME VICE.

THE *Price Current* shows by reliable statistics that the tobacco-habit has come to be a grievous burden which is borne not only by those who use the weed, but by the whole country. The amount of tobacco annually used is estimated at 310 million pounds.

"Seventy million pounds are used in the production of domestic cigars; two hundred and twenty-two million pounds of chewing and smoking tobacco are consumed; eight million pounds are used in the manufacture of snuff; six million pounds are required in

the production of cigarettes; and four million pounds of cigars are imported.

"This would make an average annual consumption of five pounds for every person in the country. But as not more than one-fifth of our population use tobacco, it follows that those who do, consume, on an average, twenty-five pounds each, per annum. In speaking of the cost of the tobacco habit, an exchange says:

"'If the tobacco-users of the United States would abstain for a period of two years from the chewing, smoking, and snuff-taking habit, and place the money they would spend for tobacco in that period in a common fund, there would be almost enough money in the fund to wipe out the entire national debt, and five year's abstaining would give the head of each family in the United States enough money to invest in an eighty-acre homestead farm in the far Western States and Territories; or it would give us a navy of fifty first-class war vessels, fully equipped, and create a fund that would man and maintain them and the Navy Department for at least twenty-five years.'"

ALARMING STATISTICS.

THE *Christian Statesman* calls attention to some statistics recently taken by the *New York World*, comparing different sections of New York City with respect to the number of children in a given number of families. The number of children under ten years of age found in 300 Fifth Avenue families was only ninety-one, or less than one child for three families. The total number of children born in these 300 families within one year was six, or one child to every 500 families.

In 300 Cherry Hill families, living in tenement houses, the total number of children under ten years of age was shown to be 680. The total number of children born within twelve months was 111. These statistics are certainly suggestive, and very properly give rise to the following apt reflections by the editor of the journal referred to: —

"The facts that palaces are comparatively childless and that tenement-houses swarm, have long been known. This census simply emphasizes and illustrates these facts. There are great political changes, and possibly an industrial and social revolution, hinted at in these statistics. The immigration at the cradle is far more threatening to the existing order than the immigration at Castle Garden, and it is not so easily checked. Head money cannot be collected at the cradle, and Pharaoh's method of getting rid of a surplus population would hardly commend itself to even the most conservative reactionary of modern times. This cradle immigration threatens to swamp the white race in the South, and to overthrow the dominance of the wealthy and cultured classes in the great cities of the North. The tendency to relative childlessness in what are termed the upper classes, is difficult to reconcile with the absolute doctrine of the survival of the fittest, unless, indeed, the "upper classes" are not the fittest, a suggestion which history makes at least thinkable. This tendency also suggests education and culture as a cure for that danger of over-population, which Malthus thought was sure sooner or later to bring irretrievable disaster on the human race. It would appear that those conditions which are most favorable to the highest and best forms of life are not favorable to the greatest progeny. Fifth Avenue will have to provide better homes for Cherry Hill, or the Fifth Avenue of the future will be servant to the Cherry Hill of the future."

THE USE OF ALCOHOL AS A MEDICINE.

DR. GROSVENOR, in the *Buffalo Medical Journal*, sums up his views respecting the medicinal use of alcohol, with which we in the main agree, as follows: —

"1. Grave responsibility rests upon the medical profession in the use of alcohol as a medicine, on account of its deleterious influence upon the system and the liability of the patient to contract the habit of using it as a beverage.

"2. Alcohol being an acrid narcotic poison, the bottle containing it should be labelled, "Poison," as a reminder of this characteristic, and a warning to handle it with care.

"3. Alcohol, containing none of the compounds which enter into the construction of the tissues, cannot properly be termed a tissue-forming food.

"4. The evidence in favor of the existence of a heat-generating quality in alcohol, is not sufficient to warrant the belief that it is a heat-producing food.

"5. As a narcotic and anesthetic, alcohol has a limited sphere of adaptation, and is much less valuable than several other narcotics and anesthetics.

"6. The stimulating effect of alcohol may be best secured by small doses frequently repeated.

"7. From the fact that its stimulating effect results from its paralytic action, alcohol is more properly called a depressant than a stimulant.

"8. As an antispasmodic and antiseptic, it may be superseded by other remedies, without detriment to the patient.

"9. Although alcohol is a positive antipyretic, and therefore useful in the reduction of bodily temperature, it is neither so prompt nor so effective as several other antipyretics.

"10. In cases requiring a remedy which will rapidly evaporate, alcohol is useful as an external application.

"11. So easy is the acquirement of the alcoholic habit, and so ruinous its consequences to body, mind, and spirit, that extreme caution should be exercised in its use in all cases, and its administration stopped as soon as the desired effect has been secured.

"12. Alcohol, as a medicine, should be reserved for emergencies, unusual conditions, and circumstances in which a more reliable and less injurious remedy cannot be obtained.

"13. Adulterations of alcoholics are so extensive and so pernicious, and their different preparations so variable in the amount of alcohol they contain, that it is best to demand pure alcohol of a definite strength in medical prescriptions.

"14. In the prescription of alcohol, the same care as to exactness of dosage and times of administration should be exercised, as is used in prescribing any other powerful medicine.

"15. When intended to act therapeutically, alcoholics should not be prescribed as a beverage and taken *ad libitum*.

"16. The fact that methyl alcohol passes very rapidly into and out of the system, is an argument in favor of its more general use for internal administration.

"17. So deleterious are the effects of alcohol upon the human body, that it is eminently proper to inquire whether its harmfulness does not overbalance its helpfulness, and whether it could not be dropped from our list of therapeutic agents without any serious injury to our patients."

A European physician argues the possibility of vaccination as a means of preventing tuberculosis. According to his authority, experiments made upon guinea pigs indicate the possibility of securing protection by this means.

Tuberculosis in Cattle.— The *Pall Mall Gazette* says tuberculosis has become so common a disease among cattle in some portions of Scotland, that the Butchers' Society of Glasgow and Paisley have unanimously resolved to purchase no cattle from dealers or others without a certificate of health, or guarantee that they are fit for food. A similar organized action on the part of butchers in this country might result in the saving of thousands of lives, annually. There is no doubt that consumption is increasing among the lower animals, as well as among human beings.

