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BIBLE HYGIENE.

VEGETARIANISM PUT TO THE TEST IN THE DAYS OF THE PROPHET DANIEL.

BY ELDER JAMES WHITE.

THE prophet Ezekiel, who was contemporary with Daniel, bears testimony to his piety and uprightness, ranking him in this respect with Noah and Job: "Or if I send a pestilence into that land, and pour out my fury upon it in blood, to cut off from it man and beast, though Noah, Daniel, and Job were in it, as I live, saith the Lord God, they shall deliver neither son nor daughter; they shall but deliver their own souls by their righteousness." Eze. 14:19, 20. His wisdom, even at that early date, had become proverbial, as appears from Chap. 28:3. To the prince of Tyrus the prophet Ezekiel was directed of the Lord to say, "Behold, thou art wiser than Daniel; there is no secret that they can hide from thee."

"Throughout the entire period of the seventy years' captivity, Daniel resided at the court of Babylon, most of the time in honor and prosperity, prime minister of that first and most glorious of earth's universal monarchies. His life affords a most impressive lesson of the importance and the advantage of maintaining from earliest youth a strict integrity in the things of God, and furnishes a notable instance of a man eminent in piety and communion with God, while at the same time engaging in the most stirring activities, and bearing the weightiest cares and responsibilities that can devolve upon men in this present life."—*Smith's Thoughts on Daniel*, pp. 6, 7.

"He was a religious man. His religion influenced his character, kindled his heroism, and had largely to do with his success. His religion, moreover, was not a surface sentiment, traditionally inherited, and therefore loosely held. Opinions have often been entailed with estates, handed down as reverenced heir-looms from one generation to another. Men have rallied round a crimson banner, or shouted lustily for the buff and blue, for no better reason than that the same colors had sashed and rosetted their fathers perhaps for a century of years. In the history of human opinion it would be curious to inquire how much of it has been the pride of partisanship, or the inheritance of affection, how little of it the force of conviction, and the result of honest thought and study. But Daniel's was an inwrought piety, whose seat was in the heart, and it was of that brave sort which no disaster was able to disturb.

"And it was no easy matter to maintain it. Look at him as he is first introduced to our notice. He was lonely, he was tempted, he was in peril. Loneliness, temptation, danger,—these are words which, perhaps, from painful personal experience, some of us can understand. Add to these the further condition of bondage, a word, thank God, whose full meaning a free people does *not* understand, and you have some conception of the position of Daniel, when we first become acquainted with him in the palace of the king of Babylon.

"Moreover, the circumstances of Babylon,

at the time when he was carried there, would necessarily expose his piety to greater hazards. It is always difficult for a slave to profess a faith other than the faith of his master. The victory which Nebuchadnezzar had gained would barb the tongue of the Chaldean scoffer with sharper sarcasms against the Hebrew creed. Babylon was wholly and earnestly given to idolatry. There Belus was magnificently worshiped. There the soothsayer wrought his spells, and the astrologer affected to read in the heavens, as in a sparkling Bible. There the followers of Zoroaster lingered, and clung tenaciously to their pure and ancient error, for of all idolatries fire-worship is at once the most primitive and the most plausible. There the commonest things of life were linked with idol associations, and consecrated by idol ceremonies; so that the conscience of the Hebrew was in momentary danger of attack, and active resistance became the duty of every day.

"But Daniel's piety did not fail, because it was thorough in its consistency and in its grandeur. It has been a favorite scoff in all ages, ever since the words, 'Doth Job serve God for naught?' fell from the lips of the old original liar, that Christians are Christians only when no motive tempts them to the contrary, and when their policy is on the side of their religion. Hence, some Chaldean skeptic, or some captive of a Sadducean spirit, might have flung the gibe at the young enthusiast Hebrew, 'Ah! there will come a change upon him soon. He has breathed a Hebrew atmosphere, and been bound by Hebrew habits. His soul is but the chrysalis just emerging from the cocoon of dormant thought and dull devotion. Wait until he is fledged. Wait until he has preened his wings amid the sunshine and the flowers of Babylon. The Jordan is but a sluggish stream, the Euphrates rolls grandly in its rushing silver. Translate him from the slopes of Olivet to the plains of Shinar. Let him taste the luxury of Chaldean living, and join in the pomp of Babylonish worship, you will soon hear of his abandonment of his former friends, and he will plunge, as eagerly as any, into the gaieties of the capital.' But that scoffer, like most others of his kindred, would have been grievously mistaken. Did Daniel's piety fail him? Was he entangled in the snare of pleasure, or frightened by the captor's frown? Knelt he not as fervently in the palace at Shushan as in the temple at Jerusalem? Amid the devotees of Merodach or Bel, his Abdiel heart went out, as its manner was, after the one Lord of earth and Heaven. Oh, what are circumstances, I wonder, that they should hinder a true man when his heart is set within him to do a right thing?"—*Punshon's Lectures*, pp. 6–8.

The Hebrew Daniel was probably the most brilliant character of his time. The address of the queen to the king of Babylon relative to Daniel sets forth his true character from a worldly, idolatrous point of view. She says, "There is a man in thy kingdom in whom is the spirit of the holy gods; and in the days of thy father, light and understanding and wisdom, like the wisdom of the gods, was found in him; whom the king, Nebuchadnezzar thy father, made master of the magicians, astrologers, Chaldeans, and soothsayers; forasmuch as an excellent spirit, and knowledge, and understanding, interpreting of dreams, and showing of hard sentences, and dissolving of doubts, were found in the same Daniel."

In these words the queen goes back to the very time when Daniel's vegetarian principles were put to a severe test. Daniel and his three Hebrew friends, Hananiah, Mishael, and Azariah, are at this time among the captive children of Judah, in Babylon. The king orders that a select number of the best looking, and the most intelligent, should be fed from his table, and drink of his wine, for the period of three years, when they should be put upon exhibition in his presence. He seems to have the idea, so very prevalent at the present day, that good looks and intellectual strength are dependent upon the gratification of the appetite for flesh-meats, rich dainties, sweetmeats, and wine. So he orders their daily portion, and enters upon a sort of stuffing process, which is probably agreeable to most of those whom he has selected to fatten. But there are four noble Hebrews in this select company who rebel against this royal gluttony and drunkenness, and refuse the king's meat and wine. The sacred narrative runs thus:—

"And the king spake unto Ashpenaz the master of his eunuchs, that he should bring certain of the children of Israel, and of the king's seed, and of the princes; children in whom was no blemish, but well-favored and skillful in all wisdom, and cunning in knowledge, and understanding science, and such as had ability in them to stand in the king's palace, and whom they might teach the learning and the tongue of the Chaldeans. And the king appointed them a daily provision of the king's meat, and of the wine which he drank; so nourishing them three years, that at the end thereof they might stand before the king." "But Daniel purposed in his heart that he would not defile himself with the portion of the king's meat, nor with the wine which he drank; therefore he requested of the prince of the eunuchs that he might not defile himself."

By this time the king's chief steward is in trouble. He fears that these "radical," stubborn vegetarians will be the means of his losing his head. We can easily imagine him standing before Daniel, Hananiah, Mishael, and Azariah, imploring them to eat of the king's food, assuring them that "it is not rich," and that a little wine will certainly do them no harm. And as they refuse, we can almost hear him exclaim, "Why, you will starve yourselves to death!" The narrative continues:—

"And the prince of the eunuchs said unto Daniel, I fear my lord the king, who hath appointed your meat and your drink; for why should he see your faces worse liking than the children which are of your sort? then shall ye make me endanger my head to the king. Then said Daniel to Melzar, whom the prince of the eunuchs had set over Daniel, Hananiah, Mishael, and Azariah, prove thy servants, I beseech thee, ten days; and let them give us pulse to eat, and water to drink. Then let our countenances be looked upon before thee, and the countenance of the children that eat of the portion of the king's meat; and as thou seest, deal with thy servants. So he consented to them in this matter, and proved them ten days."

Ten days seems a very brief period to test the benefits of vegetarianism. But these Hebrews, who understood the nature of swine's flesh, and the influence of Babylonish excesses upon the human system, were willing to risk the matter upon a trial of only ten days. But when we consider that these four Hebrews were improving their physical condition in the use of the simple pulse to eat, and water to drink, and that their companions were, at a more rapid rate, injuring themselves with the king's meat and wine, the test virtually becomes one of twenty days, when the parties are viewed in contrast. But the trial comes off victorious on the side of temperance. The king's steward yields to the request of the four Hebrews, and breathes easier. The narrative continues:—

"And at the end of ten days their countenances appeared fairer and fatter in flesh than all the children which did eat the portion of the king's meat. Thus Melzar took away the portion of their meat, and the wine that they should drink, and gave them pulse."

The pulse which Daniel and his Hebrew friends ate is said to have been pod-like vegetables, like peas and beans. The following are credible authorities on this point: "Leguminous plants, or their seeds; as beans, peas, etc."—*Webster*. "A term applied to those grains or seeds which grow in pods, as beans, peas, vetches, etc."—*Watson*. "A general name for peas, beans, and all large leguminous seeds."—*Bible Dictionary*. "A term applied to those grains or seeds which grow in pods, as beans, peas, and vetches."—*Covel*. "Seed-herbs, greens, vegetables, *i. e.*, vegetable food, such as were eaten in a half fast, opposite to meats and the more delicate kinds of food."—*Gesenius' Heb. Lexicon*.

The Sacred Record gives the happy results of testing the virtues of vegetarian life for not only ten days, but its benefits physically, mentally, morally, and spiritually, are gloriously manifested in a trial of three years. Whatever may be claimed for the especial manifestation of divine favor in behalf of these four Hebrews we shall claim on the side of vegetarianism, on the ground that men who are living in harmony with natural law certainly may expect more gracious manifest-

ations from the Author of that law than those who live in violation of it. The triumphant narrative closes :—

"As for these four children, God gave them knowledge and skill in all learning and wisdom, and Daniel had understanding in all visions and dreams. Now at the end of the days [the three years] that the king had said he should bring them in, then the prince of the eunuchs brought them in before Nebuchadnezzar. And the king communed with them; and among them all was found none like Daniel, Hananiah, Mishael, and Azariah; therefore stood they before the king. And in all matters of wisdom and understanding, that the king inquired of them, he found them ten times better than all the magicians and astrologers that were in all his realm."

ANATOMY, PHYSIOLOGY, AND HYGIENE.

BY THE EDITOR.

CARTILAGE TISSUE.—This tissue, in its typical form, consists of a homogeneous, structureless base in which are scattered,

FIG. 13. Cartilage Tissue, showing the characteristic cells.

with a considerable degree of regularity, cavities in which are found cells which during life fill the entire cavity. The structure of this peculiar tissue will be readily seen in Fig. 13. Cartilage is chiefly found in adults at the ends of bones, where a moderate degree of elasticity with very slight sensibility to pressure is required. These properties are admirably supplied in cartilage. In early life the bones are composed of cartilage, the change from cartilage to bone taking place during the period of growth. After complete ossification has taken place, no further development can occur.

A peculiar kind of cartilage known as fibro-cartilage is found between the vertebræ, and at some other points where there is a very limited degree of motion. Cartilage is in some few instances developed in tendons and even in the skin and other tissues, where it is always more or less intimately blended with connective tissue. In old age, cartilage sometimes undergoes a process of hardening from the deposit of lime, which is known as calcification.

OSSEOUS OR BONY TISSUE.—In Figs. 14 and 15 will be seen an excellent representation of

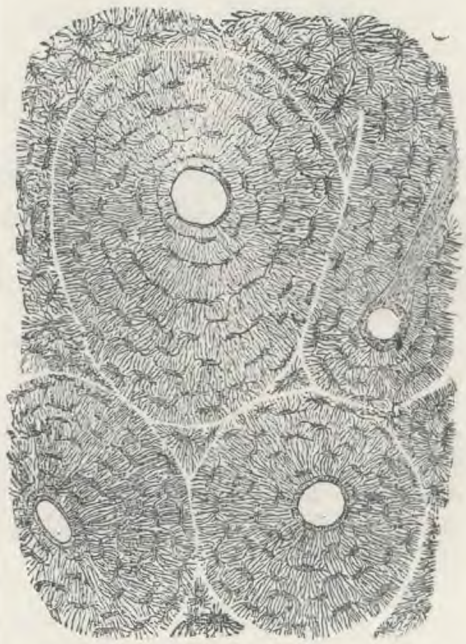

FIG. 14. Transverse section of bone as seen with the microscope.

the minute structure of bony tissue. The large, irregular canals seen in Fig. 15, and represented by circular openings in Fig. 14, are the blood-vessels of bone, here known as *Haversian canals*. The dark spaces with the lines radiating from them are *lacunæ* and *canaliculi*, together forming the bone corpuscles. Fig. 14 shows very beautifully the admirably systematic arrangement of these corpuscles, and the manner in which they communicate with each other and with the blood channels. The dark spaces are cavities in the bone, and the small lines running out from them represent minute canals by which they are connected. Each cavity is occupied

by a mass of protoplasm, a cell, which puts out a number of protoplasmic fingers by which it touches other cells near by; and thus the minute creatures which inhabit these little caves in the bone are enabled to communicate with one another through all its parts. The business of these little creatures is to develop the bone and to keep it in good repair. They have charge of the bone-building business of the body, each having its particular little section of bone to look after. The portion of the tissue surrounding the cavities and canals, and forming the great bulk of the tissue, is made up of a curious

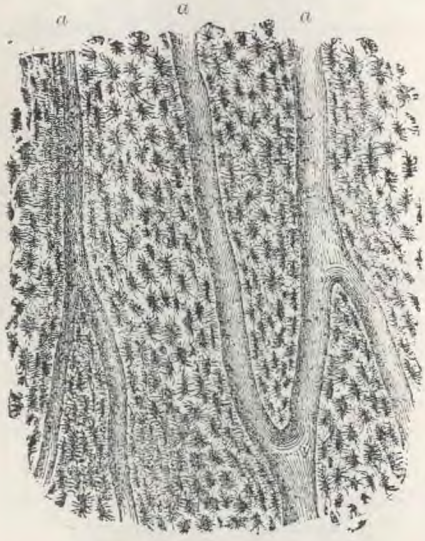

FIG. 15. Magnified view of a longitudinal section of bone; *a a a*, Haversian Canals.

compound of animal matter with various salts in a partially organized state, the chief of which are phosphate and carbonate of lime. The evidence is that they are in a state of partial organization, a condition which might be termed organic. Some eminent observers say that in very old age the protoplasmic bodies which occupy the cells of bone tissue die, the spaces being then filled with air.

