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THE BASIC PRINCIPLES OF RACE BETTERMENT*

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O APPRECIATE FULLY THE GREAT SERVICE which this Conference will render to humanity, if it establish the principles of race betterment on the immutable basis of science, we need to consider for a moment the past and present unscientific and inefficient methods of betterment of the degenerates of the race. Looking backward we learn that man has usually been regarded as an unknown entity, a mysterious combination of the animal, the satanic and the divine, the two former attributes being usually the most con-

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spicuous. He was studied in the concrete or objectively and hence judged by what was seen of his person and known of his acts. Efforts to benefit him were limited to improving his personal appearance, supplying evident wants, and punishment of criminal acts. The result was that neither the individual nor the race was made permanently better by the remedies employed. The recipient of these favors went on his way rejoicing, giving full play to his animal instincts by begetting "his kind." The diagnosis was based on false premises and the remedial measures were useless or harmful.

ONE RUDELY THRUSTS THE MANACLED CRIMINAL into a dark and filthy cell and degrades him by every possible means of humiliation as the best agency for his betterment. When he leaves the prison he gnashes his teeth with rage like an infuriated animal, declaring that he will get even with his keepers, and resorts to the saloon and resumes his criminal habits. A second regards the criminal as one doomed by a degenerate parentage, evil associations, absence of education and familiarity with vice in every form from childhood, to a life of crime. He reasons that the best agency for the betterment of the criminal is such a complete change in his daily life that the criminal life to which he was born and trained will become even loathsome. Accordingly, the prisoner is humanely treated. "Truth and trust" is the motto of that prison and its graduates enter upon a new life deeply grateful for the providence which committed them to its reforming treatment and beneficent care.

THE TWO WIDELY DIFFERENT AGENCIES for the betterment of the race, represented by these examples, forcibly but truly illustrate the present state of public opinion in the organiza-

tion and management of our charitable, penal and other institutions for the degenerate classes of every grade. But it is evident that in both instances the philanthropists were actuated by sentiment and not by science, by a desire to better the conditions of the vagrant and criminal, but without any knowledge of the method by which their acts would accomplish the purposes intended. In other words, there was such profound ignorance on the part of both of man's intellectual endowment that the fact that one was made better and the other worse by the treatment received would be regarded as incidental.

IGNORANCE OF MAN'S PHYSICAL CONSTITUTION has unfavorably influenced every effort for his betterment and still is the greatest obstacle to success in our treatment of the defective and dependent classes. Though we live in the noon-day effulgence of the sciences of biology and physiology, their light illumines only the upper atmosphere, and does not penetrate the dense gloom which envelops the degenerate of our race.

There is no better illustration than that furnished by medical art, of the disastrous influence of ignorance of man's intimate physical nature upon efforts to relieve his disabilities, and the power of scientific knowledge of these essential facts to apply with precision the exact remedy required to give relief.

IN THE DAYS OF IGNORANCE "the mysteries of physis" was a term in common use by the profession. Diagnosis was merely guess-work and therapeutics was grossly empirical. Diseases of organs were treated in the mass as a single affection. "Lung disease," "heart disease," "liver disease" were common terms, each now known to cover a multitude of ailments, but unknown to the practiser of that time because he was ignorant

of the minute structure of the organs and of the consequent great variety of affections to which each organ was liable. In the treatment of the diseases of an organ, the physician made but one prescription, and for any new symptom which might appear he added another drug, until the single prescription sometimes contained ten or a dozen different remedies. This was the famous "shot-gun" prescription, which was "sure to kill something." Possibly this incident explains the familiar story of the old physician who said that when he began practice he had ten remedies for one disease, but in later life he had one remedy for ten diseases.

THE GREAT REVOLUTION IN MEDICAL PRACTICE came when Virchow, the German medical scientist, revealed the fact that the ultimate elements of man's physical organism is a commonwealth of infinitesimal bodies known as cells; that every organ is a wonderful mechanism adapted to its special function by the multiplication and arrangement of its cells numbering thousands of millions in a single organ; that each cell-unit has its own special function, its own diseases, its own symptoms and requires its own special remedies.

It is quite impossible for one who was not a contemporary with this discovery to appreciate its remarkable influence on medicine as an art. The scales fell from the eyes of the practiser and where previously he had known imperfectly but two or three diseases of an organ, as of the heart and lungs, he now recognized scores, each with well defined symptoms, and each requiring a special remedy. The entire field of medical practice was revolutionized; diagnosis became exact; treatment precise, the saving of life enormous. Evidently, the basic principles of medical practice are: 1. Exact knowledge of the struc-

ture and functions of the organ affected; 2. The nature of the diseases to which it is liable; 3. The symptoms peculiar to each disease. With this knowledge the medical practiser no longer masses diseases and gives a multiple dose, but carefully discriminates between the symptoms, determines the single disease and its progress, and then administers the appropriate remedy and secures the desired results.

NO ONE PERSONALLY FAMILIAR with the management of the charitable, reformatory, eleemosynary and other institutions for the degenerate classes can doubt that we signally fail to accomplish the objects of their creation—the betterment of their inmates—through ignorance of the basic principles on which that betterment must rest, viz.; intimate knowledge of the physical capacity of each individual to be improved and the means by which that capacity can be most effectually developed. We mass these unfortunates together under one name, as did the physicians the diseases of one organ, and make one prescription for the lot that has not the merit of even a variety of ingredients. The insane of every form and grade, curable and incurable, are crowded into asylums, where their individuality is merged in the seething mass; the criminals, young and old, thieves, highwaymen, adulterers, murders, crowd the prisons, without the slightest effort or even pretense on the part of officials to individualize them and employ suitable measures to render them capable of self-care, possibly of self-support, and certainly to insure humane treatment.

THE EXPERIENCE OF A GENERATION in official visitation and supervision of the charitable, reformatory and eleemosynary institutions of the State of New York has deeply impressed

me with the conviction that our efforts to benefit the vast population in public and private care—idiots, feeble-minded, insane, criminals, deaf, blind, epileptic, vagrants—is in its primitive stage of development. The institutions for their care and treatment are becoming less and less *curative* and more and more *custodial*. The result is the gathering and support at public expense of an immense population of more or less able-bodied men and women—vagrants, criminals, blind, insane, epileptic—who on account of their various ailments, physical and mental, are allowed to pass their lives to old age in complete idleness. No sadder sight awaits the visitor to these institutions than to see groups of these people, well fed and clothed, sitting in idleness in and around the buildings on a bright summer day and in view of farm lands largely cultivated by paid laborers.

Many of these institutions could place on the lintel of their entrance door the famous motto, "Who enters here leaves hope behind." An eminent physician, disappointed at the few discharged from these charities, compared with the large number admitted, characterized them as "Great Hospitals of Lethargy."

But there is a hopeful future dawning for all classes of delinquents, degenerates, and deficient, however handicapped by heredity, environment, accident or disease. The science of biology and physiology, which revealed to medical art the minute structure and function of the ultimate elements of the vital organs and thus made that art exact in practice to the great saving of human life, is penetrating farther and farther into that hitherto mysterious mass of apparently homogeneous matter, the brain, and astonishing the world with its wonderful revelations. Here it has found the very springs of human existence—the centers of consciousness, thought, action—the home of the soul, the Ego, the man. In these discoveries we find the basic princi-

ples of race betterment. The adage is still true, that it is "the mind that makes the man," and all our efforts to improve the individual and through him the race must center in the normal development and physiological action of the ultimate elements of the brain, the organ of the mind. Every effort we make to improve man's physical condition should be subordinate to its effect on the brain. A recent writer says, "Whatever elevates the physiological above the psychological, the body above the mind, is an enemy of the race and no method for its regeneration." Henceforth, all our efforts to better his condition should be based on an intimate knowledge of the brain, admittedly the organ through which that mysterious entity, the mind, finds expression.

IN ORDER TO OBTAIN A MORE THOROUGH UNDERSTANDING OF THE SUBJECT MATTER of this paper, especially by lay members, it will be necessary to explain in a familiar way some features of the structure and functions of the elements of the brain.

Reduced to its simplest form and expression the ultimate element or unit of the brain is a cell which with its nerve is now called a "neurone." This infinitesimal body is recognized by scientists as the source of all mental phenomena—thought, word, act. In efforts to express estimation of brain-cells in the relation which they bear to the mentality of the individual, the most eminent physiologists of our time have used the following emphatic terms. One states that "the cell is a unified organ; a self-contained living being." A second regards it as "the sole active principle in every vital function." A third asserts that it is "the medium of sensation, will and thought, the highest of the psychic functions." A fourth says, "As are his neurones (brain cells) so is the man."

THOUGH THE CELL IS SO "EXTRAORDINARILY COMPLICATED" that its essential constitution eludes our observation," its general structure and more important features are well known. The following facts in regard to it have been recorded by physiologists. A cell is "an individuated mass of *protoplasm*, generally of microscopic size, with or without a nucleus and a wall." Protoplasm is an albuminoid substance, ordinarily resembling the white of an egg; is capable of manifesting vital phenomena, as motion, sensation, assimilation, reproduction; the least particle of this substance, a single cell, may be observed to go through the whole cycle of vital functions; it builds up every vegetable and animal fabric; is the physical basis of life of all plants and animals.

