The Health Reformer.

NATURE'S LAWS, GOD'S LAWS; OBEY AND LIVE.

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The Health Reformer.

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Health and Religion.

WE might as well take the position first as last that the exercises of the religion of the Bible are not injurious to health. If it be said that fear of endless punishment in an old-fashioned orthodox hell tends to gloom, and an unbalanced state of mind, and, consequently, to ill health, then we reply, This is no part of the religion of the Bible. It is an anti-scriptural dogma, hatched in the dark ages, and used as a pressure upon the perverted consciences of the people, as Martin Luther said, to make the pope's pot boil.

And if it be said that the restraints of religion fetter the mind and soul, deprive one of the delights of indulging love for the beautiful in nature or in art, and, therefore, tend to seclusion from society, melancholy, and poor health, we again reply, This is no part of the religion of the Bible. The great God, the Creator of man, and also the author of the religion of the Bible, is a lover of the beautiful. And it was the delight of the Divine Mind to make the surroundings of the newly created pair in Eden very beautiful. "And the Lord God planted a garden eastward in Eden, and there he put the man whom he had formed. And out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food." Gen. 2 : 8, 9. And the same beneficent God, who is the embodiment of love, looked down with fullest approbation upon the glory of Solomon's temple with all its adornments.

In the glories of Eden, Adam saw and felt the glory of God. And the grandeur and perfection of the temple were designed to impress all Israel with the true character of Him whose glory was manifested between the golden cherubims.

Those prohibitions of the word of God, which are falsely called the restraints of religion, do not deprive us of any real good. They warn us, and entreat of us, to refrain from those things which rob men and women of health, happiness, and Heaven. Are there restrictions in the Bible relative to apparel, equipage, and personal aggrandizement? These are to guard us against that idolatry of artificial life which is destructive to the simplicity and power of true religion.

Mortal men should have just conceptions of the Immortal One, and of themselves. There is a fitness in things which cannot be recognized in the spacious and elegant buildings and gorgeous apparel of those who go to worship in a place which, for capacity and style, resembles more the head-quarters of the farmer's fowl than the house of the great and glorious God. We do not object to the amount of wealth invested in city church edifices; but we do protest against the living disgrace to protestantism that this wealth is not spread over more ground, in houses large enough to take in the crowd; that it may be said in the nineteenth century that "the poor have the gospel preached unto them," as in the days of the Author of true Christianity.

The Author of the Bible is not only the God of wisdom, justice, and power, but of love and light. And in the pure light of his countenance there is joy, peace, true happiness, and health. The psalmist, suffering under physical and mental depression, turns to the true Source of help in these triumphant words: "Why art thou cast down, O my soul? And why art thou disquieted within me? Hope thou in God; for I shall yet praise him who is the health of my countenance, and my God."

The conditional promises to Israel are very gracious, insuring to them even the great blessing of health. "If thou wilt diligently hearken to the voice of the Lord thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none of these diseases upon thee which I have brought upon the Egyptians; for I am the Lord that healeth thee." Ex. 15 : 26. And again, the Lord says to Israel, "Ye shall

serve the Lord your God, and he shall bless thy bread, and thy water, and I will take sickness away from the midst of thee." Ex. 23 : 25.

Moses rehearses in the ears of Israel facts in their history in fulfillment of God's gracious promises : "Thy raiment waxed not old upon thee, neither did thy foot swell these forty years." Deut. 8 : 4. And David records that "He brought them forth also with silver and gold ; and there was not one feeble person among their tribes." Ps. 105 : 37. He also breaks forth in joyful praise to the bountiful Giver of all good, and does not forget to mention the great blessing of health. "Bless the Lord, O my soul, and forget not all his benefits ; who forgiveth all thine iniquities, who healeth all thy diseases." Ps. 103 : 2, 3.

Health is one of God's best gifts. And those who enjoy the best health can most perfectly represent the religion of the Bible. We never did like to see a pale, puny, spindling, death-like figure behind the counter of a Bible house or a religious book-room, moving around with a melancholy languor, giving the impression that everything he touched may have the impress of death upon it. And yet this very thing, so much to be deplored, meets the taste and gratifies the feelings of many whose views of religion are as false as their ideas of health.

These will sometimes be very happy over the idea of getting sick, pining away, dying, and going off to a ghost Heaven. Hence their idea that the extremely pious ones look as much like an imaginary ghost as possible. This impression has entered too largely into the reading, as well as the pictures, of Sunday-school books, and has done more to impress the youth with false ideas of religion than all the infidels in the land can do.

The beloved John gives the true idea of the relation that health sustains to religion. "Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth." 3 John, verse 2.

We have long regarded the fifty-eighth chapter of Isaiah as prophetic, and applicable to our day. Certainly the description given by the prophet is a photograph of the popular religion of our time, and the deception upon the minds of the people. God speaks of them by his prophet on this wise :—

"They seek me daily, and delight to know my ways, as a nation that did righteousness, and forsook not the ordinance of their God ; they ask of me the ordinances of justice ; they take delight in approaching to God. Wherefore have we fasted, say they, and thou seest not ? Wherefore have we afflicted our soul, and thou takest no knowledge ? Behold, in the day of your fast ye find pleasure, and exact all your labors. Behold, ye fast for strife and debate, and to smite with the fist of wickedness. Ye shall not fast as ye do this day, to make your voice to be heard on high." Isa. 58 : 2–4.

Popular religion consists very much in forms, and display, and words, while it proposes to do but very little in the line of imitating Christ in relieving the oppressed. His great heart was ever moved by human suffering and woe. He went about doing good. A back-woods' preacher illustrated the talking, do-little professors of our time, by frogs, who have large mouths and little hands.

The religion of the Bible proposes to do the very things which the Author of true Christianity did teach and do. God, by his prophet, calls attention to the very work to be done, and among the promises to the happy workers is that of health. Hear him :—

"Is not this the fast that I have chosen ? to loose the bands of wickedness, to undo the heavy burdens, and to let the oppressed go free, and that ye break every yoke ? Is it not to deal thy bread to the hungry, and that thou bring the poor that are cast out to thy house ? when thou seest the naked that thou cover him ; and that thou hide not thyself from thine own flesh ? Then shall thy light break forth as the morning, and thine health shall spring forth speedily : and thy righteousness shall go before thee ; and the glory of the Lord shall be thy rereward." Verses 6–8. J. W.

Evidences of Progress.

As was remarked by the editor last month, "The world is moving ;" and it is indeed encouraging to see that the cause of health reform is also moving, along with other good and noble enterprises. There are many evidences of this, not the least of which is the position which the press of the country now occupy with reference to this important subject. Less than a score of years ago, the cause of hygiene and health reform seldom received any attention from the press except by way of ridicule ; but at the present time there is scarcely a respectable paper or magazine published which does not contain a department upon hygiene. A health reformer is no longer looked upon as a poor fanatic, an object of pity ; but his condi-

tion of emancipation from the thralldom of custom and appetite is envied by his weaker neighbors, whose good sense does not fail to convince them of the truth, although they may not have the moral courage and fortitude to enable them to comply with its requirements.

The wheel of reform moves on, unimpeded by the obstacles with which ignorance and bigotry would stay its progress. The mists of superstition are being rapidly dispelled by the advancing light of truth. Dogmatism and empiricism are everywhere losing caste; and the most encouraging feature of all is that the regular medical profession, which has been plodding on in the same deeply worn paths, century after century, are becoming aware of the fact that their old methods of practice will not satisfy the investigating, inquiring patient of to-day as they might have done in days of yore, and that they must necessarily be abandoned for those which shall be in harmony with a true theory of disease, and which have been again and again demonstrated to be the only safe and proper ones to employ. The doctors are beginning to understand the true nature of disease, and also of drugs; and it is with pleasure that we submit the following extracts from the opening addresses of several noted European medical colleges, which contain a frank acknowledgement of some of the truths which hygienists have been so long advocating:—

Dr. Edgar Shepard, of King's College, London, alluded to ventilation, warmth, rest, and the bath, as being more effective weapons against disease than could be drawn from all the huge armory of the pharmacopœia.

The same speaker also, unintentionally perhaps, gave a very excellent illustration of the truth, in alluding to fashion in medicine. He remarked that when the rage was for a certain medicine extracted from the *peltatum podophyllum*, or mandrake, and known as vegetable calomel, the following little epigram was floating about London in reference to the doctors' patients:—

> "If you want to gripe and kill 'em,
> Give peltatum podophyllum;
> If to cure resultant colic,
> Give them something alcoholic."

Dr. Shepard further remarked, "Chloral is now fashionable. It is a very dangerous remedy. Ladies keep it in their medicine chests, and coroners have the privilege of 'sitting' on it."

In the same lecture, the speaker alludes to the following remark of a quaint Dutch writer as being worthy of careful attention, and even justly the cause of some solicitude: "The first fire of an Esculapius must be of a deadly nature when his later and calmer zeal proves so dangerous." The learned doctor then makes the following as a poor attempt at apology:—

"Life is so mysterious a thing, and its attendant circumstances and surroundings are so varied, that even when we are acting on the most approved scientific principles (known to be so mutable), we may well doubt whether we are so successful as we ought to be in the act of prolonging it."

Another said, "It is a maxim laid down by Addison, that when a nation abounds in physicians it grows thin in people." He then laments that this can be truthfully said, as well he may.

Said Dr. John Harley, of St. Thomas' Hospital College, "At this moment there are hundreds of patients waiting the arrival of their medical attendant to inject another grain or two of morphia beneath the skin. Only four hours ago they had a similar dose, and four hours hence will receive another, each of which carries them still further from real help, and eventually adds to their misery and degradation."

Prof. Palmer of Michigan University, in his opening lecture to the medical class, declares that there is no universal principle in medicine, and admits it to be wholly empirical in character. He moreover speaks in the highest terms of all hygienic agents as remedies for disease.

And yet, notwithstanding all these confessions of the weakness and impotency of drugs as remedial agents, denouncing them as "dangerous," etc., all these eminent teachers still persist in recommending to their pupils the use of calomel, blue mass, belladonna, and, in fact, the same old list of poisons which have been accumulating ever since the time of Paracelsus, with the latest additions.

But we do not wish to be in any measure harsh or vindictive, and are quite willing to believe that this inconsistent practice may be more the result of habit than of any other cause. With this view we can hope that the regular medical fraternity will in time be led to see the error and inconsistency of their ways, and so reform their practice. We mean to do all in our power at least to break up these dangerous habits and practices, and are quite well satisfied to wait a few years for further advancement.

J. H. K.

IF I ONLY HAD CAPITAL.—"If I only had capital," said a young man as he puffed a cigar, "I'd do something." "If I only had capital," said one as he went out of a dram-shop, "I'd go into business." Young man with a cigar, you are smoking away your capital. You at the dram shop are drinking yours. Dimes make dollars. Time is money. Don't wait for a fortune to begin on. Our men of power and influence did not start with fortunes. You, too, can make your mark, if you will. But you must stop squandering your money and spending your time in idleness.

MRS. WHITE'S DEPARTMENT.

NOT LOST.

THE look of sympathy; the gentle word,
Spoken so low that only angels heard;
The secret art of pure self-sacrifice,
Unseen by men, but marked by angels' eyes;
These are not lost.

The sacred music of a tender strain,
Wrung from a poet's heart by grief and pain,
And chanted timidly, with doubt and fear,
To busy crowds who scarcely pause to hear;
It is not lost.

The silent tear that falls, at dead of night,
Over soiled robes, which once were pure and white;
The prayers that rise like incense from the soul,
Longing for Christ to make it clean and whole;
These are not lost.

The happy dreams that gladdened all our youth,
When dreams had less of self and more of truth,
The child-like faith, so tranquil and so sweet,
Which sat like Mary at the Master's feet;
These are not lost.

The kindly p'ans devised for others' good,
So seldom guessed, so little understood;
The quiet, steadfast love that strove to win
Some wanderer from the woful ways of sin;
These are not lost.

Not lost, O Lord! for in that city bright
Our eyes shall see the past by clearer light,
And things long hidden from our gaze below
Thou wilt reveal, and we shall know
They were not lost.—*Sel.*

Fashion! Feebleness! Death!

WHILE journeying in a Western State, some things came under my observation which led to serious reflections in regard to the causes of so much sickness and suffering everywhere existing at the present time. The questions are often raised, "Why do the youth become invalids so young?" and, "Why do many die prematurely?" These questions I find answered as I journey in winter, and have an opportunity to observe more fully the habits and customs of the people who are in direct violation of the laws of life and health.

While we were waiting at a railroad station, we had an opportunity to read the character and habits of those who were, like ourselves, waiting for the cars. We observed a young lady who looked faded and feeble. Bright red spots were upon her cheeks which at first sight appeared like the hectic flush indicating the advanced stage of consumption. She had a very aggravating cough. I entered into conversation with her in regard to the condition of her health. She told me she was not very sick, but was suffering from general debility. By closer observation, I saw that the bright spots upon her cheeks were not what I had supposed them to be. They were irritations of the skin, caused by the use of cosmetics. The entire skin of the face had lost its healthy, velvety smoothness, and showed an unnatural, disagreeable roughness. In the appearance of her face, thus marred by poisonous substances, and in the bright glow upon either cheek, giving such an unnatural appearance, we could trace causes for her ill health. Here was one of fashion's slaves who had sacrificed health and natural beauty in using poisonous preparations which had been taken up by the pores of the skin and diffused through the system.

Our attention was next called to a little girl about ten years of age. It was one of the bitterest days of winter, and yet this little girl's limbs were naked for full half a yard, with the exception of flannel stockings. The upper portions of the body were abundantly clothed. She had a warm dress, a nice waterproof cloak and cape lined with flannel, a fur tippet over the cloak, and a muff for her hands. Her dress gave evidence of a tender, thoughtful mother's care, except the neglected limbs, that portion of the body of all the rest which needed the extra coverings because they were so far from the heart. This delicate, bright-eyed child was suffering with severe cold and cough. It was difficult for her to breathe because of catarrhal affection.

Robust boys with coats and overcoats, and warmly lined pants protecting their limbs, were shivering with the cold and hovering about the only stove accessible; but the limbs of the delicate little girl were dressed after the most approved fashion, and hence exposed to the chill air of a January day. Her almost naked limbs could not but be chilled while bathed in a current of freezing cold air.

The dress of this delicately organized child must be prescribed by fashion. She could not have the privilege of dressing comfortably like the robust boys.

Health and life must be sacrificed to the goddess, fashion. The heart was laboring to do its work in propelling the blood to the extremities, while the fashionable mother, in exposing the lower extremities, was working against nature, in chilling back the life current, and thus breaking up the circulation and robbing the limbs of

their proportion of blood. Over the vital organs, where there is naturally more warmth than in other portions of the body, there were no less than eight coverings. If some of these had covered her limbs to induce blood to the extremities, she would have been more sensibly clad.

The many coverings worn over the heart, where is the greatest amount of natural heat, while the limbs are nearly naked, calls the blood from the extremities. The limbs being robbed of their due proportion of blood become habitually cold, while there is too much blood in other portions of the body. The vital organs are burdened with blood, while the unprotected limbs have not a sufficiency.

I could not but look forward in imagination a few months, or years at most, when the little busy hands and feet would be still, and the little form clad in its burial shroud, while a mourning household, bereaved and afflicted, were almost murmuring at the providence of God which had robbed them of their darling treasure.

The people, in their pride and ignorance, give God the credit of mysterious dealings in robbing parents of their precious jewels. If the facts were known, it would be seen that in dressing their children to keep pace with fashion, the life forces were weakened, and disease and death were the result. Most diseases have their origin in an unequal distribution of the blood. Parents who dress their children in a manner to expose their limbs to cold and chilliness, imperil their lives.

The feet and limbs that are not sufficiently protected from cold by a proper amount of clothing, cannot have a proportionate amount of blood. The slender limbs of many children show that the blood has not nourished and vitalized them as the Creator designed it should; therefore the limbs are not naturally developed, being nearly fleshless.