Osseous tissue forms the skeleton of the body, the bony framework upon which the soft parts are built, together with a portion of the substance of the teeth. In lower animals, bony tissue is also deposited in the skin, the white of the eye, and other soft parts. Very singularly it also happens in some cases of disease that bony tissue is developed in the soft tissues.

Bone is very closely allied to cartilage, being developed from cartilage tissue, as already mentioned. The mode of formation we need not stop to trace, as such studies do not come within the scope of these articles.

MUSCULAR TISSUE.—There are two varieties of muscular tissue. One consists of long, unbranching fibres, marked by transverse lines called *striæ*, the other of short, branching, spindle-shaped fibres which are smooth, or *unstriated*. The first class, or *striated* muscular fibres, compose the greater portion of the soft parts of the body, constituting the lean meat of animals. They can be seen with a strong microscope, and are very interesting objects of study. This variety is sometimes distinguished from the other by the difference in action, being called *voluntary* muscular tissue because it composes all muscles which are under the immediate control of the will. A striated muscular fibre consists of a tubular sheath containing the active muscular substance, which seems to be divided into discs and minute fibres, although the exact mode of division is not understood.

Non-striated or *involuntary* muscular fibres are found in muscular organs not under control of the will, as the gullet, the stomach, intestines, bladder, and urinary passages. It should be mentioned that the heart, although an involuntary muscle, is composed of a muscular tissue peculiar to itself, its fibres in some respects resembling both voluntary and involuntary muscular fibres. This is probably owing to the physiological fact that voluntary fibres contract with rapidity and vigor, while the contraction of involuntary fibres is slow and less vigorous. However, voluntary muscles soon tire by continuous exercise, while involuntary fibres are capable of maintaining their activity for a long time. The heart admirably combines both properties.

NERVE TISSUE.—This is by all odds the most interesting, and perhaps the most important, of all the anatomical elements. As is the case with muscular tissue, there are two varieties of nerve tissue. These are familiarly known as cells and fibres, the gross distinctions between which may be readily seen by reference to Figs. 16 and 17.

Nerve cells are irregularly shaped bodies of protoplasm, usually provided with one or more arms or projections of the same substance. In the center of the cell may be seen a nucleus, and, usually, within the nucleus another smaller center, called a nucleolus.

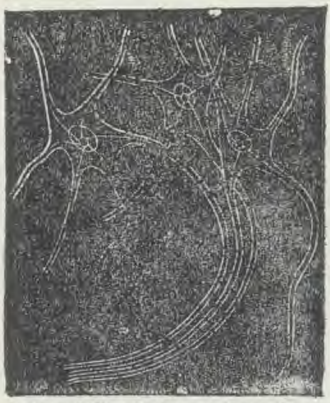

FIG. 16. Nerve Cells, showing prolongations, or poles, three of which are prolonged to form nerve fibres.

The branching arms are termed poles. Nerve cells are found chiefly in the brain and spinal cord; but they are also found in groups known as ganglia in various parts of the

FIG. 17. Nerve Fibre moderately magnified; *a*. Greatly magnified, showing fibrillæ; *b*. Fibrillæ magnified still more, showing beaded appearance.

body. They are the generators of nerve force, and correspond to the batteries used in telegraphy.

Nerve fibres are composed of a bundle of minute fibres, which form the *axis-cylinder*, invested by a peculiar substance which acts as an insulator. The nerve fibrillæ are minute filaments of protoplasm, being simple prolongations of the protoplasm of nerve cells in the brain and spinal cord. These filaments are continuous from their starting-point in the nerve cells to the part of the body, near or remote, in which they terminate. Thus there is formed a complete network of protoplasmic threads through all parts of the body, connecting every minute portion of the system with the central organ, the brain, much like the network of telegraph wire which may be seen traversing the air in every direction in any large city, connecting its most distant parts with the central office.

When it is understood that all thought, feeling, sensation, and even all motion and vital action of every sort, is dependent upon nerves and nerve cells, it will be granted that we have not overstated in calling this the most important of all the tissues of the body.

WHOLE-WHEAT FLOUR.

BY PROF. W. N. FERRIS.

THE fact that bread is regarded as the "staff of life" seems to be very well understood. Why is it thus highly prized as the one thing absolutely necessary to the food-supply of every household? If an answer, couched in scientific phraseology, cannot be given by every one, it is, nevertheless, supposed that bread contains all of the elements essential to nutrition. Bread *may* contain all of these elements, because wheat, from which flour is usually made, contains them. That bread made from the common brands of fine white flour is not a good representative of human food, has been frequently stated; and, in fact, it is generally known to be incapable, in itself, of supporting life, when used for a considerable length of time. Appreciating this important fact, the use of graham bread has been advocated, from time to time, with considerable force. Many persons, especially invalids, have adopted it, supposing that beyond any sort of doubt they had secured what was, as a food, in perfect harmony with nature's demands. That in some instances it has proved to be in some degree injurious in its effects, must be conceded by those who have exercised care in their experiments.

That wheat does contain all of the elements essential to healthy human nutrition is beyond question. If the fine flour does

not contain all of these elements, it follows that it is because, in its preparation, some of them have been eliminated. On the other hand, if graham flour does not meet the requirements of all cases, it is because it contains unnecessary substances, which give rise to unfavorable effects in the consumer.

In order, then, to know just what kind of flour must be made from wheat, to enable the housewife to produce bread which shall be a representative food, a short study of the structure of a grain of wheat seems to be necessary.

The different food elements are situated in different parts of the wheat berry, and not uniformly distributed throughout its structure. By studying the following illustrations, it will be seen that the central portion is chiefly starch, while between it and the outer husk are stored very important elements, which should always be present in flour, although it will thereby lose the whiteness so frequently demanded.

FIG. 1.

FIG. 2.

In Fig. 1 the kernel is represented in its natural state, highly magnified. The fibrous beard on the smaller end is plainly shown.

In Fig. 2 the grain is highly magnified, and shows its appearance after the husk and fibrous beard have been removed.

FIG. 3.

Fig. 3 exhibits a transverse section of a kernel magnified fifteen diameters. Notice that the husk consists of three distinct layers, yet so thin and compact as to constitute one skin; the next layer contains some oil and albumen; and the next, cells of gluten. The central portion is composed of cells containing starch granules with a small portion of gluten as cell walls.

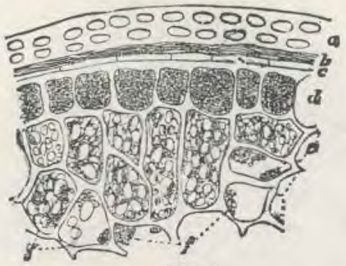

FIG. 4.

Perhaps the structure will be better understood by studying Figs. 4 and 5, in each of which the section is much more highly magnified. The layers *a*, *b*, *c*, *d*, and *e*, show

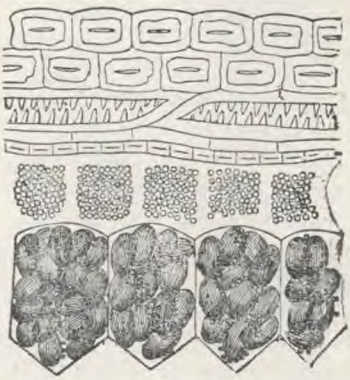

FIG. 5.

the relative position of the parts of a kernel of wheat, and the division of its food properties. In ordinary forms of milling, *a*, *b*, *c*, and *d*, make up the bran. The outer husk, to which the fibrous beard is attached, "is composed of silex [flint] and woody fibre, is innutritious, indigestible, and injurious to health, therefore unfit for the stomach. It is acrid in nature, absorbs moisture, is the source of moisture, is the source of mustiness in white and graham flours, cracked and crushed wheat-food, promotes fermentation, is repulsive to the taste, and destroys the delicate flavor of any flour or wheat preparation that may contain it. Being the outer clothing of the berry, its porous character

renders it a receptacle for the deposits of insects and extraneous filth."

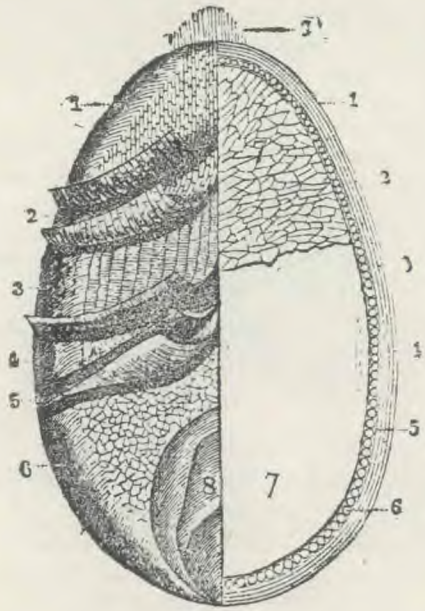

FIG. 6.

Fig. 6 presents, in one illustration, a comprehensive view of the entire structure of a grain of wheat. Nos. 1, 2, 3, and 9 designate the outer husk and fibrous beard. Nos. 4, 5, 6, and 8 point out that portion of the wheat which contains nearly all of the mineral elements of wheat, and which is so essential to proper nutrition. No. 7 refers to the starch cells.

The preceding study shows that flour should not contain the husk and fibrous beard; it is also shown that it *should* contain the mineral elements, even if the flour does thereby lose its whiteness. Without these elements it is an impoverished food, insomuch as they are absolutely essential "to build up and sustain the tissues, bones, and muscles of the body, thereby rendering it capable of generating and sustaining force."

We have endeavored to show what should be obtained from wheat as flour. This is successfully manufactured under the name of "Fine Flour of the Entire Wheat." Among the reasons for its general use are the following:—

1. *For economy.* The superfine white flour contains a very small per cent of the mineral elements, hence the necessity for increasing the quantity. The increase in quantity requires an additional expenditure of nerve force to digest it.

2. *For health.* The excess of starch in common flour increases the liability to diseases arising from fatty degeneration, also the tendencies to general ill-health.

3. *For sound tissues.* The teeth have invariably become diseased in every community where fine flour is extensively used. Observation shows that the hard tissues like the teeth are preserved by peoples who do not use fine flour.

4. *The white part of the wheat alone is a very poor food.* This has been demonstrated in a large number of instances by eminent writers. Dr. Hammond, of New York, among the number, tried for ten days to live on starch; at the end of that time his friends dissuaded him from continuing it longer, lest he die.

5. *White flour has little nitrogen.* Different tissues of the body contain this element in abundance; hence the necessity for its supply in the food.

6. *For constipation.* This flour is a natural remedy for this condition, and has great value as a preventive.

7. *People use white flour from habit, not because of physiological reasons.* Flour containing all of the nutritive elements of wheat cannot be white.

8. *Poor food is always deleterious.* The best for the system is what every one should afford, and especially if it is the cheapest.

In conclusion, we are forced to believe that it is evident to the thoughtful that neither superfine white flour nor what is commonly termed graham flour is a representative food, but that in fine flour of the entire wheat we have really a representative food which must, as soon as tried, create a general demand for its use.

CAUSES OF DYSPEPSIA.

HARD WATER.—So little attention has been paid to this really common cause of indigestion by writers on this subject, that we cannot forbear mentioning it here. Experience has often proved that the use of hard

water impairs the integrity of the stomach sooner or later when long continued ; and in numerous instances its effects are almost immediate upon persons who visit a hard-water district, having been accustomed to the use of soft water. These injurious effects are undoubtedly attributable to the lime and magnesia which are contained in water called hard. These alkalies, as already seen in considering the physiology of digestion, neutralize the gastric juice, and thus work their mischief. There is little necessity for the use of hard water in any part of the country. Where there are not soft-water wells or springs, rain-water may be caught and preserved in cisterns, and, by filtration through carbon filters, made pure and palatable for drinking and cooking purposes. There is no foundation for the theory that hard water is in any respect more excellent for use than pure soft water.