THE PROTOPLASM OF THE BRAIN CELLS is so extremely sensitive that by proper instruments it has been ascertained that a change can be detected in its substance when a cloud passes over the sun; also a thermometer will detect a rise of its temperature during any great mental effort; and, again, delicate scales will weigh the amount of blood which rushes to the excited brain cells for their nutrition when a person in a recumbent position has sudden mental excitement.

The cells, estimated to be upwards of two thousand millions in the human brain, are implanted before birth in a rudimentary form and undergo an evolution from the cell of the lowest animal life to the complex cell of the human brain. Though at birth the cell has been perfected, so far as regards its structural adaptation to its special future function, yet it will remain in an inert state and undergoes no further change or development until excited to activity. Each cell has its own special function to perform and hence has its own special stimulant; the cells of the

auditory center are stimulated by sound, those of the ophthalmic center by light, those of the olfactory center by odors.

PHYSIOLOGISTS BELIEVE that in the human brain there are large numbers of nerve-cells that remain undeveloped because never excited to functional activity, and also that at any period of life, cells hitherto inert may receive their proper stimulus and become active. They assert that if to the born-blind there is no world of light, and to the born-deaf there is no world of sound, may it not be a fact that worlds exist around us other than those revealed by the five special senses, worlds which we do not recognize because the special nerve centers for that purpose have not as yet been stimulated to activity?

Cells, like other tissues, are constantly undergoing change in the act of nutrition and owing to their extreme susceptibility to impressions, their functions are easily disturbed by the food we eat, the fluids we drink, the condition of our digestion, in addition to the infinite number of impressions which they daily receive from causes internal and external to the body. For this reason our mental moods are constantly changing; we are not the same this year that we were last year, this month that we were last month, this evening that we were this morning. It follows that any change in the constitution or structure of the cell must be attended by a derangement of its function that would find expression in the mental acts of the individual. If a group of cells should from any cause cease to act, the mental attributes which they manifest, when acting normally, must cease. Equally, if the same cells are over-stimulated their functional activity is correspondingly increased. Or, again, if the structural properties of the cells are changed, as by alcoholic intoxication, or by any other toxic agent which finds access to the brain and

for which any cells have an affinity, the mental function expression would be changed to the extent that the affected bodies contribute to the mentality and personality of the individual, and in the particular feature involved therein.

PHYSIOLOGY TEACHES THAT THESE CELLS ENDOW all forms of animal existence with that degree of intelligence necessary to their personal welfare in the sphere in which they live—man, cosmopolitan in his habits, standing at the head with two thousand millions as his requirement and the animalcule, fixed in its place, with one to meet its simple wants. It follows that these cells, so far as they exist and are brought into functional activity, constitute the personality of the individual, the "ego," whether of man or animal.

And wherever these cells are found, whether in the brain of man or beast, fish or fowl, insect or creeping thing, they only await the skill, the cunning, the patient of the expert educator or animal trainer to show the world an idiot working at his trade, a horse responsive to every word or gesture of his keeper, a dog going on an errand by command of his master whom he does not see and always selecting the right article, a learned pig solving arithmetical problems, seals performing difficult stunts, ants learned in military tactics.

THE PERFECT BRAIN must be one in which all of its cells have their full and normal functional development. But the degree of development depends upon so many conditions personal to the individual that it is doubtful if a perfect human brain ever did or ever will exist on this planet. In every community, and often in the family, we recognize vast differences in the mental development of individuals, though they seem to be

living under precisely the same conditions. But underlying, or interwoven in, these external and recognized similar conditions are undiscovered incidents that account for the differences so apparent. Traced to its true source it will be found that opportunity, that is, the application of the greatest number and variety of stimulants to the brain through the special senses—seeing, hearing, feeling, tasting, smelling,—accounts for much of what we call degeneracy. The farm laborer toiling alone has none of the intelligence and vivacity in conversation of the village tailor, cobbler or blacksmith, though equally endowed mentally. The farmer has few brain stimulants, while the latter are abundantly supplied through constant contact with customers. A school boy rated as deficient saw an older scholar sketch a horse on the schoolroom door; he was so profoundly impressed by the picture (that is, his art nerve-centers were so stimulated) that he devoted himself constantly to sketching and became the most distinguished portrait painter of his time.

THE MOST INTERESTING AND PRACTICAL FEATURE OF THESE CELLS which we have learned is the control that we may exercise over their functions. They enlarge and become active when we stimulate them, and atrophy and become passive when we withhold stimulants. As each cell, or group of cells, has its own special function to perform, we can select the group that will accomplish the object we have in view, and stimulate it to the degree necessary to reach the desired result. Or we may reduce an active group of cells to their rudimentary state of quiescence by withholding its proper stimulant.

Reduced to its simplest expression the question that confronts us is, How can we secure to each individual of the race a normal development of his brain cells? Applying these basic principles

to the betterment of the race two methods of procedure naturally occur to the scientific student. First is prevention, or the adoption of such measures as will prevent the birth of degenerates; and, second, an effort to improve the condition of existing degenerates.

Two methods of preventing the propagation of degenerates are practised; *viz.* 1. Sterilization, and, 2. Segregation of the sexes. The first method is an efficient means of preventing the increase of their "kind" of those who submit to the required operation. Fortunately the method of operating has been reduced to a simple and harmless form.

But however effective sterilization and segregation may be in arresting the increase of degenerates, they are methods which must necessarily have limited application. The great problem before this Conference and all workers in the field of philanthropy is the betterment of the defectives as we find them in every grade of society.

If we adopt the basic principles of race betterment as herein set forth that problem may be stated as follows: How can we make the brain of the defective most useful to its possessor? Considering the remarkable sensitiveness of the nerve cells of the brain to impressions both within and without the body, it is evident that the measures which may be employed to arouse the cells to activity and restore their normal functional capacity are innumerable, and their effectiveness will depend upon the intelligence, patience and perseverance of the responsible caretaker.

MORE THAN A HALF CENTURY ago Dr. Harvey B. Wilbur reduced the theories of science to practice and demonstrated their truth. I was witness to his experimental work on idiots and feeble-minded, and it is interesting to note that

they are founded on the modern teaching of physiology in regard to the structure and function of the brain cells. His explanation of his method was to the effect that the idiot had a dormant nervous system, and the first step in his education must be to arouse the brain to activity; that the best method of making a first impression was through the sense of feeling; that the shock communicated by a metallic substance through the sensitive surface of the hand was the most effective. His argument was logical. In practice he placed the idiot-child on the floor and laid a dumb-bell by his side, fixing the child's hand on the shaft. Standing in front of his pupil, the doctor deliberately struck the boy's dumb-bell with a dumb-bell in his own hand. The first trial was on a boy whose idiocy was so profound that he scarcely noticed anything. The clash of the metals startled the boy so that he involuntarily removed his hand from the dumb-bell. This was the first trial, as he had just been received. The doctor pronounced him a promising pupil, as his nervous system was sensitive to impressions.

THREE other pupils under training were tested, each showing improvement in proportion to the length of time of teaching; the first of these raised his eyes and was excited as the Doctor's dumb-bell descended; the second removed his hand before the dumb-bell was struck, and laughed; the third imitated the Doctor in the use of the dumb-bell.

Doctor Wilbur explained that this method of arousing a dormant brain (unconsciously referring to the cells) had this advantage, that he stimulated at once three of the five special senses—feeling, seeing, hearing. If we could trace the far-reaching connections of the cells of the special centers with other centers higher in the brain and leading up to the great centers of

ideation, we should have seen hundreds of thousands of inert and hitherto dormant cells awakened to activity and the performance of their proper function.

The treatment of criminals on the physiological plan strikingly illustrates its value compared with the antiquated, barbarous punitive methods still practised. "When you pass through the gate to this place, you left your past life behind you; I do not wish to have you ever refer to it; my only concern is as to what your future life will be, and to determine that question you are here." Such was the reply which the superintendent of a prison for convict women made to the threats of homicide of a young woman who was declared by a Boston judge to be the most desperate criminal ever known in the courts of that city. She boasted of having been in every prison in Ireland and in many of this country. The treatment was physiological; all incitements to vice and crime were removed and every possible stimulant to virtue substituted; the cells of the former wasted while the cells of the latter grew and became dominant. Today the priest of her parish in Ireland writes that she is the most helpful person he has in his work among the vicious classes.

"Try me," said a prisoner to the sheriff who asked him if he would work for wages. These two words reformed the management of a Vermont prison and made it a school for the making of useful citizens. The prisoners go out to work in the city of Montpelier and command by their conduct universal respect. They are seen on the streets on holidays without attendants; they receive wages for their work and thereby support, not only their families, but the prison itself. They leave the prison prepared to lead the lives of good citizens and few fail to meet that test of true reform.

THE CURATIVE TREATMENT OF THE INSANE received a stunning blow by the publication of some ancient statistics showing that large numbers discharged as cured relapsed. This report by an eminent alienist had a blighting effect upon the faith of medical men in the real curability of the insane, and revived the old but popular belief, "Once insane always insane." The result was that their treatment became more empirical than scientific, the state hospitals custodial rather than curative, and the rate of cures a meagre 25 to 30 per cent. An expert alienist, familiar with the management of institutions for the insane, has recently stated that 75 per cent of the insane are curable, and 90 per cent are capable of self-support, if adequate measures are taken for their cure, and for their training. This statement accords with my experience as Commissioner in Lunacy of the State of New York. "Adequate measures" embrace an exhaustive study of each case by a competent physician and persistent treatment.