A Gruesome Diet.— A Canadian paper is authority for the statement that, "Since the German authorities have, in their wisdom, debarred their countrymen from cheap American meat, the worn out horse has been welcomed in the market, and it is by no means certain that a more gruesome food has not been lately eaten by unsuspicious Berliners. The police appealed to by the relatives of a large number of persons who had mysteriously disappeared, at last discovered that one Bobbe, a tobacconist, had murdered and robbed his customers at convenient opportunities, dropping the bodies through a trap door. The cellar adjoined that of a meat baker, whose goods were noted for their superior quality. This recalls the historical trial of Sweeny Todd, the London barber, who was also provided with a trap door and a handy neighbor whose veal pies were in great demand."

Buttermilk and Bright's Disease.— The buttermilk cure for Bright's disease has long been practiced and not infrequently with remarkable success. A physician recently reported a practical cure of a case by the use of buttermilk, which was made almost an exclusive article of diet. Buttermilk used in such cases, should be made from sweet cream, and should be used while perfectly fresh.

Increase of Cancer.— An English physician, Dr. Jessett, by a study of the deaths from various diseases in England and Wales during a number of years, learns that the number of deaths from cancer has constantly been on the increase for the last forty years. Between 1850 to 1881, the number of deaths from cancer increased from thirty-two per million in 1850, to five hundred and twenty in 1881. It is hoped that the scientific researches of the near future will discover the cause of this disease, and find an efficient remedy.

DIPHTHERIA IN CHEWING-GUM.

A CONTEMPORARY thus calls attention to the possible spreading of diphtheria through chewing gum: —

"The practice of chewing gum has become very wide-spread. It is not a very elegant habit; to many it is positively repulsive; and there are sources of danger, too, that should not be overlooked. A case in point was related to us a few days ago. Diphtheria broke out in a family in East Des Moines. After the child had recovered, the clothing and all the exposed articles fully disinfected, the parents, with the convalescent child, visited some relatives in the country. The indispensable chewing-gum, like Satan, went also — in the mouth of the little child. Prompted by generosity, it allowed its country cousins — two children — to chew also the gum previously chewed by the visiting child. In three or four days, without any other known source of infection than the chewing-gum, the two children were simultaneously stricken down wifh diphtheria in a most serious form. It would be hard to imagine a more successful mode of propagation — distributing the disease. It would be a great deal safer not to chew the stuff at all, but if it must be done to satisfy the demands of a weak head and a depraved appetite, our advice is, do n't "swap" gum to chew anybody else's gum, nor allow anybody else to chew yours."

POISONING FROM PTOMAINES.

PTOMAINES are the poisons developed in decaying animal tissues. The development of these poisons begins almost immediately after the death of an animal, and under certain circumstances, within a few hours, are developed to such an extent as to render the flesh poisonous. All flesh in the condition in which it is usually eaten, contains more or less of these poisons, but the quantity is not usually sufficient to produce dangerous symptoms. In warm weather, however, putrefaction occurs with so great rapidity that some risk is constantly incurred by those who indulge in the use of flesh food during this season of the year. Undoubtedly, a large share of the bowel affections, such as diarrhea, dysentery, cholera morbus, etc., are due to the use of decomposing animal food. The following is a doctor's account of five cases that came under his personal notice, and detailed in the *Medical News* :—

"On Monday, in the latter part of April, 1890, I met with a series of five cases which specially attracted my attention, after the death of two of them. On the previous Friday evening, there had been a beef and a hog killed, the meat of which was sold in the local market on Saturday; it had not been kept on ice, but the weather was pleasant, not hot. My patients — four women and one man — ate some of this meat Saturday afternoon, and again on Sunday morning. One of the women, at about eleven o'clock Sunday morning, was taken with apparently a violent attack of cholera morbus, in which condition she remained until I saw her early on Monday morning. Another of the women was attacked in the same way at about one o'clock Monday afternoon; she had eaten some of the pork. The other three were attacked in a similar way during Monday.

"The meat had appeared to be perfectly fresh and very nice, so that when I inquired as to whether they had eaten anything which might have caused the trouble, they did not mention the meat. The first two women I found in the following condition: Lying with the knees drawn up and suffering great pain, paroxysmal in character, abdomen distended, tympanitic and painful on pressure, countenance anxious, great nervous excitement, temperature 101°, pulse rapid, bowels constipated, no history of a chill or any previous debility."

Two of the five patients died. The other three recovered after more or less prolonged illness. As to the cause of the illness of these patients, the doctor continues,—

"On examining into the histories of these cases, I found that all of them had eaten either the pork or the beef. The man's case was milder than the others, which fact, I think, was due to the beef eaten by him having been parboiled before being roasted, which he states was the case. I have also been informed that numbers of others had dysentery after eating meat on several occasions previous to this.

"Now, in the section where I have been practicing for a year, fresh meat could only be had once a week, — on Saturday, — and I found, on looking over my cases of dysentery for the year, — and a great number of them there were, — that most of them were in the spring and summer, and that frequently fresh meat had been eaten a day or so before, and that when such was the case the onset of the disease was similar to that of the above-mentioned cases, varying in severity, due sometimes to the mode of cooking, and again to the quantity eaten."

FOR PALPITATION OF THE HEART.

THIS now common affection is in most cases due to indigestion, but not infrequently results from some disease of the heart or of the nerve-centers controlling it. When it results from indigestion, relief will be found by removal of the offending matters from the stomach. This may be best accomplished by copious draughts of hot water, the effects of which will be to either cause the stomach to contract, forcing its contents into the lesser portion of the alimentary canal, or to cause vomiting.

In cases of palpitation in which the difficulty is not dependent upon disordered digestion, and even in many cases of the latter class, the irregular action of the heart may be readily corrected by the application of cold over the region of the heart. The application may be made in a variety of ways. A sponge dipped in cold water and applied to the chest is a very convenient means, but for continuous application a rubber bag filled with ice is more serviceable. It is important that the application should be made at the right point. To locate the heart, find the apex beat, which can usually be felt about two inches to the left of the sternum, just below the fifth rib. The application should not be made at this point, but from this point upward, covering a space about as large as the hand.