ALKALIES.—Soda, saleratus, and the numerous compounds of these substances with ammonia, alum, cream of tartar, etc., are all objectionable on the same grounds as hard water. Being alkaline, they antagonize the action of the acid gastric juice, and thus weaken digestion. There is no more active dyspepsia-producing agent than soda and saleratus biscuit, one of the most common articles of food to be found on the tea-table of rich and poor in this country. Doubtless, well-prepared baking-powders are much preferable to soda and cream of tartar or saleratus and sour milk, mixed by the cook in accordance with the not remarkably accurate "rule of thumb," through which bungling chemistry the biscuit often present a golden hue which may be quite attractive to the eye, but gives to the tongue quite too distinct a flavor of soda and potash to be agreeable to a fastidious taste, to say nothing of the probable effect upon a stomach not impregnable against the attacks of chemical agents. In baking-powders, the various ingredients are so mixed as to leave nearly neutral products, and yet these compounds are scarcely less pernicious in their influence upon digestion than the original chemicals from which they are formed. We deem the wide-spread and growing use of these chemical bread-making agents bad omens for the digestion of the next generation ; though we can readily grant that if the alternative is between heavy bread and bread made light by baking-powder, the later is preferable.

PERVERTED APPETITES. — Strangely perverted tastes, as shown in a fondness for earthy and other inorganic or innutritious substances, while sometimes the result of dyspepsia, are often the cause of stomach disorders, being the result of nervous or mental disease, or being adopted as a habit through example. In South America there are whole tribes of human beings who habitually eat considerable quantities of a peculiar kind of clay. Several North American tribes have the same habit, being known as clay-eaters. A similar propensity sometimes appears among more civilized human beings, being almost exclusively confined, however, to young women, chiefly school-girls, who acquire the habit of chewing up slate pencils, and gradually become so fond of such earthy substances that they have in some instances been known to eat very considerable quantities of chalk, clay, and similar substances. While indicating a depraved state of the system, and often of the mind also, this practice has a very pernicious effect upon the stomach, which is not intended, as is that of the fowl, to receive inorganic matter of that sort.

The amount of abuse of this sort which the stomach will stand, however, is quite astonishing. Dr. Pavy tells a story of an American sailor who saw a juggler pretending to swallow pocket-knives. With the characteristic recklessness of a sailor, and supposing that the knives were really swallowed, he attempted to do the same thing himself, and succeeded in getting down four. Three of these were passed off in two days, but he never saw the other. Six years after, he swallowed fourteen knives in two days and was taken to a hospital, where "he got safely delivered of his cargo." He was not so fortunate on a subsequent occasion, when he paid dearly for his folly, lingering in misery for some time until he died, when his stomach was found to contain a number of rusty knife-handles, blades, springs, etc., being greatly contracted and corrugated in consequence of the violence which had been done to it.

The habit of swallowing cherry pits, apple and other small seeds, is a very reprehensible one. Such objects not only disturb the stomach, but sometimes find lodgment in the appendix at the lower end of the cœcum, giving rise to inflammation and death. As a general rule, the innutritious parts of foods, as the skins of fruits and vegetables, the seeds and cores of apples, and similar parts, should be carefully separated from the nutrient portions and discarded.

Adulterations of Food.—The numerous adulterations of food which are now so extensively practiced must be recognized as a not unimportant cause of functional disease of the stomach. Alum in bread and in baking-powders; lead in drinking-water which has passed through lead water-pipes, or has been stored in lead cisterns, or collected from a roof covered with sheet-tin containing lead; lead occurring in the tin cans used for preserving fruit, or in tin pans or other tinned ware, or in the glazing of kettles; vinegar containing sulphuric and other strong mineral acids; pickles boiled in copper or brass vessels and thus poisoned with copper; sugar adulterated with glucose—or sugar made from corn, refuse starch, etc.—and containing iron, sulphuric acid, tin, etc.; flavoring extracts made by purely chemical processes, and containing not a drop of the extract of the fruit after which they are named; chalk and water in milk,—these, with numerous other equally harmful adulterations, may be reckoned among the active causes of indigestion.

Unseasonable Diet.—The failure to recognize the necessity of adapting the diet to the season and climate is a prolific source of a certain class of dyspeptic disorders. This is especially noticeable when the use of large quantities of carbonaceous food, especially fats and sugar, which may be used in winter with comparative impunity, is continued into the warm season of the year, or when a diet of this sort is continued in a warm climate by persons who have been accustomed to it in a cold country. It is this sort of transgression of the laws of digestion that gives rise to "biliousness," "bilious dyspepsia," etc., in many persons. Large quantities of fat and sugar are not well tolerated by the stomach at any time; and in warm climates, and the warm season of cold and temperate latitudes, they are exceedingly injurious.

Pressure upon the Stomach.—The stomach is remarkably sensitive to pressure. It even sometimes becomes temporarily paralyzed by excess in eating, or by the accumulation of gas from fermentation, by the distension of its walls. It is equally liable to injury of a similar sort from external causes. A sudden blow upon the stomach has been known to produce almost instant death. In ladies, the wearing of corsets, and tight-lacing with or without the corset, are common causes of dyspepsia as well as other serious diseases. Wearing of the pantaloons drawn tightly, and without suspenders, has a similar effect in men. The soldiers of the Russian army once suffered so much from this cause that it became necessary to correct the evil by a royal edict for the purpose. Very soon after the evil practice was discontinued, the effects disappeared. Book-keepers and school-children from sitting at a desk, seamstresses and tailors from stooping over at their work, shoemakers, weavers, and washerwomen, from direct pressure upon the stomach incidental to their work, suffer from disturbance of that organ.

Brain Work.—Mental labor, if agreeable and profitable, is a most healthful occupation. There is no evidence for believing that brain work of that sort ever disagreed with the stomach or impaired its functions in any degree; but mental wrong, discontent, anxiety, and gloom are most unfavorable conditions for digestion, and under their influence few stomachs can long maintain their integrity. It is on this account that idleness is one of the most unhealthful conditions possible. A lazy man is never well.

Mental Impressions.—The digestive process is very greatly under the control of the mind. The connection between the mind and the stomach is so intimate that Van Helmont maintained for a long time that the stomach was the seat of the soul. By any strong emotion the whole digestive apparatus may suddenly cease to act. Fear, rage, and grief check the salivary secretion, and without doubt the gastric also. Through the mind, the appetite may be either encouraged

or quite destroyed. It seems very plausible that a strong nervous impression might so affect the system as to lay the foundation for chronic dyspepsia.

A man who sits down to his dinner with his mind depressed with business cares, the embarrassment of debts or the anxiety of doubtful speculations, cannot hope to digest the most carefully selected meal. The woman who dines with her mind disturbed with discontent, fretfulness, and worriment, is certain to suffer with indigestion. Domestic infelicity may well be counted as at least an occasional cause of digestive derangements. Meals eaten in moody silence are much more apt to disagree with the stomach than those which are accompanied by cheerful conversation. A hearty laugh is the very best sort of condiment. Cheerfulness during and after meals cannot be too highly rated as an antidote for indigestion.

DRUGS.—The continued use of drugs of several sorts, and especially of patent medicines, "bitters," and "purgatives," particularly the latter, has a very damaging effect upon the stomach and bowels. Too much cannot be said to discourage the use of laxatives, purgatives, "liver pills," etc. While sometimes beneficial, agents of this sort, if used for any length of time, are quite certain to work mischief. Purgatives should never be used except as temporary palliatives. If the bowels require artificial aid, the enema is far preferable; and yet this plan also has its inconveniences, and results badly if too long continued. In general, the less drugs one takes the better. Patent nostrums should be shunned as the most virulent poisons, which in many instances they are.

DISEASE OF OTHER ORGANS.—The nervous connections of the stomach and its associated organs are so extensive and numerous, involving, of course, equally extensive and various sympathies, that it is not a matter of surprise that disease of other parts, through direct sympathy, or through a general influence upon the whole system, often occasions disease of the stomach. This is so generally true that it may almost be said that "every disease has its accompanying dyspepsia." This fact is particularly observable in the weakness of the digestive organs which usually follows prolonged fevers; which accompanies and follows malarial diseases; which is closely connected with rheumatic and gouty affections; with most maladies requiring enforced rest for a great length of time; with most forms of brain disorder; and with nearly every form of organic disease, as well as with structural disease of the stomach,—as simple dilatation, chronic ulcer, contraction, cancer, and other abnormal growths.

INHERITED DYSPEPSIA.—Many patients assert that they inherited dyspepsia from a dyspeptic father or mother, having suffered from their earliest recollection from distress after eating, or other disturbance of the digestive functions. In many of these cases there is doubtless inherited a weakness of the stomach, which may become distinct dyspepsia by a very slight deviation from the laws of good digestion; yet it can hardly be supposed that dyspepsia itself is inherited in the sense that some other diseases are. The tendency or predisposition may be inherited in the form of a weak stomach; but in most, if not all, of these cases, careful inquiry will show that the disease itself is due to bad feeding or some other mismanagement in infancy. The use of nursing-bottles without proper attention to cleanliness—which is indeed impossible when a long tube is employed; the employment of deceptive mixtures sold as "infant food;" and especially the use of paregoric, "Mrs. Winslow's Soothing Syrup," "worm teas," vermifuges, and other powerful drugs, with an infinite variety of teas, sirups, and other patent and domestic compounds,—these are some of the more powerful influences which occasion early dyspepsia and often entail life-long misery and suffering. An individual who has grown up to manhood or womanhood under the gloomy shadow of an ever-present, depressing, despair-producing dyspepsia, can never see much of the sunny side of life, even if his stomach could be made to do its duty. The mind falls into habits of thought, and receives a certain cast in early life that no influence can erase in after-years. Hence a responsibility rests upon those who have the care of the diet of human beings at the beginning of life which is really fearful in its immediate and remote consequences to the victims of improper management.—ED.

ARGUMENTS IN FAVOR OF TEA AND COFFEE CONSIDERED.

NOTWITHSTANDING the numerous facts against these beverages, so popular is their use that there are many who profess to find apologies for employing them, and a few of these we will now consider.

1. Tea and Coffee Sustain the Strength.—The same argument urged for tobacco and alcohol is also presented in favor of tea and coffee; but its value is no greater in the case of the latter than in that of the former. That they do not sustain either muscular or nervous strength is shown by scientific experiments which cannot be refuted by any number of unreliable accounts of the great amount of work which can be performed by persons who take little else than tea. Dr. Smith remarks that the use of tea appears to increase muscular activity, as under its influence there is greater ease in making exertion; but he immediately adds that if exercise be taken, "a greater sense of exhaustion follows" than when tea has not been taken; which shows, most conclusively, that the feeling of strength is not real, but deceptive, and that a person is really less fitted for exertion of any kind while under the influence of tea, than at other times. Dr. Smith further remarks, in summing up the effects of tea, that exercise, while under its influence, is followed by "reaction, with a sense of exhaustion," and this is said to be felt even after having had a night's rest. No better evidence of the damaging influence of these drugs could be required.

If it be argued that the amount taken by ordinary consumers of tea is insufficient to produce any ill effect, we have but to call attention to the fact that the wealthy besides using the strongest tea take it in doses even larger than those employed by Dr. Smith in his experiments. It is not at all uncommon for persons with whom expense is not an item of moment, to take at each meal a quantity of the infusion of tea of such strength as to contain not less than five to fourteen grains of theine, a smaller amount than which has been known to cause unconsciousness and temporary paralysis. A single teaspoonful of dry tea may contain seven or eight grains of theine, and this is not an uncommon allowance for each person at a meal.

2. Tea and Coffee Soothe the Nerves.—How do they soothe the nerves? Do they furnish the requisite material for repairing the worn and exhausted organs? No. They only temporarily *excite* them, so that their real condition is for a time obscured; but when their evanescent effect has vanished, the nerves are in greater need than before of being soothed, and each application of the remedy makes the evil worse. This is the reason why we seldom find a confirmed tea-drinker who is not troubled with nervousness. It is also equally true that the great majority of sufferers from this disease are tea or coffee drinkers. In hundreds of instances these nervous tea-drinkers have fully and speedily recovered their health by abandoning their use of the article. This is a sure and simple remedy.

3. Tea and Coffee Assist Digestion.—"My stomach is so weak," says a tea-drinking dyspeptic, "that a cup of good strong tea is necessary to enable me to digest my meal." Yes; this is doubtless the case; and if you continue the practice you will find, after a time, that *two* or *three* cups will be necessary to enable you to dispose of your dinner satisfactorily. Then, if you persevere in the habit in spite of the admonitions of your best medical adviser, nature, you will shortly find it quite impossible to swallow a sufficient quantity of the beverage to make your stomach perform its work. Then you will begin to realize the fact that goading an organ into action is quite a different thing from encouraging and promoting its healthy activity by supplying it with healthful, nourishing food.

