CHAPTER I.

FASTING AS A CURATIVE MEASURE.

IT is doubtful whether any question connected with the regaining or maintaining of health has aroused so much interest and attention during the past few years as has the subject of fasting. It has been discussed *pro* and *con,* enthusiastically presented and endorsed, and as vigorously abused and condemned. As a rule, medical experts have said little or nothing in its favor, and even those passages in medical works which might possibly be construed into favorable comment, have been explained away or whittled down so that they could no longer give comfort to the believers in the doctrine. Even hygienists of repute who have largely broken away from many medical traditions have bitterly assailed fasting, pronouncing it dangerous and unnatural. On the other hand its advocates have become more strenuous and emphatic in its defense, and, if the experiences of thousands of people amount to anything, they certainly have had not only the best of the argument, but immeasurably the best results.

It is well before I proceed to a thorough discussion and presentation of this subject to define the true meaning of the word "fasting." To fast is totally to abstain from food, either liquid or solid. This does not exclude the use of water. But absolutely nothing else, either liquid or solid, can be used in a true fast as its advocates understand the term. A partial fast, therefore, is no fast at all. The term may be used for convenience sake, but it is a misnomer. One either fasts, or he partakes of food. and when he does the latter he cannot be said to be doing the former.

The first time the idea of the benefits of fasting occurred to me was when, in my eager search for some natural cure of disease, I turned to the lower animals. I remember well the course of reasoning that my youthful brain followed. I said to myself, "Here am I, struggling to attain health.

I am supposed to be a creature of superior intelligence, yet my efforts seem to be vain, while the dog and the horse, the wild animals and the wild birds, seem to be healthy and strong all the time, knowing nothing of the diseases which make my life so miserable." Then it was that I observed that, when there was anything the matter with them, they abstained from food, and it was this fact that led me a little later, when I was attacked with pneumonia, to have the courage to go without food.

From that day to this I have always held that fasting was the natural cure for disease. The animals do not desire food when they are sick. Their unperverted instincts lead them to refuse it, even though it is urged upon them by the higher (!) animal, man. As I further studied disease, with this great fact from the animal world in my mind, I soon saw that when we were sick we revolted at food just as the animals did. Then I observed how the physician and friends of the sick person urged him to eat to keep up his strength, and I also noted how the human brain and body were drugged into acquiescence to this idea that is so distinctly contrary to the teachings of Nature. The logic of the situation then became inexorable, and the whole matter resolved itself into the following simple propositions:

1. When animals are sick, they refuse to eat food of any kind.

2. As soon as they are well, and not before, they begin to eat.

3. It is natural for man to do the same thing, but his instincts have become perverted, and his judgment distorted, so that he does not know it.

4. When a man is sick, therefore, he is persuaded that he must eat, contrary to the natural repulsion he has for food. His physician comes and drugs the warning sentinels of the body, and in this drugged condition he swallows the food which in reality adds to his disease.

On one occasion I was taken severely sick with a cold, and it soon developed symptoms of pneumonia. Even at that early

day I had lost my faith in drugging as a remedy. My previous years of weakness, which neither physicians nor drugs had seemed able to help in the slightest degree, set me to thinking. The thought somehow occurred to me that the Creative Power of the Universe surely must have intelligence and must have devised a plan of cure. And it seemed unreasonable to me that anything could interfere with that plan.

So I came to the conclusion that the human body was self-regulative and self-curative, if it merely had a good chance to be so. Consequently, when I began to feel the knife-like pains in the chest that accompany pneumonia, and they grew worse every hour, my thoughts took a most serious turn. I had already abandoned medicine, and when I did not feel perfectly well I compelled myself to do a great deal of exercising. As the pneumonia grew worse, I found it difficult to exercise. It must not be forgotten that I had gone on eating as usual, whether I felt like it or not, for I then believed as everybody else did, that "it was absolutely necessary to eat to keep up my strength." As I grew worse instead of better, I tried to reason the matter out still further, and my reason followed somewhat this line: "If this inflammation that is now giving me so much pain in my lungs cannot be made to disappear through exercise, or outward stimulation, what other natural thing is there that I can do?" And like a flash the thought came that the food I was eating was feeding the inflammation—that if I stopped eating, the self-curative power of the body would of itself drive out the disease. I missed one or two meals, and then ate a little, for I was still under bondage to the idea that eating was essential to life. At the end of the second day the pains were considerably reduced, and I was satisfied that the inflammation was not as severe as it had been. At the end of the third day there was a decided change for the better. The fourth day all symptoms of pneumonia had disappeared. That was my first lesson in fasting. And the attitude of mind I then gained is exactly the attitude I hold to-day. To-day, however, my own early thought and experience are fortified with years of later and

more enlarged experiences and those of thousands who have come to me for advice, and I no longer feel that it is essential to eat to sustain life, for seven days, fourteen days, twenty-one days, forty days, or in special cases even as long as eighty or ninety days. Indeed, there is no fact of life more certain and positive to me than the great advantages that accrue from intelligent fasting.

In the light of our enlarged knowledge, the basic principles of fasting may be stated as follows:

1. The body if left alone is self-regulative and self-curative.

2. In cases of acute disease, it is normal and natural for the body to refuse food. Animals and men alike do this.

3. Localized disease is an extraordinary effort of the body to eliminate excessive poisons that it cannot rid itself of through the usual excretory passages. While the body is thus seeking to rid itself of these excessive poisons, all food is unnecessary and injurious.

There is no excuse for any human being dying from an acute disease. It matters not what this is, if you follow the normal, natural instincts of the body, abstain from eating, drink plenty of water, and get all the fresh air and sunshine you can, and in addition, properly stimulate the spine and the functional system so that they will the more readily eliminate the poisons that are distressing you, you will completely cure yourself. These natural processes, without any aid of drugs, will surely cleanse the body thoroughly, eliminate all poisons from the blood, and prepare the body rapidly to build itself up to renewed and perfect health and strength as soon as the fast is broken and proper food is again taken in natural quantities.

To return to the disease from which I cured myself---pneumonia. To most people, pneumonia is a terrible ailment much to be dreaded. But, except in cases of low vitality superinduced by drugs or dissipation, as before referred to, no ordinary person need have the slightest fear of it. It is not surprising that under the ordinary treatment many thousands

of patients die, and that the more progressive of modern physicians are turning to Nature for its cure. The whisky that used to be an invariable part of the early day prescription is now rigorously excluded, and only milk is given, with plenty of water and fresh air. If the milk were eliminated and the inflamed membranes had nothing but cooling water given to them, the self-curative powers of the body would surely eliminate the poisons that cause the inflammation, and rapid recovery would ensue. I know a physician in New York who has treated about fifty cases of pneumonia in this way and has not lost one, though the ordinary mortality record is from twenty to thirty per cent.

Men who are fleshy should never hesitate for a moment if they are attacked by an acute disease, to take a fast long enough completely to eliminate it. Such persons have enough stored up energy and fuel to run the body for a month or two months without the slightest fear of injury. No matter what their ailment, they cannot possibly be injured by fasting, and there is every assurance that they will be able to rid themselves of the disease. I have referred elsewhere to the case of President McKinley. No sane, unprejudiced man, in the light of the knowledge of fasting which I have here given, can read the bulletins issued by the doctors themselves and not see that the President was simply poisoned by the food that he was urged to eat.

Emil E. Kusel, who in April, 1911, completed a forty days' fast, curing a most painful case of hemorrhoids and catarrh of long standing.

Take the case of Mark Hanna. As is well known, he was a large, fleshy man, with enough stored up nourishment in his body to last him for even two or three months. He was afflicted with a chronic trouble which the physicians could not

cure. He was urged to fast, but his physicians and political and newspaper friends were so assured that he would die if he refused to eat, that he was overpersuaded, and we all know the fatal result.

It cannot be stated too strongly nor too often that the *feeding of those who are sick with acute diseases is one of the greatest crimes of the present day.*

Fasting is by no means a new idea. It is far older than the history of civilized man, for, whenever suffering from wounds or disease, it has been the invariable habit of lower animals always to fast until the period of danger was passed.

The Bible and the religious books of all peoples contain many injunctions as to fasting, and the benefits arising therefrom to the body, mind and soul were accepted as a matter of course in ancient times. The Roman Catholic Church has always believed and taught the efficacy of fasting, and fast days as well as feast days occur with frequent regularity on their calendar. John Calvin and John Wesley, the founders respectively of the Presbyterian and Methodist Churches, both strongly advocated fasting for the benefit of both preachers and people. The Hindus and other mystics of all ages have not only advocated fasting, but followed the practice, even for long periods at a time.

Unfortunately in this, as in many other good things handed down to us from the ancients, we have presumed that our advanced civilization gave us superior knowledge in regard to matters of this kind. The result is that fasting has become almost a lost practice, except in the case of those whom the generality of mankind refer to and account as religious fanatics. But, in the awakening of the minds of intelligent men and women to more natural processes of living, fasting is again coming into its own.

Those, who like myself have seen men and women fast ten, twenty, thirty, forty, fifty days not only without injury but with positive benefit, cannot help a feeling of amusement when they hear the popular ideas of the "absolute necessity"

of taking a daily supply of nutritious food. Here are a few facts of history that such poorly informed persons should know.

Thomas Campanella states that frail nuns often sought relief from attacks of hysteria by fasting "seven times seventy hours," or twenty days and a half. Total abstinence from food for three weeks or more was not an uncommon prescription of Avicena, the great Arab physician, who was so averse to drastic remedies that he would sooner watch all night at the fever-bed of a patient than risk complications by giving him opiates.

The penance-worn saints of the early Christian Church thought nothing of retiring to the desert for a month or two, to fight down temptations and dine on the water of some dilapidated old cistern. To touch even millet-seed on such occasions was considered a breach of their vows, forfeiting the merit of the enterprise, but at the end of the second month the gaunt world-renouncers had generally strength enough left to return home unassisted and prove how much benefit the fast had been to them. Robert de Moleme, the founder of the Cistercian brotherhood, was overcome with grief on learning the death of a female friend, and resolved to follow her to the Land of Shades. Being averse to direct suicide, he retired to the mountain-lodge of a relative, and abstained from food in the hope that one of his frequent fainting fits would fade into the sleep that knows no awakening. But finding himself alive at the end of the *seventieth* day, he reconsidered his resolution and began to suspect a miraculous interposition of Providence. By resuming his meals, in half-ounce instalments, he contrived to recover from a condition of frightful emaciation, and in the supervision of an ever-increasing number of scattered monasteries, led an active life for the next fourteen years.

Trance-fasters, like Augusta Kerner of Ingolstadt, survived in a semi-conscious condition for nearly a quarter of a year. We are all more or less familiar with the undoubtedly true stories of miners entombed in collieries who have been

found alive after weeks of enforced abstinence from any more nutritious food than scraps of leather soaked in pit-water and masticated with desperate perseverance. Sailors, deprived of food and drink, have endured exposure to the glare of a tropical sun for weeks.

But the marvels of long-continued abstinence without loss of strength reach their maximum in the winter-sleep of several species of warm-blooded animals. Reptiles, with their small expenditure of vital energy, can easily survive dietetic deprivations, but bears and badgers, with an organization essentially analogous to that of the human species, and with a circulation of the blood active enough to maintain the temperature of their bodies more than a hundred degrees above that of the winter storms, dispense with food for periods varying from three to five months, and at the termination of their ordeal emerge from their dens in the full possession of their physical and mental energies.

The black bear of northern Russia rolls itself up in scrap-heaps of leaves and moss, about the end of November, trusting to good luck to be left to the enjoyment of peaceful slumber till middle of March, but if disturbed before the end of February is wide awake in a minute and attacks the intruders with a fury expressed in a Slavonic phrase: equivalent to "savage as a waked winter bear." Badgers leave their burrows a little sooner, being often awakened by a spell of warm weather, a month before the vernal equinox, and after an absolute fast of ten weeks will trot for miles in search of roots and acorns that have perhaps to be scraped out of the half-frozen ground.

The little dormouse, in its winter sleep of five months, suffers a loss of weight sometimes exceeding forty per cent., and exhibition fasters have survived a reduction of thirty per cent., without anything like a total collapse of vital vigor.*

*Karl Vogt in his "Curiosities of Instinct," mentions the case of a spaniel that had accidentally been locked up by visitors in the attic of an old castle-ruin, and contrived to procure a few drops of water by gnawing the edges of a cleft in the slate-covered roof. His life had thus been saved by the accident of a few heavy rain-showers, but there was no chance for a crumb of food, no grain, leather, rats or mice, no vestige of living things with the exception of a few

In the moulting season certain cage birds prefer to get along for a month with a minimum of food, to compensate the lack of facilities for active exercise, and Dr. Oswald relates the following story of the case of a little dachshund (a species of bowlegged beagle) that survived a fall from the loft of a tall building by three weeks of almost total abstinence. "During a visit to the riding-school of a cavalry regiment I had turned over the dog to a sergeant, who put him in a barn, and finding that he could crawl out under the gate and was apt to come to grief by being kicked by a horse, finally put him in a bag and ordered one of the men to lock him up in the hay-loft at the top of the building. That checked his restlessness for the time being, but on stepping out on the street, an hour after, I heard a whine as from the clouds, and looking up saw my dachshund crouching on the edge of the open door and loudly yelping to draw my attention to the discomfiture of his situation. In the next moment he had lost his balance, and after a series of aerial somersaults, landed on the hard pavement, with a crack that seemed to have broken every bone in his body. Blood was trickling from his mouth and nostrils when they picked him up, and the troopers advised me to "put him out of misery," but he was my little brother's pet, and, after some hesitation, I decided to take him home in a basket and give the problem of his cure the benefit of a fractional chance. Investigation proved that he had broken two legs and three ribs, and judging by the way he raised his head and gasped for air, every now and then, it seemed probable that his lungs had been injured.

"The location of his grave had already been settled; but the next morning he was still alive and lapped up a pint of water. For twenty days and twenty nights the little terrier stuck to

spiders under the rafters of the roof. The whole summer passed, and a part of autumn; but during the first week of October there was a picnic on the castle mountain, and a wandering party of sight-seers rescued the little prisoner that had been locked up about the middle of June. Its ribs could be counted as easily as in a skeleton, but it was still able to drag itself across the floor and lick the hands of its deliverers.

Chossat in his *Recherches sur l'Inanition*, states that the land tortoise of southern France can starve for a year without betraying a reduction of vital energy, and the *Proteus anguinus*, or serpent salamander, even for a year and a half, provided that the temperature of its cage be kept above the freezing point.

life and his cotton-lined basket, without touching a crumb of solid food, but ever ready to lick up a few drops of cold water, in preference even to milk or soup. At the end of the third week he made an effort to leave his couch, and a few days after contrived to stagger along the floor to get the benefit of a hearth-fire. He had broken his fast with a saucerful of sweet milk, but only on the evening of the twenty-sixth day began to betray a personal interest in the contents of a plateful of meat-scraps that had been placed near his basket every morning.

"Before the end of the winter he accompanied his friends to that same riding-school and was introduced to the veterinary surgeon of the regiment. Misknit bones had made his crooked legs a trifle crookeder, but he could run again and attest the vigor of his lungs by a lusty bark. A clear case of recovery in spite of—we did not venture to say *because of*—total abstinence from drugs."

"What did you feed him on?" inquired the surgeon, taking it for granted that Nature must have been assisted somehow or other.

"Nothing, for the first three weeks."

"What?"

"Nothing, sir. Or, to be quite exact, nothing except some air and water."

The surgeon shook his head. "Stout chaps, these dogs," he muttered, caressing the paradox with the tip of his boot. "The vitality of those brutes!" he probably thought to himself; "the idea of that thing recovering in spite of such neglect."

One of the best known books dealing with diet and fasting was written by Luigi Cornaro, a noble Venetian who was born soon after the middle of the XVth century. He was a contemporary for seventy years of Titian, the great artist, and at the age of eighty-three wrote his first essay on the subject of regimen and diet. In the subsequent twelve years he produced three other similar books. For the first forty years of his life, he lived the ordinary fast and dissipated life of the nobles of that time, until, his vitality all gone, he was warned by his

physician that his days on earth were numbered. Being of an inquiring mind, he began to do a little thinking as to how he might prolong his life. He came to the conclusion that, as he had squandered his vitality by excess of eating and drinking, it would be natural to assume that a corresponding decrease might have a beneficial effect. Calling upon a will power that must have been reasonably strong, he determined to eat simply and in small quantities, to avoid entirely the heavier wines, and to drink the light wines with moderation. In a short time the benefit of this rigorous regimen was apparent in that he began to overcome the diseases that his physicians said would kill him, and in a short time thereafter, he was restored to almost perfect health.

As he grew older he diminished the quantity of food and thus brought himself to a ripe old age, finally expiring at Padua "without any agony, sitting in an elbow chair, being above an hundred years old." One article of his diet was the juice of the grape. As the time approached when the new grapes were beginning to ripen, he found that the old juice became distasteful to him and made him lose his appetite, whereupon for about two months each year, he lived upon the smallest possible modicum of food until the new grape-juice was ready, when he immediately revived and regained his health and strength. To this period in which he ate so little food as to have closely approximated a fast may doubtless be attributed his general health and wonderful longevity. Without anyone to teach him and nothing but Nature as his guide, after the most learned physicians had given him up to die, he thus brought himself into a state of health, lived an active and useful life, and did not pass away until he had lived far beyond the ordinary period allotted to even the strongest of men.

Believing as I do that, practically speaking, there is but one disease and that is an impure blood stream, it can readily be seen that fasting would necessarily be one of the readiest means of purifying it. Regarding air and water as foods, as well as the solid substances to which we commonly attach that

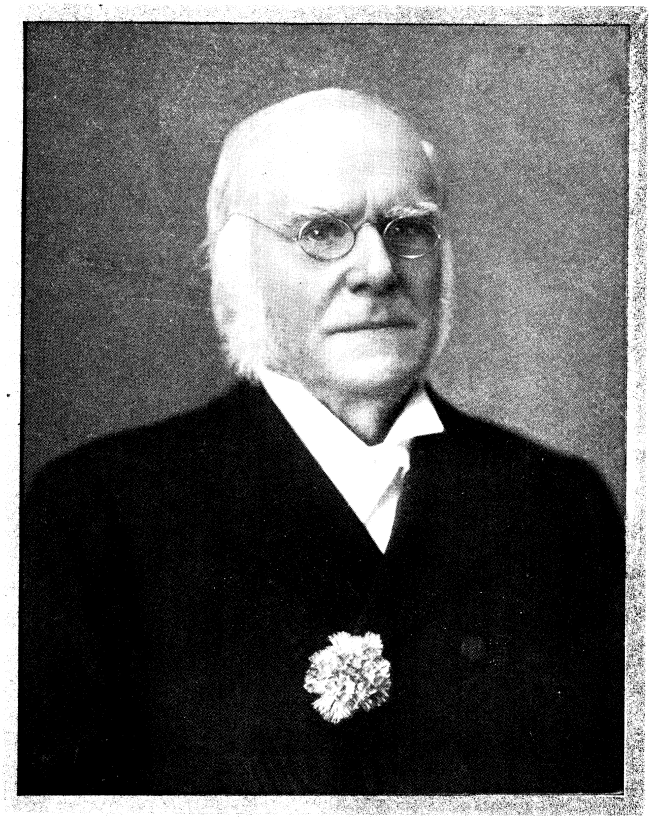
name, there is, in reality, no such thing as fasting, but, as air and water do not require the exercise of the organs of digestion, fasting enables one to give them an opportunity to indulge in the most perfect and complete "house-cleaning."

It was about forty years ago that Dr. Tanner made his celebrated fast of forty days in the city of Chicago. Many persons who believe that fasting is injurious think Dr. Tanner passed away long ago; but he did not; he is in California treating his patients at the present writing (1912.) Having read in the newspapers at different times that he was dead, and in order to know the truth of the story, I wrote to find out and received a letter from Dr. Tanner. I then sent him an invitation to write an article for *Physical Culture,* and in due time received it from him. Dr. Tanner began fasting for the distinct purpose of curing most of the various ailments which he had at that time. During the first two weeks of his fast he went without water. It is comparatively easy for a person to go without food but it is very difficult to go without water.

After Dr. Tanner began to use water his strength, instead of continuing to decrease, began to increase, and, after his first drink he ran a race with a young reporter who thought that he could not retain his strength while fasting.

The following cases of disease conquered by fasting are but illustrative instances of the efficiency of this method of treating disease.

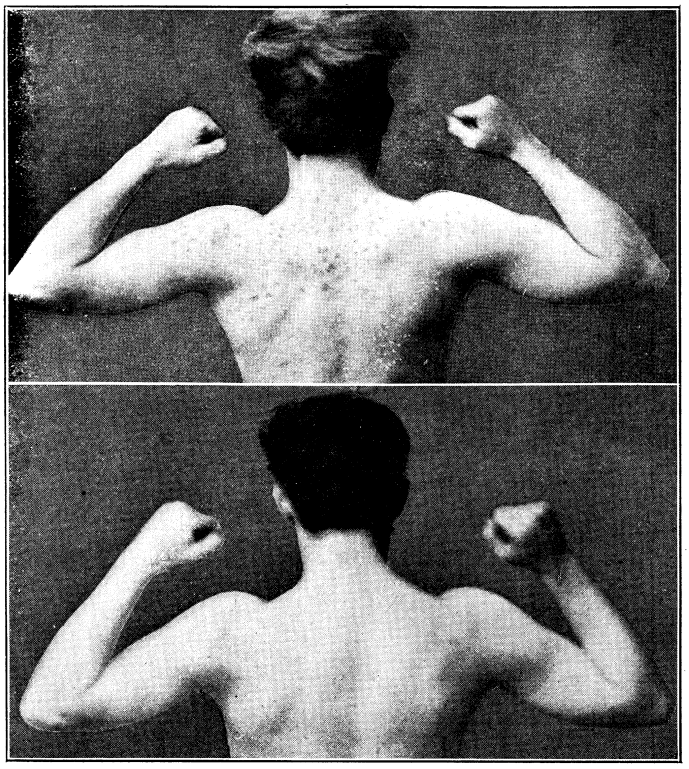
Mr. George W. Patterson, of Denver, Colo., fasted seven days, beginning July 8. On the sixth day of his fast he said in an interview with a *Denver Post* reporter: "My mind is as clear as a whistle, and I have begun work on an invention I am interested in—a pair of boat shoes to walk on water by the use of wave motors. Do I feel hungry? Not a bit. On the contrary, I have a positively repulsive feeling toward food. I exercise every day. This morning I jumped eight feet one inch, chinned a bar fourteen times. Usually I can do this only ten times with ease. I broke my record on the spirometer also, this morning, raising it to four hundred and forty-five cubic inches. The spirometer measures the lung capacity,



Dr. Henry S. Tanner, the world-famous faster.

you know, and previously I had never raised it more than four hundred and twenty-eight cubic inches. This morning I took a lively run besides my other exercise. I have been busy teaching physical culture during my fast."

The extraordinary results of fasting in the case of Mr. Tuthill have become a matter of widespread comment and interest. There are now ten or twelve people in Minneapolis afflicted in various ways, who have taken a course of absolute fasting. Mrs. E. A. Russell, of the Russell Coffee House, is



The upper photograph shows an eruption on back which was entirely cured by a fast of seven days, as shown in the lower photograph.

among the converts. She has fasted for three weeks three days at a time. Mrs. Russell is fasting for the sole purpose of reducing weight and is therefore relieved of the necessity for total fasting. On the fourth day of her fast she takes a glass of milk with an egg beaten in it. Mrs. Russell declares that she finds fasting very beneficial in numerous ways.

C. E. Burrows, of St. Paul, is one of the most remarkable cases treated by the fasting system. Mr. Burrows was suffering from an abscess on his liver and a fast of four weeks removed the difficulty entirely. It may be added that, although this cure was effected some time ago, there has been no return of the unfavorable symptoms. Mr. Burrows, after eating solid food for ten days, states that his stomach did not as yet perfectly assimilate food, but that he felt strong and well and satisfied that he has been completely cured.

In 1902, Mr. Thomas Morrin, Chief Engineer of the Mills Building, San Francisco, Cal., entered upon a forty-day fast for chronic stomach trouble. He had been under the charge of ordinary physicians and had swallowed drugs until his stomach refused to receive them, or even any kind of food, and in his deepest extremity he thought it would do no harm to try the fast, as he was going to die anyhow. He had the usual experiences of the clamor of the abnormal appetite, which increased in power until the close of the third day. On the fourth day it disappeared, and on the fifth day the claims of appetite gave place to the usual disgust at the thought of food. On the eleventh morning he was over-persuaded by anxious friends, who convinced him that he had fasted long enough, to try to eat a little breakfast, b the usual revulsion of his stomach to the food convinced h that the attempt to eat was unwise. So he continued the fast which lasted a complete forty days. His ailment disappeared and perfect health was restored.

At the same time Ambrose Taylor, of Rialto, undertook a fast for the cure of rheumatism. He was sixty years of age and for several years had been afflicted with rheumatism in the left leg and hip. At last it became so bad that he was com-

pelled to take to his bed. Then he resolved to try the fast. He had the usual three or four days' experiences of appetite, but on the fifth day he had an attack of partial paralysis. This alarmed him, but his physician succeeded in convincing him that this was merely the result of the nervous and muscular activity of the body to rid itself of the disease which for so long had been controlling him, and that if he would but persevere the paralysis and the rheumatism would both disappear. A few days later he had another stroke, and later still another, but as the two latter strokes were far less severe than the first one, he persisted in the fast. As the old gentleman quaintly put it, "When I saw how things were going I became so absorbed in watching the paralysis that I forgot my rheumatism."

A few days after the last stroke he suddenly discovered that his rheumatic leg had become perfectly limber, and, as he had not been able to straighten it out for years, his delight was unbounded. He fasted for twenty-three days, at the end of which time all symptoms of paralysis had disappeared, and he was almost cured of the rheumatism. The physician who prescribed these fasts, Dr. D. Albert Hiller, reported at the same time that Mrs. Judith Sampson, of Penryn, fasted seventeen days for dyspepsia; James D. Wrenn, of Martinez, fasted twenty-three days for stomach trouble, and Cora Brown, of Redwood, twenty-seven days, for acute nervousness—all with the most happy results.

One of the most remarkable cases that I have come in contact with, giving evidence of the marvelous benefits of fasting, was that of a patient who came to me suffering from what a layman would call a paralyzed throat. The muscles that controlled swallowing were completely paralyzed. Neither water nor food of any kind, either solid or liquid, could pass into the stomach. The ailment came on suddenly from a general stroke of paralysis. One of the methods of procedure in cases of paralysis of this kind is to make an opening in the chest or abdominal wall and insert a silver tube into the esophagus or stomach, through which the patient can be fed. In

this case, however, after a careful examination, I simply advised the patient that he rest as comfortably as possible; undertake a fast as long as necessary, at the end of which he would feel absolutely assured that the paralysis would ultimately disappear under the influence of the general stimulation of the vital organism which we should administer in connection with the fasting régime. To avoid his suffering because of excessive thirst, after the bowels moved each day, an enema consisting of two to three quarts of water was daily given and retained. I inspired the patient with confidence as to the outcome of this regimen. He realized that I was doing the best possible thing for him, as no other regimen could be recommended, unless he was willing to resort to the surgical operation described on the preceding page. Consequently he entered into the fast with a good heart. Day after day he fasted. On about the tenth day there began to be signs of life in the paralyzed parts, and I suggested that he try and swallow a little olive oil, as he complained of the throat being parched and dry. He succeeded, and his success gave him renewed courage. Two or three days thereafter he was able to swallow a little milk. This materially increased his energies, and within three or four days after he took the milk the full power of his throat returned, thus saving him from a very serious operation, and from the necessity of feeding himself in an unnatural manner forever after. In fact, had the operation been performed, and if he had been fed as a patient is under such circumstances, it is possible that the paralyzed muscles would never have recovered their powers—the paralysis of the throat would have remained permanent.

Though in some cases, through the influence of fasting the blind have literally been made to see, and the lame to walk, I feel that this case was perhaps one of the most remarkable of all with which I have come in contact. It indicates the extraordinary power of the body to cure itself of all ailments —even the most serious—if the proper opportunity is given it.

While it is a fact well known to physiologists and chemists, it is a surprise to most laymen to learn that, from the time of

birth to the time of death, the human body is constantly generating poisons. This is accounted for by the fact that as soon as the cells of the body perform any labor they begin to disintegrate and are soon destroyed, but while the process of destruction goes on, the blood, constantly circulating to the remotest parts of the body, brings to these spots the materials of which new cells are made, and immediately the old cells begin to be destroyed, the new material taking their place. These changes are taking place every moment in the growing bodies of plant, animal or human being.

How wonderfully different this is from any ordinary mechanical process of enlargement! If we wish to enlarge a shelf, for instance, we must tack on, with greater or lesser skill, a new piece of wood to the old shelf. In other words, there is no actual growth to the inert substance. If we wish to lengthen a bar of iron, we must either heat the iron and pull it out, so it is made smaller, to gain the required length, or we must weld another piece on if we wish it to retain the original size. Suppose that we have a leather bag that we wish to increase in size. This can be done only by stretching the bag, or by opening one end and inserting a piece of new substance.

But in this marvel of growth in living substances, whether vegetable or animal, the process is conducted without any such mechanical and clumsy additions. The skin of the baby is not stretched to allow for the enlargement of the body, but, without losing its elasticity for one moment, the cells which compose the tissues of the old skin are gradually removed to give place to new cells, and more of them, so that the process of growth is one of the most beautiful and marvelous of all the wonderful phenomena of life.

This change in cell structure is called by scientists *metabolism.*

When the old cells disintegrate and give place to the new ones, every old particle must be removed as speedily as possible from the body or it becomes an irritating poison. Therefore the body is provided with a series of wonderful organisms,

one of the chief functions of which is to eliminate these waste products from the body.

We are all so familiar with the two chief avenues through which the largest amounts of bodily waste are cast out, namely, the urinary and defecating organs, that we too often ignore those that eliminate in a less obvious fashion. One of the chief offices of the skin is to eliminate the waste and poisonous products of metabolism by means of what we call perspiration. The lungs, by the process of out-breathing, also eliminate

Bernarr Macfadden at the end of a seven days' fast.

Portrait of Bernarr Macfadden taken two weeks after the conclusion of a seven days' fast.

a large amount of poisons. The nostrils eliminate, in the shape of mucus, poisonous matter that if allowed to remain in the body would produce serious injury.

One of the wonderful facts that our scientists tell us is essential to this process of elimination, is that, while it is activity that disintegrates the cells, there is no replacement by new tissue unless there are distinct intervals of rest. In other words, *rest* is as essential to the building up of new tissue as is *exercise*. I have already shown the great importance of exercise in every muscle of the body, if one would procure and maintain perfect health. This is one of the unchangeable facts of life. Movement, activity, exercise, is the price we pay for physical vigor, but side by side with the *law of activity* is the *law of rest*.

The athlete who imagines himself capable of working continuously, because he had gained marvelous physical development, and who positively refuses to rest or sleep, will speedily kill himself. Sleep is Nature's essential method of giving to the physical organisms their required rest. But, the objector asks: "How about the functions of the body that you have called our attention to, that ceaselessly work without intermission from the moment of birth to the moment of death, whether one be asleep or awake?" In reply let me say that this statement of ceaseless labor is only partially true. In these functions, what seems to be ceaseless activity is constantly and regularly interrupted by minute intervals of rest. The heart, with its never ending activity, sucking in and forcing out blood at the rate of seventy-two contractions and expansions a minute, seems ceaselessly to work on, day and night, though one live to be a hundred or more years old. Yet each expansive and contractive effort is followed by a *short interval of rest* during which the change of cell structure takes place.

In this law of metabolism, or the breaking down of the cell structure, and rebuilding it with new material, we have not only the whole theory of exercise, but the basis for the theory of fasting. The more one exercises, the quicker the

old cells are broken down and new cells take their place. Yet this must be done with reason and discretion, for, if one exercises too strenuously, the organs of elimination are unable to remove the poisons as fast as they accumulate, and then serious trouble is the result. Who is there that has seen a runner, racing at topmost speed to gain a goal within a given time? The faster he goes and the longer he runs, the greater his distress. What is the secret of this distress? As Dr. McKenzie says, it is because "the amount of waste material suddenly thrown into the circulation is greater than can be eliminated by the lungs. The breathing becomes rapid and shallow, the pulse quick and fluttering, and the runner feels a sense of constriction around the chest; his head swims and throbs and his face takes on the anxious expression so eloquently telling of the thirst for air.

"The face of the breathless man is unmistakable. The smoothness of the forehead is broken by wrinkles spreading out over the inner end of the updrawn eyebrows. The general direction of the eyebrows is just the reverse of that seen in violent effort. They are drawn upward and inward by what the French call 'the muscles of pain', whose action is seen in the expression of grief, mental distress, anxiety, or bodily pain. The upper lids in breathlessness droop and half cover the eyeball, giving a look of great lassitude to the suffering expressed by this region. The nostrils are widely dilated, and the mouth gapes, with lips retracted in the mad struggle for air. The raised upper lip adds to the look of sorrow and pain, while the down-drawn mouth angle, the tongue closely pressed against the teeth, the sunken cheek, and the open mouth, all go to increase the exhausted, haggard look so characteristic of this state, in distinction to mere bodily pain or mental suffering. The general poise of the head is backward, the chin thrust forward, and the neck strained or convulsed."

Now let the runner rest for a while. Speedily his breathlessness and look of distress fade away. Why? Because he has given the organs of elimination a chance more ef-

fectively to do their work so that the accumulating poisons are not there to produce distress.

Our civilized methods of eating place so great a tax upon the digestive organs that they may be compared to the strenuous race of the runner. We are trying to compel the body to digest too much food, composed of too great a variety in too short a space of time. The result is the eliminative organs of digestion are not able to get rid of the poisons as fast as they are created. Then follow all the long train of diseases that are simply Nature's warnings that we are running the race too fast. The drug physicians and the patent medicine manufacturers step in at this juncture and say to us: "Don't pay any attention to these Nature warnings. Here, in return for your money, we will give you a drug, a poison, a mixture, which will artificially compel your body to get rid of those poisons that are troubling you." And because we do not understand that, as a rule, all artificial helps do far more harm than good, we accept the false help thus seductively offered, and by so doing considerably reduce our capacity for real living, as well as shorten the actual span of our lives.

What is the natural remedy offered by Nature at such times? Is it not self-evident? Rest. Complete rest to the whole of the organs of mastication, digestion and assimilation. Rest, just as complete as the rest of sleep is to the athlete, is as clearly indicated as it is possible for benignant Nature to speak. The path is so clear that "The wayfaring man though fool need not err therein."

Experience in thousands of cases has demonstrated that this perfect rest can extend for a period from a day or two in length to often as long a time as one hundred days. We have heard of men to whom has been denied the privilege of sleep for three or four weeks and who have then gone to sleep and remained in a somnolent condition for several days and nights. It is just so with fasting. If a faster is free from mental worry or fear and he is not exposed to pain or inclement weather he may prolong the rest of the digestive organs to the almost unbelieveable extent I have mentioned.

It is a fact that has been demonstrated again and again that many invalids instead of losing strength by fasting gain it. In one case a woman was carried to one of our institutions on a stretcher, so weak from mal-nutrition that she was unable to walk. Her physicians had prescribed all kinds of nourishing diet which she had been unable to digest and in spite of food, drugs and nursing she had rapidly grown weaker. She was at once placed on a fast, and to her amazement, she, day by day, increased in strength. Not understanding the philosophy of her cure, the result seemed absolutely miraculous. For years she and her friends, encouraged by her medical advisers, had been stuffing all the food into her body that she could compel herself to swallow, with the hope that thereby she would gain strength, while all the time she had been growing weaker. Then, to come to us, and in a fast of about two weeks, not only to lose her dyspeptic symptoms, but to gain health and strength, surprised her beyond measure.

We have often been asked, rather in fun than in seriousness, if we claim that fasting is a general "cure-all." But it is in all sincerity and seriousness that I answer that fasting comes as near being a "cure-all" as anything can possibly be. There are few cases indeed of any disease, or any degree of sickness, that will not be benefited by fasting. The stomach is a natural indicator as to when food shall be taken. If there is any trouble whatever in digesting what is eaten, the natural remedy is to fast. And, as all diseases are but the endeavors of the body to get rid of the poisons that, uneliminated, would produce death, and eating but adds to the poisons while the process of elimination is going on, it is evident that the natural way to get rid of all disease is to refuse to eat so long as poisons still remain in the body.

In our various institutions and to those who have sought our advice, we have prescribed fasting with the happiest results in cases of every kind of dyspepsia and stomach troubles, even to the most alarming cases of prolapsus, where dangerous surgical operations had been pronounced the only hope of relief; cancers, pneumonia, every form of skin disease, chronic

headache, constipation, nervous exhaustion, low vitality, hemorrhoids, diseases of the kidneys, general debility, asthma, dropsy, various forms of liver complaint, catarrh of every kind, rheumatism, typhoid and typhus fevers, scarlet fever, and indeed practically every ill that human flesh is heir to. The only cases where we do not advocate long fasts are of tuberculosis and catarrhal complaints where the vitality is too low to risk the loss of any serious amount of tissue. In all other cases fasting not only produces no injury, but on the contrary such immedite benefits as to be really remarkable.

One of the most dangerous ideas of the popular mind which is shared by the medical profession, is the superstition that we must eat to keep up our strength. Never was there a more injurious and untrue doctrine promulgated. My own experience and that of thousands of people who have fasted has demonstrated the absolute falsity of this idea. It should be stamped upon the mind of every growing child that it is not what we eat that benefits us but what we assimilate. Imperfectly digested food is not only unnecessary, but is a positive injury. It is a crime against the stomach to put into it food that it cannot or does not digest. Every physician who insists upon a patient eating when there is no appetite for food, or an actual repulsion against food, is unfit for his profession and should be drummed out of it. Here is the self-curative power of the body, implanted by the All-wise Creator of the Universe, telling the sick person in so plain a manner that a fool could not misunderstand, that the way to health is not to eat, and yet this foolish and arrogant physician comes along and presumes to overrule and override this plain teaching of Nature, and with dogmatic insistence compels the patient to eat that which is no better than a poison —which continues the disease by feeding it.

One has but to watch the animals of the field, or even the ordinary domestic animals, to learn the fact that when they are suffering in any way they refuse to eat. If a horse has been overworked and any form of disease induced thereby, you

may tempt him with the finest hay and grain, but he absolutely refuses to eat. A sick dog or cat has more sense than most men—even the learned members of the medical profession—for it crawls away where it can lie still, refuses to eat food, and will occasionally take a drink of water, and thus by fasting unconsciously teaches man a lesson that he so stupidly refuses to heed.

It is the great fear instilled into the mind of civilized man and woman during the centuries of medical tyranny and dogmatism that has deterred intelligent people from following this self-evident healing process of Nature. They have been afraid to fast. They have imagined that to abstain from food for a week would produce death, and, if one prevails upon them to begin to fast, the natural disturbances of the first day or two, owing to the breaking of the habit of taking a full quota of food three times a day, whether needed or not, so alarms them as almost, as we say, "to scare them to death."

There need be no fear as to any evil resulting from a fast except in the case of tuberculosis, catarrh and wasting diseases already mentioned; and even in such cases a fast of from two to four days can usually be taken with advantage. In thousands of cases there have been no deaths whatever that could be attributed simply to a fast. In practically every case where death has occurred to a "faster" an autopsy has revealed that there was an organic disease which, with or without the fast, would have caused death. And when it is remembered that out of thousands of diseases that are treated by physicians large numbers die, it is absurd to condemn fasting for the exceedingly small number of cases that die, when, too late, they have been prevailed upon to give this natural method of healing a trial. In my own experience, however, I have not had a single death which could be directly traced to the fast in the thousands of fasts I have advised.