FOR ERYSIPELAS. — Dr. Wofler, an eminent German surgeon, has discovered that strapping the edges of the part affected by erysipelas will prevent the extension of the disease. The disease will extend to the border of the plaster, but not beyond it. The plaster ought to be applied close up to the reddened surface, but should not cover it. This is a very simple means of treatment which can be used in conjunction with cold or warm applications, or such other means as may be employed.

DIPHTHERIA. — Dr. Stanley, in the *British Medical Journal*, recommends the following as the best means of treating diphtheria: —

"1. By means of a tube blow a portion, say half a drachm, of sulphur over as much as can be covered of the diphtheritic membrane.

"2. Gargle with a solution of the sublimed sulphur, or if preferred, with sulphurous acid mixture.

"3. Inhalation of the fumes of burning sulphur."

The remedy is certainly a harmless one, with the exception of the inhalation of sulphur fumes, which we cannot recommend, as it would be impossible for a child to inhale burning fumes in sufficient quantity to destroy the germs without endangering its own life.

TO STRENGTHEN A WEAK VOICE. — Weakness of the voice is commonly due to a relaxation of the vocal cords, or the muscles which control them. One of the best means of overcoming this weakness is the inhalation of balsams, one of the best of which is tincture of benzoin. Ten or fifteen drops of tincture of benzoin placed in a steam inhaler (the Sanitarium Steam Inhaler is one of the best for this use), will overcome the relaxation of the muscles and greatly increase the force of the voice. Recent observations show that cocoa wine and preparations of cocaine weaken the voice. Under the use of these drugs, the voice may be almost entirely lost.

TETANUS. — This disease, so often fatal, may be cured, according to an Italian physician, by securing for the patient absolute rest. His plan is to close the patient's ears with wax, darken the sick room, pad the floor, and thus secure to the nerve centers as perfect rest as possible. The nurse attends the patient with a darkened lantern, serves him with soft food which need not be chewed, and in every way secures for him the most perfect rest. The duration of the disease is not lessened, but the force of the paroxysms is diminished until they finally cease.

CRICK IN THE BACK. — This curious malady is sometimes relieved as quickly as produced, by stretching the back by bending backward across a log or fence. Hot fomentations, with vigorous rubbing, usually give relief quite readily.

DANDRUFF. — Obtain at the drug store a drachm of hydrate of chloral. Dissolve in twelve ounces of water. Moisten the scalp with this solution, every day. The scalp will be cleared of dandruff, and the hair prevented from falling out.

DIARRHEA IN CHILDREN. — Glycerine of borax, consisting of one ounce of borax dissolved in five ounces of glycerine, is an excellent remedy for diarrhea in young children. Two or three drops may be given in a little water, every two or three hours.

FOOD FOR FEEBLE CHILDREN. — In many acute diseases of childhood, there is so great stomach disturbance that ordinary food cannot be taken. In cases of this sort, a mixture consisting of equal parts of lime water, milk, and white of egg, will often be retained when nothing else can be, and thus the little patient will be nourished until the vital functions of the stomach are resumed.

A NEW REMEDY FOR DELIRIUM TREMENS. — A jail keeper in Peoria has discovered that a good remedy for delirium tremens is to smear the patient over with a decoction of red pepper, which produces so much irritation and so smart a tingling that the victim of "horrors" is kept busy rubbing himself, and forgets all about the beasts that are haunting him. A contemporary suggests that if this remedy succeeds with a victim of Peoria whiskey, it ought to be uniformly successful.

ACCORDING to the *Union Medicale*, M. Cantani has discovered as the result of very careful experiments, that tannin is one of the best agents for the destruction of microbes, and also the ptomaines, or poisons produced by them in the intestinal tract. He finds it preferable to administer the tannin by the rectum, which prevents any change which might be effected by the gastric juice if administered by the stomach. A drachm of tannin dissolved in a pint of water, and slowly injected into the rectum, will find its way far up into the intestines, even beyond the colon, and proves an efficacious remedy in diarrhea and dysentery, and it is even claimed in some instances will abort typhoid fever if administered at the outset of the disease.

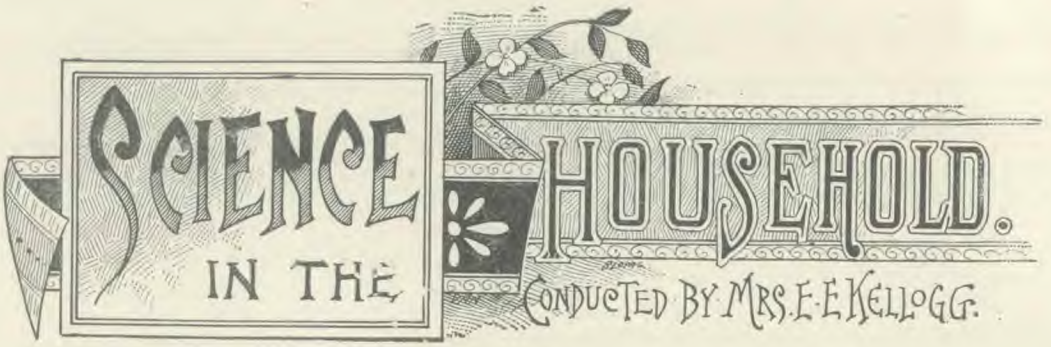
OIL of peppermint painted over the affected parts is an excellent means of relief for neuralgia; but no remedy is so generally useful as hot fomentations.

GRANULATED EYELIDS. — We have found the hot spray applied to the eye, one of the most useful of all means of treating this disease. If a spray apparatus is not at hand, simply laving the eye with water as hot as can be borne without inconvenience, may be employed. The application should be made daily for several months, as this disease is one which requires months, and in some cases, years, for its successful treatment.

HOW TO TREAT A SPRAIN. — The treatment should be applied immediately after the accident occurs, or as soon thereafter as possible, the sooner the better. The neglect of this precaution has frequently resulted in the loss of the use of a limb for months or years, and in several instances which have come under our observation, has disabled the person for a life-time. If taken in hand promptly, nothing is easier than the cure of a simple sprain. Hot water is a panacea for sprains and bruises.