Do not be deceived by momentary sensations. Consider the ultimate effects, and you cannot fail to be convinced that instead of promoting digestion, tea and coffee are most effective disturbers of that function. How they interfere with digestion has already been explained.

4. Tea and Coffee Relieve Headache.—How invariably the unsuspecting lady resorts to a cup of tea to relieve the distress occasioned by that common malady, sick headache! Yes; and how invariably that same

sick headache returns? Who ever heard of a person who was permanently cured of sick headache by tea-drinking? Such a thing would be impossible. Tea and coffee are among the prime causes of sick headache, although they afford temporary relief, just as tobacco and alcohol are prolific causes of tremors, but yet appear to steady the trembling nerves for a short time.

5. Tea and Coffee Supply the Place of Food.—Many people who are largely addicted to the use of the articles will prefer a cup of strong tea or coffee to a hearty meal of nourishing food. Indeed, it is a general custom with the English peasant to reduce his bread fare one-half that he may be able to procure a cup of tea to accompany the remainder. Dr. Arlidge, of England, has recently called attention to the fact that the women of the working-classes in that country have carried this practice of substituting tea for food to such an extent that they are beginning to manifest the most unmistakable evidence of narcotic poisoning.

Tea silences the demand of the system for food, but it does not in any respect replace it, as may be seen by the weakened energies and the attenuated forms of those who use it largely. As elsewhere remarked, Dr. Smith has shown that tea-drinkers need more food than others, instead of less.

6. Tea and Coffee Increase Mental Vigor.—Those who make this claim mistake mental *activity* for mental strength. A greater error could not be made; and yet, this fallacious notion is very popular. See the poor victim of delirium tremens trembling with fright at the fantastic and threatening shapes which his excited fancy portrays. His imagination was never so active in health. Now it makes him see forked tongues darting at him from every corner, and converts every shadow into a monster. Who will venture the assertion that his mind is stronger now than when in health? Listen to the ravings of the patient during the delirium of fever; the mind is certainly active, but it cannot be said to be strong; for strength is only consonant with health.

When the brain is stimulated to unnatural activity by tea, coffee, tobacco, alcohol, or any other stimulant, it makes violent attempts to accomplish whatever task may be imposed upon it. But the calm, deliberate action of the mind is impossible. The highest efforts of genius can never be exhibited under such circumstances. Is it argued that some of our greatest mental workers, as Voltaire and Jonson, were users of tea or coffee, we would, in answer, call attention to the nervousness, irritability, and irascibility, which notably characterized the last years of the life of each of these men. Here we see the legitimate results of the use of tea and coffee, and it is very probable that had these men been more nearly correct in their habits of life they would have achieved even greater success than they did.

It was long ago decided by eminent physicians that excitement is not strength. It has quite as long been recognized that every unnatural increase of physical or mental action *must* be followed by a corresponding descent below the average standard of activity.

Then every minister who drinks a strong cup of tea to increase the animation of his discourse, borrows a certain amount of vivacity and energy from some future effort. So every student who goads up his weary brain with a cup of tea to enable him to steal time from sleep, is making a double draft upon his capital of mental force and ability. So, too, the young lady who stimulates with tea to enable her to entertain her visitors, is laying the foundation for future intellectual poverty and mental inefficiency.

7. Tea and Coffee Correct the Injurious Effects of Poor Water.—When no other reason can be offered for the continuance of a bad habit, this one is frequently presented. Its absurdity makes it almost insusceptible of candid consideration. How strange that the addition of a poison to water already bad enough should improve it! The assertion is wholly without foundation in fact, and never would have been advanced as an argument by tea-drinkers except for the lack of any better. Two poisons are always worse than one unless they neutralize each other; but no such chemical properties are claimed for tea and coffee.

J. H. K.

LITERARY MISCELLANY.

Devoted to Mental and Moral Culture, Social Science, Natural History, and other Interesting Topics.

TRUE HEROISM.

LET others write of battles fought
On bloody, ghastly fields,
Where honor greets the man who wins,
And death the man who yields;
But I will write of him who fights
And vanquishes his sins,
Who struggles on through weary years
Against himself, and wins.

He is a hero, staunch and brave,
Who fights an unseen foe,
And puts at last beneath his feet
His passions base and low,
And stands erect in manhood's might,
Undaunted, undismayed,—
The bravest man that drew a sword
In foray or in raid.

It calls for something more than brawn
Or muscle, to overcome
An enemy who marcheth not
With banner, plume, and drum,—
A foe, forever lurking nigh,
With silent, stealthy tread,
Forever near your board by day,
At night beside your bed.

All honor, then, to that brave heart,
Though poor or rich he be,
Who struggles with his baser part,—
Who conquers and is free!
He may not wear a hero's crown,
Nor fill a hero's grave;
But truth will place his name among
The bravest of the brave.—*Sel.*

THE DUTIES OF PARENTS IN EDUCATING THEIR CHILDREN.

BY MRS. E. G. WHITE.

To all parents, God has committed, in their children, sacred trusts for which he holds them responsible. It is his purpose that they shall so educate these children as to bring into exercise the talents he has given them in the manner best fitted to accomplish the greatest good in the world and reflect back glory to his name. These children have varied temperaments, and parents cannot always give the same manner of discipline to each. There are different qualities of mind, and they should be made a prayerful study that they may be molded so as to accomplish the purpose God designed.

Parents should strive so to educate and train their children as to bring out the energies of the soul by exercise. Perception, judgment, memory, and all the reasoning powers, should have equal strength, that well-balanced minds may result; that the character be not one-sided or deformed. If certain faculties are developed, to the neglect of others, the design of God will not be answered. All the faculties have a bearing upon, and are in a great measure dependent upon, each other; one, in order to be effectually used, must have the aid of all the others, that the balance may be preserved. If one faculty is exercised, and others are permitted to lie dormant, the one becomes unduly strong, while the others are proportionally deficient. All minds are not constituted alike. Children inherit from their parents some strong tendencies. These existed in the parents, and exist intensified in the children. Christian parents must carefully consider all these things.

The mother's influence never ceases. As she looks upon her little ones growing up around her, well may she ask, What is the great object of their education? Is it to be admired and flattered by the world? Is it to imitate and practice the fashions existing in this age? The only safe course of training is for parents to teach their children obedience to themselves, which is the first lesson toward teaching them the higher law, —the claims which God has upon them.

It is impossible to estimate the power of a praying mother's influence. She acknowledges God in all her ways. She takes her children before the throne of grace and presents them to Jesus, pleading for his blessing upon them. The influence of those prayers is to those children as "a well-spring

of life." Those prayers, offered in faith, are the support and strength of the Christian mother. To neglect the duty of praying with our children is to lose one of the greatest blessings within our reach, one of the greatest helps amid the perplexities, cares, and burdens of our life-work. Jesus is the mother's sympathizing friend and counselor. He encouraged mothers to bring their children to him when he was upon earth. He remembered that he had a mother, and his sympathies were with all mothers. He remembered that he was once a child, subject to the trials, disappointments, and temptations of children. If this had not been the case he would not have been the pattern for all childhood, youth, and manhood. Jesus sympathizes not only with the care-worn mother but with her children. And when she comes to him for instruction, grace, and wisdom, it will never be withheld.

The mother's nursery is her kingdom; and the more she cultivates her powers and improves her faculties that she may be fitted for her life-work, the more wisdom and knowledge will she have to rule her kingdom and the better govern her subjects. All the tact and cultivated skill of the mother will be called into requisition if she rules with God-fearing wisdom. She will not turn her children over to hired help, or leave them to obtain a street education. She will store up knowledge to impart to her growing sons and daughters. She will not forget that her children will be what her teaching and training shall make them. She will not forget that her boys are to be men, her girls women; that they are to become citizens either to influence or to be influenced, to sway or to be swayed. She will perseveringly do her work, that they may be educated to use their abilities. She will consider that they may fill positions of trust, that they may sit in legislative councils to make and execute laws; and when in after-years they may go far beyond her in strength and intellect they will look with pleasure and pride upon the mother, for to her is due the influence which they have. They honor the mother whose discipline and training made them what they are.

Mothers, shall our precious time be worse than wasted in work and hurry, in needless stitching for ornament and display, while but a limited time is improved in educating and disciplining our children? Our hands are on the cradle that rocks the world. Shall our children become what they may be, and what God would have them be? Shall we meet God's standard, revealed to us in his word, or shall our efforts be employed to meet the world's standard?

In the education of children and youth they should be taught that the habits of eating, drinking, and dressing which have been formed after the world's standard are not in accordance with the laws of health and life, and must be held in control by reason and intellect. The power of appetite and strength of habit should not be permitted to overpower the dictates of reason. In order to secure this object, the youth must have higher aims and motives than mere animal gratification in eating and drinking.

We see society as it is, with its burden of evil. The youth, from young men to little children, lack sincerity and moral power. They love to dress, to smoke, to chew, to talk cheap nonsense and slang. They frequent places of amusement, lounge about saloons, and drink beer, wine, and stronger liquors. Even those professing to be Christians often appear to enjoy these same amusements, although they may not go to the same extent as the openly ungodly. Precious time is thus frittered away and misspent, and hours which might be devoted to usefulness are spent in desultory reading which fevers the imagination. They ease their own consciences by the excuse that they must have recreation. They misinterpret the rightful significance of this word. True recreation is obtaining fresh vigor of mental, moral, and physical power. This can never be gained by selfish gratification or indulgence. Life was given these youth for nobler purposes. By their habits they are placing themselves among those whom the apostle names as being lovers of pleasures more than lovers of God.

I look with sorrow upon the profitless and wasted lives of young men and young ladies, who, as soon as old enough, can think only of courtship and marriage; and I am led to

question in regard to their home influences. What kind of education did they receive? Did they have praying mothers? Were they taught that they were responsible for the use and improvement of the faculties God had given them? that they should be a blessing to others, and not only form characters for Heaven themselves, but seek to lead others in the same divine path? The mothers of these youths might have been bending under the heavy yoke of fashion and custom, and for the slavery of fashionable life neglected the training and education of their children. The parents' neglected work will be seen in the characters of the children.

There are professedly Christian mothers who take an interest in the cause of temperance, but who have not yet learned that temperance in all things is to be taught and practiced in their own homes. The mother should educate her children while young to become workers in the wide field of reform.

The mother may by her example give instruction the most essential to her children, by deeds of kindness to others, in wiping the tears from weeping eyes, cheering hearts that are becoming hopeless and discouraged, and by precept and example strengthening the physical, mental, and moral powers; thus laying the foundation of a noble manhood and womanhood for her sons and daughters.

The word education means more than a course of study at college. Education begins with the infant in its mother's arms. While the mother is molding and fashioning the character of her children she is educating them. The memory of a mother's prayer with her hand laid upon the head may withhold our sons and daughters from yielding to temptation when sorely tried; and the power of love which binds the heart of the child to the heart of the mother has a determined power to hold him on the side of right.

Little does the mother realize that her influence in the judicious training of her children reaches with such power through the vicissitudes of this life, stretching forward into the future, immortal life. To fashion a character after the heavenly model requires much faithful, earnest, persevering labor; but it will pay, for God is a rewarder of all well-directed labor in securing the salvation of souls.

A CASE OF IMAGINATION.

It is a well-established fact that the mind has a direct and important action upon the body, and to a much greater extent than persons in general suppose. During the prevalence of an epidemic, for instance, such as the cholera, thousands become afflicted through their own fancy, who would otherwise escape the fell destroyer. We remember, when this scourge was last upon us, of hearing several individuals spoken of as likely to perish with the disease, for the simple reason that they were constantly in dread and fear of it; and we noted the fact that these same persons rarely lived out the season; while, on the other hand, those who seemed to care little about it, and in some cases scoffed and defied it, were seldom touched by the invisible foe.

No one can tell what the mind is, or how it acts upon the body; but we have constant evidence of its presence and power through one of its attributes, the will; and we are sometimes astonished at its increased force, when stimulated by passion or fear.

In a conversation upon this subject with a distinguished physician of our acquaintance, he related a case of the striking effects of imagination, or mind, upon body, which came under his own observation while a student at a hospital. A lecture by one of the faculty, touching upon imagination and its strange effects, became a subject of discussion in his class; and the question shortly arose, whether it was not rather the body that affected the mind than the mind the body.

"I contend," said one, "that the body first becomes affected by some morbid influence, and the mind, of course, takes its tone therefrom."

"I maintain," said another, "that the mind may be first affected, and so impair the the body, as in cases of mental excitement, such as grief, joy, fear, horror, shame, chagrin, and disappointment."

The students took sides on the question, and the matter was ably argued pro and con, each party about equally maintaining its assumed position. In all questions of a nature permitting a strong argument on either side, it is fair to presume that both parties have truth for a foundation, and neither has the whole truth; and so it was in this case—the

fact being that the mind does affect the body, and the body the mind.

