GIRTH CONTROL

by Henry T. Finck

GIRTH CONTROL

For Womanly Beauty, Manly Strength, Health and a Long Life for Everybody

BY

HENRY T. FINCK

Author of "Food and Flasor," "Gerdening With Brains," de.





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GIRTH CONTROL

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To

JOHN HARVEY KELLOGG
Who saved the author's life and thousands of other lives by his hygienic precepts, this book is gratefully and admiringly dedicated

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WHAT IS "GIRTH CONTROL?"

A NEW method of reducing weight which calls for no self-denial, but allows you to eat anything and as much as you like, while enjoying your meals far more than before.

This is not bluff, but a scientific demonstration. It involves a new psychology of eating which enables anyone to have a gorgeous time without gorging; to intensify gastronomic delights as the amplifier intensifies radio sounds; to prolong life twenty years instead of digging one's own grave with the teeth.

Girls with perfect figures at twenty need no longer fear losing them at thirty. Underweights also can, by the method set forth in this book, gain the weight essential to perfect beauty in women, efficiency and vitality in men. Girth control means health control for everybody. It means the triumph of enlightened, refined dietetic sensualism over ignorant, ascetic, suicidal Puritanism.

PREFACE: EAT WITH YOUR NOSE!

Ir you are in a hurry to begin reducing, please turn at once to Chapter XIX, where you will find sample menus to start with. These have been prepared with infinite care; they include a minimum of fattening foods and a maximum of those precious mineral salts (usually miscalled vitamines) the absence of which from the menus made for overweights has often resulted in their doing more harm than good, making the victims lose health faster than weight. See Chapter X.

If you are an underweight, begin with Chapter XX and then read the other ten chapters, which, as explained there, are as important for you as for overweights. That seems paradoxical; but it's simply a question of health.

If your weight is normal, read this book, anyway. Prevention is easier than cure and a stitch in time may save nine later on. Don't wait till you are obliged to exclaim, dolefully,

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"Oh, if I had only known these things twenty years ago!"

Frequently I have met women and men weighing twenty, thirty, or forty pounds more than they ought to, and who said to me; "Why should I worry as long as I am in perfect health?" But they were not in perfect health. A dam seems all right till the break occurs; then comes a flood of disaster all at once.

Except in extreme cases of obesity, overweight and underweight are problems for the dietician rather than the doctor. I have been a diligent student of dietetics—the science of food and feeding—for half a century. In Food and Flavor I gathered together much of what I had experienced in many lands. In the present volume I have made a special application of the new psychology of eating first set forth in that book. I believe that this new psychology of eating, if generally known, would create a new epoch in health and longevity, gladdening the hearts of insurance companies. If I wasn't so painfully modest I would humbly suggest that I deserve a Nobel Prize for the discovery of the healthful olfactory flavors, so strangely misunderstood till I located them and showed

how they differed from fragrance and gustatory flavors. See Chapter VII.

Undoubtedly, the greatest problem before the human race is to break the mania to overeat. Any doctor will tell you that this mania is the source of nearly all the ills from which mortals suffer. Overfat and underfat are mere details in this larger question covered by my new psychology of eating.

What I have tried to do is the Herculean job of curing that seemingly irrepressible urge to overeat by opposing to it a powerful mental counter-lure; by proving physiologically that women and men can have infinitely more pleasure if they will eat wisely, with the nose as well as the mouth.

You laugh? Well, read the chapter on "Linked Pleasures Long-Drawn-Out," and you will see that it is not a joke. Read the book on Caruso of Doctor Marafioti, the eminent laryngologist, and you will find out that the greatest of all tenors owed his preeminence to the fact that he sang with his nose as well as with his throat. The nose was his sounding board. Take the sounding board out of a piano and it will be as a tinkling banjo. Now the nose is a "sounding board" for

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flavors, too; for augmenting the pleasures of the table. And these augmented pleasures are, as I have shown, infinitely beneficial. My advice is: Don't deny yourself gastronomic pleasure—indulge in it riotously but wisely. And I have explained minutely what wisely means.

The mental side of the art of reducing is far more emphasized in this volume than it has been heretofore. See particularly the chapter on "The Will to Reduce." One of the possible titles for this book that occurred to me was *The Mind Cure for Overweights*.

Of fundamental importance to overweights and underweights, as well as to normal weights, is Chapter XI, on auto-intoxication. Unless that is cured first, all other measures are useless. Battle Creek owes its fame and success largely to its recognition of this truth. I have in this book embodied the pertinent Battle Creek doctrines, as set forth so eloquently by Doctor Kellogg in half a dozen books.

The opinions, experiences, and discoveries of other authorities from the days of the Greek Hippocrates, the "father of medicine," to the present time have been freely quoted

PREFACE: EAT WITH YOUR NOSE! xvii

in the following pages. I have no fear that any author will object. Listen to Benjamin Franklin: "I have heard that nothing gives an author so great pleasure as to find his works respectfully quoted by other learned authors." This pleasure, he adds, plaintively, "I have seldom enjoyed."

It was, of course, for the purpose of giving Don Marquis this exquisite pleasure that I have adopted one of his delightful witticisms for the title of this book. At any rate, Christopher Morley believes that Don coined that phrase. Merci beaucoup, Monsieur le Marquis.

GIRTH CONTROL

CHAPTER I

WHY WORRY?

A VERY fat man was sitting in a Boston street car, taking up half the room belonging to the very thin man next to him.

"I think the street-car companies ought to charge by weight!" the underweight individual exclaimed, petulantly.

"Indeed!" replied the portly gentleman. "They wouldn't stop to pick you up!"

Maybe you think you are too heavy. But cheer up. Compared with the heaviest men and women on record you are a mere skeleton.

English record weights take us to the dizzy heights of 616, 643, and even 739 pounds! And you boohoo about your weight, although you are probably under 250 pounds. Shame on you!

If you are a woman, please remember the English girl of four who weighed 256 pounds and the girl of sixteen in Doctor Copeland's reducing squad of 400 who turned the scale

at 270. Aren't you, in comparison, a feather-weight? Why worry?

Shakespeare said that beauty provoketh thieves. Had he been a native African or Australian he would have said "fat provoketh thieves sooner than gold."

WHERE BEAUTY MEANS FAT

Writing about the aborigines of Victoria, Brough Smyth says: "A very fat woman presents such an attractive appearance to the eyes of the blacks that she is always liable to be stolen. However old and ugly she may be, she will be courted and petted and sought for by the warriors, who seldom hesitate to risk their lives if there is a chance for obtaining so great a prize."

In Polynesia, the Rev. W. W. Gill tells us, girls were regularly fattened and imprisoned till nightfall, when a little gentle exercise was permitted. If refractory, the guardian would whip the culprit for not eating more.

To please the men, African women eat enormous quantities of bananas and drink milk by the gallon.

Speke measured one of the much-admired dusky wonders of obesity, who was unable to

stand except on all fours. Result: around the arms, I foot II inches; chest, 4 feet 4 inches; thigh, 2 feet 7 inches; calf, I foot 8 inches; height, 5 feet 8 inches.

"Meanwhile," he relates, "the daughter, a lass of sixteen, sat stark naked before us, sucking at a milk-pot on which her father kept her at work by holding a rod in his hand; for as fattening is the first duty of fashionable female life, it must be duly enforced by the rod if necessary. I got up a bit of flirtation with missy, and induced her to rise and shake hands with me. Her features were lovely, but her body was round as a ball."

Mungo Park wrote that with the Moors "corpulence and beauty are terms nearly synonymous. A woman of even moderate pretensions must be one who cannot walk without a slave under each arm, to support her; and a perfect beauty is a load for a camel."

Nubian girls are especially fattened for the marriage market by rubbing grease over them and stuffing them with polenta and goat milk. When the process is completed they are poetically likened to a hippopotamus.

Concerning Hottentots, Theophilus Hahn, who lost no chance to praise them, wrote

frankly that "their sole love affair is the fattening process, on the result of which, as with a pig, depends the girl's value and the demand for her."

"No fat no beauty," declares Dr. Woods Hutchison, speaking of American women of our day. "Thinness and meagerness destroy far more beauty than fatness does." Why worry?

It is certainly true that plump girls are more likely to get married than thin girls. (See Chapter XX.)

At all times, in many countries, portliness has been esteemed as a badge of aristocracy and wealth—a sign that you have plenty to eat

ADVANTAGE OF OVERWEIGHT

In cold countries a fat person's blubber serves as a protection.

On the ocean waves, the corpulent float easily—oh joy!

And listen to this: Doctor Kellogg, of Battle Creek fame, who has treated 135,000 patients in forty years, tells us that lean persons are "twice as likely to die from pneumonia as persons who are overweight"; and that "plump people are only one-fourth as

likely to suffer from tuberculosis as a person of average weight, while lean people are six times as likely to suffer from this disease as those who are overweight."

Doctor Ebstein, one of the great German authorities on corpulence, bids us remember that history records many great men who were corpulent, and warns us not to exaggerate the injurious effect of overweight on mental activity.

"May your shadow never grow less," is an old form of sincere salutation.

In former generations in Europe, says an English writer, fat was "indulgently tolerated and even respected. It typified responsibility, levelheadedness, a solid and sober wisdom."

There is Dickens, for example. He nearly always treated the fat man "with affectionate respect. His Pickwick and Cheerybles seem to reflect the conviction that stoutness is not only a natural, but a rather laudable, condition for the elderly. And when Tony Weller declares that 'vidth and visdom go together' he was merely condensing into an epigram the very common English idea that native sagacity was to be found in its perfection in alliance with a profile of pronounced convexity."

CHAPTER II

THE GRAVE DOTH GAPE THRICE WIDER

AND now, kind and weighty reader, having lifted you up to the highest pinnacle of contentment and elation with your present condition, I am going to let you down—for your own good—to the lowest depths of despair.

All hope abandon, ye who enter this chapter expecting to remain as you are. It is a dismal, tragic, pitiable picture that I am about to pain

Let me begin with a brutal paragraph by the anonymous English writer I have just quoted:

But now, the fat man has no defenders. The medical man denounces him. The tailor only makes him a suit under protest. The novelist gives him no quarter. The dramatist will allow him no nice benevolent parts; he is only introduced to look foolish.

The foolishness of real obesity — which means the highest degree of adiposity—already struck the Greeks. The victims of it, in the words of Doctor Ebstein, "become ridiculous and have at all times been the laugh-

ing stock of everybody. The ancients jeered at the obese Silenus in the processions held in honor of his foster-child Bacchus, and capacious Falstaff is the popular embodiment of low comedy."

LAUGHED AT IN BANTING'S DAY

Did Falstaff enjoy his fatness? Hear him bemoan his fate:

A man of my kidney . . . that am as subject to heat as butter; a man of continual dissolution and thaw.

In 1863 the corpulent William Banting (who weighed 202 pounds) wrote a long letter to the public in which he told how, following the directions of Doctor Harvey, he reduced his weight thirty-five pounds in thirty-eight weeks by simply eating less bread and butter, sugar and potatoes, and drinking less milk and beer, these having been his principal nourishment.

Incidentally he gives details which throw a curious light on English manners at that time.

It appears that in those days fat persons were greeted with derisive laughter when they appeared in the street or a coach, in a railway car or omnibus—especially if the seats were too narrow for them. The same thing hap-

pened at social gatherings; it was painful, Banting declares, and depressed even the strongest minds.

DISEASES DUE TO CORPULENCE

Our manners to-day are better; we no longer treat obesity or corpulence as a joke, but as a serious matter—very serious indeed. Why?

Overfed people are more likely to suffer from cancer than the underfed. According to Williams, cancer is almost unknown among the poorly fed Hebrews of East London, but is very common among the wealthy Jewish bankers of Hyde Park. Bright's disease, arterio sclerosis, high blood pressure, and apoplexy are also among the consequences of the overfeeding which leads to obesity. "In time," says Doctor Kellogg, "the stomach breaks down from overwork; flatulence, hyperacidity, disorders of the liver and gall-bladder and hemorrhoids, are among the common results."

Doctor Joslin, a medical specialist, has concluded that diabetes is largely a penalty for fatness.

"The obese are threatened with danger on all sides," says Doctor Ebstein. Some fat per-

sons suffer "constant attacks of asthma of really suffocating character."

Deposits of fat around the heart interfere with its action and often lead to fatal results. The same is true of fatty deposits around the kidneys.

Physicians have found that overweights suffer twice as often from Bright's disease, both acute and chronic, as do persons of normal weight. Also, obese persons suffer from cirrhosis of the liver three and one-half times as often as persons of normal weight. Insurance figures show that persons who are even 10 per cent above the normal weight have a considerably higher mortality than those who are 10 per cent below normal weight.

Insomnia, neuritis, eczema and other skin troubles go with obesity.

HOW WOMEN SUFFER

The beauty of women is often deplorably impaired by overweight. Our standards of good looks are different from those of Hottentots, Moors, and Turks.

A bad complexion usually goes with corpulence. A fat face loses the capacity for expres-

sion—for mirroring the soul, which is the quintessence of personal beauty, and which enables women to keep their beauty till they are forty, fifty and sixty.

Doctor Copeland, the former Health Commissioner of New York City, in his excellent little book on *Overweight*, presents one aspect of the case for women in these two striking paragraphs:

"What does it mean to carry around with you the burden of twenty-seven pounds of unnecessary fat? If your husband gave you a twenty-seven-pound sack of flour and insisted that you carry it with you wherever you went, you would say he was crazy.

"Twenty-seven pounds is the average weight of a two-year-old baby. Any mother obliged to carry about a youngster of this size and never permitted to put it down would be worn out in a few days." More striking still is the fact figured out by a writer in the New York American that if President Taft weighed 350 pounds, this was equivalent to carrying around with him four pails of water! How many pails are you carrying?

For both women and men, corpusence is thus seen to be a constant danger to health, an enemy to personal beauty and comfort, and a terrible handicap in the struggle for existence.

Athletes reduce zealously even when only a few pounds too heavy, knowing, as jockeys do, that there must be no dallying with failure

IRVIN S. COBB AND OTHER BRAIN WORKERS

For brain workers adiposity is as great a handicap as for acrobats.

Vance Thompson, finding his weight a burden, reduced himself to a reasonable figure with the aid of his wife's menus and wrote about the pleasing results in a little book, *Eat and Grow Thin*, which has had a very large sale.

Nina Wilcox Putnam has written To-morrow We Diet, which surely would be less amusing if she had done it before she dieted. "I removed fifty pounds in seven months," she says, "and this without exercising anything except my intelligence."

She had her reward not only intellectually, but esthetically and femininely. She tells her readers face to face: "The suffering I experienced was nothing—absolutely nil, when stacked up against the subsequent heavenly,

sublime joy of discarding my best tailormade suit because it was hopelessly too big all over."

Irvin S. Cobb's facetious little book, One Third Off, is a trifle optimistic in its title, for when he wrote it he had not quite reached his goal. "Three months ago, when I set out to reduce my belt line and my collar size, I snatched the beam down kersmack at 236 pounds, stripped. This morning I weighed 197, including amalgam fillings and the rights of translation into foreign languages, including the Scandinavian."

What enabled him to write so drolly? He tells us himself: he reduced his intake of food by one-third to one-half. "Before the week ended I felt fitter and spryer in every way than I had for years past; more alive, more interested in things, quicker on my feet, and brisker in my mental processes than in a long time. The chronic logy foggy feeling in my head disappeared and failed to return. I may add that to date it still has not returned."

Every brain worker knows what an annoying, aggravating thing that "foggy feeling" is. And to think that this fog can be dispelled by simply eating less

It is true that some brain workers have done great things though corpulent. But how glad they were when they could peel off some of their bulk! Great was Bismarck's joy when Doctor Schweninger lightened him.

William Howard Taft, though a decided overweight, was able to be President of the United States, and a good one, too; but when he succeeded, by moderate exercise and excluding from his diet starchy foods, sweets, and alcoholic drinks, in reducing his weight by seventy-five pounds in ten months, he was ready to dance for joy. Had this happened sooner, he might have been President a second term.

Luigi Lablache, the famous Italian basso buffo, was so heavy that once when he climbed into a cab in Paris, he broke through its floor and had to pay for it. How he would have rejoiced—if only for economical reasons -if at that time there had been doctors or books to tell an obese man how to take "Onethird off!"

If you are overweight and refuse to benefit by the example of the great men I have chosen as samples, the tragedy will proceed rapidly from act to act until death ends it all.

SHAKESPEARE FORESAW INSURANCE FIGURES

Listen to this terrible warning:

Make less thy body hence, and more thy grace; Leave gormandizing; Know the grave doth gape for thee thrice wider than for other men.

The italics are mine. How could Shake-speare, so many years ago anticipate the latest life-insurance figures? It seems a case of clairvoyant genius; or, maybe, the poet had seen among his neighbors proof of his statement.

What are the insurance companies' figures? They show that when you are about fifty years old every pound of overweight means I per cent taken from your life expectancy.

If at fifty you weigh fifty pounds too much, your life expectancy is reduced by 50 per cent—that's easy to remember.

In other words, you will live only half as many years more as you would if you enjoyed normal weight. Keep that fact before you every time you sit down to eat.

It is more than a mere memento mori! It warns you that not only must you die, like all mortals, but you will die prematurely unless you give up eating too much fattening food. Of other food you can eat all you please.

The average duration of human life is under fifty. It should be between 100 and 150, and gradually it is lengthening. In Massachusetts, where statistics have been kept for more than a century, it is shown that the expectation of life has increased from only thirty-five and a half years in 1789 to over fifty-five years in 1921. In New York City the death rate has been practically cut in two in the last quarter of a century; and the estimate of the New York State Charities Association for the United States as a whole is that there has been an extension of four years in the life of the average citizen in the last eleven years

DON'T YOU WANT TO LIVE?

Now, my dear sir, or madam, would you voluntarily and deliberately deprive yourself of the benefits of this general increase in years, and actually decrease yours simply because you like to eat fattening food? I cannot believe it, though I see you are doing it. Don't you want to live?

If you were told that you were doomed to be electrocuted ten years from to-day your heart would flutter in panic. But death by an instantaneous current would be surely pleasanter than dying slowly of one or more of the diseases just mentioned, simply because you cannot curb your appetite.

Don't you want to live? I ask again. Can't you give up two of those three doughnuts you mean to eat so as to be with your family and friends five or ten years longer?

Not all of us live happily, yet all want to live on. Socrates tried to comfort mortals by saying that when we are here death is not and when death is here we are not. That sounds plausible; but will it comfort you when you know your last hour has come, prematurely, through your own faults?

Do curb your appetite; train your flabby will (in a later chapter I'll tell you how); be wise; repeat the following a dozen times a day, till you have hypnotized yourself into doing the right thing:

Leave gormandizing; know the grave doth gape For thee thrice wider than for other men.

CHAPTER III

SHORT CUTS TO SLIMNESS

HATS made over while you wait! Trousers pressed while you wait! Shoes cobbled while you wait—how we do like to rush things!

Newspapers and magazines are full of advertisements promising weight reductions of the "while-you-wait" sort. It pays to advertise. The size of these expensive "ads" proves that very many women and men try these short cuts to slimness.

Probably, if a surgeon or a butcher advertised a method of just slicing off human blubber, he would get rich quick.

Some years ago a famous prima donna, who ate not wisely, but too well, and never walked more than a block at a time, allowed her name to be used in an advertisement promising great loss of weight through medicated baths. It was really an old, old lure, concerning which Doctor Wiley, of pure food fame, has well said: "Medicated baths are useless. The hot

bath helps, but not the salts put in." "Don't try to wash away your fat—fat is not soluble in an alkaline bath."

TURKISH BATHS AND THYROID

A Turkish or Russian bath is a good thing if you simply wish to temporarily lose weight. But you will not lose fat from it. On the contrary, you are likely to gain. A few extra glasses of water to quench your extra thirst will soon replace the few pounds of weight you lost, and the fine appetite which follows a sweating bath will tempt you to eat more, leaving you in the end heavier than if you had taken no Turkish or Russian bath at all.

On these things there is now general agreement among medical and reducing experts. Also, there is a general taboo now on purgatives, iodide of potassium, rubber garments for sweating, and various other "antifats," which are usually either harmless but useless, or actually poisonous.

Some physicians still use the dried thyroid of the sheep. It is a frequent ingredient of quack remedies. While admitting that this remedy may be of some value in rare cases in which there is a deficiency of the secretion of

the thyroid gland, Doctor Kellogg says that "even in these cases it must be used with the greatest care, as an overdose is likely to produce serious disturbances of the heart and various nervous disorders of a more or less serious character. In by far the great majority of cases of obesity there is no deficiency of the thyroid secretion, and administration of thyroid is followed within a few days by quickening of the pulse and the appearance of various unpleasant and more or less serious nervous disturbance, and sooner or later grave conditions may be developed. Thousands of persons have been damaged by the use of these meretricious nostrums. The only safe thing is to avoid them altogether."

MASSAGE AND MINERAL WATERS

The same authority, in his marvelous compendium of medical and dietetic wisdom called The Health Question Box, asks "Can excessive fat be removed by massage?" and answers:

"No. Massage is purely mechanical in its effects. It does not increase to any considerable extent the bodily activities by means of which alone fat can be consumed. Careful experiments made by Zuntz, an eminent Ger-

man investigator, and others showed that massage does not increase metabolism [i.e., tissue changes and chemical activity of the body] and hence cannot be relied upon as a means of reducing fat. Many persons have wasted an enormous amount of time and money in an attempt to reduce their weight by treatment at the hands of manipulators who claim to be able to accomplish a cure by massage and various special manipulations, but do not make good their claims. Work is necessary for the reduction of fat, and work by the patient himself, no matter how distasteful. The obese patient must make up his mind that he must work out his own salvation."

Often an advertised short-cut remedy is mere bluff. The patient who buys the secret nostrum at a fancy price is told that while using it he must avoid certain foods. It is this that makes him lose weight, not the expensive nostrum.

Europe abounds in summer resorts and baths famed for certain mineral waters to which are attributed antifat properties. At these places patients lose weight—thanks to the enforced abstention from fattening foods which goes along with the external and internal mineral baths.

CHAPTER IV

WHY OUTDOOR SPORTS HELP MOST

HAVE you ever seen a fat farmer? I have, once or twice, but he seemed such a curiosity that I came near making him an offer to be the star exhibit in a dime museum at the state fair.

Portly persons are advised not to sleep too much. Farmers, lean and wiry, never sleep too much, often not enough.

Getting up seldom later than five o'clock, they milk, feed, and pasture the cows; curry the horses, plow; harrow, cultivate, and weed the crops; gather in the hay; fill the silo; chop wood; market their products; and do a hundred other things that keep their muscles on the move sixteen hours a day. A most strenuous life. Two days in one.

STORY OF A LEAN FARMER

Here is a true story. A neighbor calling on a farmer's wife was accosted with: "Do you know what happened this morning? John got up as usual and went to the barn. He didn't come back for breakfast, so I went to see what was the matter, and what do you think I saw? There was John hanging from a rafter—and not a chore done!"

He had had all he wanted.

Farmers may eat much or little—it's all the same; thin they remain. Pork and salmon, butter and cream, bread and cakes, potatoes and cereals, fried foods, dripping with liquid lard, have no more effect in fattening them than pickles, cabbage, and celery.

If you want to eat like an ogre and get thin, become a farmer! Let this be the battle cry of the obese!

Arctic explorers can eat up whole shiploads of food—they always do—without gaining weight. And think of the lumbermen felling trees in the frozen forests and eating five solid meals a day with impunity! Go thou and do likewise.

Unfortunately, the majority of men cannot be farmers or arctic explorers or lumbermen.

The poor things are imprisoned in the cities, knowing not the joys of outdoor activities or knowing them only for a short vacation time each year. The Lord have mercy on them!

Is it a wonder they grow heavy and flabby and lazy and always wish something else would happen to them?

Irvin Cobb speaks disrespectfully of the "ritualistic bedroom calisthenics" recommended by diverse health experts. Most people that need them feel that way. Faute de mieux, however, they have their uses for city folk.

Girth control is the all-important thing. Embon point must go. It used to be pardoned and even, as already mentioned, esteemed as a badge of prosperity ("he has plenty to eat"). But can you see any good reason why a prosperous person should die at an earlier age than a paunchless pauper?

NO SWIMMING HOLES ON BROADWAY

"Fat accumulates where there is deficient activity," says Doctor Kellogg, "so the main thing to do is to make that part of the body work."

Sawing wood and swimming are highly recommended for this purpose; but in the cities we have only coal to saw and even that's usually short; nor are there enough swimming holes on Broadway or Fifth Avenue to hold all the men and women who need them for reducing.

So the bedroom and bath must suffice. Never having been an overweight, I cannot speak from personal experience; but we are assured by the eminent authority just quoted that "one may lie on the back and raise the legs to vertical a hundred and fifty times a day. The next best thing is to lie on the back and raise the head far enough to see the feet for a considerable number of times daily. This will contract the abdominal muscles and make them work. This part of the body gets fat because the muscles are so little used. Work uses up fat as fuel."

Rolling over and over on the floor, going up and downstairs, rising on one's toes a number of times in succession, are other ways recommended for strengthening the abdominal muscles. They are so simple that it doesn't require much will power to carry them out.

Nor is it hard to learn and practice what's called the obesity bend, which consists in standing with feet a foot apart, then touching the floor with one hand while the other is held high, and then reversing the sides. The knee on the side where you touch the ground may be bent a little, but not the other. For

breathing exercises to go with this bending and make it more effective and agreeable, see pages 201 of Gaines's *Vitalic Breathing* (Chicago: The Reilly & Lee Co.).