I merely state this as a fact to show that, although I have advised fasting in so many thousands of cases and the fasts have varied from one day to ninety days, the fear of fasting is altogether unfounded

and unreasonable. The fact is, a seven-day fast with an average individual who finds himself a little below par or suffering from a cold or other acute disease, amounts to almost nothing in the way of discomfort or distress.

He will doubtless lose a few pounds in weight, but he will gain in several ways. In the first place, he will get rid of his disease and will gain in vigor, both mentally and physically, and his whole functional system will be so toned up that he will feel an exhilaration and buoyancy, physical and mental, that will both surprise and delight him.

This, of course, implies that he break his fast in a sensible and rational manner. Even a small modicum of intelligence will tell a man that, after a seven-day fast, he must not overload his stomach with food.

I have spoken of the effects of fasting upon both the mind and body. To many of my patients the effect upon the mind has impressed them even more than the effect upon the body, even though the latter has been wonderfully beneficial. They have come to me with delight and spoken of the wonderful ease with which they could think, the pleasure with which they handled problems that before had been difficult. The reason for this is very clear. Ninety-nine people out of every hundred eat too much. The undigested and unassimilated portions of this food remain in the stomach and intestines, causing a more or less prolapsed condition of these organs, and at the same time generating poisons that affect the whole physical system.

As the brain, which is the organ of the mind, is a part of this system, it yields to the deadening effect of these harmful poisons, and makes the over-eater feel as if he were half asleep. No man can do good mental work when his brain is thus struggling under the influence of these poisonous conditions. But by a few days' fast, the clearing out of this undigested and poisonous mass from the lower intestines, the toning up of the stomach and alimentary canal and the cessation of pouring food into the stomach to add further poisons—

all these things combine to bring about the clarity of mind that is one of the delightful effects of a fast.

I have referred to the fact that I have directed fasts that have continued over many weeks, not only without injury to the fasters but with decided benefit. When these facts are first brought to the mind of many people, they can scarcely believe them and yet when one recalls the hibernating habits of the bear, our idea ought not to seem unreasonable. The bear eats heartily while there are plenty of nuts, fruit, honey and other fattening food and thus fattens himself, so that when the fall comes, he is prepared to search out a hollow tree, crawl into it, and sleep during the cold months of winter. There are thousands of men and women whose bony structures are so covered with fatty tissues that they could fast for weeks, or even months, without the slightest injury to themselves—in fact, with positive relief and permanent benefit.

This body is nothing but a storehouse of energy waiting daily to be used. A healthy body, up to a certain point, can pile up an excess of energy-producing materials which can be called upon at any time. When one goes beyond a certain point, however, this excessive accumulation of fat is liable to cause disease. Nature is willing that her children should become rich so far, but no farther, without danger.

FASTING AND THE MEDICAL PROFESSION.—The ignorance of the ordinary physician as well as the layman, as a rule, is dense upon this subject of fasting. Even those instructors of the multitude, the writers of the daily press, reveal the most colossal ignorance as to the facts of fasting.

Here is an item which appeared in no less a paper than the *New York Times,* May 15, 1910, and if anything can disclose a crasser ignorance upon food and fasting I should like to have it shown to me.

THREE FASTERS HOLD OUT.

But They Each Take Six Quarts of Milk a Day.

GARDEN CITY, L. I., May 14.—Just because every one has said that they would quit before five days were over, Mrs. Trask, Ann Townsend, and Marion MacKellar, the three young women who have entered into an eighteen-

day fast, say they intend to stick it out to the bitter end. From the manner in which they take six quarts of milk a day, and evidently seem to enjoy it, they are likely to hold out.

The self-imposed fast was entered into to cure indigestion, and the three say they have already been cured—that they feel better than ever before. Their families have tried to get them to stop their fast, owing to the unpleasant notoriety attending it, but all are firm.

Every day the trio take their two-quart pails and go away for the day with friends, where they will not be seen by curious persons who seem to think them wonders in their way.

The weight of the fasters has dropped considerably, but the last two days have demonstrated that the milk is holding its own, and the only loss is that which was suffered at first. All are sleeping well, but anxiously watching the calendar for May 25, when the fast ends.

Every twelve-year-old school child knows full well that milk is one of the most nourishing of foods. They will tell you that the baby at home gets nothing but milk for nearly a year, and yet the wiseacres who edited the *New York Times,* headed the article which told the commonplace and simple story that three women, who had over-eaten and had become dyspeptic and as a result, had cut down their diet to two (or six) quarts of milk a day, "Three *Fasters* Hold Out." How absurd! In some countries milk is the chief diet of the peasantry, those who have the hardest and most laborious work to perform, yet we are safely told that these three dyspeptic women, swallowing two quarts of milk a day, are *fasting.* This is on a par with the general knowledge of newspapers and ordinary drugging physicians upon the subject.

Even those who have given the matter some study, but from their limited and narrow standpoint, raise many and sometimes absurd objections to fasting.

Some years ago *Physical Culture* published an article by Dr. J. S. Lawson, in which he pointed out what he conceived to be the errors of fasting. He claimed that any reduction of the nourishment of the body lessens its processes of growth and development. In furtherance of this argument he says: "All persons are familiar with the appearance of the half-starved baby, and naturally pity it. Of what benefit is it to

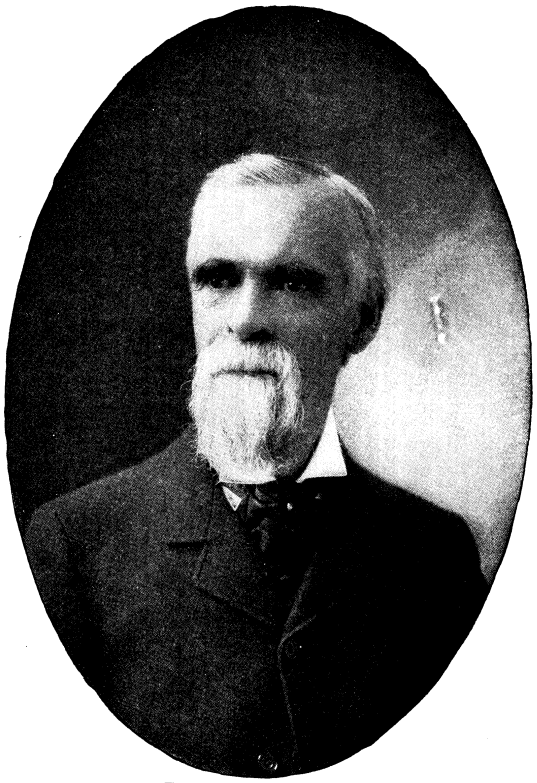
the child to suffer for the lack of its nourishment? What good purpose is gained to hold it back in its development?

"Some will say the child may be fed too much, and so it may be, but Nature is wiser than man, and if it be that the child has more food than is good for it, the excess of food is vomited. In other cases the intestines expel it.

"In these two ways Nature protects itself and conserves the interests of the child. Is this not as well or better than the arbitrary stopping of the child's food? Who can say how long a fast may continue without injury to the vital system? Who knows when the delicate adjustment of nerve and blood and cell may be thrown into disorder and seriously damaged by insufficient nutrition?"

In reply to this, Dr. Edward H. Dewey, the father of modern fasting, insisted that, though the child does expel the excessive food by both vomiting and through the intestines, it is done at a great tax upon the brain. He then continued his reply as follows: "In my own practice there was the case of a child four months old who was reduced to nearly a skeleton while taking ample nourishment, the intestines apparently disposing of all that was taken and without the least digestion. The daily feedings were reduced to small fraction of former amount, and the result was a rapid gain in weight and a final complete recovery. A condition of general dropsy is sometimes due to overfeeding in the nursing period. In one case, an infant of four months seemed to be unusually well nourished in spite of half a score of bowel movements daily. These were reduced to one daily by the three-meal plan; the water weight was all absorbed and perfect health thereby assured. This was the first case of the kind so treated in this city in which I practiced, and an army of relatives would not believe that the brave young mother was not starving her firstborn to death.

"There is now a stalwart young man who has not been sick a day since the three feedings of undiluted cow's milk became the plan to be strictly followed during the nursing period."



E. H. Dewey.

Dr. Edward Hooker Dewey, who was regarded by many men and women as the foremost medical exponent of fasting of his time.

Many physicians tell their patients that a large number of deaths have occurred as a result of fasting. Without knowing anything of the cases, they have picked up the news from some newspaper desirous of making a sensation, and in which, through startling headlines, is heralded throughout the country that some one has died during a fast. Naturally the inference they seek to convey is that the fast caused the death, and the drugging doctors will foster this unreasoning fear for purely selfish considerations.

What if some one were to raise a hue and cry against every person who died while taking medicine or while under the care of a physician?

What if some publication devoted to drugless healing were to publish, with glaring headlines, the facts of any one day in connection with the deaths that occur in a large city, with those who are under orthodox medical treatment. Then, suppose I were to do as these newspapers and medical sensationalists do in regard to fasting, and were to presume to say, or suggest, that these people died as a result of the medicine and the treatment of the physician.

What an uproar there would be! I should be denounced as a liar and a slanderer, an assassin of character and an unmitigated scoundrel. And, under such circumstances, the judgment would not be far from correct. I therefore wish to say to those physicians, who, knowing nothing of the cases, recklessly and unblushingly assert that the deaths that have occurred while certain people were fasting resulted simply from the fast, that their conduct is reprehensible and dishonorable.

I am prepared to affirm and challenge anyone to contradict it that the autopsy in every one of these cases would show that there was some organic trouble, which would have caused death, no matter whether the patient had eaten or fasted.

It would be an interesting comparison if one could accurately determine the percentage of deaths among those in the habit of fasting occasionally, and among those in the habit

of eating three or four meals a day, whether they need them or not.

Those who possess a smattering of information on any subject are usually far more self-opinionated than those who have delved down into the mysterious depths of knowledge. Those who know the least about fasting and its effects are usually the loudest in their protests against the practice.

To become familiar with any subject, you must come in close contact with all its various phases. A fast of one meal or one day can give one but little information about the principles of fasting.

On one occasion I heard a very emphatic arraignment of the fasting cure from a man who had fasted one day, and had deduced all his conclusions from this one experience. If we were to adopt a similar attitude on all subjects, many very valuable aids to health and strength would be cast aside as dangerous. The first experience with active, vigorous exercise, for instance, will frequently make one sore and stiff. If conclusions were deduced from this one experience, exercise would be considered extremely injurious.

There is no doubt but that the ordinary medical practitioner honestly and sincerely believes that, sick or well, one must eat to keep up his strength. Suppose you go to an ordinary physician suffering with weakness or debility, and a general run-down condition. Your face looks bloodless and you are scarcely able to walk a few blocks to and from the cars. What does he say? In nine times out of ten he will tell you that you need more nourishing food. But you tell him you have no appetite. He replies: "Then I will give you an appetizer." To this you respond, "But when I do eat heartily, I cannot digest what I eat." Then he says, "I will give you a tonic which will enable you to digest the food you eat."

Now, most probably, you are suffering from eating too much, and your trouble is that your whole body is being poisoned by the food which you cannot digest and assimilate. Is it reasonable, then, to assume that it is a good plan to induce

the body to take food and then compel it to digest it? Would it not be far better to give the body a rest and let it regain its natural tone before giving it more food? This is exactly what fasting does, and the more experience one has in fasting, the easier does he learn to read and interpret the natural processes of the body. For, when he first begins to fast there will be two or three days of discomfort until the clamorous demands of abnormal appetite are silenced. Then for a number of days, greater or less, according to the amount of poison in the body which has to be eliminated, the tongue will be coated, the breath foul, and there will be an entire absence of desire for food, all showing that the self-curative power of the body is at work trying to get rid of the poisons that have been doing the damage in the past. Just so soon as the poisons are eliminated and the normal tone of the body restored, the natural call for food returns. When it comes it is absolutely unmistakable. It is not a ravenous appetite which can only be satisfied by highly seasoned and stimulating luxuries, but is a natural hunger which any simple, natural food will satisfy.

Then, if you are willing to use the intelligence you possess and to follow the simple, natural promptings of the body you will never need to have a headache, a physical discomfort, or a disease of any nature whatever, unless caused by accident, so long as you live. One fast, perhaps, may not suffice to produce these desirable results, but, one fast will teach you so clearly the unmistakable and simple processes of nature, that if you are reasonably intelligent and willing to be guided, you can make no mistake as to when another fast is suggested by the body as a wise and advantageous procedure.

How often it is that the fears and incorrect notions of our friends, educated to believe this unnatural idea, will come to us when we are sick and tempt our appetites in every way. They bring us fried chicken, jellies, soups, salads, puddings and even mince pie, as well as the more rational and naturally tempting fruits and urge us to eat of these delicacies and nourishing foods.

The average individual thinks one who is trying to fast is

simply insane, and perhaps you cannot blame him. Never having heard anything of this method of bodily house-cleaning, he cannot understand it.

As soon as one becomes free from this absolutely absurd as well as injurious notion, that he must eat to keep up his strength, it becomes a self-evident proposition that he should never eat unless he is hungry. No matter whether he misses one meal, two meals, or six. Unless real hunger, with its natural desire for plain, simple, unstimulating and unseasoned foods, is present, he should not eat. No matter what any physician or friend may tell you, the Nature that is speaking within you is immeasurably more wise and learned, and far better understands how to keep your body in perfect health than all the learned and wise men of the world. Hence, listen to the voice within and refuse to eat until the normal, healthy hunger returns. If you pass a meal time and lose your desire to eat, be assured that you will be benefiting yourself to miss that meal.

Another important fact it is well to take to heart and thoroughly learn, namely, even though you feel a desire for food, do not eat unless you thoroughly enjoy it. It is absolutely essential to enjoy your food to get the best results.

Over-feeding Brings Disease.—It cannot be emphasized too strongly that over-feeding is always an injurious process, whether the over-eater is well or ill. When you eat more than you can digest and assimilate, the undigested portion, in passing through the intestines, constantly throws off poisons which are absorbed into the blood stream, which they thus devitalize and render impure. It might safely be affirmed that immeasurably more people die as a result of over-eating than are carried off by famine. The nervous system is taxed and the reserve forces of the body called upon to get rid of this surplus of food and, in addition, the poisons have the effect of deadening that exuberance of life that makes a man full of vim, energy, snap and force. Hence it will be seen that over-eating has four distinct and injurious effects upon the body.

1. It renders impure the blood stream, thus making the body susceptible to disease.

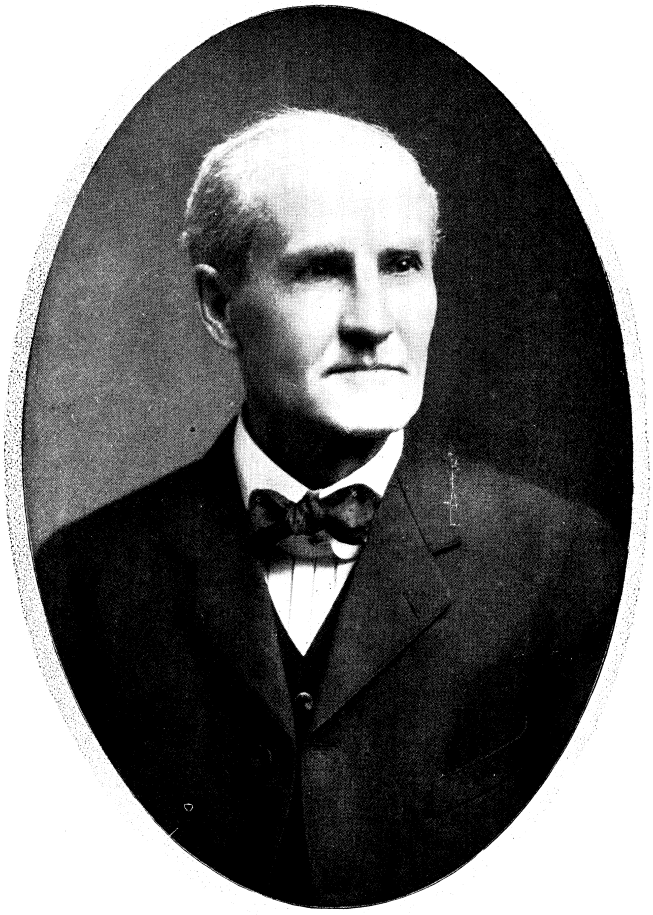
2. If the over-eater is suffering from an acute or chronic disease, the impure blood stream feeds and fosters the disease.

3. It puts a tax upon the nervous system and depletes the reserve force of the body to get rid of it.

4. The poisons that are thrown off from the undigested mass of food poisons the body and brain so that the over-eater is deprived of the joy of that superb, abounding, radiant health which it is the privilege of every human being to enjoy.

There are few tyrannies greater than the tyrannies connected with our eating habits. We have become habituated to the idea that it is what we eat that keeps up our strength, and that we must eat three meals a day whether we need them or not. Even though something within us instinctively impels us to go without food, we have so made appetite our master that we feel if we miss a meal we shall have a headache, or be dizzy, or feel nauseated, or have "a sinking spell," or "feel that terrible gnawing at the pit of the stomach," and rather than suffer these unpleasant consequences of our slavery, we yield to the demands of an abnormal appetite and eat a meal, though we know that by so doing we are strengthening the bonds of our slavery.

There is another side to this fasting question that I should like to mention in passing. Again and again, when I have been eating even in the finest hotels, where the most elaborate food service has been provided, I have heard people complain that nothing tasted "good" to them. In other words, they had so overfed that they had lost the pleasure of eating. To the healthful person, every mouthful brings its own distinct sensation of delight, and the last mouthful is just as delicious as the first. No person can be said to be in a normal condition of hunger unless this is his experience. To those who have lost this constant pleasure and who have to stimulate the appetite with sauces, condiments and the like, I would strongly urge a short fast, if for no other reason or higher motive than to restore the pleasures of normal hunger. Where one eats with



A photograph of Charles Courtney Haskell in his seventy-first year.
Well known exponent of fasting and other natural methods of curing disease.

a healthful desire, everything is sweetened and made deliciously palatable with *hunger sauce*—the best condiment and palate stimulant the world has ever known. Not only are the pleasures of the table enhanced after such a fast, but the food eaten under the new conditions seldom produces nightmare or disturbed sleep.

Over-eating has become a vice of enormous prevalence, and for millions a protracted fast would prove a specific for the cure of ailments that defy medication. Diarrhœa, for instance, admits of no readier or more harmless remedy. It is a result of dietetic abuses and Nature's usual way to evacuate irritant substances—often accumulations of indigestible food threatening to become virulent under the influence of a high temperature.

A day's fast would mitigate the trouble. Two days of total abstinence would generally cure it and leave the condition of the alimentary organs improved in every way. But the patient cannot wait. Instead of earning the right to health he wants to buy it ready-made over the counter, and applies to a drug-monger. Loose bowels indicate a deficiency of vital strength, yet nearly every debilitating poison of the vegetable and mineral kingdom has been employed to paralyze the activity, and, as it were, silence the protest of the rebellious organs. Bismuth, arsenic, calomel, opium, mercury, nux vomica, zinc salts, acetate of lead and nitrate of silver are among the gentle "aids to Nature" that have been prescribed to control the revolt of the mutinous bowels.

To the thinking mind this deliberate paralyzing of the bowels is manifestly unnatural and therefore dangerous and injurious. The perfect and proper relief comes from the simple natural plan of giving the overworked organs a rest, and this the short fast readily accomplishes.

I have already shown the folly of the shibboleth, "You must eat to keep up your strength." This fosters the idea that you must tempt the appetite of the invalid in spite of the foul breath, coated tongue and repulsion for food that the patient exhibits, and that one would think would be

enough to convince a person with the slightest modicum of intelligence that the body was craving for a rest from all food. Yet he will insist that it is injurious for the body to fast; that if you do not put food into the stomach, the gastric juices will soon eat away the stomach; that when you fast for any length of time you begin to feed upon your own tissues, to "gnaw your own bones"; that "a fasting man feeds upon a very unnatural dietary, his dietary consists wholly of flesh, hence he is carnivorous, and worse than that, it is human flesh, so in a certain sense he is a cannibal"; that "from a hygienic standpoint one might just as well subsist upon the flesh of another person as upon his own flesh"; that, "the faster at first consumes the fatty or adipose portion of his tissues. When this is gone, other structures—the muscles, liver, brain and other tissues—surrender their substance to maintain animal heat and supply the energy required to sustain the action of the heart and other vital organs. Thus not only the residual tissue or stored food of the body is utilized, but that the framework of the structure itself is consumed, and may thus be considerably impaired, or even irreparably damaged, cannot be doubted"; that "there is great danger from the suspended action of the bowels during a fast, owing to the retention of the intestinal secretions"; that "food must be taken at regular intervals in order that the food residue may sweep away the poisonous and offensive secretions of the intestines." These are some of the so-called scientific objections urged by the medical profession against fasting.

Let me now briefly reply to these objections. Experience is the best teacher as to whether fasting is a natural process or not. No natural process can be injurious. In the thousands of cases that have come under the observation or direction of hygienic teachers, there is the first case to be found where wise and judicious fasting has produced injury. As to the gastric juices eating the stomach of the faster, this is a pure bogy of the imagination. Even in the case of people who have died of starvation, there has been nothing to justify this assertion. The fact is the body begins to feed upon its own

fat first, and in these cases of starvation, where careful scientific observation took note of all the conditions both before and after death, it was found that 91 per cent. of the fat of the body was consumed; 30 per cent. of the muscle; 56 per cent. of the liver; 63 per cent. of the spleen; 17 per cent. of the blood, and absolutely nothing of the nerve centers. The consumption of fat and muscle could occur at any time and the person preserve practically his normal health and vigor. The loss in the liver and spleen was more in the liquids than the solids, and the reduction in the amount of the blood not in itself serious. The stomach was found absolutely uninjured, and nothing more betrays the ignorance of the ordinary physician as to the effects of fasting than such foolish remarks as that the stomach will feed upon itself if no food is provided for it.

The one remarkable thing about these medical records is generally overlooked. It is that, provided the nerves can have rest and sleep, they seem to maintain their substance during even the most prolonged fast without injury. How they are fed, we do not know. Experience and observation teach that during the fast the nerves maintain their ability and power to direct and control the operations of the body just as much as when the usual amount of food is eaten.

It is to this self-acting power and law of self-preservation that the faster owes the direction of the forces that operate for his benefit. The nerves seem to direct the processes of disintegration and seize those tissues that can most conveniently be spared for the sustentation of the faster's body. For, as I have elsewhere shown, the fat disappears first, and then other tissues in the inverse order of their usefulness and importance to the carrying on of the functions of the body.

THE DIFFERENCE BETWEEN FASTING AND STARVING.—From what I have said, therefore, it will readily be apparent that fasting assuredly does not mean the same as starvation. In *fasting,* the body merely subsists upon its surplus accumulations, and upon the tissues up to a point at which it would be impossible to abstain from food further without actually de-

priving the body of the means of sustaining life. As a general thing one can fast for a number of weeks before he reaches the point at which starvation begins. One will *starve* when the body is in actual and direct need of food or of some special elements without which life cannot be sustained. As a matter of fact, many people undergo a process of partial starvation even though they may eat in great abundance of a one-sided diet, which perhaps contains a surplus of some elements, but a deficiency of others. The deficiency of the latter will result in what might be termed partial starvation. If these same elements were entirely lacking a man could not live even though he had the privilege of eating great quantities of some other elements. In some cases an individual actually grows stronger during a fast, but if he continues to fast indefinitely he will finally reach a point at which starvation begins. This, however, will in most cases not occur until practically all of the fatty tissue and much of the muscular tissue of the body has been consumed, as well as some of the other tissues as of the liver and spleen. As a general thing the brain is sustained and nourished on the wasting tissues of the body to the very last. Fasting is particularly valuable in cases in which the digestive system is disordered or in need of a rest and the blood is charged with impurities.

To sum up, therefore, one may fast for weeks without starving, though of course if the fast is continued too long starvation will begin. When the heart-beat becomes alarmingly slow and one becomes exceptionally weak, it is time to stop fasting. It is important to remember that this point will be reached in some individuals long before it would be in others.

The ordinary physician prefers to keep his patients in ignorance of the processes by which he hopes to accomplish a cure. He writes his prescriptions so that laymen cannot understand them. Everything is mystery. His phraseology is in long syllabled words which convey no meaning whatever to the lay mind. He speaks of *aqua pura* when he means water, and he looks wise and says that a little *chloride of sodium*

might be beneficial, when he means a pinch of salt. Whether it was deliberately designed by the founders of medicine to make so profound a mystery of it as to fill the lay mind with awe at the stupendous knowledge of the members of the profession, I am unable to say, but it unquestionably has acted in that manner from the earliest days even until now. The more popular and expensive the physician, the more mystery and complexity, as a rule, he will cast around his profession. There are solemn waggings of the head, and Ums! and Ahs! as the patient details his symptoms. There are more ponderous waggings of the head and serious looks as he asks questions. If he deigns to pronounce his diagnosis, it is in weighty words made up of ponderous syllables. There is more mystery and conjuration when the remedy is prescribed, and from the beginning to the end the whole process is made as mysterious and complex as possible.

On the other hand, fasting is exceedingly simple. It requires no knowledge to fast, though one must have determination and strong will, and when the fast is broken, use both self-denial and reason not to eat too heartily and of too solid and concentrated food. The physician is scarcely to blame for defending his profession to the best of his ability, consequently he not only knows nothing about fasting, but as a rule, he does not want to know. Why should he? His business is to prescribe medicine and to cure disease in accordance with certain principles laid down by the school to which he belongs. He has no more desire to step outside the boundaries of his professional teaching than a Chinese Mandarin has to extol another philosophy than those of Confucius and Mencius.

Upton Sinclair very forcefully states the general attitude of physicians upon this question of fasting. After referring to his experiences with the newspapers he continues:

"Equally discouraging, it seems to me, was the attitude of physicians, as revealed in the correspondence that came to me. We have about a hundred and forty thousand regularly graduated 'medical men' in this country, and they are all of them presumably on the alert for new ideas in the curing

of disease. Certainly an experience of the sort that I narrated, written by a man of some prominence, over his own signature, and backed by references to other cases, might have been expected to awaken the interest of a good many of these professional men. Out of the five or six hundred letters that I have received, just two, so far as I can remember, were from physicians; and out of the hundreds of newspaper clippings which I received, not a single one was from any sort of medical journal. There was one physician, in an out of the way town in Arkansas, who was really interested, and who asked me to let him print several thousand copies of the article in the form of a pamphlet, to be distributed among his patients. One single mind, among one hundred and forty thousand, open to a new truth!

"Not so very long ago I saw a report in some metropolitan newspaper to the effect that the medical profession was greatly alarmed over the decrease in its revenues—it being estimated that the income of the average physician to-day was less than half of what it had been ten years ago. All this, I think is directly attributable to the spread of knowledge concerning natural methods in the treatment of disease—and, more especially, of natural methods in the preservation of health. Only the other day I was talking with a friend who was a teacher in a small college in the Middle West. There was a physician regularly employed to attend the girl-students, but several of the teachers became interested in the fasting-cure, and whenever they learned of any illness would go to the girl and start her on a fast, and, as a result, the physician lost considerably more than half of his practice. In the same way, I myself recently started several people in a small town to fasting, and every time I saw the local physician driving by in his carriage I marveled at the courtesy and cordiality he displayed; for before I had left that place I had cured half a dozen of his permanent customers—people to whom he had been dispensing pills and powders every few weeks for a dozen years.

"Bearing these facts in mind, what intelligent man would

go to a physician and ask him anything about fasting? If the physician consulted has been broad enough and wise enough to study fasting—even though he may not have experimented upon himself—if he has honestly studied the literature of the subject and watched the effect in a number of cases, his judgment is then entitled to due consideration, but to consult the ordinary physician on fasting is as unreasonable as it would be for the lamb to consult the wolf as to the righteousness of flesh eating, or the deer to ask the tiger if fruit and nuts were not the only natural food. In this matter, as in everything else, one must use his own intelligence and rely upon his own observation and judgment. If the naturalness of fasting appeals to your own common sense, then try it. Why consult anybody? Your judgment is as much to be relied upon as that of the greatest physician that ever lived. Truth, Nature, needs no other authority than itself; it is higher than all authority. Everything that is natural is true, and truth is natural. If, therefore, you follow truth and Nature you are following higher authority than that of any man living."

My First Seven-Day Fast.—The description of my first fast of seven days will probably be of interest to my readers.

During the previous fifteen years I have frequently fasted as a cure for threatened illnesses that attack even the most careful in this age of civilized or rather uncivilized dietary.

I have been seriously threatened with pneumonia and numerous other ills of less importance which have quickly succumbed to this effective means of ridding the system of impurities. Though there are now some valuable works on this subject, when I first adopted these theories, they were based entirely on my own conclusion and instinct and the well-known fact that all animals fasted when ill.

Until this last experiment I never fasted over four days, and even then I usually ate an apple or a bite or two or something light each day, thus at no time previous to this last experiment did I fast absolutely.

I have frequently made comments on the value of fasting in *Physical Culture,* and determined to test the effects of

an absolute fast of one week on strength and weight. I did not take a particle of nourishment in any form, though drank freely of pure water.

The first day of the fast, I lost five pounds and the next day two pounds. The loss gradually decreased each day, and on the seventh day was but little over one pound. Altogether in the seven days, my total loss of weight was fifteen pounds.

My loss of weight was far greater than is usual when one is fasting. This was caused by the great amount of exercise that I took daily. In fact I lost about as much weight in this one week as one would ordinarily lose in two weeks if no exercise was taken.

Each day I walked about ten miles, and as is often the case, felt weaker the second day of the fast than at any time thereafter.

I always took my walk in the morning immediately on rising and usually felt weak at the start. This was however entirely abnormal for after traveling one or two miles, the feeling would entirely disappear and I could walk with a strong steady tread, and at the conclusion always felt equal to ten or twenty miles more.

Frequently when rising from a seat after a short rest I would feel quite dizzy for a few moments, but this would quickly pass away.

The first four days were the most uncomfortable. I did not seem especially hungry, but I was languid, except for a while after exercise, at which times I always felt strong and energetic.

I attended to my daily duties during the entire fast with the same regularity as usual. My brain seemed especially clear, and mental work actually required less effort than when eating regularly.

At times difficulty was experienced in inducing sleep. The gnawing sensation in my stomach would not cease, though a plentiful supply of cool pure water seemed of great advantage, and was of valuable assistance in wooing slumber.

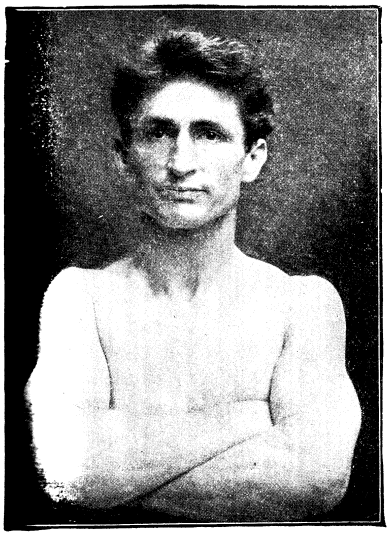
The sixth and seventh days of the fast were really by

far the most comfortable. I felt that it would require but little effort to continue on for three or four weeks, but the object of the fast was accomplished and I was not at all anxious to continue it further.

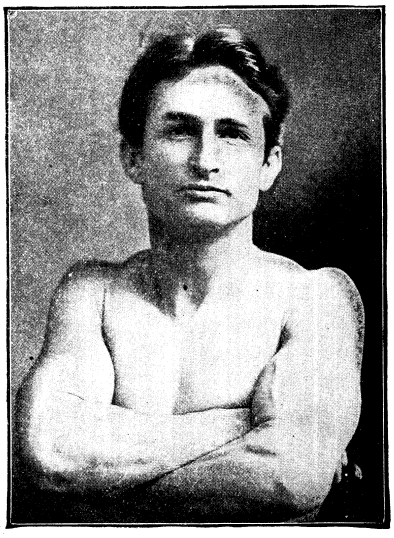
The most important feature in lessening the effects of fasting is to keep the mind employed so one will not be continually referring to the desire for food.

The only time there was the slightest danger of my giving way to appetite was on the fourth day. At this particular time I mention, there was nothing of importance for me to do, and after conversing a short time with some friends, I went out with the distinct intention of patronizing the nearest restaurant.

After walking a short distance and giving the matter serious consideration, I determined not to break the fast and instead of the restaurant, I visited a gymnasium and spent thirty minutes in vigorous exercise, and in consequence felt



Appearance of face at the close of a seven days' fast.



Condition two weeks after breaking fast of seven days' duration.

much better, and all thoughts of giving up the fast were abandoned.

The comparison photographs show how the body wasted away during the fast. The face thinned especially and the eyes sunk considerably.

The remarkable feats of strength performed on the seventh day of my fast are described in the paragraphs headed "Work During the Fast." This should be carefully read in connection with the foregoing statements, for, when the experiences of others in the same line are remembered, it will conclusively show that the eating of three meals a day is not an essential to the putting forth of great muscular energy.

After the fast I have described here I made the mistake of eating too heartily on two or three occasions and I am now quite satisfied that much harm resulted thereby. On the second day after the fast I ate three hearty meals, when one hearty meal would have been sufficient. This was, as before mentioned, the first fast of this duration that I had ever gone through, and I was not prepared to meet conditions with which I was not familiar.

Unquestionably it would be better in experimenting with fasting to start by fasting one meal or say one day at a time. The result of this will give you confidence in its benefits, then you can gradually advance into a full-fledged convert. The principal result of value in such a conversion will be from that day forward *absolute independence of all advisers, medical or otherwise, upon an ailment of any kind that attacks you.* Fasting will be at once the principal part of your self-treatment, and forever thereafter your stomach will be free from the drug habit.

FASTING FOR CHILDREN.—I wish I could impress upon the hearts and minds of parents the incalculable benefits of fasting for children. Take any of the ordinary ailments that afflict the young, whether they are in the cradle or old enough to be called young ladies and young gentlemen, and attend the high school. If parents had the courage and wisdom to stop the giving of all food the moment they observed the first

symptom of any disease, the trouble would disappear almost as quickly as it came. It matters not what the disease is, whether measles, sore-throat, headache, indigestion, even scarlet fever or diphtheria, the fast will invariably produce a rapid cure. The child will need no drugs, and certainly no anti-toxins, to combat the disease. Give him plenty of water to drink, and *absolutely nothing but water,* and leave the curative powers of the body to do the rest. There is no miracle greater than this; no wonder more astonishing and certain in its results. There need be no fear, and after you have tried it once or twice you will laugh that you ever had any fear of an evil result from fasting.

Of course there may be cases, if an acute disease is allowed to run too far under the ordinary drugging treatment and feeding of the patient, where death cannot be arrested, even by fasting. Necessarily one must be fair and honest in judging of the results of fasting in a case of this kind. With a child who has not had an opportunity to injure his body by vicious procedure, there is no danger whatever from a fast, provided it is taken in time and the body has not been vitiated by poisonous drugs in a vain attempt to arrest the natural course of the disease.

One of the prevalent notions of the civilized world that has caused untold and unnecessary misery is the belief that children must go through a course of what are called infantile diseases. To me such an idea is absolutely infamous. Without any hesitation or equivocation I pronounce the idea as idiotic as it is false. There is no more need for a child to have a disease than there is for a man to have his right leg cut off. It is no more necessary for children to have the measles, scarlet fever or whooping cough than that a decent man should have an attack of desire to be a burglar, a sneak thief, or a murderer. Even though a child is not born of absolutely healthy parents, the constant aim of Nature is to give every one of her children a fair chance and to endow the little one with the health its parents had not given it.

But, unfortunately, side by side with the false conception

that children must have a run of so-called infantile diseases is the equally false and erroneous idea that children must be fed every ten or fifteen minutes in order that they may rapidly grow and gain strength. The stomach of a new born child will hold but a few teaspoonfuls. This is a clear indication from headquarters as to the amount of food a child should be allowed to receive. As the stomach rapidly increases in size and the flow of the mother's milk increases, the amount of the food that the child receives likewise should be increased.

Nature also indicates clearly that during the first three days of the child's life no importance need be attached to the subject of food. For, as every physician and nursing mother well knows, there is no secretion of milk until the third day after birth. The fluid that the mother's breast secretes is known as the colostrum. This fluid is intended to help the child get rid of the black, tarry-like substance with which its intestines are lined at the time of birth. For the first three days no food is required by the child. If it is a lusty youngster it may rebel against this dictum of Mother Nature. But, as I have so often affirmed, I am prepared to swear by the natural processes as against all the wisdom of men, nurses, women and the crying of babes. To quiet the child give it a teaspoonful or two of cold water, every hour or so, and in a short time its crying will cease. With a mistaken notion of the necessity of food, however, in their minds, too many mothers and nurses begin to ply the child with some kind of food, even before the bowels are thoroughly cleansed.

Then they keep up the feeding, giving the child the breast or the bottle at every slightest whimper or cry. The result is the child's digestive apparatus is demoralized from the very hour of birth. The stomach is unduly distended, the appetite is allowed to gain the upper hand and before the child has attained the ability to stand alone, this cruel kindness has fastened upon it a habit that will require much pain, suffering and determination to dislodge. No infant should be fed oftener than every two hours, and from the first day of its life should never receive food during the night.

If it awakens and cries, and there is no other cause of disturbance, a spoonful or two of cool water will satisfy its demands and it will invariably go off to sleep immediately. These simple statements may not appear important enough to be impressive, yet I am convinced that if children were brought up in accordance with them, nineteen-twentieths of the sickness of the world would never come into existence, for it is the formation, even in babyhood, of the evil habits of uncontrolled appetite that leads to all the diseases consequent upon the unbridled and uncontrolled indulgence in food.

Unfortunately, but few of the children of to-day have been brought up under sane and healthful plans. Most of them have been gorged at such frequent intervals that there is no remnant of naturalness or normality in connection with the whole function of eating and its consequent digestion. Hence, infantile diseases are still prevalent, fostered by the idea that one must expect them. But as one watches the influence of fasting upon children, he soon begins to realize that nearly all infantile disorders are connected with incorrect feeding, and how easily they yield to the beneficial influences of the fast. For while the formation of the evil dietetic habits to which I have referred undoubtedly affect children seriously, they have not yet branched out and formed unnatural habits in other directions, and, therefore, disease in them yields very readily to the natural treatment of the fast.

There is a phase of this belief in the naturalness of infantile disorders, however, that, under the conditions, is justified. I have already presented the idea that to many people will doubtless appear strange and startling, namely, that disease is a beneficial provision of Nature for the purpose of eliminating conditions that if allowed to remain will cause chronic ailments and ultimate death. With this statement in view, it can be seen that the diseases of children are a natural expression of the resentment of the body against unnatural and artificial conditions forced upon it. If children lived naturally, diseases would not appear, but as they are forced into improper modes of living, disease should be regarded as sentinel warn-

ings admonishing the parents to desist from the wrongful life that they are endeavoring to force upon their helpless offspring.

