



GOOD HEALTH

AUGUST, 1903.



The Dedication of the Battle Creek Sanitarium — *Illustrated.*

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Editorial.

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THE NEW BATTLE CREEK SANITARIUM

GOOD HEALTH

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THE DEDICATION OF THE BATTLE CREEK SANITARIUM

FOR more than thirty years this institution has been the center of a great educational, philanthropic, and reform movement, and one of the most interesting as well as important events in the history of this work, was the dedication of its new main building, May 31 and June 1, 1903.

When on the 18th of February, 1902, the two main buildings in which the work of the institution was carried on were destroyed by fire, its friends and promoters felt that they had sustained an irreparable loss. But it was soon to be demonstrated that the truth, indestructible and undying, was motive and capital sufficient to surmount what at first had seemed insurmountable. And the great new Sanitarium building with its efficient equipment to-day stands as a splendid memorial of the hold that the principles which it represents have taken upon the hearts of the men and women who have come within its circle of influence.]

The task set before the management in the rebuilding of the Sanitarium, was no light one. Every detail must be discussed, every feature of the building must be as nearly perfect as possible in order to insure the comfort of the helpless invalids who would later make it their home. Past defects must be improved upon, future imperfections guarded against, if possible. It meant

many earnest prayers, many hours of deep thought and consideration, many days of serious council, study, and debate. The plans were finally selected, the foundations begun, and on May 11 1902, the corner stone was laid amid impressive ceremonies.

In spite of unavoidable delays the building rapidly neared completion, and the date for the dedication was set for May 31 and June 1, 1903.

The State officers as well as the city authorities were interested in issuing invitations to the dedicatory exercises. Governor Bliss consented to be placed on the program, and though unable at the last moment to be present, sent a representative in the person of his private secretary, Major H. E. Johnson. President Roosevelt, Attorney-General Knox, and Secretary-of-War Root sent messages of congratulations and regret that they were unable to be present. Governors Toole of Montana, Cummins of Iowa, Durbin of Indiana, Smith of Maryland, Pennypacker of Pennsylvania, Bates of Massachusetts, White of Dakota, Dockery of Missouri, and Mickey of Nebraska, also acknowledged their personal interest in the occasion in appropriate terms. Hon. Perry F. Powers wrote a special article to the press, calling public attention to the work of the Sanitarium and the coming dedicatory event.



THE FRONT WAS MADE GAY WITH BUNTING AND FLAGS.

The Sanitarium management sent invitations to all old patients and to many others. Of course all could not personally respond to these invitations, but the hundreds of letters received was sufficient proof of the world-wide reputation of the Battle Creek Sanitarium, and ample evidence of the deep respect with which its work is regarded at large.

Early on the morning of the dedication day, crowds began to gather, and the busy workmen could scarcely find time or space to complete the final details. The building was not entirely finished, but enough had been done to fit it for occupancy and to insure the success of the occasion. The central front of the building was made gay with red, white, and blue bunting and national flags. A temporary platform for the speakers of the day was erected

at the main entrance. Flanking this on either side were seats for the physicians, nurses, and other employes of the institution, while the musicians, consisting of a stringed orchestra and a chorus of nurses under the direction of Professors Martin and Barnes of Battle Creek, occupied the balcony above.

The rolling lawn had been newly sodded and was beautifully green, while ornamental palms, ferns, and blossoming plants added to the richness of effect. The reception committee and the ushers were kept busily employed in looking after the thousands of visitors who thronged the building. By 2:30 p. m. the spacious lawn, the reserved seats on either side of the speakers' stand, the extensive porches, and the public way were filled with eager crowds. The day was perfect, and all felt that in

every way this was an auspicious occasion.

One of the prettiest sights in connection with the whole event was the procession of nurses and matrons which formed on the college grounds opposite the new Sanitarium building, and marched through the audience to reserved seats at the right and left of the speakers' stand. The matrons in their usual cream uniform, the nurses in blue and white, and the gentlemen nurses clad in new white-duck suits presented a sight which moved the audience to one simultaneous burst of applause.

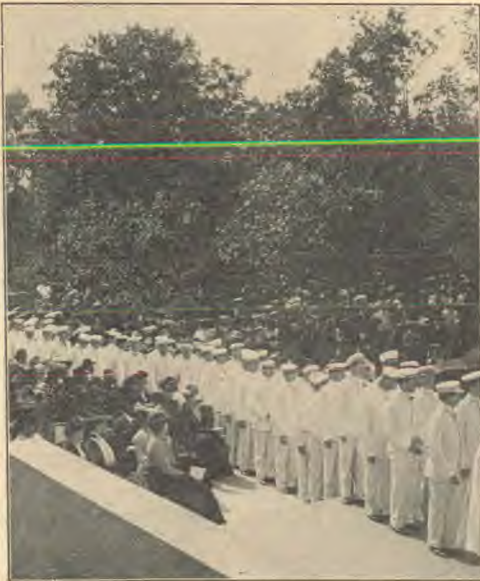
Hon. Perry F. Powers, auditor gen-

We are celebrating to-day a glorious victory, the dedication of an institution that will make life better and the term, 'a citizen of Michigan' a prouder title than ever."

Hon. H. E. Johnson, private secretary to Governor Bliss, expressed on behalf of that gentleman his interest in and appreciation of the work of the institution and conveyed His Excellency's greetings and congratulations on the occasion of the dedication.

An appropriate, responsive Scripture reading (Psalms 66 and 67) was here introduced, led by Elder Alonzo T. Jones.

Prof. M. V. O'Shea of the University



THE MARCH OF THE NURSES.

eral of the State, presided over the afternoon's exercises and introduced the various speakers with his usual eloquence. "It should be our boast" said he in his opening speech, "that there has come into our national and individual lives a realization of the fact that he gains most for himself who gives out most, from whose life comes the greatest benefits to those about him.

of Wisconsin gave a masterly address on the "Battle Creek Idea in Therapeutics and Hygiene," in which he showed the intimate relation of the mental, moral, and physical in man. So many excellent thoughts were contained in this address that we reproduce it in full elsewhere in this issue.

The next speaker, Prof. F. N. Scott of the University of Michigan, was at



one time private secretary to Dr. Kellogg, and still retains kindly memories of and an ardent admiration for the principles of righteous living as demonstrated at the Sanitarium.

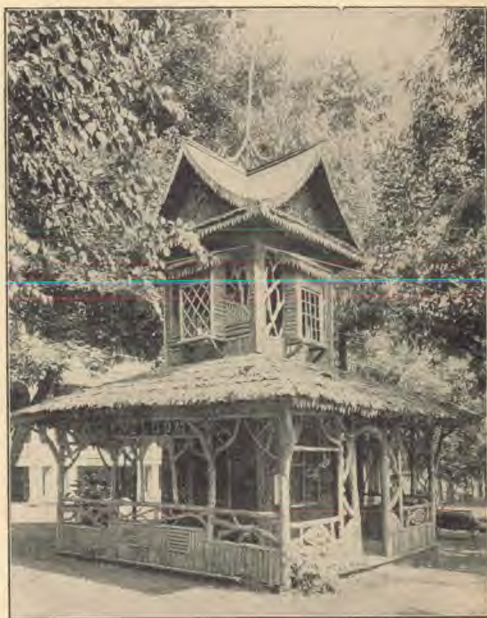
Mayor Webb of Battle Creek and Hon. S. O. Bush extended their heartiest congratulations and good wishes to those who had so assiduously labored to erect the splendid building in question, and complimented the city on its fortunate possession of the same.

Hon. E. C. Nichols, a staunch friend of the Sanitarium, spoke at some length on the growth and development of the institution. His address will be found in full on another page, as is also that of Representative Washington Gardner who spoke in his own impressive way on "Symmetrical Development in Our Modern Civilization."

Of the rebuilding of the Sanitarium Dr. Chas. Stewart spoke in particular, and gave at length the formal preparations and plans for the location and erection of the new building and a statistical report of the materials composing it. This was as follows: 7,500 barrels of lime, 15,000 barrels of cement, 1,300,000 pounds of structural iron, 850 square feet of heat radiation, 3 miles of steam pipes, $14\frac{1}{2}$ miles of conduits for electric wires, $2\frac{3}{8}$ miles of water pipe, 183,700 square feet of mackolite fire proofing, 7 acres of fireproof floor, 10,000 loads of sand and gravel, 400,000 marble chips, and $22\frac{1}{2}$ acres of plastering. Payments for labor amounted to \$110,647.47, giving as total cost of the building between \$400,000 and \$450,000.

Greetings on behalf of the Sanitarium family were presented by Dr. John Morse. "Let us consider for a moment," said he, "what dedication means. Literally, it means, to hand over, to deliver; technically, it means,

to consecrate to some special purpose or use. Are the things that we are doing and saying to-day dedicating this building? — No; it is a far deeper, greater, and grander work than that, typified as it might be by the construction of a building, and more beautiful perhaps in the growth of the tree — including the seed-planting, the growth of the roots, the trunk, the branches, and the leaves. The seed



A SURVIVOR OF THE FIRE.

of this institution is planted in the heart and cherished in the time of adversity's winter, blossoms in the springtime of the soul's awakening, and at last comes the harvest of the soul's complete consecration when the life is entirely dedicated to God and humanity.

"The completeness with which this work has been going on in our hearts, my friends, determines the meaning to us of this dedication day. If in our busy, everyday life, we have found time to cherish those things that are noble and true,—the helpful word, the

kindly greeting, the deed that never is seen, but helps someone,—if that shall be said of our lives, if not in the past, yet from this day forth, this shall in truth be a day of dedication, and we can go forward doing the work that comes to our hands with that mind and spirit that shall make us minute men and women for God and humanity."

The concluding speech of the afternoon was by the superintendent of the Institution, Dr. J. H. Kellogg, and we present it in full:—

Mr. Chairman, Friends and Fellow-Citizens: I should do violence to my own feelings and violence to the truth, if I did not at once disclaim all right to any compliments or any commendation. I feel that there is but one thing concerning which I should be congratulated, and that is, that I have been so fortunate as to know the truth upon

which this institution is founded. As far as the building of the institution is concerned, the credit of that belongs to the men whose calloused hands, whose aching muscles, and whose tired backs bear witness to the toil which has made this structure what it is. The laboring men, the carpenters, the masons, the men who have wheeled the wheelbarrows, the men who have piled up these bricks and mixed the mortar, and the men who gathered in the money necessary to meet the bills, the men who have cheered us on as we have been laboring to bring together the materials and the means and to make the plans,—these are the men who deserve the credit for this building. As far as I am concerned, I am glad to say that I have never for a moment thought about "duty;" I think if I had thought of duty I might have done differently, but



DR. J. H. KELLOGG SPEAKING

I have thought only of the delight, the pleasure, the satisfaction, and the good fortune which I have had in having the privilege of laboring here; and I am sure, in what I say of myself I speak also for my colleagues

and for my comrades who have been bearing the labor and the toil; I cannot take any compliment or any commendation to myself.

I wish, my friends, that you would not look upon this building as a great structure which you have come here to dedicate; I want you to look at something greater—I want you to see the great principles, the great truths, for which this institution stands; and I feel that you do see them, otherwise you would not be here at this time. There are buildings far greater than this; there are buildings far more beautiful than this; there are structures in every respect superior to this. I feel that your presence here to-day, the presence of these distinguished gentlemen upon the platform, and this great multitude gath-



JUST BEFORE THE FIRE.

ered about these steps, is an evidence that you do recognize the ideas for which this institution was planned, and that has been what has brought you here, and that your presence here is an approval of these ideas and of what we have undertaken to do. And I do not want you to look upon this institution as a monument to any one or to any class of men or to any body of men. This institution is more than a monument, my friends. It is erected here as a sort of lighthouse to warn human mariners off the shoals of disease and destruction; it is erected here to be a light to the world, to this city, to this county, to this State, to the world, as far as these truths and principles can be made to stand out.

What these principles are, you know, and what these ideals are, you know; I will not occupy your time in rehearsing them. I thank you again for your approval, as shown by your presence here to-day. And I wish also to thank these distinguished gentlemen who have left their burdens of state, who have left behind their cares and their great responsibilities, and have come here at no small expense and trouble to stand up beside us to aid us in holding up these ideals to the world. I thank you, and



IN THE STATIC ROOM.

thank the building committee who have done most of the labor. I have stood aside, having many other things to do, and have looked in only occasionally to do such things as I might be able to do; but the most of the work has been done by others. I want to thank my colleagues and members of the medical staff of the Sanitarium who have toiled so faithfully to hold up these principles and this work amid disaster and difficulty. I want to thank these faithful nurses who have so earnestly persevered in their work under the most difficult and perplexing conditions and circumstances. I want to thank the various branch establishments in other parts of the world who have helped by their encouragement and in many other ways to sustain us in our hour of trials and perplexities. And I want to thank the members of the common council of this city, the mayor, and the members of the Business Men's Association, the railroads; in fact, all the citizens of this city who have offered us such cordial sympathy, help, and encouragement. It was this encouragement that inspired

us and enabled us to arise and build. If it had not been for that note of courage which was given us at that time, I assure you, my friends, we never would have dared to undertake what has since been done. The kindly spirit which has been shown us is a guaranty for the good-will which shall be extended to us in the future, and the support which has been given us in the past is a guaranty to us of the support which you will continue to give us—not because we are worthy, or because we are doing in ourselves and of ourselves any good thing, but because of the grand work which this institution represents, of which we are simply the humble instruments.

I am very glad to say to you as a Christian man, that the building committee and the board of directors of this institution as well as hundreds of others who are interested in it, have builded this building upon our knees; we have earnestly asked God to send us the things necessary for this purpose, and those things have come, day by day and week by week, just at the opportune



AN EVERYDAY SCENE ON THE LAWN.

moment, when it seemed to us we were at the end and could go no further. And so we are able to present this building to you,—not as our work, but as God's work, and we ask you to accept it as such.

We learn later that at the same hour that the dedicatory exercises were being held at the mother sanitarium, the branch institutions were holding sympathetic services, at which topics on hygienic and sanitary reform were interestingly discussed.

At the close of the afternoon speeches the visitors were invited to the spacious dining room and there served with refreshments, and from that time until the opening of the praise service in the evening the corridors, stairways, and grounds were thronged with sightseers discussing the one absorbing topic of the day.

The Evening Praise Service.

For two hours before the time of service, a steady stream of people was making its way through the doors of the great S. D. A. Tabernacle, and by 7:30 the large assembly room was packed to the doors, not even standing room being left for late comers. The rostrum had been extended, and on this were seated the Amateur Musical Club under the direction of Prof. Edwin Barnes, Professor Martin's string orchestra, and several of the local clergy who had dismissed their own meetings and with their congregations united in this service. The spirit of the occasion was unmistakably that of praise and thanksgiving.

Elder A. T. Jones presided, and made the opening address on "Religion and Health," in which he quoted many Scriptures directly bearing on these important subjects.

The pastor of the First Methodist



AT THE FRONT ENTRANCE.

Church, Rev. D. D. Martin, spoke on "Divine and Human Co-operation," from which we glean the following excellent thoughts:—

"We are in a Christian land, where the whole realm of human living is influenced by the gospel of Christ. . . . The more exalted our sense of human dignity the more careful we become of every need and interest of our whole being. . . . This day and gathering is an outgrowth of sympathy in a practical way with the suffering of earth. . . . Institutions, like truth and doctrines, to be of value must be born in the character and revelation of the Divine, else they cannot serve to lift men into a higher sphere of living and thinking. . . .

"The day of controversy is past; this is an age when character and purpose must speak, the greatest man is not to be measured by a creed or called simply by the name of a sect, his limitations embrace the universal brotherhood of



MORNING GREETINGS IN THE PALM GARDEN.

all flesh; he is known by the name of his God, for God and humanity are in all his thought, and in such a fellowship he becomes great. Then his life takes on large purposes, and the disposition of the Divine, the over-ruling of Providence, becomes the very breath of his life as he yields himself on the altar of service to his fellows. From such lives have great institutions been built and the best work for the world has been carried on."

Rev. W. S. Potter of the Presbyterian church gave some good points in a comparison of "The Old and the New," of which we can speak but briefly:—

"The goddess of yesterday is Memory; the present has no particular divinity, and the goddess of to-morrow is Hope. Memory is a granary with seed for to-morrow's sowing. Memory is an armory for to-morrow's battle. Memory is a library with knowledge for to-morrow's emergency. The rain that fell yesterday disturbed the roots of the flowers, and to-morrow it will reappear

in blossoms laden with fragrance. The new and the old are thus counterparts, complementary — supplementary, if you please — to each other. . . .

"The genius of the new is Hope. From the ruins of the old has come forth the magnificent temple that stands upon the hill, and which to-day has been dedicated with appropriate exercises; and thus, as in God's Word we are told that in the day of resurrection we shall lay aside the old garments, and arise to newness of life and glory and power, so the new building has arisen out of the grave of the old in newer splendors and greater proportions."

Addresses were also given by Rev. John Crouch, Rev. Wm. Osborne, Mr. Chas. Roe of Chicago, and Elder S. H. Lane.

These speeches were replete with good things relative to the union of divine and human agencies in producing better living and better relations. The meeting was closed about ten o'clock, all feeling that it had been a grand success.

Monday, the second day of the dedication ceremonies, was devoted to a study of the immense building, with its multitude of unique and interesting features, to reunion meetings of old patients, ending up with a grand health banquet in the evening.

All day long little groups of persons were to be seen threading their way along the corridors, each in charge of a medical student or assistant physician, inspecting with wonder and interest the ingenious methods by which absolute protection from fire has been secured; the numerous medical offices, with the special electrical and other appliances for treatment of the eye, ear, and other special organs; the wonderful bath rooms affording facilities for the treatment of more than a thousand persons annually; the beautiful dining room with the great panorama of beautiful scenery spreading out over a hundred square miles about the building, affording a continual feast to the eye while the appetite receives satisfaction from the healthful dainties spread out

sands of guests who all day long poured in streams through the grand lobby into the spacious corridors of the immense structure.

In the afternoon the visitors from abroad gathered in the grand parlor for a reunion and experience meeting.



PATIENTS' SUPPLY AND POST OFFICE.

Numerous interesting experiences and reminiscences were related, in which there was a universal note of gratitude for the grand truths which have made possible this beneficent institution and its marvellous work of healing which for more than a third of a century has been carried on here. Many thousands owe their lives, their health, their happiness, their success, to the healing power of the simple life and the natural curative forces which are in this institution set in operation in so many varied and efficient ways.

Grand Health Banquet.

The program provided for a health banquet on Monday evening for the special purpose of bringing together in a social way the numerous friends in Battle Creek and vicinity who had contributed to the building of this noble instrument of philanthropic purposes.

An early evening hour was selected as the only time when those whose kind generosity it was desired to recognize could be gotten together on account of the obligations of business and occupation.



A PEEP INTO THE BANQUET HALL.

beneath the grand artistically decorated dome of the immense dining hall.

There is not space here to tell of the new and wonderful things which surprised and almost bewildered the thou-



THE GRAND STAIRCASE.

A thousand invitations were sent out; more than two thousand came, and all were fed and made welcome.