FINALLY, I can only allude to the vast but practically unexplored field of medical therapeutics, which we have reason to believe abounds with agents for which brain-cells have a selective affinity. As we have stated, each cell has its own special stimulant and its own power of selecting from the blood the kind of nutriment and stimulant adapted to its function. When we know the affinity which any cell or group of cells has for a particular medicine we can medicate that particular cell or group with perfect accuracy. Thus, the oculist wishes to expand the pupil of the eye in order to explore its deeper recesses and with perfect certainty he uses atropine which temporarily paralyzes the nerves that supply the iris, but has no other sensible effect.

THE CONCLUSIONS AT WHICH WE ARRIVE from the preceding discussion are that agencies for race betterment are worthy of promotion in proportion to their power to increase the mentality of the individual. These agencies include everything that promotes physical health and stimulates to normal activity the five special cell centers—seeing, hearing, feeling, smelling, tasting. As has already been shown physiology teaches that these agencies are innumerable.

MEMBERS OF THE CONFERENCE, we organized today and put in operation a new force in the field of philanthropy. That field is the world of mankind. Our fore-parents *tasted* the forbidden fruit, for it was pleasant to the eyes, and thereby awakened two dormant, rudimentary cell-centers—good and evil,—the latter of which has dominated the race to this day through the inviolable law of heredity. Sickness and death, insanity, and imbecility, injustice and violence appear in every period of history, as if these were the normal conditions of man. Inheriting as a birthright health and longevity, man suffers from every form of disease and lives but a moiety of his predestined life. Of the children what percentages never see the anniversary of their birth! What other large percentage dies under five years! Few, comparatively, reach the age of ten; at twenty the generation has dwindled to an insignificant minority and at thirty-three to forty-five disappears. But three in a thousand reach the age of one hundred years, which his physical endowments show to be man's normal and possible longevity.



THE best doctors in the world are Doctor Diet, Doctor Quiet, and Doctor Merryman.—*Dean Swift.*

A New Force in the Field of Race Betterment

NO GATHERING OF RECENT YEARS has promised so much of practical results in race uplift as the National Conference on Race Betterment, which has just been held in Battle Creek. The Conference did not confine itself to any one phase of physical, mental and social betterment to the exclusion of others, but afforded a common ground on which sociology, criminology, psychology and associated sciences might get together and formulate a working program that would unite their efforts in behalf of humanity.

The Very Reverend Walter T. Sumner, Dean of SS. Peter and Paul Cathedral, Chicago, who pioneered the eugenic marriage movement, and who contributed much to the success of the Conference, put the case very concisely in a letter to the *Chicago American*, which we take pleasure in quoting as follows:

"BATTLE CREEK, MICH., JAN. 12.—Nearly 400 men and women from the fields of science, education and health, meeting as pioneers, to plan a work that will have as its consummation the building of a race of mortals, free from the mental and physical blemishes of the present day—that, in brief, epitomizes the National Conference on Race Betterment being held in Battle Creek. It is said to be the first meeting ever held in the United States to study the deteriorating influences actively at work in the life of man. Certainly, it is the most representative gathering ever held to study that subject.

"The movement had its inception among three men, each of whom, very generously, passes the credit of suggestion to others. The three are Professor Irving Fisher, of Yale University, the

Rev. Newell Dwight Hillis, Pastor of Plymouth Church, Brooklyn, and Dr. J. H. Kellogg, Superintendent of the Battle Creek Sanitarium. The three are very earnest in their efforts along the lines of human betterment, and each has contributed time and thought in bringing about the first Conference. Its success would seem to insure its perpetuation as an annual affair: I am told that a number of cities have asked for the meeting next year, a fact which I mention merely to point out the responsive chord of interest that it has awakened.

“It would seem that the time is well advanced for such a Conference. Its meeting at this time seems propitious. We are passing through an era of social discontent; we are no longer willing to accept opinions of former generations. We are thinking our own thoughts and in matters broadly affecting our individual health we are very much interested. As a people, even as a race, we are beginning to see things about us—in the air we breathe, in the food we eat, in the thoughts we think, that alarm us.

“**W**E ARE ABLE TO LOOK ABOUT US and see the ravages of crime and disease. We see the filled prisons and madhouses. We see unhappy marriages, with the secret misdeeds of the parents visited in affliction upon the children. All these things are apparent to all who care to observe. Many have preferred to ignore these unhappy conditions, rather than to earn the applause of pessimists, and, so, things have drifted along for years with here and there a zealous man or woman crying out against the perils that frowned down on mankind. This Conference has enlisted the intense interest of some of America's leading thinkers. They are prepared to study conditions as they find them, optimistic despite their revelations,

because they 'realize that a danger uncovered is less dangerous than a hidden peril.'

THE PURPOSE OF THIS CONFERENCE is to assemble evidence as to the extent of race deterioration and to promote agencies for race betterment. The opening days of the Conference have been devoted to assembling such evidence. Speakers have told of the ravages of tuberculosis and cancer; they have talked of the increase in crime and insanity and the decreasing birth-rate; they have discussed alcohol and tobacco as race poisons. The status of the colored race has been considered; the "yellow peril," so-called, has been given attention. Along almost every angle the investigation has proceeded, until the conditions of humanity have been made comparatively apparent. In addition, the Conference has considered means of checking the downward trend and of promoting agencies of bettering mankind.

"Methods of preventing the reproduction of degenerate types have been presented. Sterilization has been suggested and arguments have been advanced in support of that movement. Another remedy which has been suggested for the same social malady is segregation of sexes among degenerates.

THIS IS JUST THE BEGINNING. The Conference will be an annual affair. It will enlist more great minds at the next meeting. In the meantime, the public is being interested through the press, and the movement for a new and perfect race is fairly launched.

"We must meet and overcome the problems that confront mankind, and the National Conference on Race Betterment, with

its broad plan of work, I am convinced, will prove a great force in the fight for higher ideals for mankind."

A SPLENDID OBJECT LESSON was afforded the Conference in its President, Dr. Stephen Smith, whose every faculty is alert and keen at the age of ninety-two. The entire address with which he opened the Conference, twenty-three typewritten pages in length, he read in a clear voice, heard in every part of the auditorium, without a sign of fatigue. The venerable President missed scarcely a meeting and took an active part in the discussions.

A MONG THE DISTINGUISHED MEN cooperating with Doctor Smith in making the meeting a success were Dr. Newell Dwight Hillis, Pastor of the Plymouth Church, Brooklyn; Dr. C. B. Davenport, Director, Carnegie Station for Experimental Evolution; Dean Sumner, of Chicago; Dr. Victor C. Vaughn, President, American Medical Association; Professor Graham Taylor, President, Chicago School of Civics and Philanthropy; Dr. J. N. Hurty, Secretary, Indiana State Board of Health; Dr. Dudley A. Sargent, Harvard University; Mr. Frederick L. Hoffman, Statistician to the Prudential Life Insurance Company; Dr. Cressy Wilbur, Chief Statistician, Division of Vital Statistics, Bureau of Sciences, Washington, D. C.

Dr. Stephen Smith's opening address forms the leading article in the present number of GOOD HEALTH; in the next and following numbers we shall take pleasure in reproducing other valuable addresses at the Conference.



A LAUGH is worth a hundred groans in any market.—
Charles Lamb.

WHOSOEVER wishes to eat much must eat little—which means simply that eating of little lengthens a man's life, and by living a long time he is enabled to eat a great deal.—*Cornaro*.



The Super Race

THE "SUPERMAN," as idealized by Nietzsche and interpreted by George Bernard Shaw, has never acquired a popular following. To most people the superman is abnormal; he is utterly lacking in human qualities—in sympathy, in insight, in toleration; on this account he makes no appeal to the imagination. And yet it is probable that the superman is normal, and the average man sub-normal.

Professor Scott Nearing, giving expression to this view in a recent volume on "The Super Race," describes at some length what he calls the "super race," which, he says, is "nothing more nor less than a race representing, in the aggregate, the qualities of the superman—"the qualities which enable one possessing them to live what Herbert Spencer described so luminously as a 'complete life,' namely—

1. Physical normality.
2. Mental capacity.
3. Aggressiveness.
4. Concentration.
5. Sympathy.
6. Vision."

These qualities manifest themselves in man's activity as follows:

- "1. Physical normality provides energy.
2. Mental capacity gives mental grasp.

3. Aggressiveness }
 4. Concentration } produce efficiency.
 5. Sympathy leads to harmony with things and co-operation with men.
 6. Vision shows itself in ideals."

These qualities certainly are capable of idealization. As Doctor Nearing goes on to say, "The energy to do, and the mental grasp to appreciate, together with the capacity to choose efficiently, furnish the basis for achievement. Achievement, however, is not in itself a guarantee of worth unless its course is shaped by sympathy and directed toward a goal which is determined by the prophetic power of vision. Such are the characteristics which, combined in one individual, insure completeness of life. About them, philosophers have reasoned and poets have sung. They are the acme of human perfection—the ideal of individual attainment."

ALL THIS IS SO WELL put and so to the point, in view of the growing interest in eugenics, that the reader will pardon us, we are sure, if we quote further from Doctor Nearing's inspiring work.