Chill back the current of blood from the extremities, and other portions of the body will be congested, while the extremities will be cold, feeble, and small. When too much blood is thrown upon the vital organs, the heart is overworked at every beat, in freeing itself from the blood carried to it. The heart labors to throw the life current to the extremities. And if the blood is hindered, because of insufficient clothing, from flowing freely to the limbs, double labor is thrown upon the heart. This organ becomes feeble, and there follow palpitation, pain in the heart, and general breaking down, and death.

Children's Winter Dress.

THERE is a fashionable way and a healthful way to dress a child. Mothers generally pay more attention to the former than to the latter. It is doubtless very pretty and becoming to dress a little girl in short skirts, covering her daintily-shaped ankle and handsome limb with a thin, silken or cotton stocking, encasing her foot in a thin-soled and exquisitely shaped shoe, while her shoulders are loaded with cloak, furs, and scarf. She looks well—presents an elegant appearance, in fact, and the mother is pleased thereat.

It is really distressing to witness this manner of dressing children during the winter months. No grown person could be comfortable for a moment in such a rig, and it is only from constant exercise in running that children so clad can secure any degree of comfort while upon the street. Dressing their extremities so thinly is not only uncomfortable, but unhealtful as well. When they run, becoming heated in play, and then sit or stand in the open air, the blood is driven rapidly from the extremities to the trunk, exposing the little ones to congestion of the lungs and mucous surfaces, when they are said to have a "bad cold."

See that your children wear snugly-fitting, woolen, or canton-flannel drawers next their skin; over this the stocking may be drawn, and, in the colder days, woolen leggings should be worn over all. Let their shoes be thick and covered by warm overshoes; their limbs may not look so neatly, but they will certainly be comfortable, and the corresponding improvement in the health of your children will more than repay you for your temporary mortification at their unfashionable appearance.

Wanted.

AMONG the wants, we find the following, which is susceptible of unlimited variation, as different phases of fashionable folly may be suggested to the mind:—

Wanted—Medical.—A few more females of weak minds, to appear next season in some new absurdity at Saratoga. The medical faculty return their thanks for enormous increase of business in neuralgic and catarrhal complaints brought about by the present style of bonnets, and assure those who are hesitating in the adoption of the Grecian bend, that hospitals for spinal complaints and chest contraction shall at once be established.

Manufacturers of high-heeled boots will bring

forward the heels from the middle of the boot to the toe, next season, and that portion of the faculty who give their attention to swellings of the joints are to govern themselves accordingly.

Also, a few more mothers wanted to dress young children in short dresses, bare legs, and linen drawers (one pair only), all winter. It looks pretty to see them thus, and encourages physicians engaged in that branch of practice known as children's diseases. Also, mothers who will continue to leave children with Irish nurses, to whom laudanum, gin, and "soothing syrup," will be supplied at reduced prices; warranted to put a child asleep and render it a "patient" one for years.

Fashion.

It is no new theme—fashion. Neither is religion, though that occupies a secondary place in most minds. Yet both subjects, though so widely diverse, have an interest for us, and a particular interest for those of us who are trying to bring the divine principle under the dominion of the earthly goddess. Some of us would be satisfied to reconcile the two, if such union were possible; we would like to see them harmoniously sharing the throne of sovereignty, but the first article in the creed of the universal woman is this, "There is but one god, and that is Fashion."

I was born into the world with some womanly faculty lacking. The strongest effort of my imagination cannot make a thing beautiful to me just because it is fashionable. When I go to a *musicale*, and Mad. Cavatina hoots like an owl and croaks like a raven, I think of the owl and the raven, and neither of those birds are lovely to me. In Mrs. Fulsom's shaded drawing-room, I try in vain to take in the beauty of darkness. Instead, I am inwardly repeating to myself that scripture which declares that "Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun."

To my eyes, the rich robe loses its grace when it trails through mud and tobacco juice, and when it is looped up, it suggests Bridget just ready to mop the kitchen floor. It is not because my taste has not been educated, but it is owing to that "faculty left out." Looking at the subject without "that faculty," I must confess that if there is one folly in life more ridiculous to me than another, it is the effort to be fashionable.

"Oh, dear!" sighs a pale, anxious-looking woman at my elbow, "I am always so unfortunate."

I turn to inquire into her affliction. "Is her husband dead? Has roguish Billy broken both legs and one arm? Has the pet Margie scalded her pretty face and blistered all of her fingers? What terrible calamity has occasioned that woebegone countenance?"

"Why, look here!" she answers nervously, "I have only just got my winter bonnet, and the style is changing. They are now worn nearly a third of an inch nearer the neck, and crowns are talked of. I'm discouraged."

Poor woman! She had risen early and sat up late, and had eaten the bread of carefulness, doing it all cheerfully in view of the bonnet waiting to be revealed, and the prize was only just in her hands when its value departed, the fashion changed. Such a trivial, useless change, too! Just a whimsical caprice of the goddess, but so powerful that the new bonnet, so becoming and graceful but yesterday, is shorn at once of its beauty, and entered upon the condemned list as "out of fashion."

"There is no use in trying to be fashionable," says the disconsolate woman. That is very true, but she will try for all that. And she will not stop trying till she wears that best dress which other hands will fashion according to the last graveyard patterns.

Those who have wealth, and can pay for the making up of bonnets and dresses without forethought or labor, have a sufficiently hard time of it; but it is nothing when compared with the lot of the great multitude who are obliged to spend all their bodily strength, as well as their mental powers, in the vain effort to keep up with the rest. To be sure, the bodily exercise profiteth little, it being impossible to achieve success; but we would not mind the physical waste, if the energies of the soul were not pressed into the service. The wise Creator never meant that the corruptible body should rule over the mind. And it must be a pitiable sight to the angels who are commissioned to visit this earth as ministering spirits, to see us so degraded from our high estate; to see the spirit so made subject to the flesh as to devote all its powers to decorating its decaying tabernacle; to see the mind continually dwarfing itself in the effort to trick out in fanciful tinsel what may to-morrow become food for worms; to see intelligent beings glorying in the covering which sin has made necessary.

It is astonishing how fast the intellect withers in this belittling work. If immortality were not written upon it, I think it would entirely extinguish itself. As it is, may it not so starve itself, so waste its energies, as to be unable in the future state to make its existence known to other spirits? Did you ever think of this kind of loneliness?—the solitude of endless inanity and exhaustion?

A young mother sat alone, in her room at midnight, busily plying her needle. It was a comfortable room, and there were many luxuries showing themselves among the necessary furniture. Pictures of rare beauty ornamented the walls, and although the practiced eye could see

at a glance that it was not the abode of wealth; yet none of the elements that make up the tasteful, comfortable home were lacking. But Kathleen O'Flaherty, the washwoman who lives in that poor shanty by the wharf, never wore so tired and anxious a look in all her life; never had such a weary, unsatisfied longing for the impossible.

"A few more stitches and it is done. Oh! how my side aches! I wish embroidered tucks had never been thought of. My head is dizzy half the time, and this fine stitching has half blinded me. I would wear spectacles if they did not look so horribly. Ah! well, it is done at last." And the young mother holds up her work and surveys it with a pleased look.

"Beautiful! How proud Emma will be! Carrie Lane's frock is a regular cheat. The pattern is just woven in. I wonder if Mrs. Lane thinks that folks can't see. I would work my fingers off before Emma should wear such a sham. Dear me! How my hand trembles! And my feet are like ice. Hetty Bliss says that embroideries are going out. Just my luck, if it should be true. It is about time for that, and then all this labor will have been for nothing."

Heavy shadows gather upon the young mother's face as she contemplates this probability. And this woman with a precious soul to save, goes to bed at last quite unhappy lest embroideries should "go out" before Emma has a chance to spread hers before the genteel world. Was there ever an outlay of labor that yielded so small a return?

"I have been reading Bayard Taylor's 'St. John,'" I overheard one lady saying to another. "Have you seen it?"

"Let me think. About the apostle John, is n't it? I believe I heard my husband mention it."

"There is a new work by the authoress of 'The Schonberg-Cotta Family.' I have not read it yet, but it is on my list."

"I am glad your eyes are strong enough to read. Mine begin to ache as soon as I open a book. Reading is more trying to my eyes than anything else, and what is the use of it?"

"It is a great pleasure to me. I do n't know what I should do with my evenings if I could not read. Think of the mass of rich works in regard to Africa, the oldest of countries! I had only a school-girl's idea of it. To my eye it was just a yellow spot on the map with a crooked edge. You know how little information about it was found in our histories. Now, without leaving our snug fireside we can explore all of it that has been visited by the most enterprising travelers."

"As if one would want to! I have no time to waste, for one. I do n't get leisure to read the Bible. The fashions change so that one gets no rest. We are hardly established in one style before the pattern changes, and then everything else must be altered to correspond. Why, as soon as the Lady's Book is out, I sit down and spend the whole evening studying the plates, so as to save expense by making up things myself."

"Then you *can* see to study that? And get time for it, too."

"I take time. I am obliged to do so. If I had to hire my sewing done, it would cost a fortune. I should have nothing to spend on the material to make up. I suppose you save in the same way."

"Yes. I do my own sewing. I cannot otherwise help the poor. I saved enough by making up my husband's and the boys' clothes this fall to buy a sewing-machine for poor Florence King, who has to support both of her aged parents by taking in work. She says it is an easy task now. Christ's poor are always with us, you know. They are his legacy to his wealthier children."

"Perhaps so. I have all that I can do to take care of my own affairs."

There is nothing that so hardens the heart to the necessities of others as a devotion to fashion. There are so many, *many* things that make up the sum of stylish attire. There is always a demand upon the purse, and if it contains but moderate wealth, every cent must be made available.

For nothing is tolerated merely because it is becoming and comfortable. It must have the higher praise of being fashionable. To attain this, it must be of rich material, and therefore expensive. There are no persons so poor and dissatisfied in feeling, so barren in the joys that wealth might purchase, so intensely selfish, or so transparently ignorant as those who live nearest the shrine of the fickle goddess. When Satan can once inspire a Christian with a strong desire to be fashionable, he just waits till he sees the poor victim boldly wearing his livery, and then leaves him contentedly to seek other prey. He knows that he has secured a heavy mortgage on that soul.

If there is an object of pity on earth, it is the fashionable Christian. The misery is of a kind that can not be relieved. The religion of Jesus is a balm for every other kind of trouble, but it has no application here. Prayer, that sweet solace to the sorrowful spirit, is powerless to aid the heart yearning after vanity.

Young people often follow up the changes of fashion from a mere love of novelty. They are eager after variety, and if the fashion is ever so uncouth and unbecoming, there is a charm in their fresh bloom and young beauty that enables them to adopt it without being ridiculous. It is nearly impossible to devise any pattern that cannot be worn gracefully by the sprightly youthful figure.

Then we do not expect young persons to ex-

hibit much sober sense. That is the growth of reflection and mature years. We delight in the merry caprice, and the gay laugh stirs our own pulses happily as it rings out carelessly from the untried heart. If left to themselves, young people are seldom overanxious in regard to dress. It does not give them sleepless pillows or diminished appetites. Youth will assert its healthful power, and no one dies young from the demands of fashion, unless incited thereto by the admonitions or persuasions of older people. Youth does not, of its own accord, take to tight lacing. It is the mother's hand that puts on the corsets, and it is the mother who should herself be put into a strait-jacket in all those places where insanity is the stereotyped plea for the murderer.

"Do let me take these corsets off, mamma," I heard a young girl pleading with her mother; "they make my side ache, and my heart beats so hard against them that it tires me. Please let me take them off."

"Nonsense! You ought to have pride enough to wear them. You will grow up as round-shouldered as a camel without them. Do you want people to think you are deformed?"

"But it hurts me to breathe, mamma. I can't breathe down. And I can't help trying to. I feel as if I was stifling."

"Say no more about it. Other girls breathe, and you are not made differently from them, I suppose. Look at Martha Aberly. There's a pretty figure for you. A regular dumpling. Her mother does not believe in corsets. When your figure is properly formed it will be time enough to talk about it."

It is four years since, but the frail, lovely girl has for three years been wearing the dress which requires no lacing to make it fit. A white marble cross in the burial-place shows the grave where she rests. It is called a sad providence that thus removed an only daughter, so sweet in temper, so promising in talent. But Providence had nothing to do with it, in my opinion. I think that there are many careful, church-going mothers who will be terribly dismayed when the day of final reckoning shall come, to see the wealth of fresh, happy life that God meant to blossom out in excellence and beauty upon the earth, but which was untimely crushed and blighted by their own insane worship of fashion.

But it is fashion as it influences mature life which is most hopelessly ridiculous. Just look at the general effect of the costumes worn by elderly women. Think of the immense pains taken to caricature themselves. And each one, though quite sensible of the comical appearance of her neighbor, has no suspicion of the hearty laugh that is enjoyed behind her own back.

"Why do you not wear flowers in your bonnet?" asked a fashionable woman, who was a half centenarian, of a friend five or six years younger. "You have worn your hair in that plain way for twenty years. I can hardly imagine how you would look if you dressed it like other folks."

"I should not look natural, and so lose the chief attraction of an old friend. I had a rare compliment yesterday. I am not sure that I do not owe it to the very thing you deprecate. It was paid me by poor Hannah Lee. Lying on her bed day after day, crippled as she is, with scarcely any objects of interest, it is not strange that she is often too tired and nervous to see her friends. I have often wondered that she so gladly admitted me to her sick-room. I was expressing to her my grateful sense of the special favor accorded to me, when she looked up in my face with such a wistful, puzzled look that I saw at once that she was unable to account even to herself for the preference. 'There is something about you that rests me,' she said. Now, I fancy if I should go in to see her to-day with my hair drawn back from my temples and 'water tumbled' behind, and with bright roses in my bonnet, I should not inspire that poor girl with the home-like, restful feeling that my present familiar aspect brings to her."

"Perhaps not. But you would look ten years younger."

"Doubted. But even were it true, why should I look ten years younger than I am? Is not middle age as respectable as youth?"

"If it is, most persons like to look as young as they can."

"Yes. But no one looks really younger than they are. The crow's feet about the eyes, the faded complexion, the wrinkles upon the forehead, and the thin hair, make up a handwriting that is known and read of all women and most men. I have a friend who wears a large red rose upon a bald spot on the top of her head, but I do not think she has a female acquaintance who could not give you a pretty exact measure of that spot."

"I know who you mean."

"Yes, and she knows that you dye your hair. Deception seems to be out of the question in such matters. You may, this afternoon, put on all your stylish plumage and go with me into any public place; on the street, for instance. The veriest stranger that we may meet will be able to tell both your age and mine. The plumes, and roses, and bugles, would not deceive him a minute. He would give us both the credit of a respectable middle age. If introduced, he might pay my plain costume the compliment of talking sense to me."

Well, you know, if you have had any experience in such things, that neither of those ladies converted the other to her opinions. Indeed, I think the semi-centenarian went away a little offended with the idea of being able to blind no one. I meet them both occasionally; the

one clad in the grave, rich colors befitting her age, wearing a look of refinement and thoughtful intelligence which is far lovelier than mere beauty; the other, enveloped in her rainbow toggery, without any look of refinement or intelligence.

Not long ago, I was sitting in one of our New England churches. Because of ill health I occupied a seat near the door, from whence I had a rear view of the whole congregation. Listening to the sermon with the hungry interest of one who seldom has so sweet a privilege, I had no thought of anything save the solemn theme discussed, till the speaker sat down. Then, while waiting for the last hymn to be sung, I cast my eyes over the assembly. To me, though used to individual vanity, the congregated display was an exceedingly comic picture; an immense caricature of my sex. Never before was I ashamed of being a woman. I hardly liked to shake hands with the gentleman who accosted me on my way home. I thought that they must, perforce, share in the Mohammedan belief that women are made without souls. Every token of regard for me seemed but a shallow pretense to hide this belief. I saw the slight ground they had upon which to build a different opinion. And before I reached home I began to doubt whether the theory of the Islamite were not the true one after all. If I had not owned a few such books as "The Women of Methodism," Mrs. Sigourney's "Letters of Life," "Woman's Record," by Mrs. Hale, Mrs. Jameson's "Characteristics of Women," and Mad. de Stael's "Germany," I do n't know what I should have done to regain my standing as a thinking, rational being.