The spectacle of this opening night was one never to be forgotten. The brilliantly lighted lobby, with its shapely pillars, delicately tinted walls, tastefully decorated ceiling, the beautiful flower

balcony filled with palms and flowering plants, wreaths of green foliage, red, white, and blue bunting, American flags, the long line of ceiling lights in the halls stretching out in a straight line from end to end of the building more than five hundred feet, the grand staircase of marble and iron, the beautiful palm garden in full view from all parts of the lobby, the ushers and attendants hurrying hither and thither, the ever-increasing multitude of faces as the hour approached, made a scene which could neither be photographed nor described. Only those who were present can possibly appreciate the impression made on the participants in this great occasion, so fraught with significance for the cause of truth, the enlightenment of the ignorant, comfort for the sorrowing, help for the despairing, relief for the suffering.

Long before the hour announced had arrived the grand lobby was filled with a hungry multitude eager to test, most



THE GRAND PARLOR.



THE DINING ROOM.

of them for the first time, the gustatory qualities of the health regimen, as developed by a quarter of a century of effort on the Battle Creek Sanitarium platform.

When the hour at last arrived the grand dining room which had been extended into the solarium adjacent, was quickly filled. A thousand sat down together and were quickly served by a hundred and fifty well-trained waiters.

The hearty relish manifested by the diners showed their appreciation of the viands. The toastmaster, Hon. J. L. Cox, presided in a most admirable manner, and the brilliant speeches made in response to the various toasts were greatly appreciated, as shown by the vigorous applause which followed each address.

While the first thousand guests were being served an equal number were being entertained in the gymnasium by

the music of a fine orchestra, a gymnastic exhibition by the nurses and medical students, and feats of skill by Mr. Siegel, who is an expert mandolin artist.

The clearing and refilling of the dining room and serving immediately a second thousand was accomplished in a manner which was highly complimentary especially to the waiters and cooks who seemed to be prepared for every possible emergency. All exerted themselves to the utmost to make the occasion a success, and that it was such, was certainly due to the cheerful and hearty co-operation of the little army of men and women who constitute the Sanitarium corps of workers. All took hold with a will to accomplish the apparently impossible, and succeeded to the satisfaction of such a multitude as has seldom been gathered on any similar occasion.



LOOKING DOWN WASHINGTON AVENUE.

THE BATTLE CREEK IDEA IN THERAPEUTICS AND HYGIENE

BY PROF. M. V. O'SHEA

STUDENTS of human nature understand very well that primitive and ignorant minds always reason about complex things by analogy. They liken some complex object, as the mind or body, to some simple object with which they are familiar, and ascribe to it the characteristics of the simple thing, and deal with it in the same manner. Thus the mind is said to be a field that should be harrowed, or an edged tool that should be sharpened. And in treating the mind, men have been guided by these physical conceptions. In education they have taken the child out of his natural life, and put him within four walls with a book in his hand, and sought to fill his mind, or sharpen it, or polish it, or strengthen it. If the child rebelled against this treatment he was forced to it by either gold or the rod.

The history of education for the last few centuries is but one long story of an effort to break away from the artificiality of the past. It is the story of an effort to find out nature's designs and purposes and methods, and work in harmony with them, not contrary to them or indifferent to them. The modern educator strives above all else to make his treatment of the mind rational by endeavoring to ascertain its structure and possibilities, and then dealing with it in accordance with its natural characteristics.

And what is true of the way men have reasoned about the mind, and the conceptions that have determined their treatment of it, is even more true of the way they have reasoned about the body and have treated it. The most primitive people regard disease as due

to the malevolent influence of bad spirits, and the witch doctor and medicine man seek to appease these spirits or exorcise them by incantations, magic, sorcery, enchantment, and the like. Diseases can be cured by wearing rings or amulets or performing some feat which the bad spirits command. Children, like primitive people, seek to cure their warts, for instance, by rubbing a potato or bean on them, and then burying it. When it decays, the wart is supposed to decay with it. Primitive minds cannot think of disease as due to the perversion of some function of the physical organism. Such people do not study the delicate mechanism of the human body in order to find out how it was designed to work, what treatment will preserve it in its natural condition, and how when the natural function is perverted it may be restored and health regained. They rather spend their time devising new modes of warding off spirits by charms or humoring them or driving them out of the body by pain.

One of the means of driving out bad spirits which primitive man has adopted, is to make the sufferer swallow some of the vilest tasting concoctions that can be constructed. The demons within him cannot endure this and will make their escape. Even in our own day among civilized people this old primitive idea has not been entirely abandoned, and men are still required to swallow concoctions that are well designed to drive out any spirits that may have taken up their abode in his body. But a better day is dawning; the physician, like the teacher, is coming to

place more faith in nature. He is giving less attention to the study of drugs and more attention to the study of the way in which the human organism functions naturally, and how this natural functioning may be preserved, and restored when it is once lost. Thus his treatment is becoming effective because it is rational. Investigation as well as experience demonstrates that every function of the human organism is related to every other function. It is a complex body with an almost infinite number of members each related to the other, and depending upon it and influencing it in return. Under natural conditions every member works in harmony with every other, and the result is perfect health, for the organism is then in best working order. It is capable of accomplishing the most, of preserving itself most securely in the world in which it lives. But under the conditions of civilization, particular modes of living change more readily than the organism does, and the latter is often thrown out of gear, so that the harmony of function between the various organs is destroyed, and then disease results.

The physician is coming to realize to-

day that the essential requisite for regaining health when it is once lost is to restore the original harmony of the bodily functions, and this can be accomplished effectively only by working in accord with nature, by following nature's methods. The results being reached to-day by experimental medicine all seem to corroborate the statement that an organism becomes diseased only when it tries to do what it was never intended to do, and a condition of health can be regained only when it adopts the natural mode of living again. This is what Pope means when he says that "health consists with temperance alone." If any organ does not discharge its office aright in the body, then therapeutic methods seek to discover what it was intended it should do, and how nature provided it should be stimulated to do just this thing; and then the physician follows the hint given by nature and tries to restore the lost function in the way in which nature would. Everything goes back ultimately to nutrition, clothing, rest, and exercise. When the body is not working right there is something going wrong with it in respect of one



VIEW FROM THE DINING ROOM.

or another of these functions, and the error must be corrected. Under modern conditions of living we often prevent Nature from working along her own lines, and so a wise physician is needed to assist us to return to right ways of living. He understands what organs are working wrongly when disease overtakes us, and by what rational means he may win them back to their rightful function. In this way he not only restores the original harmony in a diseased organism, but he indicates modes of living which will prevent disease by preserving the original harmony.

Now this magnificent institution which we dedicate to-day is a grand and glorious exponent of rational methods in therapeutics and hygiene. It is the leader in the great movement to adopt natural methods in the cure of disease and in the conduct of daily life. In its laboratories it is striving ever to add to the sum of human knowledge regarding the way in which the human body is constructed and the manner in which every member thereof serves the whole most effectively. And then it seeks to

discover what alterations occur in the work of any organ in cases of disease; and finally it aims to discover by observation and experimentation how members that have fallen out of tune, as it were, may be brought back into harmony with other organs. This institution has developed a great system of rational hygiene, and its influence is spreading to every corner of the earth. Go where one may in this or in other lands and you will find those who are loud in their praises of Battle Creek, for it has taught them how to live so that they may not only have health and strength, but also that they may through rational living feel in tune with the Infinite.

And the Battle Creek Idea gives prominence to another principle of health which all modern science is leading us to believe is of the utmost importance. In an older day the mind and body were thought to be quite independent of one another, but to-day we realize that they are inseparably joined together, and what influences one must influence the other. A diseased mind must produce a diseased body. The



AT THE SANITARIUM VILLA, LAKE GOGUAC.



A PLEASANT CHAT IN THE PARLOR.

misanthropist who wishes evil to his fellows, and so is estranged from them, can never have a really vigorous, healthful body. His unbalanced mind disturbs the delicate harmony of the temple in which it dwells. And so in healthful living and in the cure of disease the right mental attitude is of primary concern. The mind must be filled with hope; life must be regarded as sacred and worth the living; there must be good cheer and optimism. "To wish to be cured is part of the cure," says Seneca. "Health and cheerfulness mutually beget each other," says Addison. Those who are the representatives of this system exemplify these qualities in their own lives and seek to establish them in the lives of those with whom they deal. One feels the better side of things here at Battle

Creek; he feels the unselfishness of those who seek to help him, and their genuineness; he feels their devotion to higher ideals and their trust in things good and true; and this healthful, harmonious feeling becomes contagious. Out in the world there is struggle and tension and selfishness and avarice and backbiting, and one whose soul is afflicted with these diseases must have a corrupt body as well. He who plots against those about him, plots against himself as well. Health is simply the condition of harmony of the organism with its environments; and this cannot exist when one is dominated by hostile emotions toward his fellows, or when he does not live and work in accord with his fellows. This is the lesson taught here, and practiced by all who have adopted Sanitarium principles.

Every well-wisher of humanity will pray that this great institution may be prospered in the future even more than it has been in the past. He will pray that its influence may be spread abroad over all lands, through all countries, and among all peoples, and so develop a higher type of living everywhere.

THE GROWTH AND DEVELOPMENT OF THE SANITARIUM IDEA

BY HON. E. C. NICHOLS

IT is peculiarly pleasant to a resident of Battle Creek to hear such words and commendations as have fallen from the lips of the speakers here to-day. It does sometimes happen, as you know, that a prophet is not without honor save in his own country. But I hold, and I think I speak the full sentiment of the people of this city when I say it, that this principle does not apply to the work of the Battle Creek Sanitarium and its corps of workers, physicians, and managers. If men are to be judged by words of praise and good fellowship, as well as by the acts of their fellow townsmen, I assure you that those connected with the institution, and the institution itself, are not lacking in anything that should make them satisfied and happy in that respect.

Of course we all realize that a unique and certainly very uncommon thing has been done by this people here in Battle Creek. When this work began in a little cottage which stood on this very ground, there were but few people who held any such idea,—that the body is a temple, and that man must do nothing which shall defile this temple of God. These ideas were at first looked upon, perhaps not with derision, but certainly with very great indifference. As far as I know, nowhere in the wide world has there been so much made of that idea as right here in this little city of Battle Creek.

I have spoken of the uniqueness of this institution, I must not forget to call your attention to one very remarkable circumstance connected with this work, and that is, that all this property,—all these buildings, all the profits, all this great work that is being done by this people,—is a direct contribution to the great cause without carrying with it any personal profit whatever. I think a statement of this kind, in view of what it really means, ought to be carried to the farthest ends of the world. I know of nothing like this in the history of co-operative work,—no attempt at paying dividends or large salaries, but simply the carrying on and extension of a great work in the best possible way.

I hope that all the people may finally come to a better understanding of what this proposition means, in the way of self-sacrifice,—the giving up, practically, of all the ambitions that enter into a young man's life,—on the part of nearly all the employees, managers, and attachés of this great institution. We have been living, as you know, in a commercial atmosphere, and are apt to think that everything must be measured by the success which each one has in the getting together of property. And how difficult, how very difficult, it is for us to persuade ourselves that men of talent and of genius, men who are capable of occupying and filling the highest positions of trust and honor and

profit in the land, will, of their own free will and choice, divorce themselves from all possibility of such a thing in the young and earning time of life, and give themselves wholly to this great and beneficent work.

A few months ago, a gentleman came here to make me a short visit, a wealthy merchant of Venice, Italy, whom I had met while abroad. He is a very wealthy and accomplished gentleman, who for many years has given himself, his time, and his great fortune to the study of biology and kindred subjects, — to everything relating especially to nutrition and all science bordering upon that line of work. This gentleman is well known to all the great scientists of Europe. He came here to study, in a quiet way, the methods that obtain in this Sanitarium. This was since the fire; he came here during last autumn. I was gratified and impressed by the statement which he then made, and which he has since more than confirmed by numerous letters saying substantially this: "I have visited all the great scientific laboratories of Europe; I am familiar with all the tabulated work that has been done in nearly all the great hospitals of Europe, and I am surprised, I am amazed, I am almost confounded, to find that in the Battle Creek Sanitarium laboratory, in its analytical work, in its chemical work, and in other work done by the Battle Creek corps of phy-

sicians and chemists, they have far exceeded anything that I have ever known in Europe. They are not only far ahead as to things that they have actually discovered, but they have taken the data which has been furnished them elsewhere, and they have carried their experiments far beyond those of any other medical scientists in the world."

This only goes to show the truth of what has already been said upon this platform,— that there is in this institution a spirit, a something, which does not belong to the ordinary establishments of its kind. So I hope that this record will show, as it will, that this institution does not stand on the same level with the ordinary or average institution, imbued, as it is, with that spirit so rare, and yet so very important, that it carries on its work on a plane and at an altitude in my judgment unknown to any other state or country.

I think this great assemblage will agree with me that it is wonderful that out of a very small beginning should arise this magnificent structure which carries with it the spirit of self-sacrifice, devotion to duty, and the ability to go on with the work, regardless of obstacles which would not only shock but paralyze the average man, thus furnishing another, and if possible, a stronger reason why we may hope that this work should be continued, and will be continued during all coming years.

SYMMETRICAL DEVELOPMENT

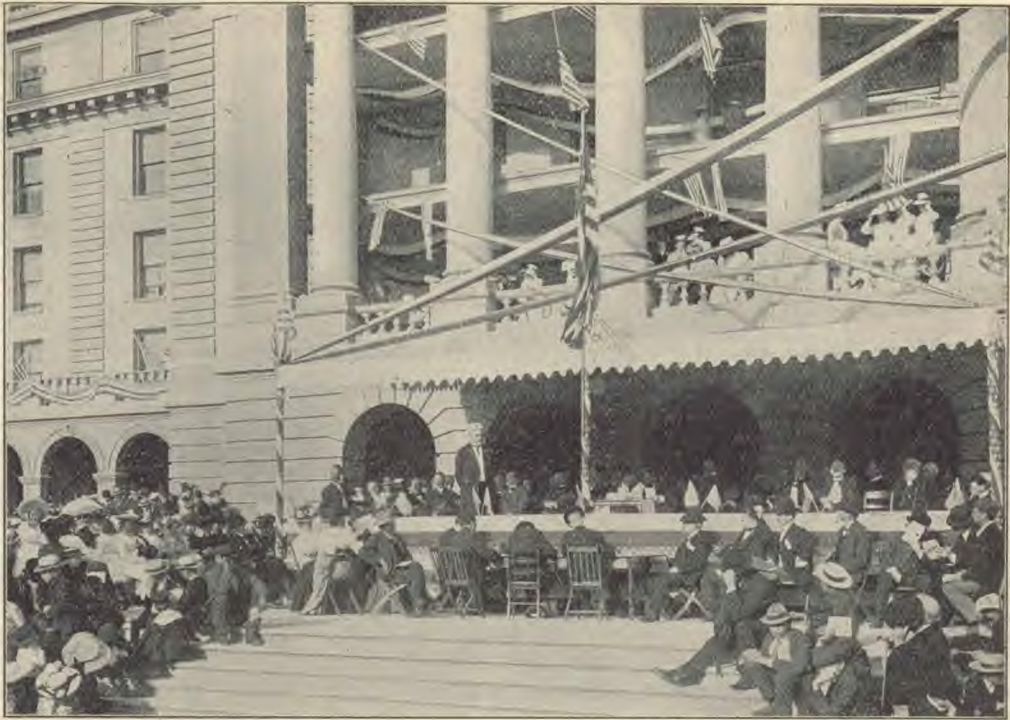
BY HON. WASHINGTON GARDNER

THIS occasion is interesting and instructive in particular, because it represents the tendency to symmetrical development in our modern civilization.

We are apt to derive not only our conceptions, but to form our conclu-

sions largely from the standpoint or view from which we make our observations.

As we observe these institutions in the broader field of national life, our growing and already vast population,



THE MAIN ENTRANCE AS IT APPEARED ON THE DAY OF DEDICATION.

our area increasing until it is but second among the great powers of the globe, our population rapidly advancing to first place, our wealth first among the mighty nations of the globe, our great enterprises fostered and built up by corporate wealth, our colossal fortunes accumulated by individuals,—as we look from that standpoint of view, Europeans as well as Americans claim that we are “bond mad” in search of the material and temporal in the development of that which conserves only for time and sense. And yet, my countrymen, that is but one standpoint of view, for from those colossal fortunes in the last twelve months two men have given more accumulated wealth for the upbuilding of American institutions founded upon lofty ideals, than all the accrete wealth gained in a like period of time fifty years ago. Great wealth means great

giving, and no country is better deserving the credit of that than the United States. In education, in eleemosynary institutions, in all that pertains to the esthetical, to the intellectual, to the moral, to the symmetrical development of the man—that trinity in which God created him—the civilization of America is moving forward and upward. Over all we see, “*In hoc signo vincit*,” and above all, the voice of the great Commander, “Go ye and disciple all nations.” When in the history of the nations, has the missionary, the teacher, and the nurse gone with the soldier in the battleship, not only to carry, but to build up a new and better class of civilization, except in our time?

These, my countrymen, are some things that we ought not to forget, and yet we are to-day gathered in the interests of an enterprise which is, as has

been well said by one speaker, unique. We are in the presence of those who have labored for this institution and its work until it is known in every civilized country on the globe, without money, without pay, with nothing but a lofty ideal, with a consummate purpose and with singleness of devotion.

What an inspiration for a young man! The opportunities are not all in the past. They are here. They lie along the pathway of your life, young man,—seize them.

May this institution not only grow and develop here in Battle Creek, may it not only build monuments to the physicians and nurses and the consecrated people who have made this institution possible,—build monuments of restored health to the weary and worn traveler in life's journey who has fallen out by the way,—but may it build other monuments by multiplying itself as it has in our own and in other lands, until the world shall be girdled with the idea involved.

MEMORIAL DAYS

The Dedication of the Battle Creek Sanitarium

BY HON. PERRY F. POWERS

[The following generous tribute from the pen of the Auditor General of the State of Michigan will be appreciated by our readers who are acquainted with the philanthropic aims and efforts of the Battle Creek Sanitarium. The article was written and published before the dedication took place.—ED.]

THE incidental or the accidental observations of an hour sometimes afford interesting material for long-time and serious reflection. An opportunity utilized by the writer to recently make a brief visit to the Battle Creek Sanitarium and to learn something of what the men and the women who are officially connected with that splendid Michigan institution had done and what they are doing and are seeking to do, resulted in information which added greatly to our sympathy and interest in the dedication event of the thirty-first day of May.

The Battle Creek Sanitarium is not a state institution as far as state control and state appropriations are concerned. It adds nothing to the burden of state taxation, and requires from no citizen payments of rates or taxes to provide for its helpful existence; but it is a worthy and most desirable state institution from every other point of view. It has assisted in spreading the name and fame of Michigan throughout the

civilized sections of the globe; and in far-off South Africa and Australia and New Zealand, in all the great commercial centers of Europe, and in the islands of the sea, Michigan is known, and the acquaintance will be increased through the establishment of other similar institutions related directly and indirectly to the greater and older establishment at Battle Creek.