EUGENICS, ASSISTED BY SOCIAL READJUSTMENT AND EDUCATION, must be depended upon for the production of a race in which these qualities shall not be occasional, but constant, says Doctor Nearing, "The laws of heredity, studied in minute detail, have been applied with marvelous success in the vegetable and animal kingdom. 'Is there any good reason,' demands the eugenist, 'why the formulas which have operated to re-combine the physical properties of plants and animals, should not in like measure operate to modify the physical properties of men and women?'"

“THE STUDIES WHICH HAVE BEEN MADE OF EYE COLOR, length of arm, head shape, and other physical traits show that the same laws of heredity which apply in the animal and vegetable kingdoms apply as well in the kingdom of man. Since the species of plants and animals with which man has experimented have been improved by selective breeding, there seems to be no good reason why the human race should not be susceptible of similar improvement. What intelligent farmer sows blighted potatoes? Where is the dog fancier who would strive to rear a St. Bernard from a mongrel dam? Neither yesterday nor yet tomorrow do men gather grapes of thorns. Those who have to do with life in any form, aware of this fact, refuse to permit propagation except among the best members of a species; hence with each succeeding generation the ox increases in size and strength; the apple in color; the sweet pea in perfume; and the horse in speed. Is this law of improving species a universal law? Alas, no! it rarely if ever applies in the selection of men and women for parenthood. The human species has not, during historic times, improved either in physique, in mental capacity, in aggressiveness, in concentration, in sympathy or in vision.

“There appears to be some question as to whether the best of the Greek athletes exceeded in strength and skill the modern professional athlete, but there is no doubt at all that the average citizen of Athens was a more perfect specimen physically than the average citizen of twentieth century America.

“SOME STUDENTS INSIST THAT THE LEVEL OF INTELLECTUAL CAPACITY has been raised, yet Galton, after a careful survey of the field, concludes in his ‘Hereditary Genius’ that the average citizen of Athens was at least two de-

grees higher in the scale of intellectual attainment than the average Englishman; Carl Snyder boldly maintains that the intellectual ability of scientific men is less today than it was in past centuries; while Mrs. Martin, in a study more novel than scientific, insists that the genius of the modern world is on a level distinctly below that of the genius of Greece."

THE subject of eugenics Doctor Nearing divides into "positive eugenics" and "negative eugenics"—"through the establishment of negative eugenics the unfit will be restrained from mating and perpetuating their unfitness in the future. Through positive eugenics the fit may be induced to mate, and by combining their fitness in their offspring, to raise up each new generation out of the flower of the old." Negative Eugenics, in other words, eliminates the unfit, while Positive Eugenics perpetuates the fit.

"THE FIELD OF NEGATIVE EUGENICS has been well explored. No question exists as to the transmission through heredity of feeble-mindedness, idiocy, insanity and certain forms of criminality. "There is one way, only one way, out of this difficulty. Modern society . . . must declare that there shall be no unfit and defective citizens in the State.' The Greeks eliminated unfitness by the destruction of defective children; though we may deplore such a practice in the light of our modern ethical codes, we recognize the end as one essential to race progress. By denying the right of parenthood to any who have transmissible disease or defects, our modern knowledge enables us to accomplish the same end without recourse to the destruction of human life.

“SIR FRANCIS GALTON, the founder of the science of Eugenics, writes, in his last important work, ‘I think that stern compulsion ought to be exerted to prevent the free propagation of the stock of those who are seriously afflicted by lunacy, feeble-mindedness, habitual criminality and pauperism.’ Yet society, in dealing with hereditary defects, presents some of its most grotesque inconsistencies. ‘It is a curious comment on the artificiality of our social system that no stigma attaches to preventable ill-health.’ An empty purse, or a ruined home may mean social ostracism, but ‘break-down in person, whatever the cause, evokes sympathy, subscription and silence.’

“CERTAIN DEFECTS ARE KNOWN to be transmissible by heredity from parent to child, until the cretin of Balzac’s ‘Country Doctor’ is reproduced for centuries. The remedy for this form of social self-torture lies in the denial of parenthood to those who have transmissible defects. Individually, such a denial works hardships in this generation: socially, and to the future generations, it means comparative freedom from individual, and hence from social defects.

“THE PROBLEM OF POSITIVE EUGENICS presents an essentially different aspect. As Ruskin so well observes—‘It is a matter of no final concern, to any parent, whether he shall have two children or four; but matter of quite final concern whether those he has shall or shall not deserve to be hanged.’ The quality is always the significant factor. Whether in family or national progress, an effort must be made to insure against hanging, or against any tendency that leads gallowsward.”

IN a recent work on old age, Dr. Robert Saundby addresses himself to the question as to the effects of tea and coffee and cocoa upon the aged. He makes the statement that "these drugs are dietetic luxuries of no food value, containing a poisonous principle (caffein, theobromin) and in some instances a great deal of tannin, they all delay digestion, stimulate the heart and nerve centers, and to stimulate often means to irritate. Even of cocoa, generally considered to be the least harmful, Neumann, according to Professor Chusins, says it retards the absorption of protein and fat, delays gastric secretion, causes dyspepsia, diminishes appetite, has caused convulsions in an infant when taken by a nursing mother, renders children nervous and excitable, prone to nightmare or to talk in their sleep, and causes bilious attacks and skin eruptions."



MAKING A GOOD BEGINNING



THE MECHANISM OF THE HUMAN BODY, like that of any machinery, must be in its fittest condition to do the most efficient work. In other words, one must be at his best to do his best, so that whatever contributes to health and vigor is a certain gain towards efficiency. This it is well worth our while to cultivate.

An important health measure for daily practice is the morning cold bath. It is the best of preparation for the day's work. Its purpose is not especially that of cleansing the body, although it does aid in keeping the skin clean. A well known authority says: "The benefits of the cold bath are not experienced in

the skin alone; the whole body partakes in the reaction. The contact of cold water or cold air with the skin arouses the brain and the spinal cord, the heart, lungs, liver, and every internal organ to renewed activity. The heart pumps with renewed vigor, blood is forced into every nook and corner of the system, the sluggish brain is aroused, the slow stomach is awakened to action, its glands are stimulated to produce gastric juice, a craving for food follows, and with the aroused appetite comes improved digestion. The whole body is excited to increased activity."

BESIDES, IT IS A REAL EXERCISE OR GYMNASTICS FOR THE SKIN. When taken daily, the nerves and vessels of the skin are maintained in so healthy and vigorous a state that they are able quickly to react when exposed to the cold, thus avoiding the injurious effects which follow slight exposure. Persons who practise daily cold bathing are little subject to colds."

THE COLD BATH MAY BE TAKEN IN A VARIETY OF WAYS, suited to one's condition and circumstances. Indeed, even water is not absolutely essential. Exposure to cold air, accompanied meanwhile by brisk friction of the skin, is equally good and by many considered more desirable. A curtained sleeping porch provides a good opportunity for the dash into cold air, which must be of brief duration. An unused room, with windows flung wide open, serves the same purpose. Slapping, spitting or rubbing of the body should be vigorously carried on during the entire exposure. Running, skipping or jumping during the exposures adds the advantage of exercise to those of cold air.

ONE MAY TAKE A COLD WATER BATH by a few seconds' plunge in cold water, by a shower, or by an all-over spray. When a bath tub is convenient a good method is to fill the tub with cold water to the depth of three or four inches. After disrobing bathe the face, neck and arms and chest, then step into the tub, and, sitting down in it, rub first the legs then the abdomen and chest, applying the water freely to all parts of the trunk. After five or six seconds lie down in the water long enough to count five, rubbing the sides of the body at the same time. Then, rising to a sitting posture, renew the rubbing of the limbs and trunk. The sitting and lying posture may be alternated several times, vigorous rubbing being kept up all the time. It is well to continue the bath until evidence of reaction appears in reddening of the skin. If one can not well endure so long an application, the skin after leaving the bath should be rubbed until well reddened.

FOR PERSONS WHO DO NOT HAVE ACCESS TO A BATH TUB, cold water from the faucet may be applied with the hand to the body surface—rubbing vigorously,—to the face and neck first, then to the front of the body, arms, legs and back, using for the latter a Turkish towel wrung dry enough not to drip, crossing it over one shoulder and under the other arm, rubbing it back and forth briskly over one side and then reversing. Dry and rub each part until well reddened before proceeding to the next. The water used should be quite cold and applied freely.

ONE NOT ACCUSTOMED TO COLD BATHING MUST BEGIN moderately, using water at about seventy-five degrees, gradually lowering the temperature from day to day until water

at sixty degrees is not unpleasant. The degree of coldness that will produce the most benefit differs with different individuals and at different seasons. Headache or languor should never result from the use of the cold bath. If such occur it is probable that the bath was either too cold or of too long duration, or that proper care was not used to secure proper reaction after the bath. Do not give up the bath, but change conditions.

Four points are especially to be borne in mind:

1. The body must be *all over warm* before any kind of cold bath. For this reason the best time for taking the bath is immediately upon rising, while the body is warm. If not warm the body should be warmed by taking a *very short* hot bath before the cold one. A cold bath to a cold body is dangerous.

2. The room in which a cold water bath is taken must be *warm*.

3. The body must be *all over warm* at the conclusion of the bath.

4. A cold bath must be of short duration—the colder the water the shorter the bath. Prompt and thorough reaction after a cold bath must always be the rule.

MRS. E. E. KELLOGG.



