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RATIONAL MIND-CURE.

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THE potent element of mind-cure is faith. Absolute, unfaltering faith is always an effective force. Faith in the fetish of the heathen, faith in the witch doctor, the Indian medicine man, the magnetic healer, the hypnotizer, the dealer in patent medicines,— faith in these things is sometimes capable of causing temporary cures.

But it is impossible to cure a real disease with a counterfeit faith, although there may be a palliation of the symptoms. It is impossible to accomplish this, just as it is impossible to cure a real disease by the application of drugs or of remedies and medicines that have no relation to the cause of the disease. A true faith, genuine mind-cure, must include the removal of the cause of the disease. An inflamed kidney, for instance, will continue its mischief and the disease will continue its progress just the same, no matter what the patient believes about it. The disease will go on doing its work of breaking down the constitution, the system will be drained continually, and by and by, the limit of endurance will be reached, and the sufferer will succumb in spite of his faith. False faith sooner or later brings the victim to grief, just as the owner of counterfeit money is brought to grief.

Rational mind-cure does not undertake to cure structural diseases by purely psychological means. It is possible for the same power that made man in the first place, to make a man whole when he is sick, but rational mind-cure, considered from a scientific standpoint, does not undertake to cure diseases which are in themselves incurable, and those which require the surgeon's knife. It does not undertake to cure a tumor, for it is only necessary to cut it off, or a broken limb which only needs to be set. It does not undertake to reduce a dislocated shoulder which must be brought back into place. Rational mind-cure promises less than false mind-cure, but accomplishes far more.

The real basis for mind-cure is to be found in genuine religion, sound, common-sense religion. There is a great deal of prejudice against religion in the world. The majority of people connect the idea of superstition with religion. Many sensible people are afraid of it, because they consider it something supernatural. They think that a person must put himself into a sort of a supernatural state in order to appreciate it. Now, religion is a natural thing. To be perfectly natural is to be perfectly spiritual. To be perfectly spiritual is to be perfectly natural.

An old philosopher, centuries before the Christian era, made this remark: "The real business of life is to seek truth

and to do good." This is the chief thing in religion, to seek truth, to hold fast to it, and to do good. The foundation of religion is belief in the fact that we are finite beings, that we are created by an infinite power that dwells in us and in all about us, that is always seeking to bring us to the very best that we can be, that is healing our wounds when we are injured and our diseases when we are sick.

We are not made up of a moral part and a physical part. We are all one. Man is a unit; and his moral, intellectual, and spiritual life are so interwoven that they cannot be separated. Suppose that a man has a wound in his hand. He looks at it and sees that it is slowly healing. What heals it? No physician can heal it. No surgeon can do anything, except to keep it clean and protect it. We watch over it while it is healing, and we say, "Nature heals it."

What is nature? Nature is simply a philosophical name for God. Herbert Spencer said: "After we have explained all we can of natural phenomena, we are compelled to admit that back of everything and behind everything there is an unknowable intelligence perpetually at work." Now Herbert Spencer's "unknowable intelligence" in nature, is the being that Christians worship as God.

Common sense tells us that there is an intelligence at work throughout the universe and that this power is in us, in our bodies. We catch a glimpse of the working of this power whenever we look at a hand that has been wounded, and see the skin gradually covering the surface again. If we look through the microscope, we find that this healing is being done with the most marvelous intelligence, with consummate skill. We see forces at work in cell-life that remind us of an army of soldiers. We watch an action akin to companies of soldiers marching in different directions and doing different kinds of work. Under the microscope, the contents of living cells are seen moving in systematic order hither and thither.

The same forces that are working in gravitation, in the growth of trees, in the lightning, in the storm, in the tidal wave, in the hurricane, and in all the great processes of nature are at work within us. There is no greater wonder in nature than that of digestion, the marvelous process by which food is transmuted into blood, by which white bread becomes red blood, and red blood, gray brain, or pink muscle, or white skin, or pink bone. All our different structures are made out of this one thing, red blood. By marvelous changes, brain and muscle, bone and nerve, and even thoughts, are made out of the food we eat. This is the great standing miracle of all the universe. The most marvelous thing to man is himself, how he can live, how his heart keeps beating, how his brain keeps thinking, how he goes to sleep at night, how he wakes up in the morning. What wakes him up? Why does he not keep on sleeping? How are these different processes carried on from day to day?

There is a greater miracle in an acre of grape-vines than in the turning of water into wine. There is a greater miracle in a great Western corn-field than in the feeding of the five thousand. The same power that takes the little grains of wheat and kernels of corn, expands them into rows, raises them up on stalks, and manufactures five hundred kernels out of one; that power is just as mysterious as the power which expanded the five loaves and fed five thousand people. It is the same thing. One of these phenomena we call natural, the other a miracle, because we are accustomed to see the one and not the other. This same power is working in us, and it is the miracle-working power.

Belief in God is necessary for a true

mind-cure. Belief gives rise to hope, and hope is one of the most powerful stimulants to which the body can be subjected. If a man have nothing to hope for, he must be depressed, melancholy, cheerless. The emotions have a marvelous influence over the body. We know how joy lights up the face and makes the eyes sparkle; how despair and melancholy darken the countenance. If any man ought to have hope, and a basis for hope and good cheer, it is the sick man. The man who believes in God and that he cares for us, has a great foundation upon which to base faith and hope. It is only necessary to put the finger upon the pulse, to feel its beating; it is only necessary to look out upon the landscape and see the beauty there; it is only necessary to open one's eyes and see the sunlight, to listen and hear the music of the world; it is only necessary to stop a moment and see that we have in ourselves a marvelous mechanism, a most intricately constructed machine that could not keep itself running a single second of time; it is only necessary to observe these things to be convinced that God is interested in us individually, and that he is thinking about us all the time.

If we study man from a philosophical standpoint, we find that he is made up of three things, a machine, an individuality, and an incarnation. The purpose of the machine is to take in food, or fuel, and to change it into other forms. We have, in an apple or a loaf of bread, latent energy, just as we have in coal. We put coal into the furnace, and we have active energy manifested as heat. We put food into our bodies, and it is manifested in active energy through the brain and glands, producing heat to keep us warm.

Besides being a mechanism, or machine, each one of us is an individuality, a soul. This living personality is made up of all the characteristics, peculiarities, and tendencies that make us different from each other — that constitute our individuality. It is something that dwells in us as long as we live. It does not perish when we die. The machine is laid away in the grave and goes to pieces, but the personality survives with God.

There is another thing that we find in us, and that is an incarnation. God put into man all that he could of himself. He manifested in Adam all of the divine attributes that it was possible to manifest in human form. God reveals himself in us as perfectly as we will permit him to do. His divine intelligence is ever present with us, caring for us, keeping us, healing us.

There is something else that we must know if we would thoroughly understand the rational mind-cure. Each of us has three lives instead of one. When a bullet is put through his head or his heart, a man falls dead. As a man he is dead, but his body is not yet dead. The writer was once in a great abattoir in Chicago, and saw animals being slaughtered. There were sheep with their heads cut off, but their muscles were quivering while their skins were being removed. The sheep, as a sheep, was dead, but its muscles were still alive.

At another time he was in a turtle market in Key West, and saw upon the counter there, steaks and various other cuts of meat which were squirming about, while the man behind the counter kept pushing them back to keep them from falling off upon the floor. Among other things there was the great heart of a turtle. It was about as big as a man's fist; it was beating and contracting just as regularly as if it were in the turtle's body. The writer bought the heart and took it away, and the next morning it was beating regularly — not quite so fast as it had been while in the turtle's body, but still regularly. Now the turtle was dead, but

the heart had a life of its own, and did not die until a day or two later.

Thus we see that there are two lives, the cell life, the life of the brain and muscle cells, each cell having a life of its own, and another life, which we call the somatic life, the individual life.

There is still another life, a life that is fundamental to all life, and that is the life of God that dwells in every man. It is this life of God that gives each individual cell its life, that unifies all the activities of the body, that presides over all its functions and maintains them. This divine life in man is leading every cell to do its duty. This life-giving power that pervades the whole universe, that is in every tree and every animal, and every living thing, this life leads every cell right. It leads every function right. Then why does man not always do right? Simply because of his rebellious will.

We have not only three lives, but we have three intelligences as well. We have our individual human intelligence, by which we think and exercise judgment, by means of which we are taught, and through which we carry on our individual life. Besides this, each little cell has its own intelligence. Each liver cell knows how to make bile, but it does not know how to do anything else. The gastric cells, — the cells of the peptic glands, — by their intelligence know how to manufacture gastric juice. They know how to do this, but nothing else. The intelligence of the cells of the salivary glands leads them to make saliva, but they know how to do nothing else. The muscle cell knows how to contract and work, but it cannot do anything else. The muscle cell cannot think. The brain cell can think, but it can do nothing else. The motor cell can induce muscular contractions and relaxations, but nothing else. The sensory cell receives impressions and sensations from the brain — it can feel, and that is all it can do. Thus all the cells are endowed, each with its own particular intelligence.

There is another intelligence back of these two intelligences, and it is this that unifies all the million intelligences of the body. This intelligence is the divine mind that resides in the body. There is a divine life and divine intelligence, a human life and a human intelligence, a cell life and a cell intelligence. If it were not for the unifying power of the divine intelligence that is behind all the processes of the body, we should soon grow out of shape. Take a man's hand and a child's hand, for example. They have the same general form and proportions. There is the same proportion between the man's thumb and fingers that there is between the child's thumb and fingers. Suppose there were no divine intelligence to preserve the symmetry of this hand. The thumb might grow out two or three inches longer than the fingers. One hand might become three times as large as the other. In the same way one's nose might grow out of proportion to the rest of his face, or one ear or eye might be larger than the other. One side of the body might be of different shape from the other, and out of proportion. It is the divine intelligence that preserves the wonderful symmetry of the body.

The divine engineer is constantly taking care of the machine of the body, and constantly controlling all its operations. It is this divine power that rules in us and keeps us alive and in health, that preserves our lives, that maintains the integrity of our bodies and its proportions, and the activities of all our functions.

We have three lives, three intelligences, but only two wills. The human will is the most wonderful thing about us. Nobody has ever been able to explain the phenomena of the human will. It is one

of the divine attributes that God has given to man. No one can tell in what part of the brain the will resides; physiologists cannot tell in what part of the brain are the cells that control the mind. They can locate the particular cells which control different parts of the body, for instance the thumb of the right hand or of the left hand; they can tell what particular part of the brain controls the feet. There are rules which are absolutely accurate in this respect. The geography of the brain has been described so correctly that it is possible to mark out on the shaven scalp the location of those portions of the brain which control particular functions of the body. There is a certain part which has charge of smelling and feeling and sight, another which has charge of swimming. There is a reading center that is developed in the civilized man and which the savage does not have. When a blood-vessel is ruptured there, and a clot is formed, connection with this center is lost. An individual is no longer able to read. We can locate the centers which control all these activities, but no one has yet discovered where the will is seated.

The human will has a certain control over the body. Then there is another will which controls the cells and organs. This will controls the process of digestion. It controls liver action. Can a man say to his stomach, "Digest faster," or, "Digest slower;" can he say to his heart, "Work faster," or, "Work slower"? He can do nothing of the kind. But suppose it is necessary to run up or down a flight of stairs. When one reaches the top, his heart is beating faster, not by any effort of his own will, but because it is necessary that it should do so in order to supply blood to the muscles for the increased effort. It is the divine will that does this. It watches over us every moment and compels activity of the whole body.

This is no vain philosophy. The divine will that resides in our bodies is the same power that builds the tree, that makes it grow upward against the power of gravitation which would drag it downward.

The human will and the divine will dwelling in the body may co-operate, or they may work in opposition. Let a piano represent the cells of our bodies. If two persons play upon the same piano at the same time and strike harmonious chords, there is harmony, but if one strikes a harmony and the other discords, there is disharmony. It is exactly so with our bodies.

The body may be compared to a harp with a million strings. There are two wills playing upon the body — the human will and the divine will. The divine will always plays harmonies, while the human will sometimes plays harmonies, and sometimes discords. The divine will never influences one to do anything wrong. The unperverted instincts are natural and wholesome. The horse and cow grazing in the forest have no difficulty in finding proper food. Instincts designed to lead us right are implanted in our bodies. This is just as true of moral instincts as of physical. If we are perfectly normal, all our instincts will lead us in the right direction because these instincts are suggestions of the divine will to the human will. This is why we suffer pain. Pain is an instinct intended to lead us away from a wrong road. When a child puts its finger into the fire, there is pain, because without it the hand might be left in the fire and destroyed.

Pain is the suggestion made by the divine will to the human will to call attention to the fact that there is danger. The things which cause us pain are things that it is wrong to do. Things that cause genuine joy and delight are normal instincts. Every instinct in itself is right. It

is possible for every instinct, faculty, and impulse to be perverted, and put to a wrong use. So the human will may take this body and pervert it to wrong purposes, just as the piano, which is full of harmonies, will give us discords and disharmonies if wrongly used. If one have a perverse will, there will be discords, but if the divine will and the human will are working together in harmony, then the song of life is sweet and melodious. Disease, pain, sorrow, grief, are simply discordant notes which come from the human will while working out of harmony with the divine will.

The practical application of all these thoughts is this: If we believe in God, in this ever-present intelligence and in this ever-present will that is seeking to lead us right, that is always striking harmonious chords, that is always leading us upward to that which is best for us, that is always leading us onward to that which is beautiful, to that which is most enjoyable, and to that which will give the most satisfaction in this world, if we really believe in this power within us, we shall be led by that belief to put our wills into harmony with that will — to co-operate with the divine will in doing those things that make for our own happiness and peace. Religion is nothing more or less than simply harmony with God.

Conscience is the means by which the divine intelligence seeks to bring the human will into harmony with the divine will. This is the way in moral things, and this is the way in which God endeavors to keep us in line physically, to keep the human will controlling the machine so as to make perfect harmony.

If the man who is sick says, "I will work in harmony with God," God is ready to repair his damaged body. An injured stomach is restored by daily growth out of disease into health. Every diseased organ is repaired in the same way. This is the way in which the whole body is made new, healthy, and well. God's mode of cure is seen in the slow approachings, day by day, toward the perfect standard of health. Now if the human will says, "I will co-operate with God in doing this work," many obstacles will be removed.

The application of these principles is perfectly practical. A man, for instance, has been in the habit of using tobacco. He would not think of putting tobacco into a piano, because it might disturb the strings. It would injure the piano and soil it, but this harp of innumerable strings, strings that are so small and delicate that some of them are only one-twenty thousandth of an inch in diameter, he has been soiling, polluting, and destroying with a noxious weed. But when his will is placed in harmony with the divine will, he will lay aside tobacco and all other contaminating things. Then the divine power can regulate the body with greater facility. The human will, instead of tearing down the body, will co-operate with the divine will in building it up. We will then take care to supply the right material to be builded into our rebuilding bodies. We will see that our food is of the right quantity and quality and taken in the right manner. We shall be interested in all these things because the natural promptings that come from the divine will lead us to do so.

The practical application of these principles to the cure of disease is this: When a man believes that God is in him, and that he will not let a hair of his head fall without noticing it; when he feels that there is a mighty power working in him; that he is not left to depend upon a fallible doctor, who makes mistakes and blunders, and gives wrong prescriptions; that he is not left to depend upon his own poor human nature, or upon some futile drug, or some weak, and perhaps useless,

remedy; that he is not left to depend upon any false power or fallacy, upon something that he cannot understand as being reasonable, but that he has the mighty power that made the universe to depend upon; when he feels that the same power cares for him that keeps the sun shining, that keeps the earth turning regularly on its axis, that keeps the planets circling in the orbits, then he has his feet upon a firm foundation. He has something to which to pin his faith that the mere believer in so called mind-cure cannot possibly possess. The sick man, above all others, should have belief and faith in God.

FRANCES E. WILLARD.

(Born Sept. 28, 1839 – Died Feb. 18, 1898.)

BY MRS. S. M. I. HENRY.

THE greatness of any individual is measured by the extent of his influence over his contemporaries for that which is good and true, and the permanence of the principles which he represents. That individual whose influence reaches the furthest in the greatest age of the world's history cannot be second to any.

It is undoubtedly true that Frances E. Willard, by her personality, influence, and work, has touched a larger proportion of her contemporaries than any other individual; and that she has accomplished larger and better results in social, political, and religious affairs; that by her affiliative spirit and methods the nations have been brought nearer together; that more than once her small hand has arrested the winds that threatened international strife; and that through the operation of the department of the World's W. C. T. U. which exists for that purpose, she, more than any other human power, has been used to keep peace among the peoples of the earth.

When the women of leading influence all over the world — including queens, and wives of diplomats — are of one mind and heart concerning any one great humanitarian interest and by it are bound together by that "blest tie that binds their hearts in Christian love," it is not easy for the "dogs of war" to get loose.

All this being true, many besides her devoted sisterhood are saying now, and by and by the impartial historian will say, that Frances Willard was the greatest woman the world has ever produced.

This is undoubtedly the age of greatest achievement, the greatest in illumination, in the understanding and application of principles, of attainment in high and noble enterprises; and it would be difficult in this greatest age to find anything of vital importance to humanity that has not been given a better chance of expression because of some influence exerted, some word spoken, or some practical plan devised for its furtherance, by this friend of everything which promised to alleviate the distresses of the world.

There may have been those who have reached further in some one direction; who have accomplished more in literature, or in platform work; some may have done more in the direct work of soul winning; but when it comes to practical social reforms of all sorts, I doubt if any have ever gone so far in those things, which, if realized, would tend to the building up of everything that is best and truest for humanity; that is most just be-

tween man and man, and man and woman, and for the child who had been so long forgotten, until she came into her kingdom. There have been those who have started in with what promised to be a more aggressive warfare against some certain evil, a more brilliant career in some line of excellent endeavor; but they have soon dropped by the way, while she, in her quiet, steady stand for principle, in her unflinching faith, has never faltered, but has gone steadily on to the end. In every effort which she put forth she has made a positive impression for that which was good and pure, and has struck a telling blow against that which was evil. Unfaltering is a word which graphically and truly expresses her attitude. *She never faltered.*

I doubt if any man or woman has ever been subjected, during so many consecutive years, to such varied and peculiar tests of purpose, of loyalty, and of character. It has seemed as if every phase and condition of human life had sent a representative to put her to the proof, if haply there might be found in her that which would make it possible to have a truer faith in God and a more practical love for man. Many and persistent have been the efforts to cause her to retreat from the stand which she had taken upon what she considered a vital principle. Tests have been applied which would have broken down any who were not upheld by an earnest conviction and the utmost loyalty of purpose, as well as by divine power. Those who have been watching from different standpoints have often thought: If she can stand this strain, if she can come out still white and unspotted from this ordeal; if she can keep the gentle speech on her tongue in the midst of all this strife; if she can stand true to principle while those she loves best must be left behind; then truth, purity, loyalty, love, *true love*, is possible in human life; and the soul, made afraid by unbelief, may take heart of hope, and find a safe anchorage. Her pure, beautiful simplicity, her single-heartedness, her unselfish preferring of others, have never been excelled.

The time has not yet fully come when she will appear at her tallest and queenliest historical stature; but if we remember the conditions in which the women of the world were when she found them, as the narrowness of bigotry had left them for her to find and make over,—women of every creed, but of little vital power, whose experience had not as yet conduced to a large and energetic faith, women of every tribe, nation, and people on the earth, whom she succeeded in uniting in one homogeneous Union, we shall certainly be able to prophesy that hers will be no inferior altitude when history shall appoint her place, and that the claim which I make for her is not without reason. Since her peer has not been known in this, it surely has not been in any former age.

She had the mental balance which would have qualified her for a position as chief ruler of a nation, or as chief justice of the highest court of equity. She was as nearly just as can be expected of a fallible being,—just to herself, which is no small thing, as well as to others, and as just to others as she was to herself.

In nothing did Miss Willard reveal *herself*, her unselfishness, her beautiful simplicity, her deep, tender nature, and her modest courage, more than in the spirit with which she took up the social purity work. In her letters at that time, when she was making her plans for this new, strange work, there was evident her inherent delicacy and lion-like courage. She was convinced that the time had come when not to speak openly upon this subject would be criminal, although she knew that the world was waiting to brand,

as at least very bold, the woman who would dare to break the silence by which a vicious conspiracy had determined to cover all crimes against virtue, and to frustrate every effort to arouse even parents to the dangers which threatened both sons and daughters.