WHEN NOT TO FAST.—There are some diseases in which I have found long fasts of questionable value. These are the cases that can be called consumptive or catarrhal. Experience has shown that in these forms of disease the vitality is often so low as not to allow the patient to withstand the demands made upon the body by a prolonged fast. When vitality is so depleted it is better to progress slowly, and in such cases I invariably suggest a series of brief fasts, rather than one or more long ones. The reason for this will be self-evident to those who give the matter a little thought. If from an exhausted body is taken away, by the process of a fast, the little energy that does remain, the danger line may be reached over which it would be perilous for the invalid to pass. On the other hand, a fast of a day or two will give a short interval of rest to the digestive organs, and at the same time allow the energy of the body, hitherto expended in digestion, to go to the eliminative organs, for the purpose of throwing out disease. Then, a little easily digested food may be taken after which another short rest should be given to the digestive organs.

I have known a number of cases where consumption had actually appeared in its earlier stages in which fasting has been of benefit. I have known of other cases where fasting had been adopted that the weight was greatly decreased thereby and the patients were unable thereafter to regain the weight they had lost. I must admit that in many cases the failure to regain weight was due largely to want of knowledge of diet, but at the same time it often seems to be difficult to regain weight that has been lost when one is suffering from a tendency towards tuberculosis.

A fast is not by any means indicated in all cases of disease. If one is over-feeding continually, trying to force food upon the body with a view of adding strength, he is actually suffering because of excess in feeding; certain poisons have accumu-

lated in his blood that are destructive in their influence. Naturally, under such circumstances, such a one would gradually grow stronger if food were entirely withheld. If, on the other hand, one is eating very lightly and has been following this régime for a prolonged period, through having digestive or other troubles, and is exceedingly emaciated, then the fast must be used with the greatest degree of caution. To be sure a fast of two or three days might be of value to give the digestive organs a rest, with a view of assisting them properly to assimilate the diet which would be indicated under such circumstances, though I would not advise a fast beyond this period. What cases of this kind need is a regimen directly the opposite of fasting, but the food should be selected with a view of giving the patient the greatest amount of nourishment with the smallest expenditure of digestive energy. In other words, a diet should be prescribed that would be easily digested and assimilated. The milk diet would be indicated in most of these cases, though in some instances the vitality has been so depleted that even milk cannot be digested. And it is well to remember that there are periods when the vitality becomes so depleted that nothing can arouse the life-forces to the activity which is essential to ward off impending disaster.

When one is at all doubtful about the benefits of a fast, it is far better to test it in the manner that I have suggested in the chapter on Short Fasts before attempting prolonged abstinence.

Wasting diseases, and especially those of a tubercular nature, require treatment directly opposite to fasting, though of course feeding is of little or no value, as has been reiterated again and again, unless the food can be assimilated. Therefore simply for the purpose of giving the digestive organs a rest, that they may be clearly capable of absorbing the nourishment that is taken, a short fast is recommended. These short fasts, as previously mentioned, do not actually waste the tissues of the body. They simply, to a certain extent, allow the cleansing of the alimentary canal, and make the various absorbing glands greedy for nourishment. The work of select-

ing material for blood making, under such circumstances goes on much more perfectly, and the quality of blood is improved greatly thereby.

In a general way, therefore, I would say, do not fast for a prolonged period if your weight has been greatly reduced below normal. Do not fast more than from two to five days if your vitality is already greatly depleted. A fast beyond from two to five days begins to use up the tissues of the body, and when one is emaciated these tissues have already been "used up," and therefore fasting should be used only as a brief digestive rest, as previously suggested. When fasting is continued for a prolonged period under such circumstances it further reduces the vitality of the patient, and instead of being a body-cleansing process, the energy that is necessary for metabolism (or tissue changes) is not furnished, and the body actually accumulates impurities instead of having the eliminative processes accelerated.

THE LONG AND THE SHORT FAST.—There are two methods of taking a fast, a long fast, and one or more short fasts. Those who maintain that the long fast is the better method, make no statement as to the length of time required. They claim that Nature herself determines the length of time that the fast should continue, whether it be a week, a month, two months, or longer. They claim that the fast should continue until the return of simple and normal hunger, the signs of which are unmistakable, and are as different from the ordinary cravings of appetite as the light of the sun is different from the tallow candle. Such fasts have continued as long as seventy-five or ninety days.

In the ordinary ailments I believe, as a rule, it is better to fast until all the disease is eliminated and normal hunger returns. Then the fast can be broken with fruit juices and the more easily digested foods until normal habits of living and diet are resumed. In chronic ailments, however, where there is depleted vitality, and especially where the patient is not mentally satisfied to take a long fast, I believe a series of short fasts will accomplish the same results without this mental

disturbance. Necessarily the time required is much longer, as after a fast of a few days, say three to seven, the patient resumes his diet. If he be wise, he will allow himself to be advised as to a limited and specific diet during this period which should last as long again, possibly, as the time of the fast. He then resumes his fast, continuing it as long as he is satisfied, breaking it again as before. Thus, by alternately fasting and eating, the disease is eliminated, the body purifies itself, the functions are restored to their natural and normal action and, by way of confirmation, abnormal appetite is banished and normal hunger returns.

Upton Sinclair sums up the relative merits of a long and short fast in an admirable way, as follows:

"The question most commonly asked was how long should one fast, and how one should judge of the time to stop. I personally have never taken a 'complete fast,' and so I hesitate in recommending this to anyone. I have fasted twelve days on two occasions. In both cases I broke my fast because I found myself feeling weak and I wanted to be about a good deal. In neither case was I hungry, although hunger quickly returned. I was told by Bernarr Macfadden, and by some of his physicians, that they got their best results from fasts of this length. I would not advise a longer fast for any of the commoner ailments, such as stomach and intestinal trouble, headaches, constipation, colds and sore throat. Longer fasts, it seems to me, are for those who have really desperate ailments, such deeply-rooted chronic diseases as Bright's disease, cirrhosis of the liver, rheumatism and cancer.

"Of course, if a person has started on a fast and it is giving him no trouble, there is no reason why it should not be continued; but I do not in the least believe in a man's setting before himself the goal of a forty or fifty days' fast and making a stunt out of it. I do not think of the fast as a thing to be played with in that way. I do not believe in fasting for the fun of it, or out of curiosity. I do not advise people to fast who have nothing the matter with them, and I do not advise the fast as a periodical or habitual thing. A man who has to fast

every now and then is like a person who should spend his time in sweeping rain water out of his house, instead of taking the trouble to repair his roof. If you have to fast every now and then, it is because the habits of your life are wrong, more especially because you are eating unwholesome foods."

As a rule a long fast will not require over thirty or forty days. One's ability to continue the fast will depend largely upon his weight; in other words, upon how much stored energy he has deposited in his body. The descriptions of the various fasts that have been given contain very valuable information for anyone who desires attempting a long fast. A long fast must not be attempted unless one is entirely satisfied that it will be of value to him. When there is the least hesitancy as to the value of the fast it is far better to try one or more shorts fasts. Then should it be necessary to use the long fast, one can follow it with the confidence born of experience. The details of the symptoms that appear during a long fast can be learned from the various experiences elsewhere given in this volume. Under the heading "Danger Signals in Fasting" will be found information as to possible dangers when continuing the fast. As a rule it has been my policy to break the fast when the patient feels that he is not strong enough to walk around. If the fast has so weakened him that he becomes bed-ridden, I am of the opinion that even though he be desirous of continuing the régime, some little nourishment should be given in the form of fruit-juice, for the purpose of creating enough energy to enable the patient to be out of bed. One should remember, however, that frequently during a fast, the feeling of weakness is a false indication. One may awaken in the morning, for instance, feeling weak and dizzy; sometimes be almost incapable of standing up, but by using a certain amount of will power, compelling himself to stand up and walk around, the activity of the functional system is aroused and ordinary strength reappears. I have known cases on a long fast where the patient found it difficult even to sit up, but by taking a few breathing exercises, and by repeated attempts to rise, the strength gradually returned,

and in some instances it appeared to such an extent that miles could be walked thereafter with little or no fatigue.

Remember that the weakness that appears during a fast is simply indicative of functional inactivity. The functions that are ordinarily accustomed to carrying on their processes in a vigorous manner are unable to secure the energy that they need for this purpose and they gradually become sluggish. But with the mechanical stimulation that comes with exercise, and the awakened vitality, they resume their offices. Impurities that have accumulated in the blood are then quickly eliminated; the brain clears and the body resumes its normal strength.

I have always preferred not to advise long fasts. I rarely use them. I feel satisfied that many deaths have occurred from long fasts which might not have occurred had the cases been treated with a series of short fasts. This, however, is merely my opinion, and may be inaccurate. The statements made by Dr. Dewey and other experts that whenever a patient dies, even in a prolonged fast, some serious disease exists and there would have been no possible chance for recovery no matter what treatment had been adopted, may be absolutely accurate. The fact that among the thousands of patients that I have personally advised, not one death has occurred, would indicate that the short fasts can at least be safely used in all cases. It is not especially difficult to understand the signs that clearly indicate that a fast has been continued "to the finish." The coated tongue gradually clears up and becomes pink and almost red in places. The breath becomes sweet and clean. Abnormal craving for food will disappear and in its place will come the natural desire for some wholesome article of food. As a rule this desire can be satisfied to a limited extent. Even in such cases, however, I am inclined to believe that our method of breaking the fast first with fruit-juices then with fruit and milk, is far better and safer, especially when one is breaking a long fast. This method of breaking the fast is explained in detail in another chapter.

THE SHORT FAST.—The short fast is applicable in all

cases and under all circumstances and conditions. A healthy person can take a fast of a meal or two with material benefit, especially if he is accustomed to eating heartily. The short fast is the best means of testing the fasting method. If one feels that he needs a fast and is afraid to start on a lengthy one, he can start by leaving out one meal. If he feels the craving for food will be too much for him then he can drink one or two glasses of very hot water or slowly sip a glass of cold water. If the taste of the water is not especially pleasant it can be flavored with lemon juice, or fruit-juice of some kind. It is always advisable to miss a meal whenever one is not able to enjoy it thoroughly. Do not forget that food must taste good to you, for it is only when it thus pleases you that it properly digests. The tasting of food really comes from the absorption of the nourishment that it contains by the "taste buds" which are located in the back part of the mouth. The ability of these particular tissues to absorb nourishment indicates that the stomach and intestines are in a similar condition; that is, that they can also absorb and be benefited by the particular kind of food you are now enjoying. This should indicate to you, very clearly, the great importance of taste. Taste simply tells you what you need at any particular time.

The greatest difficulty experienced by those who are not familiar with fasting methods is to strengthen the will to the extent that is essential to the maintenance of a fast. One may say, after a hearty meal in the evening, that he will fast all the next day; he has eaten too much; he has a feeling of discomfort because of the hearty meal. He arises the next morning and recalls his determination to fast during the day. Breakfast time is nearly at hand. His determination begins to waver, and finally he concludes that he will try the fast at some other time. A policy of this kind will, of course, make fasting far more difficult. Do not, however, give up after your first failure, but continue with your determination to fast and it will not be long before you will develop the strength of will which is essential. Times often appear when one is really not hungry. He has no especial desire to eat. But it is meal

time and he sits down and takes the food largely from a matter of habit. He does not feel just right unless he follows this particular habit. It is well for all my readers to learn that eating is largely a matter of habit; that is, regular eating. One eats at regular times, and naturally after a while the stomach demands food at those particular times. If one could be so interested in his occupation as entirely to forget meal time, he would go without his regular meal and not notice it. You must remember also that there is what is termed habit appetite. That is, a person will have the desire for food at a certain time, not because there is actual need for it, but simply as a matter of habit. The proof of this statement is found in the disappearance of appetite in many persons if they pass by meal-time without eating. You have often heard a man say, for instance, if he has been compelled to miss his regular meal, that his appetite has disappeared. On occasions the wife will neglect to get the meal on time. The husband comes home and finds when the meal is ready that he is not hungry, and then he proceeds to berate his spouse because of her neglect, maintaining that he had lost his appetite through waiting so long. An appetite lost in this manner is better lost, because it was not real hunger in the beginning; it was simply habit appetite. You can rest assured that when one goes by meal-time and loses his appetite he did not have hunger of the right sort, for real need for nourishment will actually increase with time rather than disappear in this manner.

By far the better method of testing the fasting cure is to begin with one or two days, unless, as I have previously stated, one is *absolutely satisfied* that it is a wise course to fast longer, and, furthermore, that he has the will power to carry it to the finish. Even under such circumstances, if he has had no previous experience, it would be well to test out the fast with two or three short periods of abstinence before beginning a longer period. This advice, of course, is given to those who expect to attempt to fast on their own account and who are not in a position to secure the guidance of an expert.

A fast is usually termed short when it fails to continue to

what we call "the finish"; that is, to that particular period when the tongue clears and other evidences appear which indicate that the body is thoroughly cleansed of all impurities. While we term short fasts those ranging from one to ten days, as a rule they do not continue longer than four to six days. A fast of that period can be continued with little or no inconvenience—in fact, with very little decrease in strength—if one will realize in the beginning that strength is not necessarily secured directly from the food that is eaten, and that weakness is usually caused, not by the lack of sufficient nourishment, but because of the toxic or poisonous elements that accumulate in the blood. For instance, whenever one feels weak, it is not because he needs a meal, if he is in the habit of eating regularly; it is caused by the poisonous effete elements that are accumulating in the circulation. Dizziness naturally may be caused by too much blood pressure on the brain, or the lack of such pressure, but the general feeling of lassitude and weakness is induced entirely by the causes herein mentioned.

One may fast one or two days, and, as previously stated, continue his regular eating habits thereafter with no inconvenience, provided he is careful not to over-eat at first, and he can even continue a fast up to four or five days, resuming eating with care.

A good plan in trying out the short fast is to fast one day and eat two days; then fast two days and eat four days; then fast three days and eat six days, and continue on in this manner to the extent that you feel the fasts are needed in your particular condition, making the eating periods in all cases twice as long as the fasting periods. This will enable you to advance in the fasting idea step by step, and thus become more thoroughly familar with the symptoms which are likely to develop. Remember while on these short fasts, however, to avoid making any compromise. At this time especially a bite of food will often arouse an appetite that will be absolutely beyond control. For instance, I have been on short fasts and someone has brought in an article of food which he desired to have me test; I would take a bite or two of that food and

it would arouse such an intense craving that I would satisfy that desire in order to avoid having it interfere with my work. Therefore, be very careful not to compromise in this manner. One can take fruit juice while on a fast, and it does not seem to arouse the appetite, but solid food of any kind generally does so, and it should be rigorously avoided if one is desirous of continuing the fast. That is one reason why it is so hard usually to continue on a limited diet. In fact, it is easier to fast entirely than to continue on a diet which is limited to an extreme degree, that is, to perhaps not more than a quarter of the amount that is necessary to satisfy the appetite. The empty and often feverish condition of the stomach occasioned by fasting can usually be relieved with cold water, and if the circulation is especially poor, hot water is sometimes still better. If the symptoms are not relieved by water then you rest assured that fruit juice, prescribed where this particular phase of the subject is dealt with, can be depended upon to bring relief. When one finds it difficult to continue the fast, then fruit juice is especially valuable, as it frequently takes away the abnormal cravings and general feeling of discomfort that come with an empty stomach; it not only gives the stomach something to work upon, but it has a cleansing and quieting effect upon the organ and is of material advantage.

What is most necessary to keep in mind, however, is the satisfied mental attitude. One should simply say to himself that he is going to fast and that he does not intend to allow any influence to divert him from that purpose. It is not an especially good plan for one to say that he is going to fast for a certain number of days, unless he feels fairly well satisfied that he can carry the fast to the end. It is better simply to fast from day to day, and at the end of each day resolve to continue another day, and thus keep on extending the fast as long as he feels it is of benefit to him.

Naturally, in a thorough survey of the whole question of fasting, all our dietetic habits come under review, hence it is appropriate that I devote a few words to the number of meals eaten daily. This phase of the subject has been fully

treated in Vol. I, under Diet. Here I shall show their relation to fasting.

Where one is habituated to eating three meals a day, regardless of either hunger or appetite, he becomes enslaved to the habit. No such person can long be healthy. The stomach and alimentary canal are bound to become weakened and diseased. As I have repeatedly stated, no food should be eaten unless there is a distinct enjoyment in the eating; and it is equally important that one should never compel himself to eat against his desire.

However, it does not follow as an invariable rule that appetite is a safe guide, for most of us have had abnormal appetites developed in us. A fast is the grandest thing in the world to free us from this enslavement of appetite-habit. And the best way to begin is to cut off one meal a day—say breakfast—until the clamor of habit-appetite is silenced.

I think no more of missing one meal, two, or three, than I do of eating an extra mouthful when I am enjoying a meal, and I suffer positively no discomfort whatever. This is as it should be. If you cannot miss one of the regular meals to which you have been accustomed without distress and discomfort—headache, nervous irritation, or nausea—rest assured you are not in a healthy condition. You, not your stomach and appetite, should be the master. And this is a mental as well as a physical slavery. Get free as soon as you can.

Experience demonstrates that habit makes abstinence from food easier than it is to eat at meal times when you are not hungry. Learn, then, to go without breakfast, and see what its effect will be. And, by the way, look for a moment at that word *"break fast."* How much of a fast has there been to break when one eats a hearty dinner at six, goes to the theatre or concert, takes a supper afterwards in order "to help me to sleep," and then feels he must eat again at 7:30 or 8 in the morning? The undigested mass of his last night's dinner and supper are still in his intestines, generating poisons which the blood carries to all parts of the body as disease and

discomfort breeders. Hence to such a man the word breakfast is a misnomer. There has been no fast to break.

Get rid of the idea that three meals a day are necessary for health and strength. Two meals are enough for any one, except those who are doing the most arduous physical labor out-of-doors, and even these would be better on two meals if they were trained to it in early life.

When you get up in the morning you really do not know whether you are hungry or not, especially if you are not in good physical condition. When you arise your stomach often contains an accumulation of phlegm or mucus. Sometimes there is a burning sensation; your stomach does not feel comfortable, but you eat breakfast—not because you want it, but because it is breakfast time. And you do not feel much better after, than you did before, breakfast. If you will wait a while to develop an appetite it will tell you what to eat—wait until twelve or one o'clock and then your appetite will tell you pretty accurately what you need. If you follow a regimen of that kind your abnormal appetite will change into healthful desire and then you can safely follow your instincts as to what foods you shall eat. Our food instincts have been deadened and perverted until they have almost disappeared. We think we know so much more than the lower animals. We pride ourselves upon being that superior creature, man, and in our suffering and physical weaknesses and diseases we see the terrible results of substituting abnormal appetite for natural instincts. If we would only follow that valuable guide, instinct, we would be in better health. I earnestly recommend to those who have not tried the two-meal-a-day plan, give it a trial. It is over twenty years ago since I adopted it.

At that time I was actively participating in athletic sports, and I had not followed that policy for over a week when I was amazed at the change in my physical condition. My endurance increased, I had more vitality and I gained a normal hunger. When you get up in the morning and eat before you have moved around and exercised you know nothing of this normal hunger. You may have a craving, but if

you go out and walk two or three miles and exercise, that craving disappears, proving that it was false; and when you eat at the dictates of an abnormal appetite, you go on from bad to worse. You go through life eternally "doped." You might just as well be on an eternal drunk, you are not drunk with alcohol, but doped with food, and consequently you are neither physically, mentally, nor morally the man you might be and ought to be. I shall never forget the influence upon my mind when I adopted the two-meal-a-day habit. I began to be a student of everything, I began the questioning habit, I began to seek every item of information I could gain on the subjects in which I am so intensely interested. So let me urge again upon my readers that they lessen the quantity of food they eat. It will clear your brain, give you a clearer insight into life, give you brighter possibilities, give you a stronger body, a more normal body, give you the ability to drive away all fear of acute ailments and add marvelously to the joy and capacities of your life.

For when I assure my readers that some of the most hard-working men I know seldom eat more than one meal a day, that they are men who conduct large enterprises which require great muscular as well as mental activity, it will be seen that it is not necessary to eat large amounts of food in order to keep up bodily and mental vigor to the highest degree of efficiency. Indeed, one of the lessons the American people most need to learn is that they can reduce their food more than one-half not only without injury and loss of power, but with the most beneficent results, and to the startling increase of all their powers.

THE YEARLY FAST.—I have already shown in the case of the great Italian, Cornaro, that, as he grew older, he practically fasted for about two months prior to the coming in of the new grape crop. As a result of several yearly experiences I have come to the conclusion that it would be well for most people to adopt this custom. Just as the early day Catholics used to fast for religious reasons, so would I urge upon people to-day to fast for the physical, mental and spiritual benefits

that would arise therefrom. I know a large number of cases where people have formed this habit of indulging in an annual fast, which varies from several days to a month or more, and they invariably declare themselves benefited in every way by this season of self-denial and abstinence from food. If it did nothing more, it would be a good thing annually to remind the appetite that it is not master of your life. At the same time the physical demonstration that the body can proceed to perform all its wonted labors without diminution of vigor or efficiency, when no food is eaten, is itself a yearly incitement to the guarding of the appetite and is a valuable suggestion against over-eating.

FRUIT FASTS.—While I have shown that the term fast is a misnomer when any food, either liquid or solid, is taken into the body, the word is still used, however, to designate either a partial fast or the abstinence from all but one specific kind of food. Personally I prefer to use the word "diet" instead of "fast" to express this exclusive and restricted form of diet. But as the term "fruit fast" has become generally known, I wish to give a few helpful hints in regard to this kind of diet. The term "fruit" is a very elastic one and includes a vast amount of food material of varying nutritive qualities. It is well to state I shall use the term "fruit" in its broadly accepted sense, entering into no merely academic questions as to whether watermelons are fruits or vegetables. In what I shall have to say, I shall treat all food of this nature as fruits.

For full details of the "Fruit Fast," the reader is referred to Chapter VI of this volume, in which are given fasting regimens of various sorts. Instructions for the use of these fasts will appear in the chapters of this work to be devoted to the treatment of all common diseases. Detailed instructions for the most important forms of partial and complete fasts will appear in these chapters.

Some fruits are valuable more from their refreshing qualities than for any great nutritive value; as even these fruits, while not containing much flesh-forming material, are still exceedingly valuable as food in that they supply various

salts and acids that are distinctly required for the preservation of the body in the most perfect health. On the other hand such fruits as the banana, the fig, the date, the cocoanut, the sweet dried currant of commerce, the raisin, the banyan, etc., are substantial articles of diet upon which one can subsist.

THE EFFECT OF THE MIND IN THE FAST.—There is no doubt that the greatest objections to fasting come from the dreads and fears of unknown evils that may result therefrom. We have been so wrongly educated that, instead of being taught to eat less and fast more, we have learned to have a fear, an abnormal dread, of some trouble that may happen to us if we fast. There never was a greater mistake. In thousands of cases that have come under my own observation, I have seen absolutely nothing but good. The horrible stories of men who have been starved to death as a result of accidents in coal mines, shipwrecks, etc., have been caused far more by the natural fears and dreads than by the abstention from food.

Reader, if you are suffering from either an acute or chronic disease of which you wish to rid yourself, the first and best thing you can do (unless your body is too far enfeebled) is to understandingly lead your mind to see the rationality and wisdom of fasting and then as quickly as possible begin the actual experience of the fast. It is a natural method of cure. Nothing natural can be injurious. The experiences of thousands who have fasted from one to ninety days have demonstrated that there is nothing to be afraid of. Master your fears, resolutely control your abnormal appetite, summon your will, be a man, a woman, and fast.

The chief difficulty is to satisfy the mind. You must first of all be thoroughly convinced that while fasting you are not starving yourself, and that there is no danger of dropping dead at short notice. The conventional fear of fasting is alone sufficient to cause death if the fast is continued for any period. A seven- or ten-day fast, on the part of one who knows nothing about fasting, frequently *does* cause death, simply because the mind is convinced that if one fasts for that period he is absolutely sure to die. This indicates the great power

of the mind over the body. It shows that you can actually kill yourself, by your mental attitude, by merely believing that you are going to die.

Let me especially emphasize at this point that the mind has just as great a power in the other direction and if you will recognize and use this mental influence you can often recover from a serious complaint through the aid of the mind alone. Another power evidenced by the mind is that which is shown in a determination to get well. If you simply determine that health and strength shall be yours, that you are going to get them; if you vow to yourself day after day that you will secure health and strength, no matter what the cost may be, you can readily realize that an attitude of this kind will be a tremendous force in the right direction.

If, in dealing with a patient I find it impossible to satisfy his mind that a fast would be beneficial, I hesitate to prescribe it, except for a very short time, say one or two days. There is little can be gained if the mind is in a state of discomfort and unrest. It produces a corresponding disturbance of the body which practically nullifies any good that might be gained from the abstinence from food.

I also follow this same method if one is taking a fast, and, not deriving the immediate benefit he expected, begins to express fear and dread lest some injury should result. I invariably take this as an indication that it is time to break the fast. People have been shipwrecked on a desert island and, having no food for several days, have died. There is no question whatever but that it was fear rather than the absence of food that actually produced death. For as I have so often affirmed, we have had weakly invalids who have fasted from one to forty or fifty days with an ultimate increase rather than a decrease of strength.

MENTAL DIVERSION DURING A FAST.—The calls of abnormal appetite are so insistent, as a rule, when one first begins to fast, that, unless he is mentally occupied, he is apt to spend so much thought upon his own condition, and feel the calls so strongly, that the abstinence is made much more dif-

ficult than it need to be. The old adage: "Satan finds some mischief for idle hands to do" is perfectly exemplified in the faster's case. You will surely be miserable unless you get your hands and your mind occupied. Read, sketch, plan, walk, go fishing, botanizing or geologizing, do anything in reason rather than be idle while fasting.

It is a good plan to reserve a specially diverting job of work for the term of a fasting-cure, but it should be remembered that too severe physical efforts increase the demands upon the reserve energies of the organism. Tree-felling while fasting would be burning the candle of life at both ends, as would any other violent exercise. Short, easy walks are good, but above all find something to exercise your mind.

FASTING AS A LAST RESORT.—There comes a period in the lives of many sick people when they are compelled to do a large amount of thinking on their own account. They have been afflicted with disease for many years; their ordinary physicians have signally failed to give them relief; they have tried specialists in vain, possibly they have indulged in expensive and dangerous surgical operations; they have traveled and tried the climate cure; they have been to Europe and have taken the baths of Germany and Austria, and yet they have found themselves not only not improved in health, but constantly growing worse. Under such conditions it is reasonable to assume that an intelligent person would begin to do a little thinking on his own account. Emaciated in body, depressed in mind, despondent through and through, they are at their wits' end. Everything they have tried has failed. Can there be any "balm in Gilead" for such as these?

Is it not strange that during all these years of vain attempts it has never once occurred to them to stop their frantic rushings to and fro, their vain swallowing of drugs, and watch the silent and never failing processes of Nature?

This is all I ask of those of my readers who are in the despondently sad condition to which I have referred. It matters not how one has come into such a condition, there is no denying that it is one to call forth the deepest sympathy

of every human heart. It is in this spirit of profoundest sympathy that I urgently ask you to quit trying the nostrums of learned (?) men who think they know, and revert to the simple, easy and never failing processes of Mother Nature. As soon as your own mind is satisfied, there can be nothing easier than fasting—simply doing nothing, and allowing Nature to work out your salvation in her own beneficent way. Your physicians have failed you, drugs have not relieved you, climate, travel, and baths have allowed you to grow worse instead of better, so why not cease to rely upon the judgment of others and exercise the God-given power of your own individual thought. Be a man! Be a woman! On your own responsibility, and then, regardless of the solemn warnings that will doubtless be given to you by your scientific health guardians, whose advice for so long you have so slavishly followed, and the remonstrance of your friends who have been trained to the false belief that kindness and sympathy demand that they constantly tempt your appetite—I say, regardless of warnings and protestations, temptations and allurements to eat—resolve to try this simple, natural process of fasting long enough to determine what value it has in your case.

It is safe to affirm that the major part of the people who have been induced to try fasting have done so as a last resort, or after they have wearied themselves, and, possibly, impoverished themselves in trying the ordinary methods of all the different schools of physicians. What are such people to do? They have gone the round of the physicians and are practically no better off than when they started. Many, indeed, are worse off. In some way they have learned of this simple, natural, uncomplicated, cheap method of eliminating disease. It costs them nothing but a little determination; they know they cannot be any worse off at the end either in body or in pocket; it does them good to wake up their partially dormant and sleeping will and to stimulate them to renewed hope; and thus, though even with fear and trembling as to whether they can stand it, whether it will not seriously weaken them, they begin their fast. The first day or two, possibly three or four

days, they feel faint, dizzy, sometimes nauseated, and the appetite constantly insists upon being satisfied. If their will and determination are good they continue and very seldom are they disturbed very much after the first three or four days. To their surprise the insistent demand of the appetite becomes quiescent, the brain becomes clearer, the eye brightens and loses its former weakness. Perhaps the tongue still remains heavily coated and the breath fetid, and to those who do not understand these symptoms, mental disquiet may be the result, but this is not the case if they have learned one of the important facts of fasting, namely, that these symptoms show that the entire digestive organism which had previously given its attention to absorbing and assimilating the food taken into the stomach and distributing the nourishing elements therein throughout the body, now reverses its functional duties. In other words, instead of assimilating the nourishment, it is eliminating poison and it has begun what might be termed one of the curative processes. It might be said that this is the principal reason why fasting cures disease. This process reverses the natural functional activities of the digestive organism. The alimentary canal, instead of absorbing nourishment, begins to throw out poisons, and the bad taste and coated tongue indicate the truth of this conclusion. The breath of an ordinary individual should not have an unpleasant odor. When the breath gives off a foul odor it is a sign of trouble, and when these indications of disorder appear and you pay no attention to them you can rest assured that the time will come when there will appear an acute ailment that is likely to mean death, or a chronic disease that will be difficult and, in some cases, impossible to cure. Especially will an acute ailment promise death if you follow the ordinary methods of treatment which permit feeding during the acute ailments.

You are actually committing a crime against your stomach when you eat while suffering from acute disease. I defy any student or scientist to disprove this statement. When you suffer from acute disease, pneumonia, fevers, etc., the principal object of which is simply the cleansing of the blood, every

particle of food you take into your stomach retards recovery. A typhoid fever patient will lose weight and strength faster when being fed than when no food is given. In other words, he will lose less strength and recover far more quickly when no food is given. When the digestive organs do not require food and you persist in putting food into the stomach you are poisoning yourself and adding to the disease. You are actually making it more serious. If these statements do not impress you as being reliable, a little experimenting on your own account will soon prove their truth. What is needed in disease is to give the human body, that marvelous mystery that each and every one of us possesses, a chance to cleanse itself; a chance to eliminate the poisons that are clogging functional activity. There is no need of fear, no need of any one dying of an acute ailment unless vitality has been very greatly retarded through dissipation, through prolonged use of alcohol or some other similar cause.

The only cases where fasting is of no value are those where death is already practically at hand. Wherever the vitality has been so depleted either by medicinal drugging, through vicious habits, prolonged dissipation in the use of alcohol or some other deleterious drug, fasting will fail because there is not enough recuperative power within the body to expel the disease.

FASTING NOT THE ONLY CURATIVE MEASURE.—I would not have it thought that, though I regard fasting almost as a "cure-all," I consider it *the only thing* in the treatment of disease. I have lamentably failed in my aim if I have not made it clear that there are other important things as well as fasting to be carefully considered and resolutely observed if one would build up the perfect, radiating, healthful manhood and womanhood that we all so much desire. Fresh air; plenty of sleep; abundance of sunshine—all of these things are essential. A little thought bestowed upon these subjects, so that the principles involved are mastered, a little self-denial to begin with, and a never-ceasing will that nothing can prevail upon to divert from the path that has been carefully chosen, and

the results are sure and certain. Why are we content to simply exist when life itself, abounding, joyous, radiant, whole, is within our grasp? Every conscious moment of life should be a joy; every hour should add to the satisfaction that is able to exclaim with Browning:

"How good is man's life, the mere living! how fit to employ
All the heart and the soul and the senses forever in joy."

WRONGFUL INTERFERENCE WITH NATURAL FASTING.—I would especially warn my readers against interfering with the natural process of the fast by taking drugs or other medicines during the time of abstinence. Some years ago (in 1903) Edward McIntyre, of Moosic, Pa., fasted for forty days with the object of curing paralysis. Toward the end of his fast he had a pain in his paralyzed side, the first that he had had for years, indicating quite clearly the possibility of recovery. He was forty-seven years of age, and during the fast his weight was reduced from 167 to 118 pounds. He ended his fast on Tuesday and died the following Friday. In the reports of the methods used in breaking his fast we find that his physician, Dr. Price, considered that it was necessary to use a saline solution, in addition to the milk and orange juices, in order to build up the blood, so he said.

When one has gone through a long fast the entire functional system is in a very delicately acute condition, and drugs or stimulants of any kind that under ordinary circumstances would have but little effect are liable to produce death. I am not able to say with authority whether it was the saline solution or the long fast that ended Mr. McIntyre's life, but I do know that a factor of danger is always unnecessarily introduced where any other than natural foods are used, and I quote this case simply as a warning to prospective fasters to follow only the most simple and natural methods.

In 1907 Mr. J. H. Swerdfiger undertook to fast. He was employed as a compositor in the Government Printing Office, in Washington, D. C. On the ninth day of the fast he fell dead while at his work. I refer to this case as it is the only one to my knowledge out of the many thousands who

have fasted under the influence of the literature advocating fasting where a fatality has occurred. I did not personally advise the fast. Naturally the press and the physicians made it appear that death was the direct result of the fast, whereas I can point to thousands of cases as examples of fasting, every one of which, save this, has terminated with direct benefit to the faster. As well accuse the physicians of being actually responsible for the death of every patient who succumbs to the inevitable. I am neither so foolish nor so unjust.

In Mr. Swerdfiger's case I am not familiar with the result of the autopsy, but am fully assured that it revealed a condition that would have caused death whether he had fasted or not.

Dr. Dewey, whose writings are familiar to all students of fasting, maintains that if one's vitality is so depleted, or if one of the important organs of the body is so nearly worn out that death is near at hand, the result is absolutely certain, regardless of whether food is taken or not. I think that whether fasting or eating, there is naturally a possibility of an occasional death where a multitude is concerned. I believe if there is any way of recording the experience of a thousand different persons for a total period of, say, fifty thousand days, while fasting and while eating, a larger number of deaths will take place among those who follow the usual three-meal-a-day regimen than in the case of those who abstain from food. In other words, there is much less danger of your dying while fasting than there is while eating.

AFTER FASTING, DOES THE DISEASE RETURN?—Where one who is afflicted with disease relies upon artificial methods for a cure it is no uncommon thing for the disease to return as soon as the treatment ceases. This is *never* the case with the simple and natural methods of Nature. Necessarily if a man suffering from delirium tremens is cured of the disease by abstinence and he then returns to his liquor drinking he will undoubtedly bring on another attack. But where a disease is naturally cured, and the evils and errors that caused it are avoided in future, *there can be no return of the original*

complaint in any form. This is an axiomatic proposition, however much it will be combated by the orthodox physician, in the light of whose methods and experiences it will appear as absurd as it is false. Yet I affirm and reaffirm it with confidence, pointing to thousands of cases, *self-cured* as well as those cured under my advice, of whom the affirmation is perfectly true.

WHEN SHALL I FAST?—I am often asked the question as to how one knows when to fast. I do not advise that people should fast promiscuously, simply because they think a fast would do them good. Nature tells one when to fast as decidedly and distinctly as she tells one when to drink.

When the body is full of poisons, when it is struggling for vitality, struggling for health and strength, struggling to cure disease, struggling to bring about that condition which means physical harmony, under such circumstances, in nine cases out of ten, in twenty-four cases out of twenty-five, and you might even go so far as to say in ninety-nine cases out of one hundred, what is needed first of all is a fast. Though some of them are not properly nourished, they seem to be, and are, literally starving to death, although constantly eating all the food they can crowd down, yet even they need to fast.

FASTING IN HEALTH.—I have received a number of letters at different times from young men and women who are laboring under the impression that fasting is a beneficial thing for those who are in health, and that it will aid them more rapidly to increase in strength and vigor. This is a most erroneous conception of the office of the fast. As I have tried to explain, the fast is only Nature's simple remedy for the expulsion of disease. Primarily it has nothing to do with the upbuilding of the body, except as it removes the poisons and impurities that prevent such upbuilding. The young man, the young woman, whose digestion is perfect, who suffers no pain, whose liver works steadily and effectively, whose lungs are strong and respond to all the demands made upon them, does not need a fast. It is well enough to let well enough alone. Be thankful for your perfect health, enjoy your food

and its perfect assimilation, continue to exercise prudence and full control of your appetite, use your muscles to their capacity, expand your lungs to the deepest cells, breathe all the fresh open air you can, bathe the whole body where possible in air and sunshine daily, as well as in cold water, keep your conscience clear of offense against your fellow men and women, live an unselfish and helpful life, do at least one beneficent act every day, fulfil with conscientious fidelity every duty laid upon you and there will be nothing to hinder your living to an age far beyond that of most men, in a state of abounding, radiant, joyous health.

IS NOT LIGHT EATING BETTER THAN FASTING?—It is no uncommon thing to find people who are opposed to taking a fast and who ask me if it would not be better for them to eat very lightly instead of fasting. It cannot be denied that to eat lightly when one is diseased is immeasurably better than to eat heartily, but it is unreasonable to expect a cure of a severe acute disease, or a long standing chronic one, by any such half-hearted and temporizing measure. Every particle of food taken into the body practically goes to feed the disease, hence is an injury instead of a benefit. All that the food does, anyway, is to satisfy the abnormal appetite which should resolutely be driven out.

But even were it advisable from a healing standpoint to eat lightly, the experience of many who have tried it demonstrates that the attempt, as a rule, is a failure. Here is Mr. Sinclair's experience, which corresponds very largely to that of many others I might give.

"Several people have asked me if it would not be better for them to eat very lightly instead of fasting, or to content themselves with fasts of two or three days at frequent intervals. My reply to that is that I find it very much harder to do that, because all the trouble in the fast occurs during the first two or three days. It is during those days that you are hungry, and if you begin to eat just when your hunger is ceasing, you have wasted all your efforts. In the same way, perhaps, it might be a very good thing to eat very lightly of

fruit, instead of taking an absolute fast—the only trouble is that I cannot do it. Again and again I have tried, but always with the same result: the light meals are just enough to keep me ravenously hungry, and inevitably I find myself eating more and more. And it does me no good to get mad and call myself names about this, I just do it, and keep on doing it; I have finally made up my mind that it is a fact of my nature. I used to try these 'fruit fasts' under Dr. Kellogg's advice. I could live on nothing but fruit for several days, but I would get so weak that I could not stand up—far weaker than I have ever become on an out and out fast."

SPECIAL PREPARATION FOR A FAST.—Some people have the idea that a fast is such a remarkable thing that it must be prepared for by several days' special exercises, diet or treatment. All of this is absolutely unnecessary. Learn to look upon a fast as the most natural and reasonable thing in the world. I take a fast without any more thought than when I take a drink of water. If I find any suggestion of catarrh, to which I have always been predisposed, I immediately cease eating for one, three, six or nine meals, or as many days as I find it necessary to eliminate the trouble. The main thing in beginning a fast is to have your mind satisfied, and as soon as this is accomplished, unless your body is seriously depleted by long continued disease, you need anticipate no other than the most beneficial results.