CONCERNING tobacco Doctor Saundby says, "All that has been said about tea, coffee, and cocoa applies with equal truth to tobacco; it contains a poison which acts much in the same way, diminishing appetite, irritating the bladder and disturbing the heart's action. Its use may cause irregular heart, tachycardia, weak pulse or cardialgia. The liability to suffer from mild poisoning increases with age, and any immunity that has been acquired by long habit is diminished."

Curability of a Large Proportion of Admissions to Hospitals for the Insane

STUDENTS OF RACE BETTERMENT PROBLEMS will find of interest these facts, given by Katherine Tucker, R. N., before the Mental Hygiene Conference and Exhibit held in New York City a year ago:

“During the last year, out of 5,700 first admissions to fourteen New York State hospitals, 13.3 per cent had syphilis as a causative factor; 10.2 per cent, mania-depressive; giving a total of 50.7 per cent who were there from preventable and largely manageable causes.” Certainly, people who are interested in the welfare of the race need not despair when so large a proportion of psychopathic cases can be prevented.

AT THE same meeting Everett S. Ellwood, Secretary of the Committee on Mental Hygiene of the State Charities Aid Association, demonstrated the tremendous part played by alcohol in insanity. “Ten per cent of the 5,700 admissions to our State hospitals during the year ending September, 1911, were suffering from alcoholic insanity in one form or another,” said Mr. Ellwood. “This means that approximately 600 men and women entered our State hospitals last year having mental disorder brought about by the use of alcohol. In addition to being the chief cause of the alcoholic insanities, we find alcohol a contributing cause in many mental breakdowns of various types.” Mr. Ellwood quotes the report of the New York State Hospital Commission to the effect that “in addition to those suffering from the alcoholic insanities, 6 per cent of those admitted last year owed their insanity to alcohol as the chief cause, making a total of 16 per cent of all first admissions whose

mental disorder was brought about by the use of alcohol. In addition to those cases where alcohol was the direct cause, 8 per cent were intemperate in their habits, thus making a total of 24 per cent of first admissions who owed their insanity directly to alcohol, or who were habitual users of the drug." The medical profession, Mr. Ellwood points out, is more pronounced than ever in its statements regarding the part played by alcohol in the production of various diseases, both mental and physical. What about the layman?



The Effect of the Emotions Upon Digestion

WRITING in *Harper's Magazine* for January, Fred W. Eastman suggests the many points at which our emotional life touches the physical, showing how blood-pressure, the proportion of red and white cells, the functioning of many of the important glands of the body—how these and other phases of body activity are profoundly influenced by our mental states. Referring to the epoch-making experiments of Cannon, Professor of Physiology in Harvard University, Mr. Eastman says that "the motility and the secretory activity have both been proved to be clearly dependent on the nature of the excitation in the central nervous system. Pawlow has made some interesting observations of gastric secretion in dogs, in connection with which an opening had been made through the neck into the throat, and the stomach provided with a side pouch which opened only to the exterior. After the food was swallowed by the dogs, it was lost through the opening in the throat and the effect upon secretion could be determined by measuring the

amount of flow from the stomach opening. These observations on dogs have been almost completely confirmed by studies of human beings under similar conditions. It was found in such cases that when agreeable food was chewed, a more or less active secretion of the gastric juice was started, whereas the chewing of indifferent material was without influence.

“On the other hand,” says the writer, “unpleasant feelings, such as vexations and some of the major emotions, are accompanied by a failure of secretions. If one of the above patients saw food he became greatly vexed when he could not eat at once; then no secretion appeared. In dogs the secretion has been stopped at its height for fifteen minutes or longer by bringing a cat into their presence. These effects may exist long after the removal of the exciting cause.

“**N**OT ONLY ARE THE SECRETORY ACTIVITIES OF THE STOMACH unfavorably affected during strong emotions: the movements of the stomach as well, and, indeed, the movements of almost the entire alimentary canal, are wholly stopped during excitement. Thus in the cat any sign of rage or distress, such as difficulty in breathing or mere anxiety, was accompanied by a total cessation of the movements of the stomach, and with the X-ray this has been observed to endure more than an hour, when the only visible indication of excitement in the animal was a continued to-and-fro twitching of the tail. What is true of the cat has been proved also true of the rabbit, dog, and guinea-pig. So, likewise, gastric and intestinal movements are stopped in man, as they are stopped in the lower animals, during worry and anxiety and the major emotional states. Indeed, the feeling of heaviness in the stomach commonly complained of by nervous persons may be due to the stagnation of food.”

THESE FACTS, which have long been insisted upon by GOOD HEALTH can not be repeated too often, especially the fact that, as the writer says, emotional disturbances affecting the alimentary canal are likely to start a vicious circle. As Mr. Eastman puts it, "The stagnant food, unprotected by abundant gastric juice, naturally undergoes bacterial fermentation, with the formation of gases and irritant decomposition products. These, in turn, may produce mild inflammation or be absorbed as substances disturbing to metabolism, and thus affect the mental state. Then the depressed mental state that accompanies 'indigestion' may still further prolong the indigestion."



Does It Pay to "Slump?"

UNDER THIS HEADING a recent number of the excellent *Health Bulletin* issued to the public by the Medical Department of the Postal Life Insurance Company, gives a straight talk to women about wrong habits of posture. Says the *Bulletin*, "Fashion has dictated that our women should 'slump.' It is not enough that the tyranny of the corset should distort the figures and dislocate the organs of humanity, but the fiat has now gone forth, 'Slump.'

"This means more neurasthenia, more chronic invalids, and who shall say how much domestic disharmony arising from jangled and tangled nerves?"

THE 'SLUMPER' IS NOT ONLY A CANDIDATE FOR TUBERCULOSIS, but for many other chronic maladies that are difficult enough to head off and do not need a cordial invitation to attack us. That the flat-chested, drooping, round-

shouldered individual is an easy mark for tuberculosis is a matter of common knowledge, but it is not so generally known that this faulty carriage is often a cause as well as a result of neurasthenia, brain-fag and lowered mental efficiency. An erect carriage and firm symmetrical walls of chest and abdomen were never more needed than in this age when there is such a pronounced tendency to nervous maladies accompanying a sagging or relaxed condition of the digestive and other abdominal organs. Intestinal inactivity, another fertile cause of civilized ill health, is often a direct result of faulty posture. Instead of encouraging the slumping tendency, there should be a particular effort to make firm the abdominal walls in order that the normal relations of organs may be maintained and grave disturbances in the circulatory and nervous systems avoided. While slumping among women is more especially a matter of fashion than among men there is to be observed among our young people generally a strong tendency to 'slouch.' Among older people there is more excuse for such faulty posture, yet no sufficient excuse in the absence of positive disease of the spine.

"How our respect for the human race increases when we see a well-poised grey head on an erect body that bears itself as if not ashamed to read the earth!"

STAND UP! PUSH OUT YOUR CHEST! Breathe deeply and walk firmly, yet lightly, with resilient tread. There is no finer exercise than walking but it should be done properly, without undue muscular tension or strain and yet with vigor and snap. It is not enough to saunter; you must *walk*. Where there is a prolapse and sagging of the abdominal organs, simple exercises to strengthen the abdominal muscles are helpful; for example, lie flat on the back and rise to a sitting position; squat

until the thighs rest upon the calves of the legs; lie flat on the back for one hour after meals with hips slightly elevated.

“Back of all these measures there must be correct posture, or complete success will be lacking.”



Alcohol and Tuberculosis

“NOTWITHSTANDING THE HEALTHINESS OF THE CLIMATE and the prosperity of the people,” says *The Medical Temperance Review*, “the death-rate in France is above that of Switzerland and Germany, and much above that of England and Holland. According to the Director of Public Health the cause of the high death-rate is tuberculosis. Every year in France this disease is responsible for the death of 217 people out of every 100,000, whereas in Germany, Italy, Spain, and Holland, 160, and in England only 140 out of every 100,000 die from tuberculosis. According to the Director of Public Health this increased prevalence of tuberculosis is due to the use of alcohol, because ‘there is a minutely close identity between the list of departments whose inhabitants have the highest death-rate from tuberculosis, and the list of those whose inhabitants have the highest quantities of distilled spirits.’ The death-rate for tuberculosis is highest among males in the prime of life; in other words, among those most likely to drink to excess. Forty-two per cent of the males in France who die between the ages of twenty and forty die from tuberculosis. The director concludes his report by stating that if social and legislative efforts to check alcoholism were undertaken with firmness, organized with method, and carried on with persevering energy, a large proportion of the deaths due to tuberculosis each year could be prevented.”

George Bernard Shaw—Flesh Abstainer

IN A RECENT NUMBER of *T. P.'s Weekly*, Mr. Gerald Cumberland recalls a visit which he paid to Shaw—"nearly twelve years ago, when I was a lad just out of my teens," and among another incidents describes a walk with the great Fabian, which was characteristic of the physical as well as intellectual alertness of the man. Says Mr. Cumberland, "He ran—or so it seemed to me. He wore no overcoat, and added nothing to his clothing save a cap and a pair of woolen gloves. Striding along at a rate of five miles an hour, his arms freely swinging, his face glowing with health, he began to talk. He talked about Sidney Webb, the Fabian Society, Karl Marx, Janet Achurch, Manchester, and himself. Panting along by his side, I said nothing but 'Yes!' and 'No!' whenever it seemed necessary to say either one or the other. He was overwhelmingly brilliant—so brilliant that I became bewildered. Having traveled up by the midnight train from Manchester, I was already tired, and the champagne-like air, the light of the sun on the snow, the quick walking, and the constant stream of talk from the wittiest man in England, reduced my brain to chaos. How ardently did I long to say something that would sound even intelligent! What would I not have given to be able to say even a dozen words! But he betrayed no sign that he was conscious of my stupidity. Suddenly, he ceased both walking and talking, and I found we were opposite a large house, nearly concealed by trees. 'That,' said he, solemnly, 'is where G. F. Watts lives.' And, turning on his heel, he resumed his scamper over the downs."