She had an open vision concerning the probable consequences of taking a public stand against the social evil, and so perilous was the outlook that she would not allow any other woman to be thrust forward to open the way. She herself determined "to take the brunt" of criticism and obloquy. She bared her own breast to the shafts of an indecent world, outraged at any effort to bring purity out from under the heel of its contempt; but in so doing she clothed the whole subject with her own delicacy, breathed into it the breath of her own pure earnestness and beautiful self-abnegation, until it stood forth in "A White Life for Two," an entrancing vision of purity for admiration and worship, instead of the *im*purity with which the timid world, conscious of its own shame, had feared it was about to be shocked.

In the closing paragraphs of her first public utterance on this subject, she expressed her inward conviction, as well as the great need which she sensed for help. She says:—

"We have been the victims of conventional cowardice too long. Let us signalize the second century of temperance reform by a fearless avowal of our purpose to take up the work of promoting social purity by the inculcation of right principles, and the serious demand for more equitable laws. O, may some clear brain, true heart, and winsome spirit in our great fraternity cry out under the baptism of the heavenly Spirit, 'Here am I, Lord, send me.'"

An extract from Miss Willard's "Glimpses of Fifty Years," will reveal still further how just she intended to be concerning herself, in that she places on record for all the world to read, this bit of confession concerning a point on which she had become as sensitive as if this leprous sore of impurity were imputed to her own fair flesh:—

"When I was first a boarding-school pupil in Evanston, in 1853, a young woman who was not chaste came to the college through some misrepresentation, but was speedily dismissed. Not knowing her degraded status, I was speaking to her when a schoolmate whispered a few words that crimsoned my face suddenly, and grasping my dress lest its hem should touch the garments of one so morally polluted, I fled from the room. It was, no doubt, a healthful instinct which led me to do this; but I am deeply grateful that the years have so instructed and mellowed my heart that, could the scene recur, I would clasp that poor child's hand, plead with her tenderly, and try to help her, instead of deserting her, as I did in my more self-righteous youth."

Of Miss Willard it might be said more and more all through the years, that like the Lord, whom she loved, and followed, she carried the sins of the world upon her own heart.

She disclaimed in most positive terms her right to any consideration above any other human creature. I heard her say one day, "Why should I or any of us be spared what the most unfortunate must suffer?" and again, "We must remember that anything that ever happened to anybody may happen to anybody; so let us mind our ways toward everybody."

Her remarkable characteristics became early so apparent, and aroused such a peculiar interest, as they touched the heart of the world in a place where its needs were so great, that even those who did not entirely sympathize with her in her many plans for temperance and rescue

work, could not always restrain the longing for her presence, for a word, or the touch of her hand. And because of this and the instinct which led her always to "smile first," she became a member of nearly every organization extant which stood for a principle of truth or for the advancement of any real interest.

In later years Evanston was known to a large part of the sorrow- and sin-smitten world as the village where Rest Cottage is; and Rest Cottage was known as a center of possible hopes that meant *life*. If the plans that were matured in Rest Cottage, the thoughts that would from there find expression in so many and varied gospel forms; if the life that was there lived could become crystallized into action, there would certainly be hope for many who are now absolutely hopeless. A simple, unpretending home it was; and because of this very fact, all the more in keeping with the life that belonged to it, and the work which flowed in a steady stream out from it. Many a pilgrimage has been made to Evanston by men and women who cared, apparently, very little for any of the things which Evanston was really supposed to represent, simply that they might see where she lived, and learn a little about her; that they might breathe the atmosphere of her influence, and try to measure and compute, and realize just a little touch of its power. Many a stranger has pulled the bell at Rest Cottage with the one desire to find out just how the platform queen of the world would meet in her own home an uninvited guest; whether, in such a greeting, she would be consistent with the principles for which she stood before the world, and the life which she lived in the public eye. And one of the most gratifying things which those who knew her so well, and whose lives and work were bound up in one bundle with hers, have to remember, is that she did not disappoint these expectant souls, who with eyes full of longing turned to look upon her. Of necessity there were physical as well as time limitations, which made it impossible for her to see all; but it came to be well understood that if Miss Willard did not see any one, it was because her attendants knew that it would be an outrage upon her strength, or consume time sacred to work which must not be interrupted, to allow an interview; and if by any chance she passed through the hall and obtained a glimpse of the waiting, anxious face, the manner in which her own face, hand, and spirit at once responded, settled the question as to the genuineness of her interest in every individual of her kind.

It was a great privilege to have had Frances Willard as a neighbor in the early days before the work of the W. C. T. U. had become so tremendous as to make neighborliness almost an impossibility; since this afforded so rare an opportunity to see her as she was. Those who have only known her in public life have missed the sweetness that was in the heart of the rose; and yet not quite, for no one could have seen her, even from the rear end of the hall when a meeting or convention was in session, ascend the platform, greet her co-laborers, and make the audience feel perfectly at home, without getting some idea of what might be back of that sweet graciousness which caused acquaintances to cling to her and strangers to long to know her for themselves. Wherever she went there was an eager reaching out of hungry souls after her by eye and hand, as flowers reach toward the sunlight. No spectacle could be more pathetic than to see how, during the breaking up of the sessions of a convention, or at the close of a meeting which she had addressed, the people would linger, keeping their faces turned toward her as she passed, in hope that they might catch a

word or a look ; and she, often weary beyond all endurance, would break through her surrounding bodyguard, and give out hand and smiles and sweet helpful words all the way to the carriage.

It has been a heart-breaking experience to see her of late growing weaker from year to year. It has been practically impossible to believe that she could be taken out of the work which was her life, by weakness or by death. We could but know that her place must remain vacant forever if she slipped away out of it, so it seemed impossible for her to be spared so long as the great evils against which she held the fort were still defiant and aggressive.

When she began her work, no one considered the salvation of a profligate man as at all a hopeful prospect; and as for the lost woman, she was *lost, irredeemably lost.* But by the persistence of the influences which she kept in motion, this sentiment has been changed, and a place and a practical salvation made for even the woman who had been abandoned; and the profligate man has ceased to be a "hopeless case." And yet there is still needed so much more of this same Christ-like influence before the world shall be very safe for the weak and helpless, who would be good, that she who was so fruitful in resources could illy be spared. So we judged ; and nursed a hope, which, for some reason best known in heaven, could not be realized. She has gone from us, having stepped from the zenith of her fame into the rest that awaits the chosen ones. It is a loss which we cannot afford; but God's time could but be the best time for her; and his best time for her, cannot be an ill time for any one, since his ways are not unequal. Her life was hid with Christ in God, hence it must have been his hand that drew her to her rest.

It is said that the blood of the martyrs was the seed of the church, and it seems to me that the life of this woman, whose spotlessness was so lovingly cast over the world's shame, is as the falling shower of pure white orchard blossoms whose dropping uncovers the rapidly developing fruit of a possible purity such as has never yet blessed the world.

In the beauty of the lilies,
  Like her Lord's, her life began,
The same light within her bosom
  That he wore as Son of Man ;
The same mission to the sinning
  On her tender heart was laid,
And she shared the Love that answered
  When he cried, and was afraid.

In the beauty of the lilies
  Walked her soul in spotless white,
Brightening a world of shadows
  With its clear, reflected light.
Where the shadows fell to blackness,
  Where the ooze of sin and crime
Was the deepest, there her courage
  Made her motherhood sublime.

A SMILE is a sunbeam ; then smile while you may,
Ere the clouds of distrust rise to darken the way;
And smiling, go on to whatever may come
In the road, at whose end is your heavenly home ;
The sunbeams will banish the clouds as they roll,
And your smiles, cheering others, will bless your own soul.

—*Rev. Phebe A. Hanaford.*

WRINKLES—HOW TO CURE THEM.

BY J. H. KELLOGG, M. D.

THERE is an annually increasing number of persons interested in the question, How to get rid of wrinkles. Wrinkles are to be expected in old age, and the very aged seldom complain because their countenances have lost the freshness and smoothness of youth, but the appearance of wrinkles in middle age is everywhere recognized as an evidence of premature senility; and hence, however earnestly men and women in the prime of life may seek to discover and cultivate "wrinkles" in their various business pursuits, all are anxious to avoid wrinkles in their faces.

SCORN.*

Wrinkles are far more interesting than they look. Every wrinkle has a history. Every wrinkle is the result of long growth and development. Wrinkles are artificial. They do not occur spontaneously. We cultivate them as we do the style of wearing our hair. A man who parts his hair, or his mane, in the middle shows a certain type of character; likewise, a man who wears wrinkles of a particular type.

Wrinkles begin inside. Though they seem to be located in the skin, their roots are really in the brain. There are as many different kinds of wrinkles as there are different sorts of character, for wrinkles are simply creases in the skin made by habitual or fixed expressions of countenance.

Beneath the skin of the face there is a vast number of little muscles called the muscles of expression. Some of these muscles are attached exclusively to the skin, some are attached one end to the skin, the other end to the bones of the face. Through nerves which connect these muscles with the brain, the skin of the face is made to present an ever changing panorama, corresponding to the changing emotional and intellectual states of the mind. Certain of these muscles, for example, are attached to the edges of the nose and the upper lip in such a way that when they are made to contract, the tip of the nose and the upper lip are elevated so as to produce a scornful expression. To express scorn, then, is simply to contract the *levator labii superioris alaeque nasi* muscles. A person who habitually maintains a scornful attitude of mind, in connection therewith maintains a contracted state of the *levator labii superioris alaeque nasi* muscles, thereby holding the lip and the nose in the attitude of scorn until the muscles become overdeveloped in relation to the other muscles of the face, and the skin acquires a certain rigidity.

A wrathful state of mind causes puckering of the skin between the eyebrows, producing vertical furrows. Care, worry, and other depressing emotions may produce a similar effect. If these feelings become habitual, they are advertised by the vertical wrinkles between the eyebrows. Good nature, kindness of heart, benignity, produce horizontal wrinkles across the forehead. Habitual melancholy produces wrinkles which run downward from the corners of the mouth. Habitual hypochondria makes all the lines of the face point downward, while amiability and mirth draw the corners of the mouth upward and make lines pointing upward.

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Wrinkles are not altogether undesirable, for they are an index to character. Naturally, this being true, some wrinkles are more desirable than others. A dimple is really a wrinkle, and nobody objects to dimples. For example, the poet Milton sings enthusiastically about—

> "wreathèd smiles,
> Such as hang on Hebe's cheek,
> And love to live in dimple sleek."

Wrinkles which reveal goodness of character, sweetness of disposition, and beauty of soul, no one wishes to remove. But wrinkles which constitute a perpetual signboard hung out on the face, indicating unlovely traits of character, or which spread out before the world the evidence of soul struggles which one even prays that he himself may forget,—such wrinkles we naturally desire to efface. How may this be done?

One who wishes to get rid of obnoxious wrinkles must first of all cease to cultivate them. This is to be done by a process of antidoting, by the cultivation of antagonizing muscles. If one's *levator labii superioris alaeque nasi* muscles, for example, have been overdeveloped, making his face wear a perpetual expression of scorn, he must by voluntary effort relax these muscles, and contract the opposing ones, by cultivating such facial expressions as those which connect themselves with the mental attitudes of pity, encouragement, compliment, or expressions of good-will and fellow-feeling. The vertical wrinkles of frowns must be smoothed out by the horizontal wrinkles of benevolence and charity. The down-in-the-mouth expression of despair and chronic blues must be antagonized by the countenance-lifting emotions of good cheer. In other words, the hypochondriac must smile, and smile hard, smile with all his might. The smiling muscles of such a man are weak from long disuse, while the *depressor anguli oris* muscles, which pull down the corners of the mouth, are immensely overdeveloped. This facial gymnastics must be thorough. It must be more than skin deep. It must begin inside, for the muscles of expression are only the servants of the brain; the face is truly the mirror of the mind. Melancholic wrinkles will never be smoothed out by so weak and inefficient a measure as a make-believe smile or a half-hearted grin. Nothing short of a good, hearty, side-shaking laugh, that will fairly make one's ribs rattle, so to speak, will answer the purpose. Such a gymnastic procedure as this must come from the inner

depths, must be a spontaneous ebullition from the center of the being.

European physiologists have recently

been discussing the question whether a man smiles because he is happy or is happy because he smiles. At least one savant has actually asserted that a merry state of mind is the result rather than the cause of the explosive muscular action of the diaphragm which the pedantic physiologist denominates cachinnation. Nevertheless the most of us will probably still stand by the declaration of Holy Writ that "a merry heart maketh a glad countenance." The heart must be right, the mind must be kept in a proper attitude, the soul must be kept in tune, and then the face will take care of itself.

It has been suggested that the chief business of life, when life is rightly understood, is to keep one's face straight, and that if one can manage to do this, he need not be greatly concerned about anything else relating to his present or his future.

So much for the psychological therapeutics of wrinkles. It is quite likely that one who is thoroughly in earnest might in time succeed, by exclusive use of the means suggested, without the aid of others more superficial and mechanical; but it is just to add that there is in facial massage, a measure of inestimable value to those who are seriously in earnest in wishing to get rid of the seams and furrows impressed upon their faces by wrong attitudes of mind and spirit.

Facial massage is useful for developing the muscles of the fleshy portion of the face, for improving the circulation and hence the complexion. and for removing wrinkles, especially about the eyes and the corners of the mouth.

For persons with fleshy faces, about all that can be done by general facial mas-

sage is to knead the tissues by compressing them with the thumb and fingers against the underlying bony surface, working outward from the mouth, the na-

sal openings, and the eyes. Care should be taken to work toward the points at which the blood-vessels emerge.

In persons with thinner faces, the tissues of the cheek may be grasped between the thumb and finger. Massage about the eye improves both the nerve and the muscular tone of the eye. Speciala ttention should be given to the nose, working from the root of the nose downward and outward.

Wrinkles are best relieved by making traction upon the skin in a direction at right angles with the wrinkles, the wrinkled part being thoroughly manipulated to restore the natural flexibility of the skin. Care should be taken to avoid a pressure severe enough to cause irritation of the skin.

If one persevere in the facial massage, at the same time cultivating emotions opposite to those which have made lines in his face, he is sure to get rid of undesirable wrinkles, and to bring upon his face in age only those lines that are the best expression of his true character.

TOBACCO, AND ITS EFFECTS UPON THE HUMAN SYSTEM.

BY W. H. RILEY, M. D.,

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Origin and History of the Habit.— Tobacco was unknown to the nations of antiquity, the earliest knowledge of it dating from the latter part of the 15th century; but its conquest of the world in face of the opposition it has met is quite remarkable, and its universal use makes of importance a consideration of its nature and the effects produced upon its users.

Though there is a possibility that tobacco was used in China several centuries earlier, the first record in history is in connection with the discovery of the New World by Columbus. Upon the return of a small exploring party sent out by him to one of the West India islands, they reported, among other things, that they had seen the inhabitants carrying with them lighted fire-brands, the smoke of which they exhaled from the mouth and nostrils. The explorers supposed this to be a method employed by this people for perfuming themselves. They later affirmed that they "saw the naked savages twist large leaves together, and smoke like devils." This amusing comparison illustrates something of the feeling with which the habit of smoking tobacco was received upon its introduction into Europe.

The first description of the plant was in 1525, by the viceroy of San Domingo, who introduced it into Europe and cultivated it as an ornamental plant. John Nicot, French ambassador at Lisbon, purchased some of the seed and sent it home. In 1561 he presented some of the plants to Catherine de Medici, who acquired a taste for it, and it was for a time called *herbe de la reine*. Various names were given it at this time, but it was finally designated *nicotiana*, and this word, which has been retained by botanists, gives rise to the term *nicotine*, the characteristic alkaloid of the plant. Its cultivation soon spread over Europe, and the custom of smoking the dried leaves of the plant followed. Then came the habit of taking snuff. These luxuries were at first confined to the wealthy.

As the habit of using tobacco began to spread, a vigorous warfare was waged against it. Popes Urban VIII and Inno-

cent XI issued decrees against the use of it in the Church. These, however, were revoked, many years afterward, by Pope Benedict, who was himself a devotee of the habit. The sultans of Turkey made smoking a crime punishable by thrusting the pipe through the nose of the votary. In Russia, the nose was cut off for this offense.

Tobacco was introduced into England by Sir John Hawkins in 1565, and encouraged by Sir Walter Raleigh. It is related of the latter that as he was one day indulging himself in smoking a pipe, a servant entered, who, seeing the smoke pouring from Sir Walter's mouth, thought his master on fire, and at once resorted to the free use of water to save his life. This habit was very much opposed by James I, who was so zealous that he wrote a "Counterblaste to Tobacco" in 1604, in which he describes the practise as, "A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs; and in the black, stinking fume thereof, nearest resembling the horrible Stygian smoke of the pit that is bottomless." In 1614, a tax was levied on tobacco, and about the same time it was required of every teacher that he be "no puffer of tobacco." This opposition was of no avail, and the denunciation against it ceased when it was found that considerable revenue could be obtained from it.

In other countries the same feeling met the introduction of the new habit. Penalties were imposed by rulers, and all classes were adverse to a custom which caused men to appear "like devils." It is said that in some countries it was made a capital offense, and those who persisted in the indulgence were obliged to separate themselves from society, and to live in exile. Their fondness for the fascinating drug was stronger than the love of home and social happiness. This indicates the power with which this habit was able to meet and overcome all resistance. Everywhere tobacco triumphed.

In Turkey, where severe penalties were at first inflicted, tobacco finally completely overcame the nation, and no people are more inveterate smokers now than the Turks. Perhaps the change in the fearless, warlike Mohammedan, who was once the terror of Europe, to the weak, effeminate Turk of to-day, may find partial explanation in his slavery to the narcotic drug.

In other countries the result was the same, so that now the use of tobacco is familiar to all nations. It is estimated that the annual consumption is more than two thousand million pounds, or a money value of more than two billion five hundred million dollars. In the United States alone, seven hundred million dollars' worth is thus annually consumed, according to figures recently given in a medical journal. Every grocery or store of general merchandise is considered as unequipped for business without a supply of tobacco in its various forms.

The Plant.—The tobacco plant belongs to a class known as the *Volanaceæ*, which includes the most poisonous of all species of plants, among which are henbane and belladonna. It belongs to the genus *Nicotiana*, of which there are about fifty species, all very much alike, but varying in their poisonous characteristics. The tobacco of commerce is mostly *Nicotiana tabacum*, the name of the species supposed to have been derived from the West Indian name (*tabaca*) of the instrument in which the leaves were smoked.

All the species of Nicotiana have large, broad, oblong leaves, covered with small clammy hairs. The flower is of a pink or rose color, and the plant sometimes grows to a height of six or seven feet.

Preparation of Tobacco.—The leaves of the plant are the part which is used,

and are variously treated for use in smoking, chewing, or snuffing. The practise of snuff-using is not now so popular as formerly, but chewing and smoking are increasing every year, as is indicated by the larger quantities manufactured and sold.

The leaves are picked and dried, tied into bundles, and placed in barrels or hogsheads under pressure. For smoking, the leaves are made into rolls similar to those used by the aborigines discovered by Columbus, and smoked as cigars; or they are cut up for smoking in a pipe, or prepared in the form of cigarettes. Before the leaves are cut up, the juice is generally pressed out for "sauce" for a stronger product. Various substances are added for scent or flavor, and among these are frequently found powerful and dangerous drugs, especially in cigarettes. The cut-up leaves are mixed with molasses, licorice juice, or some similar substance, put under pressure, and made into plugs for chewing purposes. Very frequently the "sauce" is plentifully added, making a very strong product.

For snuff, the stalks and miscellaneous leavings are ground, after being allowed to ferment. Salts and scents are then added. Snuff is generally adulterated, the sweepings of a whole tobacco factory sometimes going into the receptacle for scraps to be given to the snuff-maker, and there are frequently found in snuff such salts as red lead, chromate of lead, oxide of iron, and other poisons.