WORKING DURING THE FAST.—The question is often asked me, is it advisable for one to continue working while fasting? In this as in everything else special conditions must be observed. If one's vitality is low it would undoubtedly be a great mistake to attempt difficult and long continued exercise while fasting; I believe in a certain amount of daily exercise, even when weak. If one can exercise in no other way it is well to open all the windows and go through a few simple, easy exercises while in bed; these are fully described elsewhere. But in the case of men of ordinary vigor, who wish to fast in order to get rid of some chronic ailment which does not seem to deprive them of the strength to discharge their

daily labor, I should say that it is better to work or exercise than to remain idle. It must not be forgotten that the mind has a tremendous influence upon the body when fasting as well as at other times. We are so little used to denying ourselves, to depriving ourselves of all that the appetite calls for, that appetite has become an imperious master. If, therefore, we call upon ourselves to fast, and then refrain from work or leave the mind unoccupied, appetite is liable to assert itself with insistent clamor, and in any but the strong-willed and resolute, break down the determination that has been formed. To such as these work will be a decided advantage. Keep yourself as thoroughly occupied as possible. Don't allow a moment to pass without finding yourself either mentally or physically engaged.

It may be as well to relate here a few personal experiences (as types of many that might be presented) of men of different occupations who have continued at their labors, either mental or physical, while undergoing a fast.

The *Colorado Dispatch* in telling the story of the 15-day fast of Edgar Wallace Conable, Editor of the *Pathfinder* of Roswell, says: "When Mr. Conable was fasting he worked in a manner that would make the walking delegate of a labor union faint with dismay. At six in the morning he could be found at some difficult physical labor, and until six or seven o'clock at night he toiled continually and incessantly, not resting at meal time, of course, as the ordinary laborer would. After a hard day's work he went every day into his den, where he wrote articles for his magazine, the *Pathfinder,* until ten or eleven o'clock at night."

In May, 1910, Dr. Gustav A. Gayer, a professor of psycho-therapeutics in New York City, decided to take a fast. Being a scientific man, a graduate of Bonn University (Germany), Dr. Gayer consulted with three highly reputable New York physicians, Drs. Wm. E. Young, Floyd B. Ennist and A. B. Jamison, and arranged with them to see him daily and take notes of his condition. He himself carefully planned the details of his fast, and kept records of each of the

days. In addition, Dr. J. S. Wile, a blood specialist, made frequent tests of the pressure and corpuscular health of his blood, while Dr. M. H. Curvey, a specialist on the nerves, kept a scrutiny upon his nervous system. Dr. Young took a general supervision of the fast as a whole. The fast lasted for 31 days, and during the whole of the time Dr. Gayer continued his regular occupation. As a professor of psychotherapy he gave one or two lectures every day, made a number of professional calls, and exercised hypnotic powers upon two patients. It will be seen that his calling demanded mental concentration, and our scientists tell us that there is nothing like mental concentration for draining physical vitality, yet on the twelfth day of the fast, when a reporter called upon Dr. Gayer, he showed nothing of the lassitude the reporter expected. Here is what the latter says:

Dr. Gustav A. Gayer, who fasted thirty-one days under medical supervision.

"On the twelfth day of the fast, when I first called upon Dr. Gayer, he showed nothing of the lassitude one would have expected. Far from being lethargic, he went about humming and singing, ran upstairs two at a time, and acted in general as lightheartedly as a school-boy. On the street his carriage and jaunty step were plainly admired by passers-by, none of whom

could have thought it possible that the object of their admiration was a 'victim' of prolonged starvation."

On the 17th day of the fast Dr. Gayer was evidently in as good condition as on the 12th day, for one of his consulting board, Dr. Ennist, who was a member of the Board of Health, New York City, said of him:

"Dr. Gayer's muscular energy is well-preserved. I saw him yesterday pick up a chair weighing twenty pounds with one hand, and hold it aloft for a full minute. No evidence exists of any evil consequence of the abstinence from food."

On the 20th day Dr. Wile made a laboratorial examination of the faster's blood. In his signed report he states that there were no signs of degeneration, but that the blood was healthy and excellently colored, containing 5,192,000 red corpuscles.

On the 30th day Dr. Wile made a similar examination with like results.

On the 23rd day Dr. Kirby, after a searching examination, declared the nervous system to be in a most satisfactory condition.

On the 25th day Dr. Young described the faster as being "the picture of health" with "pulse slow but full; temperature normal; blood pressure fair; eyes bright; tongue good color."

On the last five days of the fast Dr. Gayer remarked repeatedly that "he was enjoying more buoyant health and strength than ever before."

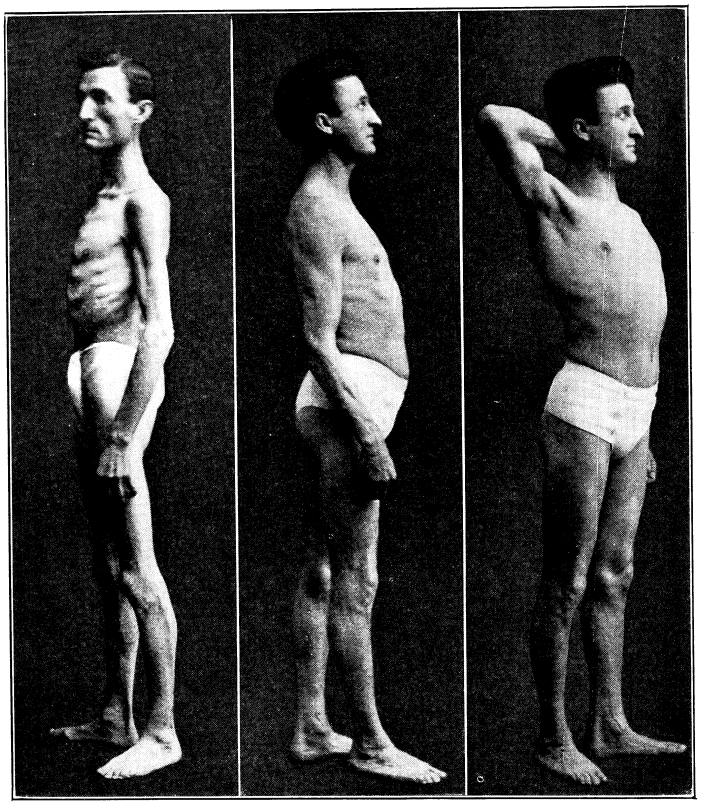
Mr. H. C. Long, in telling the story of Dr. Gayer's fast, makes the following remarks, some of which, being on the subject we are considering, are worthy of careful thought:

"Dr. Gayer is a man of generous proportions. The rigid training of the Prussian army—in which he was formerly an officer—disciplined him and made him of iron; and because of it, doubtless, his will has assumed the authority to command himself as well as others. His shoulders are broad, his face bluff and hearty, and ruddy as though from brisk winds. His eyes are kindly, and he radiates good cheer.

"During the fast he slept in the open, rain or shine, in a little summer house on his lawn. His food was the simple

cup of hot or cold water taken every hour. Exercises included auto-suggestion, deep breathing, air and friction baths, hot and cold water baths, long walks and rifle shooting. During the first two weeks the doctor accomplished more work than usual daily, and it was only in the last week that the amount fell a little below his former average."

The experiences of Mr. Upton Sinclair, the noted author, have excited a great deal of attention throughout the world,



Mr. George Propheter at the end of a fifty-one day fast.

Mr. Propheter thirty days after the end of fast.

How Mr. Propheter appeared sixty days after his long fast was ended.

owing to his various articles in the magazines and his book on "Fasting for Health." His first prolonged fast was taken under my direction. In regard to work during the fast, here is Mr. Sinclair's own statement:

"On my first fast I could not have done any work, because I was too weak. But on my second fast I could have done anything except very severe physical labor. The last time I took a long fast, I planned a play and wrote two acts of it. (The play has not yet been published, so I cannot refer the readers to it, but I am quite sure that it is as good work as I have ever done.) I have one friend who fasted eight days for the first time, and who did all her own housework and put up several gallons of preserves on the last day. I have received letters from a couple of women who have fasted ten or twelve days, and have done all their own work. I know of one case of a young girl who fasted thirty-three days and worked all the time at a sanitorium, and on the twenty-fourth day she walked twenty miles."

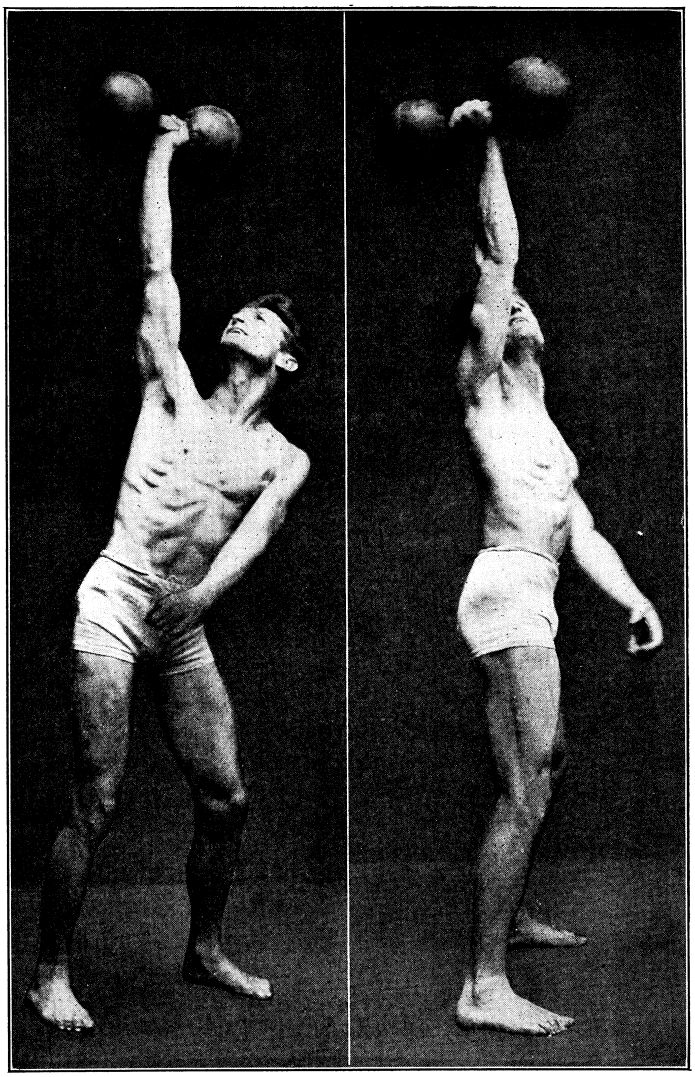
In *Physical Culture,* Mr. George Propheter told the story of his 51-day fast, which he began in December, 1901. Here is what he says as to the continuance of his work during its progress:

"When I commenced this fast I determined to go about my affairs as usual without paying any regard to the unpleasant feelings of the body. While it was in progress I visited the Pan-American Exposition in Buffalo for a couple of weeks, and the balance of the time was at my office in New York or in the country. Every day while it lasted I walked from five to twelve miles."

In the year 1900 I took my own first seven-day fast, as elsewhere referred to. In regard to this matter of working during a fast, the following account of my experiences, written at the time, cannot fail to prove of interest:

"The average person imagines that he becomes weak even after missing a meal, and a fast of one day is supposed to take away all strength. There was never greater error.

"On the fourth day of the fast, after testing my strength,



Photograph showing Bernarr Macfadden pushing up a one-hundred-pound dumb-bell at the close of a seven days' fast.

I concluded to use a fifty pound dumb-bell in illustrating my strength on the seventh day of the fast.

"The seventh day came at last, though I must confess the week seemed rather long. I visited the gymnasium after my walk with the intention of leaving instructions that the fifty-pound dumb-bell be sent to the photographer's gallery. On arriving there, I felt so strong that I concluded to test my strength. I thought that maybe I might be able to raise without difficulty a heavier bell than fifty pounds.

"I raised the fifty-pound bell over my head a number of times without the slightest difficulty. It did not seem heavier than when at my usual weight. I tried the sixty-pound bell, then the seventy and eighty-five with similar results, and immediately left instructions to send the one-hundred-pound bell over to the gallery, as I felt that my strength was equal to raising it.

"I know full well that my readers will be amazed at these feats of strength performed after this long fast, and no one could be more amazed than I, for, as stated before, I was under the impression that to raise a fifty-pound bell over head with one hand after a fast of this character, would really be something worth boasting about, and I was astounded at my strength under the circumstances.

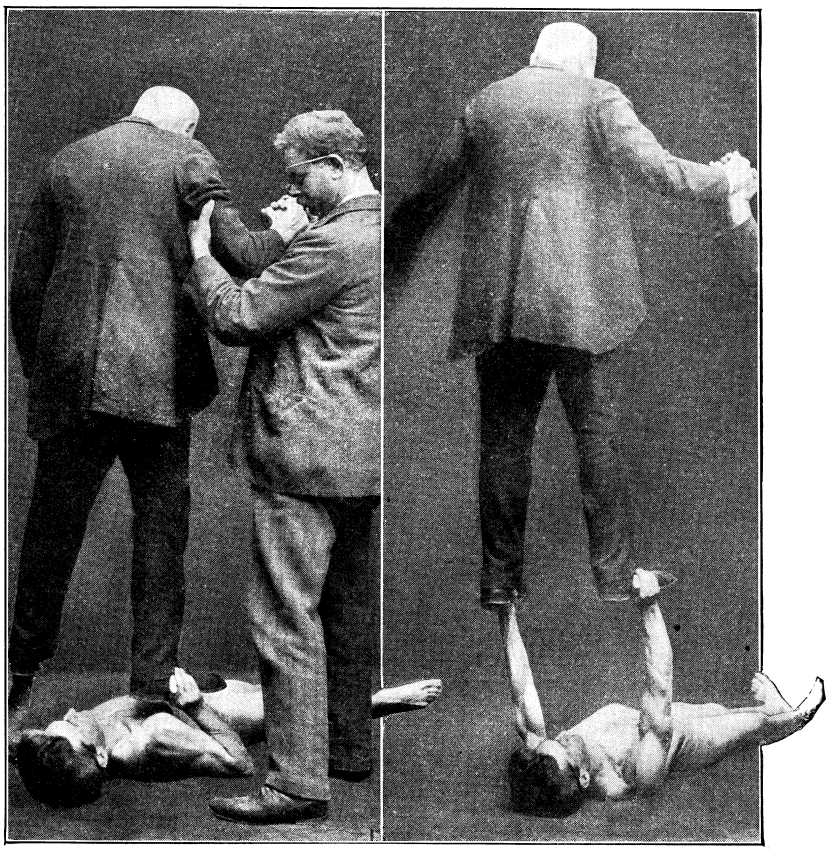
"The hundred-pound dumb-bell was sent to the gallery, and Sarony's employees who saw and photographed the feats will vouch for the statements made and the illustrations shown. I had to raise the hundred-pound dumb-bell twice before a proper negative could be made of the feat.

"The second feat of raising this 200-lb. man as shown in the photographs was not easy, as any one will discover on trial, and it would be well to remember that I never at any time in my athletic career believed in using heavy weights, and had not attempted to raise a hundred-pound dumb-bell off the floor for at least two years previous to the performance of these feats.

"While in active practice in general athletic work a number of years ago, I could raise a hundred-pound bell eleven times

at arm's length over head with one arm, but at this time I occasionally handled these heavy weights. As I have taken no heavy exercise for a number of years, more than a slight effort would be required to raise this heavy dumb-bell, even when my weight was at its usual standard."

Not many years ago there was in my organization a literary



Bernarr Macfadden raising a two-hundred-pound man to arm's length, after the conclusion of a fast of seven days. This photograph illustrates the degree of strength retained during extended fasts.

gentleman of repute who undertook two fasts under my directions, one of five days, and one of seven days. During both of these fasts he continued his literary labors, working from twelve to sixteen hours each day, and occasionally delivering lectures. He was a speaker of considerable force and energy. Yet no one would have dreamed of any diminution in either his intellectual or physical energy had they seen and heard him during his two fasting periods.

Perhaps one of the most remarkable cases on record is that of Mr. Richard Fausel, whose story was told in *Physical Culture* for September, 1910. Mr. Fausel had been suffering for some years from a dropsical swelling of the legs and at one time weighed nearly four hundred pounds. For some years he had been a hotel-keeper, and it was while he was practically rendered incapable of physical exertion, although he still conducted his business from his bed, that a copy of *Physical Culture* fell into his hands, which described the benefits to be derived from a fast. As all of his physicians had failed to help him or give him any relief, Mr. Fausel determined to try the fast. The result of his first experiment was so gratifying that he came to my Healthatorium in Chicago, and placed himself under my supervision.

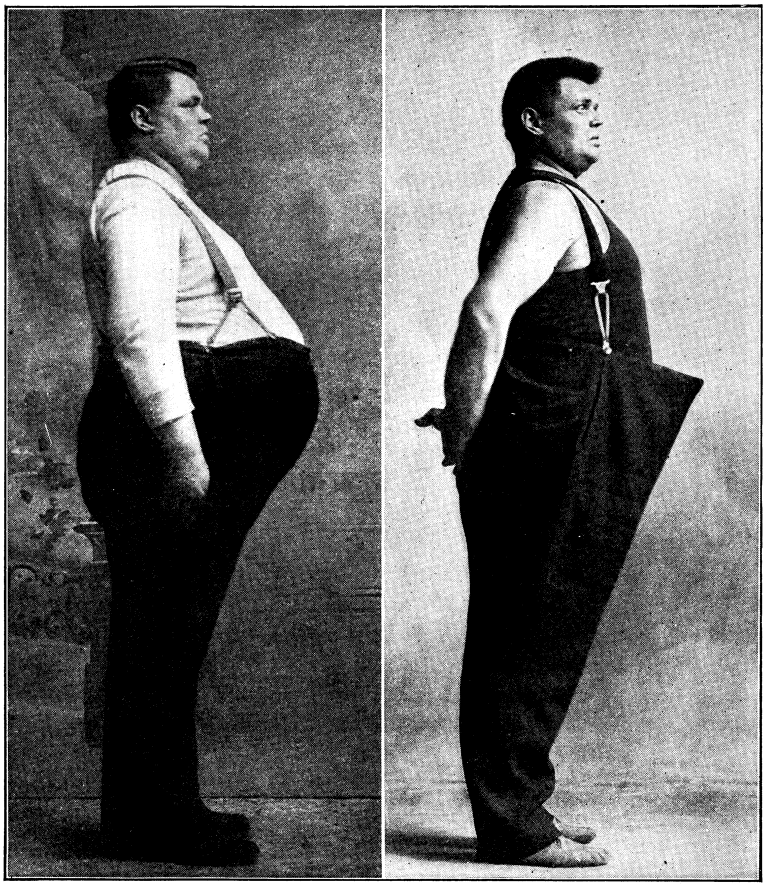
For a short time prior to his last fast, however, he had lapsed into serious dietetic errors, and as a result determined to enter on another fast. At this time he weighed 297 pounds, and I had no hesitancy in urging him to take a prolonged fast, no matter how lengthy the period might be. The result was that he virtually fasted ninety days, one of the longest periods on record. From the following it will be seen that Mr. Fausel continued to work and exercise vigorously during the whole progress of this fast:

"At the beginning of the fast he weighed 297 pounds. For the first forty days he walked, on an average, twelve to fifteen miles daily, and each day took massage treatment and special exercise, followed by a cold douche of about four to five minutes' duration. He also disported himself in the swimming pool, at our Western headquarters, for from thirty

minutes to one hour each day. He drank on an average from five to six glasses of water daily."

The only food taken by him at this time was a small quantity of lemon juice each day.

THE BATH IN THE FAST.—During the fast the daily bath



Photographs of Mr. Richard Fausel before and after a forty-two days' fast in which he succeeded in reducing his weight seventy-two pounds.

is of the highest importance. The skin of the human body has three important functions to perform.

1. It protects the tissues.
2. By means of the periphery nerves it locates sensation.
3. It is an organ of elimination.

It is hard for the ordinary mind to realize the vast importance of this latter function, or that through the millions of pores of the skin there is daily discharged as sensible or insensible perspiration as large an amount in weight as that cast out of the body by means of the bowels. Civilized man, covered as he is with clothing, fails to get the benefit of this work of the skin. The tighter and closer he wears his underclothing, the less opportunity there is for this waste and poisonous matter to escape. Much of it is absorbed by the underclothing and much is deposited on the surface of the skin.

The only healthy skin is that which is constantly exposed to the air and sunshine. The prudish ideas of our civilization and our religious training for many centuries render this nudity impossible. Custom tolerates the partially nude torso of the civilized woman in "full dress," and the bare legs and torso of the athlete, when engaged in his exercises. The bather at the seaside resort may also expose a large part of his body, though if a woman refuse to wear shoes and stockings, she is looked at askance by her more "civilized" sisters.

But let the male athlete, or the female bather whose legs are uncovered, attempt to walk in a park or down the streets of the city, and at once a hue and cry would be raised of "indecent exposure" and "the gross insult that had been offered to modesty." The absurdity of this inconsistency is self-evident. But human nature is so inconsistent, anyhow, that one need not be surprised at this form of its manifestation.

It was one of my own experiences when a mere youth, when I had built up a strong muscular frame by exercise and following Nature as far as I knew it, that led me to an appreciation of the large part the skin performs in the gaining and preservation of that perfect health with which, as I have constantly affirmed, I believe it is God's intention that every

human being should be endowed. Despite all my care and exercise, I had taken a severe cold which I seemed unable to shake off. I was not then as busily engaged as I now am, so that not only did time hang heavily on my hands, but my purse and pocket were almost empty.

I looked around for some work that would occupy me a few days and a friend suggested that I pose as an artist's model. The idea struck me favorably. I went to the studio and was immediately engaged. It was cold weather. The studio appeared cold and drafty when I undressed and took my position on the pedestal. But, to my great surprise, a half hour's exposure, instead of increasing the sensation of cold, made me feel better. I posed for several hours that day and for the first time in weeks went to bed that night with my cold considerably relieved. After another four hours' exposure of my whole body the next day I experienced another marked improvement in my cold. By the end of the third day I was entirely free from the unpleasant symptoms that had distressed me and at the end of the week was entirely recovered.

From that day to this I have been a strenuous advocate of a natural life as far as the exposure of the body to the air is concerned. Naturally, living in civilization and subjected to its laws and requirements, I wear clothing the same as other people, though I don the Greek costume as often as possible and under all circumstances in summer wear clothing that can easily be washed so that there is no underclothing to prevent the air from reaching my skin. In winter time I wear thin and loose underwear and in that way get as much air to my body as possible. But so long as civilization refuses to allow the habitual exposure of the body, as it occasionally allows it at the seaside and in the ball room, I intend to utter my protest against such absurd distinctions and at the same time enunciate my belief that we would be better physically and morally if we were to get rid of the idea that the body is obscene, and therefore must be covered, and to do everything in my power to bring about, by education and healthful liv-

ing, the idea that obscenity is in the mind of the one who looks rather than in the body that is exposed.

The skin is as much a breathing and eliminating organ as are the lungs. While to the popular mind this may seem absurd, and even to the practicing physician of the old school a more academic fact than a useful one, to the hygienist and natural liver its importance can scarcely be overestimated. The danger of interfering with the eliminating functions of the skin can be well understood from the fact that some years ago at a theatrical pageant one of the performers was entirely covered with gold-leaf. To the intense amazement of both the performer and his associates, this simple closing of all the pores of the skin caused death, even though the lungs were able to carry on their work uninterrupted.

But to return now to the subject of the bath. Having seen the importance of the skin as a breathing and eliminating organ, it should need but little argument to show that it must be kept clean and in good condition. The bath is by far the best means of attaining this end. Hence the patient undergoing a fast should arrange to take a bath daily. The dry friction bath will to a certain extent take the place of a water bath, if one so desires. This can be taken with a rough dry towel, though it is more satisfactory if taken with two bristle brushes, holding one in each hand and brushing the body all over, beginning at the ankles and brushing upward, beginning at the wrists and brushing toward the shoulders, keeping in mind the idea of always brushing toward the heart. This friction bath not only furnishes splendid stimulation to the skin, but is moderately good exercise.

If the circulation is especially good and there are no symptoms of chilliness to indicate defective circulation, a cold bath may be taken. This bath can be taken by simply wetting a towel and rubbing the body with it; by dashing cold water over the body; or with a cold shower bath, or, if the circulation is more than usually good, by taking a cold plunge into the bath tub. As a rule, however, I would not advise this latter method, though it will bring about no other than beneficial

results, provided one recuperates thereafter within a few minutes with a feeling of warmth and comfort.

Remember, however, if the circulation seems to be defective; if one is cold most of the time and the feet and hands are cold, cold water must be used with the greatest degree of care. A dry friction bath would be better than the cold bath. Should one experience more than ordinary difficulty in keeping warm, a warm bath is advised daily. It would be an advantage to remain in this warm bath until the body was thoroughly heated. Make the water comfortably warm to start with; remain in the bath fifteen minutes to half an hour, and gradually add hot water until the body is thoroughly heated. After the hot bath it would be advisable to dash cold water over the body, or rub the body all over with a cold wet towel. Use just enough cold water to give the external parts the benefit of the tonic effect of the cold.

DRINKING WATER DURING THE FAST.—As will be seen from the various methods for the treatment of disease outlined in other pages of this work, I recognize the great importance of drinking water during the fast. There are some cases where it is well to refrain from the use of water, but as a rule it is not only to be recommended but its proper use is highly important.

The benefits of a fast can be materially increased by the free use of distilled water, not only as a means of washing out and cleansing the alimentary canal itself, but as a means of "flushing," as it were, the blood vessels and tissues of the entire body. The free use of water will assist greatly in the elimination of all waste matter. Where the tongue is coated and the breath bad, as is frequently the case, indicating a similar condition of the alimentary canal, then the liberal drinking of water is particularly necessary. When the digestive organs discontinue their work of receiving and assimilating food, at a time when the system is over-burdened with impurities, much of the poisonous waste matter of the body is thrown upon their interior surfaces. Hence the value of a plentiful use of drinking water and occasionally of lemon

juice as a means of removing this coating and cleansing these organs. Furthermore, the use of water will enable one to avoid losing weight too rapidly when fasting.

One faster relates his own experiences as follows: "One should drink all the water he possibly can, only not taking too much at a time. I take a glass full every hour, at least; sometimes every half hour. It is a good plan to drink a great deal of water at the outset, whenever meal time comes around, and one thinks of the other folks beginning to eat. I drink the water cold, because it is less trouble, but if there is any hot water about, I prefer that. Hot water between meals is an immensely valuable suggestion."

It is about forty years ago that Dr. Tanner made his celebrated forty-days' fast. He had been suffering for many years with a variety of ailments, which all his medical skill and that of his physician friends were unable to cure. During the first two weeks of one fast, he even went without water. This was a deprivation that I regard as not only unnecessary and useless, but injurious, as pure water materially aids, during the fast, the self-curative processes in the elimination of poisons. There are exceptions to this rule but they are exceedingly rare.

It is rather interesting to recall how he came to use water during the remainder of the fast. The public interest was so great that Dr. Tanner appeared daily in a large hall where the immense crowds could be accommodated who desired to see him. A quizzing reporter got into an argument with the doctor, making the usual assertion that it was impossible to keep up strength without eating. Dr. Tanner finally said, to bring his words to a demonstration, "Here have I been for several years a semi-invalid, suffering from all kinds of diseases, and now I have fasted for two weeks. You are young, healthy, strong and vigorous. I will just take a drink of water and then I will run you a race around this hall and see who can endure the longest and go the farthest." The reporter accepted the challenge with confidence. He and the assembled audience were sure he had matters in his own hands,

and the race began amid much amusement that Dr. Tanner could be so foolish as to pit himself against so healthy looking a person. It did not take long, however, to turn their amusement into amazement, for the doctor so speedily and easily outran his competitor, and the reporter so labored, puffing and blowing in his distress, that every one saw the absurdity of continuing the race further.

This is one of the remarkable facts demonstrated in hundreds, nay thousands, of cases that have come under the observation of those who, like myself, have prescribed fasting. It is a common experience that, when all symptoms of the disease disappear, the patient finds every avenue of energy and vitality free and unclogged. He feels this, and, although he still continues the fast, he experiences a gain in strength.

However contrary it may appear to the general practice of hygienists who advise the use of little or no water or other drink during meals, my experience has suggested that when one begins to eat heartily, as it is sometimes advisable to do after breaking a fast in the usual careful manner, that a considerable amount of water should be drunk while eating. I think I have made it perfectly clear that, immediately after a prolonged fast, the greatest possible care must be used to avoid eating beyond the digestive capacity. But when the desire for food becomes normal, and there is no danger in satisfying its reasonable demands, I have found it a good plan to drink freely whenever the desire is noted, and this practice should be followed between meals as well as at meal hours.

THE USE OF NON-NOURISHING "FOOD" DURING A FAST.—It has been suggested to me that a fast might be made easier for many people by allowing them to use some filling substance which contained no nourishing elements or food value. Among the things suggested have been Agar-Agar, and cellulose of various kinds. This latter substance is usually secured from cotton or wood, which may be made into a very fine flour and "refined." Some have prepared wafers or crackers of this cellulose flour, held together with Indian gum and sweetened with saccharine. Agar-Agar has a disagreeable taste when taken alone,

and especially when on a fast, but the wafers are said to be not unpleasant to the taste. Such foodless foods are especially recommended by their enthusiasts for cases of diabetes and obesity.

It is suggested by these enthusiasts that such substances give the stomach of the faster something upon which to function and that the usual hunger of fasts may be reduced by this means; also that the indigestible cellulose acts as a broom to the digestive canal, sweeping it free of retained food contents which help to increase hunger by their fermentation and putrefaction, these latter processes delaying the benefits of the fast and, perhaps, actually creating more or less unpleasant symptoms of autotoxemia.

I have taken many fasts and my experience in my own case and in many hundreds of others whom I have conducted through fasts has been that if one desires to fast it is best to avoid compromises. One who fasts almost invariably requires a stomach rest as well as general elimination, for few there are whose stomachs and digestive canals have not been already overworked, possibly to the point of irritation or inflammation or of suppression of digestive fluids. Part of the benefits of a fast will be lost if one places that in the stomach which demands that it continue to function, especially to the extent and in such a resultless manner as will be necessary when absolutely indigestible material is taken.

Another effect of eating such substances would be the quickening of that false hunger which guides our appetites so often and so detrimentally to health. My experience has been that so long as one remains on an absolute fast, up to the time the normal appetite and hunger appear, he is gradually losing false hunger and comparatively soon is enabled to keep thoughts of food entirely from the mind. But once some compromise is made the appetite increases and, unless the will power is exceptionally strong, the fast is positively broken and real food is taken.

THE ENEMA OR INTERNAL BATH DURING THE FAST.—The use of the enema in constipation and other ailments of the lower intestines has been largely practiced for many years by a great number of people. That it is of value as a temporary

relief there can be no question. A number of eminent physicians have made extended experiments upon this flushing of the intestines and, while there is great unanimity of opinion as to its general utility, the scientists do not entirely agree as to its physiological effect.

Stadelmann contends that "its action is mechanical only, aiding the liver by removing from the intestine large quantities of decomposing stuffs, with swarming microbes and the ptomaines and toxins produced by them."

On the other hand Krull asserts that the cold enema is a powerful stimulant of the liver.

Kellogg thinks Stadelmann's conclusions are, "rather surprising when one considers the powerful influence upon the mesenteric circulation, of cold water introduced into the intestine. Very powerful fluxion of the liver must be excited by this measure, and the reaction following must be attended by decided increase in activity of the portal circulation."

The engravings on page 1457 clearly show those portions of the alimentary canal that are affected by the enema. The ring-like muscle at the end of the rectum is the sphincter muscle of the anus; above this is the sigmoid flexure; then the descending colon; next the transverse colon; and finally the ascending colon. The ascending, transverse and descending divisions of the colon are commonly spoken of as the large intestine. This intestine is a muscular and elastic tube, capable of great expansion, and from five to six feet long. It is here where the refuse of the stomach, liver and other organs gathers until it is passed out by way of the rectum.

Metchnikoff, whose exhaustive studies of the intestines have made him world famous, regards the large intestine as a great seat of danger to the human body. If one has eaten too much the undigested matter accumulates in this elastic pouch and there generates poisons which are absorbed and conveyed into the blood and then distributed to work injury throughout the whole body. If in the mass of undigested food there is a large amount of meat (animal flesh) the poisons that are generated are known as ptomaines, one of the most deadly

poisons known to man. Because of these facts, which have always been more or less vaguely known and understood, many unscientific men have unduly extolled the advantages to the gained by artificial evacuation of the large intestine. And a few years ago a great deal of publicity and advertising was given to this method of procedure.

There can be no question but that it is often of the highest therapeutic value, but, as I have elsewhere remarked, and repeated, no process that is not normal and natural can ever be the *best* thing for the human body. We may change the methods of Nature and some of these changes are less harmful than others, but the best method is to avoid such changes and follow the natural procedure wherever possible. Hence I would have it fully understood that I accept the enema as I would a crutch in a case of temporary lameness, and not as a permanent and suitable method for relieving the bowels. When a patient is restored to normal health this function should work as naturally as any other, and until it does, we may rest assured there is disease to be eliminated.

The peristaltic action of the intestines, which is the peculiar muscular expansive and contractive movement that compels the constant onward movement of their contents, is mainly effected by the presence of the material to be ejected. It is, therefore, apparent that when one ceases, as he does in the fast, to supply material for the action of the intestines, that the peristaltic action also almost ceases and there is no discharge of fecal matter. If the whole alimentary canal were in a healthy condition, this would be a matter of no importance but the fast is not a desirable thing for those who are in health. It is to aid in the work of expelling this waste matter that the enema is used.

I cannot too strongly warn my readers, however, against the formation of the "enema habit." While I recognize the full value of the enema as a wonderful assistant in the healing process, it should always be regarded as an artificial help, and therefore, not to be relied upon constantly. Being an artificial habit, no person in health should ever have to rely upon it.

And, while its injurious effects are not to be compared with the ravages caused by such an evil as the corset, it is just as bad (in principle) to rely upon the enema for relief from constipation as to rely upon the corset to sustain abdominal muscles. I am free to confess, however, that it is far better to rely even upon the habitual use of the enema than to place dependence upon any form of drug cathartics, be it castor oil, mandrake pills, or any of the other damnable nostrums and pernicious pellets that "work while you sleep."

The philosophy of the use of the enema during a fast is as follows: Soon after eating ceases, there is no digestive waste to enter the intestines from the stomach and excite the peristaltic action to the casting out of what waste matter is already there. Unfortunately our incorrect dietetic habits have reduced the normal and healthy action of the bowels, and the result is the accumulation of a large mass of fermenting, poison-producing waste, which is a source of danger every moment it is allowed to remain. The enema aids the enfeebled intestines to get rid of this waste material.

But this is not all. Experience demonstrates that when a fast is begun, the collection of waste material in the body does not cease—dependent somewhat, of course, upon the character of the disease and the temperament or physical condition of the patient. Yet, as there is no food waste to excite the peristaltic action this waste eliminated from the lungs, the blood or elsewhere, is liable to remain and cause injury unless artificially removed. Thus the enema again becomes a helpful assistant.

There is yet a third reason: Most people think that if they have a daily movement of the bowels they necessarily have a clean alimentary canal. I have often heard sufferers from digestive troubles assert that, because their bowels were regular and the fecal evacuations large, therefore there could be no trouble in their intestines. Such people have been very much surprised to find upon the administration of the enema that large quantities of old, hard fecal matter appear which

had undoubtedly lined the walls of the intestines and thus prevented healthy action. And it must be remembered that this will occur, not only for one day but, in some patients, for many days in succession. Post-mortem dissection of the intestines often reveals large masses of fecal matter clinging to the sides of the colon, thus fully explaining the disease of the patient in the inability of the organ to free itself from this accumulating filth. People in such condition experience a movement of the bowels only through the center of a choked up and consequently horribly diseased alimentary canal. Hence in all cases where intestinal disease is evidenced by the symptoms, the enema should be used freely.

My many observations have demonstrated that a large number of people are suffering from what the physicians call *atony of the intestines.* In plain English this is simply a lack of muscular power, and Physcultopathy, above all things, seeks to correct diseases of this nature. When the intestines lack muscular activity, and especially where the food eaten is of the white bread or of the sticky, innutritious varieties, improperly masticated and mixed with other foods and condiments that deaden the nerves and weaken the muscles, the effect is the accumulation of fecal matter which adheres to the inside of the alimentary canal and thus becomes the source of nearly every disease known to man.

As I have first shown, it is well known that one may have regular evacuations of the bowels, either naturally or by the use of cathartics, and still the intestinal tract be lined with decaying, rotten, stinking matter, which is giving out poisons to be absorbed into the blood and keep the patient in a half dead condition all the time. The fast, with the use of the enema, in such cases is of the highest value. The fast tones up and stimulates the nerves to awakened activity of the hitherto dormant intestinal muscles. This begins to loosen the mass of adhering fecal matter and then if the enema is wisely and persistently administered, the whole canal will be cleansed and the victim of his own evil dietetic habits given a new lease

of life. It is in cases like this that the enema should be used persistently and thoroughly.

The resulting bowel discharges will naturally vary according to the condition of the patient, but in most cases, especially of severe acute diseases or long continued chronic ailment, they will be remarkable and startling. Quantities of dark brown, foul smelling liquid, in which are lumps of solid impacted feces, are evacuated. These solid masses have generally been dislodged from the walls of the intestines and have been the cause of headaches, catarrh, and general distresses from which the body is suffering. In other cases they are recent accumulations made in the processes of elimination. In many instances a great quantity of stringy, whitish and colorless mucus will be evacuated, and in catarrhal and tuberculosis conditions, as the fast proceeds, this kind of discharge increases and betokens the most happy results for the patient. There are times when it seems as if the whole lining of the intestines were being sloughed off in the body's determination to rid itself of everything that has caused the trouble.

In the case of fevers where severe inflammation exists, there may be bloody discharges, but this should cause no fear. These are signs that the body is throwing off internal ulcers and the more rapidly ridding the body of the source of evil. It is remarkable how rapidly long continued pain, soreness and irritation disappear after such discharges of impacted feces, mucus or blood. And with this sense of relief comes the assurance of speedy restoration to health. This mental state, naturally, aids recovery. The more copious, therefore, the disagreeable discharges, the more assured of speedy recovery the patient should become.

As soon as the process of elimination is completed and the intestinal tract has been restored to its normal, natural, healthy condition, the tongue and purified breath convey the intelligence both to the patient and the outside world. The former looses its coated condition and becomes the beautiful pink of the healthy child. The breath becomes sweet and odorless, the saliva flows easily and gives an agreeable sensation in the

mouth, and, at the same time, there comes that happy, and to most people novel, experience—the realization of the true hunger as distinguished from appetite.

Where the full enema seems to be exhausting in its influence it should be avoided unless absolutely required for proper activity of the bowels. Sometimes the rectum is dry, and a half pint or pint of water will moisten it sufficiently to bring a bowel movement and under such circumstances there is not that devitalized feeling that often ensues after using a full enema.

Danger Signals During the Fast.—Generally speaking, there need be no danger apprehended from the fast. In the many thousands of cases that have come under my personal direction, there has not been a single death as the result of a fast and in nearly every case, except as referred to elsewhere, so far as I know, there has been nothing but the most positive benefit. At the same time, with persons of low vitality, or where the vital forces have been depleted by a long struggle with chronic ailments, or where a virulent acute disease is to be combated, it is well to be prepared for symptoms that may arise and denote danger.

These signals are the greatly accelerated pulse, or the reverse. Neither of these signs, however, is always an indication of danger. There are times when a faster may have an accelerated pulse and other apparently serious symptoms, and yet the indications taken altogether clearly denote that he is progressing very rapidly towards a more perfect state of health. But the inexperienced faster, at such times, would do well to break his fast. The same might be said of the slow, feeble pulse. As long as the pulse ranges between 50 and 110 and is strong and regular there is little or no danger. But variations above or below these figures should be viewed with suspicion, and, if the faster is not under expert supervision, he had better break his fast than run any risk.