No less characteristic, however, is the meal which followed: "An hour later," says Mr. Cumberland, "having covered ten

miles, we were back at Piccard's Cottage. Mid-day dinner was served almost at once. Mrs. Shaw and I ate meat and drank wine; Shaw himself feasted on vegetables, and fruit, among which I remember a dish of raisins."

Mr. Shaw is an ardent flesh abstainer, and there can be no doubt whatever that a close cause-and-effect connection exists between the strenuousness of his life and his mode of living.



Tobacco a Destroyer of Appetite

IN A RECENT WORK on longevity, Dr. Robert Saundby, an eminent English physician, discussing the subject of the injurious effects of tobacco in old age says that "its effect in destroying appetite may at times be very marked. An elderly man consulted me on one occasion for entire loss of appetite; he was accompanied by his wife, and I have always noticed that wives are especially distressed when their husbands do not eat well, often by their ill-founded but well-meant anxiety counteracting necessary restrictions on diet. But in this case the loss of appetite was so complete and there was such an entire absence of any disease to account for it that I felt sure it must be toxic; as I had heard that he had spent a great deal of his life in China I thought of opium, but his perfectly frank amusement at the suggestion dispelled that notion; I then asked about tobacco and found that I was on a better scent; his wife said he was a great smoker, smoking eight or ten long Trichinopoly cheroots daily. He had no idea that his loss of appetite could be due to this habit, which was of long standing, and the case illustrates the fact that as life advances the poisonous action of tobacco increases."



Question Box



11514. *Swollen Tonsils—Adenoids—Erysipelas—Diet in Valcular Heart Trouble.—M. J. V., Michigan:*

1. "What treatment and diet would you suggest for swollen and inflamed tonsils?"

Ans.—Gargle the throat with hot water. The addition of one per cent peroxid of hydrogen will do no harm. The application of a five per cent solution of argyrol every two or three hours for a day or two is also helpful. When the acute inflammation is passed, if the tonsils still remain enlarged it may be advisable to remove them.

2. "Please suggest the causes of adenoids? What diet and other means of cure would you advise?"

Ans.—Adenoids are usually considered an indication of mal-nutrition. They are doubtless the result of the attacks of bacteria upon the mucous membrane and a state of low resistance.

3. "What causes erysipelas? What treatment and diet should be used to remove it?"

Ans.—Erysipelas is an infectious disease due to a specific germ. Rest in bed, the application to the affected parts of ichthyol ointment, copious water drinking, a gallon a day, free bowel movements by the use of the enema, together with other simple measures and a light diet for a few days, rarely fail to effect a cure.

4. "What diet should one having heart trouble follow, and what avoid?"

Ans.—A strictly antitoxic diet and especially a laxative diet. Meats of all sorts should be avoided, and all high protein foods. It would be well on this account to use eggs very sparingly, if at all. The bowels should be made to move three or four times a day.

11515. Itching of the Body.—C. O., Pennsylvania:

"For six months I have had intense itching of the entire body at night after undressing. I take cold and warm baths, eat fruit and exercise night and morning. Please advise."

Ans.—The trouble is a form of chapping or cracking of the skin, which exposes the ends of the cutaneous nerves. Obtain at a drug store, the following formula:

Lanoline	1 dram
Cold cream prepared from vaseline	6 drams
Boro glycerid	2 drams

Apply night and morning and the difficulty will doubtless disappear. If necessary the itching may be relieved by the application of very hot water. The water may be poured on or may be applied with large cheese cloth compresses. The compresses should be wrung out of water at a temperature of about 140° and should be applied as hot as can be born and removed after eight or ten seconds.

In cases in which this simple cream does not give complete relief, ten grains of menthol may be added to each ounce of the mixture.

11516. Green Fruit.—E. H. A., California:

"Are very green apples and pears, etc., rendered wholesome by cooking?"

Ans.—No; a fruit that is nearly ripe may be rendered wholesome by cooking, but never, a fruit that is decidedly immature.

11517. *Goiter.*—*B. G. L. E., Pennsylvania:*

“Is the operation for removing a goiter particularly dangerous?”

Ans.—Yes, the operation of removing a goiter must be regarded as a serious and a dangerous operation. The mortality, however, is very low when the operation is performed by an expert. Prof. Kocher, of Berne, has performed a thousand operations with only two or three deaths. The mortality has been rapidly reduced in the last few years. The operation is not required in these cases so often as was formerly supposed. Many times complete relief can be obtained by proper diet and the use of the X-ray. This applies, however, especially to exophthalmic goiter rather than to ordinary goiter. When goiter interferes with breathing or swallowing, operation is necessary.

11518. *Abscesses—Sanitary Pillow.*—*G. B. P., California:*

1. “What causes abscesses?”

Ans.—Infection with pus-forming bacteria.

2. “What treatment should be given for them?”

Ans.—They should be opened as soon as discovered.

3. “How is a sanitary pillow made?”

Ans.—Ordinary cotton pillows are sanitary. Very delightful pillows may be made by the use of pine needles for filling.

11519. *Numb feeling in finger ends.*—*R. H. T., Texas:*

“What causes numbness and tingling in the finger ends when they become cold? What will cure it?”

Ans.—A disturbed circulation of the nerves. Bathing the hands alternately in hot and cold water morning and night for ten or fifteen minutes and massage, are useful measures. The real cause of this condition in most cases is intestinal auto-intoxication, which is a common result of chronic constipation. The condition should receive attention promptly, since it may easily develop into a most serious condition known as “dead finger.”

11520. *Peanuts.*—*Mrs. H. F. S., California:*

1. “How long should peanuts be roasted?”

Ans.—The roasting should be slight, barely enough to cook the nuts. The roasting should never be carried so far as to produce a deep brown color and a bitter flavor.

2. “Are they healthful thus prepared?”

Ans.—Roasted peanuts are less digestible than boiled peanuts. They are quite indigestible, in fact, unless very thoroughly masticated, and they disagree with many people. This is the reason why ordinary peanut butter is to many people very objectionable. Peanut butter prepared by the special process of steam cooking is free from this objection.

11521. *Mineral Waters*—*Flannel.*—*M. C. G., Pennsylvania:*

1. “What is your opinion of mineral waters?”

Ans.—Mineral waters are decidedly objectionable. Their

continued use leads to indigestion, gastro-intestinal catarrh, and colitis. The mineral water habit is highly injurious.

2. "Is flannel healthful when worn next to the skin?"

Ans.—Many persons can endure contact of the flannel with the skin, without inconvenience, but not infrequently irritation of the skin is produced by the contact of wool. This is especially true with blondes, who have very thin skin. Brunettes or dark haired persons generally suffer less, having thicker skins. The best material for wearing next the skin is cotton.

11522. *Stiff Knee.*—*M. L. D., Pennsylvania:*

"What treatment will restore the use of a knee-joint which has been rigid for about a year, following an acute attack of rheumatism?"

Ans.—In such a case, very likely an operation may be required. It is indeed not certain that relief can be obtained by operation. If the leg is flexed as the result of contraction motion may be restored by cutting the tendons and the careful employment of passive movements. If the ends of the bones are ossified, an osteoplastic operation may be required. All cases are not curable by this means, however. A surgeon who has had special experience with cases of this sort should be consulted. The family physician will doubtless be able to give advice as to who should be consulted.

11523. *Hubbard Squashes.*—*B. M. D., Iowa:*

"What proportion of starch and proteins do hubbard squashes or winter squashes contain?"

Ans.—Squash contains about one per cent protein and twelve

per cent carbohydrates. The carbohydrate is chiefly in the form of sugar.

11524. *Paralysis from Fright.*—A. G., *Pennsylvania*:

“My little girl at the age of two and one-half years was badly frightened. At night she became delirious, and thirty-six hours afterward she was entirely paralyzed. In the last year she has greatly improved. Paralysis now affects only left arm. What suggestion or advice regarding this case can you give?”

Ans.—The case can probably be greatly helped by proper treatment. The patient should be put in the hands of an orthopedic surgeon.

11525. *Catarrh.*—M. B. R., *Michigan*:

“Is catarrh in any stage or of any kind contagious?”

Ans.—Nearly all discharges are more or less contagious. Acute nasal catarrh is infectious. Chronic nasal catarrh extends by infection from one to another of the cavities of the head and may be thoroughly regarded as a contagious or infectious disease, although never in the sense in which smallpox is contagious.

11526. *Fruit Skins.*—P. Z., *London*:

“Is it true that the skins of apples and pears contain tannic acid and are unwholesome?”

Ans.—There is nothing unwholesome about the skins of apples and pears.

11527. *Dandruff*.—C. W. M., *New York*:

“What is a good remedy for dandruff?”