An item of interest in the development of the various flavors of tobacco was brought out in the course of an investigation by the United States Department of Agriculture a few years ago. An important part in the curing of tobacco is its fermentation, which occurs in the process known as bulking. The leaves are packed closely in large piles, and after a time the mass heats, causing the tobacco to "sweat," and the aromatic compounds which contribute to its flavor and odor are formed. The phenomena of fermentation are caused by *bacteria*. Each kind of tobacco has its particular bacteria, which give it aroma and flavor incidentally to feeding upon it. It has been ascertained by experiment that when poor tobacco is inoculated with the bacteria of fine tobacco, it obtains the flavor and quality of the latter. The knowledge of this fact is certainly not conducive to the enjoyment of the weed.

Tobacco a Deadly Poison. — The active principle of tobacco is a narcotic alkaloid known as *nicotine*, the proportion varying in different kinds of tobacco, but generally constituting about six per cent. This can be obtained by distillation or infusion, and collects in the stem of a pipe. It is the nicotine which causes the characteristic effects of tobacco, and has enabled it to make the conquest of the world.

Nicotine is one of the deadliest poisons known. A physician bears this testimony: —

"It is such a virulent poison that doctors are afraid of it, and never prescribe it. When a person takes an overdose of opium, he may be relieved by evacuation of the stomach and by the use of stimulants internally and externally; for an overdose of arsenic, there is hydrate of iron; but for an overdose of tobacco there is no remedy. It sinks its victim lower and lower into death, in spite of all efforts to save him."

The same physician states that he applied a solution of nicotine to the throat of a patient for the relief of a condition supposed to be benefited by smoking, but with the most disastrous results, the patient fainting at once, and being revived only with much difficulty.

To illustrate the poisonous nature of this drug, we quote from "The Tobacco

Problem," by Meta Lander, the following: —

"Brodie, Queen Victoria's physician, made several experiments with nicotine, applying it to the tongue of a mouse, a squirrel, and a dog, death being produced in every instance.

"A frog placed in a receiver containing a drop of nicotine in a little water will die in a few hours.

"Franklin found that if the oil floating on the surface of water, when a stream of tobacco smoke has passed through it, be applied to the tongue of a cat, it shortly causes death.

"Put on a cat's tongue one drop of nicotine, and in spite of its nine lives, it instantly writhes in convulsions, and dies.

"Put a tobacco victim in a hot bath; let him remain there until free perspiration takes place; then drop a fly into the water, and instant death will ensue.

"Pack a tobacco votary in a wet sheet, and when he is taken out, the whole room will be filled with the odor. No wonder that wolves, buzzards, and cannibals retreat in disgust from the flesh of such a man!

"At Dartmouth Park, England, an old wooden pipe was given to a three-year-old to blow soap-bubbles with, the pipe being first carefully washed out. The boy was taken ill, and died in three days, his death, according to medical evidence, being caused by the nicotine which he had sucked in while blowing bubbles.

"The daughter of a tobacco merchant, from simply sleeping in a chamber where a large quantity of the weed had been rasped, died soon after in convulsions.

"Bocarme, of Belgium, was murdered in two minutes and a half by a little nicotine. A very moderate quantity introduced into the system, or even applying the moistened leaves over the stomach, has suddenly extinguished life. Indeed, so thoroughly does tobacco poison the blood that, according to the testimony of a physician in St. Giles, leeches are instantly killed by the blood of smokers, so suddenly that they drop off dead immediately when they are applied.

"We cannot wonder that it is pronounced perilous for a delicate person to sleep in the chamber with a habitual smoker. Medical journals report the poisoning of babes from sharing the bed of a tobacco father, and even being in the room where he smoked; and infant deaths have occurred from no other cause. Says Dr. Trall: 'Many an infant has been killed outright in its cradle by the tobacco smoke with which a thoughtless father filled an unventilated room.'

"Not a few physicians regard much of the invalidism, and also the positive ill health of women, as due to the poisoned atmosphere created around them by the smoking members of their household.

"Tobacco commences its dreadful work in the factories, the operatives inhaling its dust and absorbing its poison, so that, according to the doctors, it takes only four years to kill off the worker. Dr. Kostral, physician to the royal tobacco factory in Moravia, reports that, of a hundred boys entering the works, seventy-two fell sick during the first six months, while deaths frequently occur there from the nicotine poisoning.

"A squadron of hussars hid tobacco in their breasts for smuggling purposes. Every man of them was seized with headache, vertigo, and vomiting. Soldiers have sometimes purposely disabled themselves for service by applying these leaves to the pit of the arm, thus inducing alarming symptoms.

"A Frenchman living near Paris, having cleaned his pipe with a knife, but neglected to wipe it, subsequently happened to cut one of his fingers. The wound was so slight that he thought nothing of it. A few hours later,

however, the finger grew painful and swollen, the inflammation spreading rapidly through the arm. Doctors were summoned, but the case remained a mystery till, in answer to inquiries, the enigma was explained. All remedies proved ineffectual, and the man's condition grew so alarming that he was taken to the hospital, where the arm was amputated as the only chance of saving his life."

These incidents show very clearly the exceedingly poisonous nature of nicotine, and the danger lurking in tobacco. Were the poison in one cigar taken in a concentrated form, it would be sufficient to kill two men. When such is the character of this drug, is it a matter of surprise to know that the use of tobacco seriously injures and diseases nearly all the vital organs and functions of the body?

(To be continued.)

MAN'S NATURAL DIET.

BY J. H. KELLOGG, M. D.

(Continued.)

An Interesting Biological Fact.—Professor Huxley has pointed out the interesting fact that animals may be classified according to the peculiarities of the structure by which they are nourished before birth, as follows: —

1. Those in which the placenta, or organ through which nourishment is derived from the mother, is not thrown off at birth. To this class belong the hoofed animals,— the herbivora and the omnivora.

2. Those in which the placenta is thrown off at birth, and has the form of a zone. To this class belong the flesh-eating, or carnivorous, animals.

3. Those in which the placenta is thrown off at birth, and has the shape of a disk. This form is characteristic of apes, man, and other frugivorous animals. Here again we have a remarkable anatomical testimony to the affinity between man and the higher animals rather than the lower forms of animal life represented by the lion, the dog, and the hog.

The Mammary Glands.— In the carnivorous, omnivorous, and herbivorous animals, the mammary glands are located upon the abdomen, while in the higher apes and man they are located upon the chest.

The Colon.— In carnivorous animals the colon is smooth and non-convoluted or sacculated. In the higher apes and man the colon is convoluted. In the omnivorous animals the intestinal canal is smooth and convoluted.

The Tongue.— In carnivorous animals the tongue is very rough, producing a rasping sensation when coming in contact with the flesh. In the higher apes and man the tongue is smooth.

The Skin.— In carnivorous animals the skin is not provided with perspiratory ducts, hence the skin does not perspire in the dog and allied animals. In the ape the skin is provided with millions of these glands, and in man they are so numerous that if spread out their walls would cover a surface of eleven thousand square feet.

Tails.— Carnivorous, herbivorous, and omnivorous animals are all supplied with an extension of the back bone—a tail. In the higher apes, as well as in man, the tail is wanting.

Attitude in Walking. — Carnivorous, herbivorous, and omnivorous animals go on all fours, and their eyes look to either side, while many of the higher apes walk nearly or entirely upright, as does man, and their eyes look forward.

Nails. — Carnivorous animals have claws, herbivorous and omnivorous have hoofs, while apes and man have flat nails, not found in any other animals. Carnivorous, herbivorous, and omnivorous animals are all quadrupeds, or four-footed, while the higher apes and man are provided with two hands and two feet. The hinder or lower extremities of the ape are sometimes erroneously called hands. According to Dr. Huxley, they are, from both bony and muscular structure, properly classified as feet, and not as hands.

Salivary Glands. — In the carnivorous animals the salivary glands are small, and have little effect upon starch, while in the apes and man they are well developed.

An Erroneous Argument. — The fact that man has four cuspid teeth affords no evidence whatever that he is either partially or wholly carnivorous as regards his dietary. If in diet he is naturally omnivorous, his teeth should have the structure and arrangement of those of omnivorous animals, as exhibited in the hog, for example. As previously intimated, canine teeth in carnivorous animals diminish in size in proportion to the diminution of flesh food in the animal's dietary; that is, the less proportion of flesh he uses, the shorter and the less prominent are the canine teeth. The canines in the dog are thus much smaller than in the lion. In the ape, in which the cuspid teeth, corresponding to the canines in the carnivora, are but little larger than the other teeth, it is found that the flesh has disappeared entirely from their dietary, the animal subsisting wholly upon fruits, grains, and nuts. In man, the cuspids are still smaller, even, than in the ape, which indicates that his dietary is still more decidedly frugivorous in character, not only meat, but also the coarser vegetables and perhaps raw grains, being excluded. It is clearly evident that the cuspid teeth of man could afford no service whatever in tearing the raw flesh of animals.

That the cuspid teeth do not thus indicate a flesh dietary either in whole or in part is further shown by the presence of so-called cuspids in purely herbivorous animals, as in the stag, the camel, and the so-called "bridle teeth" of the horse.

From the foregoing it is clearly evident that what the voice of science and nature has shown in man's anatomical structure, is most unequivocally in favor of a non-flesh dietary. This fact might be emphasized by many other anatomical evidences, but the proofs presented are so overwhelmingly convincing that it is not necessary to devote further space to this phase of the argument.

Many of our ablest anatomists and physiologists, who have bestowed both time and attention upon the investigation of this important subject, when expressing their candid convictions in regard to the matter, unhesitatingly pronounce man to be purely frugivorous as regards his dietetic character, when viewed from the standpoint of anatomy. We will give the testimony of some of them.

Sir Everard Home says, "While mankind remained in a state of innocence, there is every reason to believe that their only food was the produce of the vegetable kingdom."

Said the great naturalist, Linnæus, in speaking of the dietetic character of man, "His organization, when compared with that of other animals, shows that fruits and esculent vegetables constitute his most suitable food."

Baron Cuvier, one of the very highest authorities on comparative anatomy, says,

"The natural food of man, then, judging from his structure, appears to consist of fruits, roots, and the esculent parts of vegetables."

Professor Lawrence, of England, fully agrees with Baron Cuvier, and remarks that the opinion held by some that man holds a middle ground between carnivorous and herbivorous animals appears to have been derived from experience rather than from comparative anatomy.

Mr. Thomas Bell, who occupied the position of lecturer on anatomy and diseases of the teeth at Guy's Hospital, in a work upon the subject says, "The opinion which I venture to give has not been hastily formed nor without what appeared to me sufficient grounds. It is not, I think, going too far to say that every fact connected with the human organization goes to prove that man was formed a frugivorous animal."

The Poisonous Effects of Beef Extracts. — That the meat extractives, or waste matters, which constitute the whole substance of so-called beef extracts, are poisonous in character, has been demonstrated scientifically in a variety of ways. The following facts afford indubitable evidence that these substances are highly poisonous, and from their very nature necessarily productive of more or less mischief when introduced into the vital domain: —

1. Physicians sometimes, for experimental purposes, separate from its bony attachments one of the muscles of a frog's leg, and arrange it in such a manner in connection with a battery and a suitable device that by a repetition of electric shocks the muscle may be made to contract and lift a small weight; but after being thus made to work for a longer or shorter period, the muscle becomes fatigued to such a degree that it no longer contracts in response to the electric stimulus. This is shown to be due to the accumulation of the waste matters of which mention has been made. If at this point the muscle is washed with a weak saline solution, it at once recovers its ability to work, and responds readily to the stimulus of the electric current. If now a fresh muscle be thus prepared, and strong beef tea or solution of beef extract applied to it, the muscle at once becomes exhausted or unable to contract, the same as if it had been working for a long time, but without having done any work whatever. The reason for this is that the beef tea or beef extract is simply a solution of the same poisons which are developed in the muscles by work, and to the paralyzing effect of which its fatigue and inability to contract are due.

2. In experiments which have been made by Horsley and others, it was found that when portions of the skull of a monkey were removed, exposing the brain to applications of electricity in certain portions, there was vigorous contraction of the muscles of remote parts, as the lungs, the arms, etc. It has been observed, however, that if a solution of beef extract is applied to a brain thus exposed, it at once loses its power to contract, this being due to the poisonous and paralyzing effects of the waste matters of which the beef extract consists. The brain is, in other words, by the application of these substances, brought into the same condition which is induced by prolonged and severe mental effort or mental exhaustion.

3. The fluid obtained by compressing a piece of beefsteak or so-called beef juice has been proved to be highly poisonous in character, a much smaller quantity of it, injected into the veins, being required to kill a rabbit of given weight than of renal secretion.

In the series of experiments in which this fact was demonstrated, comparison was made between beef juice and the

juice obtained from the lean muscle of a dog, for the purpose of determining the comparative amount of poisonous matter contained in each. On *a priori* grounds, it would be expected that the tissues of an animal fed upon flesh would contain a larger proportion of these tissue poisons than those of an animal deriving its food from the vegetable kingdom; as in the former case, the animal, by subsisting upon flesh, adds to the poison which is in his own body those which have been generated in the body of the animal upon which it feeds. The results of the experiments referred to fully confirm the correctness of this theoretical conclusion, since it was found that the tissue juice obtained from the flesh of a dog was twice as poisonous as that obtained from ox flesh; in other words, it required twice as much beef juice to kill an animal of given weight than of the juice obtained from the flesh of a dog.

From these facts there is no escaping the conclusion that the human being who subsists upon flesh food contaminates his tissues with poisonous matter, the effect of which must be to lessen activity of thought and endurance of muscle, to impose an extra amount of labor upon the excretory organs, especially the liver and kidneys, to render the blood and tissue juices impure, and thus to deteriorate all the vital processes of the body.

(To be continued.)

THROUGH THE GOOD HEALTH SPY-GLASS.

WHEN Frances E. Willard was a child, her father and mother offered each of their children a library to cost $100, if they would not touch tea or coffee until they became of age. Miss Willard won her library, and was an abstainer from these beverages most of her life afterward.

Some curious statistics about pie have recently been compiled by a newspaper writer. We are told that Chicagoans eat one hundred and eighteen acres of pie a year, that this is a matter of accurate calculation. The returns of the bakeries, with a small allowance for the product of the household, show that the daily consumption is about 32,000 pies. The regulation article is nine inches in diameter and has a surface area of 63.65 square inches. Thus 2,036,800 square inches, or over 14,144 square feet, of pie disappears down the throats of the pastry-eating community every day. Carried out for the year, this would give a grand total of 5,162,722 square feet, or about one hundred and eighteen acres.

The statistician remarks: "These figures are something stupendous when one stops to consider them. The improved part of Oakwoods Cemetery comprises about 120 acres. A year's pie for Chicago would virtually cover the entire cemetery with dyspepsia an inch thick, leaving scarcely room enough for the office building in which to keep the records."

In a recent celebrated criminal trial in Chicago, a wife murderer's attorneys made the plea, not that the man was innocent, or acting under a fit of insanity, even, but simply that he was a passionate brute, a degenerate, incapable of restraining his own worst impulses, and therefore irresponsible for his criminal performances. "There is in this argument," said the

Tribune, "more than a hint that the responsibility for the crime rests not upon the prisoner but upon the society which produced his type and permitted it to exist."

One fourth of the money spent for food for the fourteen hundred convicts in the Joliet, Ill., penitentiary, in 1896, was expended for fresh beef, of which 311,912 pounds were used, at a total cost of $12,287. In addition to the fresh meat there were used 13,000 pounds of corned beef, 29,000 pounds of salt pork, 7,756 pounds of fresh pork, and 349 pounds of veal, at a total cost of $2,348.45.

The great story writer, Jules Verne, who is seventy years old and has written seventy-six books, enjoys robust health and spirits, living on a diet of eggs and herbs, in Amiens, France.

At fifty years of age Miss Frances E. Willard had always enjoyed such good health that she laughingly declared that she had composed the first line of her "great epic," "Painless, in a world of pain."

Professor Tyndall once concluded an address to the students of a London university thus: "Take care of your health. Imagine Hercules as an oarsman in a rotten boat. What can he do but by the very force of every stroke expedite the ruin of his craft? Take care of the timbers of your life-boat."

The presiding officer of the Ohio Liquor League at its recent annual meeting shocked the community by stating openly what everybody really knew before, that "since the success of the business is dependent largely upon the creation of appetite for drink, and since men who drink liquor, like others, will die, so that if there is no new appetite created, our counters will be empty, as well as our coffers, it will be needful that missionary work be done among the boys. I make the suggestion, gentlemen, that nickels expended in treats to the boys now will return in dollars to your tills after the appetite has been formed. Above all things, create appetite!"

Dr. W. E. Quine, in a recent lecture to young men in Chicago, upon the effects of alcohol on the body, said: —

"Contrary to general belief, a person under the influence of alcohol will freeze to death sooner than another. He flushes his skin by drinking whisky, keeping the skin warm at the expense of the interior of the body. Arctic explorers and captains of big ships wrecked, when brave work is needed, do not feed their men whisky — not a drop."

Laughter as a therapeutic agent is the subject of an amusing story in *Le Progrès Médical.* The master of a clever monkey fell sick with a fever. After prescribing the usual remedies the physician went away leaving the medicine in a goblet on the table. The monkey, coming in to see his master and spying the covered goblet, proceeded to examine it. The smell of the medicine caused him to make some queer faces, and when he tasted it, he fell into a very passion of grimace and gesture. However, because it was sweetish and new, he came back again and again, and tasted and tasted until he had swallowed the last drop. Then he licked his whiskers. Meanwhile, the sick man, who had been watching him, was so immensely entertained by his antics that he quite forgot his illness, and laughed so long and so loud that he was suddenly well. The unexpected and irresistible mirth revived

his spirits, rectified his blood, and drove away the fever. The physician came in and inquired how the medicine had operated. His patient was laughing so lustily that he could scarcely speak, but managed to say, "Ask the monkey how it has operated." By this time the monkey was running up and down the room, behind curtains and draperies, leaping, chattering, making a terrible ado. When the physician noticed him, he understood at once what had happened, presumably because he knew the medicine, — at all events the lucky patient arose and proceeded to eat a hearty dinner, thanks to the monkey.

The most unhealthy place in Chicago is "back of the yards," in the twenty-ninth ward, west of the stock-yards. The combined yards and city dump, with the gutter drains, hair fields, and yard sewers, are the menaces to life which make the place without a rival as a destroyer of infants.

In 1895, in this little community of five thousand persons, there were ninety-nine deaths, of which fifty were of infants under one year of age. In 1896 there were eighty-four deaths, of which forty-five were those of infants under one year of age. In 1897 there were eighty deaths, of which forty-one were those of infants under one year of age. Thus in the last three years more than half the deaths have been those of babies who never reached the first anniversary of their birth. There is nothing surprising in this, although these people are vigorous Bohemians and Poles, for as fast as the refuse wagons come into the dump, the women and children gather like flies, and sort the refuse and carry it to their homes. It poisons the bottle from which the baby drinks or defiles the breast he nurses from and the little fingers he thrusts into his mouth. Born a chubby Pole, he now looks thin and old. Cholera has him, and he dies so or in convulsions. If the family do not frequent the dump, then scum from the sewers is brought into the house on the hands and feet of the youngster old enough to walk. These gutters are the common drain for all houses in the block unconnected with the sewer. Although six thousand dollars was spent last year in mitigating the social and industrial conditions, there was no apparent improvement. "Back of the yards" is a terrible spot.

An article in the Chicago *Tribune* shows very conclusively that the world's supply of desirable cattle is diminishing, that old pastures are disappearing, and that vast grazing grounds of a few years ago are now being devoted to agriculture. Every year the cattle raisers in the West have been driven farther and farther back. For a time improvement in breeds and more careful modes of feeding, which increased the weight and permitted marketing at an earlier age, rendered the increased cost of pasture less noticeable. But the maximum improvement in this direction has been reached, so that in the future the supply from former sources must steadily diminish. Even more suggestive than this lessening in numbers on the farms and ranches is the deterioration in quality of the stock now sent to market. The number of undesirable animals is increasing constantly, so that the outlook for people who are determined not to be vegetarians is certainly discouraging.