It is better to be on the safe side if one has not had experience in fasting. For instance, I have often continued fasts even with a greatly accelerated pulse, and I have con-

tinued fasts on occasions where the pulse was so low that one could hardly count the beats. But as a general rule a pulse that is feeble, and running from 110 upward should be viewed with suspicion, and the fast broken.

The wrong mental attitude is also a danger signal. When one becomes afraid of the fast it is usually advisable to break it. Of course, there may be some exceptions to this rule, but as already stated, prolonged and enforced abstinence from food is not usually the cause of the death of those who are shipwrecked, or forced to fast for other reasons; it is really the mental attitude—the idea that to go without food for a certain period will cause death. It is the mental fear that actually kills such persons. You can, therefore, rest assured that a satisfactory mental attitude is of very great importance, and you should assure yourself that you are doing the wisest and best thing in continuing a fast. This mental assurance on your part will carry you through safely and to your great advantage in virtually every instance.

Great weakness is not always a danger signal, though in some instances it is. As stated previously, this weakness is usually caused by effete poisonous material in the circulation. When, however, after exercising, breathing, and walking, this weakness does not partially disappear—when one finds that he is compelled to take to his bed, I would advise that the fast be broken. The weakness may not be a danger signal, but at the same time, it would be wise to discontinue the fast under such circumstances.

I have known fasters whose will power was too strong. I have heard of instances where fast would be begun, and in spite of every symptom the faster would continue it, in some instances even to a fairly prolonged period. Fasts of this kind are always detrimental. There is a certain period in a fast where the healthy tissues of the body begin to be absorbed, and this process gradually lessens vitality. When the body is thoroughly purified and cleansed this is the time when the fast should be broken. In nearly every instance, however, where fasting has brought disastrous or devitalizing results it has

come about through improper and unscientific dieting and treatment following the fasting régime. I now recall two cases, especially, where fasting apparently brought on permanent invalidism; that is, the persons to whom I refer would say that fasting had been the cause. But in both instances the fasters were taken in charge by regular medical practitioners, and their continued weakness was caused entirely by the treatment that was administered. I would therefore especially warn fasters against the treatment prescribed by medical men who have not the slightest knowledge, either of the effects of fasting, or methods of breaking the fast. The medical profession not only discourage the fast, but have little or no knowledge of its physiological processes, and as for securing actual benefit from a fast, they consider such a proposition preposterous. There are some medical men who have gotten away from drugging and have begun to study the theory of cure that we advocate, and the judgment of such men could no doubt be relied upon. But doctors who have not got beyond their pill boxes are actually dangerous to anyone who has followed the fasting process, if he is compelled to seek aid because of his weakened condition. Under such circumstances it is far better to rely on one's own judgment, and his own idea as to what is best for him than to confer with, or adopt the advice of, one whose every suggestion is liable to result in added injury. I am positive that if these two cases had been handled by one who was familiar with the fasting process both of them would to-day be enjoying buoyant health as a result of their abstinence from food.

It is certainly possible to carry the fasting too far and that is my principal reason for confining most of my patients to short fasts. I am sure of being on the safe side under such circumstances. Furthermore, the various methods that I use in connection with and following the fast, help to purify the blood and build up the vitality to the highest possible degree; therefore, it is not especially needful that one continue the fast "to the finish," where these methods are followed in detail.

In fact, as I have often stated, even fasting itself is not absolutely necessary to the cure of ordinary troubles. Physical exercise, following a wholesome diet, stimulating the spinal column and all the various methods of Physcultopathy, for adding to the general vitality will usually bring about the desired results without fasting. These results, however, will be materially hastened with at least a moderate amount of abstinence in a dietetic way.

To be on the safe side during a fast, obey any unusual manifestations in the form of very great weakness which does not seem to disappear after following the suggestions I have made for overcoming it, as indicating the necessity for breaking the fast.

When the loss of weight runs up to two or more pounds daily after the first day or two, it sometimes indicates the need of breaking the fast. When the tissues are very soft, naturally they disappear with great rapidity during the fast. If a loss of two or more pounds continues for more than six or seven days then it might be wise to break the fast and attempt to replace the lost tissues with those of firmer consistency by means of exercise and other vital building processes before repeating the fasting experience.

As a rule the mind becomes very clear and impressions are intensely vivid during a fast. When there are opposite symptoms, that is, when the mind appears to be confused and the will weak and wavering, the fast should be continued with great care. If one is not under the advice of an expert it would be better for him to break the fast when such symptoms appear.

SLEEPLESSNESS DURING THE FAST.—Many persons find it very difficult to sleep while continuing a fast. In some instances there seems to be a feeling of tension throughout the entire nervous system, and it is difficult to get into that state of relaxation which is essential to slumber. In such cases it is well to try the free drinking of water, either cold or hot, whichever may be most strongly desired. If this does not produce the desired result a warm bath should be taken, the

patient remaining in the water ten or fifteen minutes. This will frequently have the quieting effect which is essential to bring on the unconsciousness of sleep. Another good remedy is to wet a bath towel in cold water, wring it out and fold to twelve or fourteen inches in width and then wrap it around the body from the hips to the chest. The towel should go all around the body, with a dry towel placed over it to prevent wetting of the bed clothing. A similar cold pack around the throat is often of immediate benefit.

Sleeplessness during a fast is often induced because of poor circulation. The feet in many instances become cold, and, no matter how much covering is used, it seems to be difficult to maintain a comfortable degree of warmth. In such cases a little more covering or a feather pillow placed over the feet will be the means of maintaining the proper degree of warmth. If, however, this does not bring results, it would be of advantage to place hot water bottles or hot irons, wrapped in cloths, at the feet. This will quickly bring a comfortable degree of warmth, and will draw the blood to the extremities, thus helping materially to induce sleep. One can adopt this remedy as a means of inducing sleep, even in some cases where the feet do not seem to be especially cold, but simply where there is a slight inclination toward chilliness. The warmth will draw the blood from the upper parts of the body, and, though one may have been tossing about for hours previously, this simple remedy will bring almost immediate relief.

Many fasters get the mistaken idea that, because their circulation seems poor, during the fast, they must close their windows tightly to exclude the outside air, both day and night. This is a very serious mistake, for, the supply of oxygen being materially lessened, it is impossible for the body to secure its full quota of warmth and energy from this particular source. At all times one should endeavor to secure a plentiful supply of fresh air when he is fasting. In other words, while he is living on air he must see that it is the very best quality and the largest quantity he can secure, and the more nearly he

can sleep out of doors the better will be his circulation and the less he will be bothered by the unpleasant symptoms often connected with a fast.

One should keep in mind, however, that while fasting not nearly so much sleep is required. The energies of the body are not used in the digestion of food; therefore, in many instances, one will frequently be thoroughly satisfied with from four to six hours' sleep, while under ordinary circumstances from seven to nine hours would be essential. He should therefore not worry in the least in case he is not able to sleep as much during the fast as he does ordinarily.

The only variation in experiences of this kind is where one has previously suffered from insomnia. Under such circumstances the fasting regimen often brings results exactly opposite in nature. After fasting a few days one begins to sleep more naturally, and the hours of sleep materially increase. There is really no better remedy for sleeplessness than fasting. It ultimately quiets the nerves, harmonizes the bodily activities, and remedies functional defects. However, relief from insomnia must not be expected within two or three days. Sometimes it will take from seven to ten days, or even longer, to bring about definite and satisfying changes for the better.

THE EARLY DAYS OF A FAST.—It is safe to say that the first few days of a fast will be the most troublesome. This is to be expected. In the breaking up of any habit, even though it be a perfectly natural and healthful habit, there is bound to be some disturbance until the mind and body adjust themselves to the new conditions. In the case of the appetite, which our civilized habits and customs of over-eating and our false conceptions have so long made unnatural, it would be unreasonable to expect the complete over-turning of its control without the body being in some way discommoded and made uncomfortable. Dizziness, nausea, spots before the eyes and an empty "gone" feeling, are the chief symptoms, as related in the experiences of thousands of those who have fasted under my control. For two or three days, possibly, these conditions will exist, then the abnormal desire for food

and "goneness" will give way to a feeling of disgust for all food. There are times, however, when the appetite persists to the end of the fast, and the faster longs for foods to which he has been used. But this is not a very common experience.

About the third or fourth day, when the disgust at the thought of food makes its appearance, the tongue generally becomes coated with a thick, yellowish white fur which it retains almost during the whole time of the fast. The breath becomes foul, and the faster's mouth is in a state that is both disagreeable and disgusting. These disagreeable conditions are most hopeful signs, for they not only indicate the offensive condition within, and reveal the disgusting state in which the alimentary canal has been reduced, but they also signify *that the processes of elimination of the disease are rapidly going on.*

As I have already explained, the secret of the coated tongue and foul breath during the fast is that after one has gone without food for a few days, the alimentary canal practically changes from an assimilative organ to what might be termed an organ of elimination. In other words, the impurities and poisons lodged in the body and seeking an outlet use the alimentary canal for this purpose. The coated tongue, therefore, is but an indication of the condition of the whole intestinal tract, and, until the process of elimination is complete, this unpleasant symptom will continue. As soon as it disappears, we have one of the clearest indications that the process of poison elimination is completed. As soon as this occurs the normal appetite for some specific form of healthful food returns and the tongue becomes clean and the breath pure and sweet.

It should be borne in mind that experiences vary considerably in fasting. In matters of detail no two experiences seem to be exactly the same. Even fasts of the same length of time by the same individual will reveal marked differences. Hence no general statement should be accepted as to the effects of a fast without bearing in mind these individualistic variations. But as to the ultimate results of the fast all ex-

periences of all people, almost without an exception, agree. This is one of the great mental satisfactions of a fast that, no matter how different your experiences may be from others, the ultimate results of the elimination of disease, the return of buoyancy and vigor, the clearing up of the mind, and the restoration of the normal hunger, are invariably the same.

One of my correspondents once wrote as follows: "You advocate fasting as a 'cure-all'; why does the omission of one meal cause a violent headache, if fasting is so beneficial?" This is a specimen of the reasoning of many people and is on a par with the intellectual capacity shown by the traveler who, having been told that Southern California was a land of sunshine, when he found it raining on his arrival at Los Angeles, did not leave the station, but purchased his return ticket and returned to the East. I replied to this correspondent as follows:

"The mere fact that the omission of one meal causes a headache is ample evidence that instead of missing one meal, a dozen should be missed; for this headache is caused by the slime, or the remains of fermented food or other impure matter that has collected in the stomach or intestines, or has remained there from the preceding meal, and, as no food is introduced to excite the flow of gastric juice or to dilute this impure matter, it is naturally absorbed by the circulatory system, and in its elimination, one of the results noted is a headache."

All of those who have tried the fasting cure for disease, know that for a few days they will frequently have a fever of more or less intensity. And nothing indicates more strongly that the purifying process is under way than this one symptom. It is one of the means adopted to burn up or eliminate the rank impurities of the body.

In the earlier days of the fast the decomposition of the surplus food in the intestines, and the activity of the organs of elimination, often produce large quantities of gas which will sometimes distress the patient with severe colicky pains. Under such conditions a hot enema should be used, and proper manipulation be given the stomach, bowels and spine. Hot

water applications, either in the form of hot flannel fomentations, or a hot water bag, placed over a towel wrung out in hot water, will afford relief.

In many cases there will be a feeling of chilliness, though the thermometer may not reveal any marked variation of temperature. This chilly sensation is purely the result of nervous excitation owing to the activity of the organs of elimination, and it need give no uneasiness, as it completely disappears as the fast continues.

The far reaching influences of a fast can be understood when it is found that even the ears and the eyes are most beneficially affected by it, though at first the symptoms of change may produce distress. It is not unusual for patients to experience a ringing sensation in the ears, or a partial deafness, or a filling up of the ears, as when one rapidly ascends to a high elevation. These latter unpleasant symptoms may be removed by finger massage of the muscles surrounding the ear, and the application of a little rather warm water (98 degrees), by means of a soft rubber syringe. The force of the water must be very gentle, or injury to the ear drum is liable to occur. If wax accumulates and does not come away naturally, the best way to remove it is to empty the air out of a bulb syringe, and then, applying the tube well inside the ear, release the pressure on the bulb. The suction thus caused will gradually draw out the wax and relieve the patient.

Blurring of the eyes and the presence of irritating spots is a common experience, but as the fast progresses these disagreeable symptoms disappear, and it is one of the delights of all patients who have suffered from weak eyesight or from any defect of vision, that the fast nearly always causes such a change for the better as to enable them to dispense entirely with glasses that may have been used for many years.

It is not an unusual symptom during the first few days of the fast for the patient to experience a rising temperature and to feel feverish. In some cases this continues with slight fluctuations during the continuation of the fast. This condition need not occasion alarm. It is merely an indication of

the great struggle the body is undergoing in the exercise of its self-curative power. If a man were fighting for his life with a wild animal or a midnight assassin, one would expect his pulse, his respiration and his temperature to increase mightily. This would be but the sign of the intensity and determination put into the fight. It is exactly the same with the subconscious or involuntary powers of the body. Without any exercise of will on the part of the patient, the functions of the body seem to do their own thinking and willing, realizing that they have to fight for life; hence, increase in temperature. As conditions improve the temperature returns to normal.

Now while this is the case with many patients, there is another class in which the fast works in the other direction. These are generally thin, pale, anemic persons. In their case it is not uncommon to find a reduction in temperature of a degree or two. Possibly this drop in temperature is caused by the lack of stimulation that follows abstention from food. It need cause no uneasiness. Whenever the vitality of the body is lowered, as in long-standing cases of general enfeeblement, the temperature may be expected to drop a degree or so, while in acute diseases, or in persons of fleshy habit, fat and full blooded, the temperature will invariably rise. In all cases, however, when a fast has accomplished its work the temperature will return to normal.

Another disagreeable symptom often manifests itself about this time. Many people suffer regularly from the fact that the perspiration that exudes from the body gives out a most unpleasant odor. To the expert certain diseases can almost certainly be detected by these odors. Most people suffering from mental troubles give forth unpleasant and yet distinctly definite odors. So marked are these that I have a friend who is able to diagnose, with startling accuracy, the condition of almost any patient merely by the smell of the body. During the fast these unpleasant odors are exuded more abundantly and become more perceptible. This is another proof that the eliminative processes are active, and that the skin is taking up the work with vigor and helping the patient along to health.

In the more troublesome cases, on about the fourth or sixth days the saliva begins to change character, and the discomfort in the mouth is increased by the presence of a thick, viscous, sticky saliva, sometimes frothy and generally offensive, which gives one the feeling of having what habitual drinkers call the "cotton mouth." At such times nausēa and vomiting are not uncommon, and I have known many cases where, in a prolonged fast, patients have vomited for many days in succession, thus getting rid of a great deal of poisonous matter that it is well to eliminate as rapidly as possible.

At times the faster will feel a keen pain under the shoulder blades, similar to that experienced by those who suffer from certain forms of dyspepsia.

In some cases instead of the mouth being "cottony" there is an acid taste in the mouth and the saliva flows freely. Canker sores may appear and "cold blisters" on the lips. In cases of those of a bilious temperament, who are what we call "good livers," who have lived on rich, luxurious foods, over-eating and giving themselves up to the pleasures of a too diverse and complex dietary, there are certain distressing symptoms that generally occur. The over-worked and congested liver, over-charged with bile extracted from the circulation in unusual quantities, pours it into the intestines in large amounts. The ordinary action of the intestines having largely ceased, owing to the withdrawal of food, the bile is not removed as fast as the liver pours it out. Under such conditions the process known as anti-peristalsis takes place. This is the reversal of the ordinary downward moving action of the intestines, and the bile is forced backwards into the stomach. The result can readily be conceived. Nausea and vomiting at once occur, and the patient rids himself of a large amount of greenish-yellow bile, of foul odor. To one who was unacquainted with the reason for this such a symptom would seem to indicate that he was growing worse instead of better. But there need be no occasion for alarm or uneasiness. While the process is extremely disagreeable, it is a necessary process of house cleaning, and the patient should submit with as good grace as pos-

sible. I have known cases in which this vomiting of bile has continued for as long as three weeks, but where the ultimate results surpassed the highest expectations of the patient. His digestive tract, liver, stomach and brain responded to the fast so beautifully that he said he felt as if he had been made over again.

In the case of people of a nervous temperament, or those who are naturally nervous, many of the disagreeable symptoms I have named do not appear. These people generally suffer, however, from an increase of nervousness and of irritability. Their friends should exercise a little more consideration for them at these times, remembering that their "bark" means nothing, and that before long both "bark" and "bite" will disappear. Very few fasters, however, escape, if they have suffered in the extreme, from the large and disagreeable bowel discharges referred to in my chapter on the use of the enema.

DAILY SYMPTOMS OF THE FAST.—In order that the prospective faster may have an intelligent idea as to his feelings and experiences, especially during the earlier days of his fast, I wish to give him the experiences of others so that he will not be alarmed at any of the symptoms he may display. At the same time it must be borne in mind that no two experiences are exactly the same. As I have elsewhere remarked, the same individual may experience entirely different feelings with two separate fasts. For instance, I have sometimes had a severe headache on the first two days of a fast, while at other times for the first two or three days I have felt a freedom and clarity of intellect that were as delightful as they were surprising. Hence, let me urge upon the beginner that he be not alarmed at any symptom he may experience. There can be no danger, hence there is no cause for fear.

The patient should weigh himself before entering upon his fast, and it is a good plan to keep a diary noticing his changes in weight, and all the symptoms he experiences. Naturally there will be a decrease in weight for several days. This, however, need cause no alarm. After the first week, if one has entered upon a prolonged fast, he may be very much

surprised at the figures the scales will show. In many instances one may actually appear to gain in weight after having fasted for several days. This is usually caused, however, by increasing the amount of water he is drinking, and upon decreasing the amount of this fluid to that which he has previously been taking, he will ultimately find there has been an average daily loss of tissue.

During the first day of the fast it is not at all uncommon to lose from two to five pounds. This loss is of course more noticeable in the abdominal region. The next day the loss is usually reduced to one or two pounds, and each day thereafter from a half pound to a pound. Naturally the amount of weight that one will lose will depend largely upon the exercise that he is taking. If one is taking little or no exercise, but is lounging around, the amount of weight lost will be noticeably less than if one leads a very active life. A walk of several miles each day will materially increase the loss of weight. In an ordinary fast, lasting from two to four days, but little of the bodily tissue is used unless one is very active. The loss is almost entirely confined to the abdominal regions. The body calls upon the surplus nourishment and food located in this part first of all when the regular eating habits are discontinued.

It will also be found that both the temperature and the pulse may fluctuate. In some cases these fluctuations are very marked; in others they are scarcely perceptible. It is interesting, however, to note these. For instance, in the case of one gentleman who fasted for 31 days, his temperature when he began was 98 2-5; it remained at this point the first four days. The fifth and sixth days it dropped to 98. The seventh day it returned to 98 2-5. It remained at 98 and 98 2-5 until the twenty-first day, when it fell to 97 2-5, returning the following day to 98 2-5, then falling to 98, where it remained until the last day of the fast, when it fell to 97 2-5.

On the first day of the fast this gentleman's pulse registered 78; the following day 72; the third and fourth days 74; fifth and sixth days 72; the next two days 74; the following day

72; while on the tenth day it rose to 80, to descend to 61 on the eleventh day; 64 on the twelfth day; back again to 72 on the thirteenth day; to 68 on the fourteenth day; fluctuating between the 60's and 70's until the twentieth day, when it fell to 54, from which it again ascended by a fluctuating scale, until on the last day of the fast it was 68. In commenting upon these fluctuations of the pulse, however, the physician in charge of the case says: "The fluctuations of the pulse, depending as they do upon the amount of exercise taken immediately previous to the examination, have no general significance. The day the pulse stood at 80, for instance, Dr. Gayer had just come in from a two mile walk with his dogs when he was examined. The next day, when the pulse was 61, he had spent the morning on the lounge, with nothing more to excite him than the newspapers."

I will now take the days in their order and give the symptoms that most commonly appear, with such suggestions as may enable the faster the better to understand what is going on within his own body to produce these symptoms.

First Day: Fasting being a new experience it is possible that the beginner will be somewhat self-conscious and experience some slight trepidation. This is by no means universal, however, for many enter into the fast fully assured of all its benefits and without the slightest hesitancy. This is the ideal mental condition, and the nearer one can attain to it the better.

One patient describes his first day's experience as "simply a faint hungry feeling." When one has been in the habit of satisfying the cravings of appetite three times a day, it is natural to assume that the appetite will not be subjugated without a struggle, and the first or second days are generally the important ones in this conflict. Many people have experienced a headache by simply missing one meal, so that it is no uncommon thing for the patient to suffer in this regard on the first day. Sometimes there will be the ordinary movement of the bowels, for as yet the body has not begun to experience any alteration in its habitual movements.

One of our readers who has on several occasions fasted for one or two days, found himself a few years ago suffering from a severe cold. He says that the first three days he suffered acutely from the omission of the accustomed three meals. On the fourth day the gnawing at the stomach ceased entirely. Even when he returned to eating, his first meal of two oranges was not particularly relished; nor was the second one, which consisted of wheat grains that had been simmered for hours in milk. Even the third meal was disappointing, but after the fourth meal hunger appeared in full force. Undoubtedly in his case, had he followed the fast until normal hunger had returned, it would have been better for him, and he would not have experienced this lack of genuine desire in the first few meals.

Second Day: The patient before referred to thus describes his feelings on the second day: "An all gone feeling, but no excessive hunger; great belching of gas; slept well until about 2 A. M." This dizzy feeling, slight headache, belching of gas and all gone feeling, is a pretty general experience. Sometimes there is an attack of colic with considerable wind in the intestines.

Third Day: The patient quoted before says: "Rather weak, but not excessively hungry; belching continued; slept uneasily; mouth very foul and sickening." This experience is common. The coated tongue, foulness of breath, and unpleasant taste in the mouth oftentimes become very prominent on the third day. The coated tongue shows a foul condition of the alimentary canal throughout its entire length, and indicates that the intestines are now throwing off or removing the poisons that are in the blood. While these symptoms are exceedingly unpleasant, they are, to the physician or the expert, most gratifying, as they reveal that the process of elimination of disease has fairly begun. Very often at this time, and depending largely on virulence of the disease to be combated, the patient experiences a change from the imperative demands of his appetite to a surprising repugnance against all food. The thought of it becomes sickening, and, while

there are variations of this feeling, as a rule, abnormal appetite is supplanted by disgust at the thought of food during the whole period of the fast, until normal hunger asserts itself.

One patient whom I advised to fast, wrote me as follows in regard to his third day's experience: "I have tried twice to fast since Christmas. The first day I felt better, and better still on the second, but the third morning I had nausea, was dizzy, became faint and staggered, and tried to vomit. I ate a light lunch and the symptoms disappeared. Can you advise me how to overcome this difficulty?" To this I replied as follows: "This is a common experience in fasting. The first day no heavy exercise should be taken, but one should walk six or seven miles, if the strength is sufficient, and practice deep breathing. Pure water should be taken freely. The sleeping apartment should be thoroughlily ventilated. When the feeling of nausea and dizziness appears, drink two or three glasses of very hot water and take deep inhalations. Unless there is distinct hunger the fast should not be broken at this point, but should continue until hunger appears." The best of all remedies for overcoming nausea during a fast is acid fruit juice, especially lemon juice. It is best to use this straight—that is, undiluted.

The weakness, dizziness, and nausea so often experienced are attributable to a withdrawal of the stimulation that one has been accustomed to by the habitual use of food. While food stimulation is very different from alcoholic stimulation there are some points in which they seem to be similar. One of these is that disagreeable symptoms invariably occur when the person accustomed to improper or over-eating, misses one or more meals. The lack of the stimulation causes the unpleasant symptoms. But, as I have shown, these very speedily disappear, and, after the body has readjusted itself to the absence of the stimulation that comes from food and food poisons, the patient's real strength and vigor begin to assert themselves. Then he begins to know the difference between a stimulated body and a healthy body. The brain becomes wonderfully

clear; the body grows into a recognition of its own power; langour, disinclination to mental or physical work disappear, and one enters upon his daily duties with a vim, an energy and a delight that betoken the possession of the perfect and abounding health which is every man's birthright.

In the case of the patient whose experiences led to these comments it can now readily be seen that his nausea, dizziness, staggering and desire to vomit, were simply the result of the organs of elimination becoming active and throwing out the causes of disease. Instead of eating at such time, the faster should the more resolutely hold to his self-denial, for he has reached the critical time, and to eat now is to lose much of the advantage he has already gained.

Suppose a case where a man is suffering from some poison-eliminating. On the third or fourth day, when the process of elimination has thoroughly begun, he might show marked aggravation of his disease. But it is one of those cases where one grows worse in order to improve, and he would be foolish in the extreme, who, undergoing these experiences, were to fail to read his lesson aright. Instead of being discouraged, such an one should feel mightily encouraged, and persist in the good endeavor, realizing in this as in all other good things that "he that shall endure to the end alone shall be saved."

The same kind of distressing symptoms might well be expected in cases of typhoid, or typhus fever, or any of the unclean diseases, when the body is making strenuous efforts to get rid of the accumulated filth. These distressing symptoms may come earlier or later during the progress of the fast.

Fourth Day: The patient before referred to thus records his symptoms of the fourth day: "Enema in morning relieved mouth, and I slept several hours afterward; no hunger, but mouth so bad at evening that I took another enema, and was relieved in bowels and mouth, which latter was nigh insufferable before the enema. Slept well until 2:30 A. M."

In a case where a short fast has been deemed all that was

necessary, there may be none of this experience of disagreeable feeling in the mouth. These symptoms depend entirely upon the virulence of the disease that is to be expelled. When the stomach has been in fairly good order, and the alimentary canal reasonably normal, very few of these unpleasant symptoms will be experienced. In one case that I recall now there was scarcely any coating of the tongue, and the taint to the breath was scarcely perceptible, and yet the patient was suffering from a bronchial cough that was hard to eradicate.

Fifth Day: Patient before quoted says: "Continued foulness of mouth; it is so distressingly foul it makes me sick 'all over'; enema at night; slept well part of the night, but restless the remainder; weight two hundred and fourteen pounds. Trip in street cars very fatiguing."

Sixth Day: This patient thus describes his sixth day: "About the same as yesterday; feeling very weak; visited doctor by going on street cars."

Seventh Day: Here is his experience for the seventh day: "Much better in every way; stronger, and bad taste is passing away, slept fairly well last night; weight two hundred and ten pounds; not hungry since the third day."

As I have already shown, I prefer several short fasts, as a rule, extending from six to seven days, rather than a prolonged fast. But there is no question that in many cases the prolonged fast, or as it is commonly termed, "fasting to a finish," is clearly indicated. Those who have been advised to take a fast until the tongue clears, the breath sweetens and normal hunger asserts itself (which are the chief natural signs that the work of the fast has been accomplished), need not be alarmed or surprised at any experiences they may have, unless they materially differ from those already recounted and those to which I will now briefly refer. Indeed in some cases these "natural signs" never appear, no matter how long the fast.

As a long fast continues, the patient may be distressed by spells of weakness and dizziness on arising in the morning. On the ninth and tenth days, or later, a very bad taste may come into the mouth. Perhaps there may be natural move-

ments of the bowels at any time up to the twentieth day and the mouth will invariably show signs of clearing after these natural bowel movements. It is a surprise to most people that the almost daily use of the enema will bring away great quantities of feces. Where nothing has been eaten, it is a question to the ordinary lay mind where this feces comes from, and I have elsewhere fully answered the question. It is not uncommon for patients to become very much depressed, even discouraged, as the fast continues.

This is a common experience. Long-continued sickness of any kind is pretty apt to bring about this condition, and where one has struggled and battled for a long time in vain, every new endeavor that does not immediately produce results is liable to plunge one into the depths of depression. Then, too, while such active elimination is going on the consequent weariness and exhaustion are such as to add to this feeling. Do not, however, yield to such a feeling and become disheartened. Look ahead! Realize that the good work is going on, and that you will soon reap the benefit in perfectly restored health.

Sometimes mornings, after these fits of depression, patients wake up feeling quite bright and cheerful. Then as the day progresses they again become depressed, especially if there is a growing sense of nausea. Whenever the mouth feels bad and the stomach irritated, depression is no uncommon symptom. In spite of the bad condition of the mouth, however, patients generally sleep well at night. This is always a good sign and the more sleep they can get the better.

Now and again, when the fast approaches to the thirtieth day, the bad taste of the mouth will increase to such an extent that there will be a strong inclination to vomit. This is nearly always removed by a hot enema. Slime will sometimes come into the mouth and gagging feelings, but do not be alarmed if one vomits a large amount of this slimy mucus, because it indicates that all the powers of the body are at work upon the elimination of the disease. Very often there is no "let up" to the unpleasant symptoms up to the very day when normal

hunger appears, but as a rule, if the tongue is clear, the foul odor of the breath has disappeared, and the enema ceases to bring away any more feces, one may conclude that the fast has about completed its work. In the case of Mr. Davis, recorded by Dr. Hazzard, it should be stated that he was a man sixty-one years of age, who had suffered from paralysis of the entire right side for over two years. He was totally incapacitated for active manual labor of any kind, living in dread of a second stroke, and suffering a strange and unusual mental depression upon any slight over-exertion, which was always accompanied by great drowsiness. At these times he would sleep without intermission from thirty to thirty-six hours. His mentality was impaired. His eyesight seriously affected. His speech was impeded. His right hand and arm were clumsy and weak. These were the conditions under which he began the fast. Normal hunger asserted itself on the fortieth day and the fast was thereafter broken. For three days he ate very sparingly, taking the following food during that entire period: One pint of unfermented grape juice; the juice of three oranges; one pint of oyster broth; one large apple; one large sweet potato, baked; two slices of whole wheat bread with butter; one small dish of Pettijohn. On this food he became stronger, and the offensive saliva that had displeased him, disappeared. He was sleeping well and feeling better generally, and the use of his muscles had been entirely restored. Some time thereafter his tongue coated again, and the offensive saliva reappeared, clearly indicating that the fast must be continued if permanent results were to be obtained. After a light breakfast he began a supplemental fast, the daily experiences of which were as follows:

First Day: "Felt strong and well generally except the bad taste in my mouth; excessive flow of saliva; great hunger at 5 A. M.; slept well."

Second Day: "Stronger than at any time since the first week of my long fast; walked downtown twice; excessive flow of saliva continues, but not so offensive as before; no hunger."

Dr. Linda Burfield Hazzard.

Third Day: "Quite strong in the forenoon, but not so well in the afternoon; saliva not so offensive; enema with a quantity of feces at night; slept well."

Fourth Day: "Strong and well in the forenoon, but rather weak and depressed in the afternoon; foul saliva continues; to bed and slept well."

Fifth Day: "About a repetition of yesterday; went walking twice during day; enema at night with but a color of feces; slept well until 3 A. M."

Sixth Day: "Vomited a quantity of bile twice to-day; natural passage from the bowels at night, very foul; slept well until 4 A. M."

Seventh Day: "Rather weak and depressed in the morning; hunger with nausea evident; slept well."

Eighth Day: "Hunger plainly in evidence, and fast was again broken, this time permanently. Weight one hundred and seventy-four pounds."

The result of these two fasts, one of forty days, the other of eight days, was complete cure. Writing to his physician he says:—

"I am cured of paralysis; my mentality is clear and normal; my entire digestive system is apparently perfect; my vision is better than for years; my hand and arm are strong; I have no dread of a second stroke; I have no sleepy spells; I feel lighter all over; and, when weary, I am quite refreshed and ready for exertion after a short rest; I feel younger, and my neighbors say I look it; I have been working in St. Paul, ten miles distant, for over a month, traveling to and from that city daily; and I am, in every way, more robust than I have been since boyhood."

That my readers may not think these long fasts extraordinary, I wish to assure them that they are so common at the Healthatorium, and elsewhere under my guidance, that my assistants and myself regard them as almost every day

affairs. I have had hundreds of such cases, and personally do not consider it important enough to keep any daily record of the various symptoms of each case. Naturally we watch the daily progress of the fasters with much interest, but the experiences are so general and common that we know just about what to expect and what ultimate results to anticipate. These are so sure and certain that the thought of failure never enters my mind. Where patients follow the few simple instructions and are not led away by outsiders who do not understand fasting and its symptoms we are as confident of the results as of the reliability of the multiplication table.

In the case of Mr. Richard Fausel, to which I have already referred, who fasted under my directions for ninety days, there was no regular daily record kept of his symptoms, but in telling the story in *Physical Culture* the following facts were gleaned which will be of great interest to those who regard a ninety-day fast as little less than a miracle:

"The motive for this fast was a desire on the part of Mr. Fausel to relieve a dropsical swelling of the legs from which he suffered, and to rid his body of surplus weight. The results of the fast were fully equal to expectations, and in addition to remedying the derangement which caused the appearance of dropsy, the experience resulted in the loss of seventy pounds of surplus avoirdupois.

"The man who has thus abstained from food for a longer period than has ever been credibly ascribed to any human being, is a former hotel-keeper. Mr. Fausel had previously tested the efficacy of fasting as a means toward improving his physical efficiency, and reducing his body to normal weight.

"During this period his bowels moved nearly every day, and to encourage regularity in this respect, Mr. Fausel used the juice of one-half a lemon in a glass of water morning and evening. He alternated this by chewing a piece of rhubarb sufficiently to extract the juice, and then rejecting the pulp.

"He slept very well during the entire fast, and the only inconvenience he felt was a hunger that manifested itself during

the first week. After this it disappeared and did not return at any time during the remainder of the fast.

"After forty days had elapsed, the monotony of idleness became distasteful and he took the position of steward in the Bernarr Macfadden Western headquarters. In this capacity it became necessary for him to taste various food preparations from time to time, but no nourishment entered his stomach, except on one or two occasions, when some small particles of food were accidentally swallowed. These caused a great deal of distress and nausea, and were immediately regurgitated. On the fifty-ninth day of his fast Mr. Fausel engaged in a wrestling contest for about ten minutes, and exercised with dumb-bells weighing from about fifty to seventy-five pounds, and lifted chairs and other heavy objects for about ten minutes longer.

"During the period of his incumbency as steward, Mr. Fausel was kept busy with his duties in the kitchen and dining-room, with the exception of taking a daily walk of an hour or two. In conjunction with the other exercises mentioned, this constituted his total activity. He lost on an average nearly one pound daily up to the seventieth day of his fast. After that stage his weight diminished very slowly.

"During the last few days of his fast Mr. Fausel was unable to drink water with the lemon juice, and on the ninetieth day, when he broke the fast, took a half glass of water with the juice of half an orange in it. This was regurgitated.

"The stomach was apparently unable to tolerate the least nourishment for the first three or four days after the fast. After that period he was able to retain in his stomach diluted fruit-juices which were increased in amount until the tenth day after breaking the fast. Previous to taking solid food, Mr. Fausel took daily a few sips of the juice of spinach. The first solid food taken was in the form of raw spinach, seasoned with a little lemon juice. Barring a few minor disturbances, such as nausea and aversion to certain articles of food, he was, in a few days, able to return to his regular form of diet.

"During the fast, rheumatic pains in the legs, hips and arms occurred at about the fiftieth day. These pains disappeared in a few days and were succeeded by nose bleed, which continued for about one week. About the sixtieth day, there was a craving for liquor, which persisted for about three days, and one week later an almost intolerable desire for tobacco manifested itself for about three days.

"This extended fast is a remarkable example of the power of the body to sustain itself upon the excess of fat which results from over-eating, and failure to properly control the appetite. When one can exist for ninety days without solid food, then surely only one whose constitution is so devitalized as to make fasting inadvisable, need expect anything but beneficial results from the bodily house-cleaning which fasting induces."

DIVERSITIES OF EXPERIENCES, YET UNANIMITY OF RESULTS.—From all that has been shown in the foregoing daily experiences it can well be seen that people suffering from different diseases will necessarily have different experiences. Differences in temperament and in mentality will also have their effect, some people doing easily what others would find exceedingly difficult. Some people are nervous and easily excited, others are phlegmatic and hard to move, and upon these different types of people the fast will not work in exactly the same way.

While I believe that all diseases may practically be resolved into one disease, namely—impurity of the blood, the manifestations of this disease are so manifold and various, and affect different people with such great diversity, that it is but natural to expect that in the processes of elimination their experiences will be equally diverse. This point cannot be too strongly emphasized.

PERSONAL EXPERIENCES OF THE FAST. I have already referred to the thousands of cases that have undertaken the fast at my advice either directly or indirectly. Naturally my readers will be interested in the personal experiences of some of these individuals. While in slight details experiences differ, just as

the personalities and the way they suffer differ, yet the results, almost without exception, are exactly the same.

I have therefore decided to give a number of experiences of people from all parts of the country who have suffered from different diseases and who have been cured principally by means of the fast. As is well understood, where other methods have been followed, they have never been other than the simple methods of Physcultopathy. I have never advised drugs in a single case that has come to me for advice, and only in a few desperate and apparently hopeless cases have called upon the surgeon. I wish this point to be distinctly understood in regard to my habitual attitude. When other methods are named as having been used in addition to fasting, these invariably refer to nothing more than the simple principles so often enunciated in these pages.

It will also be observed that I have occasionally quoted outside cases. This has been done with a purpose. I want my readers fully to understand that it makes no difference who prescribes or follows the fast and the other simple methods of Nature in the healing of disease. The results are invariably the same. Hence, while I could have given, under each heading, the experiences of scores of my own patients, I have preferred to introduce the experiences and results of a number of outside cases with which I have had little or nothing to do.

THE FAST FOR CATARRH AND STOMACH TROUBLES.—There are few people in the United States who do not suffer somewhat from one or the other of these distressing and *altogether unnecessary complaints.* A typical case in point is that of the Reverend Matt. J. Duven, who was formerly pastor of the Grand View Reformed Church, Armour, South Dakota. Mr. Duven had completely broken down in health, and his own physicians were unable to help him. He had read *Physical Culture* and some other of our literature so he finally decided to fast. His case, however, was so serious that he came to see me, as he preferred to have me advise him in person than follow the fast alone. I continued him exactly as he had

begun, giving him the additional aids in our simple methods. Here I let him tell the results, after six weeks of simple, natural, rational treatment.

"I fasted almost seventeen days. The amount of impurities eliminated was simply astonishing. After fasting eleven days I gained steadily in strength, and ever since that time have exercised regularly, and walked from two to five miles daily. I lost about twenty-seven pounds. Nine days on the milk diet increased my weight about twenty-two pounds. My hair has almost stopped falling out; my stomach trouble has practically disappeared; my eyes are stronger than they have been in years; my catarrh of the throat (which I have had as long as I can remember, and which troubled me greatly in preaching) is cured, and I am gaining strength. I am confident of being completely restored to health in a comparatively short time."

THE FAST FOR PARALYSIS.—Some time ago **Mrs. E. H.** Farrar, of Greenville, Plumas County, California, came to me for advice and help. She was a woman in what might be termed the heyday of youth, yet she was stricken with the dreadful disease—paralysis. She could not move any part of the right side of her body. Her right arm and right leg lay limp and helpless. When her disease first afflicted her she began to go the rounds of the medical profession. She tried doctors of all kinds. She did not improve, in fact, she gradually grew worse. She tried all sorts of remedies that were recommended. She finally consulted a few high-priced specialists, but her disease still clung to her with a tenacity which made her future dark and forbidding.