But something more than argument was wanted in this case; medical students like to try experiments, and witness practical demonstrations; and it was finally agreed that a perfectly healthy subject should be selected and put under the effects of imagination. A young, robust, rosy-cheeked farmer, who occasionally came into the town to dispose of his fruit, and who had found some of his best customers among the students, was fixed upon as an individual in every way satisfactory for the trial. The plan was for some of the students, at different times and at different places, without any appearance of collusion, to be struck with his altered looks,—to perceive some secret malady beginning to affect him,—and finally to predict his death at a given time. With this understanding they went deliberately to work the next time he appeared among them. Some three or four of them sauntered out to his cart, from which he was selling apples, and each, as he came up, took a long and unusual stare at him, as if suddenly discovering something very peculiar; and then all seemed to consult together in a very serious manner, occasionally glancing at him with looks of pity verging on alarm.

"How are you to-day, Mr. Basset?" at length inquired one of the party, in a grave, quiet tone, with a look of commiseration; while the others crowded up, stared hard in his face, and seemed anxious for his answer.

"I'm right well, I thank you!" replied Basset, with a pleasant smile; "how do you find yourself? I've got some good eating apples here, gentlemen—the same kind you liked so well before."

"How old are you, my friend?" pursued the one who had first addressed him, still looking him steadily and seriously in the eye.

"Going on twenty-four."

"Just the age, too," remarked the other to his companion, in a low tone, which Basset overheard, as it was intended he should. "Are you married?" he inquired, turning to the young farmer.

"No; not yet, exactly," laughed Basset.

"Intend to be, I suppose?"

"Well, perhaps, sometime or other, if I live."

"Very well put in—*if you live!*" returned the questioner with solemn emphasis.

For the first time the young farmer looked at the speaker in some surprise.

"Why, what do you mean by that—if I live?" he inquired.

"Is it best to tell him?" said the student, in a low tone, addressing his companions.

"It may be as well," replied another; "It can alter nothing you know, Wheatley, and he may have some preparations to make."

"Ah! here comes Dr. Giles,—a very shrewd observer; let us see if he notices anything first," observed Wheatley, glancing at another student, who was leisurely approaching.

"Well, boys, how are the apples to-day?" said the new-comer in a light tone, as he drew near.

He glanced at the apple-dealer as he spoke, gave a start, stopped suddenly, and then looked inquiringly at the others, who maintained an ominous silence.

"Heavens!" he exclaimed, "it is so! And so young!"

"What is so?" rather seriously inquired Basset, on whom the manner of the whole group had begun to make a marked impression.

"I was about to tell him," said Wheatley to Giles, in a confidential tone; "but seeing you approach, I thought I would wait and see if your observation confirmed it."

"A clear case—I saw it at a glance!" replied Giles.

"What a pity! And he is in such apparent health!"

Then the five students drew back and mysteriously conferred together.

"Does he suspect nothing?" the farmer overheard Giles inquire.

"Nothing whatever, and even announced himself as feeling in his usual good health," answered Wheatley.

Giles lifted his hands, with a look of commiseration, and muttered, as if to himself, "Poor fellow—poor fellow! it will be a hard blow to him and his family!"

Nothing of all this was lost on Basset, who began to grow very restless and uneasy.

"What's the matter?" he again inquired, looking from one to another. "Do you see anything queer about me?"

"Tell him yourself, doctor," said Wheatley.

"Some one should," returned Giles; "but I wish the task had not devolved on me. One must do his duty, however."

He then went up to the young farmer, and solemnly asked him if he felt well—perfectly well, and if he had any particular fear of death.

"What do you say all this to me for?" returned the other, turning somewhat pale, and looking frightened.

"Because we see the seeds of death in you," said Giles, "and know you cannot live over a week from to-day—from this hour, in fact."

"Gracious heavens! what is it? What's the matter with me?" cried the other, in real alarm, turning still more pale, and beginning to tremble in every limb.

"You have that secret but fatal malady known in the olden time as the plague,—a disease again revived, and now going about the country, baffling all attempts of the most scientific physicians to master it. It is always preceded by peculiar spots on the skin, such as we see on yours, and kills on the seventh day, if not sooner. You will further be assured of it by a certain pain about the region of the heart,—such as, if I am not mistaken, you feel now. How is it? Am I not right?"

"I believe I do feel kind of queer here," replied the frightened farmer, putting his hands to his breast, and shuddering.

"Of course you do. Come, gentlemen, take pity on him and purchase his apples so that he can go home and arrange all his affairs before he has his first attack of delirium."

"Can't you do anything for me? Ain't there any hope?" whined the now terrified fellow, with big drops of perspiration, wrung out by mental agony, standing all over his face and brow.

"We can't do anything for you now," said Giles; "but Dr. Copple, of our hospital, fancies he has discovered a cure. We shall know to-morrow—for he is, in the meantime, to try the remedy on a patient not far from here; and should he succeed, we will come to you on the day after to-morrow with his secret. Meanwhile, go home, and if you feel weak, go to bed; and if cold, see that you are well covered. Do not apply to any other physician, or take any medicine of any kind till I see you. I will come at the time set, and let you know your fate for a certainty. Try to keep up your spirits, and hope for the best!"

The students bought the poor fellow's apples at their own price, and he offered Giles all he was worth if he would come and cure him. He drove off in great alarm, feeling very weak, and complaining that the pain in his heart was increasing.

On the road beyond the village he met some more students, who looked at him in surprise and alarm, inquiring how he felt, and assured him he was very ill, and threatened with the plague—if, in fact, he had not got it already.

He finally reached home more dead than alive; informing his parents of what had occurred, he took to bed, and gradually grew worse. In spite of his protestations, they sent for a doctor; but it so happened that the latter was away on a consultation in a neighboring town, and did not return in time to see him the next day. The day following, young Giles, with several others, went to visit him and report upon the case. They found him with a high fever, covered with quilts, complaining of cold and intense anguish about the heart, and verging on delirium.

"Well, doctor?" he gasped, looking wildly at the now alarmed student.

"You are saved," whispered Giles. "Dr. Copple's remedy has already restored six dying patients. Here; take these pills—one every fifteen minutes; and in an hour your pain will leave you, and before night you will be well."

The man brightened at once, and took four bread pills at intervals of ten minutes. In an hour, sure enough, he was better, and before night he had left his bed, and was pronounced out of danger. The students returned to town, satisfied with their experiment, and the next week Basset was again

at the hospital, selling them more apples. Then they told him the joke, and though inclined to be angry at first, he finally joined in the laugh against himself.

So much for the force of imagination.—*Sel.*

SHARING THE DISGRACE.

THE ages have borne witness to womanhood's devotion. Wherever there has been an opportunity to do, or bear, or suffer, with her companion and head, she has been ready to embrace it. No matter how great the sacrifice, she has been willing to bear not only her own burden, but also the burden which belongs to another.

It was not good for man, even in innocence, to be alone; and since he has fallen, amid the wreck of his fortunes and his hopes, she who was first in the transgression has ample reason for standing steadfast by his side.

They who would separate manhood and womanhood, are doing an injury to both. Any institution, association, privilege, enjoyment, or recreation, from which one-half of the race is excluded, *writes its own condemnation in advance.* Man has *no business to be* where woman has no *right to be;* and anything from which either is debarred, is quite likely to be a curse to both.

A little incident may illustrate our thought: A young man had for some reason learned to prefer a billiard saloon to his home. His wife lamented his absence, and watched and waited long for his return. One evening while pursuing his habitual amusement in his customary haunt, the door opened and his neatly dressed wife entered, leading their little child. He looked up astonished at the apparition.

"Why, Mary, are *you* here?"

"Yes, husband, I got tired of staying alone, and I thought that as you were here I would come, too. How pleasant it is, and so bright and cheery; and such agreeable companions."

Somehow the young man did not seem to enjoy his amusement as he usually did. He expostulated with the little lady, but she chatted gaily, and told how much she enjoyed being with him.

"This is disgraceful," said he.

"I know it," said his wife, "but you have borne the disgrace so long *alone* that now I am willing to share it with you."

She was thoroughly mistress of the situation, and he speedily came to know that though the man was the head of the family, the woman was the neck which turned the head around; and he made up his mind that it was time for the head of the family to turn around, and so taking his wife and child he started for home; and when he got home he stayed there, and, we doubt not, found that a home presided over by such a wife had charms such as no billiard saloon could offer.

We suggest this as a promising style of treatment for cases of a similar character. If the places where so many men spend the time which should be devoted to their families are *good* places, then let the wife take her children and go there, too; if they are bad places, let the husband leave them and turn his footsteps toward his home. If pleasure is to be gained there, let all the family share it; if it is only a disgrace, then let husband and wife bear it together. And when this matter is brought squarely before any intelligent and sensible man, it will not require long to decide what is the proper course for him to take. A place unfit for women and children is unfit for men also. Where woman has no right to *go*, man has no business to *stay;* and the sooner he recognizes the fact the better for himself and all concerned. It is not good for man to be alone, and he who excludes woman from his presence generally goes farther for company and fares worse.—*Sel.*

THE DERIVATION OF THE WORD MONEY.

THE derivations of the words relating to money and commerce are interesting and instructive. "Pecuniary" takes us back to the times when values were reckoned by so many head of cattle. The word "money" is from *moneta*, because in Rome coins were first regularly struck in the temple of Juno Moneta, which again was derived from *monere*, to warn, because it was built on the spot where Manlius heard the Gauls approaching to the attack on the city. "Coin" is probably from the Latin *cuneus*, a die or stamp.

Many coins are merely so called from their weight, as, for instance, our pound, the French livre, and the Italian lira; others from the metal, as the "*aurens;*" the "rupee" from the Sanskrit *rupyra,* silver; others from the design, as the angel, the testoon, from *teste* or *tete,* a head; others from the head of the state, as the sovereign, crown; others from the proper name of the monarch, such as the daric, from Darius, the Phillip, Louis d'or, or the Napoleon. The dollar, or thaler, is short for the Joachimstaler, or money of the Joachims valley, in Bohemia, where these coins were first struck in the sixteenth century. Guineas were called after the country from which the gold was obtained, and the "franc" is an abbreviation of the inscription *Francorum Rex.* The "sou" is from the Latin *solidus.* The word shilling seems to be derived from a root signifying to divide; and in several cases the name indicates the fraction of some larger coin, as the denarius, half-penny, farthing, cent, and mill. The pound was originally not a coin, but a weight, and comes from the Latin *pondus.* Our pound originally was a pound of silver, which was divided into 240 pennies. The origin of the word penny is unknown. Some have derived it from *pendo,* to weigh; but this does not seem very satisfactory. Our word "sterling" is said to go back to the time of the conquest, but the derivation has been much disputed. Some have supposed that it was first attributed to coins struck at Stirling, but for this there is not the slightest evidence; others, that the name was derived from coins having a star on the obverse, but no coins which could have given rise to such a name are known. The most probable suggestion is that it has reference to the Easterling or North German merchants.—*English Magazine.*

WORDS OF COURAGE.

A GREAT deal of talent is lost to the world for the want of a little courage. Every day sends to the grave a number of obscure men, who have remained in obscurity only because their timidity has prevented them from making the first effort, and who if they could have been induced to begin, would in all probability have gone great lengths in the career of fame. The fact is, in order to do anything in this world that is worth doing, we must not stand shivering on the brink and think of the cold and danger, but jump in and scramble as we can. It will not do to be perpetually calculating risks and adjusting nice chances. It did very well before the flood, when a man could consult his friends upon a publication for one hundred and fifty years, and then live to see its success for six or seven centuries afterward; but at present a man waits, doubts, hesitates, consults his brother, his uncle, and his particular friends, till one day he finds that he is sixty years of age; that he has lost so much time in consulting first cousins and particular friends, that he has no time to follow their advice. There is such little time for over-squeamishness at present, the opportunity so easily slips away, the very period of his life at which man chooses to venture, if ever, is so confined, that it is no bad rule to preach up the necessity, in such instances, of little violence done to feelings, and of efforts made in defiance of strict and sober calculation.—*Sydney Smith.*

POPULAR SCIENCE.

DARWINISM.

MR. MAX MUELLER, the eminent scientist and philologist, is not a believer in the doctrines of evolution as taught by Mr. Darwin and his disciples. He raises an objection in regard to language which really seems to be unanswerable from the standpoint of the evolutionist. He says on this point,—

"I cannot follow Mr. Darwin, because I hold that this question is not to be decided in an anatomical theater only. There is, to my mind, one difficulty which Mr. Darwin has not sufficiently appreciated, and which I certainly do not feel able to remove. There is, between the whole animal kingdom, on the one side, and man, even in his lowest state, on the other, a barrier which no animal has ever crossed, and that barrier is language. By no effort of the understanding, by no stretch of imagination, can I explain to myself how language could have grown out of anything which animals possess, even if we

granted them millions of years for that purpose."