The *Union Signal* gives publicity to some very interesting testimony against saloons from the grand jury of Cook County. This body, at the close of a recent exhaustive inquiry, in the official report of its work, commented upon the saloon as follows : —

"We call attention to the growing pernicious influence of saloons. Repeatedly, witnesses before us have testified to the fact that in saloons which are the resort of thieves, hold-up men, and dissolute women, robberies and burglaries are planned, criminals with well-known records issuing from these vile dens to waylay men, women, and children. In many cases, saloon-keepers and saloon employees serve as receivers of stolen property. In no less than six cases before this jury it was shown that murders were committed, either in saloons or as the result of saloon influence. The police, when striving to detect criminals, at once visit the saloons, proving that these officers are aware of the character of the men who habitually fill them. The fact that, in the opinion of competent men, whose duties call them to the consideration of crime in Cook County, seventy-five per cent. of the criminal offenses committed within the county are traceable directly or indirectly to the saloon, and the further fact that the greater portion of the expense for the administration of justice and the regulation and punishment of crime is caused by the evils of drink, is ample evidence that there should be immediate and stringent measures adopted for the suppression of this frightful evil, the influence of open saloons, which in far too many instances are allowed to carry on their nefarious traffic in defiance of police regulations, city ordinances, and State laws. The regulation, not to say the obliteration, of the saloons would cause an enormous saving in county expense and the lessening of public taxes."

The Physical Educational Society, of New York, is alive to the evils resulting from the seating of children before desks that compel them to sit in unnatural positions five hours a day. The *Outlook* states that this society also believes in the value of tests of sight and hearing, and of medical examinations of pupils who are defective, who do not show the average progress in their studies, who have malicious tendencies, who are abnormal in any direction. The question of defective sight and hearing is attracting more and more attention. Mrs. Frances W. Leiter, national superintendent of the department of physical culture in the Woman's Christian Temperance Union, has written a special leaflet upon this subject, based upon investigations made in several cities, showing that prevailing defects in these senses indicate the low physical condition of children attending the public schools, and also urging the importance of scientific tests.

One of the disadvantages of our modern methods of heating and ventilating large buildings, says the *Literary Digest*, is that the air forced into them from without, for either or both of these purposes, distributes large amounts of dust, especially in a city where soft coal is burned. A successful method of straining out this dust before the air enters the building is described by C. J. H. Woodbury in a paper read before the American Society of Mechanical Engineers and published in *Cassier's Magazine*. In the building experimented on by the author, 26,000 cubic feet a minute were forced in from without at a velocity of 700 feet a minute. Cotton cloth filters were so arranged that the particles of dust would be carried to the bottom of the filter and not clog the interstices of the fabric. From half a peck to a peck a month of fine dust was gathered. The efficiency of the device was tested by placing freshly painted boards at the bottom of the flue before the installation of the apparatus, and then giving another coat of paint after it was in use. In the first case the fresh paint collected fine dust until it

resembled fine sandpaper, and in the second the paint dried with a smooth surface.

A young woman in conversation with a young man who, as she knew, practised strict vegetarianism, suddenly asked, "Do you believe that *everybody* who doesn't eat meat is stupid?" This young woman would be interested in the reasons for being a cannibal given by a French writer named Petrie, and summed up in the *Medical News*. According to M. Petrie nineteen per cent. of all cannibals eat great warriors, in order to inherit their courage, and eat dead children in order to renew their youth; twenty per cent. eat the dead, in order to glorify them; ten per cent. partake of their near relatives from religious motives, and five per cent. feast for hatred, in order to avenge themselves upon their enemies. Those who devour human flesh because of famine are reckoned as eighteen per cent.; so that there remains only a proportion of twenty-four per cent. who partake of human flesh because they prefer it to other food.

CORRECTIVE MEASURES FOR CHILDREN'S FAULTS.

BY MRS. E. E. KELLOGG.

IT seems to me unwise to threaten a child with punishment. If he fully understands the law the transgression of which is meet for punishment, and is certain that the punishment will follow, threatenings are but idle words. However, it is too often the case that the parent threatens day after day, and fails entirely to put his threats into execution, or delays to do so until some especially aggravating thing occurs, then, under the influence of the provocation, administers an arbitrary punishment. Such discipline is most disastrous in its effect upon the child.

In dealing with an obstinate transgressor, it is wise not to enlist his obstinacy by saying to him, as mothers often do, when he refuses to do as told, "I will punish you until you do it." Punish him most assuredly for his disobedience, but add no verbal limitations to stir up his obstinacy.

It is better to be deaf and blind to many trivial faults than to administer punishment too freely. Locke says those children who are most chastised rarely prove the best men, and that punishment, if not productive of good, will certainly be productive of evil.

It is evident that this subject is one which requires great discrimination on the part of parents, and it will also be evident that in order to exercise this discrimination wisely, the parent must first school himself, and that the punishment must be administered calmly, lovingly, and with the intent to serve the best interests of the child. Whenever possible, the child's own co-operation should be secured. This gives the child an interest in curing himself of his faults,— one of the first steps toward self-discipline,— and does away with the liability of the punishment's producing irritation or resentment in his mind.

To illustrate, a little four-year-old girl was exceedingly meddlesome. She had been spoken to several times about the matter, and told that it was a bad habit,

which, if continued, would perhaps lead to the breaking of one of God's commandments. She had herself acknowledged that it was wrong and that she did not wish to continue it. One day she was tempted to meddle with some paints, and spoiled a picture that another child was painting for a present. She acknowledged that she had done wrong, and her mother took her upon her lap and endeavored first to create within her little heart an earnest desire to overcome the bad habit. She was then asked which of her members it was that committed the wrong act, and of course replied that it was her fingers, and singled out the fingers of the right hand as the culprits. Following the kindergarten plan of training, she was then asked who was the custodian of those fingers. Of course she replied that she was responsible for that family of fingers. She had already been shown the wrong of the act; and when asked if she thought she ought to permit those fingers to continue to meddle, she said, No, at once; and to the next question, as to what should be done with them to make them remember, she was ready to reply, "We ought to punish them." Then mother and the child consulted together as to what the punishment would better be, and decided that as the fingers had taken undue liberties, they ought to be deprived of their liberty for a time, so with tears in her eyes, the little one went for two handkerchiefs, with one of which her fingers were bandaged much as if they were broken; and that the bandage might be comfortably retained, the other handkerchief was made into a sling, the imprisoned hand placed in it, and the sling fastened around the child's neck.

During the hour while the hand was kept thus imprisoned, the child probably suffered no great physical discomfort, though she did experience over and over again how very inconvenient it was not to have her right hand to use; but during the entire time she took the greatest care that the hand, which was merely laid, not fastened, in the sling, should not be moved from its first position. Once, during a very difficult operation, that of getting her handkerchief out of her pocket with her left hand in order to wipe away the tears which, in spite of all, would gush from her eyes, she happened to move her right hand a little; but when the tears were wiped away so that she could see, she as carefully arranged it in its proper place, and adjusted the sling as if it had been her pet doll she was caring for. Not once did she seek to remove the hand or ask for a shorter time. Her co-operation had been secured, and she felt the importance of the punishment; for was not she responsible for the behavior of those fingers? Had the attempt been made to inflict the same punishment without her co-operation, she would have resented it strongly; for she was a strong-willed child.

I have said nothing about corporal punishment, but I believe, with Jacob Abbott, that "it is better that a child should be trained and governed by the rod than not trained and governed at all," and have no doubt that there are occasions when the rod proves the most effectual remedy. But I question if the reason for this is not due to the lack of tact or skill and practical knowledge of the workings of the youthful mind, on the part of parents and teachers, or to a failure in not starting right at the beginning of the child's life, rather than to the efficacy of the rod. It would certainly seem that, if a mother begins with her children early in life, is just and true in all her dealings, gentle in manner but inflexibly firm in act, studies faithfully to learn each child's disposition and character, and the best ways of dealing with it, constantly seeking for divine guidance,

she will find little necessity for the use of the rod.

And when punishment has been administered, the child should be restored to favor as soon as possible. After forgiveness has been granted, he should be treated as if nothing had happened. If the child is morally weak and liable upon occasion to fall into the same error again, it may be wise at a suitable time and under proper circumstances, affectionately to remind him of his failing, as a warning against future transgressions, but to be continually nagging and reproaching him for his misconduct, particularly in the presence of others, will have a most disastrous effect upon the child. Parents are often greatly at fault in this respect. Errors once committed are treasured in their memory, confidence is withheld, the child branded as a misdoer, and the deed called into frequent remembrance for days, or even years afterward, when perhaps the child has striven to his utmost to overcome the fault. When God's children repent of their sins, he freely forgives them. He says, "I, even I, am he that blotteth out thy transgressions, and will not remember thy sins" Shall not earthly parents learn from this the method to be used in dealing with their children?

CHILD-TRAINING.— NO. 2.

BY MRS. S. M. I. HENRY.

IN the beginnings of training there should be no recognition of sex. Boys and girls should be treated as nearly alike as the same number of boys or girls alone would be,— given the same share in all occupations, recreations, and studies according to their several gifts, that they would have if the boys were girls, and the girls, boys. In this way only can each have an all-round view of the requirements and privileges of common life.

The man who as a boy shared the occupations of mother and sisters, will make a better husband, and just as great a statesman; while the woman who so shared with her brothers in outdoor exercise and work, and in the use of tools, will be so much the better prepared to bring forth and train a family of sons and daughters.

The mind of the child should be trained from the first to pure methods of dealing with everything which comes within its range,— all the more since we cannot always choose whether grain or chaff shall come to his mill. He should know from his earliest days how to recognize that which is pure and true, so that when the false and vile shall, later on, be thrust upon his notice, he will understand its nature by contrast. A mind constructed in the truth, and trained in its use, will not readily give place to that which is unclean. To this end the little one should be taught in the most delicate manner by its mother in the secrets of life before it has had the slightest suggestion of impurity from any source. This beginning of training should not be deferred until some question of the child makes it necessary, but his questioning should be forestalled by carefully selected truth, daintily, but so clearly and plainly administered, that nothing in it shall ever appear to his later understanding as fiction.

Do not be afraid that you will begin too soon with simple, plain truth, for he will at any time need all that he can understand of it, and the parts that he can-

not understand can do nothing more serious than to awaken a question, which will be the opportunity for more truth; and which he will be enriched by knowing. The greatest truths find their most natural expression and illustration in those things which rarely grow above the level of a baby's eyes; and which the tall man must humble himself to keep in sight.

Soul and body are so related that to secure the health of the one the other must be kept pure, and the supposed ethereal nature of the one must submit to the ministry of the supposed grossness of the other. Hence the question of the appetites and their training is intimately associated with pure thought and those truths which relate to salvation. I do not now refer to those forms of indulgence in appetite which are classed as intemperance, but to those that come under the head of so called good living.

The world is but slowly awakening to the fact that the love of food, as such, is as much a root of evil as the love of money ever could be; and that to secure the results in soul and spirit culture for which the earnest-hearted have so long prayed, the appetite for food, such as appears on the ordinary civilized table, must be crucified, dead and buried, and a new appetite grown by the grace of God.

It is an important but slowly accepted fact that flesh food with its dressing of pepper and spices, vinegar, excessive quantities of salt, bad combinations of the most healthful articles of diet, such as the average child is forced to accept, all contribute to that physical deterioration which results in unclean habits and actual impurity of thought and the grossest vice.

It is a common thing to see a nursing baby sucking candy from its mother's fingers, to have its crying appeased by it, regardless that in this seemingly small concession there is laid the foundation of both a diseased appetite and imagination. The child should be so trained as to the functions of eating and drinking that it will not think of either as an occasion for indulgence, but as a divine ministry for the building and keeping in repair of the temple of God, and that regardless of whether his palate is tickled or not. He should understand that if any food contains that which this work of repair or building needs at this especial time, it is to be taken conscientiously, and with thanksgiving; and no matter how pleasing to the eye or enticing to the senses, if it is not adapted to the service of God in his body, it is upon no account to be taken. We are informed by Paul that whether we eat or drink, or whatsoever we do, we should do all to the glory of God; and the little child has a right to that kind of training which shall make it second nature to obey this wise injunction.

There is a necessity that Christian teachers should become intelligent in these matters. There is need of reformation in the domestic economy of many W. C. T. U. homes, that many stumbling-blocks shall be removed out of the way not only of the growing children, but of the rest of the world who are looking to us as ensamples. What can be the effect of those efforts at training others in the self-denial which temperance requires, when any of our leaders find it impossible to abstain from many of those things which are acknowledged as "not quite good for us, but which we do enjoy once in a while"?

The mental training of the child — who shall estimate its importance! And yet how it is left to a school system which is wholly incapable of the task! I am not criticizing either the school or its teachers. The teachers in the public schools are doing as good a work as it is possible for mortals to do under the conditions;

but there are many grave reasons why the public schools cannot do the best which ought to be done. We are seeking for the very best; and *that best* ought to be provided in the home. By a correct system of mental training alone can the child be protected from the uncleanness which he must meet just as soon as he steps outside of his own door and mingles with the children of the school, and so be prepared to help in overcoming the evil that is in the world.

This mental training should be of a practical nature, such as will be a good beginning for any career which may open before him. The time that is spent by the average child in unaided efforts at occupation — we call it play — is far too precious to be squandered as it is in almost every home. The little restless hand- foot- and brain-power that is going to waste, could be turned to real, practical advantage for both parents and child, with great gain in happiness to both.

Does the little boy always want to play store to your great annoyance, because he likes your pretty things to stock up with? Take him into partnership; let him have a store in some corner; take time to teach him to how buy in the market, and allow him to sell you the supplies needed in your housekeeping. Open an account with him; and teach him how to use his faculties in doing a real business with real money, instead of scraps of tin or paper; and how to apply sound, honest principles to business dealings.

Even a young child can begin his lessons in reading, writing, numbers, and business all in one by such a method, so that when the time comes that he must go to school, he will go as an intelligent, thinking, responsible individual, with a basis of good substantial ideas and experience upon which to build his education. He should have been so thoroughly trained to correct and pure thinking that the evil which he must meet, the dishonorable methods which obtain among men in business and politics, and which are copied by the boys in school life, shall have no power over him. I say *boy*, but I mean girl as well. If the boys and girls are trained to helpfulness, to consider themselves as a part of the real home life and occupation, by having a practical share in it from the time they can toddle, the mother who has the most children may be the one with the most leisure. This is not theory alone; it has been demonstrated as practical in every way. Children who are trained to habits of industry, economy, benevolence, and general usefulness, with a good share of self-denial thrown in, are by far the happiest; and this sort of training cannot begin too early.

Most important of all is a training in *habits of faith;* for both belief and unbelief are, in an important sense, matters of habit. Faith and obedience are so closely related that in dealing with one you cannot ignore the other. A cynical, critical habit of mind is very early formed, if the conditions are favorable to it; and a child with such a habit is always a disobedient one. To cultivate faith in the child the parents must themselves be obedient to *all* that they know of truth. The authority of God's word must be recognized so that it becomes the end of all controversy, no matter at what cost; and then it will not be difficult to find good grounds for hope, even when all the world outside seems wholly evil, that the children will grow up strong, because their hearts are pure.

Sigh not for future joys, nor for past days repine,
But be thou cheered with this glad thought, this hour is thine. —*Clarence Urmy.*

A JAPANESE LULLABY.

SLEEP, little pigeon, and fold your wings,
Little blue pigeon with velvet eyes;
Sleep to the singing of mother-bird swinging,
Swinging in the nest where her little one lies.

Away out yonder I see a star,
Silvery star with tinkling song,
To the soft dew falling I hear it calling,
Calling and tinkling the night along.

In through a window a moonbeam comes,
Little gold moonbeams with misty wings,
All silently creeping, it asks, "Is he sleeping,
Sleeping and dreaming while mother sings?"

Up from the sea there floats the sob
Of the waves that are breaking upon the shore,
As though they were groaning in anguish, and moaning,
Bemoaning the ship that shall come no more.

But sleep, little pigeon, and fold your wings,
Little blue pigeon with mournful eyes;
Am I not singing? See, I am swinging,
Swinging the nest where my darling lies.

— *Eugene Field.*

SUGGESTIONS FOR HOMEKEEPERS.

BY MRS. M. M. KERSCHNER.

THERE is one simple precaution against diseases that many mothers never think of. It is the washing of the hands and faces of the children on their return from school. All day they are passing to and fro in the schoolroom and in the street, coming into contact with everything that may be dangerous, and when they reach home at night, they rush in where the smaller children and the baby are, with the germ-laden dust and air still clinging to them.

If they were taught to remove their wraps, and carefully to wash hands and face, to rinse mouth and throat with warm water before giving the baby and little sister a caress and kiss, many a precious life might be saved from contagious disease.

After a severe sickness, much depends upon the diet of the invalid, that he may speedily regain his strength. Therefore in the preparation of each meal or luncheon more than usual pains should be taken to see that everything is inviting and tempting to the appetite. Neatness and perfect cleanliness should be required. If the tray is spread with clean white linen and everything arranged as daintily as possible, the food will appear more appetizing than if there is carelessness in its preparation. The dishes should not be filled so full that an accidental motion of the tray will cause them to run over, nor should there be so little in them that they look scantily filled. Be sure to have everything needed on the tray when it is taken in, that there may be no unnecessary running back and forth. We have seen the nurse forget spoon, or fork, or salt, and sometimes all three. When asked for them, perhaps she would make a separate trip for each one. This is likely to cause the invalid to feel that he is a great trouble. If he is nervous, he will be annoyed by the continual going back and forth, and the opening and shutting of doors. The invalid should be prepared for the meal before it is brought in, so that the food will not get cold. If he is able to feed himself, he should be

propped up in bed with pillows. If the mouth is cleansed well before eating, the food will taste much better.

By tucking a napkin or towel under the chin and allowing it to come down over the breast and bed clothes, both will be protected. After the meal, this should be removed carefully to prevent any crumbs from getting into the bed.

Let the invalid eat at his leisure. Do not stand and watch him as if anxious to remove the things. Whatever else you do, do not urge him to eat anything he does not want, even though he may have asked for it. Often something he thought would taste good is a failure when tried, and another mouthful might prove fatal to the whole meal. It is better quietly to remove such things.

Again, do not always ask what he wants. Prepare some little tempting dishes, and surprise him with the meal before he thinks it is time to eat. Of course always be careful to get such food as the physician recommends. It is always dangerous to disregard the physician's advice. If there are flowers at hand, add a few to brighten the tray. Bring the meals promptly, without any excitement, for fear that the invalid may become too tired to eat.

A TWENTIETH CENTURY DINNER.

BY LAURETTA KRESS, M. D.

GLIMPSES of a brighter day for cookery were given at a hygienic dinner recently served to a large company of ladies in Battle Creek, Mich. The object of the gathering was to show the housekeeper how palatable a dinner can be made of wholesome foods, prepared without the use of milk, cream, butter, or meat. The menu was arranged so as to show, as well, the proper combination of different foods, no vegetables or milk being used with fruit. The undertaking was a success in every respect, and much enthusiasm for the innovation was manifest.

No very soft foods were used for this dinner, soup and drinks being discarded altogether. All breads were made with nut preparations instead of milk or cream.

The menu was as follows: —

FRESH FRUITS

Oranges Apples

STEWED FRUITS

Prunes Strawberries

CEREALS

Rice with Fig Sauce
Crystal Wheat with Almond Cream
Macaroni Baked with Bread Crumbs
Granola
Granose Flakes with Maltol

BREADS

Whole-Wheat Zwieback Egg Rolls
Bran Gems made with Nut Cream
Whole-Wheat Rolls with Nut Meal
Cocoanut Crisps Fruit Crackers
Whole-Wheat Puffs with Sterilized Nut Butter

LEGUMES

Vegetable Turkey with Lentil Dressing
Baked Beans Stewed Peas with Nuttose

DESSERT

Nut Sponge Cake Fruit Mince Pie
Ambrosia Sterilized Nut Butter

We give below the recipes for several of these preparations: —

Fruit Mince Pie.— Three fourths of a cup each of chopped seeded raisins and Zante currants. One-fourth cup each canned citron and orange peel. Two cups chopped tart apples, one lemon, using

juice and a little grated peel. Two tablespoonfuls molasses, four cups chopped walnuts, one and one-half cups water. Mix all together and cook thoroughly before making into pies. Bake with nut crust.