This view will further explain to the people of Michigan and to others who know something of this great enterprise, why the forthcoming dedicatory event is considered one of state-wide interest and has been given official recognition and official approval. Invitations signed by Governor Bliss and other official representatives of our state government have been sent to the governors of other States and to members of legislatures and to representatives of municipal governments throughout the United States and to foreign countries, requesting their attendance at the exercises attending

the dedication of the great building which has arisen from the ashes of the structure destroyed by fire on that February night in 1902.

A Great Missionary Training-School.

By those familiar with the work of the world in that direction, the Battle Creek Sanitarium is said to be the first institution of its kind. It was established thirty-seven years ago by a little coterie of earnest men possessed of mutual purposes and sympathetic enthusiasms. There is more than a little in the work as then entered upon to suggest the famous Brook Farm experiment of 1841, but the experiment which down in Connecticut more than sixty years ago resulted in financial failure, bringing disappointment to Ralph Waldo Emerson, Amos Bronson Alcott, Nathaniel Hawthorne, George Ripley, Charles A. Dana, William Henry Channing, and others of its members, has in Battle Creek, Michigan, in this later period, resulted in a success so pronounced as to make its methods and its theories the accepted standards of like institutions throughout the world.

An important public purpose fulfilled by the Battle Creek Sanitarium and one

which gives it especial value to Michigan and our neighboring states, is the service it has rendered as a training-school for physicians and nurses. Michigan is proud of its great University at Ann Arbor, and the hundreds of thousands of dollars annually required to meet the expenses of that great educational institution are cheerfully paid from the pockets of the people in order that its great work may be continued and its progress encouraged. Yet it can hardly be said that less value has come to our State from an institution such as the Battle Creek Sanitarium, which has sent out over one thousand nurses and physicians, trained and equipped, not only through demonstrations of the laboratory and discussions in the class room, but by anxious days and nights of careful and conscientious service in the practical battle against death and disease. The Sanitarium Nurses' Training-school was organized in 1884, and has grown to be the largest training-school for nurses in the world. All these nurses and physicians have been trained to go out as missionaries into the dark places of the earth, devoting their lives to the service of God and humanity.



REAR VIEW OF THE MAIN BUILDING.

A Great Self-Supporting Charity.

In another respect has the Battle Creek Sanitarium proved to be a most desirable state institution. When the institution's books were examined in March of last year by an official committee representing the Business Men's Association and the Board of Aldermen of Battle Creek, who desired to possess direct information touching its past work, they found that \$103,647 had been expended by the institution within the preceding three years, the period included in their examination, in behalf of charity patients. It was stated by the committee that the expenditures for charity referred to, often amounted to over \$40,000 a year.

The spirit which gave birth to the institution and which has made it of world-wide influence and value, seems yet to fully control the work and service of every official and every assistant. The Sanitarium's philanthropic disbursements, amounting to more than \$375,000, and the unusual work in that direction which it is constantly doing, has been done in great part as a result of self-sacrifice on the part of the doctors, nurses, managers, and many of the ordinary employees of the institution. The salaries of the physicians are actually less than the compensation of a locomotive engineer, and in many instances skilled physicians receive less than the hire of a common laborer. The compensation of a nurse is less than that of a district school-teacher, and it is stated that there are those among the physicians and managers who have served faithfully for many years without any monetary compensation whatever.

Possibly the ordinary reader may not understand the sympathies and the relations which suggest such sacrifices and secure such results. But if that be

true, he might also fail to comprehend the original and helpful elements in the treatment of disease, in the establishment of valuable theories of living and of life, and in the development and the dissemination of principles through the Battle Creek Sanitarium, which all the world acknowledges as valuable, even though all the world may not fully understand or accept them.

The fact that this work has for more than a third of a century been conducted in a broad and liberal spirit, defined by its charter as strictly non-sectarian and undenominational, devoted in the truest sense to the public interest, and the marvelous growth which the years have witnessed, attest the value of the ideal toward which the promoters of this enterprise are striving, and command the respect of all those who are interested in human welfare and progress.

Official Recognition.

It is because of the relations of the Battle Creek Sanitarium to the interests and progress of Michigan and to our entire country, as herein stated and as herein further suggested, that the dedication of the Sanitarium building on May 31 is deemed an event worthy of state recognition and state-wide interest. It is because of these things that the governor of Michigan has invited the governors and officials of other states to attend the dedicatory exercises; and it is because of the great work the institution is doing and is seeking to do that Governor Bliss, Senator Burrows, Congressman Gardner, and other gentlemen distinguished in official and professional circles in our own and from other states, have accepted invitations to participate in an event which splendidly marks the progress thus far attained in a unique work, and gives fitting promise for a future worthy of a past so deserving of commendation and encouragement.



A SUNRISE CONSTITUTIONAL.

ROWING AS AN EXERCISE

BY J. W. HOPKINS

THE great need of every man is plenty of work and play in the open air and in the sunshine; hoeing and digging in the garden among the plants and flowers, pulling weeds, chopping wood, — any work that will bring a healthful tingle to the nerves, and free perspiration with quickened circulation and respiration. The work which we really enjoy

most, that employment which brings with it the greatest amount of healthful pleasure is an out-of-door occupation, and is usually one which demands rather an unusual amount of trunk movements as well as arm and leg work. The value of the exercise may be determined by the benefit which it brings to the heart, lungs, digestive apparatus, and other



THE BODY SPRINGS BACKWARD.

vital organs, and by the mental influence of the surroundings in which the work must be done.

Judged in this manner rowing is a most valuable exercise, second only to walking, with which it should be combined to give an all-round development. Rowing calls for continuous bendings of the trunk, both forward and backward, thus increasing the size and strength of the waist and chest. Taken with a well-arched chest it strengthens the shoulder muscles and gives one a much better carriage.

The world in which we work while

hips, loins, back, shoulders, and arms. In rowing the ordinary boat, the leg muscles are used very little; with the sliding seat, however, the legs work vigorously. To take the stroke,—after grasping the oars, the arms are extended forward as the body is inclined forward. In this part of the movement the back is kept nearly straight, and the reaching forward of the arms is not allowed to depress the chest. A bad position is shown in Figure 2; the back curves forward too much, the head drops, and the chest is lowered. The head should also be kept lifted.



THE BACK CURVES FORWARD TOO MUCH.

rowing is well calculated to rest and refresh the mind. The water sparkling and splashing beside the boat, the trees standing tall and strong on the sides of the lake or stream, and the blue sky with its clouds and sun bring the confidence and uplifting of mind without which exercise is too often a monotonous grind.

Rowing increases muscular strength by employing the muscles of the legs,

After dipping the oars into the water the body springs backward as a bow does when the string is released, and the entire weight is thrown on the oars. The water acting as a fulcrum, the boat as the object to be moved, and the arms and body as the power, the boat is moved forward, the body is inclined backward, and the oars finish the stroke near the stern of the boat. As the stroke is finished the arms are bent,

the elbows being drawn well to the sides. The oars should not be dipped in the water too deep, neither should they be raised too high above the waves in reaching backward.

As the work in rowing is done mostly with the back muscles, of the body, a well-regulated daily program of exercises would include movements for the front of the body—abdominal exercises as described in *JULY GOOD HEALTH*. These should be taken twice or three times daily. And *breathe*—get all the

air you can into your lungs—breathe at least five hundred to a thousand deep breaths a day.

Rowing is a pleasing exercise, one well adapted to any age or to either sex. It is especially to be recommended to those who are seeking health. A walk of two or three miles, followed by an hour on the water, makes an excellent combination of exercise. Everyone can make the exercise vigorous or light as his own case or the occasion may demand.

THE INFLUENCE OF DIET UPON THE BRAIN

BY J. H. KELLOGG, M. D.

AN old German proverb runs, "As a man eateth, so is he." This ancient saying, though expressing a profound biological fact, may possibly be a parody upon a proverb of still older date, "As a man thinketh, so is he." Accepting the self-evident truth of both of these wise sayings, we find ourselves in possession of a new proverb, the logical outcome of these two: "As a man eateth, so he thinketh." The older orthodoxy regarded man as in a state of total depravity, prone to evil, and the soul the seat of every vice, the source of all sin. The theological teachers who were responsible for this doctrine evidently overlooked the fact that the wisest of Christian philosophers, Saint Paul, clearly enunciates the opposite thought. Said Paul, "Howbeit that was not first which is spiritual, but that which is natural; afterward, that which was spiritual." 1 Cor. 15:46. Paul distinctly puts the body first, not in importance, but in time. Physiology clearly teaches the precedence of the body in the develop-

ment of the human being. The palpitating, growing body exists long before there is the first beginning of mental or moral activity. The new-born child is simply a breathing, eating, sleeping bundle of living cells, incapable of intelligent action of any sort. Its movements are altogether automatic, governed by an intelligence higher than its own.

Mind and character are the products of an after development in which the body plays a fundamental part. Men long ago learned that muscles are made out of food, and that there is a most intimate relation between food and strength, between eating and capacity for muscular work. From the times of the ancient Greeks, when men were trained for public games and other contests, down to the present day, men in training for a special effort of any sort requiring an unusual exhibition of muscular power, have been required to submit to a rigorous restriction of their dietary to such foods as experience has shown to be best adapted to support

the highest degree of muscular activity and endurance. The most ignorant and unobservant peasant recognizes the intimate relation between the quality and quantity of the food supplied to his horse or his ox and the work which the animal can do.

It is strange indeed that so little attention has been given to eating in its relation to mental work. The majority of men give little or no attention to their eating except to secure a sufficient amount of food possessing the right sort of palate-tickling flavors to satisfy hunger and taste, without considering what quality or quantity of food stuffs will best support the muscle and nerve activities in which they may be engaged. A starved brain must be a weak brain, and incapable of the highest degree of activity. Nevertheless, in a starving man the brain remains active when the muscles have lost their power, by reason of the fact that, recognizing the paramount importance of cerebral activity, nature robs the rest of the body to feed the brain. The brain of the overfed man, on the other hand, may be crippled through the clogging influence of the imperfectly oxidized waste substances which paralyze the brain cells and cloud the intellect.

The body is like a furnace. The food substances taken into it are burned, or oxidized, in the body just as is coal in a stove or a furnace. The products of combustion escape from the furnace through a smoke pipe or chimney. So the products of vital combustion or oxidation escape from the body through the lungs, skin, and other excretory organs. When too large an amount of food is taken, the situation of the body is the same as that of a stove or furnace which is overcrowded with fuel; the combustion being incomplete, volumes of smoke are produced which choke the

fire, and may extinguish it. An excess of food fills the body with organic smoke or imperfectly oxidized waste substances, of which uric acid is the best-known representative, and of which rheumatism, neurasthenia, or nervous prostration, neuralgia, nervous headache, bilious attacks, apoplexy, paralysis, and various other disorders are the natural results.

The body is a factory of poisons. If these poisons, which are constantly being produced in large quantities in the body are imperfectly removed, or are produced in too great quantity as the result of overfeeding, the fluids which surround the brain cells and all the living tissues are contaminated with poisonous substances which asphyxiate and paralyze the cells, and so interfere with their activity. This fact explains, in part at least, the stupidity which is a common after-dinner experience with many persons, and with some people who are habitually gross eaters, is a confirmed, ever-present state.

This is as true of the brain as of every other organ. A brain which receives impoverished blood is hampered in its activities. A brain surcharged with blood is, on the other hand, over-excited. The result may be sleeplessness and irritability, even frenzy, mania, or insanity. If the blood is charged with irritating substances, the organs through which it circulates will be naturally exposed to abnormal irritation, excitation, and disturbance of function. A brain receiving too large a supply of blood must suffer first and most in this regard. Whatever is taken into the stomach and absorbed, enters the blood and circulates through the body. The odor of nicotine which hangs upon the breath of the smoker, the alcoholic odors which emanate from the body of the inebriate for many hours

after he has ceased drinking, are evidences of this.

Bouchard has shown, by incontrovertible evidence, that the changes which often take place in the stomach and intestines when in a state of indigestion resulting in fermentation and putrefaction, give rise to poisonous substances which, when absorbed into the body, may produce effects entirely similar to those produced by strychnia, opium, alcohol, and other well-known drugs. When food is retained in the stomach beyond the normal time, either because of its indigestibility, the taking of too large a quantity of it, or a crippled state of the stomach, these changes are certain to take place. This fact explains a very large share of the myriad symptoms which afflict the chronic dyspeptic. The giddiness, the tingling sensations, the confusion of thought, and even partial insensibility, which are not infrequently observed a few hours after meals in chronic dyspeptics, are due to

this cause. Here is the explanation of the irascibility, the despondency, the pessimism, the indecision, and various other forms of mental perversity, and even moral depravity, which are not infrequently associated with certain forms of gastro-intestinal disturbances.

The total depravity which we often hear talked about is, half the time at least, nothing more nor less than total indigestion.

For parents who find their children still ungovernable, notwithstanding the frequent use of the rod, we recommend the advice of a wise writer, that "cow's milk is a much better means of curing a boy's waywardness than cow's hide." Many parents who give their children an abundance of wise counsel and religious training, send their boys to the saloon and the brothel by the influence of morbid and inflamed appetites, engendered by the irritating and passion-stimulating foods with which they feed them at the dinner table.

CONTENTMENT AND GOOD HEALTH

BY GEO. C. TENNEY

CONTENTMENT is the condition of reconciliation with ourselves, our neighbors, and our circumstances. Contentment is twin sister to peace; and peace is the most beautiful and desirable thing in the world. No evil thing can live in the realm of peace. To be discontented is to be out of harmony with everything. The discontented person is out of joint with himself, with his friends, and particularly so with his circumstances.

Contentment does not always imply satiety. One may be contented, and yet seek to better his condition. Contentment in the midst of misfortune or

suffering is made possible by contemplating a bright prospect. The glow of hope dispels the dark shadow of despair in the region of which discontent dwells. A bright hope gives fortitude and strength to bear and to overcome.

To help a person who is at "outs" with everything and everybody is like trying to save a drowning man who is determined to drown. Some people spend most of their time in hunting themselves over for some new ailment, and when they have found it they are the most happy that they ever are. Immediately, they hang it about their

necks, where it becomes an additional millstone to drag them down.

In the early days of the Sanitarium there was an elderly lady patient whose mind was impaired. Continually she went about murmuring, "O, my God, it is awful, awful. It is terrible, terrible." Nobody took the horrors from hearing the doleful strain, for all knew that she was the victim of a sad hallucination. She was cared for most tenderly by loving friends, and all that could be done to make her life pleasant was done, and there was nothing awful or terrible about it. But she was led into melancholy captivity by the false impression that she was the victim of terrible evils.

There have been others similarly more or less afflicted. And nothing does so much to obstruct the work of restoring normal conditions as for the individual to wage continual war with his situation and surroundings. Here is a sample: A person has dyspepsia — an old-fashioned, obsolete term now, I believe, but most people will remember that it means a devil whose name is legion. He struggles with doctors and nurses like a boy who is being forced to take pikery, (another old-fashioned word). He rebels at the stomach pump, he kicks over the footbath tub, he draws the line on granose, he abominates a fomentation, and abhors an ice bag. He roars at a hot spray, and screams at a cold douche. He is sure people are killing him. He comes to the table with a frown, and goes to vespers out of spite. Will he get well? — Not if he can prevent it. If he does it will be in spite of the most tremendous odds, for he handicaps himself in the race for life.

Another: "Good morning" he says cheerily. "What a glorious rain we are having; how refreshing this cool weather is." "Don't you enjoy this genial sunshine?" "What a splendid spray I had this morning." "I declare, this diet is grand. It is fit for a king." "That stomach tube does the business all right." "Ah there, neighbor, what makes you look so glum?" and so on. Will he get well? — Sure he will.

There are plenty of clouds in the sky, and contentment is the faculty of living where we can see the bright side of them. There is a dark and a bright side to every cloud. The dark side is that opposite the sun. God is a sun and shield, and when we look at things from his point of view all will be bright. The result will be contentment, and that is the best medicine in the world. If we have no faith and no hope and no light, let us know that we are living too low down in the valley. The sun shines above the fog. Giving medicine or treatment to a person whose mind is in the turmoil of discontent is like pouring water into heated oil. Irritation and disturbance is the consequence. Healing is the work of divine power, and in the use of divinely appointed means for the recovery of health it is as necessary to be in harmony with the application of those means as though the Divine Master were himself applying the means. A good and wise Providence is seeking to work out for us a noble end; and contentment means being in harmony with the work that is being done for us, whether that work be agreeable to our feelings or not.

We all came into the world the veriest beggars, and beggars should not be grumblers.

THE DEADLY CIGARETTE

BY ANNA C. WHITE

FROM a medical and common-sense standpoint the cigarette is one of the few things in this world which can be classified as purely evil. No good thing can come out of it. Its poison reaches and affects every part of the human system.

Fortunately, tobacco-chewing is falling into disrepute, even among those who constantly use the weed, and many a woman whose innate sense of refinement and delicacy rebels against the disgusting habit, will be thankful. But in the cigarette we have a foe whose deadly influence weakens the body, mentally and physically, and the use of which blunts every sense of moral obligation to God and humanity.

Tobacco dealers report now that among their best cigarette customers are hundreds of women. Society women, women of wealth and position, and the dissipated girls of our land are among this number. In the end the former go to sanitariums and hospitals; the latter are sent to the penitentiary on a charge of being drunk and disorderly. Vice is no respecter of persons, and once it secures a firm hold, not even the virtue of woman can hold its own against the consequent results.

The statement has been made that the average man who uses tobacco, sacrifices ten years of his life. Surely it is not worth this. How much better to keep the body clean and pure, a fit temple for the indwelling of God's spirit. The boy who smokes cigarettes is battling against the forces of his own nature. Every cigarette smoked means a cannon ball sent crashing through some nerve cell. The brain is paralyzed, the nerves are made tremulous, the blood becomes thinner and paler, the boy is

irritable and peevish, he loses his appetite and cannot sleep at night, and if nature holds out and the habit is continued, he finally becomes insane. This is not an overdrawn picture. Many a lad has trodden this downward path to insanity and self-destruction. The metamorphosis comes slowly; it comes nevertheless surely. A noted physician says: "that the tobacco habit should be taken up in early youth, with the nervous system in perfect condition, and a disease deliberately invited that makes the highest sense of comfort impossible except drawn through a cigar — that such a habit should be deliberately formed when there is not the least sense of any want for its soothing effects, is a human anomaly."

Mothers who are bemoaning the faults of their boys should see to it that they themselves are not blameworthy. Have you made a companion of your boy? Have you kept yourself in touch with his conditions, his failings, his struggles? Have you helped him with that strong sweet influence which only a mother possesses? Are you placing before him at the table those viands which excite the appetite for alcohol and tobacco, or are you helping him to be strong by giving him the pure healthful products of fields, orchards, and vineyards with which our Father has so bountifully supplied his children?

The boy is to be helped. He must be delivered from this terrible vice with which Satan is endeavoring to rob him of his rightful heritage,—a strong, pure, useful manhood,—and who shall be the agent? It cannot be left entirely to the boy, to the church, to outside influences. The home has its part to perform in this great tragedy.

THE STORY OF PRIESSNITZ

BY J. H. KELLOGG, M. D.