It was then that she came to me and began to fast and follow other Physcultopathic methods. In two weeks there were slight signs of life in the fingers and toes of the paralyzed side of her body. In a month she was able to take a few steps. She had to learn how to walk again, just as if she were an infant. When the ability to move around fully returned, her strength increased much faster, and in three months she was able to walk as easily as any adult in the possession of normal health.

The upper photograph shows Mrs. Farrar (whose experience with the fasting cure is described on page 1322) a helpless paralytic. The lower photograph, to the right shows Mrs. Farrar as she appeared after three months application of Physcultopathic methods, with her paralysis entirely cured.

A year after her return home she wrote me a letter from which I quote the following:

"It is now nearly a year since I left your institution, and I am confident that the cure effected there is permament, as I am growing stronger all the time. For instance, to give you an idea of my general physical strength at the present time, I was recently able to pull my weight up with the strength of my arms, one being formerly paralyzed, until I 'chinned' myself. I was recently able also to raise a forty-pound dumb-bell high over my head with both hands, thus showing very emphatically the improvement that has resulted from following your methods. It is indeed delightful to be alive in every sense of the word once again, as anyone who has experienced being a cripple will readily testify."

I would that I could make people understand that it is not necessary for them to come to me for this aid. I do nothing for the patient who will simply learn from Nature to follow her methods. It requires little knowledge, wisdom or education to fast, to eat slowly when one can eat, to eat simply, to get into the fresh air and sunshine, to exercise daily, to live purely in sight of God and man, to do good to all with whom you come in contact. Certainly I try to make these simple propositions easy to follow, and suggest a few simple ways whereby the sick and suffering may aid and further the work of Nature, for there are the whole secrets of Physculto-pathy.

THE FAST FOR PROLAPSED STOMACH AND BOWELS AND AUTO-INTOXICATION.—Any condition of prolapsus is speedily and surely restored to a normal state by fasting. Out of thousands of cases that have been treated I might quote many. That of Upton Sinclair is an interesting and important one. Similar to it is the case of the Rev. D. Wellesley Wise, who had suffered severely from acute attacks of gastritis and accompanying nervous prostration. At last he was compelled to give up his church and in despair went to one of the largest sanitariums in the country. There he was told he "might hope

to be considerably better in five years' time." In desperation, and as a last resort, Mr. Wise then decided to try the simple methods of Nature and came to me. Now let him tell his own story:

"In extreme nervous exhaustion and mental depression, so weak and emaciated that I could hardly creep around, I came at last to the Macfadden Healthatorium. I felt that my case was hopeless; afterwards, Mr. Macfadden inspired a little hope in me.

"I was in so hopeless a condition that I even contemplated suicide. I knew I would not do it in a sane moment, but I actually feared I should become unbalanced and commit self-murder. The few days preceding my treatment was the blackest time of my whole experience."

I immediately placed Mr. Wise on a series of short fasts, alternated with the milk diet, and used the ordinary methods of Physcultopathy. Here is the result:

"After fasting seven days I walked three miles with ease. After fasting sixteen days I took half an hour's vigorous exercise in the gymnasium in the early morning and then walked seven miles in an hour and twenty minutes, and felt so invigorated that I could have walked miles more.

"I have increased thirty pounds in weight, and I know the diet used is one of the greatest on earth for building one up in weight and strength and general health.

"My circulation is better than it has been for five years past. I am capable of more physical exercise and more mental effort than for years, and life, instead of looking forbidding and gloomy, looks to me inviting and rosy. I believe I have before me the best and most efficient years of my life."

Two years after writing the above Mr. Wise voluntarily sent me the following:

"Your circulation of my letter to you, with my hearty acquiescence, in your various publications, has excited wide-spread interest, which is evidenced by numerous inquiries I have received and continue to receive from all parts of this country and even from Europe and Asia. These inquiries in-

variably raise two points, first as to whether I really did gain such benefits from your methods as represented; next, if I have retained what I thus gained.

"It therefore occurred to me that a supplementary statement is called for, effectively to answer all these and other questions that may arise. On this account I want to request you, if you continue to publish it, to append to it the following additional statement:

"Having continued from that time till the present—the fall of 1910—to follow as regularly and closely as my calling and engagements admit, the régime of diet, baths and exercises prescribed by you, I have steadily improved. Never since I was a youth in my teens have I enjoyed such vigorous, abounding life as now.

"It is nearly two years since I entered your institution a miserable wreck and despairing of ever amounting to anything again in any way. In that time, thanks to you, I have practically renewed my youth. I am a new man. In the last year I have occupied the most responsible position and accomplished the most arduous and satisfactory work of my ministerial career. I am truly a 'wonder to many.'

"My present state of health and efficiency is a constant marvel to me and causes my heart to overflow with joy and gratitude.

"Gratitude for what I have gained and fellow-feeling for other distressed and discouraged ones who, as was the case with myself, have tried many physicians and so-called remedies, only to find themselves worse therefor, and to lose heart and hope, prompts me to tender you this testimonial, with the request that you publish it broadcast as in the instance of my previous verbal and unpremeditated talk at the 'Experience Meeting' in your Sanatorium."

Faithfully and gratefully yours,

D. WELLESLEY WISE,
Episcopal Clergyman.

I have no hesitancy in publishing these words from Mr.

Wise for the reasons that I have no nostrums to sell, no secret systems financially to exploit. My cry is a direct and simple one. As one in the wilderness of medical systems, drugs and anti-toxins, of artificiality and commerciality, of complexity and bewilderment, I lift up my voice and call: "Come back to the simpleness of Nature and be healed."

THE FAST FOR ABSCESSES.—In 1905, Mr. C. Emerick, Jr., reported to me that he had completely cured himself, by means of a fast, of a swollen abscess on the cheek, which the physicians in vain had tried to cure. Though only 19 years of age his fast was forty-one days long, and he thus records his experience:

Mr. C. Emerick, Jr., who cured the abscess indicated by cross-mark on cheek by a fast of forty-one days.

"The first week of the fast I lost twelve and a half pounds, and continued losing weight thereafter up to twenty-eight pounds; but when I resumed my meals I gained flesh in a remarkable manner.

"After thirty-five days of fasting the abscess began to disappear, and the feverish and inflamed conditions which had accompanied it also began to leave my cheek. I might state also that the duct of one of my eyes, which for a long time had been clogged with matter, ripened and opened in a natural manner, and soon healed, giving me untold relief. Before the fast I was troubled with frequent overflow of tears from the eye that I could not control. Since the fast I have got rid of this troublesome complaint."

THE FAST FOR A WEAK STOMACH.—In October, 1904, I received an interesting letter from Dr. A. M. Eidson, in which he related the story of a case under his supervision, where by means of a continued fast of fifty-one days, he transferred a virtually dead stomach into a powerful, healthy, normal organ. He thus describes the case:

"I was called upon to see Mr. M. N. Butler, of 1201 Kansas Ave., Topeka, Kans., a very intelligent man, ex-college professor, ex-editor, now author and newspaper and magazine correspondent. I found him much reduced, from one hundred and sixty to one hundred and thirty pounds. He had been a good liver, after our race habits of diet, three square meals a day, tea, coffee, animal foods, etc. He had been, as most of such livers are, cursed with catarrh, more or less, for years. His stomach seemed to be completely worn out. It seemed to go out of business. As usual, he patronized the 'regular' M.D., and patent medicines, etc., receiving but temporary relief.

"I recognized only one method of saving his life; that was, to give the stomach and bowels as well as the nerves and general system, a rest. Having lost faith in everything, and expecting to go very soon, he consented, recklessly, as he thought, to the treatment. Everything was at once proscribed but distilled water; as much of that was ordered as he seemed to want, or that the stomach would bear.

"At first but little water was borne, but the quantity was increased as the stomach had rested. He thus continued until the fifty-first day. All the time of this fast the thick, heavy, muddy-coated tongue had been as gradually disappearing, until at the fifty-first day we found it as clean and perfect as any healthy boy's, and ordered him a breakfast for the morning of the fifty-second day of poached eggs on whole wheat bread toast, following with three regular but light, wholesome meals each day, and you ought to have seen how grandly his stomach resumed duty after its necessitated rest; and has since continued to be healthy.

"My patient avers that his boyish appetite returned after the fast, which undoubtedly saved his life."

THE FAST FOR DYSPEPSIA.—Shortly prior to the above mentioned case, Mr. E. R. Wilcox determined he would undertake, by means of a prolonged fast, to cure himself of a severe and advanced form of dyspepsia that the physicians had endeavored to cure without results. He had been driven to despair, and felt that his case was, from all ordinary standpoints, absolutely hopeless. Some of our literature fell into his hands and he thus wrote to me at the close of his sixty days' fast: "I now feel like a fighting cock. Have gained twelve pounds in fourteen days and can eat my meals without suffering for hours after with indigestion. To-day I will enjoy my first meal of vegetable soup. Four weeks ago I was so weak I could not whistle. Now I can talk as much as any woman. I take daily exercises and will soon be in excellent shape to do almost any kind of work."

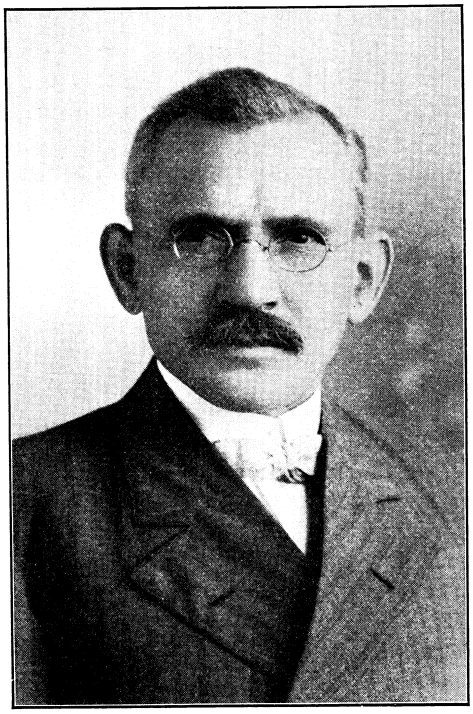
THE FAST FOR THE THROAT TROUBLES OF A PUBLIC SINGER.—I have purposely given the above heading to this section, for, while the throat troubles of public singers are no different from those of other persons, they seem to be more serious because upon the clearness of the singer's voice and his freedom from throat trouble his professional life depends.

Virtually all the cases of throat trouble of public men, whether they be singers or speakers, may be named in three classes: 1. Catarrhal; 2. A weakened and relaxed condition owing to stomach troubles; or, 3. Strain from overwork.

From the experiences of thousands of catarrhal cases that have been cured by following the fast and other Physculto-pathic methods, it can well be seen that even the most obstinate catarrhs readily yield to an intelligent fasting regimen accompanied by a body building process adapted to the strength of the individual. The same may be said of all troubles having their origin in the stomach, and it is equally certain that if the sufferer from throat strain will fast, exercise, get into the fresh air and sunshine, bathe his throat daily in hot or cold water, inside and out, and stimulate the special muscles of

the neck and throat by exercise, fomentations and finger manipulations, he will find the results will be exactly the same as in the cases of those whose troubles originated in the two other directions. Where throat or catarrhal difficulties are accompanied by incipient signs of consumption or unusual emaciation then the fasts must be used with great care and must usually be confined to a series of short fasts with hearty eating between of very nourishing food like milk, eggs, dates, honey, and, in some cases, a meat diet, as noted, where results cannot be secured on other foods.

I have had several cases of throat strain, some of whom have come directly to me for advice, while others have received their advice indirectly, and in no case has there been any long continued difficulty, when the fasting and other natural methods have been conscientiously followed.



Captain A. K. Berners, of the United States Army (retired). Gives fasting and physical culture methods the credit of saving his life and his eyesight.

THE FAST IN SCROFULA AND SYPHILIS.—It is well known that scrofulous and syphilitic taints of the blood are almost impossible to eliminate by any ordinary medical methods. My experience has clear-

ly demonstrated that the fast, aided by other Physcultopathic methods, can eliminate these diseases as certainly and as surely as any others. But, naturally, the process is slow, and liable to be attended with disagreeable symptoms. The deeper the disease is rooted in the system the harder it is to eradicate. Those who suffer from this class of disease may rest assured that if fasting and other natural methods will not cure them, nothing on earth can.

I have treated many cases, and I can truthfully assert that I have seen what appeared to be almost miraculous results in literally hundreds of cases, the active symptoms of the disease often disappearing even in a few days, apparently never to return.

THE FAST FOR NEURASTHENIA, RETINO-CYCLITIS AND ACUTE CHOROIDITIS.—The following is a portion of the story told by Captain Adolph Kreis Berners, of the United States Army, now retired, and shows the marvelous benefit of the fast in diseases of the eyes, which twice had threatened him with retirement on account of disablement. After giving details of the first attack of nervous trouble which he suffered, which seriously threatened his sight, Captain Berners goes on to say.

"The fall of 1907 again found me at my usual duties in the military service, apparently well and strong, but still continuing the use of the medicines prescribed by my various physicians. A few months, however, of rather arduous work brought on another attack of neuralgia, more severe than any of the former ones. Once more I was shut up in a dark room, for fifteen days this time, suffering intense pain. This time I was again at a remote station, and again the local surgeon sent me to the headquarters hospital as soon as my condition permitted my removal.

" 'Sub-acute glaucoma, both eyes,' read the diagnosis this time, and as such it was confirmed by the oculist who took my case in charge upon my arrival. After learning my history this specialist *told me frankly that the glaucoma had been brought on by the excessive use of atropine.*

"Operation was decided on, soon after, to relieve the intense inter-ocular pressure in the right eye. In November, 1907, a posterior sclerotomy was performed and brought some relief; this was followed by a second operation of this kind, soon thereafter, and again there was temporary relief.

"I must mention that meanwhile my nervous system began to get seriously affected and also symptoms of bowel trouble appeared. The nerve specialist found neurasthenia and neuritis and prescribed more medicine. Another doctor—every disease being treated by a separate specialist—prescribed for the intestinal trouble and more drugs had to be swallowed.

"Again my hopes arose, for I seemed once more to be improving; soon I expected to leave the hospital. But again I was doomed to disappointment. Soon I was to learn that the misery and suffering I had thus far endured was insignificant when compared with what was yet to come.

"About Christmas of that year I was struck down with that terror of the tropics, amoebic dysentery, a disease which, according to medical lore, is caused by a germ, the *amoebae dysenteria.*

"I had been over two months in this hospital, where the utmost precautions were enforced to guard against infection by these germs, and yet there I was infected by the amoebae; while I remained entirely immune to their attacks for nearly seven years, when having robust health, I frequently disregarded the usual precautionary measures.

"For two more months I lingered in that hospital, reduced to a mere shadow of my former self. When strong enough to travel I went to a health resort in the mountains. There I underwent a repetition of many of my former experiences. At first, probably stimulated by the bracing climate, I got better, but soon relapsed and nearly died. The physician in charge of the place managed to get me off his hands and back to the headquarters hospital.

"My eyes were again in a very bad condition and to relieve the great tension in the right one an iridectomy was performed, i. e., a section of the iris was removed, which, in glaucoma, is considered an almost certain remedy.

"From a surgical standpoint this operation was a complete success, yet when the bandage was removed I found that the sight of that eye was about gone, and to this day I have not recovered it.

"But now that eye, though of no practical use, was never again to cause me trouble. The dysentery, too, got better gradually, and in about six weeks I regained enough strength to be sent to a nearby station for light duty. Once more my hopes arose and once more they were cast down promptly. I continued to improve but a short while, then all my usual ailments assailed me in an intensified form. This time it was decided to send me home, to remain there. I suppose my case had become very much a nuisance and according to all precedents I should have died long since. But I had an object in living, which I shall make plain later, and therefore determined to live and get well.

"My condition at that time was not very hopeful. The doctors gave me little encouragement; at the very best I would be an invalid for years. With this prospect in view, I again turned toward the homeland when the day of the sailing of the transport came.

"With the long list of troubles and suffering already related I turn reluctantly to the most severe trial of my sad experience, but I shall omit most of the harassing details of my tribulations on this homeward voyage, lasting over a month. I mention only that, as an emergency relief, the transport surgeon performed another sclerotomy on the eye which was 'never to cause me any more trouble,' and that the operation was followed by an infection. I nearly went insane with pain. Twice I stood at the ship's railing, contemplating suicide. The thought, however, that I must live because of another being kept me from jumping overboard.

"This, too, I survived. With shattered nerves and dejected spirit I arrived at the home port. I had begged the ship surgeon to have the afflicted eye removed on my arrival at the government hospital, and he had promised to recommend this course. A turn for the better, however, soon after my arrival decided the surgeons to let the eye remain.

"Once again I recovered sufficiently to be up and about. My friends advised me to try a famous sanitarium as a last resort. As soon as I could obtain leave I started for that institution, arriving there about the end of September, 1908. For six weeks I remained there, improving at first, but soon getting worse. When their lauded hygienic and dietetic remedies failed these 'doctors' resorted to drugs, for which I had gone there to escape. At the end of my stay of six weeks, during which time I had been several times severely prostrated, I was scarcely able to walk the length of a block. Thus my last straw seemed to have slipped from my grasp.

"To the Reverend D. W. Wise, at one time a fellow sufferer at the sanitarium, I owe it that at last I decided to try a course of treatment under Bernarr Macfadden's direction. I had given but little thought to physical culture when this gentleman, whom I learned to regard as an instrument of Providence, persuaded me to put my case into the hands of Mr. Macfadden.

"The story of my cure is similar to that of thousands of other sufferers who have been given back health and strength by means of the simple and effective methods of our great preceptor. My case is remarkable only in that it, more than most others, teaches the value of perseverance. While my assortment of ills was somewhat unusual and mostly new to the doctors at the Sanatorium, yet were they ever confident of success. When discouraged and wavering, the calm assurance of these gentlemen never failed to restore my trust. I knew that at last I would get well.

"When after a few months' treatment I left Mr. Macfadden's care, I was well equipped to continue the fight for complete health, and to-day, after a little more than a year of physical culture practice, I can say calmly and truthfully I have won. Health and strength are mine and the future has no fears for me."

Fasting was one of the chief factors in Captain Berner's cure. All other Physcultopathic aids were resorted to, but as my readers now fully understand there is neither mystery nor great complexity in these.

THE FAST FOR PTOMAINE POISONING.—At one of our "experience meetings" a patient got up and spoke as follows. One of our stenographers reported his words, which he afterwards confirmed in a written and signed statement:

"I have been greatly benefited by my stay here during the last two months. My improvement has been so wonderful I feel as though I ought to shout it from the house-tops. I am a druggist in the retail drug business, and have taken a great deal of medicine throughout my life. However, I have lost faith in the drugging method and intend to give up that kind of business. I came here last winter and stayed six weeks, and felt greatly improved, but on my return I had what they call a 'crisis' here and a return of my trouble. I was at my place of business and my associates insisted upon

calling in a doctor. I had been fasting for several days, and yet the doctor pronounced my trouble 'ptomaine poisoning,' and said that I must have immediate attention. As soon as the doctor was out of sight I left my store and made arrangements to return. My long years of experience in the drug business had brought me to the conclusion that there is no such thing as science in medicine. I look upon Mr. Macfadden as the world's greatest benefactor at this moment.

"When I first began treatment it was almost impossible for me to walk up the stairs, even though supported by a cane. I have been under treatment here for three months, and one day last week I walked twenty-two miles, and the following day I ran a distance of six blocks, something I have not been able to do for ten years. I am gaining in health very rapidly and am growing stronger daily. I have various reasons for being enthusiastic. I have even grown a little hair on my head that I did not bring with me. I have learned to walk since I came here, and am going home and continue my pursuit for perfect health."

THE FAST FOR HYDROPHOBIA.—The question has been asked me several times whether I thought fasting would be of any benefit in a case of hydrophobia. Personally I have treated no such case, but I have a friend who had an experience which he describes to me as follows: "I was at the home of a dear friend who had been bitten by a rabies-infected dog a short time before. He was a teacher, of highly nervous temperament, and had been somewhat afflicted with neurasthenia before the dread came upon him that he might suffer from hydrophobia. He had asked me to watch him and I had accordingly prepared myself, and formulated a plan of treatment which I intended to follow should symptoms of the dreadful disease appear. Accordingly when one of his pupils rushed into the house, stating that he had gone mad, it was not a minute before four of us were ready to seize him and begin the treatment I had outlined. He was at once blind-

folded and put into a cold wet pack, and after his body was surrounded with hot bricks, hot water bags and covered with blankets, a feather bed was thrown over the whole and he was so effectively hemmed in that it was impossible for him to escape. He was kept in this pack for several hours, during which time he was compelled to swallow large quantities of hot lemonade sweetened with honey. In the course of about three hours his paroxysms and ravings ceased and gave way to a tremendous lassitude. He was then taken from the pack, which emitted a frightful stench; was placed in a hot bath, given a hot enema of about three quarts of water, and put to bed. He fasted for five days, and then was allowed to drink a little fruit juice for several days. He then resumed his normal habits of diet, and though his recovery was slow it was complete, though for three or four years he did not gain what one might term robust health. I am satisfied, however, that if the fast had been longer continued, all the poisons would have been eliminated from his system and he would have recuperated with far greater rapidity."

FASTING FOR CONGESTION OF THE LIVER.—I have had a great number of cases of congestion of the liver where the fast has been followed to great advantage, a complete cure being the result in almost every case. These could be given in detail, but I am always glad to tell of an outside case from reliable sources. The Los Angeles *Times* has a department, "The Care of the Body," devoted to hygienic suggestions, edited by Harry Ellington Brook. In 1903 Mr. Brook published the following account of a fast undertaken by Mr. John A. McFee, for the relief of liver congestion.

The *Times* account reads as follows, quoting Mr. McFee's own words: "I needed my strength for certain business deals I had on and I was willing to do anything to keep it. The pain in my side kept getting worse and worse, and I could get no relief from doctors or medicine. It was six weeks ago that I read in some magazine what fasting would do for such a complaint. The account contained the experiences of people who had gone through it, and it all sounded reasonable.

When I was mining in the mountains I frequently went without food for days at a time, and knew that I could stand it well enough.

"I found that instead of being something to be dreaded, it was instead a great relief. Many times before I had skipped a meal without much inconvenience, which is quite a contrast to what I did in my youth when the loss of a single meal was a calamity. During the fast, though, I had no inconvenience whatever. Even the first day, which is usually a hard one, was for me without dread. Each afternoon I went out to the Sixth Street Park—Central isn't it?—and the rest of the time was spent here in my rooms.

"At the end of fifteen days the pain in my liver seemed about gone, and I half intended to quit then. But I thought if it was possible I would continue to the end, until the pain should be all gone, that it would be a great thing for my health—and I was willing to do anything for that. After that, my friends got wind of what I was doing and used to bother me a great deal with their curiosity, though I didn't do it for notoriety. Finally, they declared that I was trying to commit suicide. So, on the twenty-eighth day I concluded to quit, though I felt as though I could continue on indefinitely."

He broke his fast with some watermelon. Six hours later he took a cup of beef broth, and then for twelve hours, at intervals of two hours, he took more beef broth. Waiting again for four hours he put an egg in the broth, eating it with some crackers. A few hours later he had some fruit—a pear and two bananas. Finally he went to a restaurant, ordered a porterhouse steak and ate nearly all of a good sized order. This was merely a "respectable" meal, such as an ordinarily hungry man would have. Throughout the twenty-eight days he had no morsel of food, though he drank plentifully of purified water.

McFee was fifty years old then. When he began his test he weighed 162 pounds, and when he finished, 134 pounds, mak-

ing the loss twenty-eight pounds for the whole period, or one pound a day.

THE FAST FOR THIN PEOPLE.—It is no uncommon experience to find thin people who are overeating to a large degree with the idea that thereby they will gain in weight. Never was there a greater mistake. Let me again make the important affirmation that one should never forget, namely: It is not the amount of food one eats that builds up the body, but that which is assimilated. Every particle of undigested food, every mouthful that is forced down, is simply putting a load into the stomach that should not be carried and the energy gained from the small amount of food that is digested is practically lost in getting rid of the amount that is undigested, with the danger of poisoning the body by this undigested mass of matter in addition. It is a literal fact that many very hearty eaters are being starved to death because of their inability to digest the food they eat. The quality of the food, too, has much to do with this condition. Those who eat largely of white flour products, for instance. We have been brought up to the belief that "Bread is the staff of life," regardless of what kind of bread it is. When that statement was coined, white flour was absolutely undreamed of. Some few people might be found who could endeavor to get rid of the coarsest of the bran, but as a rule bread was made of the whole of the wheat. The result was that all the nourishing elements were contained in the bread, and it was indeed and truly the staff of life. But now when we eat white bread, biscuits, cake, and other materials from the fine white flour that a perverted teaching has led us to believe is so much to be desired, we are putting the least valuable part of the grain into our stomachs to our incalculable injury. Such food is a delusion and a snare, a sham and a pretense. One might eat to repletion from morning to night of this kind of food, and even if we were able to digest it, we could not extract enough nutriment from it to keep the body going. The white flour delusion is one of the monster frauds that has been perpetrated upon a willing people. When the life germ of

the wheat and the nitrogenous elements contained in the coarser parts of the grain are taken out and fed to cows, horses and pigs, they get the nutritive substances, the real food, while we eat the "pretty looking" but valueless residue. One might almost as well expect to live healthfully upon ground chalk as upon white flour. Its nutritive qualities are most unsatisfactory.

The fast often has a remarkable effect upon thin people who have been overeating.

I remember talking with a man who had fasted fifty days. Before he began this fast he was poorly nourished, with peaked features, and in about two months after the fast he began to gain; he was jolly and about twenty years younger in appearance than when he began the fast. I had quite a conversation with him and he said it was like "being born again." He said, "I lost about 35 or 40 pounds, and then I gained about 45 or 50 pounds of new tissue, and I feel as though I had been born into the world anew."

While, generally speaking, it is obvious that the more flesh one carries the longer he or she will be able to fast without losing too much vitality, nevertheless, it is frequently the case that a short fast of one or two weeks will be of very marked benefit to one who is already much reduced in flesh. This, for the reason that a lack of flesh is often due to a weakened digestive system, poor assimilative power generally, and perhaps a stomach that has been over-burdened by excessive food. The result of the fast is to strengthen the digestive powers by giving the organs a rest and the opportunity to recuperate. It is usually the case that after one builds up tissue at the conclusion of a fast he weighs more than he did before.

This experience is common in cases of this character. People who have eaten so much that they have been kept thin by trying to rid the body of the surplus soon begin to make a satisfactory gain in weight after one or more fasting experiences. The same effect is produced upon others by lessening the quantity of food they are eating, masticating it

more thoroughly, eating but twice a day, and choosing such foods as best add to the fatty and muscular tissues.

THE FAST FOR OBESITY.—In 1902 the newspapers gave considerable space to an attack on fasting, based upon the following facts: Sometime before, a woman in Boston, who was excessively fat, began a fast for the purpose of decreasing her weight. The fast lasted three weeks. At its conclusion she had been greatly reduced, and felt vastly improved. She was enthusiastic in her praise of fasting as a means of reducing weight. She felt herself so much better in every way, her appetite was so good and her digestion so perfect, that she forgot the lesson the fast would have taught a really intelligent person, and began to eat three hearty meals a day, at the same time ceasing her habit of working every day in her garden. As the fast had increased her functional powers she was able to digest these three meals as she never had done before, and the natural result was that her weight soon increased to forty or fifty pounds beyond what she had weighed before she began her fast. Then, as another natural consequence (that any intelligent person might have foreseen), ailments of various kinds began to appear, so that her last condition was immeasurably worse than her first. She now began to revile the fast as the cause of her present condition, and the intelligent (!!) press of the country took up the matter and heralded it broadcast, as a solemn warning against this dangerous custom (!!). At the same time they gave all of the facts about as I have here presented them. Is it not perfectly apparent, therefore, to an unprejudiced mind, that this woman was indeed improved by the fast, but that at its close she lived the life of the glutton, and stopped taking exercise, and thus brought upon herself the natural consequences of the lazy glutton's life? Fat is stored, or accumulates, in the body only when excessive food is eaten. It is nothing but stored-up nourishment. If people who are disposed to lay on fat will indulge their appetites they must pay the penalty. If they prefer yielding to the demands of appetite, with the consequent results, to the rational enjoy-

ments of the normal healthy life, it is in their own hands. But the intelligent person who finds himself or herself too fat, will stop eating so that the body can feed upon the surplus fat until the extra weight has been reduced satisfactorily. Let me give a word of caution to those who have the disposition to take on surplus weight: If you are determined to live rationally and healthfully, a fast will be of great benefit to you, for it will reduce your excessive weight and put you in a condition to enjoy life to the fullest extent. But, if you are ruled by your appetite, it is a waste of time to fast, for a fast will so increase your functional and assimilative vigor that if you continue to eat to excess, or to eat what is considered an ordinary quantity of food, you will increase your weight more than ever. The ability to "get fat" is a sign of health, and one highly to be desired. But, if it is accompanied by a weak will that allows itself to be dominated by appetite, an excess of weight is bound to follow, with all the consequent ills of an overfed body.

THE FAST FOR INFLAMMATORY RHEUMATISM.—In cases of *inflammatory rheumatism* a fast has been found to produce remarkable results. Long before I had realized the vast importance of the fast in many forms of disease, I came to the conclusion that it was of great benefit for this complaint, and, remarkable to say, it was the observation of the ordinary drugging system of treatment that led me to this conclusion. The ordinary physician keeps his patient in a state of constant pain, feeding him as generously as possible, with the result that he steadily lessens his powers of resistance. The stomach, over-taxed by an excess of food, and irritated and poisoned by the drugs forced upon it, soon ceases to work, and fasting becomes unavoidable. Neither physician nor patient sees the naturalness of this condition of affairs, and both deplore it. But, all the same, Nature, given the least opportunity, works in her beneficent way. The patient, unable to take food, actually begins to improve, because the disease is being naturally and rapidly eliminated, and if only the disgust for food continues long enough, the fever disappears. Of course, if,

on the other hand, appetite soon returns, recovery is slow, because retarded by the presence of undigested foods. Having learned this, I came to the conclusion that the sensible treatment was to cut out all food. Giving the patient an abundance of hot or cold water to drink, swathing the joints in hot cloths, and giving a hot enema two or three times a week, will further the process and naturally produce a rapid recovery. I have treated a number of patients in this way, and the results invariably have been as here outlined.

THE FAST FOR NEURASTHENIA.—Neurasthenia is a disease that rapidly yields to the fasting method of treatment, although at first thought it might appear to be one that would be least amenable to this method. In this type of cases, however, we seldom prescribe long fasts, preferring several short fasts of six or seven days' duration, with intervals of a week between, during which the patient is exceedingly careful to eat only the most nutritious food, and in the smallest possible quantities to stop the waste of tissue. The results are little less than miraculous. The exhausted nervous system seems to gain new life and power as the elimination progresses.

A FAST FOR DROPSY.—In 1903 Mr. Arthur Van Meter, a member of the firm of Van Meter, Harness & Co., of Salt Lake City, undertook a fast which lasted 40 days, for the cure of dropsy. A short time before, he had visited specialists in California who had twice tapped his right lung for the extraction of an unusual quantity of fluid, after they had vainly tried to carry it off by absorption. On his return to Salt Lake a general dropsy set in all over him, his lower limbs became swollen to an enormous size, and his abdomen was greatly charged and similarly swollen. After numerous examinations, the doctors concluded that he had enlargement of the liver, and he was treated for this with the best medicines known. Still the dropsical condition failed to improve, and after he had been tapped in the abdomen the doctors said he would die in a little while. At this critical period, a cousin of Mr. Van Meter, who is a devout believer in fasting, wired

him to "FAST," and save his life in this way. So skeptical was Mr. Van Meter, that he immediately ordered a turkey dinner and proceeded to eat heartily of it. But the idea introduced to his mind was not to be easily dismissed, and before the week had ended, he had begun fasting, aided by books on fasting and letters received from his cousin, who had been cured in this manner. Within two days the dropsy began to disappear, and at the end of twelve days he was relieved entirely, and for the first time in six months slept quietly the whole night through.

During all the time previous to the fast he could not lie down. He could only sit in certain positions, while to a good sleep he was an entire stranger. He continued his fast twenty-eight days longer. His pulse, which had steadily kept at the hundred mark, came down to normal, and the doctors pronounced his liver normal also. Nothing but water passed his lips during the fast. A terrible cough also distressed him before his fast, and he and his friends feared that he was going into consumption. The cough was entirely relieved during the fast, and at its close he breathed to the lowest cells of his lungs with ease and freedom.

Mr. Upton Sinclair tells of an interesting case of cure of dropsy and asthma:

"While I was at Mr. Macfadden's, I met a gentleman who told me in detail the experience of his brother, a man in middle years, who had lived a dissipated life, and who was suffering from a complication of terrible diseases: asthma, which had made it impossible for him to lie down for several years, and dropsy, which had advanced to such a stage that his legs were like huge sacks leaking water. This man had been dosed with drugs by his physicians until finally he had come to the point where his kidneys refused to act, and the physicians confessed that no drug of which they knew would avail. Portions of his body had become black, and he was told that he could not live through the night. Members of his family were summoned, among them his brother, who told me the story. He persuaded the sufferer not to eat the sup-

per which was brought to him, and as a result the man lived through the night. He fasted for a week, and after that went for a week or two longer on a very light diet, carefully regulated, and he is now pitching hay on a farm down in Kentucky."

THE FAST FOR CATARRH OF THE BOWELS.—Catarrh of the bowels is one of the most dreadful of diseases, and yet it yields readily to a fast. In cases of this nature, unless the vitality is too greatly depleted, I invariably prescribe a prolonged fast, or a "fast to a finish." (See earlier section.) A daily enema should be taken, consisting of water as hot as the patient can bear it, in order to aid the bowels to rid themselves of the accumulated and sticky mucus.

FASTING FOR YELLOW FEVER.—Yellow fever has long been considered one of the awful scourges that civilized man, in a tropical country, has been subjected to. The sufferers from the disease are so tortured and agonized by it that medical science has done all it possibly can from its standpoint to discover some means of ameliorating its ravages. Naturally many attempts have been made to find the germ which the scientists suppose to be responsible for the disease. It was not until a few years ago that they came to the conclusion that the disease was caused solely by the bite of a certain species of mosquito. They claimed, however, that when once the disease is communicated, it is contagious.

It is a self-evident proposition that not all persons who are bitten by the malignant species of mosquitoes suffer from yellow fever. For if they did, many hundreds of thousands would annually be afflicted. This confirms the assertion I have often made, and experience demonstrates, that disease germs have no effect upon a healthy body. There must be a receptive condition and a state of body that encourages the growth of these disease germs ere they can live and thrive sufficiently to cause disease. In a healthy body they immediately die and are expelled. Therefore, I am certain that no healthy person can contract yellow fever even though inoculated with a thousand germs at a time. If, however, one is a

little below par, and is subjected to the disease, and "catches" it, if he be treated in a rational fashion the disease will progress no further than the first stage and can quickly be eliminated.

Unfortunately, it is too true that the majority of people do not live in such a way as to keep their bodies in a state of normal health. The result is that when a number of mosquitoes are bred by improper sanitation, many people in the community may be made to suffer by being inoculated with the germs of the disease. To the improper modes of life, therefore, that breed the unhealthy physical conditions that enable the disease germs to live and breed, yellow fever undoubtedly owes its origin.

In the treatment of the disease, the ordinary remedies have been tried in vain from time immemorial. Drugs are not only useless, but positively injurious, and for many years have been abandoned by the most conservative adherents of the old schools of medicine. All they have attempted to do has been, according to their light, to assist Nature throw out the poisons.

Physcultopathic methods in the treatment of this disease are as perfectly simple as in those of any other. The first thing to do is to flush the colon with hot water. This treatment alone, if used regularly, would almost effect a cure. The flushing should be done at least three times a day until recovery. If the fever is very high, the hot enema should be followed by an injection of a pint, or even a quart, of cold water, which should be retained for several minutes. This will materially reduce the fever. One of the earlier symptoms of the disease, however, is the recurrence of severe chills. While these chills are in evidence, the cold enema should not follow the hot one. The feet of the patient should be placed in hot water and he be required to drink as much as possible of hot water, into which a few drops of lemon juice has been squeezed. Then when the fever stage arrives, the cold injection should follow the hot one. An abundance of water, hot or cool (not ice cold) should be drunk. The more the patient can be induced to drink, the more freely he will perspire,

and perspiration is highly conducive to a cure. Naturally the patient should be required absolutely to fast. Food, in such an acute condition of fever, is worse than drugs. For it passes into the stomach undigested, where it ferments and generates poisons which circulate in the blood and add to the virulence of the disease.

While the patient is too weak to take the hot bath frequent sponge baths to remove the effects of perspiration should be given, and the windows should be kept open to insure the most perfect ventilation.

FASTING FOR CANKER IN THE MOUTH.—Canker in the mouth yields very readily to fasting. This is an invariable indication of impure blood. Very few people who live in accordance with the ordinary dietetic habits of our civilization escape canker. It will generally manifest itself after some unusual imprudence in diet, but with an ordinarily healthy person will disappear in a few days. Where there is a generally depleted condition of vitality and the blood is impure, canker becomes so frequent as to be almost always present and to cause considerable annoyance, distress and pain. Fasting purifies the blood and generally cleanses the system of the poisons that create canker. Hence, on the first sign of the trouble, one should immediately fast, and where it is a long continued trouble, the fasting should be proportionately lengthened.

THE FAST FOR HEMORRHOIDS OR PILES.—While hemorrhoids or piles are not supposed to be an indication of serious disease, the supposition is not justified by the facts. These are that piles really show a very weak and disorganized condition of the alimentary canal and the presence of disease that if not eliminated will cause much serious trouble and possibly invite death earlier than would otherwise be the case.

The Civil Service Commission regard piles as serious enough to reject from many positions any persons suffering from them. The ordinary treatment for piles is to encircle them and then clip them off. But this in no way interferes with the original source of the disease. The result is that

it is liable to recur at any time. Hundreds of thousands of people who refuse to submit to the surgical operation are constantly irritated and distressed by itching, bleeding, a sense of fullness around the anus, and other distressing symptoms, and they spend millions of dollars annually in quack nostrums for the palliation of their troubles. Yet there are very few cases where a ten or fifteen day fast will not completely eradicate the disease that causes the trouble, and there will be no danger of a return, provided, of course, the patient lives a natural and rational life thereafter.

In hundreds of cases we have treated for chronic dyspepsia and other digestive ailments, piles have been an accompanying symptom. They have invariably disappeared with the abdominal disease as the result of a wisely administered fast.

BREAKING THE FAST.—The breaking of a fast is a matter that requires the most careful consideration. It cannot be denied that carelessness at this time may not only undo all the good work accomplished in the fast, but may do serious injury. In the thousands of cases that have passed through my hands I have found that not the slightest danger need be apprehended if a few simple rules are observed. I have heard of cases where people have died as a result of eating too much when breaking a fast. How absurd to throw away all the good results of a week or a month of self-denial just to gratify the appetite you have so long held in check. As a rule at the close of a fast the sense of taste is so keen and the desire for food so insistent that one feels as though he could eat everything in sight. It is not so much that he has accumulated a ravenous appetite during the fast, as that the thought of eating again tempts him to excess. It is partly a mental condition. A well known authority on fasting well states the proposition as follows:

"In breaking the fast, and this applies especially to a fast completed in all senses and with natural hunger in evidence, great care must be used. How much, how often, and what to eat at this time and throughout the rebuilding process,

are matters of vital import. When eating is resumed, excessive desire for food develops; and, if this be indulged and not restrained, the benefits of the cleansing that the patient has undergone are apt to be neutralized, if not absolutely destroyed. Just here is where the care and direction of one conversant in all respects with the method of treatment are almost necessary to successful issue. Even after the normal amount of food supply is reached, it is incumbent upon the patient to continue the diet prescribed, and to follow certain daily exercises that tend to rebuild the wasted muscular tissue. When the fast is ended and the cleansing of the body is complete, heart, arteries, and veins perform their work in an absolutely perfect manner."