Walter Camp, Yale's famous football coach, has made up his mind, after thirty-five years of coaching, that "men and women can keep themselves fit with only ten minutes a day—but the place where they must look after themselves is the torso, or trunk, muscles."

"You may have muscular arms and legs, but unless these abdominal muscles are firm and 'knobby,' you are not fit—and no amount of exercise will make you so."

Reduction of girth can be greatly hastened by wearing a broad belt around the abdomen in the daytime.

Another bedroom exercise highly recommended is running about on all fours. "Human beings," we read in the Good Health magazine, "are four-limbed animals just as much as are dogs, cats, and horses. Man's upright position exposes him to certain dangers from the effect of gravity from which the quadruped is free. In going about on all fours the downward pull of gravitation is no longer felt by the stomach and other abdominal viscera, and

the vigorous action of the abdominal muscles not only increase their tone, but at the same time serves to push the viscera up into their proper place."

It is not enough to take the horse to water; we must also make him drink. The trouble with bedroom and gymnasium exercises is that if performed regularly—which is necessary to make them of any use whatever—they are apt to become monotonous and irksome; and unless the reducer has a very strong will he or she soon drops them.

THE MIND MUST BE INTERESTED

Unless the mind is interested, nothing is ever done persistently and thoroughly—you may take that as gospel truth.

It explains why voluntary outdoor activities which enlist the brain and the emotions are vastly preferable to dutiful domestic exercises.

Dancing may seem an exception among indoor activities; but dancing, too, is vastly more exhilarating and reducing (see next chapter) in the open than when it means just the being "imparadised in one another's arms" indoors, to use Milton's words.

Does housework take off flesh? Doctor

Copeland says it doesn't. "Many professional cooks and laundresses seem actually to take on fat," he writes.

Why? Because "they have learned to use their muscles and to make their movements with such ease as to induce little perspiration and no apparent physical effort. This sort of activity will not remove flesh."

Probably it would if the same work were done outdoors. I have known farmers' wives who did their cooking, dishwashing, laundering, etc., on the back porch. They were thin. They got more oxygen; and oxygen, as we shall see, burns up fat.

What makes golf, tennis, ball playing, and other strenuous outdoor games superior to home or gymnasium exercises is, let me say it once more, the mental stimulus. You don't tire of them as you do of dumbbells and pulleys and that sort of thing, because there is always something new and unexpected, in addition to the excitement of rivalry. So you keep everlastingly at them and your overweight fades away gradually, enchantingly. The horse has been made to drink.

Of course, if you are too heavy and unused to exercising, you must start these things slowly, putting on a little more steam from day to day. Full speed at once means a damaged heart.

Thousands of men, and women, too, come back from their vacation less fit than they were before—simply because they climbed a mountain on the first day, or rowed or swam too hard.

From England comes a recent message that croquet is the ideal game for stout persons. A few hours of daily croquet have reduced weights from 200 to 160. A London physician specially recommends this game for two reasons: because it is not too strenuous and can, therefore, be kept up a long time; and because the act of stooping over a croquet ball with a mallet means compression of the abdominal blubber.

"You cannot," this doctor says, "recommend a fat man to play lawn tennis. If you did, his elephantine gambols would be prematurely cut short by an attack of apoplexy; he must have something less violent that will last a long time."

And then, of course he mustn't restore the blubber burnt up by the exercise by eating too much at the next meal.

WHY THE GREEKS PRACTICED ATHLETICS

The ancient Greeks are still our model in the matter of open-air gymnastics and games. We heard a good deal about these things in school and college, but we were not told the real reason why so very much importance was attached to them.

Patriotism was at the bottom. All the young men—not only a few, as at our universities—were put through calisthenic exercises chiefly because these kept away blubber from the bodies of the young men; so that they were fit at all times for what is summed up in the phrase, "When Greek meets Greek, then comes a tug of war."

But there are more desirable ways of fighting fat than war and preparations therefor. Some have been referred to in this chapter. Others will be considered in the next, which I beg you to take to heart very much if you wish to lose weight.

CHAPTER V

BURNING UP THE BLUBBER

FIRE! Fire! Your body is on fire—burning all the time!

If it wasn't burning all the time you would die. A corpse is cold. It is cold because the warm blood no longer is carried through the arteries to every part of the body.

How does the blood get warmed?

Not one person in a hundred could answer that question physiologically and accurately. Yet it surely is a thing of great romantic interest to everybody, while to overweights it is a matter of tremendous importance.

Let us begin romantically, up in Alaska. There you will find the hugest bears in all America. And what do you suppose is their favorite food? Salmon, pawed out of the brooks, in which they are sometimes so densely crowded that they cannot move on; and for dessert, strawberries 'most as big as peaches. There is sugar in the sun-ripened

strawberries, which makes them fattening; and salmon is proverbially fattening.

The bears don't mind that. They want to get fat—very fat—by the time winter comes, for then they hibernate—lie asleep for months, living on the fat—not of the land, but of what they have packed away under their skins.

This fat is the fuel which helps the pelts in keeping their bodies warm and alive.

The stove is the lungs, in which oxygen burns, just as it burns in a range. You know that a noseful of cold air breathed into the lungs and immediately breathed out again comes up warm—almost hot.

HOW THE BODY IS WARMED

In Huxley's wonderful book on physiology you may find the interesting information that "oxidation, the oxygen being supplied by the blood, is going on all over the body. All parts of the body are thus continually being oxidized, or, in other words, are continually burning, some more rapidly and fiercely than others. And this burning, though it is carried on in a peculiar manner, so as never to give rise to a flame, yet nevertheless produces an

amount of heat which is as efficient as a fire to raise the blood to a temperature of about 37° C. (98.6° F.); and this hot fluid, incessantly renewed in all parts of the economy by the torrent of the circulation, warms the body, as a house is warmed by a hot-water apparatus.

"The food, like coal combustible or capable of oxidation, is built up into the living body, which, in like manner combustible, is continually being oxidized by the oxygen from the blood, thus doing work and giving out heat."

When there is no food to be oxidized—as in a hibernating bear or a human being starving involuntarily or on purpose—the fat stored in the body is used as fuel. That's why the victims of a famine in India or elsewhere look so miserably skinny. All their fat has been burned up.

Happy thought! Why shouldn't an overweight starve himself—not so as to look like these living skeletons, but just enough to regain his normal appearance?

IS IT WISE TO FAST?

That's often done. Is it wise?
That depends. Listen to Doctor Kellogg:
"The damage done to the body by long fast-

ing is simply appalling. Experiments and observations made upon animals and upon human beings who have been subjected to prolonged fasts have afforded abundant evidence of the terrible consequences to the various bodily organs, as a result of the determined effort of the body to maintain animal heat and the various bodily activities in the absence of a proper food supply. The situation of the body may be aptly compared to that which exists in a home during a fuel famine. In the absence of coal or other fuel, rather than freeze to death the occupants of the house burn up the furniture, and even tear up floors and break down the partitions to keep the fire going."

But a fat man has plenty of fuel to burn, so his furniture and floors and partitions are spared "while it lasts." For this reason "the hunger cure, administered with caution and under medical supervision, is, indeed, an excellent remedy in obesity."

Mild forms of the hunger cure consist in omitting one meal a day or fasting one day a week. These help. It is better not to indulge in a complete fast, but to take a little unsweetened fruit juice, with bran or agar, so as to keep up the intestinal rhythm, which is important, as we shall see later on.

BE AN OXYGEN GLUTTON

Much pleasanter than fasting for getting rid of excess fat is the air cure. Eat air—become an oxygen glutton!

An oxygen glutton—that's the kind of a gourmand you need never feel ashamed to confess yourself.

Oxygen is a food—you cannot live without it any more than you can without proteins, fats, hydrocarbons, mineral salts, and water.

At the same time it is a miracle worker. Thousands of pneumonia patients are saved at the last moment by the use of oxygen. Many thousands more would be saved if it were given sooner.

Without extra oxygen no climbers will ever reach the top of Mt. Everest. Nor, without extra oxygen, will you ever reach the pinnacle of perfect health, especially if you are overweight.

Too lazy to breathe properly—that's what most fat people are. They use only one-third of their lung capacity, or a quarter, or a tenth. Oxygen is all around them in unlimited quantities, free to inhale ad libitum, yet from sheer indolence and ignorance most persons starve themselves—take in only a minimum of this miracle worker.

The ignorance of most mortals regarding things they do every minute of their lives is amazing and often lamentable.

It is lamentable that every child in school is not taught how to breathe. The Indian squaws watch their babes when asleep and if they find them breathing through the mouth they close it firmly. Catlin was so impressed by this he wrote a special brochure on the evils of mouth breathing, which he calls "the most abominable and destructive habit that ever attached itself to the human race." "I am not afraid of any man who cannot shut his mouth," an Indian warrior once said to Catlin.

The ancient Hindus already knew about the evils of mouth breathing. In a remarkable little book, the *Hindu-Yogi Science of Breath*, by Yogi Ramacharaka (Chicago: Yogi Publication Society), we read that the mother tips the babe's head forward when it is asleep, which attitude closes the lips and makes nostril breathing imperative.

"Many contagious diseases," he continues, "are contracted by the disgusting habit of mouth breathing, and many cases of cold and catarrhal affections are also attributable to the same cause. Many persons who, for the sake of appearances, keep their mouth closed during the day, persist in mouth breathing at night and often contract disease in this way. Carefully conducted scientific experiments have shown that soldiers and sailors who sleep with their mouths open are much more liable to contract contagious diseases than those who breathe properly through the nostrils. An instance is related in which smallpox became epidemic on a man-of-war in foreign parts, and every death which resulted was that of some sailor or marine who was a mouth breather, not a single nostril breather succumbing."

The reason why "shut your mouth" is such an important commandment is that the nose is an air warmer and also has a special arrangement of cilia for filtering it—keeping germs and impurities out of the lungs.

If you cannot overcome the habit of mouth breathing by an effort of the will, get the habit of nose breathing by pasting for a few weeks, especially at night, on your lips something adhesive that will easily come off. The best thing for this I have been able to find is the "frowners" used by women to smooth out wrinkles in the face.

DEEP BREATHING A SHORT CUT

No one who likes short cuts to health should fail to read this little book. To whet your appetite for it let me cite what it says about the Yogi Cleansing Breath:

"The Yogis have a favorite form of breathing which they practice when they feel the necessity of ventilating and cleansing the lungs. They conclude many of their other breathing exercises with this breath, and we have followed this practice in this book. This Cleansing Breath ventilates and cleanses the lungs, stimulates the cells, and gives a general tone to the respiratory organs, and is conducive to their generally healthy condition. Besides this effect, it is found to greatly refresh the entire system. Speakers, singers, etc., will find this breath agreeably restful, after having tired the respiratory organs."

The writer proceeds to give these directions for the Cleansing Breath: "(1) Inhale a com-

plete breath; (2) retain the air a few seconds; (3) pucker up the lips as if for a whistle (but do not swell out the cheeks), then exhale a little through the opening, with considerable vigor. Then stop for a moment, retaining the air, and then exhale a little more of the air. Repeat until the air is completely exhaled. Remember that considerable vigor is to be used in exhaling the air through the opening in the lips."

Another book that will be found most useful to those who wish to become what I call oxygen gourmands, or fresh-air gluttons, is Thomas Robert Gaines's Vitalic Breathing (Chicago: The Reilly & Lee Co.).

By vitalic breathing he means inhaling in sniffs and forcibly exhaling. To begin the practice of vitalic breathing, he says, "start inspiring or drawing in air by two or three short, sharp, quick sniffs through the nose, with mouth closed, and expiring or expelling the air with one full, rapid, deliberate breath, also through the nose and with mouth closed. The expelling time is equal to about two-thirds the time of the two or three inspiring sniffs."

Mr. Gaines does not claim too much when

he says that this new method undoubtedly represents a most important forward step in the development of lung gymnastics.

By its use all the exercises, indoor or out, which are good for those who wish to reduce are made more effective as well as more agreeable. I have tried it walking, climbing, gardening, etc., and have been particularly pleased with the way it keeps the heart from thumping—a most important matter.

Corpulent persons often have too small lungs. Dr. William Henry Porter tells, in Eating to Live Long, of an extreme case: a pair of lungs that weighed only five and seven ounces, as against the normal twenty or twenty-two ounces.

A very interesting illustration of the magic effects of deep breathing is given by Dr. A. F. Currier: "I believe that in my own case this habit recently enabled me to avert an attack of pneumonia, of which I had all the preliminary symptoms."

I had a similar experience in a Swiss hospital, where I was in bed with typhoid fever. The doctor was mystified—couldn't account for the disappearance of pneumonia symptoms he had noticed the day before and about

which I heard him talk to the professor. That made me get busy at once.

Any time, when you don't feel quite well, brace your will and inhale deeply for a time. That's the best of all medicines.

And now we come to a most startling and dismaying fact.

UNVENTILATED LUNGS

Most persons, fat or thin, or between the two, use, in ordinary breathing, the oxygen of only twenty or thirty inches of air out of a possible 230 inches. Their shallow way of breathing in and out what is called "tidal air" utilizes only one-tenth of the lungs' lifegiving and fat-burning capacity!

In most lungs the air is, therefore, in the condition of an unventilated theater—stagnant, foul, dead, rotten. Only oxygen gluttons really get all the possible enjoyment out of life.

One effective way to clean out the lungs and make room for a fresh supply of oxygen is yawning. A most amusing, and at the same time fascinatingly instructive article on this subject by John Hayden, "Yawning Your Way to Health," appeared in the January, 1922, number of Physical Culture. Dogs, cats, all animals, as well as human children and adults, yawn when the lazy lungs need a fresh supply of air. The stretching of the jaws, moreover, extends all over the bodyand stretching is a marvelous tonic. Whole books have been written about it.

MAGIC EFFECT OF SWIMMING

Of all methods of deep breathing for the sake of reducing and gaining health, the most delightful and exhilarating are outdoor sports. At the head of them as a provider of oxygen for burning up blubber is swimming. Listen to these astonishing statements by Doctor Kellogg:

"During rest the amount of air which passes through the lungs is one to two gallons per minute. During vigorous exercise the quantity may be increased to four or five times this amount, but in swimming the respired air may reach the enormous quantity of twelve or thirteen gallons per minute. The consumption of oxygen in the body is inincreased in even proportion. Hence the high value of swimming as a means of promoting those bodily changes which result in reconstruction and rejuvenation."

On page 22 of Bernard Macfadden's Physical Culture for August, 1922, there is an illustration of the magic effects of swimming—a strapping picture of a girl, Katherine Rominger, who was flat-chested and dropsical, weighing only 105 pounds. Three years of swimming brought her up to 130 pounds, the correct weight for her height.

"I wish," she writes, "every woman in the United States who is underweight, fatigued, and overwrought could take up swimming as I did. I consider it the ideal exercise for women."

LILLIAN RUSSELL AND HER SISTER

Don't worry because this young woman gained twenty-five pounds by swimming. Had she weighed twenty-five pounds too much she would have lost them by swimming.

That's the big thing about strenuous physical exercises. It is a two-edged sword, cutting out fat if there is too much, but putting it on if there isn't enough for perfect health and an ideal physique.

An amusing illustration of this encouraging fact may be found on page 94 of the Cosmo-politan Magazine for May, 1922:

Lillian Russell, finding herself with too much avoirdupois on hand, relates in that, place the following interesting and instructive tale:

"I engaged a physical-culture instructor to come to the house almost every day, and with my sister Susan, who was as thin as she could be (and much thinner than she desired to be), we started work. Cooper put us both through the same exercises, starting with the bar bells, then the punching bag, and finally bending exercises.

"When I timidly told him that my sister did not want to get any thinner, Cooper said: 'What is good for one woman is good for all women! While you harden your muscles, the flesh disappears, and while your sister succeeds in hardening her muscles, her flesh will accumulate until she will be the normal weight for her height.'

"The only difference between our systems of physical culture was the question of diet. Susie could eat all the delicious food that I could not eat. I was forbidden starchy foods, sugar, butter, white bread, sauces, and desserts, while Susie could eat all of these interesting things without fear.

"We were both faithful to our regular work and diet, and I lost fifteen pounds while Susie gained twenty pounds. It was amusing and interesting to our friends, but they could not understand that the same system of work that made one stouter could make another thinner!"

WALKING, CLIMBING, AND GARDENING

Lillian Russell could do what she did because she had a strong will and kept at it. In most cases outdoor exercising is more likely to succeed than parlor gymnastics because, to say it again, it is more interesting.

Handiest—or perhaps I should say footiest—of all outdoor exertions is walking. Everybody can walk. It is absurd to say you have no time to walk. You don't sleep longer than eight or nine hours, do you? You don't work longer than eight or ten hours, do you? You don't eat longer than two or three hours, do you? What then becomes of the remaining three to six hours? If you are wise and wish to live long, give at least one of these to a daily walk, particularly if you think you are too heavy.

If you are of normal weight, sauntering is

all right; but walking as a way of reducing must be brisk and strenuous enough to produce a copious perspiration. Doctor Copeland has happily called this "honest sweat" to distinguish it from that which you get lazily in a Turkish bath—which does not dissolve fat.

The advantage of walking fast lies less in training the muscles than in its making deep breathing necessary. If you have ever taken long climbs you have experienced what is called getting your "second wind." This means simply that you have "got into the swim" of deep breathing; in other words, that you are now taking in oxygen enough to supply all the blood that is racing through your arteries.

If you breathe deeply from the start you will never be "out of breath."

Strenuous mountain climbing probably chases as much extra oxygen through the lungs and arteries as does swimming. Each foot of climbing is equal to walking thirteen feet on level ground.

A circular issued by the Life Extension Institute says: "It requires eight hours' walking on the level or five of mountain climbing to burn up about four ounces of fat. It is easier to keep this fat off the table and therefore off the body than to burn it off by exercise."

Easier, perhaps; but you lose a lot of fun in two ways: by not having the joyous exhilaration of walking or climbing, and by giving up eating that coveted food, which you can do if you burn it up promptly.

To me and, I am sure, to many thousands the most joyous and exhilarating of outdoor activities is gardening. In my Gardening With Brains I issued this challenge:

"The garden mania! When that gets its grip on you, then goodby to golf and fishing and hunting and most other summer sports. You don't believe it? Just try and see. But you must use your brains as well as your brawn."

I know of no sport that so thoroughly exercises every muscle in the body as do hoeing, spading, weeding, watering, raking, and the hundred other things a gardener has to do. But my chief reason for putting gardening at the head is the same as my reason for preferring outdoor exercises for reducing to indoor exercises—a mental reason. Surely

no player of golf or tennis or any other popular sport has so many sources of interest and delight as a garden offers—so many fascinating problems and tasks that keep him everlastingly at work. No golfer can, as such, become a creative genius. But a gardener may become a Luther Burbank.

Gardening brings us nearest to the work of the leanest class of persons in the world—the farmers. Burbank is as lean as a farmer. For many years I regularly lost eight or ten pounds every summer taking care of my vegetable and flower beds.

The pleasantest time to work in a garden is before breakfast—and that is the time when exercising for reducing weight is most effective. In his epoch-making book, The New Dietetics, Doctor Kellogg says on this point: "More fat is consumed in the early morning hours than at any other time because at this time the starch and sugar taken in the previous day's meals have been largely consumed. Exercise before breakfast or when fasting is on this account more efficient in burning up the body fat than when taken soon after eating."

From the garden we step naturally to the

food section of this little book; for the vegetables and fruits raised in it are, with few exceptions, the least fattening of all foods and the least likely to tempt to excesses at the table.

If you live chiefly on the products of the garden you will never become a glutton or a victim of obesity.

CHAPTER VI

THE PREPOSTEROUS STUPIDITY OF GLUTTONY

HANDEL went into a London restaurant one day and ordered a copious dinner for three. He waited half an hour and then rapped for the waiter.

"Where is that dinner?"

"I am waiting for your two guests, sir," replied the waiter.

"There are no guests!" roared the composer of "The Messiah." "Bring on the dinner!"

Louis VIII was very fond of truffles and birds. He invented a dish called truffes a la purée d'ortolans, of which he was very proud. One day he invited the Duc d'Escars and together they prepared a huge dish of this delicacy—enough for ten persons. Then they ate it. The duke died of indigestion that night—shame on him! But the king, who was a certified glutton, remarked, "I told

him I had the better digestion of the two." Only this and nothing more.

Gastrolators, as Rabelais called these belly worshipers, abounded at all times, and the farther back we go the more gross we find them. Some appear to have almost equaled the robin, which eats twice its weight, or the kingfisher, which eats thrice its weight, daily.

TALL STORIES OF HEARTY EATERS

We may discount the stories of Titormus and Hercules, who are said to have devoured a whole ox at a meal—that would have made the kingfisher hide his diminished head in shame. But there is no reason to doubt that the Roman Emperor Maximilian consumed in one day forty pounds of meat, washed down with a cask of wine. I doubt, however, if he was happy the next day.

Cambis, King of Lydia, is said to have had such a voracious appetite that one night (that was long before prohibition was put over) he devoured his wife. If it had been his mother-in-law the story would seem less improbable. Of Julius Cæsar it is said that sometimes he ate at a single meal the revenues from several provinces; and concerning the Em-

peror Vitellius we read that he "could with beastly voracity exemplify the gluttony which prevailed in the time of the Cæsars by eating a round thousand of oysters at a sitting; and increased the heinousness of the offense by availing himself of the abominable fashion then in vogue of tickling the palate with a peacock feather in order to make room for new indulgence. Even the wise and good Seneca, who praised poverty but could not live comfortably on millions of money, ate a few hundred oysters daily, and then blamed the delicious mollusk for his indigestion."

Many centuries later gluttons still depleted the earth. The author of *Good Cheer*, F. W. Hackwood, came across a humorous tale which, better than anything else, lets in light on the excesses of former days in England.

Somewhere in Yorkshire, the story runs, there was an eating match between two men named Gubbins and Muggins, which caused a good deal of interest in the neighborhood. A countryman, leaving the place a little before the match was decided, was stopped by almost everyone on the road and asked: "Who beats?"—"How does the match get on?" etc.; to which he answered:

"Why I doant exactly knaw—they say Gubbins'll get it; but I thinks Muggins'll beat un yet, for when I left he was oanly two geese and a turkey behind."

Dr. Samuel Johnson sneered at gluttons, yet here is a snapshot of him with Boswell's camera: "When at table he was totally absorbed in the business of the moment: his looks seemed riveted to his plate; nor would he, unless when in very high company, say one word, or even pay the least attention to what was said by others, till he had satisfied his appetite; which was so fierce, and indulged with such intenseness, that, while in the act of eating, the veins of his forehead swelled, and generally a strong perspiration was visible."

A man who ate like that would, no matter how famous, hardly be desired at the table of cultured people to-day.

FROM OVERWEIGHT TO OBESITY

Gluttony has lost caste, just as drunkenness had, long before prohibition came. There is no one to-day who would not feel insulted if called a glutton.

Yet the number of gluttons is still large—very large—extremely large; particularly in

this country, where there is and always has been a greater abundance of food than anywhere on earth.

To be sure, there are gluttons and gluttons. A man who to-day is regarded as such might have been pointed at, a century or two ago, especially in Germany or England, as a small eater.

To anyone interested in the problem of reducing the average weight of mortals, there is encouragement in the sensitiveness of heavy persons to the opprobrium of being called gluttons, or obese.

Note the shrewdness of writers of books on this topic. Nobody would buy a work entitled "How to Cure Obesity" or "Self-help for Gluttons." Even "corpulence" doesn't occur in the titles.

The favorite word is "overweight." That doesn't hurt anyone's sensibility. A woman who buys a book on weight or overweight does not thereby indicate that she considers herself too fat. The insurance doctor might find her only a pound or two above the average or normal figure.

Persons who make no secret of the fact that they are too heavy, nevertheless are apt to be slightly offended if reference is made to it. That's a good sign. Why? Because it strengthens the will to reduce.

Probably only an expert dictionary maker could exactly classify the adjectives in the order of their offensiveness. My guess is: overweight, plump, heavy, portly, stout, corpulent, fleshy, adipose, fat, obese.

If you don't like this crescendo please tell me what's wrong with it.

WHAT OVERFAT MEANS

Doctor Kellogg has this to say: "A person whose weight is 10 or 15 per cent greater than that of the average person of his height may be said to be overfat. When the excess of fat amounts to 25 per cent of the normal weight of the individual he may be said to be obese. Cases are sometimes met in which the fat accumulation is so great that the person's weight has become more than double the normal. Such a person is dangerously obese.

"A person whose weight is fifteen or twenty pounds more than the normal weight for his height should take measures to reduce this weight."

The objection to being called obese is jus-

tified in part by the fact that obesity in some cases is not due to overeating at all, but to some disease.

Such cases cannot be cured by the methods recommended in this book, though these help. They are for the physician.

There is a wise old Latin maxim that "gluttony kills more than the sword." In connection with this it is of interest to recall the fact the one of the deadliest diseases, diabetes (as well as gout and rheumatism), disappeared almost completely in Germany when the war scarcity put an end to gluttony, a national vice.

The preposterous stupidity of gorging lies in this, that he who indulges in it risks paying for every hour of sensual indulgence with ten or ten hundred hours of dyspeptic agony and general discomfort. Stop here a minute and read again Chapter II, which explains why the grave doth gape thrice wider for gluttons than for moderate eaters.

Suppose you are one of those who habitually eat too much, as nine Americans out of every ten do. Would you be willing to reduce your food intake by one-half or more if I could absolutely prove to you that with the other

half, or less, you can easily—very easily—get double or treble or five times the amount of table pleasure, while rapidly reducing your weight and avoiding diseases and disorders which make the grave gape?