Nut Crust.— Equal parts sifted white flour and almond meal (prepared by Sanitas Food Co.); mix together thoroughly adding a little salt if desired. Wet mixture with ice-cold water sufficient to roll out, adding only a small quantity of water at a time, gather together dough and roll out. This makes a very wholesome and palatable pie crust.

Cocoanut Crisps.— To equal parts of white flour and powdered cocoanut add sufficient ice-cold water to make rather soft dough, roll thin as possible, cut into squares, pick carefully with a fork so they will not blister, and bake carefully. To powder the cocoanut, a mortar is very useful; but if none be handy, it can be rubbed through a fine colander. Grated fresh cocoanut can be used in place of the desiccated, if desired.

Bran Gems Made with Nut Cream.— To make nut cream, take one part sterilized nut butter (prepared by Sanitas Food Co.) to six parts water. Beat together vigorously one cup nut cream, the yolk of one egg and one cup and one half of unsifted graham flour and one-half cup of clean bran, adding a little at a time. When the mixture is light and foamy throughout, stir in lightly and evenly the white of the egg, beaten to a stiff froth; turn into heated gem irons, and bake an hour or longer in a moderate oven.

RECIPE FOR AN APPETITE.

My lad, who sits at breakfast
With forehead in a frown,
Because the chop is under-done,
And the fritter over-brown,—

Just leave your dainty mincing,
And take, to mend your fare,
A slice of golden sunshine,
And a cup of the morning air.

And when you have eat and drunken,
If you want a little fun,
Throw by your jacket of broadcloth,
And take an uphill run.

And what with one and the other,
You will be so strong and gay,
That work will be only a pleasure
Through all the rest of the day.

And when it is time for supper,
Your bread and milk will be
As sweet as a comb of honey.
Will you try my recipe?

— *Alice Carey.*

BREAKFAST

Fresh Fruit
Crystal Wheat with Canned Grape Sauce
Breakfast Rolls
with Sterilized Nut Butter
Dried Apple Toast
Toasted Nuttose garnished with Parsley

BREAKFAST No. 2

Fresh Fruit
Granose Flakes with Stewed Apple
Rice and Nuttose Croquettes
Rye Puffs
Baked Bananas

Seasonable Bills of Fare.

DINNER

Black Bean Soup with Lemon
Potato Puff
Canned Green Peas
Lettuce Salad with Nut Butter Dressing
Boiled Wheat
with Canned Strawberry Sauce
Whole-wheat Puffs
Lemon Apples

DINNER No. 2

Tomato Soup with Vermicelli
Mashed Potato
Stewed Dried Corn Mashed Beans
Wheatose with Cream or Nut Cream
Nut Crisps
Whole-wheat Bread
Stewed Dried Apricots
Prune Dessert

RECIPES.

Breakfast Rolls.— Sift a pint and a half of graham flour into a bowl, and into it stir a cupful of very cold thin cream or unskimmed milk. Pour the liquid into the flour slowly, a few spoonfuls at a time, mixing each spoonful to a dough with the flour as fast as poured in. When all the liquid has been added, gather the fragments of dough together, knead thoroughly for ten minutes or longer, until perfectly smooth and elastic. The quantity of flour will vary somewhat with the quality, but in general, the quantity given will be quite sufficient for mixing the dough and dusting the board. When well kneaded, divide into two portions; roll each over and over with the hands, until a long roll about one inch in diameter is formed; cut this into two-inch lengths, prick with a fork and place on perforated tins, far enough apart so that one will not touch another when baking. Each roll should be as smooth and perfect as possible, and with no dry flour adhering. Bake at once, or let stand on ice for twenty minutes. The rolls should not be allowed to stand after forming, unless on ice. From thirty to forty minutes will be required for baking. When done, spread on the table to cool, but do not pile one on top of another.

Toasted Nuttose.— Cut nuttose into slices about one eighth of an inch thick and toast in a wire broiler over a fire not too hot, until of a delicate brown on both sides; serve at once, garnished with parsley.

Nuttose and Rice Croquettes.— Steam one-half cup of well-washed rice in one cup of water, with one-fourth teaspoonful

of salt, for one hour, or until tender. Add to this an equal bulk of dry simmered nuttose, one egg, and salt to taste; shape, roll in fine bread or granose crumbs, and bake twenty minutes in a moderate oven. If desired, one tablespoonful of chopped parsley or celery may be added before shaping. Nuttose as it comes from the can, chopped, may be used if preferred.

Rye Puffs.—Beat together until all of a foam one cupful of milk, one tablespoonful of sugar, and the yolk of an egg. Add one cupful of good rye flour mixed with one-half cupful of graham flour, and stir in lastly the well-beaten white of the egg. Bake at once in heated gem-irons.

Baked Bananas.— Bake fresh, firm, yellow bananas with the skins on, fifteen minutes in a moderate oven. Serve hot.

Black Bean Soup with Lemon.— Soak a pint of black beans overnight in cold water. When ready to cook, put into two and one-half quarts of fresh water, which should be boiling, and simmer until completely dissolved, adding more boiling water from time to time if needed. There should be about two quarts of all when done. Rub through a colander, add salt, and reheat. When hot, turn through a soup strainer, add two or more teaspoonfuls of lemon-juice, and serve.

Potato Puff.— Mix a pint of mashed potato (cold is just as good if free from lumps) with a half cup of cream and the well-beaten yolk of an egg; salt to taste, and beat till smooth; lastly, stir in the white of the egg beaten to a stiff froth. Pile up in a rocky form on a bright tin dish, and bake in a quick oven until heated throughout and lightly browned. Serve at once.

Nut Butter Salad Dressing.— Rub two slightly rounded tablespoonfuls of peanut or almond butter smooth with two thirds of a cup of water (the half-pint cup sold in the house-furnishing stores), according to directions for preparing the nut butter for bread. Let this cream boil up for a moment over the fire. Remove from the stove, add one-half teaspoonful of salt and two tablespoonfuls of lemon-juice. Cool, and it is ready for use. If too thick, it may be thinned with a little lemon-juice or water. More lemon-juice may be added, if desired. By using a scant cup of strained stewed tomato in place of the water in the above, with the almond butter, we have another palatable and very pretty dressing.

Prune Dessert.— Prepare some prunes by cooking and rubbing through a colander. Stew until most of the juice is evaporated. Put in a square graniteware dish, placed inside another dish containing hot water, and cook in a slow oven until the pulp is dry enough to retain its shape when cut with a knife. If desired, add a meringue, dotting the top with pink sugar. Serve in squares in individual dishes.

THE AIR.

I TASTE a liquor never brewed,
From tankards scooped in pearl;
Not all the vats upon the Rhine
Yield such an alcohol!

Inebriate of air am I,
And debauchee of dew,
Reeling, through endless summer days,
From inns of molten blue.

— *Emily Dickinson.*

THE HYGIENE OF THE JEWS.

"JUDAISM has made religion the handmaid of hygiene; it has utilized piety for the preservation of health." This quotation was made by Dr. Charles Long, of Wilkesbarre, Pa., in an address upon "The Hygiene of the Jews," read before the Luzerne County Medical Society. Dr. Long claims that the first great step in primitive medicine was taken many centuries ago when Moses gave to the Hebrews their laws of physical and moral life. He believes that no other religion takes such precautions for the health of its followers, and states that statistics comparing the length of life of the Jew and his Gentile neighbor are decidedly in favor of the former, this advantage being the direct result of his religion and its rites. The immunity from many infectious diseases which the Jews are said to possess is due to their rigid observance of their dietary and other hygienic laws.

Especially strict were their laws pertaining to the ingestion of contaminated meat. The Mosaic law concerning meat diet forbade certain animals altogether, and allowed only certain parts of permitted animals to be eaten. Only those beasts might be eaten that are both cloven-footed and chew the cud; all others are called unclean. Specially mentioned as forbidden are the pig and the hare. Of all animals that live in water only those which have both fins and scales were permitted. This would exclude oysters, clams, lobsters, and crabs.

The Jew is not permitted to eat the blood of any animal, or those parts that consist entirely of fat. The Biblical reason given for forbidding the use of blood as a food is that the life of the flesh, the soul, has its seat in the blood, and man should not eat both the meat and its soul.

Much depends also upon the manner in which the animal meets its death as to whether it may be eaten or not. The Mosaic law forbids the Jew to eat the flesh of an animal that is killed by a beast of prey, or of one that dies of an injury, of sickness, or of old age. All such food is called unclean. Animals to be used for food must be killed by the hand of man.

The statement in the law that the kid should not be cooked in its mother's milk has given rise to different interpretations. The commentators of to-day are disposed to regard this injunction as a precept of humanity intended to prevent the mother and her offspring from being killed the same day, or so long as it is sucking, so that the animal may experience the pleasures of maternity. Others give as the reason why the cow or ewe and its young should not be killed until the offspring is weaned, the fact that the meat of a very young animal is not fit to be eaten. The Talmudists interpret the passage to mean that no meat whatsoever shall be cooked in milk.

Dr. Long thinks that the Jewish method of killing probably originated with the rabbis. The greater half of both the gullet and the windpipe must be cut through without a pause, and the incision must be neither too high nor too low. The knife must be perfectly clean and free from nicks. By this method the animal is thoroughly drained of its blood, and its death is comparatively painless.

Every animal killed for food is carefully examined. If any pathological abnormalities are found, such as would have caused death within a year, the animal is declared unclean and may not be eaten. Special attention is given to the examination of the lungs, and as to whether they are adherent to the ribs.

Before cooking, the housewife was required to let the meat soak in salt water

for at least one-half hour. This would drain the arteries of all blood. Even after all this preparation, should the meat come into contact with any unclean thing, "it shall not be eaten; it shall be burnt with fire."

The writer calls attention to other advantages of the Jews from a sanitary point of view, especially noting the rabbinical laws regarding bodily purity. For the original of the bath we must go back to the tabernacle of Moses with its laver. The priests were evidently to set an example to the people. Any man or woman who had touched an unclean thing was cleansed only after washing, and even then he remained unclean until evening. Thorough cleansing was prescribed for the woman who had given birth to a child. Especially rigid were the preventives against leprosy.

"While these and various other laws are part of the religion of the Jews," says Dr. Long, "it might well be asked if the lawgivers did not use religion to cover simple laws of health so that they would be more rigidly observed. Was Moses not wise in permitting only certain animals as food and forbidding all others? When we consider the warm climate in which the Jews of those days lived, and the rapid decomposition which takes place in fat, in blood, and in pork, in comparison to the animals and parts of animals allowed by the laws, was the forbidding of these not a good sanitary measure? And who can say that Moses was not cognizant of the trichinæ?

"Again, he forbade all fish except those that had fins and scales. The lobster, the oyster, the clam, the crab, etc., were not to be eaten under any circumstances. Would it not be reasonable to suppose that Moses knew that some skin diseases were due to the ingestion of these unclean foods?

"Was Moses acquainted with tuberculosis? He certainly forbade the eating of meat taken from an animal that had any pleuritic adhesions."

"The distance between Moses and Pasteur and Koch is not such a great one, scientifically speaking." "Could the great lawgiver live to-day and read some of our learned medical essays on the transmission of disease through the blood, do you not think he would say: 'I told you so, and therefore forbade the drinking of blood by my people thirty centuries ago?'"

The question is suggested, "If the Jew has had such advantages from a hygienic point of view, why is he not the type of physical development to-day, especially as his laws are among the best and his blood and lineage have remained pure for centuries?" Dr. Long says in answer, "When we consider his manner of life for so many centuries, in the crowded ghettos, with lack of exercise and pure air, the martyrdom which he has undergone on account of his religion, the limited number of occupations which he was permitted to follow, his poverty and consequent lack of wholesome nourishment, would it not be ridiculous to expect in him the ideal of physical beauty despite his observance of hygienic laws?"

Leroy Beaulieu is quoted as saying of the Jew: "His longevity, his resistance to disease, his immunity from certain disorders, are a legacy from his ancestors, and are due to his laws, his customs, and his sobriety. On the other hand, his feebleness and the defects of his physical constitution are due to the laws of the country which he inhabited, the ghettos, and their system of confinement."

If the Israelite had not "utilized piety for the preservation of health," it is a question whether by this time he would have any health at all.

BATTLE CREEK SANITARIUM QUESTION BOX.

BY J. H. KELLOGG, M. D.

1. WHAT will cure catarrh of the stomach?

Ans.— Avoid the use of those things that produce it,— mustard, pepper, pepper-sauce, and other condiments that burn, sting, and tingle as they go down the throat. Avoid "old-fashioned New England dinners," "boiled dinners," very cold or very hot foods, celery, chowchow, and all other irritating substances.

2. How long a time is required to cure catarrh of the stomach?

Ans.— That depends upon the size of the affected part. Like the time required to build a house, it depends upon the size. If the catarrh of the stomach covers only four square inches, it will not require so long to cure it as it would if it covered seventeen square feet. Sometimes the catarrh extends over the whole surface of the alimentary canal; sometimes it is confined to the cardiac or lower portion of the stomach. An extensive disease of this kind requires a long time for a cure. When the infection has extended from the stomach into the intestines and the colon until the whole seventeen square feet of surface is covered with germs, it must require a long time to produce a thorough cure.

3. Do you consider eggs good food?

Ans.— Yes, if they are healthy; a sick egg is a very unhappy thing to swallow. It is not easy to discover a sick egg; you cannot always be sure about it until you have swallowed it. There is no way to ascertain whether it is healthy or not, before eating it, because you cannot feel its pulse or take its temperature. It is impossible, as a rule, to keep an egg perfectly healthy in warm weather for more than three days. After exposure to warm weather, incubation begins, and then the egg quickly dies. People are often made sick by the use of unhealthy eggs, because such eggs decompose so easily.

4. Deer go miles to get salt, so it is evidently what they need; why is it good for animals in a mineral form and not good for human beings?

Ans.— I have understood that deer are sometimes troubled with worms or parasites of some sort, and they have found out that brackish water cures them, so they visit these waters every spring and summer, just as some people visit mineral springs for a general expurgation of the sins of the dinner table. Deer seem to have an instinctive feeling that these waters contain medicines which will kill their worms or parasites, and so they travel hundreds of miles to get that water. They do not, however, do this every day before breakfast, or before each meal, three times a day. Because deer take these long journeys two or three times a year to find a remedy for worms or parasites, is no reason why people should take salt two or three times a day, when they are not troubled with worms or parasites. The fact is, deer do not eat salt regularly. It is possible that they acquire an appetite for it, but they do not need it regularly. Many stock-raisers on the Western plains do not give salt to their cattle at all, and they raise thousands of very fine animals.

5. Are potatoes and potato starch digestible?

Ans.— Yes, if they are properly prepared. Baking is the most wholesome method of cooking potatoes.

6. What treatment must a person take to get a new set of nerves?

Ans.— He must be made all over new, through proper diet and regimen. He must, by this means acquire new blood and new tissues generally. A lady in California the other day said to her physician : "Doctor, I am new now, because I have not eaten meat for seven years. I feel so glad that I have been redeemed from all the old corpses that I used to eat. I am a strict vegetarian."

7. What is uric acid, and what diet would you recommend to eliminate it from the system ?

Ans.— Uric acid is an unburned residue or waste matter of the body. If it were completely oxidized and soluble, it would be readily removed, but it is not. Nuts, fruits, and grains are the best diet, and will aid greatly in the elimination of this poison.

8. If fruits, nuts, and grains are the natural diet of man, why should they be cooked ? Why should not man be able to digest raw starch as other animals do who eat vegetables and grains ?

Ans.— There is no difficulty as to fruits because they are already cooked. They offer us nourishment in a natural state, in a condition that taxes the digestive organs as little as possible. The principal reason why nuts are better cooked than raw, is that by the process of cooking they are thoroughly softened and disintegrated. Raw nuts are difficult of digestion because they are usually dry. They are hardened by being kept for a long time, so that in the process of mastication, with our imperfect teeth, they are not chewed thoroughly. The monkey never complains of any difficulty in digesting nuts, and a child ten or twelve years of age that has sound teeth and a sound stomach probably would have no trouble in digesting nuts in a natural state. A boy goes out into the woods, climbs a tree, shakes off the nuts, and then sits down, cracks the nuts, and eats them. He has no difficulty to digest them. But the man does not climb a tree and get the nuts himself, but stays at home or in his office, and has the nuts brought to him. He has lost that vigor of digestive activity by which it is possible to digest almost anything that can be swallowed, and so for him nuts must be cooked.

The question as to grains is more difficult. Monkeys do not choose dry wheat as food although they will eat a little if it is placed before them. In the tropics, they frequently make attacks on corn fields when the corn is in the milk, and they have no difficulty in digesting this green corn. People have been cured of persistent dyspepsia by eating raw wheat and nothing else. Quite a number of persons of my acquaintance have adopted the practise of living upon raw food, and have proved its practicability. If the digestive power of the human organism had not deteriorated so greatly, grains while fresh and soft, grains "in the milk," would probably be capable of digestion raw, not that starchy substances are digested in the stomach, but that they are so completely reduced to a soft pultaceous state that the proteid part can be perfectly digested in the stomach, while the starch passes into the intestine to be digested by the pancreatic juice which normally performs the work of digesting raw starch. I find no serious difficulty in the proposition that fruits, grains, and nuts are the natural food of man, bearing in mind the fact that in the primitive state he had no cook-stoves and bake-ovens and other facilities for the preparation of food by the artificial means which we call "cookery."

9. Is paraldehyde a harmless narcotic, a good remedy for insomnia ?

Ans.— Paraldehyde is not a narcotic but a hypnotic. There is no such thing as a harmless hypnotic. It is not possi-

ble in the very nature of things to find a drug that will put a person to sleep that will not do him harm. A drug that will put a man to sleep when he is not sleepy is a positive poison. To give a hypnotic is like making a man quiet by knocking him down with a club.

There recently appeared in the *British Medical Journal* a series of articles on insomnia and the use of drugs for the cure of insomnia; and it was the universal testimony of the different writers upon the subject that there is not a single drug which is capable of producing sleep which cannot be used in such a way as to work serious harm, and the habitual use of which would not be productive of great injury to the body. Every one of these writers recommended the disuse of this means of producing sleep.

10. Is nut butter digested in the stomach?

Ans.— Yes, with the exception of the fat. The fat is emulsified, however, and passes quietly along out of the stomach, making no disturbance.

A PRESCRIPTION.

My pallid friend, is your pulse beating low?
Does the red wine of life too sluggishly flow?
Set it spinning through every tingling vein
By *outdoor work*, till you feel once again
Like giving a cheery schoolboy shout;
Get out!

Are you morbid, and like the owl in the tree,
Do you gloomily hoot at what you can't see?
Perhaps, now, instead of being so wise,
You are only looking through jaundiced eyes;
Perhaps you are bilious, or getting too stout;
Get out!

Out in an air where fresh breezes blow
Away all the cobwebs that sometimes grow
In the brains of those who turn from the light
To all gloomy thoughts instead of the bright.
Contend with such foes and put them to rout;
Get out!

— *Selected.*

THE OPINIONS OF MISS WILLARD.

The opinions of great men and women take on a peculiar fascination after those who held them have passed out of the world. Doubtless one reason for this is that no more opinions will be expressed by them.

It is characteristic of Miss Willard that she has left strong utterances upon almost every subject of popular agitation to-day. The injunction she gave to many, "Enter every open door," she carried out herself. In "A Wheel Within a Wheel," or "How I Learned to Ride the Bicycle," she says: "Happy is he who knows that he knows nothing, or next to nothing, and holds his opinions like a bouquet of flowers in his hand, that sheds its fragrance everywhere, and which he is willing to exchange at any moment for one fairer and more sweet, instead of strapping them on like an armor of steel, and thrusting with his lance those who do not accept his notions."

Of the bicycle she said: "It is, perhaps, our strongest ally in winning young men away from public houses, because it affords them a pleasure far more enduring, and an exhilaration as much more de-

lightful as the natural is than the unnatural." And again: "A reform often advances most rapidly by indirection. An ounce of practise is worth a ton of theory; and the graceful and becoming costume of woman on the bicycle will convince the world, that has brushed aside the theories, no matter how well constructed, and the arguments, no matter how logical, of dress-reformers.