BATTLE CREEK is the home of the first sanitarium, so-called. Twenty-five years ago the Battle Creek Sanitarium changed its name. The institution changed its character from an ordinary hydropathic institution known as the Health Reform Institute, to a scientific establishment, in which all sorts of physical remedies were employed, and in which all the details of therapeutic management were placed upon a scientific basis. From this beginning, sanitariums have been established in various parts of the world; the sanitarium idea has spread out all over the world. The Battle Creek Sanitarium was the first sanitarium, so-called, as we said before. But there have been many institutions which were organized, conducted for the purpose of employing one or more of these physiological, rational remedies.

More than two hundred years ago, an Englishman fitted up two rooms in his house for giving hydropathic treatment. He gave sitz baths, wet-sheet rubs, towel baths, foot baths, and wet-sheet packs. This was more than two hundred years ago. So we see that these remedies that are employed here in this institution and others like it, are quite old, and are not by any means new. People sometimes get the idea that these sanitarium methods are new, are novel, that they are departures from the old established way; but if this was ever true, it was true many hundred years ago, and has not been true since, except as regards local custom. As regards the world at large, these sanitarium methods are the oldest of all. Water was used by the ancient Egyptians, Romans, and Grecians, in treating disease, and the primitive people of all countries have always been

found to have a knowledge of the use of water; and not only primitive or simple people living in natural conditions, such as the natives of the South Sea Islands and of the West Indies, but wild animals as well. It may interest you to know that more than a hundred years ago, Dr. Jackson of England, living for awhile in the West Indies, found that the half-civilized natives of these islands were accustomed to treat people who had yellow fever by dipping them into the water of the sea. They were taken down to the seashore and dipped into the water, which has a temperature of about eighty or eighty-five degrees, and were left in the water until the temperature fell. This same Dr. Jackson on his way home to England was taken sick with yellow fever on shipboard, and was very ill. Against the protest of the ship doctor, he had himself laid out on deck; then he had the sailors dip up the water from the sea, bucketfull after bucketfull, and deluge him with water in that way, and it reduced the fever, — a very satisfactory remedy.

A slave ship about the same time coming across from Africa to this country had on board a large number of sick slaves. A fever broke out among them, a very malignant fever. They were dying off very fast, shut up in the hold. The slaves begged to be allowed to come on deck. When they were allowed to do so, they adopted a most unique method of treating their sick companions. They tied ropes around their bodies and dipped them down into the sea. They gave them two or three dips, and then brought them up on deck and rubbed them well, and this custom was followed with all who were sick, and those treated in this way recovered.

In those days, the common practice in the treatment of disease was very extraordinary. When a man was taken sick with a fever, the first thing to do was to bleed him until he fainted away. It was the custom in those days when a man had a fever not only to bleed him but to give him an emetic, a purgative, and then put him to bed with a featherbed on top of him, and give him no water to drink. Not a breath of air was permitted to come into the room, because there was such danger that he might take cold, and if he should take cold, if the eruption of scarlet fever, smallpox, or chickenpox should strike in, he was sure to die!

A curious circumstance occurred. A man who had been treated in this way, became delirious while suffering from smallpox. His attendant stepped out of the room, and when he came back, he found his patient had gotten out of bed, had broken open the window and jumped out, and was rolling in a snow-bank, enjoying himself immensely.

The attendant thought surely his patient would die, but instead of that, his delirium disappeared, his fever subsided, and he made a most excellent recovery. These interesting observations called the attention of people to the fact that there was a better way of treating sick people than that in vogue, and opened the minds of many to receive a new truth.

Animals are acquainted with natural remedies. Sick animals often lie in the sun to get the benefit of the sunlight. If a dog gets toothache, he puts his paw up against his jaw to warm it. If a dog has the earache, you see his paw upon his ear as a substitution for the hot-water bag. If the dog has a pain in his stomach he curls up and puts his head as near his stomach as possible to get the stomach warm. It is a natural instinct,

and it is just as natural for a man to curl up if he has pain in his bowels or stomach.

In California, a little more than a year ago, one cold morning in February, I went out early to take a dip in the ocean. I passed by an animal cage, in which was a mother monkey with some young ones. One of the little monkeys had evidently eaten too much green fruit, and was suffering from pains in its stomach as a consequence. The poor, little monkey went around with a very long face, looked very melancholy, but pretty soon it sprang up to a hot-water pipe, and hung itself over the pipe in such a way as to give itself a fomentation to the stomach. Evidently this monkey knew the value of hydrotherapy — using a hot-water pipe in place of a hot-water bag.

It was a similar observation that led to the discovery of modern hydrotherapy. The writer had the pleasure last summer of visiting Gräfenberg, the home of systematic hydrotherapy, the place where modern hydrotherapy began. A little more than one hundred years ago — one hundred and four years ago, a peasant boy was born in the little mountain village of Gräfenberg, in Austria-Siberia, who set the whole world thinking, and the thinking in this line has been going on ever since.

Within the last few years the medical profession in every part of the world, especially in this country, have been awakening to the recognition of the importance of water and other physiological remedies as curative means. In the next number of this journal we will begin a series of illustrated articles in which will be given a sketch of Priessnitz, the man who organized the use of water into a system; of Gräfenberg, the birthplace of this remarkable Priessnitz, and the location of the first water-cure.

TEA AND COFFEE DRINKING¹

PROBABLY very few of the millions who daily make use of tea and coffee as a beverage, are aware of the fact that these common drugs contain from three to six per cent of a deadly poison. The amount of tea and coffee imported annually into the United States alone is more than one billion pounds, or five hundred thousand tons, containing more than fifteen thousand tons of a poison so deadly that twenty grains might produce fatal results* if administered to a full-grown man at a single dose, amounting to more than ten billion deadly doses, or six times as much as would be required to kill every man, woman, and child on the face of the earth.

The question is asked, "Why, then, are not these deadly effects more apparent, and more frequently manifested?" In reply it may be said, first, that the poisonous effects of the use of tea and coffee are so widespread and so well-nigh universal that this very fact serves to conceal the injury done. The bad effects which really flow from the use of tea and coffee are attributed to other causes, such as overwork, sedentary habits, climate, germs, and other influences which may indeed be incidentally involved, but are not primary in their influence. Further, we will say that the poisonous effects resulting from the use of tea and coffee are very decidedly manifest to any one who has given thought to this question, and has made careful observations in relation to it. The sallow complexion common among women of the higher classes who have reached middle life, the almost universal nervousness among

American women, and many common digestive disorders, and the increasing prevalence of nervous or sick headaches, afford to the experienced physician ample evidence of the toxic or poisonous character of tea, coffee, and the allied beverages, cocoa and chocolate. The well-known effect of these drugs in producing wakefulness, banishing as if by magic the sensation of fatigue, afford sufficient evidence of their poisonous character. No one would doubt for a moment the poisonous nature of a drug capable of producing irresistible drowsiness in a person who is not weary. The power of a drug to produce wakefulness in a person who is strongly inclined to sleep as the result of fatigue, is equally evidence of its poisonous character.

Again, the fact that a person who is accustomed to the use of tea or coffee finds himself nervous and uncomfortable when the usual cup is dispensed with, is another proof of the poisonous character of these common beverages which is very frequently in evidence. "I must have a cup of tea or coffee for my breakfast; I am good for nothing without it for the whole day," is an expression which one often hears. The conclusion to be drawn from this experience is not that coffee or tea is necessary or beneficial, but the very reverse. The evidence of its harmful and poisonous character is conclusive. No such results follow the incidental temporary withdrawal of ordinary food substances to which one has been accustomed. It is only artificial stimulants or narcotics the withdrawal of which is accompanied by such unpleasant effects.

Tea and coffee contain, in addition to caffeine, tannic acid and various volatile

¹ From "The Living Temple" by J. H. Kellogg, M. D.

poisons. Each of these poisons produce characteristic harmful effects. The volatile oils give rise to nervous excitability, and after a time provoke serious nervous disorders. Caffein is a narcotic, which has been shown to diminish the activity of the peptic glands and to interfere with digestion.

Wolfe has shown that three grains of caffein, an amount which might easily be furnished by an ordinary cup of tea or coffee, greatly impairs the quality of the gastric juice, lessening its total acidity.

Robert showed that both tea and coffee interfere with the action of the saliva upon the starch of the food, and may even wholly destroy its effect.

Dr. Wood proved that the daily use of a decoction prepared from one ounce of tea leaves produces decidedly poisonous symptoms.

A German physiologist found the digestion to be reduced one third by the use of tea. The tannic acid of tea not only interferes with the digestion of starch, but also prevents the proper digestion of albumin.

The fact that coffee, or some similar substance, is very widely used, does not lessen the force of the argument against it. An intelligent observer residing in Brazil declares that almost the entire country is in a perpetual state of semi-intoxication from the free use of coffee. There are several civilized countries where a similar state of thing exists. Tea drunkards are very common in England and Australia, especially among the poorer classes.

The habitual use of tea and coffee unquestionably provokes an appetite for tobacco, alcohol, and other narcotics. Unquestionably, many a child has been trained to a drunkard's life by tea tipping at his mother's table. The rapid increase of the opium and cocaine habits, which are assuming alarming

proportions in the United States and other civilized countries, is unquestionably the natural result of the increasing addiction to the tea and coffee habit. Those whose use of these drugs is confined to sipping a half cupful of weak tea or coffee probably suffer slightly more than some disturbances of the digestion. Such persons do not drink tea or coffee for the nervous effect, but only as a matter of habit, or to please the palate. Those who suffer most from the use of these drugs are the persons who take several cups, three, six, or more cups daily, and who suffer inconvenience when the usual cup of tea or coffee is omitted.

No one can afford to suffer the injury which must result from the use of tea and coffee, or their congeners, even to a limited extent; but those who recognize a dependence upon "the cups that cheer but do not inebriate," have already suffered serious damage through the more or less permanent impression which has been made upon their nervous systems by these poisons, and should reform at once if they wish to save themselves from complete nervous shipwreck, neurasthenia, and even worse disorders.

The best means of ridding one's self of the tea or coffee habit is to adopt a dry dietary, making free use of fruits, especially fresh fruits, also stewed fruits and fruit juices. Flesh foods and animal broths and extracts unquestionably excite the nerves, and create a demand for the soothing effect of a narcotic. Hence, a person who desires to free himself from the alcohol, the tobacco, or the tea or coffee habit, must first of all dispense with flesh foods of all sorts. Condiments must also be discarded, as these irritate and excite the nerves, creating a desire for the soothing effect of some narcotic drug.

THE EFFECT OF TOBACCO UPON THE HUMAN SYSTEM

BY W. H. RILEY, M. D.

TOBACCO was unknown to the nations of antiquity, the earliest knowledge of it dating from the latter part of the fourteenth 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.

Tobacco is recognized and treated by the system as a foreign element, a deadly foe. What agonizing efforts does the stomach make toward vomiting when the boy takes his first taste of tobacco! How nature rebels at its presence! Nearly every user of the weed remembers distinctly his first experience with the habit, and those who did not suffer in this way escaped only because their bodies were already poisoned with the drug, due to the tobacco habit of the father, who had probably given as an inheritance to his son an appetite for that which he had himself so devotedly worshiped.

We will now consider its immediate general effects, and its specific effects upon the various organs and functions of the body. Moderately taken, tobacco quiets mental and bodily unrest, and produces a state of general languor and indifference which seems to have great charms for those habituated to the impression. In large quantities, it results in confusion in the head, vertigo, stupor, faintness, nausea, vomiting, and general depression of the nervous and circulatory functions, which, if increased, eventuate in alarming and even fatal prostration.

Like other narcotics tobacco has a pronounced effect upon the nervous system. Here it is, in fact, that the

greatest evil is done. Through the nerves, nearly all the vital organs are affected, in addition to the results coming from the direct contact of the poison with the organs themselves.

At first, the effect of tobacco, to one accustomed to it, seems to be to soothe and quiet the nerves, giving them tone and power; but this is very deceptive: what seems to be an addition of nervous energy from without is in reality a subtraction of energy which has been laid up for future use. The time will come when the system will draw on this reserve fund of nerve force, and if tobacco or other stimulants have already drawn heavily on this fund, the body will not have the necessary power to furnish, so that death is hastened, and the life curtailed in years, perhaps, which might have been productive of usefulness and happiness.

After a short time, the stimulating effect of tobacco ceases, and the nerves are more tremulous than before it was used. Hence we see tobacco-users suffering from many forms of nervousness. One may be affected especially in his temper, becoming irritable and impatient; another may not be able to sleep well; a third is troubled with trembling of the hands, especially noticeable in the handwriting; others are easily startled and excited.

Professor Oliver, of the Annapolis Academy, said he could indicate the boy who used tobacco by his absolute inability to draw a clean straight line.

Tobacco affects the nerves controlling various muscles, causing a gradual loss of muscular power and resulting in paralysis. There are many forms of tobacco paralysis, affecting different por-

tions of the body. Eyesight is frequently impaired by the use of tobacco, due to the paralyzing of the nerves controlling the iris, or paralysis of the optic nerve, sometimes resulting in absolute loss of sight. A paralyzing effect upon the respiratory nerve-center is indicated by deep, gasping, irregular inspiration of the lungs. Death may result from respiratory failure due to spasm of the chest muscles, or from paralysis of the heart.

Dr. Brodie, president of the Royal Society, says that one of the worst cases of neuralgia he ever saw was caused by tobacco-using, and ceased with the discontinuance of the habit.

The effects of tobacco on the brain might properly be considered in connection with the nerves, as they together form the nervous system, and what affects one affects also the other.

Upon the exhausted brain tobacco has a soothing effect; upon the fully nourished brain it acts as an irritant. With those who have educated their body to the drug, and who feel the need of its stimulus, it may have the effect to excite the brain temporarily to undue activity.

The following is from Dr. Solly, surgeon of St. Thomas Hospital, England:—

"I know of no single vice which does as much harm as smoking. It is a snare and a delusion. It soothes the excited nervous system at the time, to render it more irritable and feeble ultimately. I have had large experience in brain diseases, and am satisfied that smoking is a most noxious habit. I know of no other cause or agent that so much tends to bring on functional disease, and through this in the end to lead to organic disease of the brain."

Dr. Bremer, late physician to St. Vincent's Institute for the Insane at St.

Louis, has recently called attention to the fact that the use of tobacco by the young is productive of mental and moral deterioration, while in older persons the weed produces brain disease and insanity. He attributes the obscure, unintelligible literary style of the philosopher Kant to his excessive use of tobacco.

The use of tobacco sometimes so affects the eyes as to result ultimately in total blindness. This is at first color-blindness, taking red to be brown or black, and green to be light blue or orange. In nearly every case the pupils are very much contracted.

Dr. F. Dowling, of Cincinnati, after a study of three thousand persons employed in local tobacco factories, found that ninety-five per cent suffered from visual troubles of nicotine origin.

The relation between mind and body is so close that one can hardly be affected without a corresponding impression on the other; and if the use of any article is weakening and detrimental to the body, it is not at all surprising that it should likewise affect the mind. It is now a recognized fact that tobacco is injurious, not only physically, but intellectually as well. Consequently we see a number of our best universities and colleges taking a stand against its use, and the results in schools where tobacco has been discarded are said to be very encouraging. For some years the use of tobacco by students in the public schools in France has been forbidden on the ground that it is weakening, both physically and mentally. It is said that for a period of fifty years no tobacco-user stood at the head of his class in Harvard.

Tobacco injures the voice, and the best singers abstain from using it before a public appearance, and sometimes for several weeks before some special effort.

MOSQUITOES AND DISEASE

BY F. J. OTIS, M. D.

FOR some years past leading scientists and physicians have observed that certain diseases were always associated with swamps and low marshy localities. Many theories as to the cause of these diseases and the method of their communication, have been advanced, such names as effluvia and malaria being given to the most popular. Within the last twenty or thirty years it has also been noticed that this effluvia was associated with certain insects. With this in mind, experiments were made, and it was discovered that individuals protected from the bite of the mosquito did not take malaria nearly so

ture of the insect, and to observe the difference between those who had not and those who had bitten persons suffering from malaria. Nothing was thoroughly understood until it was discovered that a little plasmodium is always present in the blood of those suffering from malaria. This was readily seen to be the cause of the disease; and then it was quickly observed that mosquitoes which had bitten a malarial patient possessed many of the same micro-organisms in their internal organs. It is a well-known fact that the mosquito injects a little material at the time it bites, so that the blood will draw more readily. Scientists soon proved that germs could pass from the stomach of the mosquito into its saliva, or the material that is injected at the time it pierces the human skin.

The interest thus awakened in the mosquito and its relations to malaria stimulated a very careful biological study of the insect throughout the country; consequently, a great many varieties are now known. Some of the mosquitoes come from the tropics and seem to have nothing to do with the carrying of disease. There are other varieties that are confined to one locality, and therefore the disease carried by them does not exist beyond certain bounds. The variety called *anopheles* is the one that conveys all the forms of malaria. It lives on all the continents, but is confined mostly to the tropical and temperate regions.

Malaria is often so abundant in a district that it is almost impossible to inhabit it, but after a time the disease almost entirely disappears. Again we have a district where it is exactly the



MOSQUITO LARVÆ, $1\frac{1}{2}$ TIMES THEIR NATURAL SIZE.

readily as those who were left unprotected. This fact gave a clue upon which microscopists and biologists could work. The mosquito has been studied very carefully, until now its life and habits are quite thoroughly understood. The microscopists began to study the struc-

reverse. Knowing that the abundance of mosquitoes depends upon the water in pools or swamps, the reason for this is quite apparent. In some of the western states where the early settlers found no mosquitoes at all, it has been observed that as the cultivation of the soil became more general, the mosquitoes increased. This is simply because the breaking of the soil made it possible for the formation of many little pools in which the mosquitoes could multiply.

The number of mosquitoes also varies according to the rain fall. A very wet season will keep thousands of little hollows filled with water so that the mosquitoes will become exceedingly numerous, while in a dry season most of the mosquitoes die out. During very wet seasons we often find the malaria mosquito coming into some of the more northern localities where it does not usually exist, and bringing the disease with it. A mosquito does not travel very far as a rule, generally living and dying within a radius of a mile, but with the great facilities that we have for commerce and constant travel, the mosquito becomes entrapped and is thus transferred to these northern localities during warm months. In the fall most of them die, because they are not used to the severe winters, and the next year there is scarcely any malaria in the country; perhaps none, providing the season happens to be a more or less dry one.

The mosquitoes and their relation to

yellow fever is a subject that is of still greater interest because great things have been accomplished in the management of this disease since we have learned of its relation to the mosquito. Since the Spanish war and the investigations and experiments which were carried on to protect the soldiers from that disease, it has been learned that there is a mosquito called *secomyia*, which is the regular host of the germ of yellow fever. In fact it has been quite conclusively proved that the disease cannot exist unless this mosquito bites a sufferer, obtains the germ, carries it to the healthy person, and inoculates him in an effort to obtain its food from his system. To control this disease there are simply two precautions: to destroy the mosquito or to protect those suffering with yellow fever from its ravages. This has been carried out to such an extent that now there is scarcely any yellow fever in any locality under the control of a competent health board. Every case of yellow fever in Havana is at once protected by mosquito netting, transferred



ONE RAIN BARREL PRACTICALLY SUPPLIES THE WHOLE NEIGHBORHOOD.

to the hospital, and there very carefully screened. Since employing these measures, not a case has developed in the city.