FOR COLIC. — At this season of the year, colic is one of the most common of ailments among persons who do not give proper attention to diet. In colic, pain is induced by distension of the bowels with gas. The best means of affording relief is to have the patient swallow one or two glasses of hot water, as hot as can be taken without discomfort, and then to have administered an enema of water as hot as can be borne comfortably, in quantity of one to two, or even three quarts. At the same time, flannel cloths wrung out of hot water should be applied to the abdomen. Change every five to ten minutes. By energetic application of this means, severe cases of colic will be relieved in a very short time.

HOT AIR BATHS FOR HYDROPHOBIA. — A doctor tells a story of a French physician, who, having been bitten by a mad dog, was attacked with hydrophobia, the spasms recurring every five minutes, and, driven to desperation, he determined to terminate his existence by taking a hot steam bath, and thus die by suffocation; but to his great astonishment and joy, when the heat reached fifty-seven degrees centigrade, all symptoms of rabies disappeared and never returned. During his professional life afterwards, he attended eighty persons bitten by rabid dogs, and saved all by the hot-air bath. A strong, determined resolve not to succumb to it, has dispelled rabies.



HELPS FOR THE INEXPERIENCED.—8.

BAKING, which may be defined as the cooking of food by hot air in a closed oven, is a method only adapted to such articles as contain more or less moisture. If moist heat is desired, it may be secured by placing the dish containing the food in another, somewhat larger, and filled with boiling water. This plan is a preferable one for all puddings made with milk and eggs. The hot air of an oven is very greedy of moisture, and evaporation is rapid; when the moisture has evaporated from all or a portion of the food which is being cooked, it will then burn. The proper temperature of an oven for baking is a difficult matter for the inexperienced to determine, since there are no rules applicable to all cases. Much depends upon the construction of the stove and the kind of fuel used, and no one should undertake to cook food by this method until she has carefully examined her range, thoroughly understands its mechanism in every particular, and has tested its capabilities with the draughts closed, and open. She should observe the kind and quantity of fuel required to produce a quick, intense heat, and that needed to secure a long-continued heat. In short, she should be mistress of her range, and have it as completely within her control as does the engineer his engine, if she would accomplish perfect results. The lack of a thorough acquaintance with one's range is the cause of much of the failures in cooking food by baking. A hot, very hot, and a moderate oven, are relative terms for which each cook must in a measure make her own standard, based upon the capabilities of her particular range and the kind of fuel used. A little study and observation will readily enable her to do this. We trust the day may come when thermometers for testing the exact temperature of the oven shall come into general use. At the present time they are procurable in England, although quite expensive.

A commonly employed test for the heat of the oven is that of holding the hand inside it while counting a certain number, but the length of time it is possible to retain the hand in a hot oven without discomfort will vary so much with each hand that tries it that the test is by no means a reliable one, although each cook by fixing her own standard with reference to her own particular oven, may in this way be able to judge of its heat. A better test is that of browning a teaspoonful of flour. For rolls and similar small articles, the oven should be of sufficient heat to brown it in one minute; for loaves in five minutes. If, while the food is being baked, it be found at any time that it is browning too quickly, the heat may be somewhat lessened by placing in the oven a dish of cold water.

Food to be cooked in an oven liable to become too hot upon the bottom should be placed upon a grate or rack, leaving a slight space between it and the oven bottom.

FRUIT-CANNING.

BY E. L. SHAW.

ALTHOUGH the season for the canning of berries, cherries, currants, etc., is over, there still remain so many varieties of the larger fruits to be disposed of, that a few conclusions in regard to that process, reached through comparison of the experiences of different housekeepers, may not be inappropriate. A quantity of canned fruit sufficient for an ordinary family, represents in all, quite an amount of time and strength, besides no inconsiderable financial outlay, and a housekeeper justly desires to get the best results from the expenditure. As the first requisite toward having richly flavored canned fruit, it is indispensable that the fruit when fresh should be perfect, newly picked, and of the very finest quality. It has

frequently been a source of wonder to housekeepers when exercising no particular care in the matter of selection, that their canned fruit, when opened, should be so dissappointing in flavor; but it is well to bear in mind that whatever one seals up in the fruit jar now, just that will she find when the jar is opened. No mysterious, occult spell will be woven over it to change its character. When over-sweetened, much of the delicacy of flavor is sacrificed. Two tablespoonfuls of sugar to a quart of the mild, or moderately acid fruits ought to be sufficient.

When the time of picking can be regulated, the early morning should be chosen, as the fruit is then cool, which is most desirable; and then also it can be canned without delay. This applies, of course, to the more perishable fruits, which quickly loose their flavor.

In paring and halving or quartering peaches, pears, quinces, etc., the pieces should be dropped at once into cold water, to prevent discoloration. Cook slowly, in a porcelain kettle, using a wooden spoon to stir with. It is well to have this spoon large enough to serve as ladle, also.

Probably the best method — upon which experienced housekeepers generally unite — is, to cook the fruit in the jars. It keeps its shape best treated in this way. It should be packed quite closely, and the jars set upon a frame-work of slats inside a boiler partly filled with cold water. Fold a towel over the tops, and let them steam until the fruit is tender. When cooked, fill up with boiling syrup, and seal quickly. Of course, this presupposes that the syrup is boiling on the back of the stove, and that the covers are lying immersed in hot water. A tablecloth should at once be thrown over the full jars, as a protection from accidental draughts.

Before the final putting away, try the tops, to see whether they can be twisted a bit tighter. Set in some cool, dark place. The cellar is best, and if that is too light, the jars should be wrapped in brown paper.

CARE OF THE REFRIGERATOR.

A GOOD refrigerator is, aside from its usefulness, a worthy article of furniture, and should receive as much attention as other household furnishings; during the warm weather, more especially, it should be carefully looked after. Once a week, at least, it should be subjected to a thorough renovation. All shelves, and any adjustable compartments should be removed, and the inside scrubbed with strong sal-soda water, treating the wooden shelves in the same manner. The worst stains upon the zinc shelves can usually be removed by a vigorous scouring with pulverized bath brick and soap. When cleaned, roll it into a current of air, and allow it to thoroughly dry before replacing the shelves. See that they, also, are quite dry.