Naturally, the importance of care in this respect increases with the length of the fast. A fast of one or two days would require no special attention in the matter of breaking it, but when one has fasted three or four weeks, or perhaps a couple of months, as in extreme cases, then the matter of readjusting the organs to the daily digestion of food becomes an exceedingly delicate task, and the greatest possible care is essential in order to establish a normal activity of these organs and realize the full benefit of the fast. One cannot start right in to "eat a meal." Nothing radical or sudden in the way of eating can be permitted.

If a patient is fasting under the guidance and supervision of a physician or health director, great pains should be taken to impress upon his mind the imperative necessity of doing nothing without the knowledge of his adviser, for serious consequences may follow. In the case of extreme weakness or faintness during a long fast, it occasionally happens that the will is weakened, and the patient may be led to surreptitious attempts to gratify his hunger, or rather what he may think to be a condition of hunger because of his weakness. In such an event he is almost sure to eat too much and also to eat something that is altogether unsuited to the condition of his body. He will not only increase the difficulties of his adviser but he will bring distress and perhaps very serious

consequences upon himself. In such a case the digestive organs should be emptied as soon as possible, even resorting to emetics and enemas if it seems necessary, and the fast may need to be prolonged a little beyond the intended limit in order to overcome the unfortunate results of such indiscretion. The patient should also drink freely of water, especially of warm or hot water, under such conditions.

The patient should be given to understand, therefore, that he must observe the strictest honesty and confidence so far as his adviser is concerned, so that if he feels an uncontrollable desire for food he will speak of it and avoid any mistakes. If it is a manifestation of real hunger, and it should be found advisable to break the fast without further delay, then it may be done intelligently and with suitable foods. It often happens that it becomes inadvisable to continue a fast as long as at first intended. Different individuals are capable of very different limits in the way of prolonged fasting, and those who are underweight when beginning should be carefully watched. Sometimes conditions seem to indicate a fast of two or three weeks, but marked weakness and apparent loss of vitality at the end of one week may demonstrate the importance of breaking the fast without further delay. In such cases it may prove to be a good plan to arrange for a series of fasts, increasing in length as the individual gains in strength. Suppose one has to do with a case of radical and chronic blood poisoning, which requires the most absolute purification of the body. Short fasts will not be sufficient. The devitalized and already emaciated patient is in the beginning unable to undertake a long fast, but by adopting such a series, the body will learn to prepare for succeeding fasting periods by building up reserve tissue and gaining weight, so that in time the long fast will become a possibility. But the benefit of each fast and the perfect recuperation from it will depend largely upon successful methods of breaking it. It is like sad news; one should "break it gently."

I generally have found it beneficial to break the fast the first day with nothing but pure fruit-juices. Grape-juice,

apple-juice or orangeade are all good for this purpose. One glass full, not too strong and without any added sugar, should be taken three or four times during the day, sipping it slowly and enjoying its flavor to the full. Then, if one has no reason to delay getting back to normal habits of diet, the second day I would suggest one or two glasses of very warm milk three or four times during the day, likewise sipped slowly and retained in the mouth as long as agreeable. It is best to retain it in the mouth as long as it can be tasted, or until it is swallowed involuntarily. On the third day the quantity of milk can be increased and some acid fruit taken. On the fourth day the amount of acid fruit and milk can be increased. On the fifth day one can begin his regular diet, though he should very greatly restrict the amount he has been in the habit of eating.

The above instructions refer to a fast that has been continued for six days or more. It is not only the fact that the digestive juices are not secreted during the fast, but also partly the actual changes in the size of the stomach that take place, that make it necessary to use care in breaking a fast. After a fast of from two to four days one may resume his old diet and, as a rule, eat an ordinary meal without any special feeling of discomfort therefrom. I have known fasters to continue for six or seven days and follow out a procedure of this kind, apparently without any evil results. It is far better, however, to be on the safe side, and either break the fast with fruit-juices or acid fruit of some kind that is especially palatable.

In my institution we use fruit-juices followed by the exclusive milk diet in nearly all cases for breaking a fast. This method is especially recommended when the fast is continued for six days or more. Following one or two days on fruit-juices, which are used to break the fast, this diet is confined to one glass of milk each hour and a half to two hours on the first day. On the second day one glass of milk every hour. On the third day one glass of milk every three-quarters of an hour. On the fourth day a glass of milk every half hour, and each day thereafter the milk to be gradually increased

up to six or seven quarts daily. This treatment induces a very rapid increase in weight. Sometimes one will gain from one to three pounds daily for a considerable period. I have seen patients gain as much as twenty-five pounds in a week.

When one, however, does not care to stay on the milk diet, it is a good plan to continue this diet until the "edge" is worn off the appetite, or until he loses the extraordinary desire for food that often follows a fast.

While by far the largest majority of fasters will be able to use fruit juice successfully to break the fast, there will be a number who have an antipathy, physical or mental, to this. In these cases it will be necessary to substitute some extremely light nourishment that will prepare them for the milk or other diet to follow.

Strained tomato juice, preferably quite hot, is relished and taken with success by a considerable number. A pinch of salt may be used in each half cupful (which is sufficient for each "feeding"), though it is better to omit this if possible. Some other cases can take a mixed strained vegetable soup, without meat stock. This may be made from any one to three or four vegetables. Still others, especially those who have fasted for stomach and intestinal inflammations, find thin cereal broths and gruels more satisfactory. Oatmeal, whole rice or barley, or any other cereal preferred, may be thoroughly cooked in considerable water and then strained, and this broth used as the tomato juice. Three or four feedings of any of these will be sufficient for the first day or two; then three-quarters of a cup may be used as frequently, or half a cupful may be taken five or six times a day.

Depending upon the length of the fast, these substitutes for the fruit juice may be taken for from one to four or five days. In our wide experience we have found that few other diets are satisfactory for breaking a fast.

When it is impossible to break the fast in this manner, one should simply limit the quantity of food which he is accustomed to eating. At such times he should be sure to confine his food to those articles which he knows to be wholesome, and avoid combinations. By eating simple foods he will find

that they will taste delicious and need no condiments or complicated cookery to make them appetizing.

Upton Sinclair's experiences are valuable as they show the results of individual experimentation after he had received all the instruction that we were personally able to give him.

"Since leaving the Macfadden Healthatorium, I have at various times had occasion to fast, and have tried other articles of food upon which to break the fast. While I was down in Alabama, I took a twelve day fast, and at the end I was tempted by a delicious large Japanese persimmon, which had been eyeing me from the pantry shelf during the whole twelve days. I ate that persimmon—and I mention that it was thoroughly ripe; in spite of which fact it doubled me up with the most alarming cramp—and in consequence I do not recommend persimmons for fasters. I know a friend who had a similar experience from the juice of one orange; but he was a man with whom acid fruit has always disagreed. I know another man who broke his fast on Hamburg steak; and this also is not to be recommended. I have another friend who fasted a week and broke the fast with rice and soft boiled eggs, and this friend also got no benefit to speak of from the experience, although the foods agreed with her perfectly and she had no temptation to over-eat. This is about what I should have expected, as my own experience has led me to believe that the worst foods that people eat are these highly concentrated pasty things, which are deficient in natural salts and contain no waste to keep the intestines active. A person can eat food like eggs and rice for weeks and never have a movement of the bowels. I know it, because I have done it; and I can give myself as durable a headache by that means as other men can get with a hamper of champagne.

"It has been my experience that immediately after a fast the stomach is very weak and can easily be upset; also the peristaltic muscles are practically without power. It is, therefore, important to choose foods which are readily digested, and at the same time have bulk; also to continue to take the

enema daily until the muscles have been sufficiently built up to make a natural movement possible. The thing to do is to take orange juice or grape juice in small quantities for two or three days, and then go gradually upon the milk diet, beginning with half a glass of warm milk at a time. If the milk does not agree with you, you may begin carefully to add figs and dates and perhaps soaked prunes. You may take such foods as baked potatoes and rice and gruels and broths, if you must, but don't take them any longer than you have to, and don't forget the enema. I have broken a couple of three day fasts by means of boiled wheat, and I am inclined to believe that this is, next to the milk, the best thing I have yet found."

Dr. Tanner, a pioneer in fasting, years ago broke his first fast on watermelon, eating as much as he cared to. This might be satisfactory in many other cases, though it would not usually be well to eat of it as freely as did this old pioneer.

Another experimenter has reported that he found much satisfaction in breaking his fast with evaporated apricots soaked in water for twenty-four or thirty-six hours, since this appealed to him more than anything else. It is possible that other forms of dried fruit, similarly treated, might be available. If there seems to be any heavy fruit pulp, after prolonged mastication, it might be best to eject this rather than to swallow it, although after the first day or two this very waste would be valuable for keeping the intestines active.

Above all things, one should not be impetuous in his gratification of the appetite, no matter what he chooses to eat. Restraint should be his watchword, and this should be the case not only for the first few days immediately following the breaking of the fast, but for the next two or three weeks as well. After one has resumed his ordinary diet the sense of taste is still so keen and the appetite so conducive to the enjoyment of food that it is very easy to eat so heartily for a while as to offset the good results of the preceding fast and to bring about conditions which will make another fast necessary. One should carefully guard against this.

The chief and most important rule to be observed in breaking the fast is that *Nature will always indicate when the fast is to be broken.* This will be made plain by a series of symptoms which no expert in fasting cases can ever mistake, and which almost invariably appear together. These symptoms are as follows:

The *temperature,* which before had probably been subnormal or above the normal, reverts to normalcy and stays there. The *tongue,* which before had been coated with a film of thick material, clears, or tends to. The *pulse,* which, throughout the fast, had been either above or below the normal, now beats at normal rate. The *breath,* which, all during the fast, had been offensive, becomes clean and sweet. The *skin* and other reactions are perfect, instead of faulty and defective. Last, but not least, *hunger* appears—I do not mean by this false appetite, but true hunger. These are a few of the principal symptoms which may be seen in one who has followed a strict fast for a number of days, and who has allowed it to terminate naturally.

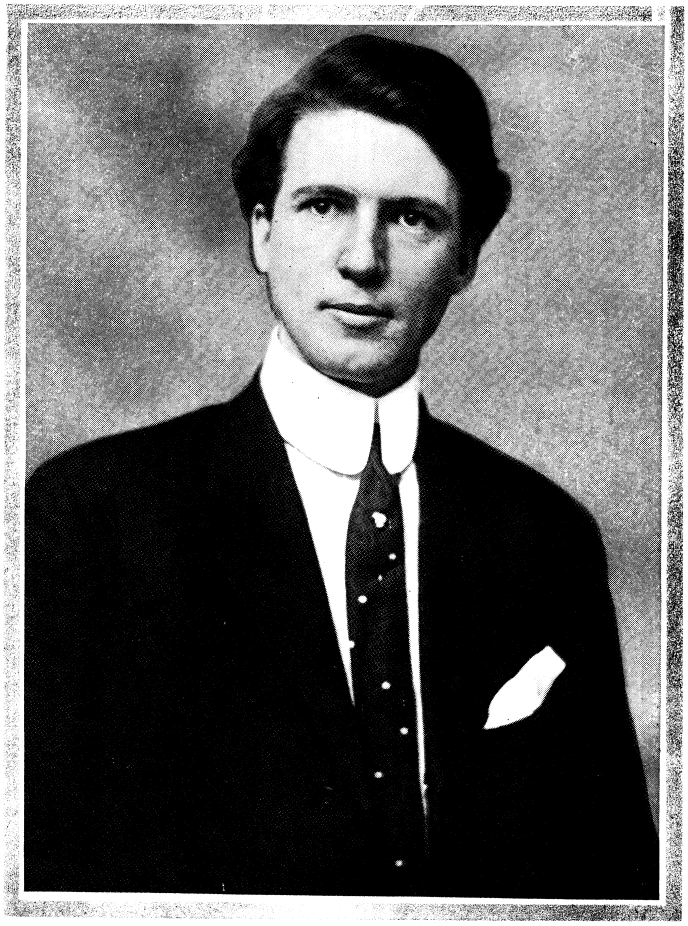
Just here, I must warn the enthusiastic student, however, against becoming fanatical on this subject of fasting, and particularly against the idea that *all* these signs must invariably appear, before the fast is ready to be broken. I have known several men and women who positively refused to break their fasts because the tongue had not cleared, or because some other symptom had not appeared, supposed to manifest itself before the fast is ready to be broken! This is a great mistake. There are numerous cases on record in which the tongue refused to clear, and yet food was manifestly craved; others in which the pulse or the temperature did not go to normal, etc.; and yet the fast should have been broken at that time. These symptoms usually appear together, it is true, and form very important and interesting points of guidance for the observer; but they should not be followed implicitly; the fast should be gauged rather by the patient's *general* condition. This is always a surer sign than any single symptom—no matter how important that may be. Be cautious, therefore, in advising your patient to break a fast; but do not become fanatical in

your belief that such-and-such symptoms *must* appear before you allow it to be broken.

Another point to be observed, just here, is this. While a long fast is of extraordinary benefit in many cases, very much the same results may generally be obtained—in all but acute or very severe cases—by following other methods, somewhat less strenuous. For example, a series of short fasts, a fruit or milk diet, or the "grape cure," accompanied by thorough hydrotherapeutic treatment, will nearly always effect a cure as effectually and almost as speedily. Certainly a long fast is much to be preferred in certain cases; and there are some instances in which nothing else would take its place. But I have known of many cases in which a long fast had been undertaken, when I personally should not have counselled it. One's more radical views nearly always tend to become "toned down," in maturer life, and my own experience has slowly but surely forced me to this conclusion. Others who have had much practical experience with fasting cases also agree with me in this. Even Hereward Carrington—who has written a powerful defense of long fasts —has, more recently, come to the conclusion that these fasts may easily be abused; and that shorter fasts, coupled with vigorous treatment in other directions, may accomplish the same results. While a long fast is to be recommended, in certain cases, therefore, it must not be pushed to the extreme limit in the majority of instances; and more cautious measures are often to be preferred—especially if the patient is in the hands of one who has not had an extended practical experience in this direction.

The question may be asked, naturally enough: How can we distinguish false appetite from true hunger? The man says he is hungry in both cases; but in one case you say he is not to be given food; and in the other, he is! How distinguish?

The surest mark of distinction is the following: Whereas false appetite displays itself by a morbid irritation and gnawing *in the stomach,* natural hunger is indicated by a general bodily condition—a universal call for nutriment—which is, however, especially noted *in the throat*—just as "thirst" is



Hereward Carrington, well-known authority on dietetics and fasting and collaborator in the preparation of this work.

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noticed in the throat. The watering of these glands; the call of throat-hunger, is the sure sign of the return of natural hunger; and a fast should never be broken, other things being equal, until this throat-hunger has been noticed. Of this, however, later.

Another fairly sure sign is that false appetite will call for something—anything—with which to stay the pangs that are felt; whereas true hunger will generally call for a specific thing —one particular article of diet. Still, I have known this sign fail very often, so that it cannot be taken as a sure sign. But when it *does* appear, it may usually be taken as indicative of the return of normal hunger.

The question may here be raised: Is it *safe* always to wait until natural hunger returns in this manner? Might not a patient run the risk of starving to death before this desirable point has been reached?

The answer to this question is very plain, indeed emphatic. It is always safe! Hunger will invariably return before the body is unduly wasted! It has been proved, experimentally, that *it is a physiological impossibility for the body to die of starvation before the skeleton condition has been reached*—and hunger will always appear before this point has been attained. The reason for this is as follows:

The muscles, organs and various tissues throughout the body waste in varying proportion, and at various differing rates. Thus, in a body that has starved to death, 97% of the fatty tissue has been lost, 30% of the muscle, 56% of the liver, 63% of the spleen, 17% of the blood, while the nerves and nervous system have not lost anything at all! It is evident, therefore, that the nervous system has the power of *self-feeding,* or nourishing itself at the expense of the rest of the body; and further, the body loses its various tissues according to their relative value to life. Thus, fatty tissue is the least valuable, and hence most of it is lost. The nerves are the most valuable, and so nothing of their substance is lost. This shows us that morbid matter which has accumulated within the system will doubtless *all* be eliminated during a fast—since it is of no use

at all. And experience shows us that this is the case. All useless material is eliminated from the body before any of the useful bodily tissue is destroyed. It is because of this fact that the fast does us good—"cures" us.

To return, however, to the subject of breaking the fast, it may be said that this should invariably be done *gradually;* and the longer the fast has been, the more care should be exercised at the period of breaking it. Many analogies will show us that this must necessarily be so. Suppose you have a machine which has been stopped for repairs. (A printing press, which prints our daily papers, is a good example of such a machine.) In starting such a press, it is invariably started *very slowly* at first, and the speed is gradually increased as impetus is gained. But if the machine were started full speed immediately, it would doubtless be smashed and many of the finer workings would be deranged. The probability is that it would so injure the machine that it would have to be stopped again, for longer and more serious repairs!

It is precisely the same with the human machine—the human body. If, after a long fast, it be started off at full speed; that is, if a full meal be eaten without any preliminary preparation, and at the end of a protracted fast, it will doubtless so damage the vital mechanism that grave and even dangerous results may happen. It must, therefore, be broken very gradually, and more and more food allowed as the days pass, and as the system strengthens.

If a fast be broken before it is naturally terminated, the result would be the same as if a foreign body were introduced into a machine which was trying to repair itself. In both cases, the progress of the cure would be interfered with, and the body would not only have to "stop" and eliminate the new matter which had been introduced, but all the old and still uneliminated matter as well—so that the progress of cure would really be interfered with—to just that extent. The ingestion of food is, therefore, a hindrance, and the practice of terminating a fast before natural hunger has returned cannot be too strongly deprecated.

If food be administered to a patient who is undergoing a fast, and before the fast is naturally terminated—and seen to be so, by the return of hunger, and other symptoms we have listed—the result would be very detrimental. Suppose we have a patient who has fasted sixteen days. He thinks he has fasted "long enough," and wishes to break his fast—though the tongue is still coated, the breath is still bad, etc.—showing that the fast is, in reality, not yet ready to be broken. If we allow a patient in this condition to break his fast, and eat a meal—even if he only eats one mouthful of food—a very curious and instructive set of phenomena will be observed.

The tongue, previously so coated, will *instantly* clear; the breath will become sweet; the temperature will rise, and hunger will return thenceforward at periodic intervals—though there may have been no hunger during all the sixteen days of the fast! What are we to think of these physiological phenomena?

The conclusion we must draw from this set of facts is this: The administration of food, even in small quantities, has had the effect of *breaking the fast*—stopping entirely, for the time being, all efforts of elimination (which had been observed in the tongue, breath, etc.) and turned these energies into the direction of digesting food once more. Thenceforward hunger returns at regular intervals, because the fast has been broken; elimination has largely ceased; the energies of the system have been diverted from their work of cleansing, and into that of digesting food.

This brings us to another point. Hunger is very rarely experienced after the first three days of a fast. These are the trying days—when the system is becoming adjusted to the changed condition, and when vast quantities of morbid material is deposited in the blood stream, and carried to the head, by means of the blood. It is because of this fact that many experience headaches, etc., during the early days of a fast; but the obvious remedy for this condition is, *not* to break the fast, but to continue it, and thus rid the system of the accumulated poisons the sooner. After these initial days, hunger will invariably disappear and will not again return until the termina-

tion of the fast—whenever that may be. The return of natural hunger is a sure sign that the fast is terminated, and the system has been cleansed of its diseased condition, and is again ready for food.

This brings us to an important point, which is too frequently misunderstood even by those who write about fasting. It is the distinction which must be drawn between *fasting* and *starvation.* The failure to understand and appreciate this difference is one of the chief causes of disagreement between the advocates and adversaries of this system of treatment. It is accordingly very important that we should appreciate this.

Fasting is only possible at all when the system is overstocked with food material. When this is not the case, starvation begins at once. So that, in the case of a patient who has been undereating for some considerable time, he would begin to starve if he went without his food. On the other hand, the majority of us overeat; so that when we stop eating, we fast, and do not starve. I can, perhaps, best illustrate this difference between the two processes by quoting a passage from "Vitality, Fasting and Nutrition," by Hereward Carrington:

"*Fasting* is a scientific method of ridding the system of diseased tissue and morbid matter, and is invariably accompanied by beneficial results. *Starving* is the deprivation of the tissues from the nutriment which they require, and is as invariably followed by disastrous consequences. The whole secret is this: *Fasting commences with the omission of the first meal and ends with the return of natural hunger, while starvation only begins with the return of natural hunger and terminates with death.* Where the one ends, the other begins. Whereas the latter process wastes the healthy tissues, emaciates the body, and depletes the vitality; the former process merely expels corrupt matter and useless fatty tissue, thereby elevating the energy, and eventually restoring the organism 'that just balance we term health.' As Dr. Dewey said: 'Take away food from a sick man's stomach and you have begun—not to starve the sick man, but the disease.' There is the whole science of fasting in a nutshell."

From this definition it is possible for us to understand the ill effects of breaking a fast prematurely. Suppose that a patient's body is in such a condition that a thirty-day fast is necessary to restore it to perfect health. Suppose that he has fasted fifteen days, and then decides that he has fasted "long enough," and that he desires to break his fast. If he does so (contrary to the indications of Nature) he will be only *half cured;* that is, he will be cured to the extent which corresponds, organically, to the length of time fasted. Many patients do this, and afterward complain that they have tried the fasting cure, and were not cured in consequence! The truth is that they only gave it a half trial and probably over-ate afterward, and naturally were not completely cured. If a fast be undertaken, it should be followed "to a finish," or else a partial fasting regimen adopted from the beginning. That, at least, is my advice, based on considerable experience of fasting cases.

The practical question now presents itself: How shall the fast be broken? Having answered the question, When? and having seen that Nature will always clearly indicate this by the manifestations of certain symptoms, which cannot be mistaken, the next question which arises is: On what foods shall the patient break his fast, and in what quantity and proportion? This is a very important aspect of the fasting problem, and a full discussion of the point is quite necessary.

Let us divide the reply into two parts: (1) The question of *quantity;* and (2) the question of *quality*—of foods eaten at this time.

(1) *Quantity.* As previously stated, the quantity or amount of food which is needed at the end of a fast is very limited indeed. For the first week or so a gradually increasing amount may be given each day, until a regular diet is again reached. It is best, however, to warn the patient that he will not, in all probability, crave so much food as formerly; and, if possible, endeavor to persuade him to eat only two meals a day, in future, and to thoroughly masticate each morsel of food eaten.

The first day should consist of *liquid food only,* and I

strongly advise everyone to break his fast on liquid food. Let me again emphasize the great importance of keeping the appetite in restraint during this first week after the fast is broken —when a ravenous appetite is sure to occur—or else much of the good of the fast will be offset, and grave danger has been known to result from eating too much at this time.

(2) *Quality.* As to the *kind* of food eaten, this is a much-disputed point. Dr. Dewey was of the opinion that any food which was craved should be allowed; but this, I think, is certainly a mistake. I have known the most "outlandish" things craved at this time—things which would certainly have injured the patient, had he eaten them. It is curious that this should be the case, too, since the appetite is supposed to be most normal at this time, when every function is working perfectly.

I am forced to the conclusion, as the result of weighing all the evidence very carefully, that the reason for this is that a man usually craves, when hunger is again restored to him, the things he is *accustomed* to eat—the things he anticipated and looked forward to, as soon as the fast was broken. Thus, if an Eskimo fasted, he would doubtless crave fat and blubber at the conclusion of his fast. If an Englishman of the ordinary type fasted, he would probably crave roast beef and boiled potatoes! I have known several fruitarians who fasted, at various times, and they invariably craved fruit and nuts. The reason, therefore, is based on psychological rather than upon physiological grounds. The appetite craves what it *expected* to crave; and the exceptions to this consist, for the most part, in those cases where some dish has been smelt in the process of cooking, and the odors have so appealed to the patient that he thought of and craved that food, and none other!

But instinct and reason do not always coincide, and although the patient may crave certain dishes, it is not always advisable to give them to him simply because he wants them. On the contrary, I am disposed to think that, save, perhaps, in very rare cases, it would be well invariably to break a long fast according to certain definite rules. All organisms are *fundamentally* alike, however much they may differ in detail, and

the following would be my advice, therefore, in breaking fasts of considerable length.

First day. When a fast is ready to be broken, and seen to be so by the attendant in charge, a glass of slightly diluted orange juice should be given. This should be sipped and washed around the mouth before being swallowed. This may be given two or three times during the day. There are some people who cannot take orange juice well, and in such cases some other fruit-juice may be tried—such as grape juice, apple juice, etc. These should not be too cold, and should have very little sugar in them, if any. Some fruit-juice is, I am persuaded, the best food upon which to break a fast, and will be well borne in nearly all cases.

Second day. The patient must be careful not to over-eat the second day, which he is very likely to do, because his hunger will have returned in more or less full force, and the appetite is keen. It is, however, most important that the craving felt at this time be kept under strict control, if the best results are to be obtained. In fact, as said before, grave danger may result if caution is thrown to the winds at this period. Following the fruit-juice on the first day, several diets are open to the patient, which I shall enumerate.

The best diet for the second day is, in my estimation, a simple and exclusive fruit diet, composed wholly of juicy fruits. Oranges should again form a part of the meal, this day, and peaches are especially to be recommended, if they are in season. Plums are also good, and a few strawberries might be tried, though they do not agree with many people. I should not recommend the use of pineapple at this stage of the cure. Apples are very fine fruit, and are in many ways desirable. They have, in fact, been called "the king of fruits," and they certainly deserve the name. Bananas are very "heavy," being literally the "bread of the tropics," and should be very thoroughly masticated, if eaten. Dates and figs, though they are excellent foods at other times, I should not recommend at this period. Pears are very good, if found to agree. Grapes are excellent; indeed one could hardly recom-

mend any fruit which would be better to eat during the few days following a long fast than an exclusive grape diet.

On the second day not more than two of these fruits should be eaten at the same meal, and it would be far better if only one of them were eaten. Oranges and peaches are the two fruits I should advise above all others. It would be well to limit the diet exclusively to these fruits for several days following a fast, until a more liberal diet is begun.

Some natures (a few) do not take kindly to the exclusive fruit diet, and in such cases another diet must be found to take its place. Eggnogs are good (of course without liquor) and may be taken three times during the second day, if desired. They must be eaten slowly, as usual. It would be safe to adhere to this diet for several days after a long fast.

Third and succeeding days. The first two or three days after breaking a fast are the days on which great care must be exercised; following these, a very gradual increase in the quantity and complexity of the diet may be allowed. A couple of soft-boiled or poached eggs, dry toast, and a glass of milk might be allowed on the third or fourth day; or whole wheat bread, nut butter and a small fruit salad. Custard, well made, is good food; but again the patient must be made to *chew* it. Sometimes salad is found to agree with the patient; but I should never advise this, unless it were especially craved. A dry and exclusive cereal diet may be found beneficial in some cases; but in all such instances the patient's appetite should be to some extent consulted, and he should be gradually allowed the food which he particularly craves—unless, of course, it is found to disagree with him. While simplicity counts for much, in these ensuing days, the question of *quantity* is, in my estimation, of even more importance, and the small quantity of food allowed should be particularly insisted upon.

In most cases, however, a *milk diet* should be taken for several weeks. As this system has proved so very satisfactory in many cases, I will merely outline it. On the day of breaking the fast nothing but fruit-juices should be taken.

On the *second day* a glass of warm (not hot) milk every two hours. This must be thoroughly "masticated," as usual.

Third day. A glass of milk every hour—certainly not more frequently.

Fourth and succeeding days. A glass of milk every half-hour.

The result of this milk diet will be to build up the system and restore lost weight in a remarkable manner. Strength is soon regained, while the system is flushed thoroughly with "a superior quality of nourishment." Certainly, the system has been found to be remarkably successful wherever tried, and it will doubtless be found to yield splendid results in a large number of cases.

A word, finally, as to breaking the fast artificially—because of the appearance of certain alarming symptoms, which may develop during the fast—vomiting, fainting, an exceedingly feeble pulse, etc. Generally speaking, it may be said that it is not advisable, at such times, to break the fast; but this is an exceedingly complicated question, which requires special and individual study, and no general conclusions can be arrived at without such individual study. Here is presented the one and only *real danger in fasting cases,* and the student would do well to study such instances well before launching himself or others upon a protracted fast. This is a subject to which too little attention has been paid in the past, and it is earnestly to be hoped that it will be studied more in the future, when fasting becomes more widely accepted and employed as it should be: as a therapeutic measure of the first importance.

LOSS OF WEIGHT DURING THE FAST.—From a study of a large number of fasting cases, I have come to the conclusion that the average loss of weight is about one pound per day. Some persons lose less than this, but the majority lose slightly more—especially during the early days of a fast. Very fat persons naturally lose more than thin persons; and in some cases people have been known to lose three or four pounds a day, for a number of days! During the last days of a pro-

longed fast, however, matters are usually "evened up." The patient loses *less* than the pound per day, so that the *average* is, as before said, about one pound per day. Mr. Carrington has published a table, composed of columns showing the loss of weight suffered by ten selected patients, of all temperaments, and he found that 248 pounds were lost in 253 days. This is practically a pound a day.

I can see no reason for a normal man to fast—providing there are any normal men. Fasting is for those who, because of toxemia or other abnormal conditions, require this method for body purification by the removal of an excess of morbid material or for the reduction or cure of definite disease condition. But if, for experimental or other purposes, a normal man desires to fast, *how much* should be expect to lose?

If an excessive amount of exercise is not taken, I am convinced that *twelve ounces a day* would be the normal weight-loss. This was the amount of food which Cornaro allowed himself, it will be remembered; and this is the conclusion arrived at by both Dr. A. Rabagliati (see his "Air, Food and Exercises," pp. 121, 286-8) and by Mr. Carrington ("Vitality, Fasting and Nutrition," pp. 470-71). As the latter says, when speaking of this question:

"From the above facts, a highly important deduction can be drawn, an extremely significant conclusion reached, which, in fact, affects the welfare of the whole human race. If such be the case, we have here, at last, a scientific basis for calculating *what the average intake of food should be* by those in health (and who wish to remain in health); for, since we have seen that the amount of the 'income' should be proportioned to the 'outgo' of food, if we are to retain 'that just balance we term health,' then it follows, as a matter of course, that twelve ounces of nutriment daily is all that the body needs in order to preserve its weight and replace whatever tissue has been lost, as the result of the day's muscular exertions or tissue-destruction."

This, therefore, gives us a clue to the amount of food which

one should eat, in order to remain in health. It does not mean, of course, that only twelve ounces of total food-stuff should be eaten during the day, because a large percentage of this is water; but from twenty to twenty-two ounces a day should be enough to supply all the material which the body needs, even when taking a fair amount of exercise. More than this is disease-producing.

In some cases, odd *gains* in weight have been recorded—cases in which the patient, instead of losing weight, has actually gained it! In such cases, what probably happens is this: The tissues throughout the body are very dry and dense, "obstipated," as they are called, and when such a person fasts, he or she oxidizes off a part of this too-solid tissue, and fills in the interstices with water, which the patient is at liberty to drink during the fast.

CRISES: AND WHAT TO DO WHEN THEY OCCUR.—During a fast of any length, many strange phenomena are often noted, which are liable to frighten the patient, and even the attendant physician, unless he is prepared for them, and knows what to do. In the first place, it has often been noticed that diseases which have been suppressed years before, by drugs, etc., frequently develop troublesome symptoms during the fast, showing that the disease was never *really* eradicated at all.

I have known of several cases of syphilitic infection in which this occurred, although the patient had been considered "cured" years before. These symptoms need not alarm the patient, however, since they will rapidly disappear if the fast be persisted in. In fact, the speediest way to effect the cure is to fast; so that these manifestations may be treated in the same way as the original infection. Should such symptoms develop, I advise the patient very strongly *not* to break the fast, until they have disappeared. If so, they may cause much trouble. Hydrotherapeutic measures of all kinds are very essential at such times.

The following are some of the symptoms which may develop during a fast, together with the proper treatment:

Fainting. Should the patient become faint, he should be treated exactly as he would be if he had fainted at any other time. Fainting is due to lack of sufficient blood in the head; so all that it is necessary to do, is to place the patient first on his back, and elevate his feet in the air. (See *First Aid.*) If he is seated in a chair, and you are in a crowded hall, etc., merely hold the patient's head between his knees for a few moments, and the blood will soon return to the head, and consciousness be restored. *Never* prop up a fainting patient; for in this way several deaths have resulted.

Dizziness. This is usually due to the same cause, and may be treated in like manner. It may result from an *excess* of blood in the head, on the contrary, in which case the head should be kept high. Quiet and rest are essential. See that plenty of fresh air is supplied to the patient.

Cramps in the bowels may develop, which should also be treated along First Aid principles. A full, warm enema will often bring relief. Hot fomentations applied externally over the abdomen will afford great relief; or a hot water bottle, though this is not nearly so effective. Gentle kneading of the parts may also prove beneficial; and the application of the bare hands has a wonderfully soothing and pain-allaying effect.

Retention of the Urine. Whenever the bladder is not emptied during the course of the day, if the patient has drunk freely of water during that period, "retention" may be assumed. Cold sitz baths will usually bring about immediate relief; or alternate hot and cold sprays directed against the lower part of the abdomen. Gentle pressure or kneading might also be tried, following such treatment by dashes of cold water. These measures may be continued for some time; but should they fail (which is exceedingly unlikely), recourse must be had to the catheter.

Diarrhœa. It is very rarely that this develops during a fast—the reverse condition is almost invariably present. Should such a stage of affairs develop, however, it should be treated as it would be in any other case. (See Vol. IV.)

Headaches. These frequently occur during the early days of a fast. All who have had any experience with fasting know that such is the case. I have already indicated the cause of this, and the measures to be adopted in dispelling them.

"A Bad Taste in the Mouth." This has already been discussed.

Pain in the Heart, Palpitation, etc. This condition is almost invariably due to gases in the stomach, and other digestive disturbances, and will not appear during a fast, except at a curative crisis. Says Dr. Schofield (*Nerves in Order,* pp. 63-64):

"To understand what is the matter, we must picture the heart sitting on the end of the stomach something like—to use a striking illustration—a donkey-boy sits on the hinder end of the ass; so that when the donkey kicks, the boy begins to 'palpitate' on his back. In like manner, when the stomach 'kicks,' or is distended in any way by food, it often sets the heart off palpitating; and in this way the heart gets the blame while the stomach is the culprit."

Abnormally Slow Pulse. This sometimes occurs during fasting; and while it is not a serious condition, it requires bringing up to normal, occasionally. Hot baths or a little gentle exercise will effect this, as a rule. Deep breathing exercises may also be tried. Friction, massage, suggestion, will all have their effect. As a rule, the pulse will soon return to normal.

Abnormally Rapid Pulse. This is one of the most serious symptoms which develop during a long fast. At times, the pulse runs up to such a rapid rate that it is almost uncountable; and when this occurs the patient is, of course, in a dangerous condition, and every effort must be made to lower the pulse immediately. Strenuous measures must be adopted. Dr. Kellogg advises the use of a cold or cool bath at such a time; but my experience is that this serves to stimulate the heart to even greater activity, instead of reducing it; and hence is to be avoided. Mr. Carrington advises the use of a warm bath, the same temperature

as the body of the patient (that is 98.6 degrees), for in this way the blood is *slowly* drawn away from the inner organs to the surface, and the interior congestion is relieved. Cool packs over the abdomen may help, but these should not be *cold.* Suggestion, given by an expert, may prove of most valuable assistance at such a time. The patient's head should be kept cool, and his feet warm. Rest, quiet, plenty of fresh air are essential.

Vomiting. This is one of the most serious symptoms which can develop during a long fast. I have known of some cases in which everything went beautifully for thirty or forty days, and then the patient began to vomit, and vomited continuously for several days.

Immediately upon the appearance of a vomiting spell, the patient shall be given all the hot water he can possibly drink —two quarts or more, if necessary—the object being to facilitate the eructation, and to cleanse the stomach of the offending, irritative material—the probable *cause* of the sickness. All restricting dress should be loosened. The patient should be removed at once to the outer air—of which he should breathe deeply and regularly. Rest, physical and mental, is an important requisite.

If, however, vomiting should continue, in spite of the above measures, more decided treatment must be employed. Hot and cold baths may be administered. Suggestion may prove highly beneficial and useful at such times. Spinal manipulations, hot fomentations, cold compresses, etc., may all be tried. A little glycerin, added to a glass of hot water, and swallowed by the patient, has been known to produce a remarkably soothing effect.

It is certainly inadvisable to break the fast at such a time. If food be administered at such a time, it will almost certainly be ejected, and it may aggravate the vomiting all the more. Dr. Dewey records a case in which vomiting began after fasting fifty days. Food was tried, but promptly ejected. There was nothing to do but wait, with the result that "One day after the last vomiting spell, there was a natural call for food—and

this on the *sixtieth* day of the fast." "Had this man died," continued Dr. Dewey, "such was his prominence, I should have been paraded as a criminal of the stupid kind in the entire press of America, except in the papers of my own city."

In a personal letter written to Mr. Carrington, dated March 26, 1903, Dr. Dewey wrote:

"Only God could break a fast where there is a sick stomach and there is no time to let Nature perform the task. Taking food into such a stomach would be death-dealing. There is nothing to do but make the body and mind as comfortable as possible and Nature will cure, if the seal of Death is not set."

It must not be thought from the above, however, that these symptoms *usually* develop during a fast, or that they are at all common. On the contrary, they are extremely rare—only a few cases ever having been recorded, out of the thousands of fasting cases which have been studied. In the vast majority of cases, a fast and even a long fast, may be undertaken in perfect safety, without the appearance of any unpleasant symptoms.

There is a certain risk of death, it is true, when a very long fast is undertaken, but only the most severe cases should be treated by long fasts.

FASTING IN ILLNESS.—The question is often asked: "Is it safe for the very sick to fast?" I reply: It is certainly safe, and as a rule the sicker the patient the more does he need a fast! In fact, he only needs a fast because he is ill; and if he were perfectly well, and began to go without his food, he would be starving instead of fasting, since he would not need to go without food at all. Such a question, therefore, shows, a misunderstanding of the problem, and can only be justified upon two grounds: (1) *In tuberculosis,* as before said, a long fast is not advisable, in the present state of our knowledge, and should, as a rule, be avoided. (2) *In extreme emaciation.* Here we must be guided by the *cause* of the condition. It may result from constant over-feeding, in which case a short fast would prove beneficial, and would fit the body to receive the

nutriment given it afterward. On the other hand, if it is due to too little food, fasting is not what is needed, but feeding. This must be begun gradually and cautiously. A milk diet is excellent in such cases.

If the patient is extremely weak, a fast may or may not be indicated. If this weakness is due to a long-standing disease, and accompanied by great emaciation, a long fast is counter-indicated. If, on the contrary, there is a good deal of flesh on the patient, and there are indications that the weakness is due to poisoning, and other diseased conditions; in other words, if the weakness is the "weakness of disease," a fast, and a fairly long fast, may prove highly beneficial, and as it progresses it will be found that strength increases and does not decrease. In several cases treated by myself, and also in a number of cases quoted by Dewey and Carrington, the strength increased from day to day, until the patient was enabled to walk several miles a day toward the close of a long fast, whereas at first he was unable to walk at all!