Ans.—By a thorough shampoo of the scalp two or three times a week and the application daily of a lotion consisting of alcohol, 1 oz.; resorcin, 10 gr.; castor oil, 1 drop.

11528. *Dates and Figs*.—A. M. H., *Connecticut*:

“Are dates and figs prepared in their own sugar? Also please give the food value?”

Ans.—Yes; the food value is about one hundred calories to the ounce.

11529. *Dropsy*.—O. F., *Canada*:

“What treatment do you advise for a woman of seventy-one with dropsy caused from weak heart action?”

Ans.—It is impossible to prescribe treatment for such a case. The patient requires the personal attention of a skilled physician. A great deal can be done in these cases by the skillful application of hydrotherapy and massage and other means, and by the careful regulation of diet. In general, a saltless diet is found to be advantageous. The bowels must be made to move three or four times a day by simple measures, avoiding, however, the use of irritating drugs. Light sweating baths for the extremities, carefully managed, are sometimes very useful. A low-protein diet is essential. The patient must avoid the use of meat of all kinds. Much can be done by suitable baths, massage, Nauheim or effervescent baths, etc., but in no such case can the treatment be safely undertaken without the careful supervision of an experienced physician.

11530. *Twitching of the Eye.*—Mrs. R. M., *Pennsylvania*:

What is the cause of frequent twitchings around the eye? What should be done?"

Ans.—The difficulty is probably what is technically known as tic. There is a nerve irritation which may generally be removed by proper treatment. A visit to a well-equipped sanitarium will doubtless be advisable.

71511. *Bread.*—G. F. B., *Texas*:

"Would you recommend graham or corn bread in a case of catarrh of the stomach and bowels?"

Ans.—Graham is especially to be recommended in such a case.



Special Contraindications to the Use of Flesh Foods

THERE IS NO CONDITION except the absence of other better food which really necessitates the use of flesh food. It is true, of course, that healthy persons may use flesh food in moderation for many years without apparent injury, although even in these cases a minute examination, especially an examination of the stools and of the urine, would show that the body is exposed to an unnatural degree to the influence of germ poisons which are produced in the intestine by the action of bacteria, absorbed and circulated through the blood, and eliminated by the kidneys. When, however, the body is crippled by disease, especially when the digestive or eliminative organs are damaged, flesh eating may become so serious a source of injury as to be strongly contraindicated.

Martinet gives the following special contraindications to the use of flesh food:

1. A MEAT DIET favors intestinal putrefactions, encouraging constipation: it is therefore absolutely contraindicated in acute and chronic gastro-intestinal infections, particularly in the cases of enteritis.
2. FLESH FOODS PROVOKE the superabundant formation of nitrogenous wastes, of purins in particular; hence they are to be avoided in the various forms of purinemia (gout, lithiasis, chronic rheumatism of uricemic origin, plethora, etc.). Foods rich in nucleins should be prescribed (sweetbread, liver, kidney, etc.).
3. FLESH FOODS ELEVATE ARTERIAL TENSION and overwork the heart; contraindicated, therefore, in cases of hypertension, in arteriosclerosis, atheroma, aortic aneurisms, myocarditis, cardiac affections with broken compensation, or hyposystole, where the least elevation of pressure may invite a failure of compensation.
4. FLESH FOODS INCREASE THE QUANTITY OF HEPATIC TOXINS, of the urinary excreta, and cause congestion of the liver and kidneys. On this account they are contraindicated in hepatic and renal congestions, the cirrhoses, inflammation of the liver, acute and chronic parenchymatous or interstitial nephritis.
5. FLESH FOODS ACT UNDOUBTEDLY AS EXCITANTS OF THE NERVOUS SYSTEM, in the same manner as tea, coffee, etc., on account of the extractive substances contained. On this account, they are contraindicated in cases of neurasthenia, arterial hypertension, insomnia, obstinate neuralgia—in short, in every case of abnormal excitation of the nervous system, whether accompanied by pain or not.



With Our Readers



The Last Butcher Shop Closes

THE STEADY rise in the price of meat which, according to the Chicago packers will soon be \$1.00 per pound, fore-shadows a time when meat will become too expensive for use as a staple diet and the public morgue—otherwise the butcher shop—will disappear. The high price of meat is already showing its effect in lessening the consumption of meat and diminishing the number of meat shops. A friend, Mr. C. L. Anderson, of Ardmore, Oklahoma, sends the following clipping from a western paper:

McCool, Neb., Saturday.—That domestic sciences taught in the high schools of Nebraska is helping to cut down the high cost of living is evident from the fact that for the first time in the history of this town it is without a butcher shop. A few years ago McCool had three meat markets and they flourished. But for several months one shop has had a hard time to exist. And now it is closed.

“Not more than a dozen families have been eating meat since the price has gone so high.” William Donovan, the last butcher, said today. “I guess the price is too high for the people to buy meat.”

But other citizens hold different views. They attribute the poor demand for meat in this town to domestic science that is being taught in the county seat high school in York and the local high school,

"Why, my girl has learned to cook dishes we never dreamed of ten years ago," one man said. "She has substitutes for this and for that. And meat is no exception. With a little corn she makes a dish that beats either fish or meat. I used to laugh at the domestic science courses, but I have changed my mind about them. They're all right. And the best thing about them is that they're practical.

"When meat became so high I asked my daughter one day if she could not fix up something to take the place of it. She did it that very evening. And we all enjoyed her new dish. We have not purchased any meat since."



The Eating of Chalk

MR. JAMES L. HAWLEY, of Wheeling, West Virginia, calls our attention to a recent newspaper article recommending the use of chalk as food. The article referred to quotes Doctor Emmerich, of Munich, as maintaining that chalk and lime in various forms should be added to food. It was especially recommended that chlorid of calcium should be added to the food so as to be taken daily in quantities amounting to about twenty-five or thirty grains.

There is no doubt that the diet of the average American contains too small an amount of lime. Doctor Sherman, of Columbia University, several years ago made the statement that half the people of the United States are suffering from lime starvation. Bunge, the Swiss chemist, many years ago called attention to the fact that there is a marked deficiency of lime in the modern bill of fare, but what is needed is not chalk or

mineral lime in any form, but the vitalized or organic lime which is found in food. The mineral substances of the soil are by the marvelous alchemy of plant life converted into organized substances which are alone capable of nourishing the body. Mineral substances cannot be thoroughly appropriated. Natural food contains an abundance of lime. By natural food is meant cereals prepared from whole grains, fruits, vegetables, nuts and legumes, the natural products of the earth. Milk may also be included in the list of natural foods. When one's bill-of-fare consists of these articles, a sufficient amount of lime is supplied. But when a bill of fare consists very largely of unnatural and artificial food, this is by no means the case. For example, if the bill-of-fare consists largely of cane sugar, fine flour bread, meat and butter or other animal fats, almost no lime at all will be supplied the body, since a pound of fine flour bread contains only one grain of lime, and a pound of meat only half a grain, while butter and cane sugar contain no lime at all. A diet wholly made up of the foods mentioned might not contain more than one or two grains of lime, whereas the body requires at least eight or ten grains of lime daily. On the other hand, the natural foods contain an abundance of lime. Graham bread contains four grains of lime to the pound. A pound of beans contains eight grains of lime; a pint of milk sixteen grains. It is not necessary then to resort to the practice of eating chalk or taking chemical lime in any form to furnish the body with the necessary supply of lime. It is only necessary to make use of natural foodstuffs, in order to give the body all the lime it needs, along with every other element that is necessary for the complete nutrition of the tissues.

The Anti-Alcohol Poster Campaign

TO THE EDITOR OF GOOD HEALTH:

I think you should know that the anti-alcohol poster printed in GOOD HEALTH reached France, and the Mayor of Cambridge had a letter from Paris congratulating him on his splendid poster and asking for copies for the report of the Town and City Planning Commission of Paris. The note says that they saw the poster reproduced in GOOD HEALTH.

Our campaign goes wonderfully. We want now to get one or more alcohol-education boards in every town. On these we want posters placed every four or five months—that is, alcohol education run by the town. If prohibition is ever to prohibit it will be because it has volumes of education behind it—we stand for that education. The women's clubs here are taking up the campaign and securing alcohol education boards 29x49. Mrs. Alice Stebbins Wells, Policewoman of Los Angeles, writes that "the poster campaign will prove one of the great things of this decade."

E. TILDON, Chairman,
Poster Campaign, Cambridge, Massachusetts.



FRIEDENWALD AND RUHRAH, in the new and revised edition of their classic work, "Diet in Health and Disease," very successfully answers the old objection that all successful races are meat eaters. "As a meat diet is expensive," say the authors, this argument may merely mean "that the successful, being able to buy meat, prefer to eat it, just as the rich consume alcoholic drinks. It is not the wine that has made them rich."

Overland Walking Club Department

Walking the Road to Health and Long Life

UNDER THE ABOVE HEADING the *Human Factor*, published by the Metropolitan Life Insurance Company, gives the following appreciation of that veteran walker, Edward Payson Weston:

Edward Payson Weston, the prince of pedestrians, who is in his seventy-fourth year, recently walked from New York to Minneapolis, a distance of 1,546 miles, in 60 days, arriving on schedule time.