"A woman with bands hanging on her hips, and dress snug about the waist and chokingly tight at the throat, and with heavily trimmed skirts dragging down the back, and numerous folds heating the lower part of the spine, and with tight shoes, ought to be in agony."

From "A Wheel within a Wheel" Fleming H. Revell Co.

"LET GO—BUT STAND BY."

Speaking of lessons to be learned from experience with the "silent steed," she said:—

"It is the same with all reforms: sometimes they seem to lag, then they barely balance, then they begin to oscillate as if they would lose the track and tumble to one side; but all they need is a new impetus at the right moment on the right angle, and away they go again as merrily as if they had never threatened to stop at all."

At another time she declared: "Let go, but stand by,— this is the golden rule for parent and pastor, teacher and friend; the only rule that at once respects the individuality of another, and yet adds one's own, so far as may be, to another's momentum in the struggle of life."

Miss Willard practised more than she preached, along the line of wholesome foods and hygienic habits. She often called herself "The great American bread eater." On one occasion she wrote:—

"For my own part, I have formed a settled conviction that the world is fed too much. Pastries, cakes, hot bread, rich gravies, pickles, pepper-sauces, salads, tea and coffee, should be discarded from the bill of fare, and I firmly believe they will be from the recipes of the twentieth century."

On the subject of reform in dress she said and wrote many things, but nothing perhaps that appeals to women whose husbands think "it takes them a long time to get ready," more than the following avowal taken from "Glimpses of Fifty Years:"—

"I must confess that after my long

day's task with the pen, I say to myself often, 'If I could put on a hat, button a coat around me, and step off freely, how delightful a walk would be.' But no; there are intricate preliminaries before a woman can do anything so simple as take a constitutional. In my own case, the easy wrapper that I wear at my work must be changed for a street dress, with its long, heavy skirt; the slippers, for shoes to be buttoned up; a bonnet, affording no protection from light, wind, or observation, must be 'tastefully' put on; tight-fitting gloves drawn to their places; and then only, with skirts to be lifted at every step until one's knees grow weary, the airing may begin. A man would have two things to do,— put on his coat and crowd a hat over his eyes; a woman has three articles to take off, wrapper and slippers, dress to draw on, collar and cuffs to adjust and pin, shoes to button, wrap to fasten, bonnet to tie, and then all these burdens and constrictions to endure.

"So, for the thousandth time, I return to my room, actually too tired to 'get ready' and then 'get over the ground,' though Lake Michigan's splendid expanse stretches away to the east, and there are cool, shady nooks, and tempting byways all about me. I recognize joyfully the progress we have made since I was a student, when no girl was really 'stylish' who wore less than eight white skirts trailing on the ground after her; but how slowly we move when women of refinement will wear bustles, lace themselves as of old, pinch hands and feet, bare their heads to the blast that their tufts of bonnets may be 'like the rest,' and simper their criticisms on 'dress reform.' Near me on the walls of my study hang Annie Jenness-Miller's picture, and engravings of her new costumes. I look up at them with a prayerful heart, saying, 'How long, O Lord, how long?'

"Instead of the walk I would like to take, had I the old-time conditions — the modest, simple, short dress, loose jacket, and broad-rimmed hat of auld lang syne — I pen this jeremiad, and bid Godspeed to the earnest-hearted woman who, in roaring Gotham, plans for us women a costume that hints at better days in the future."

OUR DAINTY BARBARISM.

HUMAN heedlessness is exposed by Maude Wood Henry, in a recent number of *Talk*: —

"'Do you handle Persian baby lambs' fur?' was asked a Toledo furrier.

"'Oh, yes!' he replied quickly.

"'Is it expensive?'

"'Quite — a small collarette will cost you fifty dollars. I have made several this winter.'

"You who have the collarettes should be feeling very uncomfortable. You are wearing the skin of a baby lamb torn alive and unborn from its mother.

"'Sealskin has gone out. Persian baby lamb has come in,' says the New York *Journal*.

"'Every woman with any pretension to "smart" dressing has a bit of Persian baby lamb somewhere about her dress. It is very expensive. A Persian blouse of Persian baby lamb costs three hundred dollars, and it will wear decently about two years. It is made from the skin of the unborn lambs. The ewes are fed on certain foods which stimulate the sheen and delicacy of the fur, and then the ewe is killed, and the little unborn lamb is skinned. The skin is not much bigger than the breadth of a pair of decently

sized hands. It is the finest and most delicate fur in the world. It is so black that sable looks a rusty brown beside it, and it is so fine and so soft that the finest silk of the softest mull looks coarse by contrast.

"The *Journal* has been asked to tell the women of America the truth about that fad, and what it means in agony and suffering to a harmless little creature. Women who would not give pain to the slightest living thing are buying these pitiful little skins, and wearing them as calmly as if they were roses grown in a garden full of sunshine.

"To get the true delicacy and shimmer to the fur, so that every woman who sees it will know that it is genuine 'baby lamb,' the poor little creature must be torn alive from its mother. The mother is killed afterward. Her skin does not shine so much, so she is not the fashion.

"It takes at least twenty of these pitiful little skins to make even a short coat. They have to be perfectly matched, so that the 'crinkle' will run the same way, and that one side of the coat will not be more curly than the other. For one coat forty miserable little animals are made to suffer torture beyond human imagining. For one collar four living creatures must die in hideous agony.

"Yes, baby lamb is the fashion; and the gentlest women are rushing to buy it to adorn their daughters and make them beautiful. The furriers are displaying the tiny skins in their windows. It does not pay to make them up unless they are made to order.

"Every woman who buys an inch of that skin knows what she is doing, for the saleswomen hasten to tell her that it is 'no imitation. It is the real thing — the unborn lamb, torn from its mother, just as the skin is at the best.'

"Two women with the little silver cross of the King's Daughters pinned upon their gowns, bought a baby lamb coat apiece up at a Fifth Avenue shop the other day. And a woman who belongs to two societies for ethical culture and a society for the prevention of cruelty to animals, bought twenty-five of the skins to make her daughter's skating dress pretty. Yet there have been cynics who say that women are inconsistent."

DUST.

MICRO-ORGANISMS are the great producers of disease, and dust is the chief medium by which they are conveyed, says the *Popular Science Monthly*. Notwithstanding this fact, dust is continually being poked up, so to speak. As soon as the housemaid is up, it is hustled and dusted into the air, so that by the time the family is astir, any germ which may have quietly settled in some corner where it could do no harm, is floating about in the air, ready to appropriate any convenient and moist resting-place, such as the human lungs or a bit of the breakfast. The street-cleaning department, too, spends much of its energy in simply stirring up the dust about the streets; a little of it is carried off in carts each day, but every particle thus removed has probably been stirred up and allowed to settle a dozen times.

The reckless way in which house-cleaning and street cleaning are handled is really appalling. Dusting should always be done with a damp cloth, and carpets should be swept with a closed sweeper well filled with wet leaves or bits of paper. The street-cleaning problem is simply a question of water supply, flushing the streets often and well.

THE DEGENERATION OF THE YOUNG.

EVEN among children and youth, drink is one of the chief causes of crime. About eighty-five per cent. of youthful offenders found in reformatories have spent the whole or the greater part of their lives under defective and unwholesome economic conditions, conditions which stunted their growth, produced physical debility and instability, and consequently mental feebleness and an inclination to yield to the first impulse or temptation. It is well known in these days that in all civilized countries crime by very young persons, by mere boys and girls, is almost everywhere on the increase, especially so in the United States. Says the *Dietetic and Hygienic Gazette:*—

"There are here two sets of facts for the thoughtful physiologist, as indeed for the thoughtful of all classes, to consider: first, the undoubted increase of juvenile crime; and, secondly, the equally demonstrable certainty that a physical cause lies at the root of most of this increase."

The same journal makes the deduction "that if a defective physical basis of life be the chief cause of juvenile crime, the disease is curable; and further, that physiologists and physicians, the medical profession as a whole, is the department which must show the way to cure."

Philanthropists, reformers, humanitarians of all classes, must aid in showing "the way to cure;" for an evil that strikes so closely to the vitals of society cannot be vanquished by one attack. We must begin with the grandparents of our grandchildren if we would see the physical basis of life improved.

IT is exercise alone that supports the spirits and keeps the mind in vigor.—*Cicero.*

J. T. SUNDERLAND, writing in *Unity* on the need of travelers' drinking wine, remarks, "There is no land to which the ordinary traveler ever goes in which it is not easy to get water that is safer than any liquor. The one thing to be avoided by the traveler, especially in Oriental and tropical lands, is intoxicants."

To Be Forewarned Is To Be Forearmed.

In Germany, temperance agitators are petitioning the government to introduce into the primary schools a course of instruction on the baleful effects of alcohol, setting forth its harmful effects upon the growing and developing organism. In youth, when brain and muscle are being made, alcohol has its most marked influence, being a common cause of brain affections and of impaired physical strength.

GIRLHOOD.

AN exquisite incompleteness;
The theme of a song unset;
The weft in the shuttle of life;
The bud with the dew still wet;
The dawn of a day uncertain;
The delicate bloom of fruit;
A plant with some leaves unfolded;
The rest asleep at the root.

—*Amelia E. Barr.*

EDITORIAL.

Race Deterioration in New York City.

One of the surest indications of race deterioration is the increase in the frequency of crimes and in the number of criminals. Criminals as a class are degenerates. They are lacking in will-power and for the most part are of an inferior grade of intelligence. It has become a notorious fact to which statisticians have often called attention, that murders are more frequent in the United States than in any other civilized country. In the year 1895 ten thousand murders were committed in the United States. While the number of murders a million committed annually in this nation is greater than in any other civilized land, the number of murders a million committed annually in India is smaller than in any other country. This shows clearly not only that the people of the United States are not sufficiently thoroughly Christianized to bring their moral average above that of the natives of India, a heathen country, but that civilization promotes rather than prevents race degeneration. In New York City, according to Dr. Christison, crime is increasing at a terrible rate. We quote as follows: —

"The annual report of the Board of City Magistrates made to-day shows that the population of the city has increased 33⅓% in the last ten years, while crime has increased more than 50%. Nine magistrates tried 112,160 cases, held 73,537 defendants, and discharged the other 38,623. While the total number for all offenses has increased 50%, there has been an increase of nearly 90% in felonies. In 1886, 4,171 persons were charged with felony, in 1896 the felonies reached 7,021."

The increase of criminals and degenerates is the natural result of the neglect of conditions necessary to promote and develop physical health, which must constitute the foundation of high mental and moral health. A sound body is necessary for a sound mind, and a sound mind is essential for sound morals. Nothing but a thorough reform in habits of diet, dress, exercise, and all that pertains to physical health, will check this deteriorating tendency.

A Great Soul Departed.

Since the issue of our last number, the whole country, indeed the whole civilized world, has met with an irreparable loss in the death of Miss Frances E. Willard, the president of both the National and the World's Woman's Christian Temperance Union. It has been said that the race never produces more than two or three great souls in a century. Miss Willard certainly must be included in the number of the greatest human souls whose influence has been brought to bear upon the uplifting of the human race within the present century. It is not the purpose of this paragraph to undertake either a sketch or a eulogy of this great woman's life and work, as such a tribute will be made by a more competent hand elsewhere in the columns of this magazine. It is our purpose simply to offer a personal tribute of respect to the memory of one whose name must go down to posterity among the greatest of those who have lived on this earth.

History has not recorded the name of any woman who has done more for the amelioration of her race or who has exhibited greater qualities of mind and heart than Frances Willard. Although for nearly a generation engaged in a conflict against a most relentless, exasperating, and conscienceless foe, there was never any bitterness or any rancor in the manner in which she met the enemy. Though for many years at the head of the largest organization of women ever known, she was so universally recognized as an unusual and superior mind and was so gifted with organizing ability and with ready tact and wit equal to any emergency, that she

was never compelled to contend for any honor or place, but held her position by the mere force of her character and by her native and acquired abilities.

It is too much to expect that the present generation will ever see another Frances Willard, but we gratefully recognize the fact that her work was so wisely builded that she has left behind a corps of colleagues, whose long experience in labor by her side and whose distinguished abilities as leaders, will enable them to carry forward the great organization, the Woman's Christian Temperance Union, which has accomplished such a mighty work for God and humanity within the last quarter of a century.

Muscular Vigor Necessary for Health.

The difference between a person of weak muscles and one whose muscles are strong and sinewy, is not simply inability to lift or to put forth muscular effort, but a difference in the quality of muscle; and this difference is simply an index to the difference in the quality of the nerves, stomach, liver, and every other vital organ.

The man of iron muscle has the digestion of an ostrich and an appetite which requires no goading. The man of soft, feeble muscles has equally weak nerves, feeble digestion, inactive liver, and slow nutrition. Subject a man of weak muscles to such processes as will make him an athlete, and his digestive disturbance, his nervousness, his hypochondria, his uric acid diathesis, or whatever other disturbance of nutrition he may be suffering from, will disappear under the potent magic of active vital processes, a richer blood current, and more highly vitalized protoplasmic life.

Another Warning.

According to the *Kansas City Medical Record*, the Board of Regents of the State Agricultural College, at Manhattan, a few months ago discovered that the cattle, sheep, and hogs kept on the college farm were infected with tuberculosis. Several of the attendants employed at the stables were seriously affected with the disease.

Warnings of this sort are published almost every day in some one of the public prints. It is indeed surprising that with object-lessons of such impressive character constantly before them, a large proportion of civilized men and women are still willing, as suggested by an eminent English health officer some time ago, to bury annually thousands of diseased animals in their stomachs.

Dr. Kinsman, in a paper read before the Ohio State Medical Society, May, 1897, gives the following summary of the parts relating to consumption: —

1. Tuberculosis in man and animals is due to one and the same cause, and is reciprocally communicable by inhalation, ingestion, and inoculation.

2. It may be limited by the same measures which have been found effectual in other microbic diseases.

3. The disease is much more infectious among animals than in man. This is especially true of cattle.

4. Statistics in Europe and America show that tuberculosis is rapidly increasing among our own herds of horned cattle.

5. Danger of infection of the human family by these infected herds will thus be increased.

The Significance of a Coated Tongue.

The writer horrified a lady not long ago by saying to her, "Madam, if the front of your face were as dirty as the back side of it, you would not appear in public without first subjecting it to a thorough cleansing and disinfection." In this case the tongue was thickly coated over with a brown coating, which was, of course, largely made up of germs of various sorts.

Thousands of people are going about with their tongues and mouths in a thoroughly infected condition, little suspecting the real significance of this symptom. Not infrequently the fact that the tongue is coated, is quite ignored, in harmony with the prevalent notion that it is a trivial circumstance; but a knowledge of the fact that a coated tongue means a germ-infected mouth, and that the permanent presence of germs in the mouth

is an indication that the body in general has lost its power to defend itself against germs, would lead to an entirely different view of the situation. No person can habitually carry about with him a coated tongue without laying the foundation for a possibly incurable disease, Bright's disease, chronic maladies of the liver, and various other grave disorders.

One of the best means of cleansing the tongue is a diet of fruit. Nearly all fruits have the property of destroying germs or preventing their growth. For the best effect, fruit should be taken without mixture with other food. An excellent plan is to make one of the daily meals exclusively of fruit. This plan may be followed for a long time, or if the fruit is carefully selected, for an indefinite time, without injury. Bananas, figs, and apples are the most nourishing of fresh fruits to be obtained in our market.

THE MEAT DIET FAD.

About twenty years ago Dr. Salisbur then of Cleveland, later of New York, began the advocacy of a lean-meat diet in the treatment of consumption, maintaining that consumption is due to the development of yeast germs in the stomach and their penetration into the blood-vessels, obstruction of the blood-vessels, and various morbid consequences.

Since that time Dr. Salisbury has extended his theory to Bright's disease and various other maladies, insisting that all should be treated alike, by a lean-meat dietary.

The theory upon which this practise is based has many times been shown to be absolutely fallacious and absurd, nevertheless the practise has become more or less in vogue among physicians, and now and then swells into proportions of an actual fad.

The fact that certain classes of patients are relieved of dyspeptic symptoms by a lean-meat diet has led a great number of physicians to adopt this dietary without considering what must necessarily be the ultimate results. According to Landois, a pure meat diet is incapable of supporting life. Nothing can be more dangerous in cases of Bright's disease and in all cases of renal insufficiency than a flesh diet, and the greatest safety for the patient is to be found under a diet from which flesh food of all sorts is excluded. It is easy to understand why a flesh diet is particularly dangerous in diabetes. In this disease, in which there is naturally a tendency to waste and to toxemia through a failure of the kidneys to maintain a condition of requisite tissue purity, the employment of a meat diet not only increases wasting, as shown by Landois, but also greatly increases the tendency to general poisoning from the accumulation of excrementitious elements.

With these facts in mind, and remembering also the results of the interesting researches of Haig, no intelligent physician nowadays will venture to prescribe for a patient a meat diet without first giving the matter very careful consideration. The writer has not found occasion for prescribing a meat diet for any patient during the last ten years, although formerly, in obedience to the dictum of medical authority, he frequently prescribed a meat or a meat and bread diet, thinking this to be the only way in which to deal with a certain class of cases; but after having employed this method for quite a long term of years, experience convinced him that the method was a dangerous one in practise, and more careful consideration of the matter as well as the recent developments in physiological chemistry have shown that the practise has no scientific foundation.

Nuts are a perfect substitute for meat; and while they furnish little or no sugar, they provide the necessary fats and nitrogenous material for a perfect food. Bread, dry, in the form of zwieback, or granose biscuits, may be allowed, also kumyzoon and usually green vegetables. Preparations of nuts, such as nuttose, sterilized nut butter, and almond meal, may be used. A meat diet, in the opinion of the writer, is never necessary.

THE EXERCISE CURE FOR DYSPEPSIA.

THE famous Dr. Boerhaave, a Dutch physician who lived two hundred years ago, declared that many more dyspeptics would be cured by climbing a bitterwood tree than by drinking the nauseous decoction of its leaves. The Scriptures declare that he who will not work shall not eat. Nature says, He that eats but will not work shall not digest. Work is the best of all panaceas for indigestion. By work we mean muscular work, or exercise, and especially out-of-door work.

The kind and the amount of exercise must be decided by the strength, age, and sex of the dyspeptic and the kind of indigestion. There is often a displacement either of the stomach or of the colon, sometimes of both, and perhaps of still other abdominal viscera, so that it is important, before beginning a series of exercises, to be sure that these organs are replaced in the normal position and kept there by the proper abdominal supports. Without this precaution, more evil than good would result from exercise.

Many dyspeptics complain of cold hands and feet, and observe that exercise tends to aggravate these symptoms. This is because the viscera suspended in the abdomen press upon the abdominal sympathetic nerve, and disturb the vaso-motor system, causing a contraction of the blood-vessels of the extremities. Abdominal girdles or belts, properly adjusted, are a protection against this discomfort.

The dyspeptic whose capacity for digestion is weak must avoid too great an expenditure of muscular energy, for fear of weakening instead of strengthening himself. He has only to be weighed before and after exercise, and to exercise less vigorously, if his weight sensibly diminishes. In certain instances it is necessary to begin, as in case of other enfeebled persons, with a "rest cure" of from two to four weeks, which permits the accumulation, in the form of fat or blood, of a reserve of tissue upon which to draw in order better to endure the muscular work to be undertaken later.

The exercise of breathing is important for dyspeptics. Walking, horseback riding, the bicycle, and especially Swedish exercises, manual and mechanical, are of great value in different forms of indigestion. Exercises of the trunk are very helpful in the majority of cases. The following general suggestions relative to the employment of exercise by different kinds of dyspeptics may be useful: —

1. Hyperpeptics should avoid violent exercise immediately after a meal, in order not to increase the secretion of gastric juice, already too abundant in them.

2. Hypopeptics and those who suffer from apepsia may take after a meal moderate exercise, because an increase in the secretion of gastric juice is necessary in their case.