That's what I am going to do in the next chapter. It may mark a new epoch in your life. If you will read and inwardly digest it you will have no trouble hereafter in digesting your food and enjoying life in every way as you never dreamed it could be enjoyed. The writer of these words, at the age of sixty-eight, is stronger mentally than he was thirty years ago and almost as strong physically. The proof of the pudding is in the eating thereof.

CHAPTER VII

LINKED PLEASURE LONG-DRAWN-OUT

I ONCE heard a glutton—beg pardon—I mean a hearty eater—wish he had a throat as long as a giraffe's, that he might the more enjoy his food—all the way down to the stomach.

He was evidently a descendant of the Greek poet Philoxenus, who died 2,302 years ago, and who expressed a similar wish—that he might have a neck like a crane's.

These two men were equally ignorant; also equally foolish—not for wishing to enjoy their food as long as possible, for that is one of the most commendable things in the world, but for imagining that the mouth and the throat are the only parts of our anatomy in which we enjoy our food.

This was the universal belief throughout the globe until a few years ago, when the Century Company published my book, Food and Flavor (a better title would have been The Superlative Importance of Natural Flavor in

Food), in which the real psychology of eating is for the first time set forth.

Now, I had no reason to complain of the reception of this book by the press. The Outlook called it "singularly readable and amusing." "A classic!" exclaimed the Philadelphia Telegraph. "With the charm and adroit fascination of a good novel it lures one on from page to page." The Chicago Dial found it "as appetizing as any chapter of Dickens," and the New York Times went so far as to say that "it hits the mark of popular interest as exactly as did Uncle Tom's Cabin. . . . One finds oneself reading this book with the same absorption as one might give a thrilling romance." "It is a fascinating book, which must excite at once the interest and wonder of every thinking American," exclaimed the Boston Globe. The New York Mail declared that "Henry T. Finck's great book, Food and Flavor, ought to become a sort of Bible of the American table"; while the Philadelphia North American said "it is like a voyage of discovery to find scientists'

¹ In book form I mean. An outline of my theory appeared in my article on "The Gastronomic Value of Odors," in the London Contemporary Review for November, 1888.

formal twaddle thus translated into crisp, effervescent, stinging English that everyone may understand."

But, alas! There was one cacophonous voice in this chord of praise—a squeaking clarinet tone contributed by Prof. Brander Mathews, of Columbia University.

In a review written for Munsey's Magazine he said that Food and Flavor is "not a good book."

Naturally, I was painfully surprised. Reading on in his review I found him saying: "He holds that our pleasure in flavors is derived from the fragrance we inhale through the nose while eating; and from this principle he deduces most of his gastronomic dictums."

EXHALING, NOT INHALING

Now, my book would have been bad—very bad indeed—if I had said such a thing and had tried to prove it. The object of the whole book, on the contrary, was to prove exactly the opposite—that we enjoy our food chiefly by exhaling through the nose while eating.

This is the doctrine—the new psychology

of eating—which saturates the whole 594 pages of my volume, and which is, in fact, the chief raison d'être of all those 594 pages!

If Professor Mathews had condescended to read my book before he wrote about it, he, too, might possibly have liked it, and said so, instead of providing a glaring example of "book reviews as she am wrote."

Had he read the book he would have found the following points on pages 59-62:

Reference to "a blunder so amazing, so incomprehensible that it seems almost incredible: the universal belief, among men of science as well as the laity, that the pleasures of the table come to us through the sense of taste. . . . The King of epicures, Brillat-Savarin, wrote a famous book the very title of which, Physiology of Taste, is a scientific blunder. Like everybody else, he believed in the existence of an infinite variety of tastes, and never suspected that, with the exception of sweet, sour, salt, and bitter, all our countless gastronomic delights come to us through the sense of smell." Furthermore, I wrote:

"The French physiologist Longet and the German anatomist Henle were, so far as I could find, the only experts who had an inkling of the gastronomic importance of the sense of smell; but they did not go so far as to formulate the theory I have just expressed in italics. My experiments confirmed the observation that not only is it impossible, with the nose clasped (or closed by a cold), to tell the difference between various kinds of meats, or cheeses, or cakes, or vegetables, but also—which no one had ever pointed out—that even in the case of sweet and sour substances which do gratify the palate, the sense of smell is much more important than the sense of taste.

"Vinegar, for example, is absolutely uninteresting unless it has a 'bouquet'— the aroma of the cider, wine, or malt of which it is made. And why is it that we are willing to pay from five to twenty-five times as much for candy as for plain sugar? Because the sugar appeals only to the taste, whereas the candy is usually perfumed with the aroma of sarsaparilla, wintergreen, vanilla, chocolate, and a hundred other flavoring ingredients, the fragrance of which we enjoy by exhaling through the nose while eating. The emphasis lies on the word exhaling."

The italics are in the book.

The final chapter ("The Gastronomic Value of Odors") considers this vital point in the psychology of eating in detail. There is a section entitled "A Comedy of Errors" in which I showed how ludicrously near the truth Brillat-Savarin and others came and yet most lamentably missed it.

HOW FLAVORS DIFFER FROM FRAGRANCE

Then there is a section "How Flavors Differ From Fragrance" in which I give, as my own definition of flavor—and the first correct one ever given by any writer: "Flavor is the odor of a substance as perceived in breathing out through the nose while we are eating, and usually accompanied by a sweet, salt, sour, or bitter taste. This distinguishes flavor from fragrance, which we perceive, in breathing In through the nose; as, the fragrance of a rose or a violet—and this is not accompanied by a taste."

These italics, also, are in my book; I used them to make sure that reviewers would not miss the heart of my argument—and most of them didn't.

Once more, on page 573: "The seventh and most important function of the nose is the one

which—mirabile dictu—it remained for me to discover—the function of perceiving and enjoying the countless varieties of flates that are developed in the food we eat.

"To what I have already said in proof of this assertion let me add that the nerves of taste are affected by liquids, and those of smell by gases; and the flavored air we breathe out (while eating) is certainly not liquid."

This fact alone proves the truth of my

psychological discovery irrefutably.

For the purpose of reducing weight, this new psychology of eating is of incalculable importance. The trouble with the otherwise excellent methods of "girth control" heretofore elaborated in books is that, as I have before intimated, they lead the horse to water but do not make him drink. By applying the new psychology, the most balky horse can be made to drink, and drink eagerly.

He must be taught that while he cannot have a neck as long as a giraffe's, he can prolong the pleasure of eating indefinitely by breathing out through the nose with concentrated attention while he chews his food very, very slowly.

IMPORTANCE OF EATING SLOWLY

The tremendous importance of eating food slowly was emphasized by Horace Fletcher, and by others long before him.

Burton, "unknown to few and known to fewer still," wrote three hundred years ago, in his *Anatomy of Melancholy:* "Moreover, that which he does eat must be well chewed, and not hastily gobbled, and by all means to eat no more than he can well digest."

Count Rumford (1753-1814), the American who became a lieutenant-general in the army of Bavaria, where he introduced a number of reforms and originated the cheap but nutritious "Rumford soup," persuaded the Elector that if he could teach his soldiers to thoroughly chew their rations, a small quantity of food would be found to "afford more sustenance than a large meal hastily devoured."

Did anybody remember this as a measure of economy during the time when our two million soldiers were in France? I am afraid not.

Have any of the philanthropists who are working so hard to help the poor ever thought of teaching them to economize à la Rumford by not gobbling their food, as most of them do?

Think of the hideous scenes of voracious

gluttony on a small scale witnessed at our "quick-lunch" counters! Gluttony does not mean only eating too much. It also means eating too fast.

I wish I could find an article I once clipped from a New York paper in which a reporter told how the quick-lunchers galloped through their meals in from two to three minutes.

Most of these fools seemed to enjoy what they thus gobbled down, and probably they would have gorged themselves with several times as much food if they could have afforded it. Fortunately for their stomachs, comfort, and health, they could not.

This insane haste to get through with a meal—as if it were an intensely disagreeable thing—is the greatest curse that afflicts the American public.

Why do all these infernal idiots thus hurry through their meals, which, often, they eagerly looked forward to?

When they go to the theater and like the play, they don't want it to be over in five minutes, do they?

When kissing and caressing their sweethearts, do they apply the quick-lunch idea?

My friend Christopher Morley has a pet

idea, embodied in his plan for a three-hour lunch club. There's method in his madness.

There is, also, a happy medium, which is provided by the genuine French table d'hôte. It lasts about an hour, and, while there may be six or more courses, the portions are so small that at the end you feel as if you could start right over again. That's the perfection of dieting—linked pleasure long-drawn-out, and no harm done.

A BEER GLUTTON

I have often noticed that heavy folk—from the obese, the fat, the adipose, down to the fleshy, corpulent, stout, portly, plump, and the merely overweight—almost invariably eat not only "2 mutch," as Artemus Ward would have put it, but also 2 fast, some of them, in fact, 200 fast—what musicians call prestissimo—which means as fast as possible.

At Heidelberg I once saw a German student drink twelve glasses of beer to the strokes of the midnight church bell. I could not help recalling Shakespeare's

Tis now the very witching time of night When churchyards yawn and graves give up their dead. Now could I drink hot blood And do such deeds as night would quake to look upon. This beer glutton surely found out some years later that the midnight grave doth gape for such as himself thrice wider than for rational beings.

We were talking about the importance of eating slowly. Let me give you a few more striking facts, for the sake of strengthening your will to do the right thing.

GOOD-BY TO SODA MINTS

If you are in the habit of taking pepsin, or soda mints, or menthol, or papain, or other "life savers" after meals because of the pangs of indigestion, you will be particularly interested in a discovery made by Professor Pavlov, whose books on the stomach and digestion have created a new epoch in dietetics.

He found in his experiments on dogs that when he gave them their rations gradually, in small quantities, it led to the secretion of a much stronger gastric juice than when the animal was allowed to bolt its food.

Don't you want to shout for joy at knowing this grand physiological secret?

Eat slowly hereafter and no more will you need your pills or feel your pangs. Your stomach will take care of your food; and, eating less, you will lose weight. Three cheers for Professor Pavlov and his dogs!

And here is another important secret which the dieticians have discovered:

If you eat slowly, your appetite, however ravenous it may have been at the start, will be satisfied with half the usual amount of food, which is all you ought to eat, anyway. (I mean the kind of food you are eating now. There are other kinds of which you may eat all you like. See the chapters on bran, fruit, and vegetables.)

The temptation to gormandize and add to your weight will vanish as by magic. Your friends will no longer be able to whisper that you overeat regardless of its effect on your health, your looks, your purse.

Yes, your purse. That's another reason for eating slowly. One-half the cost of a meal saved! That means money to put into the bank for a rainy day, or to spend on books, sports, theaters, music, joy rides, travel, or a thousand other things.

If you reply that you have money enough to pay for all those things besides a square meal, and that you get so much pleasure from eating "heartily" that you would rather have a short life full of "good cheer," then I bring forward my chief argument against eating an excessive amount of food, as follows:

TREASURES OF GASTRONOMIC DELIGHT

I have named Horace Fletcher as one of those who preached the gospel of eating slowly and little. That he was not the first to do this does not detract from the thanks we all owe him. More than anyone else he proclaimed this doctrine from the housetops that's to his credit.

Unfortunately, the most important aspect of his method was usually overlooked. His followers emphasized the importance of chewing all kinds of food thoroughly to save the stomach trouble, and mixing it well with the digestive saliva before swallowing it.

This was important—quite important—but not nearly so important as the hedonistic—or pleasure—side of his teachings.

For illustration, he says: "Try a ship's biscuit—commonly called hardtack—and keep it in the mouth, tasting it as you would a piece of sugar, till it has disappeared entirely, and note what a treasure of delight there is in it."

If you bolted a dozen of these biscuits you would get only a fraction of the delight offered by a single one eaten slowly, till you get "that last indescribably sweet flash of taste," as "a sort of pousse café."

That last sweet flash, chemically interpreted, means that the starch in the bread you have eaten so slowly has been converted into sugar.

An interesting story is told by Fletcher on pages 285–288 of his book, The New Glutton or Epicure. He was invited to dinner in a summer hotel by a man who left the menu to him. The waiter was standing by with pencil in hand, recommending some of the expensive dishes. Fletcher told him to be quiet and let him choose. He selected green corn for his host, baked potatoes for the host's daughter, and a lemon ice for himself, to the waiter's indignant amazement.

After the first mouthful of one of her potatoes, eaten very slowly à la Fletcher, the young lady exclaimed, "My! but I never realized that potato was so good!"

"Gracious! isn't this corn bully!" echoed the father, after his first mouthful had been slowly masticated. He then exchanged one of his ears of corn for one of his daughter's potatoes.

When those had been leisurely disposed of, the appetite of both was so completely satisfied that neither could more than taste a little of the lemon ice.

Long before Fletcher preached his doctrine, Thackeray called attention to the exquisite enjoyment an epicure can derive from a slice of buttered brown bread. True epicures then, and a thousand years ago, fletcherized instinctively.

But the number of epicures, or gourmets, is painfully small compared with that of gourmands or gl—, that is, hearty eaters.

POOR UNFORTUNATE ANOSMICS

Besides these there are millions who get little or no pleasure from eating and who are therefore seldom quite well, because, when there is no appetite and no enjoyment of food the digestive juices in the stomach and the small intestines are not secreted in sufficient quantity or the best quality.

These unfortunates Fletcher could not help

¹ See the chapter "Are Pigs Genuine Epicures?" in my Gardening With Brains.

because he did not know the true psychology of eating.

Dozens of paragraphs might be quoted from his books showing that he, too, believed that the sense of *taste* is to be thanked for all the pleasures of eating.

I have proved briefly in this chapter, and at much greater length in *Food and Flavor*, that this is not true, and that it is to the sense of smell we owe nine-tenths of our pleasures of the table—probably even a much greater proportion.

Just how is revealed by an interesting detail in the anatomy and physiology of the nose, which is of the utmost importance to all who like to eat well and still more to those who consider eating a nuisance and a bore—there are lots of these.

What's the matter with them?

Their indifference to food may be due to ill health, worry, blues, overfatigue, or bad cooking which gradually creates an aversion to eating because of its association with the pangs of indigestion.

But when a person is normal and nevertheless indifferent to food, the reason is, as I have often observed, that he is anosmic.

There are many anosmics in the world, unable to distinguish and enjoy smells, just as there are tone-deaf and color-blind individuals.

A color-blind parson dismayed his wife by bringing home a roll of fiery scarlet cloth for his new gown. To him it looked black. And the English king who said he knew only two tunes—one was "God Save the King" and the other wasn't-was doubtless tone-deaf.

I know persons who do not care whether the butter they eat is fresh or rancid. It's all the same to them, because they are anosmic.

They like such things as sugar and pickles and orange marmalade; these taste sweet, sour, bitter-sweet. But smells-the fragrance of flowers, the olfactory flavors of food-are not for them.

While many persons seem to be entirely anosmic, a much larger number are only partially so.

They can tell the differences between strong odors, but the delicate ones elude them. Butter interests them only when it has salt in it, which appeals to their sense of taste. What escapes them is the delicate flavor of the butter itself. The French, and epicures everywhere, do not usually like salt in their butter. Its subtle natural flavor suffices them, while the salt obliterates some of it.

LUCKY EPICURES

Epicures are at the opposite pole from the anosmics. In eating, they use their sense of smell every second, breathing out through the nose slowly and exulting silently over the entrancing flavors liberated while chewing the food.

- Epicures also enjoy the *inhaled* fragrance of foods—especially fruits, like apples, pineapples, melons, peaches. These are not only agreeable, but they make the mouth water and thus set in motion the machinery of digestion. But this is merely a drop in the bucket compared with the barrels of gastronomic delight we get from flavors in breathing *out* while eating.

Through the nose, of course. If you breathe out through the mouth, the abode of taste, you don't get this noble pleasure—noble because it is such a grand thing for health, God's greatest gift to wise mortals.

Of course, unless you are a doctor or a pro-

fessor of anatomy, you know nothing at all about the most prominent feature in your face except that alcohol makes it red, even as smoking colors a meerschaum pipe; that it is the seat of annoying colds; that it warns us against bad and dangerous odors; and lets us enjoy flowers and other perfumery.

SECRETS OF THE OLFACTORY CHAMBER

All you really need to know about the complicated anatomy of the nose is that the greater part of it has nothing whatever to do with the sense of smell, which is located in the upper part, where there is a special interspace between the spongy bones which is called the olfactory chamber.

In it the olfactory nerves are distributed.

In ordinary breathing in through the nose very little, if any, of the air reaches this sidechamber, but passes directly through the wider passages down into the lungs. To make sure of getting the fragrant air into your olfactory chamber you must take it in in sniffswatch yourself the next time you smell a flower.

Here is where the textbooks of physiology stop. It remained for me-let me proudly and amazedly say it again—to discover the all-important secret that it is in the olfactory chambers that we perceive and enjoy—while breathing out through the nose—the thousands of table pleasures, with the exception of the comparatively unimportant sweets, and sours, salt and bitters, which the taste-buds in the mouth take care of. Hence my slogan: Eat with the Nose.

Stop here a minute and read again what I wrote in the Preface about the nose as a sort of gastronomic resonator or amplifier.

If that fool glutton who wished he had the neck of a giraffe had been told these facts his mind would have been illuminated as by a flash of lightning.

He would have seen that even if such a long neck were the seat of table pleasures, a morsel would pass down it in a few seconds.

Whereas, in the olfactory chambers—"why there," he might have exclaimed, joyously, "I can prolong my gastronomic joys indefinitely, by simply eating very slowly, and carefully guiding the expired air through the olfactory chamber!" Correct!

Persons who are only partially anosmic and possibly even those who are entirely so -may conquer a new world of dietetic delights by trying to locate with their breath the olfactory chamber and deliberately and persistently guiding the flavor-laden air through it in breathing out while eating.

The glorious thing about these gastronomic delights in the olfactory chamber is that they are not only harmless, but highly beneficial, for the reason already given, that they stimulate the digestive juices and make them more efficient.

Have I demonstrated the preposterous stupidity of gluttony-of shoveling in food by the ton and hastily, when a plateful eaten slowly and intelligently gives infinitely more of the very pleasure the hearty eater is after?

ORGIES OF SENSUALISM

In a period when sensual indulgences of all sorts have been unleashed, it is comforting to know that one of them, at any rate, is the more beneficial to health, and the more conducive to a long life, the more intensely, nay riotously, it is indulged in.

In the olfactory chambers orgies of sensualism may be indulged in three times a day and no officers of the law will ever break in to stop them.

Make each meal a chain of linked pleasure long-drawn-out, as directed in this chapter, eating little of fattening food, but enjoying more, and your superfluous weight will fade away as by magic.

Overweights who are timid need not fear to indulge in olfactory-chamber feasts lest they be tempted to overdo. The next chapter will show how that can be prevented.

CHAPTER VIII

THE WILL TO REDUCE

HAVE you ever heard the true story of the discovery of America? Probably not. Here it is:

When Columbus, after weary weeks of hope alternating with despair, came at last in sight of land, he saw on the beach a row of naked red men and women, girls and boys, excitedly watching his ships through their opera glasses. When he came near enough to be heard he shouted:

"Are you the Indians?"

"Yes," they shouted back. "Who are you?"

When he told them his name they exclaimed, in dismay: "Columbus! Then we are discovered!"

If I were asked what is the most striking instance of will power in the history of the world I should answer, "The voyage of Columbus."

On the third of August—you know the year—he left the Spanish port of Palos with three frail ships not much bigger than our ferry-boats, manned by a lot of ignorant, rough, superstitious, and not particularly courageous sailors.

They sailed away into unknown seas in quest of India—which happened to be in the opposite direction unless he circled the whole globe.

The sailors soon lost all hope of finding the promised land and nothing but the iron—nay steel—nay adamant—will of Columbus kept the prows of the microscopic sailing vessels pointed westward.

Beginnings of mutiny by the frightened crews had to be quelled again and again; but the will of Columbus budged not an inch. Westward he went without flinching one moment.

Do you remember how many days and weeks his will held out, when every added day meant two days' longer time to get back to Spain?

Ten weeks—exactly seventy days, from August 3d to October 12th.

All those two months and over, what kept

those eggshell caravels going west unswervingly was the adorable, the thrilling magnetic will of Christopher Columbus.

Next to him I feel inclined to place the one-armed Major John Wesley Powell, who in a flimsy boat boldly ventured to descend the Grand Cañon, the stupendous gorge, four to six thousand feet deep and over four hundred miles long, worn by the Colorado River; not knowing, and yet knowing, the hundred perils awaiting him as he was torn along on his nutshell by the raging torrent, over half-hidden rocks, down foaming rapids and falls, and knowing, too, that there was no possible turning back or getting out of the river prison except in one or two places where murderous Indians were likely to lurk.

SEE YOURSELF BLUSH

And now, from the sublime to the ridiculous! You, Mr. Overweight, represent the ridiculous if you tell me that your will is so flabby—so many billion miles removed from the sublime wills of the two heroes I have named—that you really cannot restrain your impulse to eat more or faster than you know is good for you!!

Look into your mirror and see yourself blush. Come, come! If your will is as feeble as that, train it, for mercy's sake, as you do your flabby muscles, with diverse exercises.

There are exercises for the will, too. There is an excellent little book on the subject, Strength of Will, by E. Boyd Barrett (New York: P. J. Kenedy & Sons).

This author tries to show how you can learn to control your actions as an engineer controls his locomotive, stopping it at any time with his will, and without a jerk.

There is much that is suggestive in this book. Doctor Barrett's simple exercises, no doubt, will be of great use to those who allow their will to be blown about like a leaf by the wind. I feel, however, that a will strengthened for this or that duty is still likely to break down miserably when confronted by an appetite.

I recall the story of certain American soldiers in China, brave, dauntless fellows who had their wills primed for deadly action in battle at any moment. But when, parched by thirst, they came across a puddle of foul, malodorous, disease-laden water, their wills utterly collapsed. Down they lay and drank.

For curbing the appetites I prefer my own plan, which is either to scare the will or to lure it, or both. Let us look at this method, which I believe capable of working wonders.

SCARE THE WILL

In the city of Detroit 240 persons were killed by automobiles in 1920. In the following year there were only 134 victims. What had happened?

Only this, that a judge sentenced 192 speeders and reckless drivers to jail.

Before that there had been only fines. Rich men and their chauffeurs laugh at fines.

Prison is a different thing. The thought of that strengthened the wills of possible culprits—they determined to be careful.

In the same way, many years ago, the millionaire brewers of Munich used to laughingly pay the fines for making beer with chemicals instead of hops and malt. Then jail sentences were imposed on the heads of the offending firms. Result: wills scared into submission.

Since then Munichers have brewed the best beer in the world and waxed rich. A burglar is an interesting study in will psychology.

If he were like the will-less ass who starved to death between two bundles of hay because he could not make up his mind which of the two to eat, it would be a great thing for society.

Two images pull at the burglar's will from opposite directions. On the one side is a picture of the whisky and the joy rides and the other excitements he can have if he steals the money. On the other side, a vision of the gloomy prison, with forbidding food and loss of liberty.

No doubt there would be thousands more burglars and thieves if their wills were not scared by the thought of prison and other punishments.

That's the philosophy of having criminal courts and policemen with clubs and pistols.

If these did not scare the wills of would-be criminals, pandemonium would reign at once.

A burglariously inclined man who is not scared by visions of policemen and pistols and prison, but goes ahead risking his life, is like a glutton who pigs on persistently, though he knows he is risking the loss, not of liberty,

but of life itself, by making himself an easy victim to dozens of the most tormenting diseases.

If such a man could figure out the hours of pleasure he gets from overeating and contrast them with the hours of resulting pangs and pains and worries and inefficiencies and blues and general wretchedness, he would find that before his death he would have paid for every hour of table pleasures with a hundred hours of discomfort and of wondering if life is worth living.

The old maxim about men digging their graves with their teeth ought to help scare the will of overweights.

Most men and women have sense enough, when wet with perspiration, to keep out of a draught of cold air till they are dry. It would be very pleasant to stay in the draught, but their wills are scared into doing the right thing by visions of colds, pneumonia, funerals, mourners.

The nightmare of failure in the examinations scares the wills of children in school and young folks in college into learning their lessons. Shouldn't the thought of life failure scare overweights into learning to eat wisely?

Read over again—and then once more—the

second chapter of this book, with its list of maladies to which overweights are liable. Then get a medical book (it's worth the expense!) and read about the horrors of cancer, asthma, Bright's disease, neuritis, insomnia, eczema, diabetes, and so on. If, like the man who, on reading a treatise about diseases, concluded he had them all except "house-maid's knee," you feel the same way, so much the better. It will help to scare your will.

Irvin Cobb relates how he jauntily disregarded his increasing weight until a disease warning came to him. That evidently scared his will into submission. He began to eat more wisely and soon lost forty pounds. Go thou and do likewise.

Read The Martyrdom of the Fat Man by Henri Beraud, of Paris, which received the Goncourt Prize for 1922.

In Sweden they have begun to levy a tax on obesity—a dollar for every pound over two hundred. Suppose the prohibitionists should get something like that into our Constitution! Don't encourage them!

If necessary, hang up a placard in your dining room with this warning (you have read it before: you cannot read it too often):

"Leave gormandizing; know the grave doth gape

For thee thrice wider than for other men."

Repeat these two lines to yourself, in bed and out of bed, a hundred times, till they haunt you like an evil conscience.