The refrigerator should, of course, be kept in a convenient place, but one should be chosen that is as cool and dry as possible. It is never advisable to place it in the cellar, as is sometimes done, for a damp atmosphere is ruinous to it. If all ice is well washed off before being placed in it, the chest itself witl be much easier to keep clean and wholesome. Nothing warm should ever be put into it, neither anything that is not perfectly fresh; still less should there be placed within it anything which has the slightest taint. The ice should always be carefully replenished before it is entirely out, as otherwise it will take double the quantity to cool the refrigerator off again, as the temperature rises when the ice gets low. Properly managed, less ice is used when a uniform temperature is preserved.

The water-pipe, especially, of all ice-chests, should be kept clean and sweet by frequent care. Often ice-chests are constructed, which are immovable. The water-pipe of such an one should on no account be connected with the kitchen drain-pipe, but should have a pipe of its own. For a family ice-chest, or refrigerator, it is much better to have one upon castors, under which a pan can be set, which can be readily removed, emptied, and cleansed. E. L. S.

VERY thick shellac varnish is an excellent cement for broken plaster casts or impressions. Paint the broken edges over several times with the varnish, holding them over a flame to burn out the alcohol each time. When the shellac is soft press the parts together and hold them tightly until cold. They will then adhere firmly.

THE scent of pennyroyal will, it is said, drive away mosquitoes.

MOLD can be prevented from forming on fruit jellies by pouring a little paraffine over the top, which, when cold, will harden to a solid cake, which can be easily removed when desired.

QUESTION BOX.

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

HIVES.— M. M. H., Minn., wishes to know the cause of hives, and a remedy for their cure or relief.

Ans.— The usual cause of hives is indigestion. The remedy is to cure the digestive trouble.

SNORING.— E. D., Md., asks for a remedy for snoring. Lives hygienically on two meals per diem.

Ans.— Snoring is due to breathing through the nose and mouth at the same time. It is sometimes due to sleeping with the mouth open. Such cases are cured by wearing some appliance to hold the mouth shut during sleep. When the difficulty is due to obstruction of the nose, the obstruction must be removed.

CAUSTIC TREATMENT FOR CATARRH.— J. H., Tex., asks: "Do you indorse the use of caustics in the treatment of chronic catarrh?"

Ans.— Catarrh does not in itself require the application of caustics, but chronic catarrh is sometimes accompanied by morbid growths, which must be destroyed either by removal by the galvano-cautery, or by some chemical application such as caustics. These remedies, however, should only be used by skilled specialists.

KIDNEY TROUBLE, ETC.— W. H. B., Mo., asks: "1. What treatment would you advise for affected kidneys, where the symptoms are some pain in small of back and redness of urine? 2. What do you think of prescribing creosote for a consumptive?"

Ans.— 1. Apply fomentations to the spine, over seat of pain, and drink a couple of pints of hot water daily. The best time for hot-water drinking is an hour before meals. 2. The creosote cure for consumption, advocated so strongly a few years ago by French physicians, like all other panaceas, has proved a failure.

HEADACHE AND SORENESS OF STOMACH.— W. N. P., N. C., is a man of no bad habits. Suffers much from headache and soreness in pit of stomach. His staple diet is milk and Graham bread. Wishes advice.

Ans.— Dyspepsia is the cause of the headache and soreness of the stomach. The cause of the difficulty in many cases can only be determined by a careful examination. Relief would very likely be obtained from fomentations applied over the stomach, or heat applied by means of a rubber bag.

PAIN IN HEAD.— Mrs. G. S., N. B., is a lady of sixty-one years; and of good general health. Had *la grippe* last winter, and since then has suffered from such intense pain in the top of her head and extreme nervousness, that she fears insanity. Wishes advice.

Ans.— A case so grave as this, requires the personal attention of a skilled physician.

NUMBNESS OF RIGHT SIDE.— Mrs. S. T. H. B., N. B., writes: "I am afflicted by a numbness of my right arm and side. First starts in the palm of my right hand. What is the cause and the remedy? and would it be dangerous if it should go to the heart?

Ans.— The symptoms given indicate a condition of lowered nerve tone, or neurasthenia. The disease is not likely to go to the heart. A hot water bag applied to the spine for an hour twice a day, or hot fomentations and massage, are excellent remedies.

MESSENTERIC CONSUMPTION.— B. E. M., Ill., asks for the cause, prevention, and cure of messenteric consumption.

Ans.— The cause of messenteric consumption is a species of germs, *bacillus tuberculosis*. This disease is always caught from some person suffering from the same malady. It is most commonly second to the same disease affecting the lungs. The prevention consists in avoiding sources of contagion, especially avoiding the use of diseased food. Beef, and other flesh of animals, as well as milk, is not infrequently affected by this disease, and may be a means of communicating it. The disease is incurable.

OVER-DEVELOPMENT OF BOWELS — GALVANIZED WARE.— Mrs. M. H. C., Ohio, asks: "1. Can anything be done to diminish to normal the development of a child of four years, below the waist line? 2. Is there anything poisonous in galvanized ware that may be imparted to water boiled in it?"

Ans.— The child is doubtless suffering from prolapsus of the bowels, and possibly of distention of the stomach and colon. It should be placed under the care of a physician who is familiar with cases of this sort. It might also be well to apply a flannel bandage, to be worn about the abdomen, and drawn quite tight. 2. Zinc is poisonous, although less dangerous than lead. Galvanized ware should not be used for cooking purposes.

LITERARY NOTICES.

In the August number of the *Business Woman's Journal*, are published the portraits of Mrs. May Wright Sewall, Miss Mary Temple, Vice-President and Corresponding Secretary of the Federation of Clubs, also of Mrs. Samuel Mc Kinney, together with other fine illustrations. This enterprising monthly is owned, edited, and managed entirely by women. It is well printed and well edited, and contains just the facts and information which are needed by the modern, progressive woman. $1.00 per year. *The Business Woman's Journal*, 38 Park Row, New York.