There are many other eminent scientists who dissent very strongly from the conclusions of those who have been chiefly instrumental in the development of evolutionary views. The most conspicuous opposers of the views of Mr. Darwin in this country are Profs. Dana and Dawson, both eminently distinguished scientists. The lamented Agassiz was equally active in his opposition of the new views. In a recent letter on the subject, Prof. Dana remarks as follows:—

"I endeavor to show that man's physical nature, as well as his spiritual, was not a product or educt of evolutionary processes, but that it demanded for its creation a divine act; referring for proof, as done by Wallace, to the fact that the brain of the lowest race of men has twice the cubic contents of the highest man ape; to the fact, further, that the skeleton of man is adapted throughout for a vertical position, and that of the ape for a horizontal or inclined; and that geology has discovered no human remains in the rocks that indicate a lower grade of man than now exists, or one that makes the first shade of approximation to the inclined structure of the ape; and also to the existence of a moral sense, etc.,—all showing that some other power than nature's was required for man's existence.

"I also argue that the facts from science, thus far ascertained, sustain strongly the view that the introduction of life on the globe demanded divine intervention, and that there may have been divine intervention, for all that science has to say on the subject, in other cases in the grand system of progress."

News from Jupiter.—After astronomers have sought in vain for many years to solve many problems relating to the planet Jupiter and our other sister worlds without success, a clairvoyant comes to the front with the following information, which, it is claimed, was obtained by the soul of the medium while on a tour of inspection and discovery among the starry spheres:—

"All the planets are inhabited. How innumerable is the variety of forms! Here is Jupiter; it has nine moons!—yes, nine; some are exceedingly small. And, oh, how red it is! It has so much iron. And what enormous men and women! There is evil there, too. Evil is wherever matter and limitation are. But the people on Jupiter are far better than we on earth. They know much more. They are much wiser. There is less of evil in their planet. Ah, they have another sense, too. I cannot describe it, or tell what it is. It differs from all others. We have nothing like it."

How unwise to spend thousands in fitting out scientific expeditions, exploring parties, and in other means for investigating various mooted questions in science, when they can all be solved so easily! Why not get all knowledge in this way?

Rapidity of Plant Growth.—A Norwich botanist was surprised the other morning by the appearance in his case of plants of a fungus or mushroom growth which reared its head above the soil, and grew with such rapidity that in twenty-four hours it had reached its full development and wilted. It was five inches in height and one-fourth of an inch in diameter. This led him to a mathematical calculation of the rapidity of its growth, and he found that it had developed in one day 1,000,000 cells, growing at the rate of 116 cells per second. Professor Asa Gray, writing upon the rapidity of cell formation, cites an instance where a century plant increased six inches in diameter and one foot in height in twenty-four hours, to do which 2,000,000,000 cells had to be formed, which required their formation at the marvelous rate of 231,481 per second.—*Sel.*

Artificial Diamonds.—Mr. Hannay, a Scotch chemist, claims to have succeeded in making artificial diamonds exactly like natural ones. There is no prospect of the discovery being used for fraudulent purposes, however, as the artificial gems cost twenty times as much as the natural ones, owing to the great expense of manufacture.

—A Frenchman proposes to solve the problem of decomposing the elements by means of concentrated solar heat. He suggests that the dissociation of the elements may be readily accomplished by putting the elements in the focus of an immense parabolic concave mirror about thirty feet in diameter.

GOOD HEALTH.

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J. H. KELLOGG, M. D., EDITOR. TERMS, $1.00 A YEAR.

AMERICAN NERVOUSNESS.

UNDER this title Dr. Geo. M. Beard of New York recently delivered an address before the medical society of Baltimore, in which he called attention to many interesting facts. We quote the following from a brief abstract of his remarks :—

"The Doctor remarked that if the medical practitioners of a generation or two ago could have attended his lecture, they would scarcely have understood even its title. The Greeks had no term to express the idea, and down to the last century, nervousness was treated as a mental quality rather than as a physical disease. Neuralgia, sick-headache, nervous dyspepsia, hay fever, and, above all, *neurasthenia*, or nervous exhaustion, have all been developed during the past fifty years, and Dr. Beard claims for the United States the credit, or discredit, of introducing them.

"In proving this novel proposition, he referred to the fact that the present generation is 10° more sensitive to cold or heat than its predecessors. A century ago 60° F. was a comfortable temperature, while 70° is now required; and, on the other hand, the summers then had no injurious effects, while now they produce their regular crops of sunstroke and heat-prostration.

"There is also an increased susceptibility to alcohol and tobacco, tea and coffee, and drugs of all kinds, smaller quantities or doses being needed to produce the same effects as formerly. The teeth decay sooner, the eyesight fails earlier, and the bodily organs generally are less vigorous. Pork, Dr. Beard says, is a test of the digestive organs, and, like the Indian, flies from civilization. Our fathers ate it every day, and three times a day, without ever thinking whether it was easy or hard to digest; but now it is almost banished from our tables, especially among the brain-working class.

"The causes of this nervousness were of course traced to our civilization and education. Compare the training of a Greek boy, says Dr. Beard, with that of a modern American youth. The Greek boy's life was a poem, a constant holiday, a perpetual picnic. Of study, toil, or work, to which the New York boy is early trained, he knew nothing. Work is really a modern institution. All culture, history, science, literature, and languages that have appeared in the world during the past 2000 years, the lad of to-day must try to acquaint himself with. Of all these the Athenians knew nothing. A modern child, from its earliest school-days, is occupied through many and tiresome hours of study with endless committing and repeating and forgetting; confined in constrained positions, in overheated and vitiated atmosphere; meets daily with newspapers and novels that he must be prepared to converse about and criticise, sermons and lectures which he is compelled to listen to and analyze; and finds himself in the midst of a strife and struggle for bread and competence against inordinate competition; so that, in view of these facts, we wonder, not that he is not nervous, but rather at the power of adaptation of the human frame for unfavorable environment."

In calling attention to the causes of the great increase of nervousness, the Doctor omitted to emphasize what seems to us to be one of the chief causes; viz., the use of ardent spirits, tobacco, tea, and coffee, and perhaps the use of opium, chloral, and other narcotics and stimulants. The present generation is suffering for the sins of the preceding. The fathers and grandfathers of the men and

women of the present day used tobacco and tea and coffee, and drank freely of ardent spirits, and with such apparent impunity that their great longevity and robustness have been used as an argument in favor of the harmlessness of narcotics and stimulants, and even in support of the theory that they prolong life by diminishing waste. It is, however, simply an example of the principle illustrated in the Scriptural figure, "The fathers have eaten sour grapes, and the children's teeth are set on edge." The results of the use of nerve stimulants and narcotics by the progenitors of the present generation, are now being felt by their children, and, what is even worse, those who suffer the most are themselves the most certain to be addicted to the same injurious practices, although, as pointed out by Dr. Beard, they are far less able to bear the damaging influence of "alcohol, tobacco, tea, coffee, and drugs of all kinds." In view of this fact, the outlook for the next generation is certainly not very encouraging. Many times have we said to men who claimed to be uninjured by the use of tobacco for many years, "Your children suffer, if you do not seem to;" and in no instance have we failed to find the assertion supported by the facts.

We might mention other causes which seem to us to be almost equally important as factors in the production of the almost universal prevalence of nervousness in this country, but will leave the subject here for the present.

HEALTH AND TEMPERANCE.

We are glad to see that our temperance workers, or at least some of them, are beginning to recognize the fact that true temperance is something more than abstinence from alcoholic drinks; that it really includes almost everything that contributes to the maintenance of health, or the avoidance of everything that tends to the impairment of health. What many drunkards need, to make them sober, temperate men, is a restoration to physical health. Every drinking man is a diseased man. It is true that the whisky which he drinks is the cause of his diseased condition, but at the same time it is also true that liquor is a temporary palliative of his sufferings. It seems to be a remedy. A drinking man gets up in the morning feeling weak, languid and really unfit for work. He takes a glass of grog and his spirits revive; he finds himself able to engage in his daily avocation. When such a man has been induced to sign the pledge and abstain from whisky, only a small part of the work of making him a sober man has been accomplished. He must be restored to a normal condition. The diseases induced by drinking habits must be cured. His dyspepsia, biliousness, nervous exhaustion, and other ailments, all these need attention. It is necessary, of course, to remove the cause at the outset by inducing total abstinence, but the man should not be left at this point, as, in nine cases out of ten, he will find himself feeling so badly that, knowing the power of alcohol to give temporary relief, he will resort to it again in spite of his pledge. The only way to make a sober man out of a drunkard is to make him a healthy man. Hence the importance of giving to temperance work a more extended scope, including in our efforts to reform the drunkard from his cup, an effort to make him a healthy man by reforming his other bad habits.

The following abstract of remarks by an English physician made at a recent temperance meeting at Islington, Eng., indicates an insight into the true method of reforming men:—

"Health is evidenced by activity, and any one who indulges in vicious habits is not only an enemy to himself, but to society. Most diseases are preventable, and are maintained by ignorance. Yet the lecturer said he believed there was more health in the world today than ever before, and more of everything that was good. It was important that we should see to our habitations, and here the speaker animadverted strongly against the shutting of windows and the drawing of curtains at night, to which practice he attributed much of our neuralgia and headache. 'Open windows,' he said, 'mean closed doors for doctors.' The doctor then spoke a great deal about the feeding and clothing of infants, as well as the cooking of food. It had been said, 'The church has joined people together,

but bad cooking has put them asunder.' He was under the impression that when workingmen had better cooked food, they would go less to the public-house. He advocated more vegetables and less meat, and advised persons getting stout to avoid alcoholic drinks and take plenty of exercise. Gin and spirit drinking were injurious. People drank because they were taught to believe in its utility and necessity. Alcohol might be useful in disease, but it certainly was not in health. Since he had abstained—now some seven or eight years—he had enjoyed uninterrupted good health. He could truly say, 'As for me and my house, we drink no wine, and we are all the better for it.' One reason why women lived longer than men was because they didn't smoke. He recommended the daily bath, washing the whole of the body with soap and water twice a week, and an occasional Turkish bath.

"The lecturer, who was frequently applauded, was awarded a vote of thanks at the conclusion of his lecture."

THE OPIUM HABIT.

WITHIN the last few years the consumption of opium has been increasing in this country to an alarming extent. Thirty years ago the amount of opium imported was about 130,000 lbs. annually. To-day, according to the report of the chief of the Bureau of Statistics, it is not less than 400,000 lbs. Of this amount not more than one-fifth is used for medicinal purposes, leaving the enormous amount of 320,000 lbs. to be disposed of by habitual users of the drug. The exact number of opium consumers cannot be determined with any degree of accuracy, as the devotees of the drug usually avoid disclosing the habit as much and as long as possible. Careful inquiries of druggists, and others likely to be the best posted, have elicited facts upon which it is perfectly safe to base the estimate that there are not less than 100,000, and very probably as many as 200,000, habitual opium-takers in the United States.

The amount of opium consumed by an old opium-eater is sometimes enormous. We have had cases in which twenty grains of morphia, equivalent to 320 grains of opium, were taken at a single dose with no more effect than would follow the administration of one-fourth of a grain to a person unaccustomed to its use. One of the most recent cases which has come under our care at the Medical and Surgical Sanitarium at Battle Creek, Michigan, was that of a woman who had been addicted to the drug for nine or ten years, and had increased the quantity from less than a grain a day to ninety-six grains in the twenty-four hours, together with twenty-four ounces of brandy, equivalent to more than three ounces of opium and a pint and a half of brandy.

In addition to this enormous consumption of opium by those addicted to its use, immense quantities are used in various quack nostrums and in so-called "antidotes." Probably the most widely-used nostrum containing opium is Mrs. Winslow's Soothing Sirup, of which no less than 750,000 bottles, containing about one grain of morphia each, have been sold in a single year. This quantity is sufficient to destroy the lives of many thousands of infants, who are very susceptible to the influence of the drug, as no doubt it has done.

Probably the greatest of all causes of this enormous increase in the habit within the last few years is its reckless and uncalled-for use in medicine. It is the custom of many physicians to prescribe opium in some form for almost every ache or pain which they encounter in practice. If they find a patient suffering with pain, whether from an acute attack of colic, a chronic neuralgia, a faceache from a decayed tooth, a backache from some uterine disease, or a fractured limb, an opiate is at once prescribed, and often before ascertaining what may be the patient's condition. We have treated quite a number of persons suffering from the opium habit, and have never met a case in which we were not informed by the patient that the habit began with a physician's prescription. This is the general testimony of all who have examined this question. We have had patients who had been taught by their physician to take morphia by means of the hypodermic method (injection beneath the skin), whose bodies were so completely covered with scars that it was scarcely possible to find a spot within

reach of the patients' own hands, and not uncovered by the clothing, which had not been punctured by the needle of the hypodermic syringe one or more times. In one case a patient was actually driven to seek relief from the terrible habit by sheer inability to find new places for puncturing the skin. The most common method of taking the drug, however, is by the mouth. The physician gives a prescription which the patient has filled and refilled, until the habit is firmly fixed. We have many times heard patients condemn in no stinted terms the physicians who first introduced them to the fascinating drug, apparently forgetting that they may have been themselves in large measure to blame, since it is a most common thing for patients to demand of physicians medicines which will produce immediate palliative effects, not once thinking that Nature must effect the cure, and that time will be required to sufficiently remove the cause of the disturbance so as to obtain relief in a natural way.