That's my idea of training the will. And I know of a still better way, which we must next consider.

LURE THE WILL

Nothing so infallibly discourages anyone who is anxious to reduce, as telling him—as is usually done—that he must thenceforth lead the simple life in the dining room, depriving himself of most of the pleasures of the table. The untempting, monotonous menus suggested to him are enough to make a mediæval anchorite go on a hunger strike for a change. It is taken for granted by these rigid dieticians that their patients are so weak willed that they must never even see or read about a good cook—even as St. Jerome declared that a Christian maiden must never see a flute, associated with lascivious dances.

My way is different. The preceding chapter, "Linked Pleasures Long-Drawn-Out," indi-

cates how the will to reduce can be mightily strengthened by the lure of the delectable flavors as enjoyed in the olfactory chamber.

Table pleasures, instead of being the overweight's most formidable foes, become in that chamber his best friends.

I may as well add right here that the remaining pages of this book will be devoted largely to revealing multitudinous ways of enjoying, in the olfactory chamber, the countless delights of flavors, as provided by nature and the fine art of cookery. If you think cookery isn't a fine art, read pages 152-170 of my Food and Flavor.

And if some Puritanical reader accuses me of preaching sensualism, I do not "deny the alligator." The Puritans themselves, I may as well add, sotto voce, were sensualists in the dining room. Many of them even were gluttons.

I have among my notes two striking arctic illustrations of the vital importance of our enjoying the pleasures of flavor (or what is erroneously called "taste").

One is from Greely's Three Years of Arctic Service: "My avoidance of larger quantities of canned meats resulted from my opinion that their nutritive qualities are materially impaired by their tastelessness, and I quite concur with the opinion put forward by Doctor Envall, of Nordenskjold's expedition, 1872-73, who, speaking of the tasteless condition of certain of their meat supplies, says: 'One gets disgusted with it, and this effect on the taste probably has an influence on the nutrition and thereby indirectly on the nutritive value of the food.'" A conclusion confirmed by modern dietetic science.

The second is even more illuminating. In a lecture at Daly's Theater, the antarctic explorer, Sir Douglas Mawson, related how he made a trip of several weeks all alone, with raw dog meat, toward the end, as his only food.

He told his listeners that they could not imagine the epicurean delights to be derived from everyday foods when you are on very short rations—which bears out the preaching about eating less and enjoying more.

DELICIOUS RAW DOG

When we are very hungry, even viands which we now shudder to think of become exquisitely appetizing. "Hot dog" is some-

thing many persons eat at Coney Island—in a Michigan town I saw that facetious term for sausage used as the trade-mark of a Main Street restaurant; but raw dog—ugh!

Well, this explorer related how, during the last days of his trip, when he was compelled to economize rigidly on his scant remains of uncooked meat, it was in his thoughts all the time. It took an iron will not to eat it.

Then he fell into a crevasse in the ice. He felt sure it meant death—yet, on his word of honor he assured his audience that the one thought in his mind while he was falling was: "Oh, if I had only finished that meat!"

When you think of the intense delight that can thus be extracted from a piece of raw dog, doesn't it bring home to you forcibly the incredible folly of those who bolt their food, thus getting only a minute share of the pleasure it could be made to yield?

From the epicurean point of view such waste of pleasure is as criminal as eating one slice off a ham or an ox joint and then throwing it away would be from the economic standpoint.

The time to begin training the will not to bolt food is in childhood.

One day a boy opposite me at table simply pushed a banana down his throat; in ten seconds it was gone. Then he grabbed another, and another, which disappeared the same way—"now you see it, now you don't." Two hours later he was in bed and his mother telephoned for the doctor.

Another child ate five sticks of candy and bawled because he had bellyache.

Both these boys were old enough to argue with. I showed them how, by eating very slowly, they could get more fun out of one banana or stick of candy than out of several, and no stomach pain or doctor. They had a few relapses, but both ate more wisely thereafter.

With adults it often takes a long time to establish a habit. But if a Hindu "saint" can "hold his arm up in the air until it becomes stiff and withered and forever after remains in that position, or perhaps clench his fist and hold it tight until his finger nails grow through the palms of his hands," you, surely, can muster enough will power to eat slowly, can't you?

Nearly two thousand years ago Horace wrote Video meliora proboque, deteriora sequor

(I see the better way and approve of it, yet follow the worse).

We say, "the spirit is willing, but the flesh is weak." It would be better to say the will is weak.

Brainy people ought to set a good example at table, but unfortunately they are apt to be among the worst sinners. They may have fully made up their minds to eat slowly and wisely, but suddenly their plate is empty and they hardly know what they are and how it tasted.

To be absent-minded at table means not to fix the attention on the flavors "on exhibit" in the olfactory chamber.

Doctor Johnson was a glutton, as we have seen, but one of the things he did was wise—his refusing to talk or listen to others while he was actually eating. His mind was busy with those delectable flavors.

TALKING BETWEEN COURSES

Never shall I forget my annoyance at a dinner given by a friend of mine in London. I had the misfortune to sit next to an elderly dame who took about twenty minutes to relate to me—of all things in the world!—the

plot of a stupid new play she had heard the night before. I was foolishly polite, listening to her instead of giving my undivided attention to the woodland-flavored English grouse on my plate.

The French do their talking chiefly between courses. That's one of the many advantages of the table d'hôte, with its long pauses between the courses.

It's hard, I know, for brainy people to concentrate their whole mind on the food they are eating, but it can be done. And the best way I have ever found is to let the olfactory chamber act as a lure to the will—the will to reduce in the case of those who want to lose weight.

Don't follow the example of the toper who held his will to drink in leash while passing scores of saloons, but when he reached the last of them, near his house, went in and triumphantly "celebrated" his great achievement!

Learn to always eat slowly. Allow no exceptions. After awhile you will work for a record and be proud of it: 100 days, 200 days, 365, hurrah! You will feel bully, for the will has its own rewards and pleasures. After such a feat of behaving yourself you will feel an

exhilaration like that of a mountain climber when he reaches the summit.

Let there be no mañana about it. Start to-day. And let there be no outwitting of the will, either. We might say this is done by those persons who diet carefully while at table but spoil everything by eating and drinking fattening things between meals.

Girls, listen to this: Doctor Copeland is so liberal as to say that "pastry and candy, nuts and ice cream, in moderate amounts and as the final touch to a dinner, may not be condemned; but the 'snack' betweentimes, the candy box, the ice-cream cone, the nut sundæ, the afternoon tea, the extra piece of pie, the third lump of sugar—these are the stumbling blocks to slimness."

To sum up this chapter: Bear in mind always the evils resulting from eating too much or too fast or too often; eat less and more slowly, and while you chew your food carefully, guide the air you breathe out into the olfactory chamber in your nose. There you may indulge in wild orgies of sensual enjoyment—the more orginatic the better.

None of the usually required self-denial is called for by my method; simply an exhibition of will power, made easy by the lure of flavor when you have once definitely located it. If you are anosmic, don't blame it on me.

Training your will to reduce is really great fun. Watch the action of your mind every time you decide to do or eat something and you will soon be greatly interested in this most useful species of psychoanalysis.

Appetites are as cunning as foxes; but you can trap and hold them.

You may take my word for it that you will increase your life expectancy by at least twelve years and enjoy your life twelve times as much if you will twelve times repeat at each meal for twelve weeks these twelve words:

Eat slowly and enjoy linked flavor-long-drawnout in olfactory chamber.

Every time you start to ask for a second helping stiffen your will and don't do it. Also make up your mind then and there to eat more slowly next time. That will mean two helpings in one so far as pleasure is concerned—and more pleasure is what you really want, not more food.

CHAPTER IX

EAT ANYTHING YOU LIKE!

THE "father of medicine," Hippocrates, who was born 2,382 years ago, already knew that fat persons were particularly likely to succumb to acute diseases.

In one of his books he gives directions for "those who wish to get thin." Among these are sleeping on a hard bed; strenuous bodily labor, preferably in the morning, on an empty stomach; vegetable foods, expecially greens; going about much, in good weather or bad; abstaining from hot baths, and drinking wine diluted. Don't you wish you could?

The Spartans, being the most warlike of the Greeks, made their youths keep thin and fit by feeding them on their notorious black broth and regulating their activities in the sternest fashion.

No doubt, at that time, and during all the succeeding centuries, individuals who wished to reduce, complained, as they do to-day, that everything they liked was verboten.

It happens, unfortunately, that what fat persons like most are the specially fattening foods. Banting declared that he did not eat too much; but his favorite and daily diet consisted of bread, milk, butter, beer, sugar, and potatoes—all of which cannot be commended too highly to those who wish to gain weight. They were the things which, to Banting's great disgust, Doctor Harvey promptly forbade him to eat and drink.

What the doctor allowed him to have was for breakfast: beef, mutton, kidneys, ham, fish, zwieback, or toast without butter, and tea without milk or sugar; all in measured quantities.

For dinner: fish (excepting salmon), meat (no pork), vegetables (no potatoes), toast, stewed fruit, besides red wine, sherry, or madeira, but no champagne, port wine, or beer.

Afternoon: fruit, zwieback, tea.

Supper: meat or fish, as at noon, and a glass or two of red wine. And for a nightcap, brandy or rum (without sugar), or red wine or sherry.

What strikes one about this régime, apart from the free use of alcohol which is now regarded as one of the most fattening beverages, is the excessive quantity of meat.

BISMARCK AND THE GERMAN DOCTORS

To this day the Banting method (applied cautiously and gradually) is used by some doctors; but it is not up to date, and is likely to prove dangerous to health.

A German physician, Dr. Richard Fuchs, gives a list of the troubles that may result from it, among them catarrh of the stomach and intestines, excessive uric acid leading to gout, dizziness, insomnia, and nervous troubles in some cases even insanity, due to the absence of important food elements.

The Germans have given much attention to the question of reducing, for obvious reasons. If you have ever visited their country, or crossed the ocean on a German steamer, you were probably amazed at the amount of food consumed by the Teutons at their four or five daily meals.

That they suffered from their excesses was strikingly illustrated during the great war, when the food shortage resulted in a decided improvement in the general health, by reducing girths to proper size.

It is for the sake of reducing girths that the famous summer resorts and baths in Germany and Austria are chiefly run. Eminent doctors make them their temporary abode; and their chances for observing and experimenting are unequaled. Important books on reducing have been written by Ebling, Oertel, Von Noorden, and others.

International fame was won by Doctor Schweninger because of his signal success in reducing the weight of Prince Bismarck. His was largely a water-cure—or, rather, a nowater-cure. I shall come back to this in the chapter "To Drink or Not To Drink."

VERBOTEN IS NOT NECESSARY

Progress in dieting for corpulence has consisted largely in the discovery that *Verboten* is not the best motto to hang up on the wall.

Professor Ebstein, instead of forbidding fat fish and meats, marrow, butter, oil, and rich gravies, prescribed them liberally. His main reason for so doing was that food rich in fat satisfies the feeling of hunger sooner than other foods, and therefore encourages moderation in eating—a reason already given by Hippocrates for permitting fat foods.

How liberal physicians are becoming in permitting formerly forbidden foods is shown by Doctor Copeland's allowing as previously

stated at meal time (but not between meals), "pastry and candy, nuts and ice cream, in moderate amounts."

To be sure, a somewhat earlier very popular book on reducing—it is so charmingly written!—Eat and Grow Thin (a title which is a stroke of genius) has at its end a list of "Forbidden Food and Why," which includes milk, cream, cheese, pork, ham, olive oil, bacon, lard, corn, wheat, buckwheat, rice, oats, white bread, macaroni, sugar, stick candy, potato, green corn, figs, bananas, grapes, unfermented grape juice, chestnut, walnut, raisins.

Not all of these things, however, are necessarily fattening, unless eaten in large quantities—we do need some fat to run the body machinery. All of them can be indulged in in moderation. Not to allow some green corn, for example, because it contains 1.1 per cent fat and 19.7 carbohydrates (starch sugar) is surely cruelty to animals.

A dozen of the above-named foods are, moreover, so rich in the all-important mineral salts that it is wise not to discard them entirely even if they have a fattening tendency.

Most emphatically and deliberately, I say:

Do not allow any adviser to induce you to give up all fattening foods. You may eat anything you like, provided you eat wisely and not too much of certain things.

Professor Ebstein was too bold in bearding the lion in his den and actually featuring fats in his menus for overweights. If you eat fats beyond the body's needs they are deposited under the skin or in other parts of the body—around the heart and kidneys—where they may do a tremendous amount of harm. But a certain amount of fat is necessary for health.

This amount, it has been ascertained experimentally, is at least an ounce daily. "Digestion and nutrition are best," in the words of Doctor Kellogg, "when at least a small quantity of fat is taken with your daily food."

That gives you your chance! Give up, for instance, butter, bacon, and olive oil? Not much! You may not have all three of them on the same day, but you can have either olive oil (if you can get it!) with your salad dressing, or a rasher or two of bacon with your breakfast eggs, or you can have butter with your whole-wheat bread or toast, or with your vegetables to make them more "tasty"—that is, more appetizingly flavored.

It is positively wicked to forbid milk and cheese with their fabulous wealth of food salts, especially lime—to which I shall recur in the next chapter. For the same reason potatoes, cereals, and raisins should not be avoided.

The potatoes, raisins, and cereals belong to the family of carbohydrates, of which you may eat any you please, up to the amount of eight ounces a day. This, with one ounce of fats, reduces your usual consumption of such foods by one-half. "Religiously adhered to," says Doctor Copeland, "this practice should reduce your weight fifteen pounds a month."

And yet you have been eating anything you liked!

MATHEMATICS IN THE DINING ROOM

Some years ago an individual—I don't remember who, but he was evidently fond of figures—invented a horrid thing which he called a calorie. He ought to have been landed in jail, for his pet soon became as great a nuisance in the food world as mosquitoes are to fishermen and witch grass to a gardener.

A calorie is a sort of yardstick with which to measure the fuel value of foods. Foods, you will remember, are burned in the body, as coal and wood are burned in a stove, although there is no flame or smoke.

The amount of heat required to raise the temperature of four pounds of water one degree (Fahrenheit), or one pound of water four degrees, is called a calorie.

Those who invented this name used an apparatus called a bomb calorimeter in which all sorts of fuels—turnips and butter as well as kerosene and wood—were burned and the resulting heat was measured. It was found that food oxydized in the body yields about the same amount of heat or energy as when burned in this apparatus, so the word calorie was introduced in the food world, where it was received with a yell of fiendish joy as a new fad.

Poor men, women, and even children were pounced upon and informed that the panacea for all their ills lay in counting the "calories" they consumed. According to age, climate, weather, employment, and previous condition of servitude, they were to eat foods yielding from one thousand to two, three, four thousand calories, or more, daily.

Multiplication, division, and subtraction tables were supplied and the poor victims of overweight, underweight, or normal weight were told just how many calories there were in a mouthful of mush or melon or meat or marmalade, and so on to the end of the list. These calories were then to be added together till they reached the exact number which the doctor or dietician, guessing and bluffing, had assigned to you.

One summer, when I was suffering from auto-intoxication, a doctor who could not diagnose my trouble suggested that I should try the calorie method, weighing and analyzing and compounding and calculating everything I ate.

I politely but firmly informed him that in college as well as in school I had helped to make a bonfire of all books on arithmetic, algebra, geometry, trigonometry, and differential, as well as renal calculus, and that I was not going to have any mathematical hocus-pocus in my dining room.

Possibly, under the daily guidance of an expert physician who knows you and your habits from toe to top, the calorie method might be of some use, but with the amateur it must always be guesswork and worse. (See next chapter.)

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There is no need whatever of mathematics at meals. If you are too fat and want to lose weight, simply reduce the amount you eat of dishes which have in them fat or sweet or starchy ingredients. Weigh yourself—always on the same scales—once a week—and if you are not losing weight, reduce your intake of those foods still more, till your digestive system begins to eat up your stores of body fat as the only available "calories" to be consumed.

And now we come to the most dramatic episode in the history of food, a play in which Alfred W. McCann, of the New York Globe, plays the principal rôle. Three cheers for McCann, I say, and you will join me after reading how he smashed the calorie—and the vitamine, too.

CHAPTER X

MINERAL SALTS AS REDUCERS

BANTING was annoyed, as we have seen, because of the ridicule to which corpulent persons were subjected in his day—as they had been ever since the fabled time of Bacchus and Silenus, and probably long before the Greeks.

Manners have mended within the last half century. There is a vague understanding of the fact that fat persons may owe their condition to disease—the fat "diathesis" the doctors call it—and not necessarily to the absence of a will strong enough to prevent them from eating too much.

In the light of modern science we may even go farther and excuse real gluttony in many cases, looking on it as a result of starvation!

A funny paradox this seems—but it is easily explained.

A glutton in very many cases is simply an unfortunate individual who eats a great deal because that is the only way he has found

(instinctively) for getting into his system sufficient quantities of the various mineral salts he absolutely needs for health.

Show him how he can get the mineral salts without eating those enormous quantities of food and he will—unless he is a very flabby, foolish person indeed—abstair from excesses, especially if it has been shown him, as I have done in preceding chapters, how he can vaetly increase his pleasures of the table by eating less and more slowly—and at the same time save a lot of cash!

What are these mineral salts that are so essential to health and that can be made to come to the rescue of those who persistently eat too much in order to get them, and therefore grow stout?

"ASH" TREATED LIKE CINDERELLA

There are at least a dozen of them. Some, like iron and lime (or what the chemists call calcium), you read about a good deal in newspapers and magazines. But there are ten others, some of which are of no less importance. Their names are potassium, phosphorus, magnesium, manganese, sulphur, silicon, sodium, fluorine, chlorine, and, last, not

least, iodine, which is as marvelous a tning in the body as radium is in the universe.

These salts together constitute the real elixir of health and life; yet until about a decade ago they were strangely ignored. As Alfred W. McCann remarks in his epoch-making book, The Science of Eating (Doran), which everybody who wants to fully appreciate the importance of mineral salts in our daily food simply must read:

"Prior to 1912 the only thing the public ever heard of in connection with a description of food was the academic division made by the dieticians. This division consisted of three groups—carbohydrates, proteins, and fats. There was another division to which some of them, on rare occasions, slurringly referred. They called the fourth division 'ash.'

"The division of ash was always exasperatingly ignored and apparently had little if any meaning for dieticians, and was not considered by them as significant or important.

"As it began to dawn upon various investigators working at different places in Europe and America that a diet of pure carbohydrates, pure proteins, and pure fats would not support

life, the subject of 'ash' grew more formidable and more fascinating.

"Physicians and chemists everywhere admitted that personally they knew nothing about ash in relationship to food and did not know where to obtain information."

It is the ash of food that contains the mineral salts of that food. When the mineral salts are removed they take the vitamines with them—and you starve and die no matter how many calories of proteins, carbohydrates, and fats you eat.

That is the most important dietetic discovery of all time! When fully and universally understood and acted on, it will abolish obesity and cut the world's disease rate and death rate in half.

A PEEP BEHIND THE SCENES

"Fascinating" indeed are the doings of the adorable, life-saving mineral salts in our body. To watch them at work is to get a thrilling glimpse behind the scenes in nature's wonderful physiological laboratory.

Do you know that you have in your blood so many millions of red cells that if they were spread out they would cover an entire acre? There is no iron in the cells themselves; it is in the fluid in which the cells swim. And we know that, if the iron were not present in this serum, the cells would promptly die, for the reason that it is the iron in the blood that enables it to absorb the oxygen from the surrounding air and carry it throughout the body to renew the tissues and burn up waste matter for prompt elimination.

If there is only half enough iron in your blood you do not die right away, but you do grow pale and sickly and wonder if life is worth living.

Nor is it in the blood serum only that iron is a necessity of life. It is also needed in the digestive fluids: the saliva in the mouth, the gastric juice in the stomach, the bile in the liver, and the fluid in the pancreatic gland which helps to burn up sugar, to furnish body energy, and to maintain the right temperature.

A shortage of iron in any of these parts of the body leads to anæmia and general loss of vigor and vitality. It has been estimated that the amount of iron in a man's body would just suffice to make a small nail—yet without this small quantity our tissues would collapse as would a warship if its thousands of bolts were suddenly withdrawn by a magnetic mountain, as in the old tale.

You now understand why a fat man on the wrong diet keeps on eating *instinctively* and *pardonably*, because he feels he hasn't had enough iron. He doesn't *know* this, unless he is up to the minute in food science. But the subconscious mind which takes care of his body tells him.

LIME FOR BONES AND TEETH

Have you ever read Kipling's fairy story about the poor dog who was in service with a horrid old leopardess and who was forever getting into trouble because he couldn't help stealing the bones that were forbidden him by her?

That leopardess was like the cruelly superstitious red Indians who threw the bones of slaughtered buffaloes and other game into the fire instead of giving them to the famished dogs.

They were very ignorant, as well as cruel, those Indians were—quite as ignorant as 97 per cent of white persons who do not know to this day that the reason why wild carniv-

orous animals flourish on meat is that they also lap the blood and gnaw the bones, which are full of lime.

For every hundred eggs a hen lays she can be made to lay a hundred and seventy, simply by providing her with plenty of lime.

Doctor Kellogg relates that some years ago it was found at the London Zoo that the lion cubs were deformed, bowlegged, clubfooted, dwarfed, and always died young. Treves, the famous surgeon, on being consulted, asked about their food. He was told they were fed on the very best of meats. He suggested the feeding of bones and bone meal. His advice being followed, the deformities soon disappeared, and the cubs thereafter did not die prematurely.

Is there in these facts a lesson for human beings?

According to Professor Sherman, of Columbia University, "half the American people are suffering from lime starvation."

The cave dwellers knew better. They split up the bones and ate what they could. And in the sixteenth century the Spanish explorer Cobez de Baca found that the natives on the Texas coast saved the bones of fishes and other small animals and ate them after reducing them to powder in mortars.

What happens when we do not get enough lime in our food? A number of very undesirable things. A few of them may here be enumerated.

Children are subject to bowlegs, and other bone troubles, just as much as lion cubs, if not enough lime is fed them to take care of their bones. Bone disease has been increasing rapidly in so-called civilized countries because of the criminal habit of "refining" foods—that is, taking out their minerals, including lime.

Tuberculosis is aggravated by eating food deficient in lime. Doctor Kellogg recommends that consumptives should be provided with large amounts of food lime, "at least double the normal requirements or 200 per cent."

Rheumatism, asthma, and many other diseases plague those who eat meat to excess without getting also the food lime that saves the bone-eating carnivorous animals from disease and premature death.

When there isn't enough lime in your daily food you get "nerves"—and you cannot out-wit these nerves except by eating plenty of lime.

Every dentist knows that unless there is sufficient lime in the food we eat, our teeth decay prematurely. It is his business to cure our tooth troubles, not to tell us how to prevent them. Why should he? He's got to live, hasn't he? Why should he attack the millers who steal the health lime from our cereals and bread and give it to the cows and pigs, making a snug extra profit by this manipulation. It's our business to see to that, not the dentist's.

In the case of serious wounds, it is the lime in the body which prevents the injured person from bleeding to death. A muscle deprived of its lime quivers and twitches unpleasantly.

"Calcium," McCann remarks, "is necessary for the strength of the bones, for the firmness of the muscles, for the tone of the nerves, for the coagulation of the blood on demand, for every pulsation of the heart, for the digestion of the food, for the functioning of the kidneys and other vital organs, for the health of the body."

CATCHING UP WITH THE ANIMALS

Again I say, is it a wonder that a fat man on a demineralized diet—as most Americans

are—keeps on eating and eating because his subconscious mind tells him he needs more of something, he knows not what?

Animals know-by instinct. If you place two slices of bread, one white (demineralized) the other whole wheat, where a mouse can find them, it will invariably eat the whole wheat. Dogs know they must have bones as well as meat.

It has been found that poultry and pigs do best if enabled to choose their own food in separate hoppers. If allowed to do this, selecting just what they feel they need, they also eat less.

When we have caught up with the pigs and hens we shall do the same.

We actually are gradually catching up with the animals. Enormous strides have been made in the last two decades in the science of eating. They are summed up superbly in Dr. J. H. Kellogg's 933-page volume, The New Dietetics. It is not an empty boast when he says that "there now exists a real science of dietetics based on scientific facts worked out in laboratory researches, verified by animal feeding experiments and confirmed by clinical experience. Dietetics is no longer the jumbled

mass of empirical notions of which it largely consisted even so late as two decades ago."

Doctor Kellogg was one of the first medical men to recognize the dietetic importance of iron and lime and the other food salts. In the book just referred to there are many pages dwelling on the need of foods rich in mineral salts, with numerous tables indicating the principal mineral value of the most important foods. Of particular importance is page 602, on which he calls attention to the fact that in putting a corpulent man on a reducing diet the minerals in the daily rations, as well as the bulk, must not be reduced.

"This is a point," he continues, "which has heretofore been neglected in all diets which have been proposed for reducing flesh, a serious oversight which has unquestionably been a most prolific cause of failure and has often resulted in producing a state of ill health as the result of the attempt to reduce weight, recovery from which has frequently required many months. It is a frequent observation on the part of persons adopting any of the usual methods for reducing body weight that while they feel lighter from the loss of flesh, they recognize at the same time a notable loss

of energy, endurance, and sense of well-being. This experience is often so pronounced as to lead the individual to prefer efficient obesity with its inconveniences to a state of more comely, but inefficient, leanness. This may be easily prevented."

Reader, if you are too heavy and seriously anxious to reduce, these words of one of the twelve greatest living Americans—an American who deserves a Nobel Prize if anybody ever did—ought to strengthen your will mightily—your will to give up using white bread and demineralized cereals and join McCann in the glorious war he is waging against those who, for personal profit, demineralize so many of our foods.