I went nervously from one book to another, finding in one the sweetest womanly traits, the beauty of the heart; in another such self-sacrificing moral heroism as raised womanhood almost to divinity, and in yet another, the "Germany," an intellectuality almost repulsively vigorous. Then, at last, I sat down and thanked God that I was a woman, with womanly sympathies, and with a number of dresses suited to my age and condition.

If fashion would rest satisfied with just controlling our dress, we should find less fault with its encroachments. It would then give us time for a little mental culture, and an occasional stray thought in regard to the life in store for us when the fashions of this life shall have passed away. But I should like to see the thing that it does not meddle with. Like the frogs of Egypt, it forces itself into our bedchambers.

For example: Did I not, only last week, see a pretty, modest set of chamber furniture displaced to make room for another with a bedstead like a high altar, with a carved head that nearly reached the ceiling? The discarded set had a host of pleasant associations turned out with it, for it had merrily furnished the bridal chamber, and no other rocking-chair had ever felt so easy and homelike. But the worst thing about it was, that the change could not be afforded without much saving and pinching in real comfort. Do you know what it is to shiver with poverty under a brilliant and stylish exterior?

God pities the *honest* poor, but there is no sympathy in Heaven or earth for genteel poverty.

Fashion is the great family skeleton in many homes, and no amount of funeral ceremony will bury it so that it will stay sepulchered. It thrusts its death's head in at every feast, and grins all night by the side of the carved high-headed bedstead. The poor people who live in the damp cellars and freezing attics, or huddle together in comfortless shanties, have no means to afford a skeleton.

Ah! it is sweet to know that there is one fashion that will endure; one dress that no time or mischance can change. It is the robe of Christ's righteousness. It is a fashion that all may follow if they will; a fashion that brings no anxiety or sorrow with it, that demands no sacrifice of comfort. It is the wedding garment, without which we cannot come in to the marriage supper of the Lamb. It is the livery of Heaven, which will be in fashion when the world and all that is therein shall have been burned up, and which requires no ornament, save that of a meek and quiet spirit. —*Ladies' Repository.*

Vermin in Chignons.

THE Lewiston (Illinois) *Union* reports that the daughter of a gentleman in the southern part of Fulton County lately found her hair rapidly coming out, and was also troubled with continuous itching on the back part of her head. Upon examination of her scalp, beneath the chignon, it was found to be covered with black insects about the size of a grain of wheat, which had eaten into her head and down her neck in a most frightful manner. Says the *Union:* "This 'head gear' is made of sea moss, and it is supposed to contain the eggs of an insect, which were incubated by the warmth of the head. The vermin were at last removed, though not without trouble and pain. The case was at first reported to be critical, but later we learn that the lady is recovering. She will, however, lose all the hair which grows on the back part of her head, but will, no doubt, consign to the flames the chignon. A similar case near Farmington is reported as having proved fatal, the truth of which we are unable to vouch for."

CUSTOM may lead a man into many errors, but it justifies none.

Reasons Why I Wear Plain Clothes.

I DO not propose to give all my reasons, as that would occupy too much space; and I do not wish you to understand that I consider them arranged according to their relative importance. I merely write them down as they occur to my mind at the present time.

I do not like to sew, and for that reason put as few stitches in my clothes as possible, for I cannot see that, by trimming them, I should ease one aching heart, or dry one tear, or add one jot or tittle to the goodness and intelligence in the world, or relieve any physical suffering. There are those who are compelled, by want of time or money, to wear plain clothes, and it may be a gratification to them to see some dressed plainly who need not be if they chose otherwise.

If women would go out into the air and sweet sunshine more, and not sit and sew till they are "blue" and tired, I believe they would be better morally and physically. I might hire my clothes made, you say, and thus avoid this objection. I might, but is not the example of those who can hire continually goading on those who cannot? I might hire, but could not my money be spent in a better cause?

I am tired of talking with women who cannot carry on a conversation on any topic only "what they are wearing this summer," or some other season, as the case may be. I must confess that when I buy a new dress, I can't help thinking how pretty it would look trimmed this way or that; but generally the first woman I meet or speak to helps me to decide to have it just as plain as possible. She has "such a head or side or back ache, or is so tired, and would like to rest so much, but can't possibly! Such a pile of sewing! It never will be done! They do put so much work into dresses! Oh, dear!" So I think, "Well, ruffle and trim your pretty new dress, and be sick and tired if you want to; I'll make mine plain, and lie down to rest when I am weary."

I see many women sitting at home looking like "perfect frights," ornamenting nice dresses to wear somewhere else; but it seems better to me to be "civilized" all the time, either at home or abroad, than to be so "highly enlightened" part of the time, and "barbarous" the rest of it. There is no command in all the teachings of the Great Master, that we shall be anxious to adorn our apparel, and I fail to discover in his apostles' writings any sentence which can by any possible construction or inference be made to teach any such thing.

I can find more elevating themes for thought and conversation than the "latest style." You may answer to this that you might give up all food and clothing on that ground, but if you will reflect for a moment you will see that that is erroneous, from the fact that our natures contain various departments which must each be taken into consideration. No one claims that dress trimming is of any advantage physically; therefore, we must look to some other department for its uses. In selecting food for the stomach, we should endeavor to choose that which best assists our highest physical development; not merely that which best suits our taste, and we ought to follow the same plan in other departments.

I am tired of hearing husbands crack stale jokes regarding woman's love of dress. I am tired of hearing young men say they "can't get married; it costs so much to dress a wife;" and tired of hearing them express unbounded admiration for simplicity in dress, and then seeing them at a party the next evening devoting all their attention to the "trimmingly" dressed ladies, leaving the "simply attired" ones to sit in the shade and enjoy (?) themselves. Oh! when will "Horace" practice what he preaches?

A lady with whom I am constantly brought in contact groans unceasingly of numerous aches and pains, and attributes them all to the fact that she "has to stay in the house all the time and sew." At the very least calculation, she spends, on an average, an hour every day in ornamenting garments for her two children. I spoke of her to a young lady of my acquaintance, and said, How much better it would be if that hour were spent in healthful out-door exercise. I was philosophically answered that the lady probably suffered less with all her ailments than she would to see her girl go to school unbecomingly dressed. Well, perhaps that's so. Let each choose the kind of suffering she likes best, but I'll choose health and enjoyment; though if any one thinks my "reasons for wearing plain clothes" are not sufficient, and will show me better reasons for the opposite course, I shall be most happy to pursue it, for I like pretty clothes as well as any one.

—C. J. W., in *Household.*

The Hair Question.

No female head ever looked so well as when adorned with its *own hair alone.*

To exchange the hair which God has given for hair of some other color, is an insult to the Creator.

A young lady thought it would be interesting to faint at an evening party recently, when one of the company began bathing her head with vinegar, upon which she started up and exclaimed: "For goodness sake, put nothing on that will spoil the color of my hair!"

Medical statistics in France show that while relaxation of corset laces has reduced female mortality 18½ per cent, the introduction of chignons has increased brain fever 72¾ per cent. An exchange derives comfort from learning that so large a proportion of the wearers of chignons have brains to be affected thereby.

Deacon Barnes' Sunday.

"BEAUTIFUL, beautiful!" mentally ejaculated Deacon Barnes at the close of a sermon about Heaven. "Those are my ideas exactly."

And so enrapt was he with his thoughts, as he passed out of the church, he forgot to ask lame old Mrs. Howe to ride home with him, as was his usual custom.

"Perhaps it is just as well," he thought, "for she is a worldly old woman, and would probably have drawn my thoughts away from Heaven."

At the dinner table, his son exclaimed, "Oh! father, I have a situation at last."

"Have you forgotten that it is Sunday, John?" asked his father, sternly. "Don't let me hear any more such talk."

John ate his dinner in silence. How could his situation be a wrong thing to speak of on Sunday! He was so thankful for it that it seemed to come from the hand of God. God knew all about the restless months in which he had answered an advertisement a day.

When the minister gave thanks in church for all the mercies of the past week, John's heart gave a grateful throb, and he determined anew to acknowledge God in all his ways.

John ate his dinner in silence while his father thought about Heaven.

In the afternoon, Mr. Barnes' nephew, a stranger in the place, came over from his boarding place opposite, and sat on the piazza talking with John.

"I can't allow this, Tom," said Mr. Barnes, coming to the door with the Bible in his hands, "You must not sit here breaking the Sabbath. Go back to your boarding house and read some good book."

Tom started up angrily, and spent the afternoon fishing and bathing with an old colored man, his only other acquaintance in the place, while Deacon Barnes sat in a large rocker on the piazza with a handkerchief over his face and thought about Heaven.

Presently his two little grand-daughters came out on the piazza with a large picture book and sat down near him. There was a flutter of leaves and a great deal of buzzing as the little yellow heads bent over the book, and finally they laughed outright.

"Children, where is your mother?" sternly demanded Deacon Barnes, springing to his feet.

"Up stairs putting baby to sleep," they answered, both together.

Deacon Barnes strode into the hall.

"Ellen! Ellen!" he shouted, "I should think you might keep these children quiet on the Sabbath. They won't allow me to think."

Ellen had been awake all night with a fretful baby. She had hushed him, and had just fallen asleep when her father's voice aroused her and awoke the baby.

"Please send them up stairs," she said wearily.

And all the sultry afternoon she amused the three children in a close upper room, while her father rocked and fanned himself and thought about Heaven.—*Advocate and Guardian.*

Death Indoors.

MULTITUDES of persons have a great horror of going out of doors for fear of taking cold; if it is a little damp, or a little windy, or a little cold, they wait, and wait, and wait; meanwhile, weeks and even months pass away, and they never, during the whole time, breathe a single breath of pure air. The result is, they become so enfeebled that their constitutions have no power of resistance; the least thing in the world gives them a cold; even going from one room to another, and before they know it they have a cold all the time, and this is nothing more nor less than consumption; whereas, if an opposite practice had been followed of going out for an hour or two every day, regardless of the weather, so it is not actually falling rain, a very different result would have taken place. The truth is, the more a person is out of doors the less easily does he take cold. It is a widely known fact that persons who camp out every night, or sleep under a tree for weeks together, seldom take cold at all.

The truth is, many of our ailments, and those of a most fatal form, are taken in the house, and not out of doors; taken by removing parts of clothing too soon after coming into the house, or lying down on a bed or sofa when in a tired or exhausted condition from having engaged too vigorously in domestic employments. Many a pie has cost an industrious man a hundred dollars. A human life has many a time paid for an apple-dumpling. When our wives get to work, they become so interested in it that they find themselves in an utterly exhausted condition; their ambition to complete a thing, to do some work well, sustains them till it is completed. The mental and physical condition is one of exhaustion, when a breath of air will give a cold, to settle in the joints to wake up the next day with inflammatory rheumatism, or with a feeling of stiffness or soreness, as if they had been pounded in a bag; or a sore throat to worry and trouble them for months; or lung fever to put them in the grave in less than a week.

Our wives should work by the day, if they must work at all, and not by the job; it is more economical in the end to see how little work they can do in an hour, instead of how much. It is slow, steady, continuous labor which brings health and strength and a good digestion. Fitful labor is ruinous to all.—*Hall's Journal of Health.*

GENERAL ARTICLES.

OUR DAILY BREAD.

A BEGGAR boy stood at a rich man's door:—
"I am homeless, and friendless, and faint, and poor,"
Said the beggar boy, as a tear-drop rolled
Down his thin cheek, blanched with want and cold.
"Oh, give me a crust from your board to-day
To help the beggar boy on his way!"
"Not a crust nor a crumb," the rich man said,
"Be off, and work for your daily bread."

The rich man went to the parish church,
His face grew grave as he trod the porch;
And the thronging poor, the untaught mass,
Drew back to let the rich man pass.
The service began—the choral hymn
Arose and swelled through the long aisles dim;
Then the rich man knelt, and the words he said,
Were, "GIVE US this day our daily bread"

The Hygiene of the Ear.

IT is natural that we should regard with an intense curiosity all the faculties with which our bodily frame is gifted, and that we should desire to preserve them as perfectly as possible. The following remarks are designed to do something toward gratifying that curiosity with regard to one of the most important of our powers, and to give a few hints in respect to things that are hurtful to it.

Our popular physiologies teach us that there is a tube leading from the drum of the ear into the throat, called, from its discoverer, Eustachius, the "Eustachian tube." The use of this tube is two-fold. First, it supplies the drum with air, and keeps the membrane exactly balanced, and free to move, with equal air-pressure on each side; and, secondly, it carries off any fluid which may be in the drum, and prevents it from being choked by its own moisture. It is not always open, however, but is opened during the act of swallowing, by a little muscle which is attached to it just where it enters the throat. Most persons can distinctly feel that this is the case, by gently closing the nose and swallowing, when a distinct sensation is felt in the ears. This sensation is due to a little air being drawn out of the ears, through the open tube during swallowing; and it lasts for a few minutes, unless the air is again restored by swallowing with the nose unclosed, which allows for the moment a free communication between the ear and the throat. We thus see a reason for the tube being closed. If it were always open, all the sounds produced in the throat would pass directly into the drum of the ear, and totally confuse us. We should hear every breath, and live in a constant bewilderment of internal sounds. At the same time, the closure, being but a slight contact of the walls of the tube, easily allows a slight escape of air *from* the drum, and thus not only facilitates and regulates the oscillations of the air before the vibrating membrane, but provides a safety-valve, to a certain extent, against the injurious influence of loud sounds.

The chief use of the Eustachian tube is to allow a free interchange of air between the ear and the throat, and this is exceedingly important; and it is very important also that its use in this respect should be understood. Persons who go down in diving-bells soon begin to feel a great pressure in the ears, and, if the depth is great, the feeling becomes extremely painful. This arises from the fact that in the diving-bell the pressure of the air is very much increased, in order to balance the weight of the water above; and thus it presses with great force upon the membrane of the drum, which, if the Eustachian tube has been kept closed, has only the ordinary uncompressed air on the inner side to sustain it. It is therefore forced inward and put upon the stretch, and might be even broken. Many cases, indeed, have occurred of injury to the ear, producing permanent deafness, from descents in diving-bells, undertaken by persons ignorant of the way in which the ear is made; though the simple precaution of frequent swallowing suffices to ward off all mischief. For, if the Eustachian tube is thus opened, again and again, as the pressure of the outside air increases, the same compressed air that exists outside passes also into the inside of the drum, and the membrane is equally pressed upon from both sides by the air, and so is free from strain. The same precaution is necessary in ascending mountains that are lofty, for then there is the same effect of stretching produced upon the membrane, though in the opposite way. The outside air becoming less and less condensed as a greater hight is gained, the ordinary air contained within the drum presses upon the membrane, which is thus insufficiently supported on the outside, and a similar feeling of weight and stretching is produced. The conjurer's trick of breaking a vase by a word rests on the same principle. The air is exhausted from within, and the thin, though massive-looking, sides of the vase collapse by the pressure of the air outside; and, just as ever so small a hole made at the right moment in the side of the vase would prevent the whole effect, so does swallowing, which makes a little hole, as it were, for the moment, in the drum of the ear, prevent the in-pressing or out-pressing of the membrane. Mr. Tyndall, in his interesting book "On Sound," tells us how he employed this precaution of swallowing, and with entire success, when, in one of his mountain excursions, the pressure on his ears became severely painful.

Deafness during colds arises very often, though not always, from a similar cause. For, when, owing to swelling of the throat, the Eustachian tube cannot be opened by its mus-

cle, and so the air in the drum is not renewed, the air that is contained in it soon diminishes, and the outer air presses the membrane in, so that it cannot vibrate as it should. This is what has been sometimes called "throat-deafness."

There are several things very commonly done which are extremely injurious to the ear, and ought to be carefully avoided. Those who have followed the previous description will easily understand the reason.