The continued use of opium is followed by effects far more serious than those from the use of tea, coffee, tobacco, or alcohol. It is an evil that every physician ought to do his utmost to expose, warn against, and prevent. Probably physicians can do more than any or all other persons combined to cure the habit, by exercising care to avoid, in every possible way and under all possible circumstances, the use of opium as a medicine. There are numerous other measures of relieving pain, and all available means should be tried before resorting to this drug so likely to make the sufferer whom it temporarily relieves a greater sufferer in the end.

The government of Pekin has taken measures to check the enormous consumption of opium in that country, by interdicting its use after the beginning of the present year, under a most severe penalty. If there is need of prohibitionary legislation respecting any form of intemperance, this certainly is the one of all others requiring it, and the one for which there seems to be the best chance for success.

Of the fascinating power of this drug and the extreme difficulty of overcoming the habit, so much has been written that we need say nothing. The confessions of the opium-eater, De Quincy, portray in far more graphic lines than could we, the terrible bondage of an opium slave. We should say a word, however, with reference to its cure. The numerous antidotes for the opium habit advertised in the newspapers are the basest frauds imaginable. The examination of a large number of them by Dr. Prescott, of the Medical department of the University of Michigan, a few years ago, showed them to be, without exception, compounds of opium. In this case the remedy is not worse than the disease, but identical with it. The habit is not incurable, however, as many suppose. With proper treatment, all can be cured, and in a comparatively brief space of time. In the case mentioned in which ninety-six grains of opium were taken daily, the patient, although suffering with an acutely painful disease, was completely cured in less than six weeks though she had been addicted to the use of the drug for many years, and in addition was addicted to the use of liberal quantities of alcohol, a combination much more difficult of cure than either habit alone. Other patients have been cured in three or four weeks, or in shorter periods.

BUILDING SITES.

In making a home for a family, few things are of greater importance to be taken into consideration than the location; yet this matter of paramount importance is almost universally neglected. The site is generally selected with reference to convenience or economy, or some other lesser consideration, without reference to healthfulness. The following remarks on this subject by Dr. Mowditch, President of the Massachusetts State Board of Health, are very much to the point:—

"When selecting a site upon which he hopes to rear a family, let a man avoid a damp soil as deadly in its influence. This law of dampness of soil and air, especially in its influence upon the production of consumption, is now as certainly proved as the law of gravity. We must accept it and avoid it, or take the consequences. Of two families, one born and reared on a damp soil will be from two to three times as liable to die of consumption as another born and reared upon a

dry soil. Yet how few fathers ask about the soil! for, provided the site be agreeable to the eye, or for other reasons, the point of the healthfulness of the place in this particular is wholly ignored.

"How many parents, otherwise most kind and thoughtful, allow accumulations of water in the cellars of their homesteads! They wonder at the poor health of the household, and talk about the providence of God being somehow the cause of the difficulty, whereas it is owing to their own ignorance or willful violation of health laws.

"Again, how many adults and how many children are daily submitted to the re-breathing of the air that has been used many times in the school-room, workshop, store, warehouse, kitchen, or parlor.

"Men seem to forget that pure air in plenteous streams is needed for the perfect health of man. Go into our public assembly rooms, our courts of justice, or our churches, from the external air, and see if you are not oppressed by the noisome vapors, which the folly (or crime, as it seems to me we may sometimes call it) of our public authorities compels our people to breathe, often to their infinite injury."

POISONING FROM FRUIT CANS.

THIS is an appropriate season of the year for calling attention to the fact that serious injury may result from putting up fruit in cans which offer any chance for contamination with zinc or lead. It is well known that both these minerals are noxious poisons, producing most serious symptoms even when introduced into the system in very small quantities. It is also well known, or should be, that both zinc and lead are very easily affected by weak acids, such as the acids of fruit. Indeed, the poisons are so soluble that water, a wholly neutral substance, will dissolve them in quantity sufficient to produce symptoms of poisoning. Danger from lead in connection with the preservation of fruit chiefly arises from the use of cans made of tin with which lead has been mixed. The cheaper grades of tin are, almost without exception, adulterated in this way. On this account, we should by all means discourage the use of tin cans for canning either fruit or vegetables, the danger of contamination being so great. For those who put up their own fruit, glass cans are fully as cheap, as they can be used many times instead of but once.

There is also danger from the use of glass cans if those having zinc covers are used. Only those having glass or porcelain-lined tops should be employed. The danger of using those with zinc covers is shown by the following account of a recent case of poisoning which we quote from the *Sanitarian*:—

"POISON IN FRUIT JARS.—Four persons were poisoned recently in Brooklyn from eating canned cherries. Fortunately they all recovered by prompt treatment. Prof. Geo. W. Plympton made an analysis of the fruit left, and found the poison to be a salt of zinc formed by the action of the acid in the cherries on the zinc cover of the jar. The preserving had been done with scrupulous care, the jars were of a kind in common use, and the contents of several had been eaten without any unpleasant effects. On examining some which had not been before opened, one having a zinc top with a porcelain lining was selected, and in it there was no indication of zinc. But on pouring a portion of the syrup of this jar into the zinc cover of the first, and warming it over a water bath for three-quarters of an hour, the solution promptly yielded to the test for zinc. . . . The case is not without parallel, and the public should learn that the use of zinc or galvanized iron in the preparation or preservation of canned fruit or vegetables is not free from danger."

BAKING POWDERS.

IN the last few years the old-fashioned saleratus biscuit has almost entirely disappeared from the tea-table, where it was once always present, the alkali being replaced by the more scientific baking powder, in which the proportions of acid and alkali are so adjusted as to secure the most effectual results with the smallest quantity. The evident superiority of baking powders over sour milk or cream of tartar and saleratus has led to the general introduction of the former, so that its manufacture and sale have become an

enormous industry. The competition in trade and the cupidity of manufacturers, as might reasonably be expected in these days of wholesale and almost universal sophistication, has led to the wholesale adulteration of this widely-used commodity. Some time since, Henry A. Mott, Ph. D., government chemist, made an extensive series of analyses of baking powders and published the results, which showed that many of the most popular brands were largely adulterated with alum, the deleterious effects of which were well known. There was a great disturbance at once among the manufacturers of baking powders, and it was not long before the attempt was made to convince the public that alum when used in this manner was in no way detrimental to health, it being claimed that the chemical reactions which take place when it is used in raising bread were such as to convert it into a different and wholly harmless substance. In order to answer these specious arguments conclusively and satisfactorily, Dr. Mott undertook an extended series of experiments with alum baking powders upon animals. He selected healthy dogs and fed them upon biscuit made with the baking powder. In every case the dogs became sick, some within a few hours, and others after a day or two. As a general rule they would scarcely touch the biscuit after the first day, preferring starvation to poisoned food. The principal symptoms arising from the use of the alum baking powder were sickness, violent vomiting, loss of energy, and weakness of the limbs. The effects upon human beings have been shown to be, "headache, indigestion, flatulence, constipation, diarrhea, dysentery, palpitation, and urinary calculi." Its effects upon young children are especially disastrous, causing a great increase of mortality through the production of diarrhea. Among the numerous names of distinguished physicians who protest against the adulteration in question may be mentioned Dr. Willard Parker, Dr. Alazo Clark, and Dr. Wm. A. Hammond.

Dr. Mott's experiments showed that alum interferes with digestion by rendering the gastric juice incapable of digesting food, and also causes congestion and inflammation of the mucous membrane of the stomach and bowels. By making an analysis of the internal organs of several dogs killed after being fed on biscuit made with alum powders for several days, he was able to detect it in considerable quantities in the stomach, spleen, liver, heart, and other viscera, and also in the blood.

We do not recommend the use of baking powders of any kind; but if they must be used, it is important that those which are free from adulteration should be selected.

MEN MADE OF OATMEAL.

No article of food has increased in general favor in the last few years so rapidly as oatmeal. A few years ago it was used almost exclusively by the Scotch and Irish with a few invalids who were looked upon by their friends either as "a little cracked" or poor unfortunates forced to do penance on account of previous transgressions. Now this highly nutritious food is found upon the breakfast table of the better classes everywhere. All first-class hotels and restaurants supply it to their patrons at least once a day. Dr. Johnson entertained a great hatred of the Scotch, and lost no opportunity of saying bitter things against them. He once defined oats as "in Scotland, food for Scotchmen; but in England, food for horses." He was well answered by the indignant Scotchman who replied, "Yes, and where can you find such men as in Scotland, or such horses as in England?" In the "Life and Letters of Macaulay" it is mentioned that Carlyle, catching a glimpse of Macaulay's face, remarked, "Well, any one can see that you are an honest, good sort of fellow made out of oatmeal." A contemporary well says, "If oatmeal can 'make' such men as Walter Scott, Dr. Chalmers, and Lord Macaulay, we may well heap high the porritch dish, and bribe our children to eat of it. One thing we do know, that it is far better for the blood and brain than cake, confections, and scores of delicacies, on which many pale little pets are fed by their foolishly fond mothers. 'The Queen's Own,' a regiment of almost giants, recruited from the Scotch Highlands, are, as Carlyle said of Macaulay, 'made of oatmeal.'"

BREAD AS AN ECONOMICAL FOOD.

The *American Miller* says that "bread is the cheapest diet one can live on, and also the best. A story is told that shows just how cheap a man can live, when he gets 'down to mush,' figuratively and literally speaking. Col. Fitzgibbon was, many years ago, colonial agent at London for the Canadian Government, and was wholly dependent upon remittances from Canada for his support. On one occasion these remittances failed to arrive, and as there was no cable in those days, he was compelled to write to his Canadian friends to know the reason of the delay. Meanwhile he had just one sovereign to live upon. He found that he could live on sixpence a day, or about 12½ cents of our money;—four penny worth of bread, one penny worth of milk, and one penny worth of sugar. He made pudding of some of the bread and sugar, which served for breakfast, dinner, and supper, the milk being reserved for the last meal. When his remittances arrived about a month afterward, he had five shillings remaining of his sovereign, and he liked his frugal diet so well that he kept it up for over two years, possibly longer. Twelve cents a day is certainly a small amount to expend for food; but a man in Minnesota about three years ago, worried through a whole year on ten dollars. He lived on 'Johnny cake.' We know of a theological student in an Ohio college who, sustained by grace, rice, and corn bread, lived thirteen weeks on seven dollars; but there were several good apple orchards near the college and the farmers kept no dogs. It is not the necessities of life that cost much, but the luxuries; and it is with the major part of mankind as it was with the Frenchman who said that if he had the luxuries of life he could dispense with the necessities. Mere living is cheap, but as the hymnologist says, 'It is not all of life to live.'"

We are acquainted with a young man who, while a student at college, subsisted for several months on a fruit and bread diet at an expense for the raw material of exactly six cents a day. From personal experience we believe that life and health can be supported well at a still less expense in case of necessity. The real necessities for the maintenance of life cost very little. Unnecessary and harmful luxuries are both directly and indirectly the source of the greatest expense of living.

Vitiated Air.—Dr. Willard Parker, in a lecture before the students of the College of Physicians and Surgeons of New York, used the following apt illustration of the manner in which the air becomes contaminated by respiration: "If, gentlemen, instead of air, you suppose this room to be filled with pure, clear water, and that, instead of air, you were exhaling twenty times a minute a pint of milk, you can see how soon the water, at first sparkling, would become hazy and finally opaque, the milk diffusing itself rapidly through the water. You will thus be able to appreciate, also, how at each fresh inspiration you would be taking in a fluid that grew momentarily more impure. Were we able to see the air as we are the water, we could at once appreciate how thoroughly we are contaminating it, and that, unless there be some vent for the air thus vitiated, and some opening large enough to admit a free supply of this very valuable material, we will be momentarily poisoning ourselves as surely as if we were taking sewage matter into our stomachs."

A Fashionable Dinner.—Dr. Letheby, an eminent English writer on food, in his Cantor Lectures thus describes a fashionable dinner:—

"We smile at the accounts given of the gormandizing powers of the natives of Arctic regions and the savages of Southern Africa, but our own habits of eating and drinking are scarcely less preposterous. Look at a modern dinner. Beginning with soup, and perhaps a glass of cold punch; to be followed by a piece of turbot or a slice of salmon with lobster-sauce; and while the *caput cœnæ*, the venison or south-down, is getting ready we toy with an oyster paté or a bit of sweetbread, and mellow it with a bumper of Madeira. No sooner is the venison or mutton disposed of, with its never-failing accompaniments of jelly and vegetables, than we set the whole of it in a ferment with champagne, and drown it with hock or sauterne. These are

quickly followed by the wing and breast of a partridge, or a bit of pheasant or wild duck; and when the stomach is all on fire with excitement we cool it for an instant with a piece of iced pudding, and then immediately lash it into a fever with undiluted alcohol in the form of cognac or a strong liquor; after which there comes a spoonful or so of jelly as an emollient, a morsel of ripe stilton or *paté de foie-gras* as a digestant, a piquant salad to whet the appetite for wine, and a glass of old port to persuade the stomach, if it can, into quietness. All these are more leisurely succeeded by the *mensa secunda*, or dessert, with its ices, its preserves, its bake-meats, its fruits, its geliffes, codiniacs, and suckets, as Hollinshed would call them, and its strong drinks; to be afterward muddled with coffee and complicated into a rare mixture with tea, floating with the richest of cream."