MIRACULOUS EFFECTS OF FOOD MINERALS

Remember, above all things, that if put on a reduced and reducing diet the very first thing to make sure of is not a matter of calories and what proportion of proteids, carbohydrates, and fats you are eating, but "are there enough mineral salts in the dishes served?"

For those who do not care to make a special study of dietetic chemistry (if you do, Professor Sherman's Chemistry of Food and Nutri-

tion is the book to read) there is comfort in Doctor Kellogg's assertion that "in general it is sufficient to make sure that the food contains a sufficiency of lime and iron. When these are present in sufficient amounts, the other essential salts are practically certain to be present also."

Please read the following paragraph again and again till you know it by heart:

If our food is deficient in sodium, the elimination of body wastes and poisons is interfered with and the same is true of iodine, which is the active principle of the poisondestroying thyroid gland. Potassium interferes with the hardening influences that menace muscles, joint, and artery; it makes the tissues soft and pliable. Fluorine is needed for the pupils of the eye, and for the teeth, the enamel of which it protects. Wild animals are never bald because they have in their feed all the silicon and sulphur needed for luxuriant hair, fur, or wool. If meat is minced and soaked a few hours in distilled water it loses its potassium, magnesium, and calcium salts; also, its flavor. If fed to animals they soon refuse to take more, and if fed on nothing else they actually die sooner than animals not fed at all.

WHY M'CANN FIGHTS CALORIES AND VITAMINES

When you know these facts as to the simply enormous importance of the mineral salts to health and life itself, you are in a position to understand the indignation of Alfred McCann, their leading champion, at the fuss made by dieticians over calories, and their neglect of these salts.

"All the scientists are talking about calories. The dieticians base all their tables and formulas upon these calories. Every hospital and sanitarium in the country talks glibly of calories. . . . The government publishes bulletins or calories. . . . Even restaurants have fallen under the spell," in spite of the fact that "it is the easiest thing in the world to condemn a man to death while stuffing him with the fattest calories found in the grocery store."

Numberless experiments made within the last decade by many men of science on various animals show that they sicken and die if fed only on fats, carbohydrates, and proteins from which the mineral salts have been removed, but are at once restored to health if foods such as greens, which have no caloric value at all but are full of food minerals, are added to the diet.

For a vivid and dramatic application of this experience to human beings read in Mr. McCann's book the story of the officers and crew of the German raider who lived on the fat of the sea—the shiploads of demineralized foods such as most of us eat all the time—which they got from the food ships sunk by them; and who were so crippled by acidosis that they had to enter New York harbor, where Mr. McCann, though not a physician, cured them promptly by dosing them with foods rich in mineral salts.

"Calories" were killing them; salts saved them. In the light of later events, to be sure, it would have been better to let the calories finish their deadly job.

The taboo so long cast on mineral salts has almost the appearance of a conspiracy in aid of the persons who, for commercial profit, remove these salts from our foods.

Much of the calorie worship, however, is no doubt a mere illustration of the parroting propensity of mortals and the temporary potency of a fad.

ANOTHER SMOKE SCREEN

There is much evidence in contemporary literature that McCann dealt the calorie a

fatal blow. It still flaps around like a chicken that has had its head cut off, but as an allembracing dietetic scheme it is a fashion of the past.

It is very strange that just as the mineral salts were coming to the fore, another smoke screen to hide them from the public was put up. I refer to the timely arrival, on the stage, of the vitamines (or vitamins), which immediately took the place of the discredited calories as a new fad—a fad of great commercial value to a great many persons.

These vitamines, too, McCann has assailed so valiantly and violently that I see them lying on the ground, slaughtered mercilessly.

The massacre was perpetrated in the New York Globe, which printed a series of articles from his pen in October, 1921, and later, which to my mind demonstrated absolutely that all the wonderful things attributed to vitamines are really the results of the activity of the twelve mineral salts, in the absence of which no vitamines have ever been found.

Why assume the existence of some mysterious, unproven thing which the subtlest chemical processes have failed to demonstrate—as is admitted by all the writers on vitamines—

when the wonderful things attributed to them are fully explained by the mineral salts, the existence and activity of which can be demonstrated any moment in any chemical laboratory?

It is very much as if a gardener, finding his plants growing luxuriantly after a shower, ignored the rain and stubbornly tried to find the explanation of the new growth in some mysterious, unproven "something" which, admittedly, was dependent on the rain.

Great is the power of money in this country, and the public little suspects what subtle uses are made of it. McCann hints at the "commercial purposes" for which the vitamines have been dignified and overemphasized.

Of course, most of those who have joined the festive vitamine choir as sopranos or contraltos, tenors or basses, are innocent. One has to follow the fashion, you know, be it in dress or in dietetics.

"The vitamine hysteria," McCann remarks, "has been exposed in private by the vitamine specialists, and the vitamine authorities, although the outside world goes on clamoring for vitamines."

However, "one thing is certain-you can't

have a perfect arch without a keystone and the scientific world ever so slowly is beginning to learn that the food salts constitute the keystone of the arch of life. The vitamine agitators have taken a picture of this arch and by a process of misbranding have labeled the keystone 'vitamines,' wherefore the gullible ones of society are now busy buying an empty name in lieu of the precious mineral salts which they reject as pearls to swine."

Another of McCann's articles closes with this eloquent prophecy: "The writer believes that within the next five years the vitamine theory as now exhibited will be as dead as the calorie theory, which is no longer exhibited at all, despite all the noise it once made, and that all the scientific men of the world will by that time have accepted the indispensable, ever-precious, and ever-more-wonderful mineral salts, colloids, and solubles of whole foods, particularly of greens and sprouting foods that are in a state of biochemic activity, as the keystones of the arch of nutrition, natural immunity, resistance to disease, growth, strength, endurance, vitality, and normal life."

The words I have italicized call attention to still another benefit derived from mineral salts not yet referred to in this chapter: they fortify the body against attack by various diseases.

GARDEN VERSUS DRUG STORE

When you go to a drug store and buy a good yeast tonic, or an honest vegetable Liebig like Savori, Vegex, or Marmite, you are not cheated, even though the label talks about vitamines; for in the Globe Laboratory it was learned that in 100 pounds of fresh yeast nearly eight pounds consist of the highly organized mineral compounds of iron, potassium, calcium, magnesium, phosphorus, etc. It is these that tend to the job that is accredited to the imaginary vitamines. Once more let me cite McCann:

"Who would have believed that nearly 8 per cent of yeast solids consist of mineral salts? Why have they talked about 'vitamines' of yeast, not one of which has ever been isolated, except as an inference drawn

¹After all—"what's in a name?" Since vitamines are inseparable from mineral salts, what is written about them is just about as valuable as if they were called mineral salts. For this reason I cannot too highly recommend Mr. C. Houston Goudiss's Eating Vitamines, containing two hundred splendid recipes of "foods rich in vitamines." While not specially intended for overweights, many of these recipes are just the thing for them. Which of them, no one who has read the whole of my book can fail to see at a glance.

from other inferences, whereas with eight solid ounces of precious mineral salts before them, they have found nothing to think about, nothing to talk about, nothing to work with, as if, having ears, they could not hear, and, having eyes, they could not see?"

As a rule, unfortunately, the mineral salts we need in good health or ill cannot be bought in the drug store. Every druggist used to make or sell "beef, wine, and iron," and he did not deceive you so far as the contents were concerned. But the iron in this compound was *inorganic* and therefore not available as food; for biochemical science tells us that iron, lime, sulphur and phosphorus in general exists in the body only in *organic* form—that is, as *derived from plants*, which, after absorbing these minerals in the soil, subject them to subtle metamorphoses and combinations that cannot be reproduced in the drug store or laboratory.

It is to the garden, therefore, that you, Mr., Mrs., or Miss Overweight, must go for those food minerals which will so surprisingly and inevitably reduce your abnormal appetite and with it your weight.

It is in the garden vegetables that food

minerals are found in the richest abundance. Make them your principal article of nutrition and you can choose your own girth measurement, regulating it to an inch, almost without taking any other measures.

In a later chapter the all-important subject of vegetables and their helpful mineral salts will be considered in detail. Here let me add simply a short list of a few garden and other products which contain particularly great amounts of both iron and lime and therefore of most of the other minerals:

Almonds and other nuts, Boston brown bread, bran, chard, dandelion greens, dock greens, egg yolk, endive, dry figs, pure gluten, lentils, maple syrup, genuine molasses, mustard greens, olives, red root, savita, spinach, turnip tops, lettuce, etc.

THE GOVERNMENT HEARD FROM

The United States government also has now lifted its mighty voice in recognition and praise of the food minerals. Bulletin No. 975, of the Department of Agriculture (which you can get by sending a dime—not in stamps—to the Superintendent of Documents at Washington) is a pamphlet of thirty-seven pages entitled

Food Values: How Foods Meet Body Needs. Its author is Emma A. Winslow, of Columbia University, who presents a number of useful and interesting facts under these five heads, (1) vegetables and fruits; (2) milk, eggs, cheese, and flesh foods; (3) cereals and cereal preparations; (4) sugar and sugary food; (5) fats and fat foods.

It seems significant that in this government publication vegetables and fruits are listed first. Much more significant still, that the main feature of this Bulletin is a series of diagrams or charts which show at a glance the mineral values of fifty important articles of food. The protein (body building) and the fuel values are also given, thus enhancing the value of these charts for overweights, whose duty it lis to keep out fuel foods (sweets, starches, fats) while shoveling in minerals.

The author, or the government, will, I hope, allow me to present one of these diagrams as a specimen. In eating spinach, for instance, see how very much less you get of fattening fuel (energy) than of calcium (lime), phosphorus, and iron. The following chart shows the proportions of these ele-

ments needed per man per day furnished by one pound of spinach:

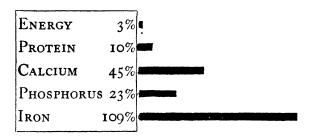


TABLE SALT INCREASES YOUR WEIGHT

Strange things happen in this world. While twelve food salts good and true are extolled and boomed in this chapter, the thirteenth—unlucky number!—poor, pitiable chloride of sodium, the only food salt most mortals know anything about, is to be cast out into the garbage can, or at any rate shorn of its locks—so far, at least, as overweights are concerned.

What's the matter with table salt? What's the matter, indeed! Well, just read what the oracle at Battle Creek says:

"For every ounce of salt, one hundred to one hundred and twenty ounces of water will be retained in the body. Evidently the disuse of salt is important for persons who desire to lose in weight."

This means that six or seven pounds are added to your weight because you eat too much salt! To be sure, this extra weight is water, not fat. All the same, it adds to one's bulk, and from the point of view of personal appearance — which we all cherish — it is objectionable.

"It is important to remember," says Doctor Kellogg in another place, "that body weight does not always closely follow the actual reduction in tissue. There is usually a retention of water which masks the actual tissue loss. This tendency may be met by greatly reducing the salt (sodium chloride) of the diet, by limiting the amount of water taken, and by daily sweating baths."

No fewer than ten pages of *The New Dietetics* (439-449) are given to a scathing indictment of table salt, showing in detail how it does harm not only in obesity, but in dropsy ("not infrequently, when salt is withdrawn in cases of dropsy, the excess of fluid disappears almost wholly within a few days"), eczema (so widely prevalent), diabetes, arterial pressure, tuberculous ascites, scarlet fever, nephritis,

measles, smallpox, pneumonia, typhoid fever, etc.

Lemon juice and other wholesome flavors will help you overcome your morbid and dangerous craving for salt.

It was with almost fiendish joy that I read these ten pages in Kellogg's great book—a book from which most doctors can learn a great deal, as well as laymen. For these facts were just so much fresh ammunition in the fierce fight I waged (in Food and Flavor) against the salt butter almost universally used on American tables except at the most epicurean establishments. Away with it!

Fat man, you may eat a little sweet butter daily (if you can get it: demand will create a supply); but salt butter, never! It is your enemy.

Let visions of the diseases I have just named—including obesity—scare your will to give up all but a little salt. In all probability you owe a good deal of your excess weight to your habit of using your salt cellar or shaker at every meal. According to Gautier, most persons eat five times as much salt as they need.

Salt eating is merely a habit, like coffee or

whisky drinking. The American Indians did not use it. The arctic explorer Stefansson says that the Eskimos detest salt. He found it to behave "like a narcotic poison—in other words, it is hard to break off its use, as it is hard to stop the use of tobacco; but after you have been a month or two without salt, you cease to long for it, and after six months I have found the taste of meat boiled in salt water distinctly disagreeable."

There is an old saying that "salt is that which, if you don't put it in the soup, spoils it." Well, you may put a little—very little—into some things, like soups or potatoes—salt is not banished from the table at the Battle Creek Sanitarium—but most foods have in them naturally all the salt you need.

What you can hardly have too much of is the twelve mineral salts boomed in this chapter. Those you must have if you would be slender and well and long lived.

And there is another thing you need quite as much as mineral salts, viz., mineral oil and roughage. These, though not digestible and therefore not counting as food in the narrow sense of the word, are in the wider sense as important food principles as carbohydrates,

fats, proteins, water, salts, and oxygen. To them a whole chapter, and a long one, must be devoted, for many reasons which will become apparent as you read the astonishing facts, unknown to most people, which are now to be set forth so all can understand.

P. S. Happy afterthought! With regard to the Vitamin War, why not stop it and satisfy both factions by calling the blessed things vitaminerals—both words complete in one?

CHAPTER XI

BRAN, BLUEBERRIES, AND PETROLEUM

A FRIEND of mine asked his doctor what was the best way to lose weight.

"Eat less," was his laconic reply.

Clever but misleading. We have just seen that one reason why many persons are too "hearty" eaters is that the kind of food they choose does not supply them with the mineral salts they need; so they eat on and on. If they are less, they would have fewer still of these salts and be worse off than before.

But give them all the necessary food salts and they will still be wretched unless they also get bran and blueberries—using these as representatives of the whole class of foods that supply cellulose (or bulk, or roughage, or whatever you choose to call it), for regular bowel action.

A word aside to the reader. Never having been an overweight, I cannot have the joy indulged in by most writers of books on this subject of holding up my former life and condition as a warning example. But I have had a past that I can talk about to the reader's great profit, be he fat or thin or normal.

After reading my obituary notice of Horace Fletcher in the New York *Evening Post*, Doctor Kellogg (who had tried, but too late, to save him from the results of one of his fads) wrote to me:

"I am very glad that you called attention to Mr. Fletcher's grievous error in relation to the insoluble constituents of foodstuffs. This was really the fatal mistake of his work and wrecked his campaign.

MORE IMPORTANT THAN CHEWING

"William James, a little time before he died, said to a friend of mine, 'I tried fletcherizing for nearly three months. I had to give it up; it nearly killed me.' It killed his son-in-law, Doctor von Solleren, and doubtless shortened Mr. Fletcher's life by many years. Frequent and thorough bowel action" (which Fletcher had deliberately and emphatically opposed; see his *The New Glutton or Epicure*, pages 142–150) "is more important than thorough chewing."

When I indorsed Fletcher's teachings in my

book on Food and Flavor, I little suspected what swampy ground I was treading on. If I misled and harmed any of my readers I am very sorry, but I nearly paid for the crime with my life. By stubbornly rejecting (as he advised) all food which could not be reduced to a liquid in the mouth I dug my own grave, slowly but surely, and had I not providentially come across Doctor Kellogg's great book on Colon Hygiene I should now be reposing peacefully in a secluded cemetery.

I had fondly hoped I had helped to solve the problems of health and longevity by dwelling in my book on the tremendous importance of enjoying the flavors of food (because they cause a free flow of all the digestive juices) and by indicating a simple method-which doesn't cost a cent-of doubling and trebling the health-giving pleasures of the table; but my appearance was the poorest sort of an advertisement for my book. I became painfully emaciated; my complexion was sallow, my heart irregular; I dreaded to eat, to work, to travel, to go to a concert or opera; often I lay awake all night, wondering why. It was one d—d thing after another, and I feared the future. My friends could see death

painted in my face, and so could I when I looked in the mirror. My wife was heart-broken at seeing me, who had once been the very image of health, look like a skeleton.

One day, on reading the Good Health magazine, I saw an advertisement of laxa (made of bran and agar) and paramels (made of refined paraffin and malt sugar) such as are used at Battle Creek. A two weeks' supply of these was offered free in case they did not produce the desired improvement. I had up to that time stubbornly rejected the idea of putting anything like mineral oil, bran, or agar, all admittedly indigestible, into my stomach. But I was feeling so badly that for the moment I was willing to try anything—even gorilla-tail soup. (N. B. Gorillas have no tails.)

TO FEEL YOUNG IS TO BE YOUNG

The laxas and paramels came. In a fortnight I was beginning to feel fine. Three months later, taking these things with every meal, I was as healthy as a mountain trout, as happy as a skylark. I gained sixteen pounds in sixteen weeks, slept eight or nine hours without a break, ate anything I pleased, worked with zest, longed for a trip round the world, and made an infernal nuisance of myself by telling everybody I knew—men, women, and children—about the hygienic methods which, in these few months, made me look and feel twenty years younger, while reveling day and night in the exhilarating, voluptuous process of rejuvenation.

When a man looks and feels twenty years younger he is twenty years younger; for age is not a matter of years, but of health, vitality, and vigor. Some men are old at thirty; others (like Chauncey M. Depew) young at eighty.

Metchnikoff was right in his views regarding the normal duration of human life (150 years) and he might have proved their correctness if he had only known and heeded what Doctor Kellogg knows, and what everybody may know who will read his Colon Hygiene or his two other books on the most important hygienic topic in the world, The Itinerary of a Breakfast and Auto-intoxication; not to forget his invaluable Health Question Box, which also contains a most illuminating chapter on bowel disorders.

Of course, what I had preached in my book about food and flavor was all right; I erred only on one page, where I lost the chance to refute Fletcher's deadly doctrine that nothing should be swallowed that cannot be reduced to a liquid in the mouth.

That upset the whole skyscraper. I was like a family which lives strictly in accordance with all the most up-to-date health rules, yet grows pale and sickens and seems about to die—simply because there is a hidden leak in the sewer pipes and the house is filled with poison gas.

WHAT IS AUTO-INTOXICATION?

When Seneca wrote, nearly two thousand years ago, that "man does not die, he kills himself," he seems to have had a presentiment of the modern doctrine of auto-intoxication. Most people of our time kill themselves by indulging in the worst kind of intoxication.

This includes prohibitionists. It includes millionaires and kings (so far as any are left) as well as tramps, and all that come between these extremes; also famous men of science.

A distinguished politician once asked if auto-intoxication wasn't a "disease people get from riding in automobiles."

It is infinitely worse than that—worse even

than habitual alcoholic intoxication. The Greek word toxikon means poison, and auto-intoxication is nothing more or less than slow self-poisoning.

To Doctor Bouchard, the famous French physician, belongs the honor of first showing that many of the ills we are heir to come from the absorption of poisonous matter in the intestines. Roger found that of the 160 different species of bacteria living in the alimentary canal of man, more than one-third yield poisons, some of which resemble the venom of snakes, and many of which are capable of producing the most distressing symptoms.

It makes one dizzy merely to pronounce the names of some of these miserable microscopic imps—for instance, parahydroxylphenilethylamine.

The decaying food in the colon harbors not only billions, but trillions, of these Hun bacteria. Is it any wonder that the large intestine becomes, if neglected or maltreated—as it is by nine persons out of ten—"a veritable Pandora's box of disease and degeneracy"?

The idiotic notion that such things should not be discussed in newspapers or in books intended for the general reader is a form of criminal imbecility which has wrecked millions of lives—millions is the word—especially among English-speaking peoples.

LIKE THE ROOTS OF TREES

When the food we eat or drink leaves the stomach through the pylorus gate, it enters the small intestine, which, measuring about twenty-three feet in length, is provided with millions of villi, which absorb the liquefied food just as the million rootlets of a tree absorb the moisture from the soil.

At the lower end of the small intestine where it joins the colon, or large intestine, there is another gate, called the colon gate, or ileocecal valve. This valve, of which not one person in a thousand even knows the name, is the most important anatomical structure in the whole human body; so much so that to say, "How's your ileocecal valve?" is tantamount to asking, "How's your health?"

Why? Because as long as this muscular valve is in order the poisonous contents of the colon cannot pass back into the small intestine, to be absorbed there by the million rootlets just referred to and carried with the blood throughout the body, poisoning every organ.

"It seems probable," says Doctor Kellogg, "that in practically all cases of intense intestinal toxemia the ileocecal valve is incompetent." His pamphlets on this valve are epoch-making contributions to surgical and hygienic literature.

The colon itself, fortunately, has normally few absorbent villi. As long as the mucous membrane which forms its inside lining is sound no special harm results from intestinal stagnation (constipation), and that is why not a few young and healthy persons seem to suffer no ills from it. But in course of time, in most persons, such stagnation and hardening irritate the mucous membrane, producing congestion and inflammation (colitis). Then the mischief begins. The poisonous bacteria are absorbed and carried to all parts of the body; and thus the colon becomes a "breeding place of miseries and maladies too numerous to mention."

What are some of the diseases resulting from a crippled ileocecal valve, or from the catarrhal irritation and congestion of the mucous membrane of the colon, known as colitis, and causing auto-intoxication?

The Royal Society of Medicine of Great

Britain some years ago devoted several of its sessions to a discussion of the effects on the human body of the poisons generated in the colon. Some sixty of the leading physicians and professors took part in this symposium, and Doctor Kellogg, in his book on *Auto-intoxication*, devotes a whole chapter of twenty-eight pages to their conclusions by way of fortifying his own position.

A NICE BATCH OF DISEASES

An earlier book on this subject, entitled Intestinal Auto-intoxication, was written by Doctor Combe, the physician in charge of a great Swiss hospital at Lausanne, to which thousands of invalids from all parts of the world resorted for successful treatment.

Among the diseases and symptoms caused by auto-intoxication he found degeneration of blood vessels and rise of blood pressure; constant weariness; rheumatoid arthritis, and other joint symptoms; hives and other skin troubles; extreme emaciation; myocardial weakness, dilatation, and other heart troubles; the most fatal type of summer diarrhæa in children; irritability; perverted moral feelings; attacks of melancholia and even insanity; foul breath, gout, rheumatism; tetany; crippling arthritis; wasting of the muscles; diseases peculiar to women; headache, epilepsy, goitre, enlarged glands, pyorrhea, asthma, baldness, various diseases of the eyes and ears, etc.

Metchnikoff summed up the whole matter in this sentence: "The micro-organisms inhabiting our bodies have set going there a poison factory which shortens our existence, and by secreting poisons which penetrate all our tissues, injures our most precious organs, our arteries, brain, liver, and kidneys."

Sanitarium reports indicate that fully threefourths of the patients owe their troubles, or aggravation of them, to sluggish intestines.

Fortunately, this auto-intoxication can be cured in practically all cases, often with astonishing rapidity.

There are four ways of thwarting the designs of the Hun poison brigades. I name them in the inverse order of their excellence: cutting out the colon; bullying it with drugs; changing the intestinal flora; and accelerating the food movements.

Metchnikoff, after years of special study of the harm done in the colon, came to the conclusion that it was a useless thing anyway, and might as well be cut out; and the great English surgeon, Sir W. Arbuthnot Lane, performed this operation of short-circuiting in a number of cases.

Apparent benefit resulted at first, but it did not last a year, and this operation has therefore fallen into disfavor among the best surgeons.

WHY DRUGS SHOULD BE AVOIDED

The same fate awaits the habit of using castor oil, rhubarb, senna, calomel, cascara, and other irritating drugs, on which doctors and patients have been relying for centuries. These drugs (cascara is, possibly, the least, castor oil the most, objectionable of them) have doubtless saved countless lives and will, of course, continue to be resorted to in emergencies. What cannot be too strongly condemned is their frequent use. "Laxative drugs sooner or later produce colitis and spastic conditions that leave the patient worse than in the beginning," says Doctor Kellogg; and this reflects the consensus of the best medical opinion of the day.

Why whip a horse and apply the cruel spur

when he can be made to do better work by gentler methods of persuasion?

Changing the intestinal flora is one of these gentler methods. In Gladstone's day everybody spoke of "Bulgarian atrocities," and there have been plenty of them in the last few years. But there is also a benevolent side to the Bulgarians, for they supplied Metchnikoff with a hint for combating the conditions in the colon which cause premature old age.

He noticed that they drank a great deal of sour milk and that many of them lived more than a hundred years. In their milk he found a bacillus which is violently hostile to the colon bacilli of putrefaction; with this he soured the milk he daily drank.

Unfortunately, this bacillus is usually digested and absorbed before it reaches its "colonial" destination. It has therefore been combined with other bacilli, which help to keep it alive; and in this combination millions have used it in various commercial forms. But, on the whole, Metchnikoff's method proved a disappointment; "it was beneficial, but rarely a complete success."

The fashionable grape cures, and other fruit cures, which have made the fame and fortune

of so many European resorts, owe their efficacy chiefly to the change they bring about in the intestinal flora, substituting benevolent bacilli for those which breed disease and hasten senility.

At Vichy a carrot cure has been similarly used, this vegetable being served with every meal. Potatoes and dates have also been found particularly antitoxic. But on these details I cannot dwell. Doctor Kellogg's Auto-intoxication discusses them most helpfully; and in the chapters on "The Milk Regimen" and "The Fruit Regimen" are given the results of the latest discoveries and experiments at Battle Creek and elsewhere, for the benefit of those who lack the time or means to go to a sanitarium.