Scribner's Magazine for August, is a very finely illustrated number. Perhaps as notable and timely an article as any which it contains is Edward Marston's "How Stanley Wrote His Book." This is a near view of the great explorer at work at Cairo, giving an intimate idea of his personality as it appears to one of his oldest friends. Joseph Bell, the English artist, who prepared many of the sketches for Stanley's book at Cairo, under his personal direction, illustrates the article with a number of pictures of Stanley at work. Several pages of the explorer's note-books are reproduced in fac-simile. Charles Scribner's Sons, N. Y.

The July number of *The National Magazine* will open with an article entitled "Harvard University and Reform," by Chancellor Harkins of the National University of Chicago. Other timely articles are: "Plan Proposed for a Polytechnic Institute," "Biblical Literature," by Rev. J. C. Quinn, LL. D., "College Courses for Non-Residents," and "Honorary Degrees." Young men will be interested in the article on the "Chicago Trade Schools." Particulars of the recent gift of 25 acres of land near Chicago, worth $25,000, to the National University, and of its proposed new building thereon, are also given in this number. Published at No. 147 Throop Street, Chicago, Ill.

In the August number of *Demorests' Family Magazine*, the series entitled "Some Homes under the Administration" is continued, and this time it is Postmaster-General Wanamaker's mansion which is thrown open to us, and we are charmed with its beauties. It is a great pleasure to stroll with the writer and artist through the elegant apartments and the famous picture-gallery, the latter containing some of the rarest works of art in America. There is also a complete novelette by Queen Elizabeth of Roumania ("Carmen Sylva"), preceded by her portrait and fine illustrations of her summer castle and her boudoir. The other articles and stories are all of the highest order, and beautifully illustrated, forming a midsummer number of rare merit, which is enhanced by a seashore water-color frontispiece of artistic value. Published by W. Jennings Demorest, 15 E. 14th St., N. Y.

"The Anti-Infidel Library" is a serial issue of live, vigorous pamphlets, issued by H. L. Hastings, 47 Cornhill, Boston, Mass., dealing with modern infidelity in a most readable and trenchant style. The numbers contain from 32 to 160 pages, bound in strong manilla covers, as durable as cloth, costing 5, 10, 15, 20, and 25 cents each. The whole library is sent to any address for $2.50. These publications have the heartiest commendations of leading ministers and laymen of all denominations throughout the English-speaking world.

The midsummer number of the *Jenness-Miller Magazine* has a paper on "Physical Culture," by Mabel Jenness, which contains suggestions and exercises of the greatest value to women. The Countess De Montaigu discusses in her most fascinating manner the "Etiquette of Correspondence," and an article on "Fine Gems," by Charles Blanc, is itself a production of marked value. Other interesting contributions are: "A Girl-Student's Year in Paris"; "Motherhood," by Clara Holbrook Smith; "The Corporal Punishment of Children," by Emile Pickhardt; an interesting story by Clara Louise Burnham, and a freshly interesting installment of the "The Philosopher of Driftwood," by Annie Jenness-Miller; "Voice Culture," by Laura Giddings, is both interesting and instructive. The Jenness-Miller Pub. Co., New York.

In the August *Ladies' Home Journal* all the stories savor of the sea and country, and Julian Hawthorne, Maud Howe, Louise Chandler Moulton, Kate Upson Clark, Jenny June, Dr. Talmage, all vie with each other in story, poem, and article. The article on "Promiscuous Bathing" for girls is specially timely. Dr. Talmage tells us how he preached his first sermon. Caroline B. LeRow says some very helpful things in telling what are the "Essentials of a Good Teacher," while the department devoted to flowers and talks with girls, are especially well filled this month. Altogether, the August *Journal* makes excellent summer reading — pure and bright, and as entertaining as beneficial. The number costs only ten cents. The *Journal* is published at one dollar per year, at 433–435 Arch Street, Philadelphia.

PUBLISHERS' PAGE.

We are glad to be able to report encouraging news from the corps of health missionaries who recently left this country for England, who are already obtaining a foothold in several of the largest cities of Great Britain, and we trust soon to be able to report most brilliant results from the work done.

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Michigan has been blessed with a cool, pleasant summer. While some of our neighboring States have suffered much from extreme heat, there have been no excessively hot days in Michigan. A half dozen days which might be considered warm, although the temperature scarcely reached 90°, but which were made entirely comfortable by a gentle breeze, constitute the heat record thus far.

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The executive committee of the American Health and Temperance Association have decided to establish a series of medical missionary stations. The first mission established will probably be located at Jerusalem, Palestine. It will be conducted in the interest of foreign visitors, as well as of the resident population. The Board of Directors of the Sanitarium have generously offered to defray the expenses of the mission.

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Excellent reports are being received from our health missionaries in various sections of the country. F. Thorp, and G. K. Owen are doing good work in California. W. H. Wakeham has within the last week addressed large gatherings in Wisconsin, Dakota, and Iowa. Miss Evora Bucknam has been doing excellent work in Bay City and vicinity. She has had charge of missionary workers, who are extending their labors in surrounding towns.

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We are glad to hear that the Rural Health Retreat, at St. Helena, Cal., is more prosperous than ever. The managers report the institution more than full, so that the purchase of several new cottages has been required, and the erection of a large addition to the main building. The institution is now under the charge of Dr. Burke, who, we are pleased to learn, is doing earnest work in behalf of health and temperance principles. This institution has made a very successful struggle under numerous adverse circumstances, and we are glad to see that an era of complete success seems to have dawned upon it. There ought to be an institution of similar character in every State in the Union.