Since this insect accomplishes so much mischief, it becomes very important that we know how to prevent its numerical increase. The malarial mosquito is spread very widely through temperate and tropical regions, and can be exterminated only through a determined and united effort. The most simple and satisfactory means of destroying them was quite thoroughly discussed in our last article in the July number of *GOOD HEALTH*.

In addition to these we would suggest that all rain barrels should be tightly covered. The accompanying illustration shows a rain barrel that practically supplies an entire neighborhood with mosquitoes. A prolific breeding place may also be found in the city sewers, the street man-holes affording the young an easy means of egress. We hope the day will come when this subject may be so thoroughly understood that not only will we suffer less from the bites of these little pests but that malaria will be unknown, and yellow fever with all its thousands of victims become a matter of history.

A DOZEN ARGUMENTS AGAINST ALCOHOL

1. *Alcohol Comes of a Bad Family.* — "A man is known by the company he keeps." This adage is equally as applicable to some other things as to men. It holds good respecting alcohol, at least. There are numerous alcohols: fusel-oil, a constituent of bad whisky, is one; naptha, or wood spirit, is another; carbolic acid and creosote are chemical substances which are related to alcohol.

2. *Alcohol is a Poison to Plants.* — Vital properties are pretty much the same in a general way, whether manifested by a mushroom or a man; and any substance which will destroy the life of a plant is not likely to be wholesome for human beings. If a plant be watered with a weak solution of alcohol, its leaves soon wither, turn yellow, and the plant dies, even when the proportion of alcohol is as small as one part in one thousand parts of water.

3. *Alcohol is a Poison to all Animals.* — A tadpole dropped into a vessel containing alcohol dies in a minute.

Leeches and other small animals succumb in like manner.

A French physician administered alcohol in the form of brandy and absinthe to fowls. The animals took kindly to the use of stimulants, and soon became so addicted to them that it was necessary to limit them to a daily allowance. In two months absinthe drinking killed the strongest cocks; the brandy-drinking fowls lived four months and a half; while the wine drinkers held out three months longer. But all finally died the death of the drunkard.

4. *Alcohol is a Narcotic.* — Alcohol is exciting in its first effects; but like most other substances of similar nature, its secondary and more prominent effect is narcotizing. It benumbs the sensibilities. If a man is exhausted, it relieves the feeling of fatigue by obtunding his senses, not by replenishing his wasted energy. Persons who have died from the effects of an overdose of alcohol, present all indications of narcotic poisoning.

A tablespoonful of strong alcohol held in the mouth for two or three minutes, will obtund the sense of taste so as to render a person unable to determine between sweet and sour, saline and bitter. If taken in sufficient quantity, it will relieve the sense of pain sufficiently to enable a surgeon to perform an operation with little or no suffering on the part of the patient. Ether and chloroform are made from alcohol.

5. *Alcoholic Degeneration.*—The degeneration of the muscles, heart, brain, nerves, liver, kidneys, and in fact all organs of the body, is induced by the habitual use of alcohol. Dr. Carpenter is authority for the assertion that the changes in the corpuscles and in the fibrin of the blood take place when not more than one part of alcohol to five hundred of blood is employed. Thus it will be seen that the very weakest wines are unsafe, since none of them contain less than from three to five per cent. Even small beer would be capable of doing mischief in this way.

6. *The Drunkard's Brain.*—The brain when healthy is so soft that it would not retain its shape but for the skull. The sharpest knife is required to cut it without mangling its structure. It is necessary to immerse the organ in alcohol for weeks or months in order to harden it, when a careful examination is essential. A drunkard's brain presents a marked contrast. It is already hardened. A celebrated anatomist declared that he could tell a drunkard's brain in the dark, by the sense of touch alone.

By means of delicate instruments, it is possible to measure the exact length of time it takes a person to feel, to think, to see, to hear, and to act. A careful experiment made for the purpose of determining the influence of alcohol upon these various senses and

upon the mental activity showed that the length of time required was more than doubled as the result of taking two ounces of whisky. This clearly shows the paralyzing influence of alcohol upon the brain.

7. *Alcohol vs. Animal Heat.*—The sensation of warmth produced by taking a glass of wine or brandy is delusive. The circulation is unbalanced, and for a few moments there is a seeming increase of heat; but the thermometer shows that the temperature is lessened. Dr. Parkes, the famous English sanitarian, says, "All observers condemn the use of spirits, and even of wine or beer, as a preventive against cold."

Professor Miller states that the Russian military authorities "interdict its use absolutely in the army *when troops are about to move under extreme cold*, part of the duty of the corporals being to smell carefully the breath of each man on the morning parade, and to turn back from the march those who have indulged in spirits, it having been found that such men are peculiarly subject to be frost-bitten and otherwise injured."

8. *Alcohol Not a Stimulant.*—The popular idea that alcohol is a stimulant is doubtless the chief occasion for its use as a remedy by physicians. But modern researches have shown that alcohol cannot in any proper sense be regarded as a stimulant. It lessens vital activity in all diseases. The giving of alcohol to weak and fainting persons is a most pernicious and injurious practice, as the drug serves to still further depress and weaken the vital forces. The feeling of increased strength imparted by alcohol is deceptive.

9. *Drunkard's Dyspepsia.*—A drunkard is sure to become a dyspeptic. Alcohol tans the stomach, rendering it inactive, and causing atrophy of the

glands which form the gastric juice, thus diminishing the supply of this digestive fluid. Alcohol precipitates the pepsin from the gastric juice, and so renders useless that which is secreted. Digestion cannot progress while alcohol is in the stomach, hence it is delayed until the poison can be absorbed.

10. *Alcoholic Consumption*.—Sir B. W. Richardson has pointed out the fact that alcohol, instead of preventing, actually produces consumption, and that of a most fatal type. He states that a person suffering from alcoholic phthisis shows no improvement under treatment. The disease steadily, surely, and usually quite rapidly, progresses to a fatal termination.

11. *Alcoholic Insanity*.—The condition of a man under the influence of liquor is precisely that of an insane man, as regards his mind. When getting drunk is frequently repeated, the condition of the mind induced by drink may become permanent. Intemperance, more than any other cause, fills

our lunatic and idiotic asylums. According to the statistics of insanity in France, thirty-four per cent of the cases of lunacy among males is due to intemperance. One half of the inmates of the Dublin insane asylum owe their disease to the use of liquor. Lord Shaftesbury, chairman of the English Commission on Lunacy, in his report to Parliament, stated that six out of every ten lunatics in the asylums were made such by alcohol.

12. *Alcoholic Heredity*.—Dr. S. G. Howe attributed one half of the cases of idiocy in the State of Massachusetts to intemperance, and he is sustained in his opinion by the most reliable authorities. Dr. Howe states that there were seven idiots in one family where both parents were drunkards. One half the idiots in England are of drunken parentage, and the same is true in Sweden and probably in most European countries. It is said that in St. Petersburg most of the idiots come of drunken parents.

THREE WORDS OF STRENGTH

THERE are three lessons I would write,
Three words with a burning pen,
In tracings of eternal light
Upon the hearts of men.

Have *Hope*. Though clouds environ round,
And gladness hides her face in scorn,
Put off the shadow from thy brow —
No night but hath its morn.

Have *Faith*. Where'er thy bark is driven,
The calm's disport, the tempest's mirth,
Know this: God rules the hosts of heaven,
The inhabitants of earth.

Have *Love*. Not love alone for one,
But man, as man, thy brother call,
And scatter, like the circling sun,
Thy charities on all.

Thus grave these lessons on thy soul,
Hope, Faith, and Love, and thou shalt find
Strength when life's surges rudest roll,
Light when thou else wert blind.

— Schiller.

HEALTHFUL DRESS

[FOR several years the Battle Creek Sanitarium has conducted a department of healthful dress. Those in charge of this work have spent much time upon the subject and the result is a very complete and admirable system of dress.

We have succeeded in securing the assistance of the head of this department, Mrs. G. S. Smith, in giving to the readers of GOOD HEALTH a complete explanation of this system, together with a number of costume designs. — Ed.]

TO clothe the body healthfully and at the same time artistically is daily receiving more and more attention and justly so for no question is more closely related to health and happiness than this one of proper dress.

To be properly dressed the body must have absolute freedom in every particular, and to this must be added that repose of mind which comes with the consciousness of being correctly and becomingly attired.

A dress that will fill all the requirements of health, must be so arranged that the weight will be reduced to a minimum and so that the necessary weight will rest upon the bony framework which was designed to support the vital organs and the fleshy portion of the body instead of upon the soft and yielding portions. From the garment worn next the body to the gown and outer wrap all should be suspended from the shoulders with no bands at the waist to restrict the movement of the ribs and diaphragm in breathing and bear down upon the delicate abdominal organs upon which rest so much of the work of the human machine. Tight collars, hose supporters which encircle the limbs with elastic bands, and tight shoes are all very detrimental to health. No doubt full many a headache is caused by a tight collar which compresses the large blood vessels that furnish the blood supply for the head.

The building of a gown which will

fulfil all of these requirements is at once a science and art. A science because it necessitates a thorough knowledge of the structure and workings of the human machine; an art because it demands the use of the artistic sense, not alone in the harmonious combination of color, but also in the recognizing and maintaining of the natural and graceful curves of the body.



FIG. 1.



FIG. 2.

The gowns here illustrated are constructed upon these principles.

The gown illustrated in Figures 1 and 2 is made of rather a heavy linen crash trimmed with cluney lace. The end ornaments and tassels are hand-made. The skirt and blouse are securely fastened together at the waist-line by means of button-holes and flat bone buttons, thus suspending the entire weight of the gown from the shoulders. This fastening is concealed by the fitted girdle with short back and long front tabs which add greatly to the pleasing effect.

This design may be worked out in many of the light-weight wool and heavier cotton and linen materials. It should be finished in a round length, and is appropriate for street wear.

The gown illustrated in Figure 3 was designed for house wear being made over a half-fitting princess model. It may be easily converted into a suitable street gown by the addition of a short loose coat of the same material as illustrated in our photograph. The material of which the gown in our illustration was made, was a good piece of cream brilliantine. The same idea could be carried out in almost any medium or light-weight woolen materials.



FIG. 3.

The skirt is one inch from the floor in length and is cut in seven gores allowing the front and back to extend to the neck, while the sides are joined at the waist line. This princess makes a very convenient and suitable tourist gown as it is pretty and easily adjusted.

Nature's Methods in the Sick Room

WHAT TO DO IN CASE OF SUDDEN ILLNESS OR ACCIDENT¹

FAINTING.—When a person faints, it is because of weakness of the heart. This may be due to various causes, such as impure air, tight lacing, sudden fright, or other nervous disturbances, or simple exhaustion from over-exertion. A person generally begins to feel "faint" a short time before he loses consciousness. If at this time he will immediately lie down, or if he is sitting, bend forward until his head is at or below the level of the knees, the symptoms will generally disappear within a few seconds, or a minute or two at the most. A sip of cold water or bathing the face with cold water will also generally prevent a threatened fainting.

If the person has actually fainted away, he should quickly be placed in a horizontal position, laying the head as low as possible. While cold water is being brought, slap the face with the hand quite vigorously, though not so hard as to bruise the tissues. A few smart strokes over the region of the heart are also likely to prove helpful. The best remedy is to sprinkle cold water upon the face. The application may be made by dipping the fingers in cold water and shaking them vigorously over the face, or by wetting the end of a towel and slapping the face with it. A fainting person is in a very dangerous condition, and should be relieved as quickly as possible. In

serious cases the person who has fainted must be kept in a horizontal position for some time, several hours, or in some cases several days. If on rising the fainting sensation recurs, a physician should be consulted. The tendency to faint may be overcome by the daily cold bath. The cold mitten friction and the cold towel rub are particularly well adapted to cases of this sort. Extremes of temperature, very hot baths, and very cold baths, should be avoided by persons who faint easily.

Hemorrhage.—The blood spurts from a wounded artery. The blood flows in



COMPRESSING THE MAIN ARTERY OF THE LEG.

a steady stream from a wounded vein. Venous blood is also darker in color than arterial blood. To stop the flow of blood from a wounded artery, pres-

¹ From "The Living Temple" by J. H. Kellogg, M. D.

sure should be made on the side of the wound toward the heart. It is not always best to make the pressure directly upon the wound. The pressure should be made instead upon some point above the wound where the arterial



COMPRESSING ARTERIES OF THE WRIST.

trunk comes near the surface, and where it can be brought between the thumb or fingers and the bone, so that it can be influenced by firm pressure. The accompanying cuts show the points at which pressure should be made to control hemorrhage in different parts of the body. It is well to practice compression of the arteries at these several points so that one may be prepared to act quickly when occasion requires. If the part injured is a limb, it should be raised at once as high as possible, and compression should be made upon the bleeding point, care being taken that the compressing fingers are clean; or the wounded part may be protected by a little pad formed of clean muslin, placed over the part. Moistening the pad with lemon juice aids in controlling hemorrhage, by causing contraction of the blood vessels. This alone will often control a slight hemorrhage. If the bleeding does not cease, and compression cannot be applied or continued until a physician can be procured, more permanent compression may be applied by means of a little pad consisting of

cloth or paper rolled up and placed over the artery, and compressed by means of a band placed about the limb or over the body, then twisted until sufficiently tight to control the bleeding. The greatest dispatch must be used, as a large and often fatal amount of blood may be lost in a short space of time if the vessels are of considerable size.

Hemorrhage of the Nose.—Reaching both hands high over head, bathing the face with very hot water, placing bits of ice in the nostrils, rubbing ice on the back of the neck, and compressing the nose frequently between the thumb and finger for several minutes, are useful measures in checking nasal hemorrhage. Care should be taken to hold the head erect. Bathing the face with cold water while bending the head forward over a wash basin often increases the bleeding.

Bleeding of the Gums, following extraction of the teeth, may be checked by placing a bit of ice upon the bleeding point, or making a little wad of



COMPRESSING THE ARTERY OF THE ARM IN THE NECK.

cotton or muslin, saturating this with lemon juice, and holding it upon the affected part by closing the teeth upon it.

Hemorrhage of Lungs is a very serious and sometimes a fatal accident. Bleeding from the lungs, however, is not so

dangerous as is supposed, as it is very seldom that the bleeding continues long enough to produce fatal results. When the patient becomes faint, the heart's action decreases to such a degree that the bleeding ceases in most cases. Ice to the front of the chest, short, very hot fomentations to the back of the chest, hot to the feet and legs, and ice in the hands, are the most effective means of checking hemorrhage from the lungs.

Hemorrhage of the Stomach can usually be controlled by absolute rest in bed and the withdrawal of food. In some cases the patient should not be allowed to drink as long as there is a tendency to hemorrhage. There is usually pain in connection with gastric hemorrhage, because of ulceration of the stomach. As long as there is pain in the stomach, no food should be given, and in many cases drink also should be withheld. The patient should be nourished with nutritive enemas. Ice over the stomach, and in most cases an enema every two hours are effective.

Hemorrhage from the Bowels.—The patient should be required to remain closely in bed. Apply heat to the legs, and two or three ice bags to the bowels. Two or three pints of ice water may be injected into the rectum.

Sunstroke.—Remove the patient to the shade at once. Remove the clothing, apply cold to the head, and pour cold water upon the body from a height of several feet, or as high as possible. The patient should be vigorously rubbed by two persons at the same time that the cold water is being applied, so as to insure thorough and prompt reaction. Very few lives will be lost by sunstroke when this measure is promptly and efficiently applied.

Insect Stings.—Apply compresses wet with soda, or a soap poultice. In case

the patient has been stung several times, as when attacked by a swarm of bees, administer a considerable quantity of hot water, both by the stomach and by the rectum. Make the patient drink two or three pints of hot water or hot, weak lemonade as quickly as possible. A sweating bath, especially



COMPRESSING MAIN ARTERY OF THE ARM.

an electric-light bath, followed by a vigorous cold bath, will be helpful. The swollen parts may be fomented every three or four hours for four or five minutes, and during the intervals between the fomentations, covered with cloths wet in soda, two drams to the pint.

A Bruise is best relieved by a hot fomentation applied as soon as possible after the accident, and repeated at intervals of two or three hours, as long as the bruise remains sore and painful. During the interval apply a compress consisting of a towel wrung as dry as possible from cold water, applied over the part, and covered first with oilcloth, and then with several thicknesses of flannel, to maintain warmth. Gentle manipulation of the surrounding parts will serve to maintain good circulation, and so prevent discoloration in many cases.

Science in the Kitchen

THE SANITARIUM BILL OF FARE

BY MRS. E. E. KELLOGG

TO the uninitiated it may seem a very simple matter to arrange the daily bill of fare for the guests of a sanitarium, and such it might perhaps prove, were there no other considerations necessary than the provision of things tasty and pleasurable to the palate. The making out of a list of articles which are in themselves wholesome and appetizing is by no means all that is required.

To provide for the varied dietetic needs of an ordinary sized family of well persons is no sinecure. To assume the responsibility of saying what shall grace the board for the daily meals for the invalids and semi-invalids who fill our sanitariums is a matter of great moment. It demands of the person undertaking such a duty, a thorough knowledge of food substances and their dietetic values, that each article may be well chosen with reference to the nutritive material; it demands a familiarity with physiology and hygiene, of digestion and the digestibility of different foods, that the choice may be such as are suited to the digestive powers of those who partake of them; it demands an understanding of the art of cookery and the changes in nutritive value and digestibility which may result through differing procedures of preparation; it requires a familiarity with economics and marketing, that the foods selected may be adapted to the season and

not unnecessarily expensive; it demands that wise discrimination in arrangement which offers pleasing and agreeable changes from day to day, and at the same time plans so that several scores of individuals with a "dry" or meager diet list to choose from may find the bill of fare especially adapted to their personal needs.

The making of a bill of fare offers opportunity for thought and study under all circumstances, if one would seek to have the food served supply the proper and requisite building materials for the perfection of individual health and character. The arranging of the menu for the sick and invalid with abnormal and capricious appetites, craving all manner of forbidden dainties for which must be *substituted* something healthful and satisfying which "tastes good," is an art in itself, worthy of far more consideration than is ordinarily given to it. We have read of one enterprising young woman who has recently taken up this line of work for some eastern city hospitals, as a profession, after having spent several years of research and study in preparation for the work. She is said to be the first person to grace this new profession, but she certainly ought not to be the only one.

The points to be remembered in making out a menu are so numerous, it is well for the amateur to aid memory

by preparing several forms or lists of things that need to be kept in mind, as for example:—

First a classification of common articles containing food elements something like this:—

Foods in which nitrogenous elements predominate: Milk, meats, eggs, lentils, beans, Scotch peas (dried), peanuts, almonds, and most other nuts, and such nut products as protose and nuttolene.

Foods in which starch predominates: Rice, white-flour bread, cake, pastries, farina, corn starch, potatoes, bananas, fresh peas, fresh corn.

Foods containing nitrogenous elements, and starch in good proportion: Wheat, whole-wheat bread, zwieback made from whole-grain breads, granose, granola, corn meal, oatmeal, corn flakes, barley.