First, children's ears ought never to be boxed. We have seen that the passage of the ear is closed by a thin membrane, especially adapted to be influenced by every impulse of the air, and with nothing but the air to support it internally. What, then, can be more likely to injure this membrane than a sudden and forcible compression of the air in front of it? If any one designed to break or overstretch the membrane, he could scarcely devise a more effective means than to bring the hand suddenly and forcibly down upon the passage of the ear, thus driving the air violently before it, with no possibility for its escape but by the membrane giving way. And far too often it does give way, especially if, from any previous disease, it has been weakened. Many children are made deaf by boxes on the ear in this way. Nor is this the only way: if there is one thing which does the nerve of hearing more harm than almost any other, it is a sudden jar or shock. Children and grown persons alike may be entirely deafened by falls or heavy blows upon the head. And boxing the ears produces a similar effect, though more slowly and in less degree. It tends to dull the sensibility of the nerve, even if it does not hurt the membrane. I knew a pitiful case, once, of a poor youth who died from a terrible disease of the ear. He had had a discharge from it since he was a child. Of course his hearing had been dull; and what had happened was, that *his father had often boxed his ear for inattention!* Most likely that boxing on the ear, diseased as it was, had much to do with his dying. And this brings me to the second point. Children should never be blamed for being inattentive, until it has been found out whether they are not a little deaf. This is easily done by placing them at a few yards' distance, and trying whether they can understand what is said to them in a rather low tone of voice. Each ear should be tried, while the other is stopped by the finger. I do not say that children are never guilty of inattention, especially to that which they do not particularly wish to hear; but I do say that very many children are blamed and punished for inattention when they really do not hear. And there is nothing at once more cruel and more hurtful to the character of children than to be found fault with for what is really their misfortune. Three things should be remembered here: 1. That slight degrees of deafness, often lasting only for a time, are very common among children, especially during or after colds. 2. That a slight deafness, which does not prevent a person from hearing when he is expecting to be spoken to, will make him very dull to what he is not expecting; and, 3. That there is a kind of deafness in which a person can hear pretty well while listening, but is really very hard of hearing when not listening.

The chief avoidable cause of deafness is catching cold, and whatever keeps us from colds helps us to preserve our hearing. We should do, therefore, those things that help to keep colds away: for which the first is taking plenty of fresh air; the second, using enough, but not too much, cool water all over us, taking especial care to rub ourselves thoroughly dry, and never to let it chill us; and the third is to avoid draughts, and wet, especially sitting in wet clothes, or being in close or very heated rooms. But there are some kinds of cold especially hurtful to the ear. One is sitting with the ear exposed to a side wind, as too many people do now on the roofs of omnibuses, and so on. We should always face the wind; then if we are not chilled, it is hard to have too much of it. Another hurtful thing is letting rain or sleet drive into the ear, against which, if it were not that the people do sometimes suffer from this cause, it would seem as if it could hardly be necessary to caution them.

Another source of danger to the ear, however, arises from the very precautions which are sometimes taken against those last mentioned. Nothing is more natural than to protect the ear against cold by covering it by a piece of cotton-wool; and this is most useful if it is done only on occasions of special exposure, as when a person is compelled to encounter a driving storm, or has to receive on one side of the head the force of a cutting wind. But it is astonishing in how many cases the cotton-wool thus used, instead of being removed from the ear when the need of it has passed, is pushed down into the passage, and remains there, forming itself an obstruction to hearing, and becoming the cause of other mischiefs. Three separate pieces have sometimes been found thus pushed down, one upon the other. Paper rolled up, which is also used for protecting the ear when cotton-wool is not at hand, is still more irritating when it is thus left unremoved. The way to avoid this accident, besides being careful not to forget, is to use a large piece of wool, and to place it over, rather than in, the passage.

It should be remembered that constantly covering up the ear is adapted to injure it. On the whole, men in whom the ear is habitually exposed, suffer if anything less from ear disease than women, in whom it is so often covered. Nor can the "hat" be held an unsafe head-dress in this respect for the latter sex.

But it is important that there should not be frequent changes, especially in cold weather, from a head-dress which covers to one which exposes the ear. It is better that the air should always have free access to it; but if this has not been the case, the summer should be chosen to make the change.—*People's Magazine.*

Systematic Thinking.

PEOPLE who think unsystematically are slovenly minded people. The facts and ideas stowed away in their upper chambers are all topsy-turvey. No sooner do they turn over something in the hope of finding another something than they cover up still another something, which, in its turn, will soon be wanted and rummaged after. Their heads are not well-arranged libraries, but garrets filled with rubbish. If they commence to think upon any subject, they shift it about, taking only a glimpse of it here and there. They do not, like the systematic thinker, take a subject to pieces as a watch-maker does a watch, and lay the parts all in order under glass covers, but pitch them into all sorts of by-places and corners, and generally, getting bewildered in trying to replace them, become hopelessly muddled, and give it up.

A great deal is said now-a-days about the power of modern thought; but it would be well to remember that all the thinking which bears fruit is systematic thinking. Many a young man imagines himself to be thinking when he is merely day-dreaming. Thinking implies an active state of mind, calling up images, holding them fast, and arranging them in order; not a passive condition, in which troops of ideas, or shadows of ideas, flit across the mental vision like figures in a kaleidoscope.

Thinking, worthy of the name, is work—systematic, calm, and connected; and the man who has not so disciplined his mind that he can thus command it is not yet a thinker.

That systematic thinkers are so few is attributable, in a great degree, to early bad training. Not one teacher in fifty in our primary schools deems it of importance to teach children *how to study*, and a less proportion are competent to do this if they would. The most of them think their duties are comprised in keeping an orderly school, hearing recitations, and assisting pupils to do hard sums, and allotting tasks. Especially in the latter do they excel. Memorizing is with most of them a name for mummery—a thing to be done by holding the head on one hand, swinging first one foot and then the other, and forcing the lips to repeat a formula until they will run of themselves long enough to get through a recitation by very force of momentum. And this laborious, meaningless task, they think is study. In other words, study is to them the teaching of the lips to move from force of habit, while the mind may be wandering anywhere and everywhere.

Thus a vacant, wandering habit of mind is secured with the spelling lesson, and ground in with the grammar; and, unless by rare rules of good chance the unfortunate, overtasked, and mentally-disgusted young intellect meets in its onward progress some one who can show it the mistake, or has native genius to discover it without help, it grows into habitual slovenly-mindedness.

After all, teachers are no more to blame than parents who demand that progress shall be measured by pages of a book, rather than by power to think.—*Scientific American.*

The Clergy and the Temperance Cause.

BY RALPH E. HOYT.

PROBABLY no class of men are capable of wielding such a powerful influence for or against the cause of temperance as the clergy. The acknowledged conservators of public morals—teachers, whom the people are wont to regard as guides in all matters of reform—they have the ability to advance or retard the cause of temperance immensely. Whatever a minister says in his pulpit, or does out of it, his congregation are quite sure to believe is right and proper; and though they may not imitate him in all of his virtues, they are not likely to fail of indulging in such weaknesses and peccadillos as he may be given to, if they know what they are. A pastor who is known to indulge in an occasional glass of wine, and to keep such beverages on his sideboard, is very likely to preach to a congregation of tipplers. It is hardly to be expected that a church will be more temperate than their pastor. If those who have any inclination to use ardent spirits as a beverage know that their minister is not a total abstinence man—that he is given to the use of fashionable liquors occasionally, they will feel that there can be no harm in *their* following his example in that respect. Hence, they will deem themselves privileged to stand aloof from all temperance organizations, and to keep their sideboards supplied with choice wines and kindred abominations. And not only does such laxity on the part of clergymen tend to promote intemperance among their parishioners, but it inevitably weakens the moral power, and detracts from the usefulness of the ministers themselves. No clergyman who is unsound on the question of temperance can labor as effectively in any good cause as he could were he a wholehearted, consistent, temperance man. And so far as concerns his influence in this particular branch of moral reform, it amounts to nothing, except as a clog upon the wheels of the temperance chariot. For how can a man who uses wine himself counsel others not to touch, taste,

or handle? How can a minister warn young men of the dangers of intoxication, while he himself is drifting toward it? How can he preach on the evils of intemperance, when his own lips habitually quaff the wine that mocketh?

We often hear it said that it is easier to preach than to practice. But the true way in which to make preaching easy and effective is to make one's practice correspond with it.

It is a deplorable fact that many talented and influential ministers, at the present day, are not doing what they ought for the cause of temperance. A prominent clergyman of this city recently stated to me that the practice of wine-drinking was very common and quite popular among the members of his profession, and their families—that in the homes of very many of our ministers it was customary to keep a supply of wines on hand for family consumption and for the entertainment of friends who visited them. If this be so—and I have no reason to doubt the statements made by the reverend gentleman—it is a matter that may well excite the apprehensions of all true friends of the temperance reform. It is sad to think that any minister of the gospel can be so regardless of a cause which is second only to the cause of religion as to allow the cravings of a morbid appetite, or the dictates of an unhallowed fashion, to make him anything less than a firm, practical, uncompromising, temperance man.

Chicago, Ill.

"Anything."

BEING requested by the "local" of the REFORMER to furnish an article for this number, we asked him what we should write about, and he responded, "Anything." So "anything" is our theme; and this is why a word which has so little apparent connection with hygiene stands as a text for a few lines in the REFORMER.

But a moment's reflection suggested the idea that this subject is not so far removed from the question of health as one would at first suppose; for who can speak of "anything" or write of "anything" that is not in some way, immediately or remotely, connected with health?

Should we write of business, the most desirable kinds, or the most prosperous methods, it would be all in vain unless those whom it concerned had health to carry it on.

Should we write of any kind of labor, the mechanic arts, the various trades and pursuits of life, who would care for the instruction, unless he had strength of arm and power of limb to go forward with his work?

Should we write of fashion, we should run directly into the subject of health; for fashion is the consort of the prince of darkness himself. Next to the great enemy of all, no agency is doing more to curse the race for time and eternity. How many, whose bodies, which were designed to be beautiful and holy temples, now present only scenes of ruin and decay, constitutions shattered, nerves relaxed, strength enfeebled, can trace the loss of all that is valuable in life directly to their worship at fashion's accursed shrine.

Should we write of religion, we should likewise come presently to the subject of health; for how can we make any religious impressions upon persons who, by gross habits of living, have ruined their health and benumbed the moral sensibilities of their souls?

So we may write of "anything," and the question of health is there; for it is unlimited in its relations, and is the very foundation of life and all its activities.

From "anything," we may go "anywhere." Where is the favored spot in which no attention need be given to this subject? Where is the land where disease never comes? where no miasm rises from the polluted soil, and no contagion ever pervades the air? Could such a spot be found upon this earth, the race would migrate thither. But they seek for it in vain. The question of health is no obsolete theme in any portion of this world of ours.

From "anywhere," we may go to "anybody." Who is free from disease? Who has such immaculate vitality that he need not guard it? Who has that measure of health that he cannot suggest, and does not often desire, an improvement? No one. The question of health, then, is one that intimately concerns the happiness and well-being of every one of the thirteen hundred millions of human beings now living upon the earth.

And health is a treasure of such value that no object upon earth, however precious, no sum of money, however large, no array of figures, enumerating wealth untold, however extended, can be used as its equivalent or representative. Ask the man who has lost it what he would be willing to *do* to recover it; and earnestly and anxiously he answers, "Anything." Ask him what he would be willing to *give* if he might thereby regain the lost treasure, and he replies, "Anything." Yet how reckless are the mass of mankind in regard to this precious boon! How lavishly they draw upon it! How blindly they invade its sacred precincts! How they cling to false habits of life, and grope their way in darkness and ignorance along. He who has a spark of true philanthropy in his heart sees a field open here in which he longs to labor for the good of mankind.

What shall be done to arouse the attention of the people to the importance of this thing? What shall be done to dispel the ignorance that prevails, and lead the people to better ways of living? "Anything, anything," is the response.

Yes, "anything" that is within the bounds of reason and possibility—let that be done to remedy the physical evils now reigning in the land. Success to the REFORMER in its noble mission, and to all the workers in the holy cause.

U. S.

Tongueless Speech.

MANY animals possess the attribute of voice, but man is the only one among them all capable of modulating voice into speech. This he does by changing the shape of the cavities of the throat, mouth, and nose, by the actions of the muscles which move the walls of those parts, and by the movements of the tongue. The latter organ is commonly credited with the most important share of the work; a distinction to which, as we shall soon see, it is far from being entitled.

Cutting out the tongue was a form of punishment frequently inflicted in ancient times. In A. D. 484, sixty Christian confessors of Tipasa, a maritime colony on the north coast of Africa, had their tongues cut out by order of Hunneric, the Vandal conqueror; but, in a short time, some of them at least were able to speak with such distinctness that they went about preaching again. Pope Leo III. is said to have suffered a similar mutilation in 799, and afterward regained his speech. In the sixteenth century, a band of French Protestants were condemned to have their tongues cut out before they were led to the stake. One of them, immediately after the execution of the sentence, repeated three times, "Le nom de Dieu soit béni!" (God's name be blessed). In another case, the martyrs spoke so distinctly after losing the tongue, that the executioner was accused of having failed to carry out the sentence.

The ability to speak, after being deprived of the tongue, was long considered miraculous, and regarded as a signal mark of divine favor. Even as late as the present generation this view of the matter has been maintained, in spite of the fact that the accumulated experience of surgeons has demonstrated it to be an entirely natural result, with nothing miraculous about it.

Sir John Malcolm, writing from Persia, in 1828, describes the case of a chief named Zâl Khan, who, coming into disfavor with the reigning monarch, was condemned to have his eyes put out. Failing in his appeal for a recall of this cruel sentence, Zâl Khan "loaded the tyrant with curses," and, in return, his tongue was ordered to be cut out. This order was imperfectly executed, and the loss of half the member is reported to have deprived him of speech. Being afterward persuaded that, if cut close, he might be able to speak intelligently with the root, he submitted to the operation, and subsequently told his own story to Malcolm.

A still more remarkable example of the retention of the powers of utterance, after loss of the tongue, is that of Margaret Cutting, whose case was brought before the Royal Society of of England in 1742, and again in 1747. This girl lost her tongue by what was supposed to be a cancer, when four years old. The disease first appeared in the shape of a small black speck on the upper surface of the tongue, and rapidly ate its way quite back to the root. One day, while the surgeon who had the case in charge was syringing the parts, the tongue dropped out, the girl immediately thereafter, to the great astonishment of those present, saying to her mother: "Don't be frightened, mamma; it will grow again." Three months afterward it was completely healed, with not a vestige of the tongue remaining. At the age of twenty, this girl was carefully examined by several competent gentlemen, who report on the 44th volume of the "Philosophical Transactions" as follows, regarding her condition: "We proceeded to examine her mouth with the greatest exactness we could, but found not the least appearance of any remaining part of the tongue, nor was there any uvula. . . Notwithstanding the want of so necessary an organ as the tongue was generally supposed to be, to form a great part of our speech, and likewise to be assisting in deglutition, to our great admiration she performed the office of deglutition, both in swallowing solids and fluids, as well as we could, and in the same manner. And as to speech, she discoursed as fluently and as well as others do. . . She sings very prettily, and pronounces her words in singing as is common."

The inability to speak, after loss or mutilation of the tongue, is sometimes due, not so much to the lack of that organ, as to the state of the sufferer's mind. Like those patients with impaired locomotive powers who, believing they cannot walk, seem to lose the power of will necessary to enable them to try to walk, the person with an imperfect tongue, laboring under the impression that talking is impossible, fails to make the necessary effort, and perhaps would never regain the faculty of speech unless startled into some involuntary exclamation that convinces him of his mistake. An amusing example of this accidental recovery of speech is quoted by Dr. W. Fairlie Clarke from the works of Paré.