Many persons have asked whether or not it is advisable to fast for *anæmia.* In nearly all cases, I should reply, "Yes." This is directly counter to the advice which would be given by the regular physician—as they feed up their patients for anæmia, and would probably think that fasting, under the prevailing conditions, would be death-dealing! This, however, is not at all the case. Anæmia is due to lack of proper nutrition, it is true, but this lack of nutrition is brought about, not by *too little* food, but by *too much*—for which fasting is the remedy. In order to make this plain to the reader, I quote the following passage from a work by A. Rabagliati, M. D., F. R. C. S., etc., a cancer specialist and well known as an expert surgeon:

"The anæmic girl is in a state of indirect, not direct, anæmia. Her circulation is really blocked. It is in a state which may be called 'constipation of the circulation.' The muscular elements of the vessels, and particularly their transverse fibers, are hypertrophied, and being, besides, overstimulated, they go into a state of excessive contraction. The

effect of this is to narrow the lumen of the vessels, and to prevent the blood from flowing freely along them, and by this means, of course, a proper supply of blood is prevented from reaching the tissues. The consequence is that the girl appears pale and anæmic, and no doubt is so. But the cause is really an excess of food supply, which in the first instance caused the muscular elements to hypertrophy, and, as the over-circulation of too much food * * * continued, the hypertrophied transverse muscular fibers contracted and narrowed the lumen of the vessels. The process is really a beautifully adapted provision of Nature to limit the blood supply to parts which have already been over-nourished, and which tend to become still further hypertrophied if the nutritive process were carried still further. The process is plainly one of starvation, due to over-repletion, caused by contraction of hypertrophied or over-fed muscular fibers. And, obviously, the means of treatment proper to such a state is to restrict the diet until, some of the hypertrophy of the muscular fibers of the vessels having been removed, some of the spasm passes off, the blood flows more freely, and the anæmia is reduced. To recommend more food, as is so often done, is to do the precise opposite of what good treatment demands. The meals ought to be reduced in number and quantity, not increased." ("Aphorisms, Definitions, Reflections and Paradoxes, Medical, Surgical and Dietetic," pp. 200-1.) It will be noted from the above that anæmia, like nearly all other diseases, is in itself, in reality, *a curing process!*

It has often been contended that fasting for anæmia must necessarily be harmful, since anæmia is largely due to the absence of red corpuscles in the blood, and, in order to increase them, iron and other tonics are administered. Were we to take away food (and thus still further reduce the number of red corpuscles), great and possibly irretrievable harm would result. Thus reasons the medical man!

As a matter of fact, however, fasting does not decrease, but, on the contrary, *increases* the number of red blood corpuscles —contrary to all-but-universal belief. The following passage

from Dr. Rabagliati's "Air, Food and Exercise" will prove this:

"The first effect of a fast is to increase the numbers of the corpuscles of the blood. Now, as the function of food is to make blood, and as the food therefore makes the corpuscles, it seems at first sight impossible to conceive how stopping or greatly diminishing the food supply can increase the number of the blood corpuscles! It *ought* to diminish them, and in fact, in course of time, it does diminish them. But the explanation is really very simple. Most of us are over-fed, and the consequence of this is that the tissues are blocked and choked, because too much material finds its way into the blood. This directly prevents the blood-making processes from going on. The process is checked because the capillary vessels, the lymph spaces, the lymph ducts, and the muscular coverings and the tissue coverings, and the connective tissues generally, are blocked. Consequently there is an accumulation of waste unused material in the body. The accumulation often lowers the temperature and prevents and checks the accomplishment of all the processes of the body, and, among the rest, of the important process of the manufacture of the blood corpuscles. * * *"

A Few Hints for Fasters.—Almost everyone who fasts will find a certain amount of difficulty in getting his bowels to move during a fast; and, often, days will go by without any movement, if they are not moved artificially, by means of enemas, etc. But enemas are somewhat enervating, and when the patient is already weak, he may find it a drain upon his vitality to take many of these. Some physicians, such as Dr. Guelpa, for example, give their patients a mild purgative, for instance, a whole bottle of Hunyadi water, every day for two or three days. This is not to be advised, as a rule, though the good which this will accomplish will often more than offset the harmful effects of the minerals contained in the water. A far better and more rational method would be to live, for a few days before the fast, on laxative foods—such as fruit. This would serve a double purpose. In the first place, it would

open the bowels, and clean them out, more or less, before the fast begins. This is greatly to be desired. In the next place, it would enable the patient to enter upon a fast far more easily than he otherwise would, because he will not notice the lack of stimulation, which the ordinary food supplies. Fruit, being non-stimulating, renders the transition gradual and easy. Says Dr. Trall:

"I have often noticed, in conducting a water-cure establishment, containing more than a hundred inmates on the average, about half of whom were either vegetarians in principle, or were restricted to an exclusively vegetable diet by special prescription, that such patients can bear fasting for a time much better than the flesh eaters; and they usually suffer but little, in comparison with those who enjoy a mixed diet, from the craving sensation of the stomach, on the approach of the dinner or supper hour. To this rule I have never known one exception."

The thing to do, before undertaking a fast, is to be in *sympathy* with the idea—to understand and appreciate it, and be more or less familiar, if possible, with the literature bearing upon the subject. Remember that fasting is not a pleasant experience; but neither is being sick a pleasant experience, and no other system of medication is pleasant either. One comfort about fasting is that you know it is *really curing you;* and that is more than can be said in favor of most of the other systems of medication. Every day is just that much gained; and the longer you fast the better you are—until hunger supervenes. Do not be alarmed. It is impossible to starve to death until the "skeleton condition" is reached; and hunger will always come along before that stage has arrived. Fasting, wisely conducted, is the safest, simplest and speediest method known of ridding the system of disease.

THE SCIENTIFIC STUDY OF FASTING.—In spite of its antiquity, however, it is only within the last few years, comparatively, that fasting has come to be studied seriously and scientifically. Before then, it was considered simply an accessory to religious fanaticism—and many persons still consider it so!

About the middle of the last century, however, several physiologists, mostly Italians, began to study fasting cases, that is, those professional fasters who abstained from food for many days at a time, for public or show purposes. Luciani did this and has published a very valuable work on the subject. A few others followed his example. But their cases were invariably *healthy* men, who began to go without their food for no reason, except for the purposes of investigation or gain, and, consequently, these cases represent more nearly cases of *starvation* than of *fasting*. A man can only fast with benefit when he is ill. If he is well, and goes without his food, he commences to starve at once; and the two processes are very different. Hence the physiological experts observed only cases of starvation, and not fasting cases at all. The therapeutic side of the question seems to have been missed by them entirely!

A good proof of this is afforded by a study of Prof. Francis Gano Benedict's voluminous work, "The Influence of Inanition on Metabolism" (Carnegie Institution Report); and as this distinction is clearly brought out in the report, and as this was the first lengthy report devoted to the scientific study of fasting in the English language, I cannot do better than to summarize his results herewith.

This remarkable report is divided into several parts.

Part I is largely introductory, detailing the means used to test the accuracy of the results obtained and the methods of procedure. The author divides "fasts of more than one day's duration" into six classes, but there is said not one word as to the value of therapeutic fasting—its possible use in that direction does not seem to have entered the author's mind! Curative, medicinal fasting is so novel a theory to the average man's mind, that he has never even considered it seriously. It is not to be wondered at, then, that Prof. Benedict does not consider this aspect of the question throughout his whole extensive volume. And this being the case, and inasmuch as the cases studied by him were normal and in good health, I must insist that his results were to some extent vitiated, and that entirely

different results would have followed if he had studied patients diseased, *i. e.*, therapeutic facts. I shall return to this again later.

The remainder of Part I and the whole of Part II we can afford to skip, since very little matter can be quoted here—the whole of Part II being a mass of figures. The fasting experiments last from two to seven days, and the subjects were all young men in good health (p. 19). The discussion of the results attained is reserved for Part III.

The part opens with a brief historical sketch, giving a list of books that have been published, detailing experiments that have been made in the past upon fasting patients. These were all very much of the same general character, inasmuch as they were all conducted with healthy subjects, and the investigators, without exception, granted and accepted the validity of the present theory—that the energy of the body is derived from the food. Following this, there is a long section devoted to a study of the body-weight during a fast, and this is very interesting and instructive. I quote a few passages:

"In instances of so-called complete fasting, *i. e.*, where no drinking water is consumed, the loss of body-weight might be expected to be larger than in those experiments in which water was taken, although the drinking of large quantities of water is almost immediately compensated by the voiding of large quantities of urine. Nicholson made observations on a fasting prisoner whose body-weight at the beginning was 107½ pounds, and 100½ pounds at the sixth day, after a small portion of food had been taken. * * * There was an average daily loss of 1.4 pounds during the period of starvation, the greatest loss appearing during the first part of the experiment. * * * A fast reported to have been made by Tanner and lasting 45 days showed a change of body-weight from 71.7 kg. at the beginning to 60.0 kg. at the end of twenty-five days. During the first sixteen days, the account states that Tanner pretended to drink no water, though he rinsed his mouth with it from time to time. In this period he lost weight rapidly. After the sixteenth day, drinking-water

was taken as desired, and it is stated that he actually gained 4½ pounds in weight during the next four days, after which time he again commenced to lose weight." (pp. 301-3.)

It will be seen that there is considerable skepticism as to the reality of Tanner's fast. The medical profession have always doubted its accuracy, though just why it is hard to see. There is no evidence, either in the contemporary accounts or in any subsequent evidence, to show that Dr. Tanner's fast was not such in reality, and was not carefully and conscientiously conducted. It was only the novelty of the idea, evidently, that aroused skepticism.

The net result of these experiments proved that no conclusions could justly be drawn from fasts of so short a duration, and that the results obtained and studied were so self-contradictory, that nothing could be said one way or the other, and no positive conclusions arrived at. "Losses in body-weight in experiments of but a few days' duration are wholly without significance. With regard to the total cumulative loss as the experiment progresses, it appears that in long experiments of Succi the loss bears in general a direct ratio to the length of the experiment." (p. 310.) This was also my own conclusion. But I, fortunately, had the opportunity of watching a number of cases of twenty, thirty, forty and more days' fasting, and found the daily loss to average about one pound per diem. This was based upon observations of ten patients, who lost 248 pounds in 253 days' fasting, or nearly one pound per diem. It is probable, however, that this is too large an amount for those in health, who would lose less—about 12 ounces. (See my discussion of this point, in this volume, p. 1365.) The experiments conducted in the laboratory of the Wesleyan University were far too short to arrive at any definite conclusions, in this direction, therefore, so far as the body-weight was concerned. The fasts were not long enough.

Let us now turn to consider the next section—devoted to "Body Temperature." The universally accepted theory is that the bodily temperature is dependent upon the combus-

tion of food-material within the system, either direct or indirect, *i. e.,* after it has made the bodily tissues, which are consumed in turn. In either case, the temperature is supposed to depend upon the food consumed, and its combustion within the organism; just as the fuel of the locomotive is supposed to supply the heat required to run the engine, just so is the fuel of the body (the food) supposed to supply it with heat and maintain its temperature; and this would seem to be supported by the fact that when this combustion ceases (at death) the corpse cools to the temperature of the surrounding air. It is obvious, therefore, that were we to withdraw the food, the temperature would *sink;* the cause of the temperature, the *source* of the bodily *heat* having been withdrawn, the heat itself must sink. Thus says physiology, and, if the theory were true, there would be no question of its accuracy; such results would invariably ensue.

However, the figures of Dr. Benedict do not afford any proof whatever of the theory that we derive our bodily heat from the food consumed, but, on the contrary, seem to show quite conclusively that for periods of seven days or less, at any rate, the heat can be maintained without any food at all, and that it, occasionally at least, tends to *increase* as the fast progresses. My own cases, carried to a much longer period of time, showed the same thing. How such facts could be if we derived our bodily heat from the food consumed, as is universally taught, is a mystery.

The next section is devoted to the Pulse Rate. The chief historical cases are reviewed, the results being that, in some cases, the pulse remained normal, and in others rose or fell. No definite conclusion was arrived at, one way or the other, as the result of a study of these historical cases. Nor were the results obtained in the present series of experiments much more decisive.

The Respiration Rate is next studied—various minor fluctuations being recorded. These were but slight, however, the conclusion being arrived at that, "at least during the first two days of fast, the pulse rate is much more liable to fluc-

tuations than the respiration rate." (p. 322.) The changes noted were, therefore, of very small moment.

The Blood is next studied, very much more interesting results being obtained. As usual, the famous historical cases are first passed under review.

"Senator and Mueller, in reporting the results of their examinations of the blood of Cetti and Breithaupt, note an increase in the red blood corpuscles with both subjects. * * * * * In a later examination of Succi's blood by Tauszk, the conclusions reached were: (1) That after a short period of diminution in the number of red blood corpuscles there is a slight increase; (2) that the number of white blood corpuscles decreases as the fast progresses; (3) the number of the mononuclear corpuscles decreases; (4) the number of the eosinophiles and polynuclear cells increases and finally that the alkalescence of the blood diminishes. * * *" The newer experiments agreed with these results almost entirely. This part of the report will stand very careful perusal.

Strength tests are next considered, and this portion of the report is very interesting. Were our strength and energies dependent upon the daily food, they should, of course, wane and decrease upon the withdrawal of the food supply—the supposed *cause* of the energies. Let us see how far the observed facts bear out this theory:

"The tests made by Luciani on Succi in which a dynamometer was used to measure the strength of the right and left hands, showed results seemingly at variance with the popular impression. Thus, on the 21st day of the fast Succi was able to register on the dynamometer a stronger grip than when the fast began. From the 20th to the 30th days of the fast, however, his strength decreased, being less at the end than at the beginning of the fast. In discussing these results, Luciani points out the fact that Succi believed that he gained in strength as the fast progressed, and hence probably did not exert the greatest power at the beginning of the experiment (?). Considering the question of the influence of inanition on the onset of fatigue, Luciani states that the fatigue curve obtained

by Succi on the 29th fast day was similar to those obtained with an individual under normal conditions. * * *"

Other tests more or less agreed with this one. Some subjects appeared to gain in energy, others to lose it, but on the whole, the variations were slight, and the results more or less self-contradictory. Dr. John E. Loveland, who reported upon the cases, stated that: "On the fourth day of the fast the force of the pulse appeared less than on previous days. On the fifth day there was an irregularity noted, the individual beats varying in force. On the sixth and seventh days of fasting, and the first day with food, the force appeared greater than on the other five days. At no time did the pulse rate and force appear to approach a dangerous condition. At the end of the fast the subject was in a condition that, in my opinion, would have warranted his continuing the fast with impunity." (p. 335.)

Most interesting and significant are the "Subjective Impressions" that follow. As the author says: "It is commonly believed that the withdrawal of food for one or two meals results in dizziness, a feeling of faintness, and, at times, in pains in and about the epigastrium." This is what is *supposed* to happen. As a matter of fact, what *does* happen? While in some cases, discomfort was noticed (as has been described) in the majority of cases no such symptoms were observed at all! On the contrary, unusual vigor and strength were noted! How are such facts to be accounted for, upon the theory that the strength is derived from the food? I quote from the report as follows:

"The fast of Merlatti, which was said to have continued 50 days, was characterized by extreme discomfort, pain, and sensation of coldness. During the 30-day fast of Jacques, the only marked discomfort noticed was a slight attack of gout which appeared on the sixteenth day. In the numerous fasts of Succi, no marked discomfort was observed. In fact during his fast at Florence his cheerfulness and apparent good health were the subject of much comment. It should be stated, however, that both Jacques and Succi took small amounts of

narcotics from time to time throughout their fasts, though, as Prausnitz has pointed out, this may have been as much to stimulate a popular interest in the concoctions as to dull the senses of any possible pain, except possibly during the early days of the fast. Celli experienced considerable discomfort during the first one and one-half days of his fast, but this suddenly ceased after a movement of the bowels. * * * The records of the subjective impressions of J. A. in the experiments in the Stockholm Laboratory, show that on the first day of the fast he noticed no dizziness. On the second day, while his general condition was good, he observed unusual weakness following a slight muscular exertion. On the third day he was not in a little discomfort and was dizzy when climbing on a short ladder inside the respiration chamber. On the fourth day, the pain in the stomach disappeared and no dizziness was noticed in the experiment on the ladder. On the fifth day the general condition was excellent, and there was no pain or discomfort in the stomach. His strength, too, was greater (N. B.) although he noticed that if he arose suddenly from the bed there appeared to be black spots before his eyes. * * * In Prausnitz's opinion, the feeling of discomfort attending hunger is, in many instances, a purely physical condition. * * * It seems, therefore, that from the experiments made in this laboratory, the conclusion can properly be drawn that fasting, *per se,* produces no marked symptoms of pain or weakness, at least during the first days of inanition." (pp. 335-37.)

The next sections of the report are very interesting and far less open to speculation and controversy than those sections just noted. I mention them briefly, in turn. First, we have the feces. I quote briefly from the report:

"Fasting * * * affects first the amount and regularity of the defecation. * * * Owing to long retention in the colon, fasting feces become hard, much dried and pilular, and frequently cause considerable uneasiness. Much difficulty is experienced in passing them, and at times they may cause considerable pain with slight hemorrhages. The use of an

enema to remove the fecal matter during inanition is quite common. This method was employed throughout the 30-day fast of Succi—reported by Luciani. * * * Depending upon the amount of food consumed on the day previous, the defecation of the first day of fasting may be quite as regular as on the ordinary food days. * * * The most important factor noted was that feces were frequently retained for a number of days together, during fasting, with no apparent attempt on the part of Nature to effect a movement—a fact noted by myself also. The section concludes: "Chemical as well as microscopical examination of all feces passed during fasting experiments considerably longer than these are essential for a proper understanding of the nature of fasting feces." (pp. 337-45.)

The next section discusses the urine while fasting.

"Complete fasting during which no water is consumed results in lowering in a marked manner the total amounts of urine voided per day. * * * In general, when water is taken during a fast, the volume of urine approaches more nearly that voided by people under normal conditions. Indeed, when moderate amounts of water are consumed, the volume of urine presents as a rule no noticeable abnormalities. * * * In general, then, during the early stages of a fast, with the exception of the first day, the volume of urine is in large measure determined by the quantity of drinking water consumed. If the amount of ingested water is small, the volume of urine may exceed it several times. When the volume of drinking water is over 1000 cc., the volume of urine is usually not far from that of the water consumed. * * * In all of the samples of urine, whether tested by periods or for the whole day, the reaction was acid. The pressure of other work prevented an accurate determination of the degree of acidity. According to Brugsch, however, the acidity, at least in the later stages of a prolonged fast, remains nearly constant from day to day. * * * All the specific gravities observed come well within what would be termed normal limits. * * * In general, the average amount of total

solids during the different experiments is not far from 40 grams per day. * * * The only data regarding the ash elimination during fasting with which we are familiar are the quantities in the urine of J. A. On the last day with food the total ash of urine amounted to 23.0 grams; in the five fasting days, the total ash eliminated was 14.7, 6.7, 5.7, 5.0, and 4.5 grams respectively. * * * In general, the amount (of organic matter eliminated) ranges somewhere between 30 and 40 grams. * * * The proportion of ash in total solids is, as a rule, greatest on the first day and markedly less on the second day. * * * There is a tendency for the nitrogen excretion to approach constancy on the fourth day. * * * In considering the long experiments, it is noteworthy that the carbon elimination is invariably lowest on the first day, and on the remaining days is relatively constant. * * * The excretion of total creatinine, namely, preformed creatinine plus creatinine formed by heating the creatine of the urine with acid, remains singularly constant on all days of the fast, even during the 7-day fast, experiment No. 75. * * * While the quantity of preformed creatinine gradually diminishes as the fast progresses, the amount of creatine, which in normal urines is extremely small, gradually increases, and on the sixth day of the fast, there is excreted 0.585 gram of creatine. * * * The proportion of creatinine has a distinct tendency to diminish as the fast progresses. * * * During even a short period of inanition, the uric acid output may be greatly reduced. * * * The excretion of sulphur increases on the second day. There is an increase on the third day, and a steady diminution on the succeeding days of the fast. * * * There is, as a rule, a tendency for the phosphoric acid to increase for a few days after fasting begins and then subsequently to diminish. * * * The chlorine elimination on the last food day is invariably larger and on the first fasting day there is usually a marked diminution in the amount. * * *" (pp. 345-419.)

If we look over the above summary of results, I think we are at once struck by one important fact, viz., that there is a

constant tendency, on the part of the organism, to eliminate all inorganic and useless organic material from the system as rapidly as possible, the rise in the curves during the first few days being due to this very fact that the organism is attempting as rapid elimination as possible. The therapeutic value of this—and hence of the fasting cure—should be very apparent. But I return to the report.

The next long section is devoted to the "Water Output," and from it I quote a few salient points, summarizing the whole:

"Large amounts of water are excreted in the urine during fasting. * * * As the fast progresses, the average amount of water of respiration and perspiration per twenty-four hours gradually diminishes, but for the last three days of fast, * * * the amount is nearly constant. * * * In general, as the fast progresses, there is a diminution in the amount of water vaporized. * * * The decrease * * * is quite regular after the second day, although the difference between the second and third days is rather greater than that between the third and fourth. * * * On the average, about 44 per cent. of the water vaporized from the body of a resting man during fasting is from the lungs. * * * Considerable variations occur in the amount of carbon dioxide produced on the different fasting days of these experiments. As the fast progresses, the amounts eliminated generally become less and less. * * * If the longer experiments of S. A. B. be examined more specifically, it will be found that the carbon dioxide elimination decreased regularly in all cases as the fast progressed. * * *" (pp. 420-46.)

I have now given a summary of the more essential results obtained from Prof. Benedict's investigations. It will be seen that very few decisive results were secured, in spite of the great care exercised, and for the reason that the fasts were not long enough. They were all far too short to enable us to state anything positively, and it would be necessary to instigate and observe far longer fasts than those studied by Prof. Benedict—fasts of 20, 30 or 40 days—and upon diseased and

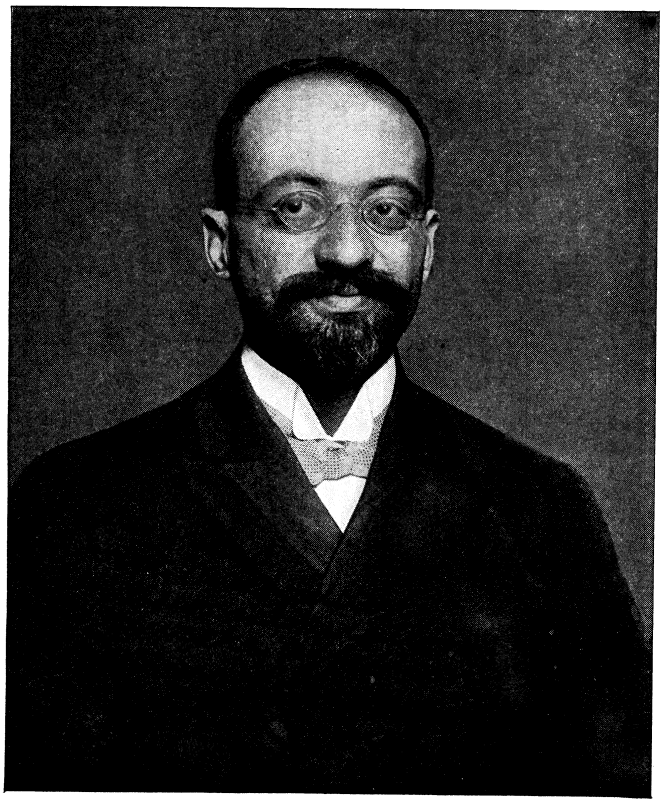
healthy subjects both. The former of these would afford beautiful examples of the therapeutic value of fasting, I have no doubt, while the latter cases would be (after the first few days) cases of *starvation.* There is a radical distinction between these two processes that cannot be too clearly borne in mind; it is fundamental, and is a distinction that must be clearly understood. I have often pointed out this fact, but since it is so ill understood I shall repeat it here: "Fasting commences with the omission of the first meal, and ends with the return of natural hunger; while starvation only begins with the return of natural hunger and terminates in death."

In order to establish any decisive and definite results, then, Prof. Benedict would have to study both these states, and for periods very much longer than those given in his report. Is it not obvious that the body must be thrown into a more or less abnormal and entirely unnatural state, as the result of going without food for one or two days? Would not all the avenues of elimination—all processes whatever in the body—be thrown "out of gear," as it were, and would function more or less abnormally, and that abnormal results would necessarily follow and be studied? In order to arrive at fair and definite conclusion it would be necessary to continue these fasts for a much longer period of time, and study the daily effects throughout that longer period. Fortunately, I had that opportunity, though Prof. Benedict does not seem to have done so. This is a great pity, since it robs his report of the weight it would otherwise have, and makes us think that the greater portion of his work was, after all, useless, since the body would rarely or never be *typical*—so to speak—in the opening days of a fast—as pointed out before. Since all the experiments were conducted on more or less healthy subjects, also, Prof. Benedict had no opportunity to observe the wondrous therapeutic value of fasting. Experiments in the past have been upon animals—almost without exception, and, inasmuch as animals can be considered healthy in the majority of cases, [Were not "healthy" animals almost invariably selec-

ted for the experiments?] the effects would be the results of *starvation,* not of fasting; and, be it observed, our physiologists have paid no attention whatever to those cases where dogs have voluntarily fasted for ten or twenty or more days in order to cure broken bones or internal injuries or kindred ailments! Such cases have never even received a passing mention! It is to be observed that Prof. Benedict does not even mention therapeutic fasting—as I pointed out at the commencement of this review. It is amazing that so much effort can be put into a piece of work of this character; that nearly six hundred pages of facts and figures can be presented, and that so very few results, and results of so inclusive a character, could have been reached. I must contend, again, that these inconclusive results were largely due to the prevalent false notions as to the relation of food to human vitality and bodily heat, and the prevalent lack of knowledge of the theory and physiology of fasting, and only when these views are reconstructed can we hope for definite results in this field of endeavor.

I do not wish it to be understood that I am in any way minimizing Prof. Benedict's work—its value or importance. Far from it; Prof. Benedict is to be complimented upon his insight, fairness and infinite patience with which he conducted his researches, and the tremendous mass of data he has accumulated. His report is almost the first of its kind in the English language, and is a very valuable and interesting one. It is to be hoped that Prof. Benedict's researches will stimulate others to efforts in the same direction, and that they may find that man can and will live for weeks together without food, and without in any way lowering his vitality and general bodily health so long as starvation is prevented. This is a fact of unparalleled importance, and it is to be hoped that the present report will at least have the effect of turning men's minds in this direction, and enabling them to see that "man does not live by bread alone," but by other and far subtler and finer principles of which we at present know little or nothing.

RECENT INVESTIGATIONS.—It was not long after this Report was published, however, that Prof. Benedict had an op-



Agostino Levanzin, B. A., Ph. D., a few weeks after his 31-day fast at the Carnegie Institute.

portunity to study a fast of much greater length—one of thirty-one days—undertaken voluntarily by Prof. Agostino Levanzin, of Malta—who came to America especially to undertake the fast, and be studied by Prof. Benedict. An account of this remarkable fast is given by Prof. Levanzin, in his own words, in *Physical Culture,* and is in part as follows:

I have always deplored the failure of "scientific" authorities on fasting and nutrition to seriously consider the writings

of Bernarr Macfadden, Upton Sinclair, Hereward Carrington, Dr. Linda Burfield Hazzard, Haskel, Eales, Purinton, and many others. So much have I been impressed by this state of affairs that I became desirous of remedying this condition by undergoing a thoroughly supervised fast in a recognized scientific institution, and thus placing upon a sound and positive physiological basis the fasting cure.

I discussed this particular aspect of fasting with Dr. Luigi Luciani, Professor of Physiology in the University of Rome and Senator of the Reign of Italy. He is considered as the greatest authority in Europe on fasting, having studied in 1889 a long fast of thirty days, undergone by Succi, and the report of which has been translated in German and looked into as the standard text-book of the metabolism (changes of the body) during inanition. He informed me that the best man for that work was Dr. Francis Gano Benedict, because he is the Director of the most up-to-date and fully equipped laboratory in the world at the Carnegie Institute at Roxbury, Mass. I knew that Dr. Benedict had published a great book about the "Metabolism of Inanition." I got it and read it several times over, but I always attached very little importance to it, because the deductions in it have been derived from fasts of very short duration; and the longest one of only seven days was performed by a hypochondriac, who, according to Tucsek, being an abnormal, could not give normal physiological results. Also, the first days of a fast are generally the most abnormal ones. So that great book, on which the Carnegie Institution has squandered six thousand dollars, is not worth the paper on which it was printed.

I learned that Dr. Benedict was seeking an intelligent, normal individual to thoroughly test by means of a long fast his conclusions on fasting—evidently to prove that a long fast was not only an absurdity, but that it was detrimental to health as, according to his ideas, the energy of the body machine was in proportion to the amount of food ingested and consumed as fuel.

So I offered myself, without any pecuniary remuneration

(the traveling expenses, some four hundred dollars, to Malta, five thousand miles, having been paid), and Dr. Benedict was very glad to concentrate upon me, as a subject, all the forces of the wonderful Carnegie laboratory, unique of its kind in the whole world.

I arrived in Boston on the tenth of April, 1912. I was a bit shattered-down by the rough sea during my trip on the *Franconia* but otherwise in good health. The enthusiasm for the idea that I was going to lay down the scientific foundations of the fasting cure doubled my energies, and so when, on the first night, Dr. Benedict invited me to enter into the coffin-calorimeter, although it looked so ghastly and exciting, I did it without reluctance.

A calorimeter is an appliance for measuring the amount of heat discharged by the body during a fixed period of time. At the Carnegie Laboratory they have several of them. They have one in the form of a large box, called the Atwater-Benedict, in which one can ride on an ergometer (a fixed bicycle) to have the heat of his body measured during work. They have smaller ones for animals and babies. But the one in which I passed thirty-eight whole nights of twelve hours each, is unique in the whole world, and that is the great reason why my experiment could not be conducted in any other laboratory in the world. It is not more than seven feet long, two wide and one and one-half in height; so that I could only be kept in it in a recumbent position on an air mattress, on a stretcher that lay on springs that were connected with a contrivance that marked, at the outside, the slightest movement that I happened to do while in the calorimeter. When the glass door is screwed up and hermetically sealed by melted beeswax you feel the grim sensation of being buried alive.

But when one gets accustomed to it and it is managed by expert hands, one sleeps in it very comfortably and feels as if sleeping in the berth of a ship. When it is not watched properly fumes of sulphuric acid are developed that irritate your throat, eyes and nostrils and stifle you. This happened to me several times as the care of the calorimeter was left in the

hands of youngsters, who preferred joking, singing and skylarking to doing their duty, the importance of which they could not understand.

When I started the fast, on the 13th of April, I weighed less than two pounds over 132 pounds, normal weight, according to the Yale University measurements, my height being five feet six and a half inches. This is an important point in every fast. The professional fasters generally overeat before they start the fast and so accumulate a good storage of adipose tissue on which they can live for the first few weeks of the fast. If the adipose tissue is very abundant, say thirty pounds, they can easily undergo a fast of thirty or more days without consuming one cellule of the essential tissues of their bodies. This important fact has been overlooked by all those scientists who have experimented on fasting men, and so the greater part of the results obtained till now are erroneous, as they are the physiological data of the destruction of the adipose tissue only and not of the whole body.

I tried to avoid this mistake by starting my fast from the normal body-weight, so that all the results obtained are of the destruction of all the different and essential tissues of the body and not of the degenerated and superfluous part only. Dr. Benedict, although reputed all the world over as the greatest authority on human metabolism, could not understand this when I wrote to him stating that I intended to start my fast *from my normal weight;* and he answered that he did not find any difference between starting the fast from 132 or 200 pounds.

The length of a fast is of no importance if that fast has not been started from the normal body-weight. It is more important a feat to start a fast from 140 pounds for thirty days, than one of one hundred days from 300 pounds of body-weight.

I am of opinion that man can lose sixty per cent. of his *normal* body-weight without any risk of death or damaging of his health; and I hope to establish this fact scientifically in my next experiment-fast, that I hope shall take place here in America within a few months more. The greater part of the

normal body-weight is also a storage of food for the brain to be used up in cases of necessity, and the bones act as the sustaining frame to keep up the necessary tissues that form up the different organs that subserve the volitions of the brain, which is the absolute master. This explains why in starvation deaths nearly all the other organs are consumed while the nervous tissues remain intact.

Many have a great reluctance to undergo a fast because they imagine that they are going to prove at the start those torturing pangs that you find described in many books. I never felt hungry on the first days of my fasts, but only a slight upsetting at the usual meal hours. At the start of this fast I was happy that I was going to avoid food for a month or more; and during the whole course of my fast, I not only did not feel any desire for food at all, but banished the thought I ever had indulged in any eating habit. At the start of a fast you suffer mentally if you concentrate yourself thinking about your privation from accustomed pleasures, but if you try to find a diversion at that hour, and drink a glass of water, and do not worry about it there ought to be no discomfort at all.

If you are undergoing the fast for a curative purpose, then I recommend you to drink water as much as you can because that carries along with it many impurities from the blood and so the cure is greatly helped. In the same case I recommend frequent enemas and Turkish baths. But generally you desire very limited quantities of water. I used to take only nine hundred cubic centimeters (approximately one quart) daily, and even that was too much for me, but I was compelled to drink that quantity each day for experimental purposes. My water was *distilled* and cold. Never has a fast till now been conducted on distilled water only; its taste is very disagreeable. I persisted in its use to insure more exact results. Professional fasters drink mineral waters during their fasts.

During my whole fast I had no defecations. I had a bowel movement just before I started the fast and the next was thirty-two days afterward, when I broke it. I did not

try to provoke any, as I did not wish to spoil the scientific results; and so the bad, bitter and upsetting taste of my mouth was very trying. One undergoing a curative fast should clean the bowels as much as possible by frequent tepid enemas or by using fruit-juices. The first movement that follows the breaking of a fast generally presents some inconveniences, among which are meteorism (gas in the bowels) and colic. The meteorism is persistent in those who have not been using the enema. A plug of hard feces is formed in the rectum, and another one at the duodenum (upper part of the bowels) is formed by the newly ingested food. The intestines are empty except for air. When the upper plug pushes down rumblings occur in the bowels. When this air is compressed more the abdomen inflates (meteorism). When it is more tightly compressed colic starts, and continues to increase till the rectal plug is excreted. Do avoid this, because fasting must be a pleasure-trip through health land and not the source of any pain or unhappy feelings. Anticipate it by rectal enemas to dissolve out the hard plug, and then as the upper plug of the newly ingested food is coming down, a few hours' seclusion from your friends and parents will be the only sacrifice taxed upon you.

Many people think that during a long fast you have to sit down on a Morris chair reading newspapers or dozing because you have not sufficient strength for doing any work at all. If you weigh two hundred pounds and your normal weight should be one hundred and thirty-two you can fast for sixty days and for each day you increase your strength, because you are coming back to your normal point. I started this fast from my normal weight, I have gone through thirty-two days of continuous scientific hardships and tortures, but I never felt that I was losing any strength and there are the dynamometric tests to show it.

On the last day I could press up to one hundred and twenty pounds without any difficulty with my left hand and I never do any regular exercises except walking. I could go up and down a steep flight of steps to my balcony without support or

shaking in the knees. I never lay down except during experiments.

I used to pass the few spare hours that were at my disposal writing long letters and busying myself actively; on the evening of the last day I was dancing in the laboratory and laughing. In the afternoon the elite of the medical and scientific men of Harvard University and of the medical colleges came to see me. I stood up for nearly two hours and for the whole time.

I explained to them the impressions of my fast, compared them with those of my precedent fasts and answered many questions with my spirits up and without feeling the least exhaustion. Those that feel any lack of strength during a fast are to be classed in the same category with those who feel hungry. They are nervous, and very impressionable people, and their sufferings are only the baneful effect of their too vivid imagination.

If you suggest to yourself that you are strong and that you can walk two miles on the thirtieth day of your fast, believe me, you can do it without great difficulty, but if you fix in your weak mind that you are going to faint and worry and persist to worry about it, be sure that not a very long time will elapse before you faint really, a victim of your wrong auto-suggestions.

During my last fast of forty days in Malta I used to do my hard professional work from 9 to 12 A. M.; from 5 to 9 A. M., I used to prepare articles for my weekly review "Nahla," and from 12 to 7 P. M., again my work for the paper and correspondence. At 7 P. M., a long walk to 9 P. M., and I have never felt any diminution of strength. On the fortieth day among fifteen strong men only two out-pressed me on the dynamometer.

Mrs. Levanzin, during her record fast of thirty-three days, continued to do all her domestic duties and at that time she had no servant. She used also to find time for her walk with me or with the daughters and also to write articles for my paper on hygiene and domestic economy. Succi used on the last days

of his fasts ride on horseback or ascend the Eiffel Tower of Paris, running up the tremendous staircase that tires you, as it did me, simply by descending it. This shows evidently that the loss of strength is only an effect of the imagination; and so my friend Carrington's theory of vitality shall be (by what resulted during my last fast) if not confirmed, at least put in a higher place for consideration. But if physical strength is not lost during a fast, the mental power and clarity are extraordinarily increased. Memory develops itself in a wonderful way, imagination is at its best.

At the outset of my fast, my exact weight was a shade over 133½ pounds (60.6 kilograms). At the conclusion of the thirty-one days of my fast, I weighed barely 104½ pounds (47.4 kilograms), a total loss of twenty-nine pounds during the fast. Throughout the fast, tests were taken of my pulse rate, blood pressure, respiration rate, respiration volume, blood examination, anthropometrical measurements, urine analysis, and growth of hair, not to mention innumerable other observations of my mental and physical condition from day to day.

I cannot exactly speak about my condition at the close of my fast, because I had to break it against my will and when Nature was not ready for it. I had agreed with Dr. Benedict to undergo a fast of thirty days on water and one of three days on carbohydrates only. When the thirtieth day arrived I was in splendid condition, I had not the least desire for food and could not have it because my tongue was still heavily coated. I was still in possession of my full energies and ambitions and my mental faculties were getting better and better day by day. I asked Dr. Benedict to let me protract the fast for at least forty days. He objected as being very expensive and fatiguing to his men. After many entreaties, he agreed to let me fast for a day more—thirty-one—to beat the record of the longest *scientific* fast ever done. If the fast were continued to its natural limit I am sure that I would have felt very much better. I have experienced that in the precedent long fast of forty days.

I have put under experiment nearly all the systems for breaking a fast. The *how* is as dangerous as the *when*. To mine I have added the experience of my wife, my daughters and of many of my friends. After a mature and long meditated study of physiological principles tested by practical methods I think that I have arrived at the right solution. I had the intention of giving my system a thorough test during the breaking of this last fast, but I could not do it as I had to follow unwillingly somebody else's inflexible will.

I break my fasts on acids and carbohydrates followed immediately by proteid food. The ease and rapidity with which tissues are rebuilt, without any untoward accidents, is really astounding. Dr. Goodall, who was in charge of me during the fast from the medical point of view, insisted on having my fast broken on "clam broth" and "beef tea!!!" And because I told him that these would kill me he and Dr. Benedict gave up and put all the responsibility on my shoulders. I took it and broke the fast successfully without any inconvenience although it was afterward spoiled at the hospital.