Read these chapters by all means if you would know how, in consequence of the use of these "regimens," the old depression, headache, mental dullness, and other miseries are replaced by a sense of energy and well-being. "The transformation of the patient from a poor, emaciated, despairing invalid to a plump, rosy-cheeked, bright, forceful person is often so rapid as to seem almost miraculous. . . . A gain of twenty-five to thirty pounds in six or

eight weeks is not uncommon. Sometimes a gain of forty pounds is made in as many weeks."

FOR FAT AND THIN ALIKE

At this point my friend, Mr. Overweight, breaks in on this long scientific sermon with an emphatic: "Hold on! You told me of your gaining sixteen pounds in sixteen weeks and here you cite the case of a man gaining forty! Are you trying to guy me? I don't want to gain!"

Nor will you, dear sir. I gained sixteen pounds, and afterward ten or twelve more, simply because I was a living skeleton and needed this gain to get back to normal; and so with the others. Had I been thirty pounds overweight I would have *lost* most of it by curing my intestinal inactivity, and eating wisely and not too well.

You needn't take my word for it. Listen to the oracle. In speaking of the fruit "regimen," in which mineral oil is used, with roughage, as well as fruit, Doctor Kellogg says, "The purpose of this regimen is to secure very pronounced activity of the bowels, which greatly aids in the reduction of flesh."

It is well known that jockeys often keep down their weight by using cathartics. That, of course, is bad for their health, whereas the use of bulk and lubrication is not only not harmful, but highly beneficial.

It is here as it was in the case of Lillian Russell, who, as we saw, got thinner, and her sister, who gained weight, while using the same exercises. They both became normal by restoring the healthful activity of their bodily organs. Nature takes care of you if you give it a chance. No doctor or dietician equals the vis medicatrix natura.

A TRIP TO THE INTERIOR

Life once printed a picture of a missionary, just arrived at the Cannibal Islands, asking where his predecessor was. "Your predecessor," replied the chief, "has taken a trip to the interior."

Jonah is supposed to have taken a trip into the whale's interior, and he lived to tell the tale. To-day anyone can make a trip like that (as Mark Twain used to climb mountains—by proxy) without the slightest inconvenience, thanks to the X-rays. They give "information about conditions which are beyond the reach of the eye even with the organs in sight," writes Doctor Kellogg.

His highly entertaining and superlatively illuminating book, *The Itinerary of a Break-fast*, follows several meals (chemically colored red, blue, and yellow) through the alimentary canal by the light of the X-rays.

One of the most important lessons thus learned was that the movement of the food in the intestinal tube is four times as fast at meal time—which adds another weighty reason for eating slowly; for rapid transit of food is the great desideratum.

If it passes through the body in twenty-four hours—as it does if there are three bowel movements a day—there is no time for the contents to putrify and poison the body. If there are only two movements, the conditions are less favorable, while one movement a day is serious constipation and means auto-intoxication.

The movements must not only be frequent, but thorough; diarrhea is often an indication of constipation—a frantic effort of nature to rid the body of poisonous accumulations. These sometimes become as hard as wood and by means of friction may cause ulcers and even cancer.

MINERAL OIL AND ROUGHAGE

Fortunately we are no longer dependent on drugs which, while helping momentarily, aggravate the disorder if used often.

If Sir W. Arbuthnot Lane failed to benefit mankind by his surgical short-circuiting, he atoned for that mistake a thousand times by being the first to recommend the practice of intestinal lubrication, which practically does away with the need of surgical operations even in the worst cases of obstruction and auto-intoxication.

Butter, olive oil, and other fats had been found of no use, because they are digested and absorbed. But mineral oil (refined petroleum) is not absorbed; it softens the food residues and helps their rapid removal; it protects irritated membranes, thus preventing colitis; it absorbs and carries off poisons; it relieves the spasm of overworked intestinal muscles, helping to restore them to normal action—in short, it comes nearer being a panacea for intestinal troubles than anything ever found.

For the cure of auto-intoxication mineral oil often suffices. In most cases, however,

¹ Many who have tried mineral oil gave it up because it sometimes leaks through the body. This is not the case with paramels.

another simple remedy is needed—bulk, or roughage—which, by increasing peristaltic action, greatly accelerates the movement of each meal, reducing the total time needed from two days or longer to less than one day, thus preventing the colon from being a sewer.

The use of bran for roughage is becoming widely prevalent. And while useful as a harmless laxative, it has the further advantage of being rich in iron, lime and other mineral salts.

The time will come—for many it has already come—when bran will be on the table all the time to be mixed by the spoonful with cereals, soups, fruit sauces and other dishes.

It is a tremendous boon to have at hand so conveniently a cheap food which, besides being one-third cellulose, contains a perfect mine of health salts—in a pound, for instance, 119 grains of potash as against only a dozen in the flour of which white bread is made.

According to an English authority, Doctor Ross, this loss of potash predisposes to cancer—may, in fact, be one of the principal causes of that dreadful scourge which has been increasing at a startling rate since the habit of taking the bran out of bread began.

The Japanese seaweed named agar, or agar-

agar, is not, like bran, rich in mineral salts, but it has the wonderful quality of absorbing and retaining ten times its bulk of water, and therefore, when mixed with the food, prevents it from drying out and forming a pernicious blockade in the bowels. It is important to have it thoroughly cleaned, as it is in the Battle Creek or the Park and Davis packages. There will soon be many others, no doubt.

By a judicious use and combination of bran, agar, and mineral oil a complete regeneration of the human race can be brought about and the average duration of life increased half a century or more.

Of course it's a nuisance to have to bother about such things at every meal—but isn't it an infinitely greater nuisance to be fat and flabby and inefficient, and below par in every way—feeling all the time as if you were a bundle of depreciated paper money?

No matter how "swell" a dinner I may be invited to, I always take along a laxa and a paramel. If I happen to sit next to the hostess, she always wants to know what they are. And her next question is, "Where could I get some?"—showing how universal a malady is auto-intoxication.

Brahms, the composer, always felt ashamed of himself when he was sick or not feeling well; he reasoned that he was to blame because he hadn't used the intelligence the Lord had given him to keep well. I save myself from such reproaches; you ought to do it, too. Get the habit. It's easy after a short time.

FOODS RICH IN CELLULOSE

Cellulose is the scientific name for the quality in a food which makes it useful for bulk or roughage. In mild cases of constipation the remedies just described may not be needed, provided the meals include plenty of the vegetables, fruits, and cereals that are rich in cellulose.

In the department of vegetables this is the case, particularly (and in the order given) with dried peas, green peas, cabbage, parsnips, Brussels sprouts, raw kohl-rabi, raw celery, turnip, pumpkin, baked potato (with the skins), beets, asparagus, spinach, steamed cauliflower, tomatoes, carrots, beans, lettuce, onion, cucumber.

Among the fruits useful for roughage—and, like the vegetables named and the cereals to

be named, rich in salts—are, in the order given: blueberries (huckleberries), raspberries, cranberries and blackberries, currants, figs, gooseberries, pears, apricots, cherries, strawberries, oranges, prunes, plums, grapes, raisins, apples, peaches.

Among grain or cereal products bran is far in the lead in roughage value as well as in mineral wealth; it has 200 grains of cellulose to the ounce. Next in cellulose value comes cooked oatmeal, with 44 grains, followed by dried beans, peas, barley, lentils, rye, wheat, corn meal, corn flakes, graham bread, whole wheat bread.

It is needless to say that, for the corpulent, the vegetable and fruit groups are preferable to the cereals because the latter are also fuel foods and therefore fattening.

Bran is the grand exception. Of that you can eat without fear of losing control of your girth.

Among the other cellulose foods enumerated, blueberries are almost as pre-eminent as bran is among cereals. Hence the head of this chapter.

Once, when I spent a fortnight as a guest in Paderewski's Swiss château at Morges, I noticed that he ate stewed blueberries daily. I did not know why; now I know—and why he took along preserved blueberries even on his world-wide concert tours. He had evidently learned a lesson from Doctor Combe, the author of a pioneer book on auto-intoxication, who had, at Lausanne, near the great pianist's home, a sanitarium at which wonders were achieved.

It has taken the medical world a surprisingly long time to learn about the tremendous importance of bran and blueberries—that is, of colon hygiene.

Perhaps it is not surprising. The colon is the doctor's best friend. Why should he ruin his business by giving you lessons how to avoid disease? That isn't what he is paid for.

The time is coming when he will be paid for prevention as well as for cure. In China, it is said, doctors are paid only while their patients are well. It's a pretty little fancy, but why locate it in China, where native medicine is still in the most primitive "medicineman" stage?

BARKING UP THE WRONG TREE

Whatever pertains to the colon is of particular importance to the corpulent because they

are, more than others, liable to constipation. The increasing weight of the abdomen causes it to sag and, by its pressure, to interfere with the free activity of the intestines.

Overweights are particularly given to barking up the wrong tree, accusing the stomach of crimes which in reality are perpetrated in the colon. Experience has taught me the maxim, Take care of your colon and your stomach will take care of itself.

Frequently, when I have advised overweights to eat this or that, they have answered, "It doesn't agree with me." That seems to settle it. But it doesn't.

Practice colon hygiene for a time and you will find your stomach ready to digest almost anything.

I used to swallow tons of soda mints, papain tablets, and other "life savers." Imagined myself a victim of fifty-seven varieties of indigestion. Had to give up eating many of my favorite foods, from, raw onions to raw apples.

Great was my joy when, on becoming familiar with the remedies for auto-intoxication, I found that my stomach was intrinsically as good as in my youth. Like all the

other organs in my body, it had simply been poisoned by the toxins generated in the colon. Colon hygiene soon enabled me once more to eat onions, apples, melons, and all the other things I had given up; my happiness was complete!

FINAL ADMONITIONS

When ordinary mortals talk about a food being digestible they mean that the stomach has no difficulty in taking care of it. In many official publications of our government at Washington the word "digestible" is confusingly used as meaning the proportion of this or that food that is completely absorbed in the digestive tract.

This is an absurd way of estimating the value of a food, as all who have read this chapter can see. Bran, which is absolutely the most valuable of all foods, is relegated to the foot of the class by this ridiculous use of the word digestible. While its salts are absorbed, its bulk is not digestible; and that is why it is a life saver.

By eating bulky foods at the beginning of a meal, overweights can diminish their hunger greatly and thus make it easier for their will to reduce to assert itself. Above all things, remember that when you begin to reduce, it is dangerous to eat less than you have been eating, because that diminishes the bulk needed for frequent bowel movements.

What you must do to lose weight is to eat less of the fuel foods, but to make up for that by eating more of the roughage foods you have just read about.

These fruits and vegetables can, as we shall see in later chapters, be made so tempting, so completely satisfying, that you will not miss the sweets and starches that have made your body heavy and your life a burden.

By way of intermezzo, to rest our minds a moment from contemplating the question of what to eat, let us dwell briefly on drink and sleep, both of which present interesting problems to overweights.¹

¹ The hints regarding colon hygiene given in the foregoing pages usually suffice to restore health. In stubborn cases, read about supplementary methods such as abdominal massage, deep breathing, enemas, baths, electrical stimulation, correct posture, abdominal belt, etc., in Kellog's Colon Hygiene. For an extremely valuable list of twenty rules for combating constipation see pages 632-634 of his New Dietetics. Don't wait for the call, but try to get the habit of having a movement immediately after each meal.

CHAPTER XII

TO DRINK OR NOT TO DRINK

PORTY years ago a friend took me to the office of a well-known importer of Hungarian wines in New York. I had hardly taken a seat when that wily merchant set a trap for me—yes, he deliberately set a trap—a gastronomic trap. He brought me a tiny liqueur glass full of choice fragrant Tokay and then chatted while waiting to see what I would do with it.

Of course, being a genuine epicure, I sipped it slowly, drop by drop; it took me half an hour to finish those few thimblefuls of luscious sweet wine; it was linked sweetness long-drawn-out, and, oh, so good! Then he took my order for a dozen bottles of old Budai, which also proved to be very good and bouquetful.

A month later, when I came to repeat my order, he told me why he had sent me his best wine: "From the way you sipped the Tokay, I saw you were a connoisseur. Had

you gulped it down as a sailor does his fiery grog, you would not have got my best vintage. Casting pearls before guzzlers is a waste of good material."

Often during the prohibition agitation did I think of that incident. There is no doubt whatever that if there were more true epicures in this country there would never have been any need of prohibition.

ALCOHOL A CHAMPION FATTENER

However, it is here now, and, so far as would-be girth controllers are concerned, it is a mighty good thing; for alcohol is a great widener of waists.

That fact has been recognized since time immemorial — since the time when Greek artists painted and sculptured processions of Bacchus and his drunken cohorts, and doubtless ages before that. In Munich, the beer city, everybody has a beer paunch. Excess in strong drink has always been as fattening as excess in eating.

There is no mystery about it. Alcohol is a splendid fuel—too bad we had to give up our alcohol lamps! It burns so readily in the body that the fat in the food is spared and

stored. That's why drinkers gain weightunless they drink as I did, without any desire for the alcohol, but only for what that fierce enemy of alcohol, Vance Thompson, has elegantly called "the haunting immaterial poetry of wine."

Oh, that that haunting poetry of the vintage wine—one of the choicest products of human genius and civilization—could have been saved! It must be brought back some time,—without alcohol, if necessary.

Then it will not be so fattening, either. The chemists can do it-will do it. There are millions in it for the Edison or Marconi who will create choice vintage wines without alcohol.

FRUIT JUICES-TEA AND COFFEE

Fruit juices show the way. They are already in the delicatessen stores in amazing variety, and some of them, like loganberry and grape juice, have a fine bouquet, although in the case of grape juice the most aromatic varieties of grapes are not yet generally used.

The manufacturer should bear in mind that the most important thing to aim at is fragrance, or bouquet—even more so than in fine wines, for the fruit juices have not the extra lure of alcohol.

And if the makers wish to count among their customers the millions of overweights, they must try to make their fruit juices alluring without much sweetening, for that means fat.

If you dilute sweet fruit juices much they are insipid. To avoid this I put a teaspoonful of the pure juice in my mouth and wash it down with half a glass of not-too-cold water. That way it all tastes as if undiluted—a trick worth knowing. Try it.

I think you will agree, especially if you try it on a hot day when you are thirsty, that this hint alone is worth the price of this book. It is a good way to cure your deadly habit of drinking ice cold water.

Sweetening your lemonade, especially on a warm day, is a foolish habit. The acid cannot cool you properly as long as it is combined with a lot of sugar, which is sheer tinder; and the effect of the sugar is also to increase thirst.

Nothing is more beneficial for overweights than plenty of weak unsweetened lemonade. To make it more tempting, and for the sake of variety, add to it occasionally a spoonful or two of phez (loganberry) or some other highly flavored fruit juice; or mix with orange juice, half and half.

Orange juice alone is more delectable still and needs no bush or sweetening. It is now given even to babies in small quantities as a way of providing necessary mineral salts. But no sugar, please—unless it be milk sugar. I know a boy of eight whose mother had been told he could hardly drink too much orange juice. Gradually he came to drinking the contents of a dozen oranges a day! A bad case of acid stomach resulted.

The doctor's first question was, "Was the juice sweetened?"

The boy had taken twenty-four teaspoonfuls of cane sugar a day!—a wonder he lived to cry his tale. It was the sugar that gave him the acid stomach, not the orange juice.

Paradoxical as it may seem—and this is a very important thing to know-the effect of orange as well as lemon juice is that of an alkali, not an acid. They actually correct acidity.

It has been suggested that if lemon and orange juice were universally substituted for tea and coffee it would help to regenerate the human race.

Tea and coffee are interesting drinks to talk about, but they are not related to the subject of this book except in so far as many people still mix cream and sugar with them. That makes them fattening, of course, and therefore permissible only in very small amounts; but by sipping a third of a cup of coffee with a little cream and sugar in it, as I sipped that Tokay, you can get a lot of harmless pleasure out of it. In that case the fragrance of the coffee, like the bouquet of the wine, is exhilarating in itself. That's worth knowing, too.

MILK IN THE REDUCING DIET

Drinking a lot of milk and drinking it all day long is, as we saw in the first chapter, the approved way of fattening girls for the marriage market in countries where beauty means adiposity. What more natural than to exclude milk entirely from the reducing diet, as has been usually done?

Well, this *verboten*, also, is being recalled by the best authorities.

Owing to its richness in mineral salts,

which the cow gathers from the grass and herbs it browses on, its richness, also, in all the other elements which make milk the most complete food known, it is not deemed wise to withhold its blessings entirely from overweights, especially as a small amount goes a long way in supplying nutrition. A Kaffir subsists on one meal a day of sour milk and a little millet.

Butter makers prefer Jersey cows to Holsteins because they yield a larger amount of cream: but those who wish to reduce their weight should try to get Holstein milk.

They ought to be able to buy skim milk for a low price, but through legal juggling in the interest of certain interests, skim milk is usually forbidden in our cities. The farmers, having no market for it, give it to the pigs. They save the cream, throw the rest away which, in the words of Charles D. Stewart, is "just like taking a good meat sandwich, separating the butter from it, and throwing the bread and meat to the hogs."

There are millions of overweights in this country for whom skim milk and the things made of it-above all, cottage cheese-would be ideal foods. Why don't they combine and show the lawmakers their teeth—that is, their votes?

If you find milk difficult to digest, sip it, eat it. All liquids, including soups, fruit juices, tea, and coffee, should be eaten—that is, thoroughly mingled with saliva and never poured down just as if the mouth and throat were a funnel for filling a barrel.

Don't try to make milk more digestible by putting lime water in it. The ignorance of doctors—most doctors—on this matter is appalling and disastrous. Thousands of babies and children are killed every year by this practice.

Mother's milk, by the Creator's provision, has exactly the amount of lime the baby needs—three grains to the pint. Cow's milk has twenty-six, or more than eight times as much! It has more lime in it than lime water itself! Yet the lime water is added, too!!

No special harm would perhaps result because the lime in lime water is not organic and therefore not assimilable (doctors ought to know that!); but, as Doctor Kellogg remarks, "the lime water may do harm. Lime is an alkali; it neutralizes the hydrochloric acid of the gastric juice, and so injures digestion." To render cow's milk suitable for the use of very young infants, he says, "a good formula is equal parts of full milk and boiled water with an ounce of malt sugar for each pint of water added to the milk." Milk sugar can also be used.

Among the many remedies for obesity there are several milk cures. The Belgian Doctor Tarnier achieved results by gradually, in four days, omitting all other foods except skim milk. From the fourth day on, nothing but milk—four quarts daily. A sort of hunger cure.

Better known is the Karell milk cure, in which the daily allowance is only one pint of skim milk. Such experiments, of course, should only be tried under medical supervision.

There is also a buttermilk cure for adiposity. Two quarts a day, supplemented by seven pounds of potatoes, is considered a full ration. But no one can eat as much as that, hence the fat stored in the body has to serve as fuel, and the patient loses weight.

WHAT ABOUT WATER?

To drink or not to drink water with meals—that is the question most mooted among

writers on weight control. Doctors disagree, and my own opinion in this matter isn't worth much either, since I disagree with myself!

One thing may be taken for granted. No one who has any sense will ever take water in his mouth to wash down his food instead of allowing the saliva to lubricate and partly digest it before it goes down. Anyone who does this is fit for hygienic treason, strategem, and crimes galore.

But after the morsel has been insalivated and swallowed there seems to be no particular reason why one should not take some water. The fear that it might unduly dilute the gastric juice in the stomach and thus retard digestion is unfounded. Doctor Beaumont, who was so fortunate as to have a patient in whose stomach he could see what was going on, found out among other important things that water and other liquids "pass from the stomach as soon as they have been received."

But now, listen to Doctor Kellogg: "The general custom of drinking several glasses of water or several cups of tea or coffee or other beverages with meals is a common cause of indigestion. One glassful of water or other

liquid at a meal is quite sufficient to supply all dietary needs. Water drinking does not interfere with digestion by diluting the gastric juice, but by overstimulating the glands of the stomach, causing them to produce an excess of gastric acid."

Does this agree with Doctor Beaumont's observation? I don't know.

In Germany the doctors almost came to blows after Schweninger's sensational success in making Bismarck's shadow grow less. Doctor Oertel, from whom the Chancellor's physician derived some of his principles, prescribed a rather limited amount of daily liquids, whereas Doctor Schweninger did not care how much water the prince or his other patients drank as long as they did not drink at meal time.

He had a fantastic and far-fetched theory about it which may be ignored. Doctor Noorden felt sure that the effect of Schweninger's method was due to the fact that the drinking of small portions of water between meals curbs the feeling of hunger and makes it easier to eat one's food dry.

Doctor Noorden also maintains that the weight reduction secured by limiting the

intake of liquids does not represent a removal of fat, but simply a loss of water.

The plot thickens. Dr. Richard Fuchs tells us in his Gicht und Fettsucht that recent experiments by Straub, Heilner, and Salomon have shown that a copious intake of water perceptibly aids the elimination of fat!

Farmers, he adds, know that if they limit the amount of water given to cattle, these fatten sooner for the market. And once more, the latest experiments in Kissingen by Salomon and Dennig show that the withholding of water is not really a successful way of reducing fat, but is effective only when accompanied by a reduction in the intake of fuel foods. So there you are. Toss up a penny.

After writing this last paragraph I went over to ask my summer neighbor, Alonzo F. Chapman, a highly educated and progressive farmer.

"It all depends on the feed," he said. "If you are fattening cattle on moist feed—beets, carrots, pumpkins, cabbage—you get results soonest by withholding all water. But if the feed consists of grain and dry things you get there sooner by supplying them with plenty of water."

Shall we infer from this that on a diet of garden truck we should drink a lot, so as not to gain weight—and on a diet of bread and cereals drink very little, for the same result? Presumably. And for a mixed diet, such as we all subsist on, shouldn't we drink just about as much as we darn please?

That is my conclusion. I have noticed that on hot days our hens and pigs keep us busy filling their troughs with water, whereas on cold days they hardly touch it. That's my drinking habit, too. Animals are the safest guides.

That being the case, it is interesting to note that animals do not drink with their meals. Nor do Indians, or other primitive peoples. So there you are once more! Let us change the subject!

Whichever banner you enlist under, and whether you drink much or little with your meals, let that little or much not be too cold or too hot.

A friend of mine, who likes to guy the natives à la Mark Twain, once took me to a swell London restaurant for lunch. After selecting the viands and the wines he suggested a bottle of Apollinaris and, looking at

me solemnly, asked "Do you want it hot or cold?"

"We don't 'ave it 'ot, sir," the waiter haughtily interposed.

Nor do the English—and other Europeans—have their drinks cold—that is, iced, as we do. If in London, or Paris, you ask the waiter for a bottle of champagne or red wine on ice, he will look at you disdainfully.

The habit of gulping down ice water with meals has ruined more American constitutions than whisky ever did. We need another constitutional amendment, prohibiting ice water.

Doctor Wiley says we should never drink water colder than 60 degrees; but he would probably not disagree with Doctor Kellogg, who allows a glass of ice water, if it is sipped slowly. "The cold liquid seems to quicken and renew the acuteness of taste and the zest for food," but the swallowing of a large amount of ice water not warmed in the mouth delays digestion an hour or two and is in all ways highly detrimental, he declares.

The drinking of tea or coffee very hot is equally injurious. The most famous of American surgeons, Dr. William Mayo, long ago came to the conclusion that one cause of gas-

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tric cancer is the taking of hot drink and food into the stomach.

For the fact that men more often have cancer of the stomach than women he offers the plausible explanation that wives serve their husbands first and therefore get their own cup a little cooler.

CHAPTER XIII

ONLY SEVEN HOURS OF SLEEP?

Napoleon III consulted a specialist, Dr. Michel Levy, on the treatment of corpulence. That physician's method of reducing weight consisted in making up menus of vegetables, lean meat and ripe fruit, gradually reducing the quantity allowed until the patient began to feel weak; and this diet was made the more exhausting by long walks, gymnastic exercises, hot baths for perspiring, and only six to seven hours of sleep.

Seven hours is the time usually allowed the poor victims of bad logic.

It is easy to guess how the foolish notion arose that a fat person should be condemned to a minimum of sleep.

The most casual observation shows that individuals who sleep a great deal are apt to be indolent and disposed to adiposity. Hence the subconscious but illogical inference that by cutting down sleep ruthlessly you can cure or prevent corpulence.

It works just the other way. You know very well that after a night of insufficient sleep you feel dull, tired all over, disinclined to make any effort, physical or mental; you want to loaf, your will is too flabby to hold to its resolution not to overeat—in short, you are precisely in that condition when fat "just loves" to deposit itself stealthily under your skin, or near your heart or kidneys, impeding the healthy tissues in their normal activity.

Schopenhauer said that he did not count as part of his life a day following a night of insufficient sleep.

No! If you want to fight fat you must not weaken your energy and pugnacity by shortening the hours of sleep you need for perfect health and buoyancy and will power.

Goethe, Napoleon I, and Edison are often referred to as great men who could get along with less even than six hours of sleep at night. Oh yes! But each of them had the happy faculty of dropping asleep—taking "cat naps"—at any time in the day.

A cat nap is a wonderful thing. I know from abundant experience that a nap of ten minutes, or even five, in the afternoon is as refreshing and restorative as an hour or two of extra sleep at night.

Most people need eight hours of sleep or even more. If your doctor or dietician tells you to sleep only seven, say, "All right," and don't do it.

Throughout this book I am trying to drive home the lesson that being too fat or too thin is simply an abnormal condition that yields to the same treatment, which is the restoration of perfect health.