A rustic who had lost a portion of his tongue, and believed he could not speak, was tickled by a companion while he was in the act of drinking, when, in spite of his mental impression, words burst forth. "He attributed this to the use of the basin that he was holding to his lips; and, having by its means regained faith in his powers of utterance, he always carried a basin about with him, and applied it to his mouth

when he wished to speak. . . The effect of a nervous shock," says Dr. Clarke, "is distinctly seen in a case recorded by the celebrated Dr. Tulp, of a young man sailing in Italy, who was taken by pirates, and carried to Turkey. On account of his refusal to turn Mohammedan, his tongue was cut out. He was dumb for three years, but recovered his speech suddenly one stormy night when he was terrified by a vivid flash of lightning which was followed by a loud peal of thunder." — *Popular Science Monthly.*

Diseases of Children.

INFANCY is the most critical period of human existence. Man, although placed at the head of the animal kingdom, is of all animals the most helpless at birth. The Creator seems to have formed him for long and active life by causing the various organs of his body to develop slowly, in order that they might be better qualified to perform the varied duties of life.

Man does not become fully developed until he is about thirty years of age. By this slow growth, with proper training and education, he becomes, by degrees, fitted for the most arduous and difficult physical and mental labor. He has no control over his creation or birth. Moreover, being ushered into the world in the most helpless condition, he is utterly dependent; and his wants must be supplied by other hands than his own.

Parents are responsible for the physical deficiencies of their offspring, which may be multiform in name and nature. By right relations to life, however, many of those defects may be seen and corrected, and numerous lives saved to become "angels of the household." But as it now is, more than one-half of these innocent and helpless beings die, being sacrificed to the fashions and traditions of past ages.

Much light is now shining out upon medical subjects, and many important changes are taking place; and the treatment of diseases of children should claim a due share of improvement. The most important personage to whom the life of the infant is confided is the mother. To her the child is under the greatest obligation. Indeed, it is a part of herself. From her blood it draws its nourishment; to her it is indebted for sickness or health. Her emotions may produce effects, favorable or unfavorable, which shall be life-lasting.

Whether the mother is cheerful or gloomy, a corresponding condition may be looked for in the infant. Should she take her food while cast down or oppressed by grief, sorrow, or discouragement, the babe will show signs of indigestion. If force of circumstances should throw her into a passion, the child may have colic; these results being effected through the milk. If it sleeps with a father who is addicted to the use of intoxicating drinks, of tobacco, or opium, it will be in danger of convulsions and imbecility from narcotic poison absorbed from the parent.

These pernicious habits of the father and mother are the direct cuases which produce such disastrous effects in the children; while the popular view is that infantile mortality is caused by a "mysterious dispensation of Providence." God never designed such a state of things. He has established laws of life exactly adapted to man's necessities, and which, if obeyed, will insure perfect health. But, as the result of neglecting this light, we see children afflicted with wasting diseases of every form and nature, of which we may speak from time to time in the future. It is the duty of parents to become acquainted with these laws of physical and mental hygiene, which they will find variously explained throughout this journal, and, if faithfully followed, will bring health, wealth, joy and gladness, into thousands of families.

J. H. GINLEY, M. D.

Food.

NO animal or plant can exist without nourishment. Food is the staff of life; and the quality of the food determines the quality of the plant. An inferior article of food will produce an inferior plant; thus, plants grown in the shade lack beauty and color. A field of wheat in the open plain stands a hundred-fold better chance of a crop than one in the shady grove. Plants require the stimulating influence of the sun's rays, as well as the nourishment which they obtain from the ground. Animals also need light, as well as solid food, to nourish the system.

If you build a house of decayed timber, it will not stand the weather, nor endure for many years. If you make a road of clay, or muck, or sawdust, it will soon become a bed of mud; but if it is of stone, and covered with nice gravel, you have a good road at all times.

So if you nourish the body with good, healthful food, you are taking a step in the right direction. It is the quality of the food which determines the quality of brain, bone, and muscle; and what articles of food are equal to grains, fruits, and vegetables, in imparting strength to the system. All meats are on the road to decay from the moment the poor animal is robbed of its life; and what an absurd thing it is to suppose that fat and grease can build up the system! Depend upon it, dear reader, if you would avoid scrofula and secure sound health, you must use hygienic articles of food.

JOS. CLARKE.

The Potato.

As is probably well known to most of our readers, the potato is a native of South America, growing there in a wild state. As it is there found, it is a small, watery tuber, and of very little value as food, although the native Indians sometimes eat it, with their scarcely less nutritious clay. Although this is the origin of the common potato, cultivation has made a wonderful change in the character of the vegetable. It now constitutes a staple article of food for millions of human beings, yet it was only one hundred years ago that it was first introduced into general use; and it was proposed in Germany last year to hold a jubilee to celebrate the first centennial of the potato. The following paragraphs are quoted from an article on the history of the potato in a recent number of the *Journal of Applied Chemistry*:—

"When the Spaniards conquered Peru, in the sixteenth century, they carried some potatoes to Europe and sent them to the Pope. The raw plant was cultivated a little in Spain, Italy, Burgundy, and the Netherlands, and from a certain resemblance to the truffle, an esculent fungus growing in the earth, the Italians gave them the name of *Tartufi* or *Taratufoli*, whence the Germans derived their word *Kartoffel*. The French called them "Apples of the earth," *Pommes de terre*, while in Austria and portions of Germany the equivalent expression *Erd-apfel* is used.

"John Hawkins first introduced them into England in 1565. Walter Raleigh brought them there in 1584, and, finally, Admiral Drake, in 1586. The latter sent some to a friend to plant, with the remark that the fruit was excellent and nutritious, so that it would be very useful in Europe. His friend actually planted the tubers, and they grew nicely. But when the seed balls were ripe, he took these instead of the tubers and fried them in butter, and, sprinkling sugar and cinnamon over them, placed them before some company as a great rarity. Of course, these balls tasted disgustingly, and the assembly concluded that the fruit would not ripen in Europe. The gardener pulled up the plants and burned them. The gentleman, who chanced to be present, stepped on one of the baked potatoes as it lay in the ashes, when it broke open, and he noticed that it was white as snow, and mealy, and had such an agreeable smell that he tasted it, and found it very palatable. The new vegetable was thus rescued, but for a century after, it was only cultivated in his garden, and in 1600 the Queen of England made the remark in her house-book that a pound of potatoes cost two shillings (nearly 50 cents).

"From England, the plant was gradually introduced into Holland and France, but at first it only appeared as an expensive rarity on royal tables and as a decoration in princely rooms. Louis XIV. was accustomed to wear a potato blossom in his button-hole, and his queen wore a wreath of them as a head ornament at court balls. As in many other circumstances, scarcity and hunger accomplished a general distribution. The grain crops had failed for several years, and in 1771 a nourishing plant was sought for to relieve this need. In 1773, an apothecary named Parmentier wrote an essay to which was awarded a prize by the Academy of Natural Science, and in this he directed the attention of political economists to the potato. He also cultivated several acres of them himself. The king was so delighted with the excellent yield that he exclaimed, "You have found bread for the poor!" But the poor, and especially the peasants, would not try them, but despised and scorned the strange bulb. Parmentier now adopted a stratagem. He made a public announcement that his potatoes were now ripe, but that they were so valuable that he had obtained from the king a special protection, and every one who stole a potato would suffer a double penalty. This worked to perfection. The peasants came at night and stole the potatoes, carried them home, and on trial found them so good that in a short time every corner of the field was dug over and cleared out, and the next spring, hundreds of peasants planted stolen potatoes.

"The potato was introduced into Germany still later, although planted in the botanical gardens as early as 1588. In many parts, they were introduced in the years of famine in the Thirty Years' War, and then in the beginning of the eighteenth century they were cultivated and prepared in various ways as food for feeding hogs, for powder, and in making starch. Every time the grain harvest failed, the potato made rapid advances into favor. The manner in which the Prussian government aided its introduction is well told by the celebrated Nettlebeck in his autobiography: 'I was a youngster about six or seven years old, and just putting on trousers—say about 1743 or 1744—when there was a dreadful scarcity, so that many persons died of hunger. In the next following year, the city of Kolberg received a present by the favor of Frederick the Great, a thing utterly unknown up to that time. A large freight wagon full of potatoes came to the market-place, and an announcement was made throughout the city and suburbs that every owner of a garden should be at the City Hall at a certain hour, and by the grace of the king a benefit was to be conferred on them. People began to conjecture what that had to do with the gift, and the less they knew the more they wondered. The City Fathers now exhibited them to the assembled multitude, and also instructed them in planting, cultivating, and cooking them. It would certainly have been much better to have given out written or print-

ed instructions, for, in the noise and tumult, very few paid any attention to the lecture. On the contrary, the good people took the highly-praised tubers with wonder, smelled, and tasted, and shook their heads. Some were thrown to the dogs, who snuffed about them, and of course rejected them with disdain. Judgment was pronounced against them. "See," said they, "they have no smell, no taste, and even the dogs will not eat them; what help will they be to us?" The belief was general that they grew on trees. Very few were planted as they should have been, some sticking single ones in the ground here and there, paying no further attention to them. Others piled them in heaps, and threw a little dirt over them.

"'The next year, another load of potatoes was sent, but experience had taught them something, and a person was sent along who understood the cultivation, and who aided in the planting, and took care that they were attended to.'

"In many places, the government was obliged to use compulsory measures, and dragoons watched the peasants to see that they planted potatoes. In other places, the priests and clergy endeavored to enlighten the people and stimulate them, but everywhere the progress was slow.

"Before it had become fairly established, the disease appeared, which first, in 1764, infested Erzgebirge, then in 1780–1790 south Germany and Hanover, and in 1830 west Germany. In the famine of 1770, in Bohemia, where they had no potatoes, 180,000 persons starved, while in Schlesia, where potatoes were already cultivated, all lived.

"In Switzerland, potatoes were frequently cultivated as early as 1730: in the famine of 1771, they saved thousands of lives, but they did not come into general use until the beginning of this century, and principally since the scarcity of 1817."

Causes of Decay of the Teeth.

BY D. C. HAWXHURST.

As regards the ultimate cause of the decay of teeth, there is, at the present time, a pretty general agreement. It is held that there are certain molecular defects incorporated into the minute structure of the teeth during their period of development, and that these structural defects make them, in after life, an easy prey to causes of decay that would be very trifling in their influence upon well-organized dental tissues.

As in part accounting for these defects, it is held that most civilized nations fail to take into the system a sufficient amount of tooth and bone-forming material. The enamel and dentine are thus formed under conditions which prevent a due degree of density.

The remedy for this condition in the child whose bones and teeth are still forming is found in the daily use of oatmeal, barley, unbolted wheat flour, and such other vegetable and animal aliments as contain an abundant supply of the mineral salts.

Many dental practitioners have sought to correct the deficiency of mineral salts in the blood, from which the teeth draw their nutriment, by administering doses of the phosphate of lime, which is by far the most abundant mineral ingredient of the teeth. How far this treatment has been successful, is not yet known, as there has been no extensive record of cases; but it is, manifestly, better practice to furnish the deficient substance through wholesome foods that contain them. At least, such practice can do no harm, and is the natural mode of supplying them. Milk, beans, peas, and wheat, are rich in the mineral salts that are concerned in building up enamel and dentine, and should be abundantly supplied to all children.

Bolting wheat flour removes, for the most part, the mineral constituents of the grain along with the bran. It is thought that the extensive and long-continued use of flour thus deprived of its mineral constituents, has been one cause of that general predisposition to decay of the teeth which afflicts this generation.

The Use of Tobacco.

THE use of tobacco is a grievous, growing evil, and every moral force should be exerted to overcome and restrain its existing and increasing use. It not only injures those who use it, but also affects the interests of others. The traveling public who have pure instincts, have reason to strongly protest against this uncleanly custom. Depots and railway cars are becoming almost intolerably disgusting to sight and smell, as well as unwholesome, by this pernicious habit. The following items indicate that some are acting, as well as thinking and talking, in the right direction:—

"It has utterly ruined thousands of boys. It tends to the softening of the bones, and it greatly injures the brain, the spinal marrow, and the whole nervous fluid. A boy who smokes early and frequently, or in any way uses large quantities of tobacco, is never known to make a man of much energy, and generally lacks muscular and physical, as well as mental, power. We would warn boys, who want to be anything in the world, to shun tobacco as a most baneful poison."

"The reformers are making it hot for tobacco-users. For example: The Norristown *Herald*, advertising for a compositor, says, 'No tobacco-chewer need apply.' A colony is being

planted at Skiddy, Kansas, in which no one is to be tolerated who uses tobacco in any shape. A gentleman, receiving a legacy of $10,000 from his father's estate, has given it to Phillips Academy at Exeter, for the benefit of poor students. But this proviso is made: they must not use tobacco in any form; for, says the giver, 'no boy shall smoke cigars or chew "fine cut" at the expense of my father's labor.' This really begins to look like proscription. But the most ingenious attack is yet to be mentioned: The Utica *Herald* has discovered that 'it is now unlawful for tobacco-chewers to beg a chew. The United States internal revenue law allows no person or persons to sell or dispose of tobacco in any form, no matter how small or great the bulk, without first paying a license of five dollars.'"

P. M. LAMSON.

Lack of Knowledge.—No. 11.

STILL the world moves on. And while it is moving with its whirl of business excitement, the great cause of health reform demands attention, for the march of death is snatching our fellows from our midst. As fast as the march of time, "our friends are passing away." While it is true that we have in us "the sentence of death," we also have a desire for life, which should at least lead us to care for life, health, and strength. It must be perversion of mind, anguish of spirit, or the deepest distress of the body, that would bring one to desire death. The course of the masses is such that they are surely hastening themselves into the jaws of death.

In our famous California climate, renowned abroad for health, death seems to find a multitude of victims. True, we have a fine climate, but changing to a fine climate cannot save from death if persons still persist in following pernicious practices and perverted appetite. A mild climate overhead is no antidote for wet, cold, and improperly clad feet. The courage, or rather presumption, that can brave the cold improperly clad, is insufficient to resist the sure results of such a course.

But our climate here is not infallible by any means. The snow storm of the last few days may strikingly remind the readers of the REFORMER of the remarks of Dr. Trall a few months past of the great climatic changes that might be expected as the result of the position into which the great planets of our system are to come. The oldest settlers of the valleys of California never saw in the valleys so much snow as they saw last week. The following respecting it is from the *San Francisco Daily Call* of Dec. 4:—

"Early yesterday morning there came a change of most unusual description. Then showers of veritable snow began to fall, and a white mantle overspread portions of the city to half an inch in thickness. In some districts there was sufficient to afford children the exhilarating pastime of snow-ball warefare. To San Franciscoans, a snow-storm is a rare occurrence, so remote in memory that there are many who do not recollect having seen the feathery flakes on the ground for twenty years." *The Yolo Democrat* says of the storm in Woodland, in the Sacramento valley, that, at the close of the storm, "the snow measured nine and one-half inches in depth."

When such climatic changes are taking place, it is of the utmost importance to use care to have the feet, hands, and limbs properly clad, or the blood will be chilled back from the extremities and caused to collect unnaturally around some of the organs of the body. As a matter of course, such congestion impairs at once the proper action of the organs, in due time changing their structure, and must be followed with a train of aches and ails, ending sooner or later in death.

How important that all should post themselves in relation to the proper care of health, that they may preserve the proper circulation of the blood to all organs of the body. Why not learn how to take baths, so that, in cases of colds and common ills, we may use nature's effective and yet harmless remedies, or rather aids, instead of flying to doctors' drugs.

Since my last, I have taken note of a few more cases. In the family concerning which I said that the mother was buried by the side of her husband, another fatality has occurred which bears witness to the uncertainty of drugs; or, I might say, certainty. At the funeral of the wife, her brother, a lad of some fourteen summers, took cold, and a fever commenced which was followed by another course of drugging, with this difference—a change of doctors in each case. But what is the difference who gives the drugs? The tale is told in this case, and is that the brother lies beside his sister.

I presume some of you are anxious to know how the case came out of the one who was swallowing the iron filings. The sad tale can be told in this case also; for I am now on my way to attend her funeral to-morrow. In this case I would say, however, that I do not believe that it was in the power of mortals to save her. Still we cannot doubt that, in many cases, with all good intentions, much misery is produced by using so-called remedies. Why not learn the art of living, and of using proper remedies, in all cases avoiding harsh measures that may aggravate existing evils, and doing only that which shall tend to soothe and alleviate human woes.