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*

The Sanitarium enjoyed the pleasure of a visit a day or two ago from his Excellency, the Governor, and his family. Governor Luce has been for many years active in public life, and a very arduous worker, though at the advanced age of sixty-six, is still a sturdy, vigorous man, and represents the best type of American manhood. He has never in his life used either alcoholic drinks or tobacco in any form, hence is a thoroughgoing temperance man. In a recent speech at the Sanitary Convention he advocated the necessity for the erection of asylums especially for persons who had become addicted to the use of stimulants and narcotics, for the purpose of isolating them from the public, and enforcing restraint to such a degree as to protect them from their own evil tendencies. The Governor was greatly pleased with what he saw at the Sanitarium. We were glad to see that he felt particularly interested in the numerous appliances for exercise, passive, and active. After witnessing the regular drill in Delsarte exercise by the lady patients, the Governor made a neat little speech, of which the following is a brief abstract:—

Ladies and Gentlemen:—I am sure you do not expect me to make a speech at this time, but I am glad to say to you that I am pleased with what I see here. I am, of course, interested in the various public Institutions of our State, and also in this institution, which, although not under the immediate control of the State, in a certain sense, belongs to the public. I think this is a good place for sick people. When here last year, I took dinner with you, and I said to my friends, 'If the managers always provided you with as good a bill of fare as that was, you ought not to remain sick very long after getting here.' I was greatly interested when I visited the Institution before in noticing the various appliances afforded by the Institution to aid sick people in getting well, and thought it a most excellent place for persons out of health. I am pleased to see that the management have added this new and very interesting feature as another mode of exercise. The doctor tells me that the Delsarte exercises are for the purpose of developing grace and beauty, and that he is able to get a hundred or two of you in here to learn how to be graceful and beautiful, when not more than a dozen would come for health, and so by combining the two he manages to accomplish just what he desires, and in a most pleasant manner. You are fortunate, ladies and gentlemen, in finding yourself in a place where so many advantages are offered as aids to the sick in the recovery of health, and I trust the means employed will be so successful that in due time you will be able to return to your homes restored to health and usefulness.

* *
*

I. O. O. F. Excursion to Chicago.—The Michigan Central will run a special train to Chicago on Wednesday August 6th, on account of Patriarchs Militant I. O. O. F. Fare for round trip, including admission, $5.80. Good for return till Aug. 11.

* *
*

G. A. R. Encampment, Boston, Mass.—For the Annual Encampment of the G. A. R. at Boston, Mass., the Michigan Central will sell special round trip tickets on August 8, 9, and 10, limited for return passage until August 20, at rate of $19.00.

An extension of time for return passage will be granted for a period which will enable the passenger to reach his destination not later than September 30, 1890, provided he deposits his ticket with the joint agent of the terminal lines at Boston between August 12 and 19, inclusive, until ready to take the return journey, when the ticket will be made good for return trip.

* *
*

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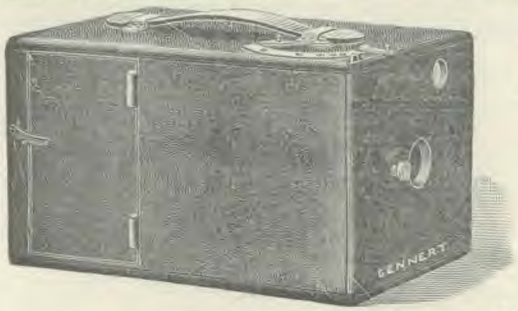

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STATIONS.							
Chicago	am 7.05	am 9.00	pm 12.?0	pm 3.10	pm 10.10	pm 9.00	pm 4.50
Michigan City	9.10	11.10	1.56	4.48	am 12.20	10.53	7.00
Niles	10.20	pm 12.5	2.53	5.55	1.52	m 12.00	8.25
Kalamazoo	11.50	2.20	3.58	7.04	3.35	am 1.18	pm 10.05 / am 7.10
Battle Creek	pm 12.55	3.03	4.30	7.37	4.25	2.03	7.55
Jackson	3.10	4.30	5.33	8.52	6.15	3.40	9.55
Ann Arbor	4.45	5.32	6.29	9.45	7.45	4.55	11.00
Detroit	6.15	6.45	7.30	10.45	9.20	6.20	pm 12.10
Buffalo	a m 3.25	am 3.25	am 3.25	am 6.25	pm 4.55	pm 2.15	8.30
Rochester			6.00	9.20	8.00		11.20
Syracuse			8.00	11.35	10.20		am 1.30
New York			pm 4.00	pm 8.50	am 7.20		9.42
Boston			8.30	10.57	9.35		pm 2.50

WEST.	†Mail.	†Day Express.	*N.Shore Limited.	*Chicago Express	*Pacific Express.	†Kal. Accom'n	†Niles Accom'n
STATIONS.							
Boston		am 8.30		pm 3.00	pm 7.00		
New York		11.50	pm 4.5?	6.00	10.00		
Syracuse		pm 8.30	11.05	am 2.10	am 8.00		
Rochester		10.40	am 1.42	4.20	10.45		
Buffalo	pm 11.30	11.30		5.30	11.50	am 8.45	
S spen. Bridge	am 12. 8	am 12.28	3.05	6.25	pm 12.50		
Detroit	9.05	7.50	9.25	pm 1.20	9.15	4.4	pm 5.55
Ann Arbor	10.37	8.55	10 19	2.17	10.30	5.58	7.16
Jackson	pm 12.15	10.05	11.18	3.20	11.50	7.1?	pm 8.30 / am 6.25
Battle Creek	1.50	11.35	pm 12.22	4.30	am 1.23	8.47	7.55
Kalamazoo	2.37	pm 12.12	12.59	5.02	2.17	pm 9.30 / am 6.00	8.39
Niles	4 17	1.21	2.0	6 17	4.05	7.40	10.05
Michigan City	5.42	2.25	3.?8	7.2?	5.45	8.55	
Chicago	7.55	4.15	4.50	9.00	8.05	11.20	

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Time Table, in Effect Jan 19, 1890.