Foods containing very little nutriment, but which supply bulk, water, sugar, and wholesome acids: Apples, pears, peaches, strawberries, and other fruits, including tomatoes.

Foods containing a small amount of nutritive material, consisting largely of cellulose: Carrots, turnips, beets, parsnips, cabbage, lettuce, spinach, greens, string beans.

Foods containing a large amount of fats: Nuts, nut products, eggs, olives.

Dextrinized foods: Browned wheat, zwieback, crystal wheat, roasted rice, potato meal, grains and breads browned throughout.

Second, a list of the proper food combinations. *Third*, a list of common articles of food with their market value. *Fourth*, a list of foods with the varying ways in which each may be healthfully prepared for the table, as for example: *dried Scotch peas*, which may be prepared as mashed peas, peas loaf with tomato sauce, peas patties, peas purée, savory baked peas, etc. The

same nutritive value or nearly so will be represented by each of these methods of preparation, but the variation in form will make it possible, if necessary, to serve Scotch peas every day of the week without a seeming monotony. The same may be said of the other legumes, of grains, of many vegetables and fruits, and of nut products. If then we understand the relative place of each food as regards its dietetic value, and have a list of its possible variations, we have something as a foundation upon which to begin our work of menu building.

For the dinner bill of fare, custom has established the usage of a soup as the first course. A fish course, generally understood to be something easy of digestion, usually follows. Savory dishes and relishes may or may not be served between this and the next course, which is supposed to consist of what the French term the *piece de resistance*, usually the roast or chief meat dish of the meal; with this a salad comes to excite the appetite and prepare the way for vegetables, served with or without combination. Grains and dishes prepared from fruits, usually precede the dessert.

To adapt this arrangement to the needs of a sanitarium dietary there should be provided a choice of soups,—one of legumes, or nuts and grains, representing a high nutritive value, served without milk or cream; one bland in character as of rice or potato, seasoned with cream if preferred; and a third prepared from fruits, varied from day to day, will in general make it possible for all patients to make a choice fitted to their especial needs.

In place of the fish course must be substituted such foods of similar nutritive value as macaroni, eggs with granose, roasted rice, and similar articles.



SLICED PROTOSE WITH LEMON.

Legumes and nut products, in which the nitrogenous elements predominate, should serve as a substitute for the meat course, with an accompaniment of either vegetables or some dish prepared from grains.

It is important to bear in mind that vegetables, such as carrots, turnips, beets, parsnips, and the like may well hold a subordinate place in

a vegetarian's dietary, and that not more than two such at the most should be named upon a dinner menu, and usually one will serve every purpose. Tomatoes, corn, green peas, squash, green beans, spinach, asparagus, cauliflower, and other seeds, fruit-vegetables and greens, are much to be preferred. We make note of this point particularly because in our experience it has frequently happened that after having arranged the entire form for a dinner menu with the utmost painstaking to make a good selection of articles for all classes, an over-careful steward with a surplus of tubers on hand, has crossed off the more digestible articles, providing the entire course of salsify, turnip, parsnip, and cabbage.

It goes without saying that breads in variety should form a part of each menu. Hard breads should be served with each soft food. To insure that such be crisp and tender, they must be freshly toasted before serving.

While the dessert should be of such a character as to appeal to the eye as well as to the taste, care should be taken that such does not form the chief attraction of the meal. We have known sanitarium menus to be so cumbered with a multiplicity of desserts that the substantial foods were largely lost sight of. Fruits, which are the simplest of all desserts, should be abundantly in evidence and

so well presented that they will take the charm from other and less wholesome articles.

As a rule a light breakfast is the best for most people. By this

I do not mean

that there should be a lack in either quantity or quality, but that the foods should be of such a character as to necessitate the least work by the digestive organs. For this reason fruits, nuts, and grain foods are in general best adapted for the breakfast bill of fare. If vegetables are served they



CANNELON OF PROTOSE.



EGG SANDWICHES.

should be such as are readily digested, and prepared in the simplest manner.

So great a variety of foods are necessary upon a sanitarium bill of fare, that a well-balanced ration for each person, must depend upon individual choice.

The breakfast bill of fare may well include the following divisions, in the order named: Fresh fruits, cooked fruits, cereals (that is, whole-grain foods served hot, as rice, wheat etc.), dextrinized grains, entrées (a comprehensive term, used to cover the ground for the proteid-predominating foods, as eggs, nut products, and articles prepared from legumes), vegetables, toasts, breads unfermented, breads fermented, beverages, and liquid foods.

For both breakfast and dinner, a schedule may be arranged something after the following order, which might be termed a perpetual bill of fare:—

Soups:—

Nitrogenous elements predominating:

Black Bean, Bean Plain, Bean and Corn, Savory Bean, Lima Bean, etc. Cream Pease, Pease and Tomato, Split Pea, Savory Pease, Pease and Macaroni, Swiss Lentil, Lentil and Tomato, Lentil and Parsnip, Lentil and Nut, Gluten, Protose Broth, Nut French, Nut Barley, Nut Corn.

Starch predominating:

Cream Potato, Cream Barley, Cream Rice, Swiss Potato, Brown Soup, Green Peas, Asparagus, White Celery.

Acids predominating:

Tomato and Vermicelli, Tomato Bisque, Fruit Soup.

Entrees:—

Legume: Marbled Beans, Bean Patties, Baked Pease, Savory [Pease, Vegetable, Nut, or Lentil Roast.

Nut: Protose Fricassee, Protose Patties, Stuffed Protose, Protose Cut-

lets, Nuttolene Cutlets, Broiled Nuttolene, Nut Fillets.

Grain and Egg: Macaroni baked with Granola, Egg Macaroni, Macaroni with Kornlet, Egg in Sunshine.

These two divisions will serve to show how all the suitable and available articles may be so listed on a black-board or a large sheet of paper, that a selection may be readily made without having to ransack one's memory to think up the proper article for each place upon the menu.

Recipes.

Cannelon of Protose: Mash fine, one pound of protose, add one-half teaspoonful of salt, one-half cup of toasted bread crumbs, one tablespoonful of nut butter or melted dairy butter, one egg well beaten, one-half teaspoonful each of onion juice and chopped parsley. Mix well, shape into a roll, wrap in an oiled paper, and bake for thirty minutes, basting with hot water to which a little butter and salt has been added. Serve hot with tomato or brown gravy, or slice cold. Garnish with white parsley and ripe olives.

Egg Sandwiches: Spread thin slices of whole-wheat and brown bread with nut or dairy butter. Between alternate layers of the brown and white bread put the following egg dressing: Cook in a double boiler the yolks of two eggs, two tablespoonfuls of water, two tablespoonfuls of lemon juice, one level teaspoonful of salt and one tablespoonful of butter or cooking oil. When thickened remove from the fire and stir until cool. Mix with this dressing finely chopped hard-boiled eggs to which a little minced parsley has been added. Serve on a platter with hot green peas or lima beans.

The Hundred Year Club

ANNUAL DINNER OF THE HUNDRED YEAR CLUB

THE members and guests of the above club enjoyed a banquet at the Hotel Majestic, New York, on Tuesday night, June 9. Seventy people enjoyed the fare and the after-dinner talks on the subject of vacations for health, which were particularly bright, interesting, helpful, and enjoyable.

Dr. John B. Rich, one of the vice-presidents of the Club, presided in the unavoidable absence of Mr. Geo. W. Smith, the president. Dr. Rich is the oldest club member, and is hale and hearty in his ninety-third year. Mr. Albert Turner was a very agreeable toastmaster. The first speaker, Dr. Elizabeth Jackson, treated of the general need and value of vacations, and showed that she had given the subject much attention. Following Dr. Jackson, Mr. F. M. Heath, a genuine lover of the mountains, spoke of them and the life among them in such a way as to make his hearers feel that they wanted to go there this summer. Mr. Heath is an authority on the Adirondack region and has an extensive home there. Equally fascinating was Mr. L. S. Brown in discoursing on the joys of living in tents, camping, with the accompanying sports of hunting and fishing, especially the latter.

Dr. Latson showed his love of New York City by detailing the beauties and interesting places and sights that, to a dweller in the country or in small towns, would afford a means of spending a vacation, both interesting and educational. Mr. George Eade, head

of the firm of Thos. Cook & Sons, touring agents of world-wide repute was a most eligible representative to speak on traveling for vacation, and this he did in a most interesting and humorous way.

Mr. Eade is one of the most extensively traveled men to-day. Mrs. Lillie Devereaux Blake, president of the National Legislative League, and a well-known speaker, was to have spoken on vacations at home, but was an absentee on this occasion, and the evening was brought to a close by a compliment to Dr. Rich by the toastmaster on his affording the company such an excellent example of the principles for which the club stood. The doctor replied most gracefully.

The Hundred Year Club was organized in 1899 and holds monthly meetings at which papers are presented by recognized authorities on matters of health and others related thereto, and which papers are followed by discussions. Many members prominent in science and the professions attend the meetings, and the discussions are always sure to result in many valuable and interesting points being brought out in addition to those in the paper presented. The club is making its influence felt, and goes on steadily advancing year by year. It has members in far-off places, in Montreal, Canada, and California, and as far south as Texas, with whom it keeps in touch by correspondence and by forwarding published accounts of its meetings. Mr. Geo. W.

Smith, the organizer of the club, is president, and Dr. Albert Whitehouse, 304 W. 116th St., New York, is secretary, and he will be pleased to furnish any further information of the club to inquirers.

Mrs. Susan Bright, Aged One Hundred and Thirteen Years, Topeka, Kansas.

Mrs. Bright was born in Virginia in 1789. She was the mother of six children, had twenty-three grand-children, forty-three great grandchildren, and six great great grandchildren.

She always lived a moderate life and was temperate in her habits. During the latter part of her life she used neither tea nor coffee and very little flesh food.

She retained all of her physical powers in a good degree up to within a month of her death. Even during the last years of her life she often entertained her friends by singing old tune songs and telling stories of her early life.

At the age of 106 she made a trip of several hundred miles entirely alone and enjoyed it immensely.

Though he has lived more than a century and a half he is still able to move about his dwelling, and does so daily. Neither is he unmindful of the progress of the outside world. He has watched San Francisco grow from a few huts to a city of sky-scrapers.

The old gentleman has never smoked nor used intoxicating liquors. He has always taken a walk each day, and sits in the sun as much as possible. For some time his chief nourishment has been bean broth. He is a devoted Christian and gives frequent prayer as one of the necessities to long life; also sitting in the sun—his daily practice.



MRS. SUSAN BRIGHT.

The Oldest Man Living.

Manuel del Valle of Menlo Park, a suburb of San Francisco, is said to be the oldest living man who has satisfactory proof of the exact date of his birth. The certificate of his birth, which is signed by the chief magistrate, gives the date of his birth as November 24, 1745, making him one hundred and fifty-eight years old.

BATTLE CREEK FOODS AND THE NEW WAY OF SELLING THEM

OUR regular readers are acquainted to a greater or less extent with the foods manufactured by the Sanitarium factories, but their history may not be so familiar a story to our patrons.

It begins almost with the origin of the Sanitarium idea. Worked out by scientific methods for the purpose of meeting the definite needs of the Sanitarium patients, these foods have been inseparably linked with the reformatory movement inaugurated by the founders of the Battle Creek Sanitarium. Standing as they do for all that is best and purest in the food lines, they fill a popular demand for food-products that can be relied upon. The output includes health crackers and biscuits which are free from all lard shortening, soda, and ammonia, or any other harmful ingredients; dextrinized flaked cereals, dextrinized granulated cereals, the original coffee substitute, meat substitutes, nut butters, health candies, etc. While these products are all appreciated by those troubled with all forms of dyspepsia and the various maladies connected with worn-out stomachs, they are just as valuable in maintaining the normal stomach in a healthy condition.

Granola, the pioneer health food, was placed upon the market twenty-five years ago, and was rapidly followed by others, until to-day the line consists of between thirty and forty distinct preparations.

For some years Sanitarium foods have been carried to a greater or less extent by leading grocers, but repeated complaints from old patrons to the effect that Sanitarium foods offered for sale by dealers were often stale and totally unfit for use, have developed the fact that the ordinary grocer is not a success handling prepared foods.

A plan has at last been evolved which, while it does not do away with the old sales methods, still provides a way by which everyone who is not able to secure Sanitarium foods at home in satisfactory variety and condition, may

have them shipped to him direct from the factory at no greater cost than if they were purchased at his grocer's just around the corner. This plan simply involves the shipment by prepaid express to points east of Kansas and north of Tennessee, of all orders for \$5 worth or more of Sanitarium foods. To points in the Southern States and to a few States farther west, express is prepaid under certain conditions, all of which is more fully explained in the advertising pages of this issue.

While the mail-order business is not a new venture in this country, it has never been tried with any other than a general line of merchandise. That the Sanitarium Company is meeting with success in the development and execution of the mail-order idea as applied to the food business, is clearly evidenced by the hundreds of letters already received and now coming in from satisfied customers. This testimony speaks more loudly than any other argument in favor of the direct-from-manufacturer-to-user idea. When ordering in this way the customer is certain of getting foods that are perfectly fresh and in the best possible condition. Furthermore, he is able to get just the article wanted without the fear of substitution or of being put off with imitations. A thorough office and shipping equipment make it possible to give the necessarily prompt and careful attention to individual orders.

While this method of marketing Sanitarium foods is becoming more popular every day, it is not the intention of the Sanitarium Company to do away with the grocer. In several cities, first-class grocers are carrying a full line of Sanitarium foods; in other cities, Sanitarium Food Stores have been established. In either case customers can secure prompt attention through these local representatives. If, however, a locality is not thus favored, we wish to commend to our readers a trial at least of this prompt and satisfactory method of securing Sanitarium foods.

EDITORIAL

Erroneous Notions About Fruits.

There are many popular but unfounded prejudices against the dietetic use of fruits. It is generally supposed, for example, that fruits are conducive to bowel disorders, and that they are especially prone to produce indigestion if taken at the last meal. The truth is the very opposite of these notions. An exclusive diet of fruit is one of the best-known remedies for chronic bowel disorders. During the late war, large numbers of the soldiers suffering from chronic dysentery were in several instances rapidly cured, when abundantly supplied with ripe peaches. Fruit juice may be advantageously used in both acute and chronic bowel disorders. Care must be taken, however, to avoid fruit juices which contain a large amount of cane sugar. Juices of sweet fruits should be employed, or a mixture of sour and sweet fruit juices, or acid fruit juice may be sweetened with malt honey or melitose, a natural sweet produced from cereals. Rasins, figs, prunes, sweet apples, and pears may be mixed with sour fruits.

Indigestion sometimes results from the use of fruits in combination with a variety of other food substances; but fruits taken alone constitute the best possible menu for the last meal of the day. The combination of fruit, sugar, cream, bread, butter, cake, and pie may well produce bad dreams and a bad taste in the mouth in the morning. The use of fresh or stewed fruit alone without any addition whatever will produce no disturbance, and will leave no unpleasant effects behind to be regretted in the morning. Very acid fruits sometimes disagree with persons who have an excess of acid and those who are suffering from chronic inflammation of the stomach; but with these ex-

ceptions, there is almost no case in which fruit may not be advantageously used.

The notion that acid fruits must be avoided by rheumatics is another error which is based on inaccurate observations. The fact is, rheumatics are greatly benefited by the use of fruit. At the same time they should abstain from the use of flesh foods of all sorts, beef tea and animal broths, and all meat preparations, also tea and coffee, as well as alcohol and tobacco. It is, of course, possible for one to take an excess of acids, as one may take an excess of starch or any other food substances. Vegetable acids differ from mineral acids in the fact that they do not accumulate in the body, but are assimilated or utilized in the same way as sugar and allied substances.

Bright's Disease.

Most chronic forms of kidney disease are popularly known under the general name of Bright's disease, although this term is coming to be less and less employed by scientific physicians who prefer the use of more technical and exact terms. The extensive use of beer and other alcoholics in this country and the almost universal use of tobacco are causes, the potency of which cannot be questioned, of the rapid increase in renal affections in all civilized countries. That persons suffering from chronic inflammation or degeneration of the kidneys seldom die as the direct result of the renal disease, death usually being due to intercurrent affections of complications, does not lessen the gravity of this affection, since there can be no doubt that the general vitality and resistance to disease is rapidly and very greatly lessened by any affection of the kidneys

which diminishes their efficiency as agents for blood purification. That everyone suffering from Bright's disease does not die at once is due to the fact, well-known to physiologists, that the kidney capacity of a healthy man is fully three times greater than is necessary to support life; that is, one can live in apparent health while possessing only one third of the usual amount of healthy kidney tissue. There are cases on record in which persons have lived for years and enjoyed excellent health after the removal of one kidney.

Persons whose kidney capacity has been reduced to a minimum must, however, exercise extraordinary care to impose as little work as possible upon these faithful servants of the body. Tea and coffee must be discarded for the reason that the active principle, thein or caffeine, which they contain, is an irritant poison which is eliminated only with difficulty by the kidneys. Beefsteak and meats of all kinds must be discarded for the same reason: for the uric acid which they contain in very appreciable amount (fourteen grains to the pound in beefsteak, seventy grains to the pound in sweetbread) acts in precisely the same way as does the poisonous principle of tea and coffee. The diet must consist of nourishing, easily digestible foods, simply prepared. Mustard, pepper, and all other irritating condiments must also be avoided. Salt must be either discarded altogether or used in very small quantities. Fruit juices should be freely used. The bowels must be kept regular, and the patient should spend as much time as possible in the open air. It is especially important that the skin should be kept active by exposure to the sun and by careful cold bathing practiced daily.

The Surgical Treatment of Bright's Disease.

An eminent New York physician has devised an operation for Bright's disease by means of which he claims to have completely cured nine patients out of fifty-one

operated upon, or nearly one fifth. The operation consists in incising and separating from the kidney its capsule. It is claimed that by this method the blood-supply of the kidneys may be increased, and that a process of renovation of the diseased tissues is thus instituted. The value of this method is not yet generally conceded by the medical profession.

The Serum Fad.

Serumtherapy seems to be becoming very much of a fad. The apparent success of the serum treatment in diphtheria has led to experiments in immunization by serum and the serum treatment of various maladies. The theory of the serum treatment is extremely plausible, but this method is scarcely in harmony with sound physiologic principles. There may be cases in which patients may be benefited by the employment of a carefully prepared serum, but the real safety from disease, either acute or chronic, is found in obedience to the principles of rational living, not only in diet but in all other particulars, and by the employment of other physiological measures by which the resistance of the body or its power to fight disease is increased.

The Mosquito Pest.

Formerly mosquitoes were looked upon simply as an inconvenience and a nuisance; but modern research has shown that mosquitoes, or at least certain varieties may be justly regarded as a common means of infection with the malarial parasite, and in certain cases the yellow-fever parasite is also communicated through the bite of the insect. This fact renders highly important the adoption of means by which this disease-commun-icating pest may be exterminated. Dr. Waddell reports in the *London Lancet* (June 6) results of experiments by which he has shown that ammonia and compounds of ammonia are very deadly to the larvæ of the mosquito. Immature larvæ

are killed by solution of one to thirty thousand, and the most mature larvæ by solutions of one to four thousand.