Now, you may take all the hygienic measures in the world and have a dozen specialists to look after you, yet if you do not get enough of restful sleep you cannot be healthy; you cannot lose or gain weight; girth control is not at your command. Let me therefore dwell for a moment on the best methods of commanding sleep.

AN EXTREME CASE OF INSOMNIA

Have you ever lain awake a whole night, and night after night, trying in vain one after another of the twenty or more futile methods of wooing sleep you have read about?

Have you endured the frightful boredom, the disgust, the wrath, the agony of mind, as hour after hour passed till daylight mockingly stared in your face? It is worse than headache, toothache, dyspepsia, and seasickness combined and multiplied by fifty-seven other varieties of aches.

That was my experience some years ago, following a breakdown in the Adirondacks due to drinking too much ice-cold water and beer. The beer came last and finished the job; that bottle cost me, in doctor's fees and loss of work, about a thousand dollars.

After three weeks of no sleep at all I looked, of course, as if I had been dug out of my grave. Providentially there came to the camp an army officer and his wife who had been at Malta, where a British nurse had told them a simple way of curing the most obstinate forms of sleeplessness, like that which make insomniacs of the English soldiers after an attack of the aggravated form of malaria known as Maltese fever. The remedy, the nurse assured them, had never been known to fail.

Was I eager to try this infallible remedy? That very night my wife got a basin of hot water, dipped a piece of flannel in it, wrung it out and rubbed it gently a hundred times down my bared spinal column, repeatedly

dipping the flannel into the water to keep it steaming hot.

The Maltese nurse had said that three repetitions of the hundred strokes were sometimes necessary. The second hundred strokes, given fifteen minutes after the first, drove the devil out of me and I slept nearly seven hours. The spell was broken and I had no more trouble.

This was an extreme case, demanding extra measures. But I am sure that this treatment would often be effective in ordinary cases of sleeplessness. Probably it will be found in the end that nearly every kind of insomnia can be cured by way of the spinal nerves. Regular physicians should not leave this unexplored field of healing to the osteopaths alone.

HOW TO INSURE SOUND SLUMBER

The old-fashioned remedies for sleeplessness are ludicrously inadequate. We used to be told, for instance, to count a flock of sheep, one after another, jumping over a fence. That may help if the unrest is due simply to nervous excitement, but in most of the ninety-nine or more varieties of insomnia it is useless.

You might count a million sheep and still

be wide awake if there is gas in your digestive tube. The thing to do in such a case is to take a soda mint or two, with hot water, and after awhile, kneed, press, and massage the stomach and abdomen; then try to get rid of the gas. After some practice this can be done easily. Then you yawn automatically—try to "encore it"—and soon you will be asleep.

Often there is gas without your knowing it, but it keeps you awake all the same, especially if you are an overweight and have eaten unwisely.

Overeating, especially at the evening meal, brings on insomnia, or, what is worse, night-mare. The less undigested food there is in your stomach at night, the sounder is your sleep, the freer from exhausting dreams.

Dreamless sleep is a blessing most of us can enjoy if we use our will power to fight foolish habits, such as late suppers—an invention of the devil—and turning night into day.

The all-day-long feeling of voluptuous buoyancy and happiness following a night of dreamless sleep surely outweighs a dozen times the more acute but transient pleasures of gastronomic, theatrical, and other nocturnal

entertainments; not, perhaps, with the young, with whom it doesn't matter so much, for they recuperate easily; but certainly with those who are fat and forty or more.

Every organ of the body may keep you awake. Eye strain often does it. The late Dr. George Gould wrote convincingly on this subject. If you are sure your digestion is all right and yet lie awake at night, suspect your eyes and consult a good oculist. Gentle massage of the eyeballs with the tips of the fingers sometimes brings sleep. If the eyes look or feel inflamed lay on them cotton or linen soaked with camphor-and-boric-acid solution (which your druggist will prepare for you), or Pond's extract of witch hazel.

Colds and catarrhal troubles, which keep so many awake, can be readily cured—or rather, avoided; for if once they get a start they are not so easily managed. I haven't had a cold for ten years, because the *instant* I feel like sneezing I put some nasal cream in my nostrils and take two pellets of homeopathic Bryonia Alba I, followed by others an hour apart, one at a time.

When the cold has reached the back of the nose and extends down into the throat, soak

two little balls of cotton with listerine, witch hazel, or some other safe antiseptic, lie on your back, warm the wet cotton balls in your hands, put one in each nostril (holding very fast to them) and then sniff up the fluid till it runs down into the throat. It hurts like the divel, but the relief is instantaneous and delightful. Sleep follows at once if that is what kept you from it.

Thousands are kept awake every night by tickling in the throat caused by mucus. Keep on your night table, or under your pillow, a little box of Stone's or Brown's bronchial wafers or Pine's or somebody else's mentholated glycerin tablets, or a little bottle of half glycerin half listerine, to be swallowed drop by drop; or let some gum Arabic dissolve in your mouth, and you will have no further trouble, unless your case calls for a physician's treatment.

Another good plan is to gargle as far down as you can with listerine just before retiring. Also dip the tip of your little finger in the same fluid, stick it into each nostril and snuff up.

Night noises are a difficult proposition. The only remedy is a room not facing a noisy

street. I have known fortunate individuals who slept so soundly that no noise, not even the barking of a dog, or a steam whistle, wakes them. When such persons sneer at me for being "morbidly sensitive" I get even with them by quoting Schopenhauer's maxim that a person's braininess can be accurately measured by his sensitiveness to noise.

Noise is bad even for those whom it does not actually wake up. It harries the brain through the ears and makes the sleep shallow and dream-haunted.

If your heart beats so fast as to keep you awake, with flushed face, the chances are ten to one that colon poisoning is the cause. The Battle Creek doctrine is, indeed, that "insomnia is most frequently due to auto-intoxication." Constipation, often latent and unsuspected, keeps thousands awake every night.

When there is no bodily ailment, major or minor, to keep you awake at night, the mind cure is in place.

Fidgeting is fatal—the surest way to aggravate and prolong the evil. Stop it by reflecting that after a night of insomnia the following night's sleep is almost sure to be deep, dreamless, and refreshing. Don't worry.

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Banish fear. You have often slept without knowing it! Often, before I knew what I have told in this chapter, I used to complain that I had not slept at all—which amused my wife, who cruelly retorted, "I heard you snore."

DON'T BEGIN TO THINK!

If you wake up hours before it is time to get up, don't for Heaven's sake, begin to think! One minute of that and you are lost.

If you have been dreaming, try to recall the dream and "listen in" again. Or start, in your mind, some grotesque, topsy-turvy images just like dreams, such as of dogs or cats talking to you.

Perhaps you lie awake for hours after going to bed simply because your brain keeps on being busy. To cure this, use your will power. As soon as a thought, unpleasant or pleasant, presents itself, jump on it with both feet.

Often this is not easy to do, especially if you are a victim of worry or grief; but it can be done.

To get away from morbid thoughts, try to recall memories of the pleasantest episodes in your life, especially in your youth or childhood. Then suppress those, too. Have you ever read Kipling's description of a summer night in Lahore? A night when even the native Hindus writhe and groan and suffer the infernal tortures of the damned. We have such nights in our East, too (Pacific slope nights are always cool). It isn't the heat that does it, but the humidity, we are usually told. But I am convinced there is also something else, even more distressing than humidity or heat, and that is the absence of electricity in the air.

We once had a pet feline which on certain days acted like a wild cat, racing all over the house and jumping up a flight of stairs in two bounds. When he did this we always knew that an electric wave (analogous to a hot wave) was coming—a day when the air would be saturated with electricity to such an extent that one could light the gas with a finger tip after shuffling the feet over the carpet a few times. I have often done this, to the amazement of European friends.

On those electric days life is ten times more enjoyable than at other times. There is an exhilaration compared with which alcoholic intoxication is a dismal failure.

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VITALIC ELECTRICITY

It is a pet theory of my own that the nights I have referred to, when everybody, in spite of all he or she may do, lies awake all night, are nights when there is absolutely none of this vitalic electricity in the air. I have become so imbued with this idea that on such nights I find myself gasping for electricity, like a fish out of water. I wish some clever electricians and meteorologists would put their heads together and work out the problems of how to give us atmospheric electricity on tap just as we have water and gas.

When we have that in every bedroom, there will be no more sleepless nights.

Among other aids to sound slumber are a sleeping porch; not too much covering on warm nights; warm feet; plenty of exercise; a long neutral bath (92–96 degrees) at bedtime; and regular rhythmic deep breathing, kept up till you become unconscious.

This method is particularly successful in those who are victims of auto-intoxication, because deep breathing exerts pressure on the diaphragm and thus provides a sort of internal massage.

I have found this method more effective

than any other; so has Doctor Kellogg. Usually I fall asleep before the fiftieth breath. The counting also stops the annoying thinking.

So deeply imbued is Doctor Kellogg with the importance, for everybody, of plenty of sleep that he thinks there would be a marked increase in longevity if we could, like some animals, hibernate.

The rest cure systematized by Dr. Weir Mitchell is, he says, a sort of hibernation, plus feeding. He adds, what can be easily proved, that "persons who afford examples of great longevity are invariably good sleepers."

Every now and then the newspapers write up some individual who has reached the age of ninety or beyond. The most fantastic reasons for their long life are given by some of these vieillards. But if the matter is sifted, we find four principal causes of longevity:

(1) a healthy stomach;
(2) an active colon;
(3) a good capacity for sleep; and (4) underweight.

These are the things overweights should aim at.1

¹ A part of this chapter appeared in the excellent food magazine, *The Forecast*, for September, 1921. For permission to reprint it my thanks are due to Mr. and Mrs. C. Houston Goudiss.

CHAPTER XIV

YOUR WORST ENEMY: SUGAR

R. ROCKEFELLER, Mr. Anderson, Mr. Volstead, and all you agitators and legislators who helped to give us prohibition, I salute you as my bosom friends and benefactors in having provided me with a huge audience for my preachings.

It is acknowledged that the banishing of alcohol has resulted in a perfect bargain-counter rush for sugar, and sugar is the most fattening thing in the world!

Result: an enormous increase in the number of overweights. General alarm thereat. SOS signal wirelessed, telegraphed, telephoned, and radiophoned in all directions; and that's why an up-to-date book on girth control is the timeliest and most important thing in the world!

As sugar eaters we Americans have long had the start of Europe, but since prohibition we have become positively sugar gluttons. We eat about five times as much as other nations do and at the present rate it will soon be ten times as much, unless they, too, give up alcohol and begin to fatten on sugar.

We eat about ten times as much sugar as our ancestors ate a century ago. And even they were consuming more than they really needed.

There was a time when there was no sugar in either kitchen or dining room. The ancient nations had honey as their only sweetener, and there wasn't enough of that to go round.

FIVE MILLION TONS A YEAR

There is a story about a country gentleman who for the first time tasted honey. He liked it, and "I am going to keep a bee myself next summer!" he exclaimed, rapturously.

It has been estimated that the nectar from 62,000 clover blossoms is required to produce one pound of honey, and that 3,700,000 visits of bees are required to gather it into the hive.

Yet these figures shrink into insignificance when you think of the astronomical trillions and quadrillions of cane stalks and beets it takes to produce the five million tons or more of white sugar we eat in a year.

It is these enormous figures that produce our enormous figures!

If it were generally known what an endless

amount of illness and unhappiness is created by this variety of gluttony, there would be an immediate agitation for another constitutional amendment prohibiting the use of cane sugar except to the amount of one-half per cent like alcohol. And a good thing it would be, particularly for overweights—even better for them than the suppression of alcohol.

Not only does sugar favor, as no other food does, the laying on of superfat, with all its life-shortening ills and discomforts, but it shamefully overworks our most important organs, which can utilize only a little of this wholesale importation of sweets and gradually break down in an effort to deal with or eliminate the rest.

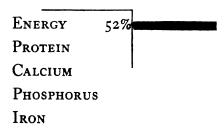
DEADLY SWEETS

Cane sugar, such as everybody now uses so freely, gradually wears out the pancreas, the liver, the kidneys, the lungs, thus breaking down the body's power to resist such deadly diseases as pneumonia, heart disease, tuberculosis, anæmia and particularly diabetes, the frequency and deadliness of which increase with our indulgence in sugar orgies.

Our blood, our teeth, our bones suffer. Sour stomach is the overture, followed by dilatation, intestinal catarrh, ulcer, and other disorders. McCann does not exaggerate when he declares that "we now have half a million people in this country condemned to premature death by sugar"—and that quite apart from the evil it does as a champion fattener.

The second indictment against the white sugar we use is that it has been deliberately robbed of all the invaluable mineral salts which are ingredients of the cane juice when first pressed out.

Did you send to Washington for the government bulletin No. 975, following the urgent advice I offered in the chapter on mineral salts? If so, turn to page 30 and look at the shabby, impoverished, beggarly appearance of the sugar chart. It shows the proportions of energy, protein, calcium, phosphorus, and iron needed per man per day furnished by one pound of sugar. Here it is:



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How it stares you in the face—the fact that sugar is absolutely valueless as food except for the energy it furnishes! And even it provides only one-half of what you need. In other words, to get your daily need of energy you would have to eat two pounds of cane sugar—which would soon end your earthly career, for reasons already given.

CHOCOLATE, MAPLE, HONEY, MOLASSES

Look above the sugar chart in No. 975 and you will see that even the humble soda cracker provides more energy than sugar does (54 per cent); and, besides, of protein, 44; calcium, 15; phosphorus, 35; iron, 45.

And see how much richer in minerals honey is than white sugar: energy, 42 per cent; protein, 2; calcium, 3; phosphorus, 7; iron, 21.

A pound of lard also has no minerals whatever, but its energy value is more than twice that of sugar, being 117.

Much more valuable than sugar is chocolate, as it contains in a pound 79 per cent of the energy a man needs daily, besides 59 of the protein, 61 of the calcium, 156 of the phosphorus, and of the iron, 82.

Ergo, if you should give up sugar for choco-

late (commercial chocolate, to be sure, is fattening), you would have not only more energy, but, in addition, valuable protein and mineral salts. And the same is true of the unrefined sweets like honey (as we have just seen), maple syrup, and brown cane sugar

But if these sweets are so much more valuable than white sugar, why has the latter secured an almost complete monopoly of the market?

That's an interesting story which the dietetic Sherlock Holmes, as I have called Alfred W. McCann, tells in Part VII of his Science of Eating.

It is a most amazing tale, and so is his revelation of the disgraceful secrets of molasses making.

Since reading Part VII, I have abstained from commercial gingerbread and other things into which enters molasses doused with sulphurous acid and other undesirable things.

Fortunately it is now possible to get again some of the old-fashioned sweets of our youth. I have before me a copy of that excellent periodical, *The Country Gentleman*, for September 30, 1922, in which J. Sidney Gates has an important article on what he calls Georgia Nectar.

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It tells all about the doings of the newly formed Georgia Farmers' Co-operative Cane Growers' Association to provide in unlimited quantities, a syrup which is the sole product of cane, with nothing taken out or added—a syrup that has "a yum-yum quality about it which beggars description."

Old-fashioned brown sugar is also bound to come back, because it appeals not only to the sense of taste, like white sugar, but has also mineral salts and flavor, like honey and maple syrup.

Brown sugar is alluring in itself and does not have to be made into expensive candy that is, sugar flavored with vanilla, wintergreen, spices, nuts, and other ingredients that make it appeal to the nerves of smell in the olfactory chambers.

A GORGEOUS TIME WITHOUT GORGING

You may ask: Is it not foolish, in a book for overweights, to try to emphasize and increase the lure of sweets, since it is better for them to eat little sugar?

Not foolish at all. Some sugar we may and should all have, especially if there are mineral salts in it, as in honey, maple and brown sugar,

and pure cane syrup; and since these also have olfactory flavors (perceived on breathing out through the nose), they help to secure an abundant secretion of digestive juices. Since you can have but little sugar, make that little as delicious as possible.

Remains the problem of overeating when the sweets are so alluring.

Well, I know a boy of eight who has been taught by me the fascinating philosophy of linked sweetness long-drawn-out.

Every morning he puts a spoonful of honey on his plate. Then, with a teaspoon, he takes up on the edge a little of it, the size of a pea, which he keeps in his mouth as long as the flavor lasts; then another, and another, till it's all gone. He never asks for more. In this way he has a simply gorgeous time without gorging.

Surely, if a child can have a gorgeous time without gorging, adults can learn to do it. The grave doth gape more widely for those who cannot. Spur your will.

If you are a girl of twenty with a superb, well-rounded figure, you will if you eat *much* candy now, be awfully sorry ten years hence.

The art of eating wisely is really not so

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difficult as most people imagine. Here is an admirable example of what can be done, taken from an article by Anne Lewis Pierce in the splendid Tribune Institute department of the New York Sunday *Tribune* (September 17, 1922):

"Sugar is bad, principally because it makes the plain foods uninteresting and decreases appetite for them. It is a good energizer in itself and the growing, romping child craves it naturally. One wise dietician in an institution gave the children permission to make candy whenever they wanted to-taking pains to see that they had a well-balanced diet, especially a good mineral supply (which means milk, whole wheat, egg yolk, fruit, and fresh vegetables). Result, the 'candy permits' were not often demanded. Provide wholesome sweets at the proper times—such as figs, raisins, plain candies—at the end of the meal, instead of heavy sweets, continuously 'nibbled'"

In such simple ways your "worst enemy" can be made a friend, and there is no need of shouting, as most writers on reducing do, "Out with the sweet tooth."

If you must have coffee or tea, you may

sweeten it reasonably—provided you cut down on other sweets during the day.

On the paper jacket I promised a method of reducing which calls for no self-denial and allows you to eat anything and as much as you like. I have kept my word. Even of sugar you may eat as much as you will want to after you have cut your dietetic wisdom teeth—that is, after mastering the system of gastronomic philosophy hinted at in this chapter and fully set forth in Chapter VII.

CURBING THE SUGAR MANIA

In conclusion, let me refer to still another method of curbing the mania for sugar.

It consists in cultivating an enthusiasm for the natural flavors of fruits and cereals.

The usual American way is to put spoonfuls of white sugar even on melon, peaches, and pineapples;—that ought to be a state-prison offense. For this sugar drowns out the exquisite inherent flavors of these fruits and reduces everything to a mere gustatory basis, nullifying the delights of the olfactory chamber which are so important for our health.

From the epicurean point of view I can think of nothing more barbarous.

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Get ripe fruits and berries and you will soon find plenty of sweetness in them, besides delectable flavor. Apples have up to 11 per cent sugar; grapes, 20 or more. And these sweets digest immediately, whereas cane sugar gives the intestines hours of hard work. Bear that in mind.

As for putting sugar into cereals, that's carrying coal to Newcastle. See next chapter.

CHAPTER XV

BREAD AND BUTTER, CEREALS, POTATOES

EVERY human body is a sugar factory. That's another reason why it is foolish to put sugar into so many things we eat.

In Huxley's *Physiology* you may read that "all the starch which is eaten as food is converted into sugar in the alimentary canal, and reaches the liver as sugar."

There's a fact of tremendous importance to overweights—a warning to them that they must not eat too much of starchy foods, either.

That means particularly, among the things we have on the table always, bread and cereals and potatoes, and all the dishes made of flour from the various grains, such as cakes, pies, puddings, pastries, usually with plenty of sugar added.

Sugar, whether introduced into the body as such or as starch transformed into sugar by digestion, has been called "the natural fuel of the body."

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Everybody needs some of it, to run the machine. In cold weather we need more of it than in summer. Shackleton's men were crazy for puddings and other dishes made of flour.

That was in the antarctic snows. An overweight who wishes to indulge freely in such things should, as I have said before, join a polar expedition.

At home, in a temperate or warm climate, he must be moderate, for the simple reason that if he takes in more of the starch-and-sugar fuel than his furnace needs to get up steam for running his heart and his muscles, it is stored up in his body as fat.

That's a law of nature and cannot be altered. Sorry.

ROBBERS OF MINERALS

Formerly the doctors and dieticians, impressed by these facts, simply placed all the carbohydrates—that is, starch-and-sugar dishes—in the list of things that are verboten to the corpulent who wish to get thinner.

We are more merciful. In this chapter let me indicate how an overweight may indulge in carbohydrate dishes and yet reduce his weight slowly. The fattening element in bread is the starch, which normally constitutes 70 per cent of the flour. Bread made of starch alone, or mostly of starch, is therefore to be avoided. That means white bread! The logic is unescapable!

White bread has its use as fuel; but apart from that, its value as food is so slight that life cannot be carried on with it. It has been shown hundreds of times by actual experiments on various animals that if fed on white bread alone they die in a few weeks—die even sooner than if they are not fed at all!—whereas if fed on whole-wheat bread they remain in good health.

Why is this thusly? Because the wholewheat bread has the mineral salts essential to life, which the millers remove when they make white flour by taking out the bran and the oily germs of the wheat.

They do this on the alleged ground that the women will not buy flour unless it is snow white—which isn't true. Most women never look at the flour they buy, and if they know a thing or two, they ask for the cream-colored brands, which have not been demineralized.

The real reasons for the deathly pallor of white flour are, first, that by bleaching (with

injurious chemicals, now forbidden in England and some parts of our country), the millers can use inferior grades of wheat and make them look like the better grades; secondly, that by taking out the oily germ they prevent the flour from deteriorating on the grocer's shelf—which would be all right were it not for the fact that these germs—and the bran, which they also remove—contain the life-sustaining mineral salts.

These salts, along with the germs and hull (bran) are fed to animals (at an extra profit to the millers), while the children and adults get the demineralized white bread, useless except as fuel.

Alfred W. McCann is not the man who discovered this crime of demineralizing bread. It was denounced in France and England many years ago. But he has in the New York Globe waged a splendidly persistent and audacious war against the robbers of minerals far more valuable than silver and gold—a war for which he deserves a Nobel Prize; for he has achieved wonderful results in improving the quality of American bread. Some of the largest bakers have reformed and enlisted under his banner. That is saving the health

and life of thousands. It isn't in war only that lives can be saved.

We are eating in this country nearly forty billion pounds of bread a year. It is worth while to make sure that that is as healthful and nutritious as it can be made.

Another food reformer who deserves a Nobel Prize is Harvey W. Wiley. He earned his by his war on the bad things which unscrupulous persons put into our daily food, while McCann earned his by objecting to the good things being taken out of it—taken out of most of the forty billion pounds of bread we Americans eat in a year—a matter of some importance, isn't it?

"OFFSETTING FOODS"

Thousands have now joined McCann in his campaign, but he remains the leader. I like the withering scorn and sarcasm with which, in the last pages of his book, he assails those who see no objection to demineralized bread because, forsooth, the mineral deficiency can be made up by "offsetting foods" like eggs, fresh vegetables, fresh fruits, and greens, all of which abound in salts.

"We can, indeed," he retorts, "supply the

deficiency found in five cents' worth (one pound) of patent white flour by purchasing \$1 worth of 'offsetting' lettuce, 80 cents' worth of 'offsetting' oranges, 70 cents' worth of 'offsetting' eggs, or 36 cents' worth of 'offsetting' milk. High prices, of course, have nothing to do with keeping these 'offsetting' foods out of the hands of the plain people."

But even if you are one of those who can afford to pay an extra dollar to help make a satisfactory meal out of a few cents' worth of white bread, there is abundant reason why you should prefer the whole-wheat.

When Thackeray spoke of the delicious pleasure one can get out of a slice of bread with butter, it was whole-wheat bread he referred to. Epicures generally would agree that there is a richer flavor in such bread than in the denatured baked—usually half-baked—flour which is called bread.

So, in eating the whole-wheat bread, an overweight gets more flavor as well as more food salts; and, as we have seen, when there is plenty of flavor with an abundance of salts, the appetite is appeased sooner and the tendency to overeat diminished.

A thin slice or two of whole-wheat bread

with a little butter no one who is on a reducing diet need deny himself. Toasting still further develops the appetizing flavors while increasing the digestibility.

OBJECTIONS TO CEREALS

Cereals have become such a universal constituent of American breakfasts, and suppers, too, that it takes some courage not to laud them unreservedly. Yet there can be no doubt that for many people, especially those who do not wish to grow fat or fatter, they are objectionable, all the more as they are usually eaten with a lot of sugar, and cream, too.

Eaten very slowly, cereals will, like bread, turn to sugar in the mouth. Learn to do that, breathing out through the olfactory chamber, and you will not crave the added sugar and cream.

But if the cereals are demineralized, as most breakfast foods are, it is hardly worth while wasting time on them unless you need a lot of cheap fuel, or wish to gain weight.

Please bear in mind always, Mr. or Mrs. Overweight, that what you are after primarily is *pleasure*, not nourishment, for you are

already overnourished. Hence I am forever dwelling on the pleasure side of wise eating. If you enjoy a cereal only when it is sugared, it proves that you are one of those unfortunates who depend on the tongue for their gastronomic delights. Don't you wish to add to these the superdelights of the olfactory chamber?

Wheat, rye, rice, barley, and other grains have delicious flavors of their own which you can learn to enjoy in small portions. Read again Chapter VII.

Put a teaspoonful of oatmeal (the most nutritious of all cereals—when not demineralized) into your mouth. Keep it there, guiding the expired air through the nose in sniffs, and all at once the flavor will "dawn on you." That dawn will, by practice, develop into full daylight.

Blind persons often develop the physical side of their sense of smell so that they rival a dog or an Indian. The gastronomic side can be equally refined and specialized.