There is a great reaction in the minds of many, however, in relation to the drug system, not simply among those who read the REFORMER, but in some cases of those who have not studied health publications. Indeed, it seems as though

people would open their eyes to the great train of evils resulting from the system of drug medication. I must call attention to a couple of cases illustrative of progress in this respect.

A few days since, I had occasion to take a trip on one of our bay steamers. There came on board a man badly crippled by rheumatism. He was in such misery he had to keep moving about to get any relief. Different passengers talked with him, recommending *sure* remedies. He told them he had tried all their remedies except calomel. He said he took calomel once, and vowed then he never would take any more if he had to die. "One doctor," said he, "told me he would cure me of rheumatism if I would let him make a bath of mercury and put me into it up to my chin." I told him "I would rather die of rheumatism." He then turned to the passengers, and said, in a stentorian voice, "Gentlemen, I have taken medicine enough to float a small ship. I am sick of the whole system. I am going to get out of the way of these doctors. I am going up into the mountains of Mendocino Co., and live carefully, and try warm-water applications to my limbs." This was good common sense, which he had reasoned out.

Just after he had made his statement, a doctor who had not heard this rheumatic's denunciation of doctors, stepped up and began to talk about some sure remedy he had for the rheumatism. The man straightened himself up, looked upon him with a piercing gaze, and said, "Are you a doctor?" "Yes," replied the man. "Well," said he, raising his fist, as though he was going to deal him a blow, "then get out of my way, for I am down on the whole fraternity of drug doctors. I hate the sight of one, and want them to keep out of my way." This greatly amused the passengers, as the doctor moved on toward the end of the boat.

On another occasion, a passenger who had been paralyzed, but was recovering, came and sat down by my side, and entering into conversation, said that he once thought himself a very strong man, equal to any emergency; had worked hard in the mines, and had been an inveterate tobacco-smoker. "But," said he, "one day I suddenly lost the use of one entire side of my body, and could not speak. I am satisfied that tobacco-using was the great cause of my paralysis. I have quit it, and shall never touch it again." Said I, "What are you doing for your paralysis?" He replied, "I am living on coarse food, avoiding grease and coffee. I use some tea, and some beef, but no pork; and my meal at night is very light. When I use meat, I eat it in the middle of the day."

He had seen none of our health publications, and as my supply was exhausted, I took his address in order to mail some to him. As we parted, I advised him not to be ambitious to go into business too soon, but to rest and build up his strength, as his first great duty. As he has opportunity to read the publications I have since sent him, and understandingly commences to climb the hill of health, my desire is that his case may be made a blessing in guiding others into the way of life and health.

But there is another point I wish to notice in this rambling talk, viz., a danger of overdoing the matter by some who wish to be thorough health reformers. A short time since, I met an individual, a strict health reformer in diet, who was in the habit of taking a cold bath every morning on rising, going into an entirely cold room, and dashing a pailful of cold water upon his body, sometimes breaking ice in the pail. Because he was full of blood, with a robust constitution, and could react from such a bath for a time, and of course feel an invigorating sensation, he supposed he was demonstrating the utility of such baths. Others tried his heroic baths and decided against them, failing to receive benefit. A wrong influence is likely to grow out of such a course, and even this man sooner or later will find his own vitality impaired by such heroic treatment, and others are liable to be drawn into it who will find their vitality soon exhausted by it.

Let all obtain the work published at the REFORMER Office, entitled, "The Bath, Its Use and Application," and other health publications, post up, and gain knowledge in the care of their health, that they may not only be prepared to do good in their own families, but also be prepared to help those who have not yet seen the practical working of the hygienic system.

J. N. LOUGHBOROUGH.

Santa Rosa, Cal., Dec., 1873.

Sleeping in Draughts.

MR. LEWIS W. LEEDS, the distinguished writer on ventilation, offers, in the November number of the *Sanitarian*, views which will be regarded as novel on the subject of sleeping in draughts. He believes in it, and says: "I have not the slightest doubt that if every individual in the city of New York were to sleep on the house-top instead of in their stifling rooms, the rate of mortality would be reduced twenty-five per cent in three months; and if they could have blankets enough to keep warm, and be merely screened from the rain at night, without obstructing the currents of air—or, in other words, to sleep directly in *all the draughts* they could get—the mortality would be reduced one-half in one year." He holds that it is *warmth* alone that determines the amount of fresh air one can afford at night. "Where the body is kept warm, and pure air only inhaled, there is not one particle more danger of taking cold in sleeping directly between two open windows all the year round, than there is of taking cold in riding in an open sleigh when thoroughly

warmed by wrappings of furs and robes, and such a thing as taking cold under such conditions never occurs, providing always the thorough warming of the feet and back, which are often neglected."

Mr. Leeds, like other people, often takes cold and goes home at night hoarse with an inflamed and sore throat. He cures himself by going to bed in the airiest room he can find, covering himself well, and "if there are two windows in the room, I draw the bed between them, raise one clear up, and lower the other entirely down; if but one window, divide it, half open at top and half open at bottom, drawing the head of the bed directly under the window. The lungs are soon filled with the fresh, cold, invigorating air, and with the rapid flow of blood induced by the extra excitement of that cold air, quickly produces a genial warmth over the whole body, and a sound, refreshing sleep. I generally awake in the morning quite relieved of the previous day's cold, ready for the battles of another day. But if, with such a preliminary cold, I should be so unfortunate as to sleep in some friend's house, who would do me the honor to put me in the best spare room on the north side of the house, which had been carefully closed to keep the sun from spoiling the carpets (or rather the light, as there would be no sun on that side of the house), and the mattress, as soon as warmed, began to give off that disagreeable odor of all unsunned mattresses, I should get but a poor, broken night's rest, and find my cold worse than the day before. And the repetition of this for a few nights would give me such a cold as could scarcely be cured in two weeks, or one that might result in lung fever or consumption." Mr. Leeds believes that it is more difficult to avoid taking cold in the daytime, with its many exposures and sudden changes of temperature, than when in bed; and that when a cold is taken, it depends upon one's sleeping-room, "which is under his own control, whether he is cured of that cold before morning, or whether it is aggravated and added to."

Finally, Mr. Leeds says: "If all our citizens could sleep in open, well-aired, and sunned rooms, and use blankets instead of coal, I believe Professor Faraday's assertion, that the natural duration of the life of man is one hundred years, would be found much nearer the truth than is generally supposed."

What to Do in Emergencies.

If a person falls in a fit and begins to snore loudly, with a very red face, it is apoplexy. Let him be seated so as to favor the blood going downward, away from the head; apply cold cloths to the head, or cushions of equal quantities of snow or pounded ice and common salt. If a person is perfectly still, face pale, it is a fit of fainting. Do not touch him, except to loosen the clothing, then keep off five or ten feet distant, so as to allow the air to come in; make no noise, and there will very soon be a calm, quiet return to consciousness and life, for it is only a momentary cessation of the circulation of the blood in the head. But suppose there is a very violent motion of the hands and feet, and all sorts of bodily contortions, it is epilepsy. Let the man contort until he is tired, you can't hold him still, all your efforts only tend to aggravate the trouble and to exhaust the strength. All that ought to be done is to keep the unfortunate from hurting himself. There is no felt suffering, for as soon as he comes to, he will tell you that he remembers nothing of what has passed, appears to be the only calm and self-possessed person in the whole crowd, and is apparently as perfectly well as before the occurrence. Dizziness often comes on instantaneously, and we begin to reel before we know it. Shut your eyes, whether you are looking over a precipice, climbing a ship's mast-head, walking along the street, or ascending a ladder; the fear or dizziness disappears instantly if you look upward.

Asphyxia from Drowning.

Asphyxia is now understood to be the stoppage of the circulation of the blood, caused by a failure in the supply of oxygen to the lungs. This may result from drowning, inhalation of noxious gases, mechanical pressure, or, in fact, anything that will prevent the aeration of the blood by its contact with oxygen in the lungs.

In sinking under water, the supply of air is of course cut off, and it is generally supposed that the lungs are immediately filled with water by the drowning person's breathing it instead of air. This is almost a physical impossibility, for, with rarely an exception, the epiglottis—the little valve at the root of the tongue, which closes and protects the air passage to the lungs in swallowing—is suddenly and tightly closed as soon as the person goes under water. The truthfulness of this I presume every one has seen demonstrated in the person suddenly, and perhaps unexpectedly, plunged under water. In many cases, he will strangle, and have great difficulty in regaining his breath, even if not a drop of water has been taken into the mouth. The difficulty is not that water has stopped the air passage, but nature has protected the lungs from danger by closing the passage, as she does hundreds of times each day in swallowing, the only difference being that, in the former case, it was done spasmodically and with considerable force, and will not readily let go, thereby causing trouble in regaining breath.

In drowning, this is just what takes place, and it is on this protection that the life of the

person depends. So long as the passage to the lungs remains closed, there is hope. But if the epiglottis has relaxed its hold, then the lungs may fill with water, and all efforts at resuscitation will be useless.

As to the treatment, the old plan of rolling the patient on the grass or over a barrel, or shaking him in mid-air by the heels, is simply barbarous.

If there is hope for the patient, all the water he has taken will be in the stomach, and all efforts to throw it up before respiration has been established will simply make the chances for success less, for the very passage of water to the mouth only tends to keep the epiglottis more firmly closed, as in vomiting it will often close tightly enough to cause strangling.

As death from drowning results from the failure in the supply of air to the lungs, the treatment that would naturally suggest itself to every mind would be to get air into the lungs again. To accomplish this, place the patient on his back, with the head and chest slightly elevated, raise both arms as far above his head as possible and then lower them, pressing on the chest as the arms are lowered. Go through this round fifteen or twenty times per minute, imitating, as nearly as possible, the time taken in breathing. Try this plan yourself as you stand up. You will find it hard to resist the impulse to breathe in as you raise your arms, and breathe out as you lower them, and still more difficult to reverse the order. The explanation is, that in raising the arms the muscles attached to the ribs draw them up, making the cavity of the chest larger, thus creating a vacuum which would be naturally filled with air from the outside, and in lowering the arms the ribs fall back again, expelling the air taken in. If this method fails, a dash of ice water over the abdomen might result beneficially in causing the abdominal muscles to contract, and by this means the passage to the lungs might be thrown open.

During this treatment, the patient should not be kept in a room that is too warm or close, or have any clothing about him that would interfere with breathing. It would be best to remove his wet clothing, and wrap him in warm flannel. Anything that can be done by friction or hot surface applications, that will not interfere with the movement of his arms, will, of course, be beneficial.

This treatment will mainly apply to loss of breath from any cause. J. E. W.

WEAR your learning, like your watch, in a private pocket, and do not pull it out and strike it merely to show that you have one. If you are asked what o'clock it is, tell it, but do not proclaim it hourly and unasked, like the watchman.—*Chesterfield.*

Colds.

WHAT is usually termed a cold is among the most common complaints of this and other changeable seasons of the year. People generally think and act as though they had nothing to do in preventing this disease, or, in fact, any other to which they are exposed. Did they really know, as can be made evident to every reflecting mind, that they are, in very large measure, responsible for the condition of both body and mind, and that they have power to preserve both in a healthy state, accidents excepted, I think there would be a much happier state of things than now exists. It is my purpose to give a few simple directions to aid those who may feel inclined to learn, how to prevent sickness incident to changeable seasons of the year.

What do we mean, then, by a cold? We may say that it is a suppression of the excretions from the skin, checking the insensible perspiration, leaving poisons within the body which occasion irritation, bringing on more or less fever. The mucous surfaces of some of the internal organs become inflamed, as the throat, bronchi, and nasal passages, followed by a discharge of mucus from these surfaces, usually continuing a few days; but the disease often becomes chronic, and is then treated in medical works under the head of catarrh or bronchitis. When it thus becomes thoroughly established, it is very difficult to cure. It is a common thing to find persons who have been afflicted with the chronic form of the disease for thirty years, the hearing having become affected, the sense of smell destroyed, there being, also, a very disagreeable discharge from the head, often extending to the lungs.

Having given an outline of this common complaint and the consequences often resulting from it, especially when treated improperly, I shall next proceed to give some directions as to its prevention and cure in the acute stage. A uniform temperature of the body should be maintained. Sudden exposures should be avoided, and sudden changes of temperature, even though it be uniform; as going from a hot room into a cold atmosphere without proper protection, or going from a cold temperature into a hot room. Persons who become very cold should warm themselves slowly, lest a sudden reaction should bring on disease. Those who are frozen until life is nearly extinct, must be warmed very gradually; as by friction with snow or ice in a cool room. The extremities must be kept warm, and well protected at all times; especially in changeable weather. The feet should be covered with good, heavy shoes or boots loosely fitting, with broad soles, and low, broad heels. The spine must be well protected, as must also the chest. Usually those parts which need most protection have the least. We often see

children warmly clad from neck to hips, while the limbs are very thinly clad. No wonder such find premature graves. Great care must be taken to keep the skin in an active, vigorous condition, which is done by a proper diet, frequent bathing, plenty of exercise, and regular sleep. If persons are irregular as regards time of taking meals, or in respect to quantity of food eaten, the influence upon the system is bad. Many persons bring on colds from overeating, or from losing a night's sleep. Great pains should be taken to have the feet warm on retiring; and if warmed by gentle exercise, the better, but have them warm by some means. As a means of preserving health, a proper amount of bathing is indispensable.

Children, unless very feeble, and persons of good health, should bathe as often as two or three times a week; the feeble and aged less frequent. If, however, from any cause the skin cannot be bathed, a condition hard to conceive of, it must be subjected to gentle friction by the hand or a crash towel. The temperature of the bath must be adapted to the condition of the bather. In the days of Preisnitz, it was all *cold* water; more recently, the tendency is to use too much hot bathing, without reducing the temperature sufficiently, thus leaving the person's skin relaxed, and rendering him liable "to take more cold." Ordinarily, the temperature of the water should not exceed 90°, and should be reduced to 80° before concluding the bath, which should be immediately followed by vigorous, not harsh, rubbing, until the skin is dry and velvety to the touch. If the foregoing directions and hints are followed, colds and sickness of all kinds will, in very large degree, be done away.

There is one more point, however, important to health, that should be strictly attended to as a preventive measure, and a means of cure, as well; and that is, *ventilation*. Foul air in houses, especially in bed-rooms, slays its thousands annually. Health cannot be maintained without pure air.

But what can be done to "cure a cold," or to restore the system to its normal condition? As the pores of the skin are clogged, when the symptoms are first observed, take a full-bath, or some other kind of general bath, commencing at a temperature of 95° and increasing 5° every five minutes until a temperature of 110° is reached, unless it be unpleasant to the patient. Let the patient remain in the bath until perspiration starts freely, then gradually cool down the water to 88°, and some will bear it as low as 80°. If it is not convenient to take a general or full-bath, as described, a sitz-bath may be substituted. In the latter case, take a foot-bath at same time about 5° higher in temperature than the sitz-bath. Keep the head cool by applying cold compresses to it. After the bath, have the patient go to bed and cover up well. He should take but little food for forty-eight hours. The second day a full-pack at 95° for one hour, followed by a dripping sheet at 90° should be administered, the patient still continuing an abstemious diet for a few days. With this treatment, the cold will quickly disappear.

Few are willing to forego the pleasures of the table in order to regain health. The appetite must be gratified at the sacrifice of health. I am forced to say, in conclusion, that a well-regulated diet, with temperance in labor, and right social relations, will heal nearly all our diseases.

WM. RUSSELL, M. D.

Intelligence of Animals.