Fighting Mosquitoes on Long Island.

The authorities on Long Island have undertaken, for the protection of their horses, to fight the mosquitoes which have long swarmed over that little neck of land during the summer season. The owner of a well-known stable is the prime mover in the crusade against the mosquito, it having been discovered that a few mosquitoes are capable of putting a nervous racing horse "out of condition." The proposed remedy is to frequently flood the lowlands with fresh sea-water, it having been observed that mosquitoes do not breathe in water which is frequently renewed, but only in stagnant water.

We may improve this occasion to remind our readers that a single rain barrel is capable of producing mosquitoes enough to disturb the sleep of a whole neighborhood, and to transmit enough malaria parasites to keep half a dozen doctors busy.

Bacteria in Ice.

Professor Bujwid found twenty-one thousand disease-producing germs in a melted hailstone. Professor Prudden, of New York, has shown that the natural ice supplied to most cities contains multitudes of disease-producing microbes, including typhoid-fever bacteria and other equally deadly germs. Thousands of persons are made sick by the use of ice water, not only because of the germs which the ice contains, but because of the gastric debility induced by the large quantities of cold water. The gastric juice destroys germs; but when the stomach is deluged with ice water, the gastric glands cease to secrete hydrochloric acid, to the presence of which the gastric juice owes its germicidal properties.

The American Heart.

We have heard much about the American stomach and the American nerves, but we are just awakening to a discovery that there is being rapidly developed a form of heart disease, which, if not peculiar to America, may at least be said to be more prevalent in this country than in any other part of the world. The heart-weakness resulting from the use of tobacco and alcohol and from a sedentary life on the one hand, and extremely violent exertion on the other hand, is no longer a rare condition, but has come to be one of the most common affections with which the physician has to deal. A large proportion of the men rejected in the army examinations are refused on account of heart weakness. A large proportion of the public men who die suddenly die as a result of the failure of the heart. The same might be said also of many of the cases in which the cause of death is reported to be pneumonia, typhoid fever, and other affections in which special strain is brought to bear upon the heart, and in which the failure of the organ to meet the emergency is one of the most common causes of death. The cigar, the cigarette, and the pipe are probably the most common causes of this growing frequency of cardiac affections; but the neglect of physical exercise, overeating, the use of tea and coffee, and excesses of all sorts are also to a large degree responsible for the rapid increase of this grave malady.

Does Cooking Meat Antidote its Harmful Effects?

Meat owes its harmful properties chiefly to two things: First, the germs, or microbes, which may give rise to disease in the flesh which is eaten; and second, poisons which may naturally exist in the flesh or which may have been produced in it by putrefaction. The germs are killed by cooking; but the poisonous substances found in meat either as the result of decay, as has frequently been observed in

canned salmon, or as the result of ordinary tissue activity, are not destroyed by cooking. All flesh contains these poisonous substances. Uric acid is present in beefsteak in a proportion of fourteen grains to the pound; nineteen grains of the poison are found in a pound of liver, and seventy grains in a pound of sweet bread. These poisonous substances gradually accumulate in the body and give rise to neurasthenia, Bright's disease, calculus, and numerous other maladies. The poisons produced by putrefaction are often very rapidly deadly. Meat far advanced in decay, a condition frequently found in wild game and canned meats or fish, in which the putrefactive processes have begun, all contain poisons which are deadly in very small doses, and the cooking of such substances, does not to any appreciable degree lessen their poisonous properties as these poisons are not destroyed by heat.

A Substitute for Leather.

An English inventor has devised a perfect substitute for leather which can be used for boots, shoes, and for every other purpose for which leather is employed. The new tissue is called wolft. It is being extensively used in England, having been adopted by the London Shoe Company especially for walking shoes on account of its coolness and its lightness. Wolft is more durable than leather and is much more waterproof while at the same time more porous, which makes it a non-conductor, and to a large degree obviates the necessity for wearing rubbers which are needed by one whose feet are clad with leather only when the slush and mud is so deep that the feet are half buried at every step.

A Remarkable Canadian.

The following, clipped from a Canadian paper is a worthy example to those whose social or business position stands in the way of their carrying out what they be-

lieve to be a physical and moral duty in the matter of diet:—

"Hon. R. W. Scott, of Ottawa, could have had the nice fat job of lieutenant-governor of the province of Ontario the other day, but declined it for the most remarkable reason ever known in political life. He is a vegetarian, and refused the job because he would be compelled to give banquets as lieutenant-governor at which viands carved out of the animal kingdom would necessarily be served."

Limburger Cheese Barred.

According to the *Medical Record* "Dr. M. K. Allen, the health officer of Louisville, Ky., has aroused the ire of the German inhabitants of that city by placing a ban upon Limburger cheese on the ground that it is full of microbes and dangerous to the health."

Dr. Allen is certainly to be commended upon his action in the matter. Of all the unwholesome articles in use as food, Limburger cheese is without doubt the most disgusting. Any other article of food brought to the table in the advanced stage of decomposition which is considered its prime virtue, would be greeted as a thing too disgusting to be tolerated.

The Cancer Quack.

Most physicians have met numerous cases in which persons suffering from small tumors of various sorts have been subjected to the most horrible tortures by ignorant charlatans who announce themselves as cancer specialists, and deceive the public by adroit advertising and the exhibition of specimens. Dr. McGraw, an eminent Detroit surgeon, in a recent paper relates a case of this sort which is a fair illustration of the damage often done by ignorant and unprincipled cancer quacks, a dangerous class of harpies which is apparently increasing of late years to such an extent as to furnish occasion for almost as great alarm as the increase of cancer itself.

"A girl of twenty-six had had at the age of sixteen a 'hard cancer' of the breast, which had been 'cured' by one of these charlatans. She had come to me to be cured of the results of his operation.* I found, on examination that the whole breast had been destroyed, together with a wide area of integument, and that the pleural cavity had been opened. The lung had collapsed, and a fistulous opening led into the still suppurating pleural cavity. Now hard cancers do not occur in girls of sixteen. She had doubtless had a fibrous tumor which could have been removed through a small incision, but she had faith yet in the miscreant who had destroyed her breast and lung and ruined her health."

The sufferings of the poor victim of quackery in this case, in the long months during which she was subjected to the tortures of this cancer quack cannot be described in words. A person who supposes himself to be suffering from cancer should either consult his family physician or the most experienced skilled surgeon within his reach. Cancer specialists are always unreliable.

Arsenical Poisoning from Beer.

It is to be hoped that few of the readers of this journal are addicted to the use of beer. Nevertheless as many of our readers may have friends who are beer drinkers, the following interesting item may be with profit communicated to them. A few months ago a public health investigation showed that there were in Manchester and Liverpool, England, over five hundred persons suffering from arsenical poisoning as the result of using beer which was proved to contain arsenic. Investigation showed that the arsenic was not added to the beer as an antiseptic, but was introduced with the glucose which had been employed in place of malt as a means of cheapening the product. This glucose, sometimes known as grape-sugar, was made by treating starch with sulphuric acid. Arsenic was found to be derived from the sul-

phuric acid. Arsenic is often found in sulphuric acid in consequence of the presence of arsenic in the iron pyrites from which it is made. In other parts of England, more than fifteen hundred persons were found to be suffering from arsenical poisoning from the same cause. It is more than probable that in the use of beer manufactured in the United States and other countries, this same danger is encountered.

Dangerous Infectious Diseases.

The Health Department of the city of Philadelphia has recently determined to place tuberculosis in the list of diseases dangerous to public health, and on this account notifiable; that is, every physician is required to give notice to the Health Department of every case of tuberculosis which he is called upon to attend. The Health Department will then take the necessary steps to prevent the extension of the disease by disinfection of the apartments occupied by the patients in case of death, and by other practical means.

The Health Department of New York City has added childbed fever to the list of notifiable diseases. Midwives as well as physicians are required to report all cases of this disorder. This is a very important advance in preventive medicine, and will be the means of saving a multitude of lives, as childbed fever is without doubt in many cases communicated by physicians or midwives who have been infected by contact with another case of the disease.

Typhoid Fever Infection from Blankets.

The British medical journals report an outbreak of typhoid fever on a British training-ship, the origin of which was traced to infected army blankets which had been received from South Africa, and which had been in contact with persons suffering from this disease.

ANSWERS TO CORRESPONDENTS

Wheat Breakfast Food.—Mrs. E. M. B., Illinois, requests advice concerning the combining of wheat breakfast foods with sugar, cream, and cooked raisins.

Ans.—Sugar is unnecessary. Sweet fruits or malt honey should be substituted. Cream is not the most wholesome food for human beings. Nuts and nut products may be substituted with advantage in the majority of cases.

Menopause—Slow Digestion.—Mrs. A. S. Nebraska. Correspondent is nearing change of life, is obliged to work hard, has many cares, and wishes (1) to know if she can get sufficient nourishment from graham bread and canned fruit; (2) outline dietary for one who craves eggs and vegetables, but is unable to eat them on account of slow digestion; (3) has been taking charcoal tablets and finds that though they are a great help in digesting food, yet they greatly increase the appetite. What is the matter and what can be done in this case?

Ans.—1. No. Fats of some sort must be added; cocoanut cream, nuttolene, and nuts are to be recommended.

2. Eat the yolk of the eggs only, taking care that the eggs are hard boiled and masticated very thoroughly. All the food should be chewed three or four times as long as usual. Unleavened breads of all sorts, well-cooked fruit of all kinds, and easily digested nuts, especially pecans and almonds, are to be recommended.

3. The appetite is probably increased by improved digestion. The best method of controlling the appetite is to chew the food for a very long time, taking care to swallow no particle which has not been first rendered semi-fluid.

Uric Acid—Legumes, Eggs—Cold or Warm Water.—A. K. G., Washington: "1. Are the following symptoms evidence of an excess of uric acid in the system: dry skin, cold extremities, brittle nails, rapid decay of teeth, acid stomach, and constipation? 2. Will the use of legumes and eggs be harmful? 3. Am using the following at present: granose, granola, granuts, zweibach, flakes, nut butter, bromose, protose, malted nuts, meltose, hulled corn, spinach, and fruits. Are these wholesome? 4. Which would be better for this patient, hot or cold water for drinking?"

Ans.—1. These symptoms are often present with uric acid; they are not produced by uric

acid, however, but are present in most cases, to which the accumulation of uric acid may be due.

2. No.

3. Yes.

4. Use water at ordinary temperature, but do not drink at meals.

Flour—Banana Flour—Pop Corn—Exercise—Fruit Juice—Canned Foods—Sugar—Candy—Woolen Underwear—Sleep. F. J. D., New Jersey: "1. Would flour made from rye, barley, oats, buckwheat, rice, bananas ground, dried chestnuts, each and respectively, not mixed, make nutritious, palatable, and wholesome bread, if it is possible to make a bread loaf from them? 2. Would they make as light a bread as wheat? 3. Could any of them be mixed together or with wheat to any advantage, such as is sometimes done with rye and oats? In the Scriptures barley loaves are mentioned. 4. Where and at what price can banana flour be obtained? 5. Is popcorn nutritious, wholesome, and easily assimilable? 6. I walk five miles to work in the morning in one hour. Would it be better to eat before or after the exercise? If I eat before, I have to start immediately. 7. Is sweet cider or apple juice beneficial to the body like grape juice? I obtain cider in gallon jugs, put up by some process so it will keep indefinitely when hermetically sealed, and when used the remainder will stay sweet for ten days. Have you any idea how it is kept, by some injurious chemical or not? It tastes like pure apple juice. 8. Are not foods canned in tin injurious to one's health on account of the absorption of metal, and is there any way of removing the metal contained in the solution? 9. Is beet sugar or glucose less injurious to the health than cane sugar, and are either of them as good as honey? 10. In candies is not a substance called terra alba, taken from the ground, used for adulterations? Is it injurious, and how can one detect it? Is not chocolate also adulterated in candies by a certain form of iron compound, and is this unwholesome or injurious? Are chocolate-covered almonds, dates, and butter chips unwholesome in small quantities? 11. How can I make woolen underwear that is stained with bile from a man who died with cancer of the liver, fit to wear without washing them, as they are liable to shrink? I was told by a hospital nurse to boil them half an hour, but they would shrink. If I wear them as they are, will I be apt to get the same disease? 12. (a) Will one sleep better or is sleep more beneficial if the shades and blinds are drawn and closed than if they are open? There is no danger of moonlight shining in the face the way the room is situated. (b) Would the eyes be rested better if the above is done? (c.) I have heard that one will become insane if he sleeps in the moonlight; is this true?"

Ans.—1. Yes.

2. No.

3. Yes. They might be mixed with wheat flour, in small amount.

4. The Sanitas Nut Company, Battle Creek, Mich., will doubtless be willing to assist you in obtaining a quantity of banana flour, if you desire. If any one calls upon you for banana flour, we will be glad to furnish it. We intend to keep some of these specialties constantly on hand.

5. Yes.

6. If you are strong, it makes but little difference whether you eat before or after. It would be well to eat a little earlier, and if possible, give yourself a little more time for exercise.

7. Yes, the value is nearly the same. The apple juice probably contains some chemical preservative; if so, it cannot be recommended. Apple juice which contains no such preservative will usually ferment in two or three days, when kept at the ordinary temperature.

8. Tin is not acted upon by the organic acids found in foods.

9. Glucose is a chemical sugar prepared from corn. It is as injurious as is beet sugar, which is the same as cane sugar, and is not to be recommended.

10. Terra alba is probably not much used in candies at the present time. Chocolate is unwholesome because of the theobromin which it contains. The Sanitas Food Company manufactures chocolate from which the theobromin has been removed.

11. Underwear of any sort must be frequently washed,—at least once a week, to be wholesome, even though worn by healthy persons. The underwear referred to had better be thrown away than to be worn without thorough washing. In washing such underwear, good soap, and boiling at least half an hour must be used. The advice of the hospital nurse was good.

12. (a) One sleeps more soundly in the dark than in the light. (b) Yes. (c) There is not the slightest foundation for this popular superstition.

Locomotor Ataxia.—W. R. K., Maryland: "1. Is locomotor ataxia curable? 2. What is a good home treatment? 3. Is a faradic battery of any benefit applied over the spinal cord? 4. Is a cold bath, taken every day, good in such a case?"

Ans.—1. This disease is not usually absolutely curable, but the patient may be so

greatly benefited as to have good use of his limbs. In nearly every case the further progress of the disease may be arrested, and the use of the weakened muscles may be regained.

2. Such cases require the personal care of a skilled physician and the advantages of a thoroughly equipped institution.

3. In some cases some benefit might be derived in the way of relieving pain.

4. Yes, but great care must be used in the employment of a cold bath in such cases. A cold shower or plunge bath would be injurious.

Sick Headache—Deformity.—Mrs. M.C.J., Massachusetts: "1. Is there any way to prepare beforehand for a severe attack of sick headache with vomiting, which comes once a year in the summer? (The patient has had sick headache with neuralgia and vomiting from youth until forty years of age. At present has chronic indigestion, insomnia, sciatic rheumatism.) 2. Is there any sure and painless way to reduce unnatural contours of the body? Middle-aged lady has a large, hard, moveable lump on each side of the body seven inches below the waist-line, which gives no trouble except in making the body look too broad. 3. Please advise for a lady who has 'brain-crushing' headaches, the result, she says, of a disordered liver. She has severe dyspepsia."

Ans.—1. Yes; fasting for one or two days will usually abort an attack. Washing the stomach by means of a stomach tube, even after the first symptom of an attack has appeared, will usually render great service. The bowels should be emptied by a large enema. All food should be discarded for from twenty-four to forty-eight hours. We don't wonder that the patient is suffering from the disease mentioned. These are the natural consequences of chronic indigestion. There are more maladies coming unless the indigestion is cured.

2. Yes, manual gymnastics conducted under a skilled director will be found useful. The condition referred to should be submitted to the judgment of a skilled physician at once. The trouble may be prolapse of the kidneys; the kidneys may be prolapsed, or some more serious disorder may be present.

3. The difficulty is probably not due to a disorder of the liver, but to deranged digestion. Simple antiseptic dietary, consisting of fruits, grains, and nuts, very thoroughly masticated; fomentations over the stomach daily, followed by a wet girdle to be worn continuously, changed each time the fomen-

tation is applied; out-of-door, life and the daily cold bath will be found beneficial.

Eye Examinations.—J. A. W., Rhode Island: "1. In the examination of the eyes, can more correct results be obtained by the application of drops? 2. Is the young oculist master of more modern methods which should make him more accurate than his experienced predecessor? 3. Is the simple optician more reliable than the oculist? 4. Why do oculists differ in their examination of the eye for glasses? One oculist gives me a +.50 cylinder, axis 110°; another, +.75 cylinder, axis 90°; another gives the axis 120; all for the left eye. Another oculist says I am simply far-sighted and gives me aspherical lenses."

Ans.—1. Dilatation of the pupil by means of atropia or some other drug is in many cases necessary to make a thorough and complete examination of the eyes.

2. Experienced oculists usually take care to keep up with the onward march of the procession, and know quite as much as the younger members of the profession.

3. By no means. An optician makes no pretense of understanding the anatomy or diseases of the eye. Many times a pair of glasses is prescribed to relieve an incipient disease in the eye which may lead to blindness if not properly treated at the start.

4. It is notorious that doctors differ. You will have to choose the oculist who gives you the most satisfactory results; your experience will tell you which glasses are the best for you.

Catarrh of the Stomach and Bowels — Catarrh of the Head — Spots before the Eyes — Peruna.—E. G. F., New York: "1. Is there any cure for catarrh of the stomach and bowels? 2. If so, please describe treatment. 3. What is the best treatment for catarrh of the head? 4. Physicians tell me I have no organic heart trouble, but my heart is generally weak except during hard work directly after meals. Could I take cold morning sponge baths? 5. I have spots before my eyes in the form of crinkled hair. Please advise concerning this. 6. Would you continue the use of Peruna if it seemed to benefit?"

Ans.—1. Yes.

2. The most important thing is properly to regulate the diet, avoiding meats, animal fats, excessive eating, irregular meals. In many cases it is advisable to avoid the use of milk entirely. Take pains to chew every morsel of food long and well. The skin must be trained to activity by the daily cold bath, properly administered. We would advise you to spend

two or three months at the Battle Creek Sanitarium or some of its branches in order to learn how to take care of yourself.

3. There is no local treatment which is capable of effecting a cure. The whole body must be treated. Local treatment is also useful as a palliative measure. This must be adapted to the individual case, after a careful examination by a competent specialist.

4. In such a case cold baths must be administered with great care. Begin with a towel bath applied to a portion of the body at a time; that is, after bathing an arm, chest, or leg, rub the part until it is dry, warm, and red, with a dry sheet or towel, before proceeding to another part, thus taking care not to wet the whole body, as this will drive the blood inward in such quantity as to overwhelm the heart, and perhaps do serious damage. The vigor of the bath may be increased as the heart is strengthened, and the power of reaction is increased. Lie down twice a day for an hour and place an ice bag over the heart.

5. Bathe the eyes with hot water for two minutes twice a day. The hot application should be followed by a cold compress for half a minute.