Result of Sanitary Neglect.—An epidemic of typhoid fever has broken out at Princeton College, New Jersey, in consequence of gross negligence of sanitary laws. We heartily indorse the following comments by our pithy contemporary, the Lansing *Republican*:—

"With a fund of over $1,000,000, well invested, and a large corps of the best intellectual and moral instructors in the land, there is ignorance of the effect of cesspools and bad drainage, which would disgrace the most obscure country village. The malarial fever at Princeton has taken on a typhoid form, and the chairman of the State Board of Health attributes it to negligence of sanitary laws. What does it profit men to know almost everything in the world, and yet lose their own lives from the lack of a little common sense?"

LITERARY NOTICES.

HAND-BOOK DESCRIBING AIDS FOR CASES OF INJURIES AND SUDDEN ILLNESS. By Peter Shepherd, M. B., London, England. Price, one shilling.

This is a brief manual of advice concerning cases of accident and sudden illness especially adapted to non-professional readers. The first part of the work presents a brief and concise outline of the anatomy and physiology of the human body. Part Second is devoted to medical and surgical outlines, and contains a few plain rules for treatment in cases of injuries and emergencies. It contains many valuable hints which every one would do well to read.

PLUMBER AND SANITARY ENGINEER. Chas. F. Wingate, Editor. New York.

This excellent semi-monthly, which is now in its third volume, is one of the most practical sanitary journals in this country. The topics, public health, drainage, water-supply, ventilation, heating and lighting, to which it is particularly devoted, are subjects of vital importance to every householder. The journal is published at $2.00 per year and ought to be in the hands of every plumber and builder.

THE SCIENCE OF HEALTH CONSERVATION AND THE TRUE HEALING ART, HYGEIO-THERAPY.

The above is the title of a small pamphlet purporting to be a lecture delivered by Dewitt Clinton Moore M. D., in the parlors of the "Trall Health Conservatory," San Francisco. The general tenor and animus of the publication is shown by the following extract:

"The horrid and abominable way in which medical men of the drug school treat that simplest of all diseases, a fever, illustrates this error in a sad light. A fever is an effort of nature to purify the system, and only requires regulating and directing, that it may be successful.

"The doctors bleed, blister, antiphlogisticate, mercurialize, narcotize, and stimulate until 'the fever has run its course,' which course would not have been half so long if left entirely alone. But at length the crisis comes; 'the fever turns,' and 'the patient is in danger of running down,' so the doctor plies constantly his stimulants,—alcoholic beverages with various narcotics and tonics."

We have for some years been acquainted with quite a large number of physicians who belong to the class above denominated as "of the drug school," but we have never yet met a person whose method of treating fevers was as described. We can see no possibility for any good result from such misrepresentations. What may have been true some years in the past is no longer true. There have been improvements in medicine as well as in other departments of science, and it is as unjust to present as the standard medical practice of the day, methods which were in vogue a quarter of a century ago, as it would be to present the views then held by scientists respecting the sun as the accepted theory at the present day. No good and much harm comes from this kind of misrepresentation. If the writer of the above pamphlet is certain that he has "the truth, the whole truth, and nothing but the truth," as he seems to be, he can afford to be magnanimous; at least, he ought to be careful to avoid misrepresentation.

THE LANSING REPUBLICAN. Lansing, Mich.: W. S. George & Co.

The *Republican* has long enjoyed the well-deserved reputation of being the neatest and most correct newspaper in the State. The editor and proprietor, Mr. George, spares no pains or expense to make it the very best paper in the State, and unquestionably succeeds. The paper is especially noted for the pithy, terse character of its news and other items, and the reliability of its statements. It is strongly republican in its character, and is unsparing in its denunciation of political chicanery and frauds of all sorts. We notice as an indication of financial prosperity that the journal has lately been changed from a semi-weekly to a tri-weekly. We predict that one more change is needed, when it will become a successful competitor of the large dailies of Detroit and Chicago.

Publishers' Page.

☞ We would call the especial attention of our English friends to the fact that a full stock of our publications is kept constantly on hand by Eld. J. N. Loughborough, our English agent, who may be addressed at Ravenswood, Shirley Road, Southampton, England.

WILL IT PAY?—Many persons when solicited to act as canvassers for GOOD HEALTH, inquire, first of all, Will it pay? The answer to this question depends wholly upon the individual who engages in the work. A person who is adapted to the work and puts his whole soul into it, cannot fail to make the business profitable. We recently received a card from a gentleman who had just canvassed a small town in Ohio. He reported that he had taken *one hundred* subscribers for GOOD HEALTH, of which only twenty-five were trial-trip subscribers, and had sold a large number of HEALTH ANNUALS, besides many tracts and pamphlets, all within three days. As he received forty per cent commission, it will be readily seen that this canvasser made a very handsome profit. All could not do quite so well as this, but almost any one can make fair wages, and many can do better, pecuniarily, canvassing for GOOD HEALTH than in any other business in which they can engage. Let those who wish to make a trial send for an outfit.

☞ We would call the especial attention of our readers to the advertisement in this number of the whole-wheat flour manufactured at Lockport, New York. We have taken pains to thoroughly test this flour, having used several barrels of it at the Sanitarium, and with the most satisfactory results. Its merits are all that is claimed by the manufacturers. The article in this number from the pen of our friend Dr. Ferris, gives a fuller idea of the character of the flour and its advantages. The article was not written in the interest of the manufacturers of the flour, but for the special benefit of our readers. There is no doubt that many persons have been injured by their implicit reliance upon graham flour as a panacea for all stomach ailments, when it is very clear that for some cases it is positively harmful. We have no sympathy with those who have attempted to build up a business by publishing sensational accounts of the damage which has been done by the use of wheat meal as introduced by Dr. Graham; but we have been convinced by experience in the treatment of a large number of dyspeptics that persons suffering with painful dyspepsia, a condition in which there is excessive irritability of the alimentary canal, especially of the stomach, will do better to avoid the use of flour containing the outer portion of the wheat, the bran proper, at least unless it is ground very fine. We know of no flour which so exactly meets the wants of this class of persons as the whole-wheat flour to which we have called attention.

THE HEALTH AND TEMPERANCE QUARTERLY.—Properly, the QUARTERLY should appear with this number; but as it has been deemed best to publish also a Temperance Budget for the benefit of those clubs which need some assistance in making their meetings interesting, it has been decided to defer the publication of the QUARTERLY till next month, after the appearance of the first number of the Budget.

TEMPERANCE SONG-BOOK.—This work, entitled, "Temperance and Gospel Songs," is now ready. It is a neatly bound book of 100 pp., and contains by far the best collection of temperance music to be found anywhere. It has been prepared expressly for the use of Health and Temperance Clubs, and no pains nor expense has been spared to make it all that could be desired. We quote the following from the preface:—

"In preparing the following pages, the object has been to present earnest, stirring words and music which shall meet the demands of the temperance work in all its branches. With the exception of a few valuable selections, both words and music are new, written especially for the book by the best talent in the land. Among the authors of new music are D. S. Hakes, Dr. W. O. Perkins, H. S. Perkins, Wm. F. Sherwin, W. A. Ogden, T. C. O'Kane, J. A. Butterfield, Dr. J. B. Herbert, W. T. Giffee, Elisha A. Hoffman, Frank M. Davis, W. J. Bostwick, L. B. Jewell, and R. B. Mahaffey. Among the authors of new words are F. E. Belden, E. R. Latta, S. Fillmore Bennett, Coric F. Davis, W. C. Gage, Eliza H. Morton, Mrs. L. D. A. Stuttle, Mrs. E. P. Hakes, Laura C. Nourse, Juliette Estelle Prescott, Julia E. Lloyd, R. F. Cottrell, and others."

This work has been published by the American Health and Temperance Association, to meet the special demand for the work created by the organization. It will supply a much-felt want, and will undoubtedly be warmly welcomed by all the friends of the health and temperance reform everywhere. The price charged for the work is only a trifle in advance of the actual cost; and whatever profits may accrue from its sale will go into the treasury of the Association, to aid in meeting the necessary expenses of the organization. It is expected that every club will supply itself with these excellent helps to forward the interests of the temperance work. Price: Single copies, by mail, 30 cts.; by the hundred, 25 cts. each.

☞ We take pleasure in calling attention again to the advertisement of the Odorless Excavating Apparatus on the third page of the cover. The introduction of this useful sanitary device into any city or village possessing nothing of the sort would undoubtedly do more to reduce the annual death rate than could be accomplished by any other single sanitary measure. An energetic man with an Ames' Excavator is equal to a Board of Health in conserving human life.

GOOD HEALTH.

The publishers are determined to add several thousand subscribers to their list, and to that end offer the following inducements in addition to the journal itself :—

A VALUABLE PREMIUM.

The publishers of GOOD HEALTH have never approved of the method adopted by many publishers of palming off cheap chromos upon subscribers as costly works of art. They offer as a premium a valuable book entitled "*The Household Manual*," a work replete with interest, full of valuable information, and well worth more than double the price of the journal. The work retails at 75 cents. More than 15,000 copies have been sold within the last two years. Sent free on receipt of $1.25, with GOOD HEALTH for one year.

GOOD HEALTH WITH OTHER POPULAR JOURNALS.

The publishers of GOOD HEALTH have been able to make such arrangements with the publishers of the best periodicals that they can supply almost any one of them with this journal at the price of one, and thus make a great saving to the subscriber. Those who wish to subscribe for one or two good journals besides GOOD HEALTH, will find this a very advantageous opportunity to do so. The following list comprises some of the principal journals which we are able to furnish thus :—

NAME OF JOURNAL.	Price of Journal Alone.	Price with GOOD HEALTH.
EDUCATIONAL.		
The Practical Teacher,	$1 00	$1 50
Primary Teacher	1 00	1 50
National Journal of Education	3 00	3 00
AGRICULTURAL.		
Rural New Yorker	2 00	2 75
American Agriculturalist	1 50	2 00
The Cultivator and Country Gentleman	2 50	3 00
Ohio Farmer	1 50	2 30
Michigan Farmer	2 00	2 50
Colman's Rural World	1 50	2 25
Rural Home	1 50	2 25
Fruit Recorder	1 00	1 50
MEDICAL JOURNALS.		
Boston Medical and Surgical Journal	5 00	5 00
New York Medical Journal	4 00	4 00
Atlanta Medical and Surgical Journal	3 00	3 00
Buffalo Medical and Surgical Journal	3 00	3 00
Sanitarian	3 00	3 00
Philadelphia Medical Times	4 00	4 00
Medical Record	5 00	5 00
Detroit Lancet	3 00	3 25
Canada Lancet	3 00	3 50
London Lancet	5 00	5 00
SCIENTIFIC JOURNALS.		
Scientific American	3 20	3 60
Popular Science Monthly	5 00	5 00
Boston Journal of Chemistry	1 00	1 75
Scientific Farmer	1 00	1 70

NAME OF JOURNAL.	Price of Journal Alone.	Price with GOOD HEALTH.
MISCELLANEOUS JOURNALS.		
Atlantic Monthly	$4 00	$4 20
Dwight's Journal of Music	2 50	3 00
American Architect	6 00	6 00
Bee-Keeper's Magazine	1 50	1 75
Appleton's Journal	3 00	3 25
North American Review	5 00	5 00
Youth's Companion (new sub'rs only)	1 75	2 25
Forest and Stream	4 00	4 00
Harper's Magazine	4 00	4 00
Harper's Weekly	4 00	4 20
Harper's Bazar	4 00	4 20
Harper's Young People	1 50	2 20
Lippincott's Magazine	4 00	4 00
Littell's Living Age	8 00	8 00
Arthur's Home Magazine	2 00	2 50
Christian Union	3 00	3 40
New York Tribune (weekly)	2 00	2 00
New York Tribune (semi-weekly)	3 00	3 00
The Methodist	2 20	2 75
The Independent	3 00	3 50
Fireside Monthly	1 50	2 00
The Household	1 10	1 75
Boston Globe (weekly)	1 00	1 75
Christian at Work	3 00	3 50
Good Times	1 00	1 50
Scribner's Monthly	4 00	4 20
St. Nicholas	3 00	3 40
Frank Leslie's Sunday Magazine	3 00	3 25
The Home Circle (chromo 25c. extra)	2 00	2 00
Gleason's Monthly Companion (chromo 25c. extra)	1 00	1 50
Wide Awake	2 00	2 50
Good Words	2 75	3 00
Sunday Magazine	2 75	3 00
Ladies' Bazar	2 00	2 50
Babyland	50	1 35

We can furnish any other periodical with GOOD HEALTH at about the same rate. Those who wish premium with GOOD HEALTH should add to the price named for the journals ordered, 25 cents. When the clubbing journal furnishes a premium, we will supply the same at the publisher's rates.

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☞ Agent's outfit, including specimen copies, envelopes, circulars, certificates, etc., sent for $1.00.