Weston is a living symbol of the value of outdoor exercise and a splendid example of vigorous old age. This energetic disciple of health has covered during his life time, in his walking tests, a distance of thrice the circumference of the earth. He is today sturdy and strong, and still spoken of as "Young Weston," and indeed the ruddy wholesome face and the bright, sparkling eyes offer ineffacable evidence of the presence of that spirit of youth which perfect health brings to all ages.

For forty-five years Mr. Weston has been a professional walker. Probably his greatest feat of endurance was in England when, at the age of forty-four years, he covered fifty miles a day for one hundred consecutive days (Sundays excepted), walking a distance of 5,000 miles.

During most of his walks he gives lectures on the various sub-

(Continued on page 14, Advertising Section)



Book Review



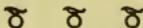
Disease and Its Causes

IT WOULD be difficult to praise too highly the scope of the Home University Library, and of the high quality of the various numbers which thus far have been brought out. In the present volume it has been the author's purpose to portray disease as life under conditions which differ from the usual. Life, he says, embraces much that is unknown, and in so far as disease is a condition of living things, it, too, presents many problems which are insoluble with our present knowledge.

"Fifty years ago," says Doctor Councilman, "the extent of the unknown, and at that time insoluble questions of disease, was much greater than at present, and the problems now are in many ways different from those of the past. No attempt has been made by the author to simplify the subject by the presentation of theories as facts."

Of special interest are the chapters dealing with the nature of tissues, the place of parasites in disease, bacteria and bacterial infection, tropical diseases and the means by which they are conveyed, and chronic diseases. The book has been prepared for the layman. The style is clear, technical terminology has been avoided, and the reader has been further assisted by a glossary of terms. To all who wish to acquire a working knowledge of the nature of disease and of body conditions necessary to its development and specific causes, we heartily recommend the book.

"Disease and Its Cause." By W. T. Councilman, M. D., LL. D., Professor of Pathology, Harvard University. Fifty cents net. New York: Henry Holt and Company.



Diet in Health and Disease

"FRIEDENWALD AND RUHRAH" has become a classic work in dietetics. Especially designed to meet the needs of the general practitioner, the hospital interne, medical student and the training school as a refer-

ence book, it at the same time contains a vast amount of information in practical form for the layman who is interested in the subject, avoiding as far as possible technical terms that no one except the specialist is familiar with. Complete tables of food values and digestibility are given, while the availability of various classes of foods in different kinds of work, and in various diseases is discussed at length. Among these latter are the various diseases of the respiratory organs, diseases of the circulatory system, diseases of the genito-urinary and nervous systems, diseases of the entire alimentary tract, especially disturbances of digestion, together with the acute diseases. Of special interest to GOOD HEALTH readers, in view of the extent to which we have discussed these subjects from time to time, is the chapter dealing with the chemistry and physiology of digestion, covering both digestion and absorption, peculiarities of digestion in infants, the influence of various factors upon digestion, metabolism, foods and their composition, and dietary standards. The fourth edition has brought the subject quite up to date, embracing in its discussions the most recent theories and discoveries. Many parts of the work have been entirely rewritten, while in many cases entire sections have been added. The book is a mine of valuable information and we commend it heartily to our readers.

"Diet in Health and Disease." By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Professor of Children's Diseases in the College of Physicians and Surgeons, Baltimore. Fourth Edition, thoroughly revised and enlarged. 857 pages. \$4.00. Philadelphia: W. B. Saunders Company.



The Super Race

THE key to the present volume is the author's foreword: "For ages men have sought to perpetuate their memories in enduring monuments of brass and of stone. Yet, in their efforts to build lasting memorials they have neglected the most enduring monument of all—the Monument of Posterity. These farseeing ones have overlooked their real opportunity; for in posterity—in the achievements of their children's children, men may best hope to reflect a lasting greatness." The subject of heredity and the development of a race strong-minded and strong-bodied men and

women, too often is presented in a forbidding aspect. A eugenically produced race is discussed in a cold, mathematical manner that strikes the average individual—who, after all, has in him a strong vein of idealism and sentiment—as being harsh and calculated to produce a race of machine-made men. But not so Doctor Nearing. He shows that a race of supermen—men of physical normality, mental capacity, concentration of mind, aggressiveness, sympathy of spirit and vision—that a race possessing these qualities is in every way desirable, and that this monument of posterity is, after all, the most enduring monument possible. And in eugenics, in social readjustment and in education, Doctor Nearing finds the way by which this race of supermen can be achieved, and is being achieved. We recommend the volume as being one of the most progressive and sane books that has yet been produced on the subject. It is the work, not of a mere theorist, but of one who has long been in the forefront of the battle against disease and social mal-adjustment.

"The Super Race." By Scott Nearing. Fifty cents. New York: B. W. Huebsch.



Lucky Pehr

ONE of the most beautiful and wholesome of the Strindberg plays is "Lucky Pehr"—the story of the dream-wanderings of Pehr, the bell-ringer's son, whose wishes in turn for wealth, fame and power were gratified only to end in a bitter disappointment that threatened misanthropy. He awakens and is reminded by Reality that "one gains nothing without labor. Do you know what labor is? No! It is something very heavy, but it must be heavy, the sweeter the repose. . . . Life is not such as you saw it in your youthful dreams. It is the desert, that is true; but a desert which has its flowers; it is a stormy sea, but one that has its ports by verdant isles." The Broom, too, teaches him a much-needed lesson: "Today I'm only a broom, but yesterday I stood in the forest, so stout and trim, and wanted to be something great. Now I want to be useful, and at worst one can content one's self with being good, and when one has not been given two legs to stand on, one must be happy anyhow and hop on one." The play has well been called "the Swedish Rip Van Winkle."

"Lucky Pehr, A Drama in Five Acts." By August Strindberg. \$1.50. Stewart & Kidd Company.

Personal Hygiene

THIS volume is designed as a text-book for the instruction of pupils in the elementary phases of personal hygiene. To use the author's words, it is suited to young pupils and its language has been carefully adapted to their comprehension and interest. Meeting the requirements of the most modern courses of study in physiology, it contains the essential facts of anatomy and physiology that are necessary for understanding the care of the body, but it places emphasis on the proper performance of voluntary acts rather than on a scientific observation of involuntary actions and hidden structures. Or, to catch the author's view-point a little more accurately, "the old idea of the causes of disease was that they were produced by unfavorable conditions of the air, soil and water, such as cold weather, dampness, noxious weeds, and emanations from the ground. Modern hygiene places very little stress upon natural conditions as compared with persons themselves." Doctor Overton shows how colds and other infectious diseases spread from the sick and to the well, and claims that the prevention of disease is principally a matter of personal action by both the sick and the well. Some of the chapters are, The Study of Hygiene, Disease Germs, Bathing, Cleaning House, Colds, The Feet, The Nose and the Mouth, The Teeth, Foods, Digestion, Drinks, Pure Water, Alcohol, Tobacco, Blood, Wounds, Breathing, Fresh Air, Colds and Consumption, Fever, Exercise, The Brain and Nerves, Seeing and Hearing. These heads indicate the wide scope of the work. The volume is profusely illustrated.

"Personal Hygiene." By Frank Overton, A. M., M. D. 40 cents.
New York: American Book Company.



Wheel-Chair Philosophy

THIS interesting volume is quaintly described by the author as "a notebook kept by a pupil during a two years' course in the school of affliction, being some reflections on life, scripture and events, not formulated in the schools of erudition, but painfully evolved in the school of Affliction and Disappointment, under the living guidance of the Head-Master, who has been through a course more severe, and taken highest degrees in the same; now set down in order, as enunciated from the chair, with the hope that some men who are grappling with the same

difficult problems may find cheer to lighten the task, and encouragement to look up to the perfect teacher and on to the prize." The author spent some months at a sanitarium, where his manipulation of his wheel-chair, gained him, he says, universal admiration. On the level, I could make faster progress than most people by walking, or even running. In floors, parks and elevators, my chair acquired a reputation for speed and accuracy. It was labeled the "Lightning Express," "Black Diamond" and such expressive names." We suspect that there is a close connection between the mastery of the wheel-chair, and so proficient a learning of the lessons which life in the chair brought him. Too, as William Valentine Kelley says in his introduction, "This wheel-chair discourse has one value not possible to 'easy chair' philosophy. Its poignant pathos has such a penetrating note of reality that it will pierce the hearts of all who read." The book is splendidly written and must be an inspiration to every reader who seeks to penetrate the meaning of sorrows, mental or physical.

"Wheel-Chair Philosophy." By John Leonard Cole. \$.75 net. New York: Eaton & Mains.

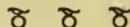


Books Received

"A Contribution to the Study of Chronic Intestinal Stasis." By Wm. Seaman Bainbridge, M. D., New York City.

"The Surgical Treatment of Chronic Intestinal Stasis." By Wm. Bainbridge, M. D., New York City.

"Linking the Life Insurance Companies to the Public-Health Movement." By Eugene Lyman Fisk, M. D., Medical Director, Postal Life Insurance Company, New York City.



Announcement

AMONG the papers on vital American subjects scheduled for the *Century Magazine* in 1914 are those of Prof. Edward A. Ross on Immigration. These are already making the deep impression that the publishers anticipated. It is proposed that the magazine shall continue to lead in literature and art and to be "the leading art magazine of America." The comic section of *The Century*, "In Lighter Vein," is showing unusual vitality. It is edited on the theory that the best writers and artists enjoy touching upon life in a sprightly way.