THE Boston *Traveler* notes that the singular faculty with which certain animals return to their accustomed abodes after having been taken away to strange and distant places, has always been a subject of wonder. No philosophical reason has ever yet been assigned for the faculty, a power by which animals are thus enabled to find their way home without any guide other than pure instinct, or some superior and still more mysterious faculty. The cat, though carried from home to a great distance by a tortuous path, and so concealed as to have seen nothing of the ground over which it was taken as not even to know the direction of its journey, will turn its steps, in the first moment of its freedom, to its wonted haunts. The carrier pigeon, by a still more wonderful exercise of the same sagacity, will travel thousands of miles across oceans, where there can be no trace of its path, and from distances whence no sense of sight or of smell can possibly guide its motions, and with inconceivable rapidity and unvarying directness pursue its homeward course. Migratory birds, after months of absence from their native places, will return with faultless certainty to build their nests in the same neighborhood, and upon the same cherished tree. The means by which this is accomplished is beyond human reason or knowledge. The intuitive power which it involves baffles scientific investigation, and it has not entered into the imagination of man to conceive of the physical or mental capacity with which animals are thus endowed.

A late number of the *Bulletin de la Societe Royal Protectrice des Animaux*, published at Brussels, contains some anecdotes illustrative of this inexplicable faculty of animals, which are worth noticing for the benefit of American readers who are curious in such matters. A dog was sent, as a present to a friend, a distance of twenty-five miles. He was conveyed in a closed basket in a covered carriage. On the night of his arrival at his place of destination the dog contrived to make his escape, and before noon the next day he had returned to the point of

departure, although the route traversed a chain of steep and rugged moutains.

Two or three cattle disappeared one night from a large herd that was being driven from the mountains in Wales to the London market, and it was supposed they had been stolen. Five days afterward the stray cattle appeared at the place in the mountains from which they had been driven, having traveled, in returning to their first love, at least 150 miles. The incident is not merely a verification of Scripture, that the ox knoweth his owner as well as the ass his master's crib, but it is a complete refutation of the proverbial libel against the intelligence of that patient and useful animal.

Crabs, it is well known, are generally taken to market alive, being confined in boxes, in mass. The fishermen of Falmouth, in England, are accustomed to collect their crabs jointly, or at least to throw them into one mass for transportation to market. They take care, however, to mark the shells, by branding them with a hot iron in such a manner that each one may know the lot which belongs to him. When thus marked, they are packed in boxes and conveyed to market in boats, some ten miles from the rocky clefts whence they are taken. In one instance, when a boat load thus marked and packed, had reached Falmouth harbor within a mile or two, one of the boxes was broken, and a considerable number of the imprisoned crabs made their escape simultaneously, and as it would seem, by a concerted arrangement. Plunging into the water, the happy fugitives made their way home to their native crannies, where, three days afterward, the fishermen found many of them, recognizing them by the brand of slavery upon their backs. They had traveled ten miles, at least, on their homeward journey. It was necessary, in the first place, that they should find their way from the boat to the entrance of the harbor of Falmouth, from whence they directed their steps to the rocks of Cape Lizard. But how they should have known whether to turn to the right or to the left, is the greatest mystery of the extraordinary feat. How they got over the distance which separated them from their rocky habitats, is less mysterious; for they were probably of the species called "soldier" crabs, and accustomed, it may be, to long marches. It is not uncommon in the West Indies, where they abound, to find them upon foraging expeditions, six or eight miles from the shore.

The most remarkable instance of the mysterious and unerring faculty by which animals, under all conceivable circumstances, are enabled to find their way home through strange districts of country and from great distances, remains to be related. The Archduke and Archduchess of Austria spent a portion of last winter at Menton, where, in the hotel in which they lodged, was a little black spaniel, of remarkable beauty and captivating "tricks and manners." The Archduchess became so much attached to him that upon her return to Vienna she persuaded the landlord to allow him to accompany her. The little spaniel was soon installed in the ducal palace as a favorite, and treated with every mark of tenderness and consideration that might lead him to forget his old home and associations. But the fascination of a residence at court had no power over his better nature. One day he suddenly disappeared, and every effort to discover his whereabouts was unavailing. There was consternation and grief at Vienna, but at Menton there was surprise and joy. The faithful spaniel appeared in the course of a few days at his old home, covered with dust and fainting with fatigue. He had found his way back through a country wholly unknown to him, having traveled a distance of about 1500 miles. But the devotion of the animal had been manifested at the cost of his life. The privations and extraordinary exertions of his journey had induced a disease of the lungs, from which in a few days he died.—*N. Y. Times.*

"Overeating."

THE matter contained in the article under the above heading, published in the November number of your most excellent magazine, can not fail to call forth a response from us, for it not only accords with our own experience, but we deeply feel the importance of this subject and the great need of reform among the people as regards this prevalent evil. We feel constrained to give a few items concerning our own and our family's experience, hoping it may do good.

My husband had been a nervous dyspeptic and a great sufferer for years, and myself greatly incapacitated, physically and mentally, for life's work, from a weak stomach, the result, no doubt, of wrong habits of living. In the meantime we received, as we believe providentially, glimpses of the "better way;" and about four years ago adopted the health reform system. We at once discarded the three-meal system, eating only two meals a day, discontinued the use of flesh food almost entirely, all grease and gravies, tea and coffee, all the usual condiments—as vinegar, pepper, and various spices, soda, and all like materials. We also exchanged white leavened bread for wheat meal, unleavened (which we believe to be the sweetest and best bread in the world). In addition, we used plenty of wholesome vegetables, which we have discovered can be eaten—if properly cooked—with little or no dressing, and yet be very palatable, and an abundance of delicious fruits, principally apples. How often were we led to exclaim, "Life's blessings flowed never so bounteous and free!" often adding, How well the poor might live, did they but fare simply.

We would rather dine at our own table than at the king's laden with the daintiest of wines and sweatmeats. Such a keenness of appetite and wonderful relish for food we never experienced before. But now comes the error that even would-be hygienists fall into. We made one great mistake. We thought our food, being hygienic, could be indulged in with little restriction; that "bran bread" could be eaten with scarcely a limitation. We aimed to be correct in the *quality* of our food—at times extremely radical—but failed to properly restrict the *quantity*.

Notwithstanding all the blessings Heaven has poured upon us through the glorious instrumentality of health reform, enabling us to accomplish what we never otherwise could have done, we are now fully convinced that our progress has been greatly retarded, as well as our influence crippled, by overeating. We have found but little, if any, difficulty in declining suppers or proffered refreshments between meals; but when our hour for eating has arrived, our will power has been weak, even since we became more enlightened on the subject. We have found our strongest foe to be the tyrant, Appetite. Diseased stomachs, from years of violation, no doubt, increase this difficulty; yet we rejoice to-day to report an upward tendency, physically, intellectually, and morally.

Much of the want of success in life, we believe attributable to poor digestion which is the result of gluttony. We speak from personal experience in saying that confusion, doubt, and fear often fill the mind when sensible of no guilt save the want of frugality in the indulgence of appetite. But, says one, "God made the good things of this world to eat; and shall we not eat them?" Because he has made a thousand things to eat, it does not follow that we should eat them all at once.

ALMIRA P. W. SMEAD.

Flowers and Ozone.

WHO does not love flowers? Who cannot admire their delicate shades and tints of coloring, and their exquisite fineness of texture and structure, and often delightful odor? How strange that there should be any one so devoid of love for beautiful and lovely things as to be unappreciative of these delightful objects! It is not our object, however, to make an appeal in favor of the æsthetic properties of flowers, but to present some facts in reference to their value as hygienic and sanitary agents which have often been overlooked or misunderstood.

Almost every one knows that the whole vegetable kingdom acts as a most efficient means of purifying the air, by removing from it the carbonic acid so injurious to man. All animals take oxygen into their lungs by the act of breathing, and expel from them, in return, carbonic acid, more properly called, carbon di-oxide. This carbonic acid, although poisonous to all *animals*, is just what *plants* require for their support, taking it in through their leaves, which serve the purpose of lungs, and returning to the air the life-supporting oxygen.

It has been a quite popular belief that plants exhale oxygen during the day only, reversing the process in the night, and exhaling carbonic acid. This notion is an entirely mistaken one. While it is true that the action of plants is not so active in the absence of sunlight in decomposing carbonic acid, and so restoring the imprisoned oxygen to the air, it is not true that they, in the least degree, augment the impurities of the atmosphere. Their condition is entirely neutral when not actively beneficial.

Laboring under the erroneous views alluded to, many people have considered it highly imprudent, and even absolutely dangerous, to allow houseplants in a sleeping room. It has also been held to be very unwise to tolerate these harmless mementoes of Heaven in the sick room, under the impression that they would, in some mysterious way, shorten the life of the sufferer. Both of these notions may be properly classed with a thousand other popular absurdities, when viewed in the light of science, since their very opposite is true.

Perhaps the inquiry is now raised, But what is ozone? and what has it to do with plants and flowers? All are acquainted with the fact that oxygen is the great agent of combustion. It is by the union of oxygen with other substances that fire is produced. But ordinary oxygen will not usually enter into this combination, except at very high temperatures. Ozone is a peculiar form of oxygen which is so extremely active that it will unite with other elements at ordinary temperatures. Hence, it is one of the most efficient agents known for destroying the poisonous organic matters with which the atmosphere abounds, especially in cities and malarious districts. Ozone is always formed in great quantities in thunder storms by the discharges of electricity. To this fact is due the wonderful effect of thunder storms in freeing the air from impurities. But ozone is formed in many other ways. It is always found in great quantities in pine forests, being there generated by contact with the exuded pitch which always abounds. Many plants, also, possess great ozone producing qualities, and hence their great therapeutic value. Among these are the laurel (though its leaves and kernels are poisonous), mint, thyme, the lemon tree, the hyacinth, mignonette, common sunflower, fever-few, and many others. Some of these may be cultivated as houseplants, and with the most beneficial results. And every one can certainly afford a fine patch of sunflowers in the back yard in the summer time. The latter plant is a very efficient safeguard

against malarial influences. Dr. Cornelius Fox claims that the sunflower is the very best sanitary agent that can be introduced.

It may be well to remark that there may be some ground for the prejudice against certain plants, on account of their odors, as some people seem to be somewhat seriously affected by them; but no fears need be entertained of injury from this source, if proper ventilation is always secured, as by so doing any superabundance of perfume will be entirely removed.

Then don't be afraid of flowers. They are harmless, inexpensive, and useful, as well as beautiful. You cannot make a better outlay of a few dimes or dollars, if you have not already done so, than to provide your sitting rooms with a supply of these charming disinfectants, which will eat up the poisonous carbonic acid produced by your lungs, lamps, and stoves, and burn up the still more poisonous organic impurities which emanate from your bodies.

J. H. K.

Good Manners a Duty.

MEN often speak of good manners as an accomplishment. I speak of them as a duty. What, then, are good manners? Such manners as the usages of society have recognized as being agreeable to men. Such manners as take away rudeness. There are a great many who feel that good manners are effeminate. They have a feeling that rude bluntness is a great deal more manly than good manners. It is a great deal more beastly. But when men are crowded into communities, the art of living together is no small art. How to diminish friction; how to promote ease of intercourse; how to make every part of man's life contribute to the welfare and satisfaction of those around him; how to keep down offensive pride; how to banish the raspings of selfishness from the intercourse of men; how to move among men inspired by various and conflictive motives, and yet not have collisions,—this is the function of good manners.

It is not effeminate to be refined. And in this land no man should plead inability. There may be a peasantry in other countries; there may be a class in foreign lands who have no opportunities; there may be those whose toil is so continuous, whose opportunities for knowing what constitutes good manners are so few, and whose ignorance is so gross that they are excusable; but this is not the case with any within the sound of my voice.

I affirm for every American citizen the right to be, not simply a man, but a good-mannered man.

Not only is the violation of good manners inexcusable on ordinary grounds, but it is sinful. When, therefore, parents and guardians and teachers would inspire the young with a desire for the manners of good society, it is not to be thought that they are accomplishments which may be accepted or rejected. Every man is bound to observe the laws of politeness. It is the expression of good-will and kindness. It promotes both beauty in the man who possesses it, and happiness in those who are about him. It is a religious duty, and should be part of religious training.—*Beecher.*

An Ancient Well in Illinois.

A CORRESPONDENT, writing from Fulton, Whiteside County, Illinois, gives the following particulars of the discovery of an ancient well in that locality, which he thinks is deserving of further investigation. Some twenty years since, a farmer, living on a high and dry rolling prairie, about sixteen miles from the Mississippi, in Whiteside County, dug a well in his yard. The first five feet dug through consisted of mold and clay, the next twenty-two feet of sand and gravel, and the succeeding five feet of black muck. In the midst of this black earth the remains of an old well were struck, the center of the new excavation falling within six inches of the center of the old one. This ancient well was stoned up in a workmanlike manner, the stones, in the opinion of the mason employed, having been laid in a sand-and-lime cement. It was filled with the mucky material composing the stratum in which it was found; and, on clearing out a portion of this, water in the desired quantity was obtained. The curb of the old well, after the removal of a few of the top stones, was made the foundation of the new curbing, which was carried upward to the surface. The thirty-two feet of earth over-lying the old well had never before been turned up.—*Sel.*

Horse Beef.

A FEW years ago the eating of horse flesh was introduced into France as an economical measure. For several years the total number of horses thus annually disposed of was quite limited, reaching only a few hundreds; but so greatly has the practice increased, that at the present time thousands of horses and mules are each year killed and served up in a variety of ways to satisfy the gustatory demands of the fastidious Frenchman, the number reaching, the present year, more than 10,000.

This method of disposing of useless horses is estimated to add about $100,000,000 annually to the wealth of the country; since an old, broken-down cart horse, rendered by disease and age of no value to its owner except the few shillings for which its hide and bones might be sold, will now bring in the market $25 or $30 as food for the consumption of flesh

eaters! Comparing this with the custom which prevails in Scotland of eating "braxy" sheep, or those which are found dead in the field, it would appear as though men were really assuming the prerogative of the vulture, peccary, and other scavengers. When people depart from the simplicity of nature's laws, it is impossible to determine what they will not do.

K.

Enjoy the Present.

IT conduces much to our content if we pass by those things which cause us annoyance, and consider what is pleasing and prosperous, that by the representation of the better the worse may be blotted out. If I be overthrown in my suit at law, yet my house is left me still, and my land; or, I have a virtuous wife, or hopeful children, or kind friends, or good hopes. If I have lost one child, it may be I have two or three still left me.

Enjoy the present, whatsoever it may be, and be not solicitous for the future; for if you take your foot from the present standing, and thrust it forward to to-morrow's event, you are in a restless condition; it is like refusing to quench your present thirst by fearing you will want drink the next day. If to-morrow you should want, your sorrow would come time enough, though you do not hasten it; let your trouble tarry till its own day comes. Enjoy the blessings of this day, if God sends them, and the evils of it bear patiently and sweetly, for this day is ours. We are dead to yesterday, and not yet born to the morrow.

A Fallacy.

A SHORT paragraph has recently been going the rounds of the papers under the above heading, and to us its title seems to be very appropriate, especially as applied to the two concluding sentences. The following is the paragraph in question:—

"Dr. Hall says that it is quite a mistaken notion which leads many persons to sleep in cold rooms; the generality of people cannot safely sleep in a room where the atmosphere is under fifty degrees Fahrenheit. Many persons wake up in the morning with inflammation of the lungs who went to bed well, and are surprised that this should be the case. The cause may often be found in sleeping in a room the window of which has been foolishly hoisted for ventilation. The water-cure journals of the country have done an incalculable injury by the blind and indiscriminate advice of hoisting the window at night. The rule should be everywhere during the part of the year when fires are kept burning to avoid hoisting outside windows. It is safer and better to leave the chamber door open, as also the fire-place; then there is a draft up the chimney, while the room is not so likely to become cold. If there is some fire in the room all night, the window may be opened an inch. It is safer to sleep in a bad air all night with a temperature over fifty than in a pure air with a temperature under forty. The bad air may sicken you, but cannot kill you; the cold air can and does kill very often."