3. In the case of simple dyspepsia, moderate exercise is to be recommended after meals, especially if one experiences a feeling of heaviness. This disposition should be fought energetically by vigorous breathing movements or by moderate exercise. The habit of sleeping after meals is very injurious.

4. In case of ulceration of the stomach, absolute rest is generally necessary.

5. If there is pain in the abdominal region, or irritation of the lower part of the spine, and in particular when one experiences "bearing down" sensations in the lower part of the abdomen or in the back, he must take only moderate exercise until these symptoms disappear, unless, as often happens, he can obtain some relief by the application of abdominal supports.

For dyspeptics the most favorable time for gymnastics is two or three hours after a meal. Exercise before breakfast is advisable only for robust or corpulent persons.

Thin or very feeble persons should not, as a rule, exercise before breakfast. The reason is that exercise before the morning meal produces greater effect in breaking down the tissues than at any other time. This fact affords an excellent hint to corpulent persons, who may, to excellent advantage, exercise before breakfast.

THE KLONDIKE AND HEALTH.

If one take a Western trip in these days, he will see a vast number of people on their way to the Klondike region. The trains are loaded with them. Sometimes a whole car will be occupied by explorers and fortune seekers. In San Francisco almost every other store has a Klondike notice,— "Klondike Beds," "Klondike Underclothes," "Klondike Stockings," "Klondike Hardware," "Klondike Food;" it is "Klondike" everywhere. These people who are starting for the Klondike are subjecting themselves to great dangers and hardships,— and they know it. They know that it will take them months even to get there. Probably not a single one is going to that far-off region for his health. Quite as probably if a good sanitarium were as inaccessible as the Klondike region, we should not have a patient in one to-day,— and yet health is of vastly more importance than anything a person can get in the Klondike.

But how little health is valued! How few people are willing to make any real sacrifice for the sake of it! Rather than do this, the great majority of people will lie down and die. They see themselves approaching nearer and nearer to the grave, and day after day they look into its dismal depths, when they might as well have health if they would labor for it as people labor who go to the Klondike region for gold. Most people might have health if they would do this, but they allow time and favorable opportunities to pass, and by and by it is too late,— the great opportunity is gone.

Many and many a time women say: "I cannot leave my home and children," Willie or Walter must be sent to school this year, and no one else understands what to do for them. Susie is delicate and needs her mother. This club or that organization would be missed by its leader.

Men are equally indifferent. One says: "My head clerk would be lost without me." Another, "Wheat is coming up, and I want to invest in it," and so on. Business is the first, and health is the last thing to be considered. Why is it that we have come to regard the greatest things as of the least consequence, and the least things as the greatest? We make our daily affairs the one thing to attend to, while health is kept in the background, so that it has come to seem of little importance to us. Nevertheless it is of the greatest importance. Even our morals are involved in it, so that it is really the greatest thing in the world.

While out in the Rocky Mountains recently, passing over some of the high peaks by the aid of the engines which were pulling us up the steep mountainsides on our way to Portland, Ore., the editor could not help thinking, "If it were as easy for the chronic invalid to get well as it is to ride over these mountain passes, how many people would be constantly riding up into health." But, unfortunately, this is not the case. If one could get well by putting on steam and accelerating the process, how much steam pressure would be exerted at once. We are accustomed to practise the plan of "putting things through" by main force; this is especially true of business men who have been in the habit of thinking that almost anything can be done by exerting energy, that by using steam enough they can accomplish what they wish. This is generally true in business, but it is not true in health. It is true that energy and determination are required in getting well, but we have also to wait for nature; we must be patient, considerate, and thoughtful, and not be discouraged because the process of recovery takes so long. It is almost as reasonable to suppose that you can grow a crop of corn more quickly by applying steam pressure, as to think of accelerating the healing processes of nature by any application of force. By applying force to the growth of corn, you might pull it up by the roots. You might reason, "A shower is good for corn, and if a little water will accomplish some good, more water will accomplish more good," and so by excessive watering of your crop, you might destroy it more rapidly than would a simoon. We must wait for the natural process of growth.

The same thing is true of our bodies, when they have become affected by disease; we must wait patiently for nature to work the cure through the operation of her gentle processes, which are like the sunshine, the dew, the wind, and the rain. These forces slowly operating upon the body gradually stimulate the subtle processes by which repairs are effected and the diseased body is brought back to a state of health. This might properly be termed growing a crop of health; it is a process of growing out of disease and into health, and it must take time. It takes a long time to grow some crops. It is a year before the date seed begins to sprout,—it takes a year for the warmth and moisture which nature supplies, to penetrate that hard shell and stimulate the hidden germ into activity, while it requires only a few days for a bean to sprout. It takes a date-tree a generation of years to come to maturity so as to bear a crop, while the bean requires only about as many days to bear an abundant harvest. So it is with diseases of the human body. One may soon recover from acute diseases. A person may have an attack of measles and be over it in two or three weeks. He may have smallpox and get well in a month. One may have yellow fever and be well in ten days. But if a man has Bright's disease, chronic dyspepsia, enlarged liver, tuberculosis, consumption, or some other chronic malady, which is the result of a gradual deterioration of his body,—a gradual lowering of his vital powers so that he has been slowly coming down from a high level to a low level,—he must wait patiently until his vital powers are brought back to the high level, but it takes months and months for nature to accomplish this work.

The writer is satisfied that the time is rapidly approaching for an evolution—and a revolution—on this question of health. People are beginning to find out that we are dying very fast,—that the race is rapidly going down, that something must be done to arrest this tendency. People are discovering that their families are running out; that their own strength is decreasing; that their neighbors are dying prematurely; that there is something the matter with the world everywhere, and they are earnestly inquiring, "What shall I do to be saved from my dyspepsia, my bad liver, my sick-headaches, and my biliousness?" The thing to be done is to stop sinning; to repent, to turn about, to change your course of life.

You must live straight up to the line; eat no more beefsteak, no more mutton-chops, no more bacon, griddle-cakes, Welsh rarebit, omelets, fried eggs, Saratoga chips. But after you have crossed out of your bill of fare everything harmful, you have not crossed out a single thing that is desirable for happiness and strength, not one thing that is essential to the complete and full gratification of a wholesome and rational appetite. Why is it then that we like these harmful things? Simply because we have been trained and educated to do so from childhood. One lady to whom the writer made this statement said that she remembered teaching her little girl to eat meat. Think of compelling a child to swallow such things. There is a newspaper story of a preacher who snored; he slept with his mouth open and a mouse ran down his throat. When he awoke, he rushed for the doctor, begging him for relief, and it was two or three hours before the mouse was dislodged by the aid of emetics. Yet that same man swallowed a piece of dead ox every morning. Why should he be so afraid of a mouse? It seemed a very remarkable circumstance that a man who was accustomed to eating dead animals should be so afraid of swallowing live ones. Still there are many persons who would swallow half a dozen live oysters,—eyes, ears, stomach, intestines—everything—the whole oyster. It would seem that when people can enjoy eating oysters alive and squirming, they should not be distressed because a nice little mouse runs down their throat. The mouse is a very clean creature compared with the oyster. You have often seen a mouse wash his hands and face very clean, but the oyster never washes his hands and face; his business is to sweep the ocean's floor by consuming its slime and ooze and dirt.

A little girl was asked if she was a vegetarian. She had bright eyes and rosy cheeks,

and did not look carnivorous. "Why no," said she, "I ate a piece of chicken the other day." "Then you have been eating a dead hen!" "Oh, no!" she would n't eat a dead hen for anything, but she would eat a chicken. In this manner we hide behind certain forms of speech the awful thing we do when we bury the corpse of an animal in our stomachs. In the West people speak of "cow-meat." The idea of eating "cow-meat," dead cow, dead sheep, dead lambs, is enough to make one shudder. Is it not strange that we so accustom ourselves to these barbarities that they cease to seem barbarities, and we think that we are refined and fastidious while indulging in most revolting habits?

The Mormons, we find, are quite advanced, in some respects, in subjects concerning health. In the writings of Joseph Smith there is this statement: "Animals should be used for food only in the winter, in times of famine, and in extreme hunger." This is good doctrine so far as it goes. But nature has given us an abundant supply of good things, so that there is seldom an extremity so great as to require flesh food. When a person's stomach has been overtaxed by pie-crust, chow-chow, doughnuts, fried potatoes, fried mush, which is a very common breakfast dish, and other foods mingled with fats — when the stomach has become so worn out that it can no longer dispose of such indigestibles, one need not be unhappy, for nature has furnished him with many delightful, wholesome, and luscious things which he can enjoy without any compunctions of either conscience or stomach.

A Popular Error Refuted.

For a century at least the medical profession believed calomel to be a liver stimulant, and this idea has been considered by many one of the best established of medical facts, notwithstanding the doubt thrown upon it by the experiments of Dr. Bennett, of Edinburgh, more than half a century ago. Rutherford and others have repeated Bennett's experiments upon dogs, and have shown therefrom that calomel and mercury in all forms lessen the secretion of bile, and hence hinder rather than encourage the work of the liver. This has led to the substitution within recent times, of various other drugs in the place of calomel, with the idea that by these means the liver might be stimulated to increased activity, in cases in which it was supposed to be torpid.

But the truth of the matter is, the liver never is torpid. The liver never loafs, it never goes on a strike, it is never caught napping: it always does its duty to the best of its ability, it always works as hard as it can, or at least does all the work required of it so long as it has power to work. But the liver is a packhorse, it is loaded down with all sorts of trash, and is, in consequence, not infrequently overwhelmed, and has more work than it can do. Then if it happens to appear a little behindhand, notwithstanding it is making a heroic struggle against its embarrassment, an attempt is made to goad it to increased activity by heaping on more burdens, some of which, like mercury, act in a most powerful manner to lessen still further its ability to work.

According to a reliable French medical journal, *La Presse Méd.*, Doyon and Dufour report as the result of months of experimental research on dogs with biliary fistulas, that oil has a negative effect on the secretion of bile, calomel a decided inhibitory effect; and salicylate of sodium, while it increases the quantity of the bile secreted, lessens the density; the salts, etc., are reduced below the normal amount. The only active cholagogue is bile itself.

From the above it appears that not only mercury, but all other drugs as well, have been shown to be incapable of stimulating the liver to increased activity. The action of the liver is excited only by bile, the elements of which it is especially endowed with ability to recognize. But a man who is already secreting too little bile would hardly expect to be cured by ingesting more bile, consequently better means of dealing with the so-called torpid liver must be found.

The best way of dealing with a liver of this sort is to give it an easy chance.

ANSWERS TO CORRESPONDENTS.

Galvanized Iron Bread-Trough.— Mrs. C. S. H., Virginia, asks, "What would be the probable effect of using a galvanized iron trough to raise bread in a bakery?"

Ans.— There will probably be no especially bad effect.

Food for Warmth.— W. H. N., Illinois, asks what sort of food one can eat to keep warm. He rarely "catches cold," but his hands, especially, are always cold. He wishes to know the cause?

Ans.— The patient needs more fat and blood. We recommend nut foods, especially such prepared nut foods as malted nuts, bromose, and sterilized butter.

Eczema.— J. W. H., Kentucky, desires a remedy for eczema in a boy thirteen years of age.

Ans.— The child's digestion is doubtless disturbed; very likely he has a dilated stomach. He should adopt a fruit, grain, and nut diet. Apply zinc ointment for the relief of the eczema.

Nutritive Value of Pears — Sponge Bath.— G. C., New York, inquires, "1. What is the nutritive value and digestibility of pears as compared with apples? 2. Is a salt sponge bath with vigorous rubbing beneficial in equalizing the circulation of the blood?"

Ans.— 1. Pears are not quite so digestible as apples; their nutritive value is practically the same.

2. Yes. This is one of the most valuable of all remedies for improving the circulation.

Pin-Worms.— C. P. O., North Dakota, has been troubled with pin-worms for three years, and greatly desires to find relief.

Ans.— Soak a pound of quassia chips in a gallon of water overnight. Boil for an hour. Cleanse the bowels by a thorough enema, using two or three gallons of water. After passing the water off, inject a quart of the quassia solution. Retain fifteen or twenty minutes, and then pass off. Repeat this experiment every day for a week, and then, after an interval of a week, repeat the treatment. A second or third course of treatment is often necessary to effect a complete cure. We have never known the remedy to fail.

Freckles.— E. T. M., Kentucky, wishes to know if there is any way to toughen the skin so it will not freckle.

Ans.— No.

New Nerves and Skin — Bay Rum — Red Nose — Benzoin — Lydia E. Pinkham's Compound.— A. D., Illinois, would be glad to have the following questions answered: "1. What is the best means of getting a set of new nerves? 2. What exercise will produce a new skin? 3. What is the effect of bay rum and New England rum on the hair? 4. What causes the hair to split? 5. How can it be prevented? 6. Is soap good for the face? 7. Does it improve the complexion to wash in hot and then cold water? 8. What causes the nose to become red on exposure to the cold? 9. What is the remedy for a poor circulation? 10. What is the effect of benzoin on the complexion? 11. Is there a book published on massage? 12. Can massage be taken at home with advantage? 13. What do you think of Lydia E. Pinkham's Compound?"

Ans.— 1. By a general constitutional renovation, induced by living upon a pure diet of fruits, grains, and nuts, and taking plenty of sleep and vigorous out-of-door exercise.

2. All sorts of vigorous exercise are advantageous to the skin. The hot and cold bath, followed by rubbing, especially promotes skin renovation.

3. If freely used, the effect is extremely injurious.

4. Poor nutrition of the hair, which produces excessive dryness.

5. It is claimed that searing the ends of the hair will prevent its splitting.

6. The use of soap, such as genuine Castile soap, is wholesome.

7. Yes. The circulation of the skin is increased and the complexion thereby improved.

8. Temporary paralysis of the small vessels of the skin.

9. Proper diet, abundance of sleep, and daily exercise in the open air.

10. It has an injurious effect.

11. Yes; it is published by the Modern Medicine Pub. Co. It is very fully illustrated, and is the most scientific work of the kind now in print.

12. Yes, if administered by a skilful masseur or masseuse.

13. We have no faith in it.

Pop-corn — Elderberry Wine.— W. A. W. asks: "1. What is the nutritive value of pop-corn? 2. Of elderberry wine? 3. Will you kindly give a recipe for making elderberry wine?"

Ans.— 1. Its nutritive value is about the same as that of corn, eighty-six per cent.

2. The juice of the elderberry is wholesome; but it contains only a very small proportion of nutriment. If allowed to ferment, it is entirely unwholesome.

3. We have had no experience in this line, but would not recommend the business of wine-making. The juice of elderberries may be preserved by canning in the same manner in which fruit is canned.

Crackers with Nuts.— M. P. B., Kansas, asks for a recipe for making graham and oatmeal crackers with nuts so that they will be crisp and tender.

Ans.— Sterilized nut butter used as shortening is excellent, leaving nothing to be desired for this purpose.

The Oxydonor.— H. L. B., Michigan, seeing our reply to a correspondent in the December number of this magazine in regard to the oxydonor, asks why it is that two persons cannot rest in the same bed when one wears the oxydonor.

Ans.— Because the person has a lively imagination.

Bronchial Asthma.— Mrs. C. S. M., Massachusetts, asks: "1. What is the best treatment for bronchial asthma? 2. Bicycle proves a relief, but is there not some way to ward it off when wheeling is impossible?"

Ans.— 1. A change of residence to a warm, dry climate.

2. Avoid taking cold, keep the stomach healthy, live out of doors, and adopt a simple dietary, consisting of fruits, grains, and nuts.

St. Vitus's Dance.— J. H. M. writes: "What treatment would you recommend for St. Vitus's dance? The patient has been troubled with it for twelve months, and is constantly jumping."

Ans.— The gravity of this disease depends much upon the age of the patient. In a person of advanced years the disease is extremely difficult to cure. Young persons can usually be cured by a few weeks' treatment.

Corrosive Sublimate on Potato Vines.— W. H. B., Wisconsin, asks if the practise recommended by the Experiment Stations as a cure for scab, of soaking the potato eyes in corrosive sublimate before planting, is likely to make the crop unwholesome, as is stated of Paris green.

Ans.— No.

Nervous Dyspepsia.— A. C. B., New York, asks: "1. Are sugar, butter, salt, milk, tea, and coffee injurious to a person seventy-nine years old who has been troubled with nervous dyspepsia more than forty years? 2. Is cereal coffee a good substitute for tea and coffee, or is it best not to drink anything at meals?

Ans.— 1. Certainly. All the articles mentioned should be discarded, with the exception of salt and milk, which may be used in moderation, though in some cases milk does not agree with aged persons, and salt should be used in very small quantity.

2. Cereal coffee is a wholesome substitute for tea and coffee, but it is not necessary,— in fact, it is well to dispense with all drinks at meals.

Wood-Alcohol Fumes.— M. E. S., Nebraska, wishes to know if the fumes arising from wood-alcohol used in taking a vapor bath are unhealthful.

Ans.— Such substances should be avoided when possible, and it is possible to obtain all the effects of a hot bath without exposing one's self to the poisonous products arising from the combustion of wood-alcohol.

Diabetes.— W. C. W., Illinois, is greatly troubled with constipation of the bowels, being obliged to eat enormous quantities of coarse food to keep them open. He asks: "1. Are pop-corn and pecans, ground together, a good food combination? 2. Is the sediment which settles to the bottom of wild grape juice injurious?"

Ans.— 1. Yes.

2. The sediment referred to is composed chiefly of tartaric acid in combination with soda and potash salts. It has no nutritive value and should be discarded.

Perspiration of the Feet — Acne — Cold Cream.— E. S. L. C., Illinois, asks: "1. What can be done to prevent an unnatural perspiration of the feet in a child who seems to be otherwise perfectly healthy? 2. What will cure a mild form of acne — enough to make the nose red in cold weather? Would you advise the application of any lotion? 3. What is the best kind of cold cream to prevent roughness of the skin of the face in cold weather? 4. Is olive-oil good for the skin?"

Ans.— 1. Bathe the feet alternately with hot and cold water a few seconds at a time, alternating eight or ten times, morning and night. Afterward carefully dry with a towel and apply powdered starch, boracic acid, or subcarbonate of bismuth.

2. Improve the general health by every possible means. The cold bath is one very excellent means, or the spray employed directly to the nose is useful. A hot solution of bichloride, 1–1000, carefully applied with a sponge once or twice daily is also useful.

3. Cocaine made from vaseline is best.

4. We have never recommended olive-oil for application to the skin for the reason that it easily becomes rancid and produces a disagreeable sensation. Fine, white vaseline is better.

Sore on the Ear.— J. W. F., Wyoming, has been troubled with a sore on the outer rim of the ear for twelve years. At times it is extremely sensitive, and then again almost disappears. Please give probable cause and treatment.

Ans.— The difficulty is probably eczema of the ear. Apply a hot spray to the affected part for ten minutes twice daily, afterward applying zinc ointment.

Child's Diet.— H. G. S., Pittsburg, writes: "1. Do you consider it advisable to give beef tea and mutton broth to a child three years old who is suffering from catarrh of the stomach and bowels? 2. If not, what would you suggest in their place in connection with granose and granola?"

Ans.— 1. No.

2. Malted nuts dissolved in either hot or cold water.

Food Combination — Age of Infant.— Mrs. R. M. F. wishes to know: "1. Do legumes and stewed or canned fruits make a good combination? 2. Between what ages is a child called an infant in a medical sense, as referred to in GOOD HEALTH and other medical journals?"

Ans.— 1. Fruits and legumes,— that is, such seeds as peas, beans, and lentils,— are, for healthy persons, not an unwholesome combination; but for a diseased stomach swarming with germs, it is better to take the fruit by itself, or in a combination with grains.

2. Between birth and three years of age.

Mouth Sores.— M. W. N. desires to know the cause and cure of sore spots on the tongue and mucous membrane of the mouth.

Ans.— The causes are, indigestion and probably hyperpepsia. These symptoms occur occasionally in hypopepsia.

Cost of Living.— W. B. W. is interested to know if the "writer" referred to in our January issue as living on six cents a day "for months" had a menu that consisted of all the necessary nutritive elements in the right proportion to sustain life for more than "for months."

Ans.— It is possible for a person to live indefinitely on a diet consisting of fruits, grains, and nuts, and at an expense not exceeding six cents a day, if the right foods are selected and purchased at the right season.