GOING WEST.						STATIONS.	GOING EAST.				
	p m		p m				a m	p m	p m	p m	
.....	3.00	.....	7.00	.....	.....	.....Boston.....	8.30	7.30	7.30	7.30	.....
	p m		p m				p m	a m	a m	a m	
.....	5.00	.....	8.00	.....	.....	.....New York.....	11.19	7.40	10.10	10.10	.....
	a m	a m	p m				a m	p m	p m	p m	
.....	6.20	5.??	1.00	.....	.....	.....Buffalo.....	9.50	5.40	7.30	9.00	.....
	a m	a m	p m				a m	p m	p m	p m	
.....	7.45	7.35	2.45	.....	.....	....Niagara Falls....	8.15	3.17	5.30	7.10	.....
	.....	a m	.....	m			.....	a m	p m	p m	
.....	.....	8.30	.....	1.00	.....	.....Boston.....	.....	9.50	12.10	12.10	.....
	p m	p m		p m			p m	a m	a m	a m	
.....	8.30	8.30	.....	11.55	.....	.....Montreal.....	8.00	7.45	7.45	7.45	.....
	.....	.....	.....	p m	.....		a m	p m	p m	p m	
.....	.....	.....	.....	1.00	.....	.....Toronto.....	8 40	7.25	7.25	7.25	.....
	.....	.....	.....	.....	.....		a m	.....	a m	.....	a m
.....	.....	.....	.....	.....	.....	.....Detroit.....	9.45	.....	7.45	.....	11.50
Chi. Pass.	B. C. Pass.	Lmtd Exp	Pacific Exp.	Pacific Exp.	Mail Exp.		Mail.	Lmtd Exp.	Aftte Exp.	Night Exp.	Pri. H Pass.
am	pm	pm	pm	pm	am	Dep. Arr.	pm	am	am	am	am
5.55	4.10	12.45	8.55	7.45	7.15	.....Port Huron.....	10.2.	1.05	7.35	10.00	10.50
7.28	5.40	1.55	10.20	9.08	8.31	.....Lapeer.....	8.4.	11.48	6.17	8.31	9.17
8.05	6.2?	2.25	10.50	9 45	9.0.	.....Flint.....	7.53	11.17	5.40	7.45	8.35
8.48	7.15	2.53	11.28	10.30	9.35	..... Durand.....	7.15	10.48	5.08	7.15	8.00
10.00	8.25	3.45	12.37	11.35	10.30	.....Lansing.....	5.35	9.57	4.00	6.05	6.35
10.37	9 00	4.15	1.09	12.08	11.00	..... Charlotte.....	4.57	9.27	3.25	5.36	6.02
1.00	10.00	5.00	2.00	1.00	12.05	....BATTLE CREEK....	4.05	8.45	2.35	4.55	5.15
1.49	pm	.....	2.50	1.48	12 4?	.....Vicksburg	3.19	8.01	1.48	.....	am
2.00	.....	.....	.....	1.58	12.58	.....Schoolcraft.....	3.05	.....	1.38	.....	.....
2.52	.....	6.19	3.43	2.45	1 42	.....Cassopolis.....	2.15	7.16	12.45	3.25	.....
3.40	.....	6.50	4.25	3.35	2.25	..... South Bend.....	1.25	6.40	12.00	2.50	.....
5.00	.....	.....	.....	4.57	.....	..... Haskell's.....	12.0?	.....	.....	.....	.....
5.20	.....	8.10	5.55	5.10	4.00	.....Valparaiso.....	11.50	5.20	10.30	1.30	.....
p m	.....	10.10	8.10	7.3?	6.25	.....Chicago.....	9.05	3.15	8.15	11.25	.....
.....	.....	pm	am	am	pm	Arr. Dep.	am	pm	pm	pm	

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" "	3,000	"	32	"	" 2
" "	3,500	"	36	"	" 2
" "	4,000	"	30	"	" 2
" "	5,000	"	30	"	" 2
" "	6,000	"	28	"	" 2
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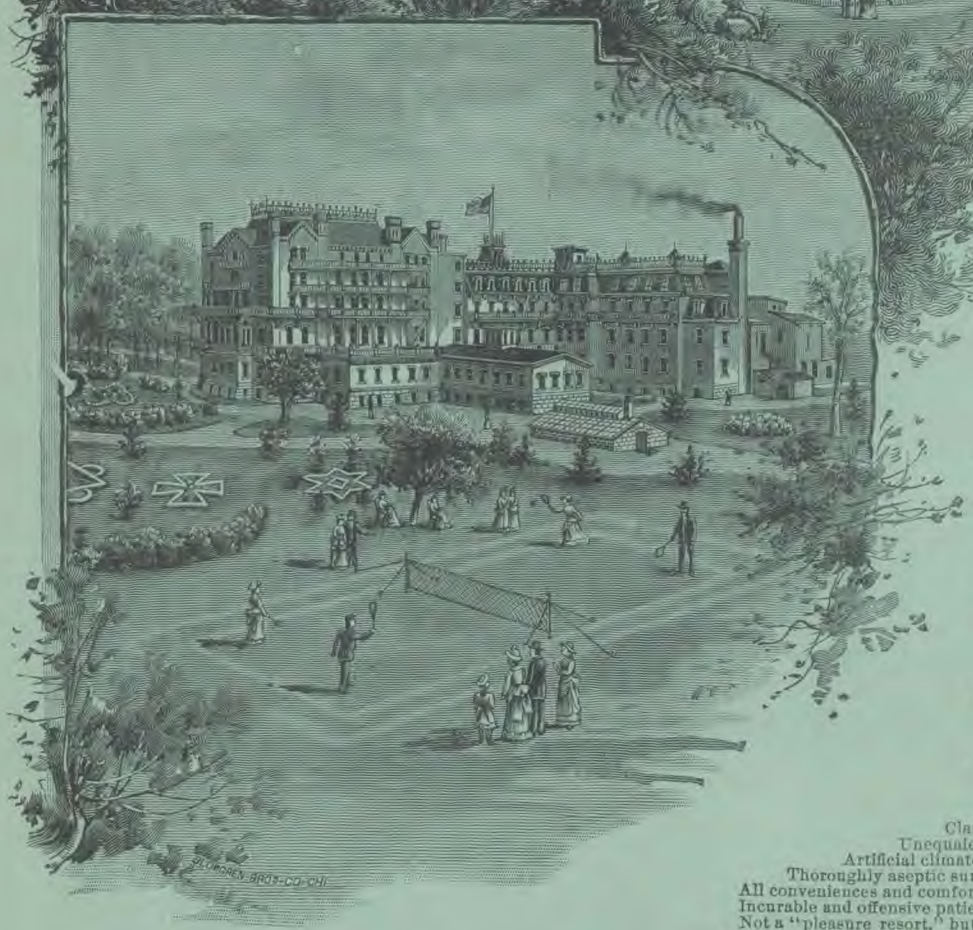

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