On a previous page will be found an abstract from an article from very respectable authority, entitled, "Sleeping in Draughts." While it may be well to be careful to avoid improper exposure, it is unquestionably true that the article last referred to contains much the more logical position with reference to this question. Were the remarks of the writer of the above paragraph true, it would be exceedingly hazardous to venture out of doors upon an ordinary winter's day. But every one knows that even in winter those who spend most of their time out of doors are far the most healthy. It is also a well-known fact that during the war such a thing as a cold among the soldiers was hardly known, notwithstanding their constant exposure to the weather.

K.

IN Vienna, recently, Prof. Hyatt delivered a lecture on mercury, when he exhibited the leg bone of a man whose death had undoubtedly been hastened by that substance. On striking the bone heavily upon the table, out fell thousands of little glittering globules of mercury, which rolled about upon the black surface before him, collecting here and there into drops.

A GOOD old elder of a church, who was given to extravagant exaggeration, was at last called to account for his offenses in that respect, and admonished not to give way to the besetting sin in future. The good old man received the admonition meekly, and earnestly said: "I know how prone I am to this fault, my brethren, and it has given me tortures of pain; and night after night I have shed *barrels of tears* over it." The meeting adjourned in silence.

NOTHING really succeeds which is not based on reality; sham, in a large sense, is never successful; in the life of an individual, as in the more comprehensive life of the State, pretension is nothing, and power is everything.

WIT loses its respect with the good when seen in company with malice; and to smile at the jest which plants a thorn in another's breast, is to become a principal in the mischief.

THE taste for emotion may become a dangerous taste; we should be very cautious how we attempt to squeeze out of human life more ecstacy and paroxysm than it can well afford.

Answers to Correspondents.

THE object of this department is to impart such information as will be of practical benefit, not only to those who directly seek advice through this medium, but to all our readers In order to accomplish this object, we aim to give such answers as will be of general interest; but owing to the large number of questions which we usually receive, we are obliged to make our answers as brief and concise as possible. That we may be able to successfully accomplish this, it is necessary that those who desire instruction or information in reference to the nature of diseases with which they may be affected, or the required treatment, should be very explicit in their description of their conditions, symptoms, and habits of life. Unless this is done, it is often impossible to arrive at any satisfactory conclusion with reference to the cause of disease, which of course makes a prescription difficult, and often entirely out of the question. This want of definite description has often excluded questions from notice; and it is for the purpose of obviating further difficulty of this kind that we have prepared the following list of points, the truth concerning which must be plainly and concisely stated by all who address us for the purpose of obtaining medical advice through the columns of the REFORMER :—

1. Sex.
2. Age.
3. Brief personal description,—hight, weight, complexion, etc.
4. Careful description of diet.
5. Description of general habits.
6. Pulse.
7. If a female, condition of catamenia.
8. Hereditary tendency, if any.
9. All other facts which have a special bearing upon the case.
10. Full name and address.

In complying with the above particulars, all statements should be as brief as will meet the requirements, and should be written as plainly as possible. Initials only will be attached to answers; but the full name is essential, as private correspondence may be necessary.

NEURALGIA.—J. R. C., Utah, says his wife suffered from toothache during the early part of the summer, but has since had neuralgia for some months.

Ans. The neuralgia may be the result either of local or of constitutional causes. Her teeth should be examined by a competent dentist, and if there is evidence that they are the cause, being decayed, they should be removed, unless filling or other treatment will remove the difficulty.

The constitutional causes may be numerous. The only remedy is a careful attention to all the habits of life, strictly hygienic diet, and frequent derivative applications; as warm sitz-baths and foot-baths. The best palliative treatment consists in hot applications (either dry or wet) to the affected part during the paroxysms. Sometimes the cold compress will be found very efficacious. Alternation of the hot and the cold compress is also a very excellent means of procuring temporary relief, and often of removing the cause when it is entirely local. Very hot applications must not be too long continued, and must always be followed by a cool one. Rest and quiet must be secured, and all stimulants, as tea, coffee, etc., entirely discarded.

CATARRH.—G. S. P., Athens, Ga., inquires what treatment to give an infant five months old which seems to suffer from a severe "cold in the head," having slight cough, and mucous discharge from the bowels.

Ans. The child probably suffers from catarrh, accompanied with a degree of inflammation of the mucous membrane of the intestines. Its digestive organs are probably in a disordered condition. The most careful attention must be given to its diet. Nothing of an alkaline or otherwise irritating nature should be given it. Lime water is often recommended as a diluent for the food of young infants when they are fed cows' milk. The practice is very injurious, and occasions just such a condition of irritation as is found in this case.

Treatment. Regulate the diet according to directions in the article entitled, "Diet for Infants," published in the REFORMER for Sept., 1873. Give it a full-bath twice each week, at a temperature of about 92° Fahr. If these directions are carefully followed, its cold will doubtless soon disappear.

Children: Their Hydropathic Management in Health and Disease. By Dr. Shew. Price, $1.50. For sale at this Office. This is an excellent work upon the subject of which it treats.

HEART DISEASE—WEAK LUNGS.—L. P. F., Iowa, describes herself as having weak lungs—cough, raising phlegm and frothy matter—tightness across left lung—much pain in left shoulder—dizziness—irregular beating of the heart—ulceration of the uterus.

Ans. It is quite probable that you have no organic disease of the heart. You are doubtless dyspeptic, the irregular beating of your heart being only a sympathetic affection. Your lungs are quite likely more or less affected. Your case is a critical one, and must receive immediate attention.

Treatment. You must adopt a strictly hygienic mode of living, using great care with reference to diet. Quiet and rest are absolutely essential. You would do well to purchase a copy of the "Hygienic Family Physician," at the REFORMER Office. Price, $1.00. The best advice we can give you is to leave home cares

and anxieties and spend a few months at the Health Institute, as we can give little encouragement of permanent benefit from any other course.

MEDICATING BATHS.—A. P. T., Salisbury, N. B., wishes to know what advantage is to be derived from using sea salt, as sold by chemists, in bathing.

Ans. No more benefit is received from the addition of this salt to the water used in bathing than may be derived from adding common salt. The idea that pure soft water can be rendered any better for bathing purposes by the addition of impurities of any kind is quite absurd, and should not be tolerated by any enlightened hygienist.

HEMORRHAGE FROM THE LUNGS.—M. J. B. asks for directions for home treatment of what seems to be incipient consumption, there being frequent hemorrhage from the lungs. She has been taking as treatment a cold wet-hand-rub over the entire body each morning, with warm bath and warm foot-bath once a week, and wearing a compress upon the lungs and throat every night.

Ans. The lady takes too much treatment. She should carefully observe all the laws of health, in diet, dress, etc., taking as much out-of-door exercise as she can, without fatigue, always taking care to breathe through the nostrils.

Treatment. Every other morning rub the chest briskly with the hand, dipping it in cool water, afterward carefully wiping dry. Take general bath once a week. When there is a special tendency to hemorrhage, take hot leg-bath from 98° to 100° with cold compress upon the chest and hot between the shoulders. Continue ten to fifteen minutes, and then finish the bath with cool applications to the lower extremities and spine, being careful to wipe dry and secure good reaction. The feet and limbs should be thoroughly clothed, and great care should be taken to preserve a perfect balance of the circulation. A silk chest-wrapper should be worn next the skin to protect the lungs.

COLD FEET.—H. D., N. Y. I have been troubled with cold limbs for two years; am of light complexion; appetite good; cannot sleep well. Have been irregular for four months past.

Ans. Your vitality seems to be very low, the cause of which we are unable to tell. It may be from hard work, catarrh, or dyspepsia. You should rest half an hour before and after eating. Do not eat a large quantity of food when you are weary, depressed, or discouraged, as your system will not assimilate it. Bathe the body all over in sweet oil once in two weeks for two or three months, and take no less water treatment than you have done. You can take a sitz-bath with foot-bath once a week at 90° for five minutes, and cool to 88° and continue three minutes longer. Wash off thoroughly while taking the oil bath. After this, you can take fomentations over the stomach and bowels for ten or fifteen minutes once a week for four weeks, after which you can take sponge-baths for a month or two, once a week. Rest a week and resume the sitz and foot-baths as at first.

VEGETARIAN MAGAZINE.—G. E. S., Philadelphia, wishes to know if there is a "vegetarian magazine" published in the United States.

Ans. The REFORMER has long advocated the true and pure principles of vegetarianism, although it has not taken extreme grounds, being willing to admit the influence of long-continued habits upon the human system, and hence recommending gradual, rather than sudden and radical, changes in diet. The *Vegetarian Reformer* is published in Manchester, Eng., by the Vegetarian Society.

EYE CUPS.—Several correspondents have made inquiries concerning the value of eye cups in treating diseases of the eye. In a recent lecture, Dr. Frothingham, professor of diseases of the eye and ear, in the University of Michigan, pronounced these instruments to be worse than useless. He has seen many cases in which eyes have been greatly injured by their use. The principle of their reputed action is based upon a false theory of the cause of diseases of the eye, which was sometime since entirely discarded by scientific men.

PHYSICIANS, HEALTH INSTITUTE.

LENGTH OF LIFE.—In our great desire to increase and add to the comforts of life, we must not lose sight of prolonging life and youthful vigor. Year by year, the laws of health are better known and observed. We are learning that disease is generally caused by misconduct; by avoiding the causes, we escape the consequences. Hence, in nearly all civilized countries, the average duration of life is steadily increasing. In Geneva, accurate registers have been kept of the yearly average of life since 1560, which was then twenty-two years six months; in 1833, it was forty years and five months. Thus, in less than three hundred years the average duration of life is nearly doubled. In the fourteenth century, the average mortality in Paris was one in sixteen; it is now about one in thirty-two (or, rather, it was before the Franco-Prussian war). In England, the rate of mortality in 1690 was one in thirty-three; now, about one in forty-two.

WHEN we read, we fancy we could be martyrs; when we come to act, we find we cannot bear a provoking word.

SCIENTIFIC.

Spontaneous Generation.

THIS is a subject very closely connected with Darwinism, or the theory of evolution. As indicated by the term, spontaneous generation is a process by which life is supposed to be originated without the intervention of any previous life. That is, inorganic, dead, inert matter, by its own reactions and evolutions, is supposed to be capable of resolving itself into active, sentient, animate forms, independent of the action of anything already possessed of life. As this question is claiming, at the present time, so much thought and attention from scientists, it may not be amiss to present some of the evidences for and against the theory in question.

This theory is not, as many suppose, a modern one. Aristotle and other Greek writers believed that turtles, fish, and various reptiles, were developed from the mud and slime of rivers, and the moist earth after copious showers. Of course, this grosser form of the theory has been entirely discarded long since. But less than three centuries ago, an Italian priest was regarded as extremely heretical when he brought evidence to prove that the maggots found in decaying meat did not originate there spontaneously, but were developed from eggs deposited in the meat by flies.

About the middle of the last century, an English naturalist determined to test the matter by experiment, and accordingly prepared infusions of various animal and vegetable substances which he sealed up in glass flasks, after boiling for a short time. After a few days, he found the minute infusoria making their appearance. He accordingly concluded that they had arisen spontaneously, as none could have been present when the liquid was boiled without being killed by the heat to which they were subjected. The experiments were repeated by others, however, with greater care, and it was found that no animalculæ made their appearance when the air was entirely excluded.

More recently, the famous experiments of Bastian have attracted great attention, as they seemed to have established the theory of spontaneous generation. He claimed to have obtained animalculæ, not only from infusions of various kinds heated for some minutes to the boiling point and then sealed, but from simple solutions of certain salts of soda and ammonia similarly treated. These experiments have been repeated, however, by Dr. Colm, Dr. Lankester, and others, with greater care, and no living creatures are found.

It seems to be very well established, at last, that spontaneous generation is an impossibility. In those cases which appear to furnish examples of it, the germs of animal or vegetable life which make their appearance are communicated from the air, which is loaded with them, and give rise to fermentation and putrefaction. Those who are so strenuous in advocating the theory seem to forget that we have a standing negation of it in the fact that thousands of cans of various kinds of fruits and meats are annually put up by American housewives, which will remain entirely free from any trace of fermentation or decay for years, thus demonstrating the erroneous character of the theory.

Quicker than Lightning.

QUICK as lightning is a very common phrase; but the recent experiments of Prof. Rood of Columbia College seem to indicate that the extreme sensibility of the optic nerve enables it to outstrip even this swift-winged messenger in the facility with which it receives impressions. Thus, he has demonstrated that the length of duration of a flash of lightning may be only one five-hundredth of a second; while the eye is capable of seeing an object brought within its view for a period of time not exceeding four-billionths of a second. This even outrivals the fabled journey of Mohammed, of whom his followers maintain that he accidentally tipped a pitcher of water with his foot just as he was starting on a journey to Heaven, but accomplished his mission and returned before the water spilled holding ninety thousand interviews with the Deity while absent.

Saturn and Jupiter.

RECENT astronomical investigations are eliciting many curious and interesting facts relating to our solar system. It is now held, with reference to the two planets, Saturn and Jupiter, the giants of our planetary system, that, instead of being habitable worlds, resembling, in many respects, the earth, they are really suns, serving as sources of heat and light to the systems of satellites or moons of which they are respectively the centers, and which may be habitable. In other words, it is claimed that they are really companions of the sun, the great source of light and heat to our whole system. The position is also taken that an observer outside of the solar system would view it at a remote distance as a double star, seeing only the sun and Jupiter; while a nearer approach would make it appear as a triple star, Saturn also making its appearance; and a still nearer stand-point of observation would reveal, in addition, Uranus and Neptune, making a multiple star of five members. Many stars of this kind are visible in the heavens. Polaris, commonly called the north star, being an example of a double star, or binary system, although an opera glass or small telescope is necessary to reveal the fact to the eye. The arguments advanced in favor of this theory are varied and numerous, and by many eminent scientists are believed to be conclusive.

ALCOHOL IN BREAD.—Those who argue in favor of fermented bread have quite generally claimed that the alcohol formed during the process of fermentation was entirely evaporated by the heat in baking; it has recently been determined, however, by accurate experiment that this is not the case. *The Popular Science Monthly* is responsible for the statement that every one hundred pounds of fermented bread contains five ounces of alcohol. Quite too much for a teetotaler!

Items for the Month.

Blue Cross.

A BLUE cross by this paragraph signifies that the subscription has expired, and that this number is the last that will be sent till the subscription is renewed. A renewal is earnestly solicited.

We Shall not Do It.

THAT is, we shall not consent to lose a single one of our subscribers. It is true that the time of the subscription of not a few run out last month. But as we feel very certain that they design to renew their subscription, we shall not drop them this month. Let us hear from you immediately by letter, containing one dollar for the REFORMER for 1874, well enveloped, and plainly and properly directed, at our risk. PUBLISHER.

Reformer for 1874.

IT is with pleasure that we send the REFORMER to its numerous patrons at the beginning of the new year and new volume, somewhat improved in its general appearance and arrangement. New and larger type has been purchased, and other improvements have also been made. We are determined to spare no pains to make the REFORMER worthy of the patronage of every friend of true reform, and hope that during the year 1874 we may be able to add several thousands to our list of patrons, to all of whom we heartily wish a happy and profitable New Year.

Still an Opportunity.

NOTWITHSTANDING the hard times, scarcity of money, and almost total stagnation of all kinds of business in many localities, we are receiving hundreds of names of subscribers, although our agents have not yet had time to do anything more than make a beginning at their work of canvassing. The prospect now is that so soon as our energetic, enthusiastic friends get fairly at work, we may report the addition of thousands to our already large list of regular subscribers.

The scores of applications for canvassers' outfits which we are receiving is pretty good evidence that the business is a paying one, as well as philanthropic. There is plenty of room still for all who have a mind to work. Send for outfits, and you will receive them by return mail.

The magnificent offer made last month is still continued, as will be seen by the adjacent column.

Webster's Dictionary.

IN the advertising columns may be found a description of this magnificent work which represents the labor of a century and a half. Mr. Webster spent upwards of thirty years upon it, and the combined labor of the revisors aggregates more than one hundred more. In reference to its utility we need say but little, for its practical importance is so great that it is absolutely indispensable to every person who wishes to read understandingly or write correctly.

THE HEALTH REFORMER.
BATTLE CREEK, MICHIGAN.

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