LITERARY NOTICES.

"THE Toiling of Felix" is the title of a poem by Dr. Henry Van Dyke, of the Brick Church, New York, published in the April *Scribner's*. This poem is of especial interest as having for its theme a new saying of Christ, "*The blessing of earth is toil.*" It is appropriately dedicated to Walter A. Wyckoff, the author of "The Workers," a remarkable serial begun in the March *Scribner's*. This serial differs from all previous accounts of slums and slumming because the author actually lived the life for months on the same conditions as the poorest. He raised himself from the vagabond class by the only door that is open to them — the door of labor. The narrative, however, is not an economic discussion, but an absorbing — often dramatic and pathetic — account of *actual* people and experiences. In describing a visit to a typical Chicago "dive" Mr. Wyckoff says: "The naturalness and untrammeled social ease have blinded you for a time to what you really see, and then the black reality reveals itself in human degradation below which there is no depth — as though lost, sexless souls were already met upon a common plane of deepest knowledge of all evil. And yet in very truth they are living fellow men and women, in whom have centered the strength of natural love and hope, and centers still the constraining love of a Heavenly Father."

No name is more familiar to the readers of *McClure's Magazine* than that of Ida M. Tarbell. Miss Tarbell has been a contributor to the magazine from its foundation. Her "Life of Napoleon," begun in the November number, 1894, and finished in the April number, 1895, was by far the most successful feature the magazine had had up to that time. It was largely surpassed, however, a few months later, by Miss Tarbell's "Early Life of Lincoln," and her history of the later life of Lincoln seems likely to have even greater popularity.

This will begin publication in the November number, 1898. For the last two years Miss Tarbell has been engaged in gathering new material and pictures relating to Lincoln's life from the time of his nomination to the presidency at Chicago, in 1860, to his death by the hand of Booth, five years later. It is a short period, but the material is immense, and Miss Tarbell will present in the fullest manner the personal, human side of the great war president, and the movements of the war as they centered in or emanated from him.

"WHEN night comes, beds are prepared," says K. Mitsukuri in the March *Atlantic*. Bedding is brought out from the closets where it has been put away during the day. One or two large thick *futons*, or cushions, are spread directly on the mats of bedrooms, and coverings which look like enormous *kimono* or clothes are spread over them. Every traveler has told of the pillow made of a wooden box with a little cylindrical cushion on the top, but this kind of pillow is going out of fashion. Softer cylindrical pillows, made by stuffing a cloth bag with husks of buckwheat, are now more commonly used. In the summer it is necessary to have mosquito nets, which generally enclose the whole room.

As a rule, Japanese families retire early. Ten o'clock is about the average time. Eleven is considered late. A function that begins at nine or ten and lasts till the small hours of the morning fairly staggers the Japanese. "Why," they say, "even ghosts, who are *comme il faut*, retire by that hour."

IN the illustrated magazine numbers of the *Outlook*, are being published some extremely interesting articles relating to the municipal activities of the new city of New York. The first of these appears in the March magazine number, and deals with "The New York Fireman," treating especially of his heroism, but also of the efficiency and mechanical accuracy of the working of the department. The author of the article is Mr. James R. Sheffield, ex-president of the New York Board of Fire Commissioners. Some very striking full-page pictures have been drawn for this article by Mr. Chas. T. Hill.

PUBLISHERS' DEPARTMENT.

FOR more than thirty years this magazinehas stood as an exponent of the most advanced principles of hygienic reform, and has maintained upon scientific and practical grounds the superior advantages of a correct dietary, proper dress, and obedience to all the laws of health. Since its organization thirty-two years ago, the world has made much progress along these lines. This journal has without doubt contributed not a little to the progress which has been made, but another most potent and far-reaching means for the dissemination of the principles of healthful living has been the health department of that vast and noble organization, the Woman's Christian Temperance Union.

Several other departments besides the one mentioned have also contributed more or less to the successful promulgation of these principles. The Woman's Christian Temperance Union may most justly be regarded as the greatest organization of women ever created, and one of the most effective systematic efforts which has ever undertaken to purify the social swamp and to promote the principles of rational and healthful living.

The recent death of Miss Frances E. Willard has called universal attention to this great organization, of which she was the leader. The May number of GOOD HEALTH will be devoted especially to the work of the Woman's Christian Temperance Union along the lines of hygienic and sanitary reform. The frontispiece will be the famous "Evangeline picture" of Miss Willard. There will be a beautiful tribute to this great woman, and an estimate of her character, by Bishop Vincent, of the Methodist Church. This will be of especial value to White Ribbon women, who have always been deeply interested in the attitude of these two leaders toward each other. Mrs. Katharine Lente Stevenson will contribute a poem.

There will be a symposium of leaders in social reform, giving side-lights upon Miss Willard's work as a reformer; also, quotations from Miss Willard herself upon hygienic and sanitary topics. "The W. C. T. U. in Hygienic Reform" will be the title of an article by Mary Henry Rossiter, showing what the organization has accomplished in that work through different departments. This article will be illustrated with half-tones of different leaders, among them, Dr. Sarah Hackett Stevenson, Mrs. Mary H. Hunt, Dr. Louise C. Purington, and Dr. Mary Wood-Allen.

A sketch and photograph of Mrs. L. M. N. Stevens, the new president of the W. C. T. U., will be another attraction. Besides these, the regular features of the magazine will appear.

THE special attention of those who receive this number is called to the dinner menu for Sunday, March 27, which appears in this number. Special pains are taken to prepare the bills of fare with reference to the needs of the mind and soul as well as of the palate. The dishes prepared according to recipes given are not only tempting to the palate, but comforting to the stomach, and well received by it, and best of all, are capable of making good brains and nerves, thus creating a healthy body, to be the temple of a healthy soul and a sound mind.

WE are happy to learn just as we are going to press, by a letter received from Dr. Anthony, superintendent of the Claremont Sanitarium, near Cape Town, South Africa, that arrangements have been made for the publication of a health magazine in that part of the world, to be known as *The South African Health Journal*. There is a splendid field for such a journal, and we believe that its publication will be the means of accomplishing a splendid work in the diffusion of health principles.

WE learn that two very fine electric-light baths which have been constructed for the sanitarium located at Sydney, N. S. W., Australia, are now nearly completed, and will shortly be shipped to that distant land. An electric-light bath is also being constructed for Honolulu.

THE Battle Creek Sanitarium Health Food Co., are just now putting in additional facilities for the manufacture of their cereal specialties. Crystal wheat has proved so great a success that it has become necessary to manufacture it on a larger scale in order to supply the demand, and the new machinery which has been constructed expressly for the purpose will soon be in place ready for business.

DR. J. H. GINLEY, of Coopersville, Mich., who was for several years connected with the old Health Reform Institute, between 1870 and 1875, has recently been spending a few days at the Battle Creek Sanitarium. Dr. Ginley has been for more than a quarter of a century a vegetarian, and although far advanced in years, is still actively engaged in his profession.

WE have received the first number of a health journal recently started in Melbourne, Australia, for the Australasian field, under the editorship of Dr. Edgar Caro, formerly connected with the Bat-

tle Creek Sanitarium, but now engaged in medical missionary work in Australia and New Zealand. The *Herald of Health* promises to be a wide-awake representative of the important principles out of which have grown the sanitariums and medical journals now so widely scattered over the globe.

THE Chicago Workingmen's Home is being removed to larger and better quarters, near the corner of Thirteenth and State streets.

MACHINERY for the manufacture of granose cakes and flakes has recently been shipped to Copenhagen on one side of the earth, and to Australia on the other side, in both of which countries this unrivaled food will soon be offered for sale.

A CLASS of thirty medical students, who have been engaged in their studies in the Medical Missionary College in Chicago, have recently returned to Battle Creek, and have resumed their various places in connection with the work of the Battle Creek Sanitarium.

A HEALTH food company has recently been organized in London, Ontario, for the manufacture and sale of health foods, under license from the Battle Creek Sanitarium Health Food Co. The purpose of this enterprise, as that of all similar enterprises connected with the Battle Creek Sanitarium management, is purely philanthropic.

DR. P. S. KELLOGG, who two years ago was sent to Honolulu by the American Medical Missionary Board to establish a sanitarium and mission in that city, but who was obliged to return for a time on account of ill health, has recently gone back to Honolulu, where he will resume the work in which he was there engaged. His successor, Dr. Rand, has been called to Australia.

THE representatives of GOOD HEALTH at work in organizing Schools of Health in Memphis and Nashville, Tenn., report a very excellent interest among the most intelligent people of these cities. The principles for which this journal stands are gaining ground daily in all parts of the civilized world, wherever they have been introduced. A brief experience with a regimen based upon the principles which have been advocated by GOOD HEALTH for more than a quarter of a century is sufficient to convince the most skeptical of their intrinsic worth, and wherever they are introduced they have the ready adhesion of the most intelligent and conservative class of people.

A SUMMER SANITARIUM ON STATEN ISLAND.

FOR several months the Battle Creek Sanitarium has been planning the organization of a sanitarium at Prohibition Park, Staten Island, during the present season. The sanitarium will open between May 1 and 15, and will remain open for four or five months,— so long as patronage warrants. A summer School of Health will be held in connection with the sanitarium. Patients will have the advantage of all our sanitarium facilities and methods. Two competent physicians, Dr. and Mrs. Nicola, from the Battle Creek Sanitarium, will have charge of the medical work, assisted by a corps of well-trained nurses. Staten Island is a delightful summer resort, very popular with New Yorkers, and the location selected is one of the most favorable on the island. The management of the Battle Creek Sanitarium have been led to undertake this enterprise by encouragement given by Dr. I. K. Funk, of Funk & Wagnalls, publishers of *The Voice* and by his colleagues in the management of Prohibition Park. It is to be expected that the enterprise will be a great success. The announcement will be ready soon.

THE Battle Creek Sanitarium Health Food Co. has, for some time, found itself embarrassed to fill the orders pressing in upon it. Although it has, for a long time, been sending out regularly more than a thousand dollars' worth of its choice products daily, larger facilities are demanded. It is not the plan of this company to centralize its efforts in Battle Creek, but rather to start centers in various parts of the country. Probably one or two additional plants will, before long, be organized at points in the East and South. The American people are a nation of dyspeptics, and thousands of them are finding out that the products of the Battle Creek Sanitarium Health Food Co. and its sister institutions are proving almost a panacea for most forms of indigestion. The Health Food factory at the College View Sanitarium, also the St. Helena Health Food factory, report themselves as having hard work to supply the demand for foods.

THE editor has just returned from a somewhat extended trip in the West in the interests of sanitary and dietary reform, and sanitarium and medical missionary work. We have only space for a few brief notes relating to the work being done at the various places visited.

At Lincoln, Neb., we found the Nebraska Sanitarium brimful of patients and overflowin into one

of the college dormitories near by. Drs. Loper and Cleveland have their hands quite full looking after their increasing family of invalids, who come from all parts of the region lying between the Rocky Mountains and the Mississippi, and sometimes from the East, to enjoy the salubrious climate of this elevated prairie country. It would be impossible to find air of greater purity than that which sweeps over this great undulating region, lying just east of the foot-hills of the Rockies. Its elevation of about fifteen hundred feet gives it a special adaptation to a large class of invalids whose systems have become debilitated by long exposure to the infected water and air of the low-lying regions of the Mississippi Valley. If the people of Texas, Missouri, Louisiana, were thoroughly acquainted with the exhilarating and health-giving properties of Nebraska air, it would be impossible to accommodate the multitudes that would be flocking thither for both summer and winter residence.

After standing at the operating-table from 11 o'clock in the forenoon until 11:30 at night, the writer hastened on his journey, and the next day found himself at the beautiful Colorado Sanitarium in Boulder, Colo. This institution is without doubt the most valuable place for the consumptive to be found on earth at the present time. Its appointments are equal to those of any sanitarium anywhere, its location is one of the most delightful that can possibly be found. The institution owns a whole mountainside, and overlooks a vast extent of most delightful and varied scenery. He found here a large and enthusiastic company of patients, a fine class of missionary nurses, and everybody hard at work to make the institution a success. The health food factory, which has recently been opened, is getting into good running shape, and promises to do a thriving business. The jobber for the company, Mr. Mc Whorter, who acts as distributer for the factory, having an office in Denver, expects to dispose of the entire output of the factory, and the present prospect is that larger facilities will soon be needed. Dr. Riley, Dr. Reed, Mr. and Mrs. Druillard, Mr. Wilcox, and others of the faculty and management of the institution, are all stanch supporters of the principles which it represents, and are enthusiastic in their efforts to disseminate light and knowledge among the people. The Boulder Sanitarium is truly a beacon on a hill. Its light is shining out over the whole United States, and the wonderful work which is being done here in the cure of cases of pulmonary tuberculosis and other forms of chronic diseases which under ordinary conditions are incurable, will, in time, be recognized in every civilized country. There is a great future before the Boulder Sanitarium.

The next stopping place was at Salt Lake City, where the writer had an invitation to speak in the great tabernacle, Sunday afternoon, February 13. About seven thousand persons were present, an audience which could scarcely be reached by a single voice in a building not possessed of the marvelous acoustic properties for which the tabernacle is celebrated.

From Salt Lake City we took the Oregon Short Line to Portland, where we found the Portland Sanitarium just completing some quite extended and very excellent improvements under the supervision of Dr. Wm. Hubbard. The medical faculty of the institution has just been re-enforced by the arrival of Dr. Mary Heileson from the Battle Creek Sanitarium. The prospects before this institution are most excellent. With its improved facilities it will unquestionably gain in influence and usefulness. Portland and the large country tributary to it constitute a splendid field for sanitary and philanthropic work, and we are glad to find that the institution already has established itself so well in the confidence of the public and acquired so large and intelligent a patronage.

After a pleasant stay of three or four days in Portland, we hastened south to California and spent a few days at the St. Helena Sanitarium. This institution is delightfully located at the head of the Napa Valley, and certainly commands one of the most charming outlooks of any institution we have ever visited. Drs. Sanderson and Moran and their associates are laboring to raise the institution to the highest possible level as regards rational and scientific methods, and their efforts have been so largely successful that the institution is rapidly gaining in the confidence of both the medical profession and the people on the Pacific Coast, and a growing patronage is assured. The institution now has between seventy-five and one hundred patients under treatment, and we find a large class of young men and women undergoing training for the medical missionary field. A branch has recently been opened in Oakland under the immediate charge of Dr. Moran, which already has a thriving patronage.

After a two days' visit at Fresno and vicinity, the writer returned home, spending a day in Salt Lake City to address the Woman's Club and the students of the Utah University. The day's program included also a vegetarian dinner.

After another brief stop at Denver and a day each in St. Louis and Chicago, the writer was home again, having been absent a month and one day.

In addition to the sanitariums the writer visited on his trip medical missions which have been recently established at Lincoln, Neb., Denver, Colo.,

Portland, Ore., Salt Lake City, and San Francisco. All these missions he found engaged in active and most efficient humanitarian work. An effort is also being made to organize missions in Kansas City, St. Louis, Butte, Mont., Oakland, Atchison, Kan., and other places. A spirit of philanthropy and reform seems to be in the air. Never before did the writer know so many people ready to devote their lives, their energies, and their means to the cause of helping humanity to a higher level of physical, mental, and moral living.

SANITARY PROGRESS ILLUSTRATED.

NOTHING in the forthcoming International Health Exposition to be held next May will show more strikingly the remarkable progress accomplished during recent years than the Trained Nurses' Educational Exhibit, which will undoubtedly interest and attract thousands of visitors.

The immense contrast between the cart which was used by Florence Nightingale in her hospital rounds during the Crimean War, and the latest perfected ambulance for conveying private patients to or from their homes, is to be noted in every department of this interesting display, which is being arranged by a committee representing all the training-schools of the metropolis, with many of those of other cities. Their graduates, who number not far from 10,000 women, when compared with even the best and most experienced nurses of the past, seem like West Point cadets opposed to volunteers. Sairy Gamp and Mrs. Harris are creatures of the past, and in their place the disciplined, experienced, and capable nurse inspires the patient and the patient's friends with confidence, and is an invaluable ally to the physician.

Among the most noteworthy features of this part of the exposition may be mentioned an exhibit of the latest medical and surgical appliances for the sick-room side by side with the obsolete instruments and make-shifts of the past. There will be shown a model operating-room in a hospital, and one arranged for surgical cases in a private dwelling. All the appurtenances of a sick-chamber will be represented, with an ideal nursery, where practical instruction will be given daily. In another place will be shown a corner in the babies' ward of a hospital, together with a hospital play for convalescent children. There will be an orthopedic room, and an ophthalmic room, also a room arranged for treating contagious cases. A diet kitchen will be reproduced, and the methods of district nursing in the tenements, together with first aid to the injured, illustrated.

Another interesting feature will be a model suite of living rooms for nurses in their homes, tastefully and simply furnished. Military hygiene will be illustrated by ancient and modern ambulances and by hospital field tents arranged in the style of the American Revolution, during the Civil War, and according to modern practise.

There will be a competitive exhibition for prizes to be given for the best sick-room record kept by a nurse for the attending physician, for the daintiest arrangement of an invalid's tray, for the best designs for articles to be used in the sick-room, and for a nurse's traveling bag, to hold her uniform, with convenient pockets for the thermometer and other instruments.

Among the institutions represented will be the training-schools connected with the following hospitals: New York, Presbyterian, Bellevue, St. Luke's and Mt. Sinai, together with their Alumnæ Association, with the Post-Graduate School and Nurses' Settlement. It is expected that the large training-schools at Chicago, Boston, Philadelphia, Washington, Hartford, Buffalo, and other cities will also be represented, while many prominent society and philanthropic people have consented to act as patronesses of the nurses' exhibition.

WE receive most enthusiastic reports from the Schools of Health which have recently been established in St. Louis. Leading physicians of the city and other prominent citizens have taken a deep interest in the work, and have aided greatly in promoting it. In St. Louis and elsewhere there is among the most intelligent people an earnest inquiry, "What shall we do to be saved from the horrors of indigestion and premature decay of the mental and physical powers, and from that nondescript malady which is becoming generally known abroad as 'American nervousness'?" Miss Butler, who organized and ably conducted the work in St. Louis for some weeks, has been called to another important field, and the work is now in charge of Miss M. L. Coy, who has had a number of years' experience as a medical matron and a teacher of physical culture in the Battle Creek Sanitarium. She is ably assisted by a corps of trained workers from the Battle Creek institution. Several leading citizens have requested the Battle Creek Sanitarium management to establish treatment rooms in St. Louis, offering to raise several thousand dollars for the purpose. The enterprise will probably be inaugurated some time in the near future.

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REDUCED FREIGHT RATES FOR SETTLERS.

IN order to encourage the movement of settlers and land buyers from Illinois, Wisconsin, Iowa, and the Eastern States to Western Minnesota, South Dakota, and North Dakota, the Chicago, Milwaukee & St. Paul Ry. Co. has very materially reduced its carload rates for emigrant movables, so that farmers who have purchased lands in Western Minnesota, South Dakota, and North Dakota can take all their belongings with them to their new homes at small expense. This inducement on the part of the Chicago, Milwaukee & St. Paul Ry. will no doubt be greatly appreciated by those who are thus benefited.

For further information apply to any representative of the Chicago, Milwaukee & St. Paul Ry., or address J. H. Hiland, General Freight Agent, Old Colony Building, Chicago, Ill.

HOME-SEEKERS' EXCURSIONS. — On April 5 and 19, 1898, the Chicago, Milwaukee & St. Paul Railway will sell round-trip excursion tickets (good twenty-one days) from Chicago, Milwaukee, and other points on its line, to a great many points in South and North Dakota and other western and southwestern States, at greatly reduced rates. Take a trip West, and see what an amount of good land can be purchased for the least money. Further information as to rates, routes, prices of farm lands, etc., may be obtained on application to any coupon ticket agent, or by addressing the following named persons: W. E. Powell, Gen'l Immigration Agent, 410 Old Colony Bldg., Chicago; H. F. Hunter, Immigration Agent for South Dakota, 291 Dearborn St., Chicago; or George H. Heafford, General Passenger Agent, Chicago, Ill.