6. We have never found occasion to recommend this nostrum.

Washing the Head.—E. A. Q., New York: "How often and with water at what temperature should the head be washed?"

Ans.—If the hair is short, and especially if the scalp is to any degree unhealthy, — that is if dandruff is present, or if the hair is falling, — it is well to bathe the whole scalp every morning with cold water, dipping the tips of the fingers in the water, and rubbing the scalp until red. Bathing the hair from three to five minutes is usually sufficient.

Dandruff.—J. E. P., Michigan: "What is the cause of and cure for dry dandruff?"

Ans.—Dandruff is due to infection of the scalp with certain germs. A solution of resorcin and alcohol, the proportions being twenty grains of resorcin to an ounce of alcohol, is a good remedy. Apply daily with vigorous rubbing with the tips of the fingers.

Nut Butter — Eggs — Fat — Cold Baths.—M. A. C., Colorado: "1. How much nut butter or yolk of egg should a healthy man eat

at a meal? 2. In a variable climate, should a person eat more fat in winter than in summer? 3. Explain the advantage of a cold bath after violent exercise."

Ans.—1. It depends upon the amount of fat taken. Two ounces is usually sufficient.

2. Yes.

3. The cold bath should not be taken after violent exercise, as there is not power to react. A short hot bath may be taken, and this may be followed by a short cold bath.

Chronic Diarrhea.—Mrs. F. B. F., Nebraska: "What is the best treatment and diet for chronic diarrhea?"

Ans.—The best diet is rice, sweet fruit juices, the pulp of peaches, grapes, apricots, and similar fruits, avoiding the skins and seeds, predigested cereals, the yolk of hard-boiled eggs, blanched almonds, if well chewed, —almond butter is better. Great care should be taken to masticate every morsel of food very thoroughly; this requires four or five times the usual time. The treatment of chronic diarrhea is a much more difficult matter. Different cases require different management. In general, the prolonged cool sitz bath is found beneficial; a large hot enema should be given first, and then the patient should have a thorough wet-hand rubbing, then the sitz bath at ninety-five to sixty-five degrees for twelve to fifteen minutes. The sitz bath may be taken twice daily.

Enlarged Veins — Wesson's Cooking Oil.—Mrs. S. N. Y., Colorado: "1. What is the cause of enlarged veins on the side of the neck, which pulsate painfully at times? I have a lump about the size of a walnut just below Adam's apple. Please give home treatment. 2. Is Wesson's Cooking Oil free from animal fat?"

Ans.—1. The case looks like one of exophthalmic goitre, which is a serious matter. A competent physician should be employed.

2. We have never made an analysis of this product, and know nothing about it. We do not recommend oils of any sort for cooking.

Corn Sugar — Gray Hair.—Subscriber, Vermont: "1. Is corn sugar healthful? If not, what harm does it do? Is it better to use than cane sugar? 2. Why should a boy of thirteen have gray hairs on the top of his head?"

Ans.—1. Corn sugar is prepared from corn by a chemical process. We have never considered it proper to recommend it, and believe that its free use is likely to lead to diabetes.

2. There is probably an infection of the nerves of the scalp.

Ko-Nut — Yeast Substitute.—Mrs. P. E. B., New Mexico: "1. Is Ko-Nut free from animal matter? Do you know of a better substitute for lard than Ko-Nut? 2. What do you use as a substitute for yeast in raising bread?"

Ans.—1. Ko-Nut is made from commercial cocoanut oil; we have not thought best to recommend it, as it is a clear fat. Nuts and nut-products, and the expressed juice of fresh cocoanuts are the best substitutes for animal fats.

2. Unfermented breads can be easily made very light and wholesome without yeast. Instruction will be found in "Science in the Kitchen," "Every-day Dishes," and in the columns of GOOD HEALTH.

Far Sightedness — Body Development — Uncooked Food.—C. O. M., Illinois: "1. What method of treatment would you prescribe for a little girl nine years old, with impaired vision precipitated ten days after a very severe attack of tonsillitis? 2. When is a body said to be developed? This question is provoked by the increasing attention being paid to physical exercises. It is held by some that such exercises can be carried so far as to result in attacks upon some one of the vital organs of the body and result in premature death. Professional athletes do not appear to be long-lived? 3. Are there measurements of the body that will give one a proximate guide as to what normal is? What is the boundary below that divides between the normal and the dwarf, and above that separates between the normal and the giant? 4. Suppose you take the age at thirty years with a man five feet ten inches, what should his measurements be? 5. And at the age of thirty with a woman five feet five inches, what should the weight and measurements be? 6. Do you regard the uncooked foods advertised to-day as a fad or a proper diet for human beings?"

Ans.—1. The case should be placed in the hands of a competent oculist.

2. When the body has ceased to grow, and the bones have become ossified; this is usually about the age of 22 to 24 years.

3. Yes.

4. Man, 5 feet 10 inches; chest, 35.8 inches; waist, 32.5 inches; hips, 37 inches; biceps, 12.5 inches; forearm, 11 inches;

thigh, 21.4 inches; calf, 14.6 inches; depth of chest, 7.8 inches; depth of waist, 7.8 inches; breadth of shoulders, 16.9 inches; breadth of chest, 11.6 inches; breadth of waist, 10.6 inches; breadth of hips, 13.3 inches; weight, 155 pounds.

5. Ideal Average Woman: height, 64 inches; length of arms, 54 inches; circumference of chest, 32; circumference of waist (47.6 per cent of height, is equal to 30.46 inches); height of abdomen is equal to 15.48 inches; sternum to umbilicus, 8.7; (13.6 per cent); umbilicus to pubes (10.6 per cent), 6.78; iliac diameter, 10.24 (16 per cent).

6. We regard it as a commercial venture. Uncooked fruits and nuts are wholesome, provided they are ripe, and properly masticated; but uncooked vegetables and cereals are not natural foods for human beings.

Partial Paralysis.—Twitching of the Face and Eyelids.—Mrs. C. S., Manitoba: "1. Can partial paralysis be cured? 2. Would sanitarium treatment cure or can you recommend any home treatment for an old gentleman who had his tongue and one hand paralyzed and has improved some since? 3. What is the cause and treatment of continual twitching of the face, especially the eyelids. The twitching and closing of the eyelid impairs sight."

Ans.—1. Yes, in many cases.

2. Such cases usually require the attention of a competent physician and a sojourn at a well-equipped sanitarium.

3. This is a nervous disorder, and requires careful attention.

Cubeb Cigarettes.—B. F. C., Oregon, wishes to know if the cubeb cigarette is an effectual remedy for colds or catarrh, or if it is in any way dangerous to use. What is its composition?

Ans.—No. The use of cubebs may not be dangerous, but it is not advisable. These cigarettes are supposed to be made from cubebs, but we have never made them, therefore cannot speak positively upon the subject.

Bronchial Catarrh—Navel Discharge—Womb Displacement—Leucorrhea—Toasted Bread.—Mrs. W. R., Michigan: "1. In wearing the cold chest pack does one need hot treatment; trouble is bronchial catarrh? 2. What causes a discharge from the navel? 3. Should running exercises be taken when one is afflicted with falling of the womb? 4. What treatment would you advise for leucor-

rhea? 5. Does toasted bread cause constipation?"

Ans.—1. A very short hot application applied before the cold pack is sometimes beneficial, but if there is good reaction without it, it is not usually required.

2. Suppuration. The case should receive immediate attention from a good surgeon.

3. Not running, which is too violent an exercise for such a person, until after the local affection has been relieved by proper treatment.

4. There is no specific treatment for this condition; a competent physician must be consulted. Cool sitz baths at eighty to seventy degrees for fifteen minutes daily, are generally helpful, also the hot vaginal douche at one hundred and ten degrees to one hundred and fifteen degrees for five to eight minutes once or twice daily. A little permanganate of potash may be added, sufficient to produce a decided pink color.

5. Toasted bread is more easily and completely digestible than ordinary bread, and in this way its exclusive use may tend to produce constipation,—not, however, because it is an astringent, for this is not the case—but because the bulk of the alimentary residue is diminished.

Numbness—Brown Patches.—Mrs. M. E. H., Idaho: "1. Is numbness of the hands and wrists after washing or scrubbing, indicative of heart trouble? What can be done for its relief? 2. Three or four years ago a brown patch appeared on one temple, and was slightly sore. Last fall it was burned with carbolic acid, but it has lately grown sore again and itches, though the brown tint has not returned. Is it a cancer? 3. What treatment would you recommend?"

Ans.—1. No.

2. No.

3. Matters of this sort generally yield to the application of the actinic rays by means of the Finsen light apparatus or dermal-lamp.

Corns.—J. B., California, desires remedy for corns on feet, or alleviation of the pain.

Ans.—The corn should be removed and pressure should be prevented by means of a properly fitting shoe. The so-called corn plasters may be employed if necessary.

Macaroni.—J. A. S., Nebraska: "Is macaroni a wholesome article of diet?"

Ans.—Yes.

LISTERINE

To Promote and Maintain Personal Hygiene

Composed of ozoniferous essences, vegetable antiseptics and benzo-boracic acid, Listerine is readily miscible with water in any proportion and is the ideal individual prophylactic. A teaspoonful of Listerine in a tumbler of water makes a refreshing and delightfully fragrant mouth wash. Used at the morning toilet it effectively removes all agglutinated mucus which may have accumulated during the hours of rest.

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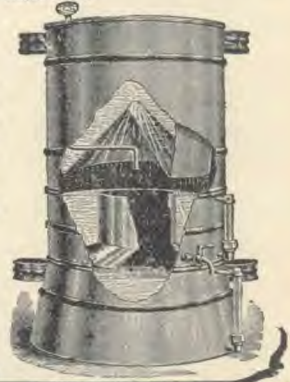
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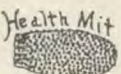
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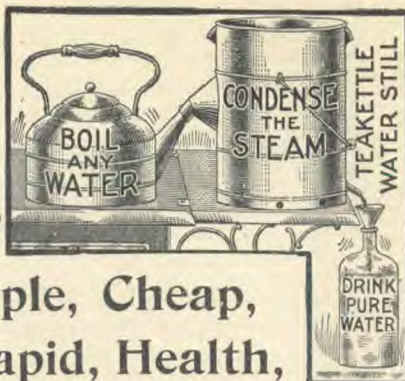
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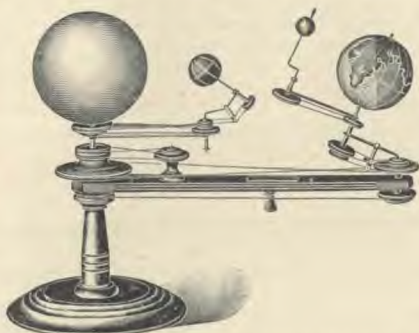


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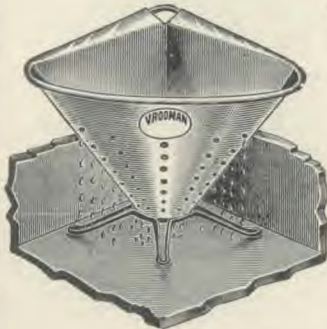
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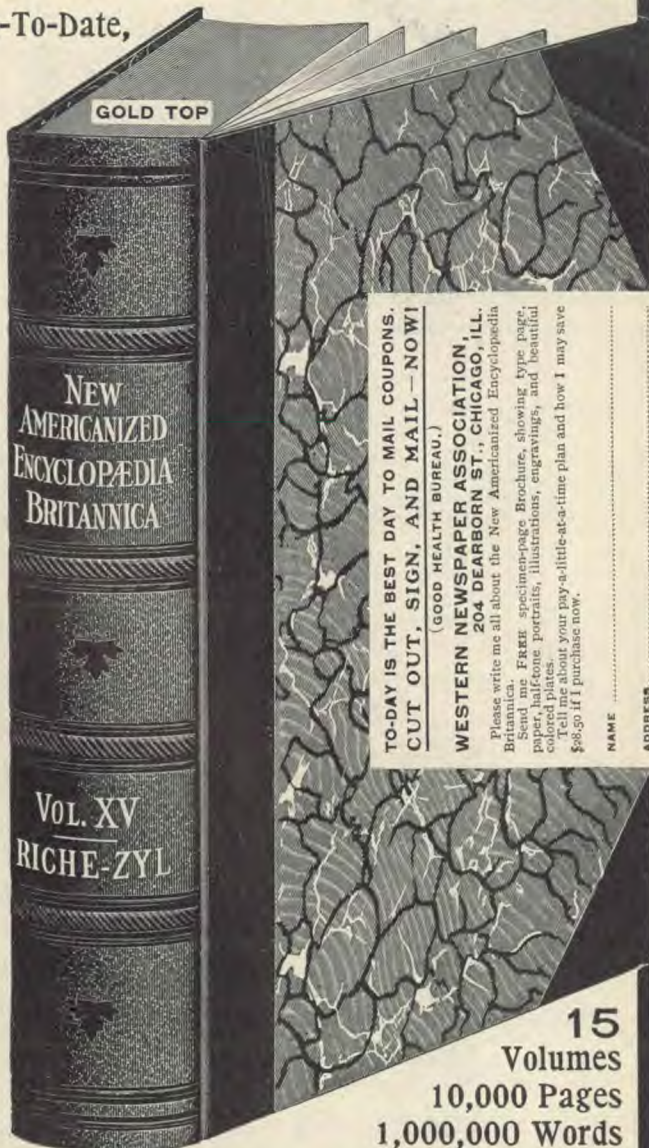
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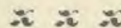
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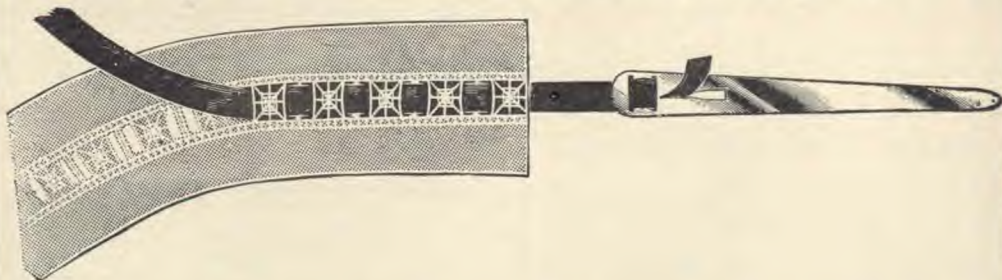
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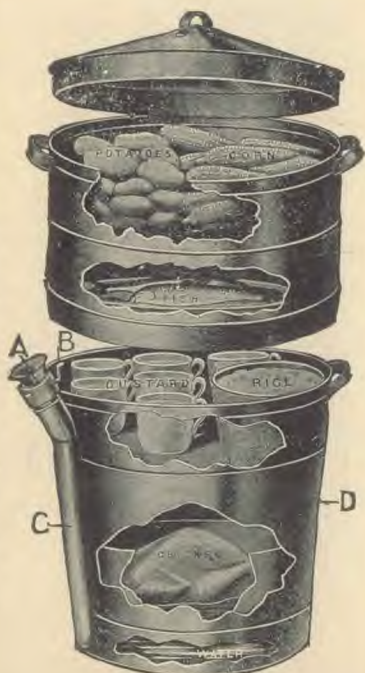
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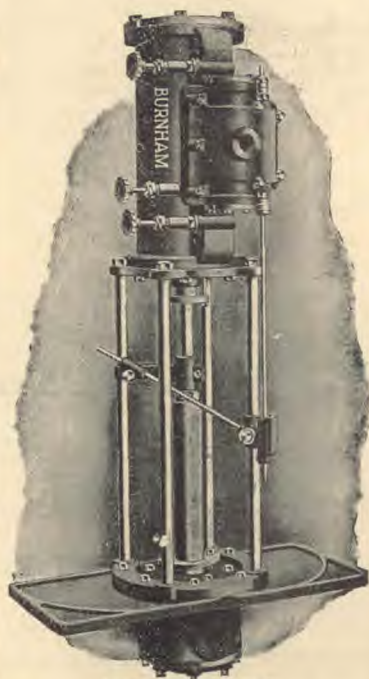
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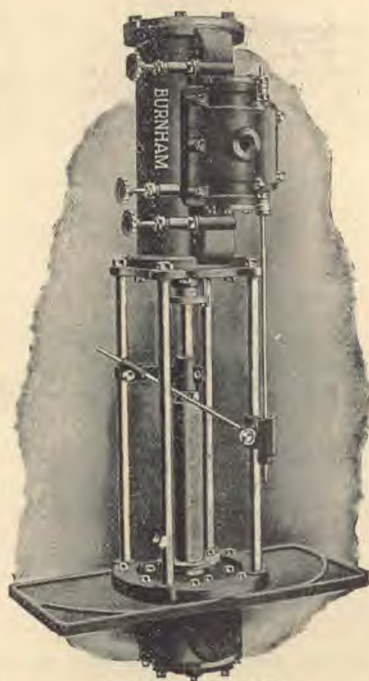


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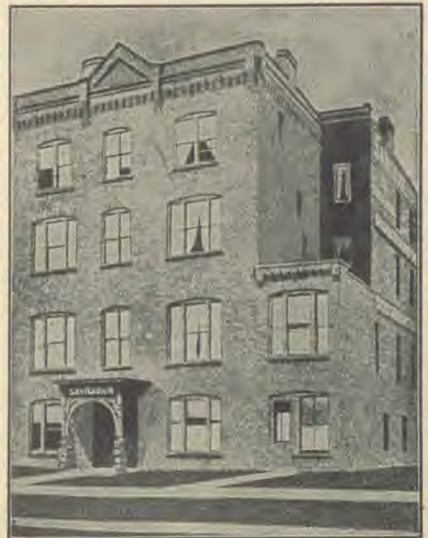
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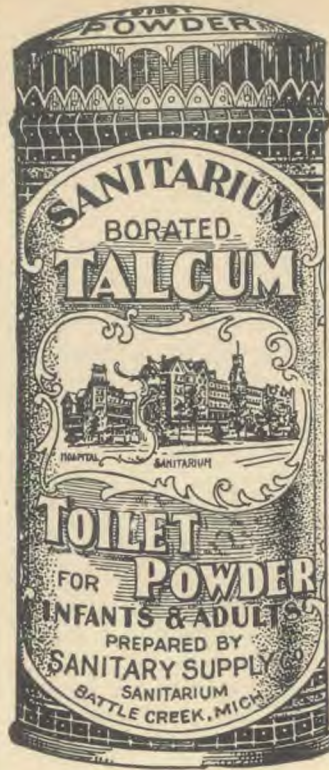
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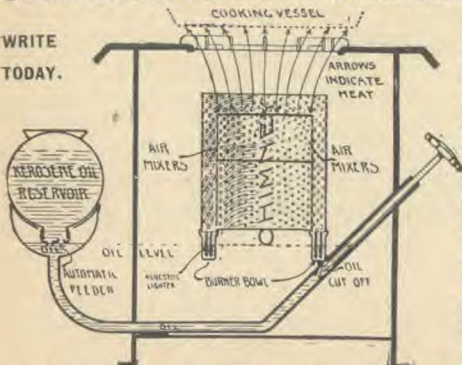
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