There are in the market some cereal foods, like grapenuts and zep, which are made with the special aim of subordinating the fattening starch to the vitalizing mineral salts. If you are anxious to know whether the cereal and other foods you eat are all they should be, consult Harvey W. Wiley's "1001 Tests of Foods, Beverages, and Toilet Accessories, Good and Otherwise" (Hearst's International Library Co.).

A VALUABLE TUBER

"If the average American would eat four or five times as much potatoes as he now eats, and an equivalent amount less of cereals and cane sugar, the result would be a notable lowering of the death rate and a marked increase in physical fitness and freedom from crippling disease," says Doctor Kellogg.

Potatoes are fattening, too, but they are no longer denied the corpulent entirely, at least by the wisest doctors and dieticians, because there are so many good things about them which outweigh their disadvantages.

They are rich in iron, also in soda and potash, which help to overcome a tendency to acidosis which is encouraged by eating cereals.

Potash, as Doctor Ross has shown, combats the cancerous tendency.

The alkaline salts which arrest the hardening of the arteries and rapid aging are more abundant in the potato than in any other staple vegetable food.

"The potato furnishes forty times as much of these alkaline elements as do some of the cereals." Mineral salts make up as much as 5 per cent of the dry substance of the potato. The Danish physiologist Hindhede has shown that these salts are very valuable as an aid in eliminating uric acid and other acid wastes from the body.

Reasons enough, surely, why the corpulent should not be deprived entirely of so valuable a vegetable. As in other cases, it is all a question of moderation and correct cooking. A steamed or baked potato retains all its valuable salts, which are lost in the water when they are boiled, particularly after peeling. And when the mineral salts are lost the potato, instead of being healthfully alkaline, actually leads to harmful acidosis—a fact of tremendous importance in this country, where most families boil their potatoes.

If potatoes are fried it should be done the French way that is, using the raw slices. If the German way, or mashed, they should be steamed—never boiled.

Hindhede had a patient who lived a whole

year in good health on potatoes, plus fat. If you wish to try that, you may have French fried or otherwise fried potatoes, or mashed, with butter.

FATS NOT TABOOED

We are not entirely without the useful food instincts of the lower animals. We naturally crave a little butter with our potatoes—same as with our bread—and our cereals, too; for cream is simply the material out of which butter is made. This is, therefore, as good a place as any for introducing what overweights should know about butter and other fats.

Perhaps the most surprising thing about fats is that they are not so fattening as starches and sugars. An ounce of fat taken in addition to a full meal increases the weight one ounce, whereas an extra ounce of starch or sugar adds four ounces to your weight.

That's good news for epicures who happen to be fat. It tells them that if they eat moderately of dishes made of flour and sugar they may allow themselves a reasonable amount of butter (so enticing with bread or with cooked vegetables) and olive oil, without which most salads are a frank failure. A rank failure is perhaps a better way to put it. It is startling to be informed by the dietetic Sherlock Holmes that "90 per cent of the olive oil sold in America is a deodorized product that is passed on its way to you through such chemical solvents as carbon bisulphide, benzine, carbon tetrachloride, and trichlorethylene, all of which are used in the resurrection of inedible oils for the American table."

If it is true that prohibition has emptied the jails, they ought to be enlarged and promptly filled again with food adulterators.

Commercial butter is often quite as bad as chemicalized "olive" oil. Genuine butter, however, cannot be too highly commended because it brings to the table the mineral salts gathered by the cows from grasses and other greens. In the olfactory chamber butter is rated as a 100-per-cent flavor.

Personally I would rather weigh a pound or two too much than give up butter.

It is an odd fact that many persons who find cream indigestible have no trouble with butter, or with ice cream.

When you eat ice cream, don't let one spoonful chase another. Keep each on the tongue

till all the taste and flavor are gone from both tongue and olfactory chamber. Then take another small teaspoonful. Enjoy it consciously; don't be absent-minded. That's the way to eat candy, too. And remember that ice cream or candy between meals is more fattening than at meals.

Fats, including oils of all kinds, have, as previously stated, the convenient quality of satiating the appetite quickly. If, nevertheless, you eat them in excess, you have only yourself to blame for their being kept, as fat, in "warm storage" in or on your body.

The camel's hump is a storage place of fat. You don't want one.

A funny thing about fat is that if you eat more than the body can use as fuel, it is not only stored in your body, but is stored without any change; pork fat as lard, mutton fat as tallow, beef fat as suet, and so on. You can thus, if you keep at it, make yourself fifty-seven varieties all at once—a crazy quilt of adiposity.

But that isn't a good way to reduce. Fat meat is fattening and to be avoided. Lean meat—see the next chapter.

CHAPTER XVI

LEAN MEAT IS NOT FATTENING

YES, lean meat is not fattening, but—hang it, there is always a "but" for the overweight!

It recalls the old conundrum, "Why is a he-goat nearly?" "Because he is all butt."

To Prof. Irving Fisher, of Yale University, the world owes one of the most surprising food experiments ever made.

He provided a group of students with a good cook ready to supply them with any viands they chose and as much as they wanted. The only thing asked of them was that everything they are should be slowly and thoroughly masticated.

After a few months it was found that these students had practically given up eating meat. When asked why, they said that the long chewing had made it distasteful to them.

The most strenuous opponent of meat eating to-day is Doctor Kellogg. In his great work, *The New Dietetics*, he remarks that

hunters have noted that dogs do not run well when fed meat. When riding on the top of a touring coach through the Highlands of Scotland many years ago, he, in chatting with the driver, learned that he was a shepherd and kept a number of dogs. When asked what he fed his dogs the Scotchman replied, "The same as I eat myself, sir—brose, bannocks, and potatoes."

"And why do you not give meat to your dogs?" the doctor asked.

The instant reply was, "Because they hae nae no guid wind; they canna' rin."

My wife was brought up in France, at Lyon, where one of her father's friends was a wealthy gentleman who owned a château and large estate in which he used to hunt wild boars and other game. His dogs, she remembers, never got any meat, their meals consisting of vegetable soup with plenty of bread.

Elephants and bulls never eat meat, yet there are no stronger animals among the lions, tigers, and other carnivora.

Throughout the greater part of the world the hardest working and sturdiest men and women seldom or never have a chance to eat the flesh of animals.

No overweight can therefore say he ought

to be allowed plenty of meat for his health's sake or to keep up his strength and efficiency.

NOT NEEDED-BUT

But the fact that he does not need meat does not prove that he should not eat any, does it? You do not need books or music, yet they are most desirable.

Banting's doctor put him on a diet consisting largely of lean meat, and he lost weight rapidly. Was there any objection to that the meat eating, I mean?

Well, we know that Banting lost weight, but we do not know how this affected his health afterward.

What we do know is that the eating of much meat is not good for anybody's health. Even those who plead for the retaining of meat in the diet admit that the well-to-do Americans, English, and Germans eat too much of it.

Dr. Arnold Lorand, in his famous book, Old Age Deferred, points out that while meat is more easily digested than most other foods, a hearty meal of it makes us more disinclined to work than a diet of vegetables; also, more inclined to nervous disorders and to weakening of the thyroid gland; more subject to

severe gout, diabetes, and other diseases. Because of the deficiency of iodine in the thyroid of young children and aged persons they should not have any meat at all, while the very healthy of all ages may be allowed some. He goes on to say:

"When we study the nature of the diet enjoyed by persons who have lived to and over a hundred, we find, indeed, exceedingly few who are great meat eaters; very many are persons who eat no meat at all; and in many cases, also, the original meat diet was subsequently abandoned in advanced age. According to the report of the Collective Investigation Committee of the British Medical Association, the fifty-five centenarians whose cases they examined were, for the most part, small meat eaters."

WHY DOGS DO NOT LIVE LONG

All the evils of auto-intoxication, or intestinal self-poisoning, on which I have dwelt at length in Chapter XI, are greatly aggravated by meat eating. The eminent Italian bacteriologist, Distaso, has shown that even carnivorous animals are victims of auto-intoxication, and for that reason do not live long.

It has been proved by Chittenden and others that we are injured by a high protein diet—that is, a diet including too much of meat, eggs, and cheese. Most of us use twice or thrice as much protein (tissue-building material) as we need—five or six times as much if we habitually eat in hotels or restaurants, where meals are all built on a meat basis.

The result of such a high-protein diet, which overtaxes the liver and kidneys, is seen in various rheumatic and nervous troubles that vanish when a meatless diet is adopted.

From the overweight's point of view these facts—the "but" in the case—are really most annoying, for since lean meat contains no carbohydrates or sugar, it might be eaten in unlimited quantities and to advantage were it not for this excess protein coming in as a trouble maker.

Yet I see a way by which meat may be saved for us. As explained elsewhere, if we adopt the Battle Creek system of rapid transit of food, supplemented by a change of intestinal flora, the meat we eat has no time to undergo putrefactive changes and poison the body, and need not, therefore, be given up altogether, especially if we eat little of eggs,

cheese, and other sources of protein, as most persons would rather do if they could thereby be allowed to indulge in steaks, chops, ham, bacon, chicken, and fish, as before.

Moderately, of course. Again I say, what you need is not nourishment—for you are already overnourished—but pleasure; and for pleasure—need I explain it again?—a little meat eaten slowly goes much further than a plateful gobbled.

One slice of smoked bacon lingered over in the olfactory chamber for ten minutes will afford infinitely more delight than five or six slices devoured at a quick-lunch counter.

In Food and Flavor (page 140) I quoted approvingly Doctor Wiley's conviction that "the meat eating of the future may not be regarded so much of a necessity as it has in the past, but the meats will be used more as condimental substances than as staple foods."

In France and Italy, where the people at large cannot indulge as freely as in America and England, this use of meat for flavoring purposes chiefly has long been demonstrated in hundreds of delectable culinary combinations. For details, consult the book just referred to, and send to the Superintendent of

Documents at Washington for Farmers' Bulletin 391, on "Economical Use of Meat in the House," wherein is shown that the number of "tasty" dishes which a good cook can make out of the cheaper cuts of meat, or meat "left overs," is almost endless.

Doctor Kellogg has tried hard, in personal letters, to persuade me to give up eating meat. But why should I, as long as I am so absurdly well, thanks to his illuminating Itinerary of a Breakfast? I should hate, particularly, to give up the various kinds of savory fish, although, if I were an overweight, I would not hesitate to cut out fat fishes like salmon, mackerel, sardines, and swordfish, or even shad. There are plenty of others, and they are delectable cooked plain, smoked, or in diverse soufflés and salads.

NEW SUBSTITUTES FOR MEAT

A very interesting point remains. What makes me and other eaters of meats so stubbornly averse to giving it up is the unique and keen gastronomic delight it gives us. Knowing this, Doctor Kellogg (who, by the way, orginated peanut butter) has cunningly invented a number of dishes which have all

the proteins we need—and better ones than those in meat, he thinks—while at the same time exhibiting an unmistakable and agreeable meat flavor.¹

At the Banff Hotel in the Canadian Rockies I once met a Scotchman who talked "temperance" to me in the parlor. In the dining room, however, I saw him drinking a bottle of wine.

"How's that?" I asked. "I thought you were a temperance man?"

"So I am," he replied, "but not a bigoted one."

Conversely, I might say I am a meat eater, but not a bigoted one. The one thing I am after is the delectable meat flavors. Show me something similar and equally delicious and varied, and I'll cheerfully give up meats.

I remember reading in an English magazine, many years ago, an article telling about the

¹ For abundant recipes in which these are used see *The New Cookery*, by Lenna Frances Cooper (Battle Creek: Modern Medicine Publ. Co.), an up-to-date kitchen guide from which meat is rigidly excluded. The fact that it is in its seventh edition indicates that the number of nonmeat eaters is growing rapidly.

Here are the names of a few of these imitation meat dishes: roast protose, broiled protose or fillet, nut and apple pie, mock veal loaf, protose hash with rice and peas, nut sausage, nut and vegetable stew, broiled nuttolene, nut-meat pie, pressed vegetable meat, vegetarian ham, nut chops, walnut roast.

surprising meat flavors, in endless variety, to be found in many varieties of truffles and mushrooms. Doctor Kellogg has taken up this point, too. Mushrooms, he notes, have hardly any food value, being eaten solely for their meatlike flavors. These flavors can now be obtained without the risk of poisoning by the use of yeast extracts, such as savita, vegex, marmite, etc.

"Yeast extracts," he remarks, "so closely resembles meat extracts in flavor, as well as in appearance, that even experts might easily be deceived. The essential differences are that the yeast extract is superior in flavor, lacking the glue taste which is so often a special feature of meat extracts; besides, the yeast extract contains no uric acid, and is wholly free from the putrefactive products which are very likely to be found in meat extracts."

Along this line the future no doubt has many pleasant surprises in store for epicures. Let the food chemists get busy.

The overfat will bless them. What they want in viands is a maximum of flavor and a minimum of food value—excepting that which is represented by mineral salts.

Good though some of the meat substitutes already are, they haven't quite caught up yet, I think, with genuine meat gravy, French style. Most Americans and English haven't the remotest idea how delicious this is. The alleged gravy made of browned flour, is about as nasty a mess as could be concocted. It is fattening, too.

Real gravy is also supposed to be fattening, and it is, therefore, among the things forbidden those who are trying to lose weight. But they need not refuse this rich source of flavor if it is made in this French fashion: Bake meat with a little salt and no water until it has browned richly in its own fat, or in butter. Baste with this fat, but add little or no water till the baking is nearly done. When ready to serve, pour the superfluous fat (not if it is butter) from the pan, add a little water, no flour, and scrape the pan thoroughly for every bit of the savory brown substance.

If any is left over, put it in the next soup, to make that more soulful; for, as I have said elsewhere, flavor is the soul of food as fragrance is the soul of flowers and expression the soul of music.

One of the main things in favor of meats is

that they are rich in mineral salts, particularly iron and phosphorus; which no doubt helps to account for our meat hunger in these days of demineralized foods.

CRUSH AND COOK THE BONES

There is one important exception; very little lime is found in meat unless the bones also are eaten. I have already spoken of this, but will add here the interesting detail that the French cooks, supreme in culinary artistry, make use of the bones as well as the meat.

To realize how they actually orchestrate flavors just as a composer orchestrates sounds in a symphony, read pages 250–251 of Food and Flavor, in which I give a detailed account of how they make the most delectable of all soups (petite marmite) out of beef, marrowbone, chicken giblets, carrots, turnips, leeks, parsnips, onions, cloves, garlic, celery, and brown salt (salt that has not been purified). The bones are crushed, and cooked separately twelve hours.

Thus is the deficiency of lime in meat (muscles) corrected. Evidently the French do not have to "catch up with the animals." They; too, seem to know these things instinctively.

If the Chicago meat packers want to put "pep" into their "Eat More Meat" advertising campaign, let them supply cooks, in appetizing form, with bone lime as they do the gardeners and poultrymen. We need it just as much as the roses and the hens.

Eat fresh meat when possible. Read this paragraph from McCann's book: "Starling and Foster have demonstrated that animals fed on demineralized or refined food die sooner than if not fed at all. The demineralized canned beef, the extractives of which were all boiled out before canning to make beef extracts and canned soup, which caused so much sickness among our troops during the Spanish-American war, is a further illustration of this fact."

To be sure, not all canned meats are demineralized.

YOU MAY EAT EGGS AND CHEESE

One of the most illuminating paragraphs in Doctor Kellogg's *The New Dietetics*, is this: "A person who undertakes to live upon a low-protein or nonflesh diet must take care to make such a selection of foodstuffs as will furnish a full supply of complete protein;

otherwise the body will languish. Lack of energy, and low resistance to disease, are the natural results of a deficient supply of complete protein. Ignorance of this fact or neglect to consider it in arranging bills of fare has been the cause of numberless failures in attempts to dispense with the use of flesh foods. Lean meat furnishes complete proteins, which fact is probably one of the chief reasons for its use as a foodstuff. It is important to remember, however, that the proteins of milk and eggs are equally as complete as meat proteins."

We have seen that overweights may have skimmed milk. May they also eat eggs? Moderately, yes; for although the yolk contains much fat, it is in all ways such a complete food, and so valuable in the kitchen in making a multitude of dishes, that it would be foolish to taboo it altogether. Better cut down! on other things less rich in minerals.

Raw eggs, especially raw egg white, should never be eaten either by overweights or underweights, especially when ill in bed, for it is extremely indigestible. Yet many doctors prescribe it for fever patients and invalids! Don't waste money paying extra for white or brown eggs. They are equally good—or bad—according to their age.

Cheese is also wonderfully rich in minerals. Nothing could be more striking than the charts given on pages 22 and 23, of Bulletin 975 of the U. S. Department of Agriculture. One pound of American cheese, we see from its chart, would furnish 57 per cent of the energy a man needs daily, 131 per cent of the protein, 621 per cent of the lime, 235 of the phosphorus and 39 of the iron.

One pound of eggs presents these figures: energy, 17; protein, 54; lime, 39; phosphorus, 55; iron, 82.

One pound of medium fat beef: energy, 29; protein, 67; lime, 6; phosphorus, 55; iron, 74;

Cheese is one of the things that help to compensate overweights for eating sparsely of meats, starches, and sweets. Fortunately, cheeses are so richly flavored that a little can be made to go a long way.

The number of distinctive cheese flavors is much greater than that of meat flavors. Bulletin 105, of the Bureau of Animal Industry in Washington, describes 242 domestic and foreign varieties of cheese, and there are many others. How surprised the cows would be if they knew!

Some cheeses, being full-cream, are fattening; in large quantities they are also constipating; but then, one is not tempted to eat very much of any of them. An exception may be made of cottage cheese (without added cream); of this the overfat may eat all their appetite calls for.

Unlike some older cheeses, it helps to prevent intestinal putridity and the resulting auto-intoxication.

ARE NUTS ALLOWED?

Prominent among protein foods and meat substitutes are nuts. A hundred years hence they will be a hundred times as prominent in menus as they are now.

The foolish custom of serving them at the end of elaborate meals as a dessert has given them a black eye: they are supposed to be indigestible. But they are not so when very carefully chewed and eaten by themselves with, say, greens, or raisins or some other fruit, dried or fresh. It must be remembered

¹ This is not the place to dilate on the delights of cheese eating. I have done so in *Food and Flavor* (pp. 303-306, 328, 385, 446).

that they are the most concentrated of all foods. A pound of almonds contains more protein than a pound of meat and nearly as much fat as a pound of butter.

Nuts, therefore, you would say offhand, are not for overweights. They are among the things that are *verboten*.

Yet they need not be avoided. Nobody, fat or lean, would care to eat a whole pound of walnut meats, for that would be equal in food value to more than four pounds of beef, three pounds of ham, or twenty-two pounds of lobsters.

But sensible overweights who have learned the lesson of linked pleasures long-drawn-out may add nut eating to their gastronomic joys. The flavor of three or four almonds, walnuts, or peanuts, reduced slowly to a paste in the mouth, and consciously enjoyed in the olfactory chamber for ten or fifteen minutes, will give more delight than half a pound of them gobbled half chewed; nor will they cause indigestion or an appreciable deposit of fat.

Knowing this, the corpulent may eat all they want to—they will not want to eat more than a few, since what they are after is not nourishment, but flavor; that is, pleasure.

Candy makers know what an immense amount of flavor (pleasure) inheres in nuts. Most of their sweets are flavored with them; that's one reason why they get rich. It pays to please the buyers.

And now we come to the foods which overweights may and should indulge in freely and enthusiastically for quantity (bulk) as well as quality (flavor and minerals).

CHAPTER XVII

YOUR BEST FRIENDS: VEGETABLES AND FRUITS

CAN you imagine a time when tomatoes, rhubarb, cauliflower, eggplants, grape-fruits, strawberries, raspberries, head lettuce, okra, and cantaloupes were not to be found at the corner grocery; when oranges and bananas were a luxury of the rich, and none of the finer varieties of grapes, apples, pears, plums, peaches, and quinces were to be had for love or money, simply because they did not exist?

Our ancestors of as late as a century ago had to get along as well as they could without these delicacies. "How could they?" we feel like asking, and the question shows how essential a part of our dietary the stout man's and woman's best friends and rescuers, vegetables and fruits, have become.

It is remarked, in a book called *Food and* the War, that "workers among the very poor of our cities always have to urge a greater

use of vegetables." True; and that is one reason why there is so much undernourishment and illness among the poorer classes. In a negro community in New York which showed the highest infant mortality it was found that the mothers of these infants ate vegetables or fruits on the average only twice a week.

That represents the minimum of health. The maximum is found among those, rich or poor, who eat the most vegetables and fruits in proportion to other kinds of food.

FILLING BUT NOT FATTENING

Most Americans still spend twice as much for meat, fish, and eggs as for fruit and vegetables. Also, most Americans are not in good health and die thirty, forty, or fifty years earlier than they would if they reversed the order. Most of the men and women who have lived from eighty to a hundred years did that.

Obesity, says Doctor Lorand, is seldom found in persons who live chiefly on a vegetarian diet. Hardening of the arteries and auto-intoxication from sluggish bowels are rare among such.

His experience and his study of the subject forced on him the conclusion that the older we get the less meat we should have; but he does not believe in an exclusively vegetarian diet. "A vegetarian diet, with milk and a few eggs daily, is the best nourishment for old people."

Milk and eggs are always on the menus of the Battle Creek Sanitarium.

Thomas Parr, who reached the age of 152 years and 9 months, lived chiefly on milk, cheese, and coarse bread. He might have lived longer, poor fellow, had he not overeaten—just once—at the king's table. The famous Doctor Harvey, discoverer of the circulation of the blood, performed the autopsy. According to him, Parr owed his long life to three things: plain food, open-air life, no worry.

For overweights, the outstanding fact about vegetables is that they are the most filling, but the least fattening, of all foods. The most filling, because of the abundance in them of cellulose, which provides the necessary bulk for frequent bowel movements. The least fattening, because of their watery make-up.

Green vegetables (such as asparagus, lettuce, cabbage, celery, spinach-also cucumbers, squashes and tomatoes) are made up of 90 to 95 per cent water, 2½ to 5 per cent carbohydrates, 1/2 per cent protein, 1/2 per cent mineral matter, and a mere trace of fat.

In this compound there is very little nourishment excepting the mineral salts, of which, as we have seen, an extremely minute quantity suffices for the most astonishing physiological effects, and which are therefore—let me say it once more—the most important of all food elements

From the broadest point of view vegetable foods include cereals and nuts, which have already been considered in previous chapters, and fruits, to which we shall come soon. Here we are concerned with what are generally meant when we speak of vegetables: greens (celery, lettuce, etc., as above); roots and tubers; and legumes (peas, beans, lentils, peanuts).

Of the roots and tubers some (radishes, onions, garlic) are as nonfattening as the greens, while others cannot be eaten quite so freely by those who wish to reduce, although none are tabooed entirely; they include potatoes, sweet potatoes, yams, and the succulent carrots, beets, kohlrabi, turnips, rutabagas, parsnips, oyster plant, celeriac.

Of the legumes those that are eaten in fresh form—green peas, lima beans and pod beans (these used to be called string beans, but the string has been eliminated in the best varieties)—are almost as harmless to those who wish to reduce as greens; but dried peas, beans, and lentils must be eaten more moderately; for, while they contain hardly any fat, their fattening carbohydrate content is as high as 59-66 per cent; their protein 18-25; and it must be remembered that much protein is objectionable—one reason, not yet given in these pages, being that it may become a source of body fuel, thus aiding the accumulation of fat.

THE CRAZE FOR TOMATOES AND GREEN CORN

More than fifty vegetables, in the usual meaning of the word, are listed in the catalogs of our leading seed growers and at least thirty of these are generally liked. Of some of them, like lettuce, cabbage, tomatoes, peas, beans, green corn—there are so many varieties (attesting their popularity) that the seeds—

men have to devote several pages to each of them.

The American craze for the tomato is one of the most encouraging things to those who believe that vegetables and fruits (it is included among both) are destined to rank hereafter as the leading foods—and not only for the overfat.

The grocers can hardly meet the demand. Summer and winter it is now kept on view and the sales are large even when the quality is not of the best; in New York City alone 60,000,000 pounds are annually consumed. They would be much larger still if the dealers had not got into the discouraging habit of offering tomatoes that are picked so green that while they redden they never ripen, and thus remain leathery in substance and inferior in flavor.

What is the cause of this craze for the tomato? Partly, no doubt, its agreeable flavor and the mild but piquant acid; but, also, I think, the fondness for this vegetable fruit is due to the fact that we are not entirely without the instincts which enable animals to choose the foods they most need. We need the wholesome acid it contains, and, still more,

its iron and other mineral contents, which are so important that physicians now use tomato juice (the canned is all right if of a good brand) to feed infants that are brought up on cow's milk, which is deficient in certain minerals.

Tomato juice contains nearly twice as much iron as cow's milk and more than three times as much lime as beef. It is also rich in the important potash salts; and those who believe in vitamines will be gratified to know that the tomato is rich in all three of them, thus being at the head of *all* our foods!

Explorer Greely of arctic fame contributed his testimony on this point. "Tomatoes," he wrote, "were found to be our best vegetable, our experience being that the last cans were as good as the first and"—listen to this!—"no large eater of them was otherwise than in health."

As for green corn, do you know that one variety of it is called "Howling Mob" to indicate the attitude of the hungry crowds clamoring for it? But then, the whole American public is a howling mob for the juicy ears, especially that king of sweet corns, the Golden Bantam, which Burbank has still further improved.

CARROTS, SPINACH, CELERY, LETTUCE

The popularity of sweet corn is the more remarkable because it is a recent addition to the dietary. The carrot, on the other hand, has been eaten for centuries, but is not so generally appreciated as corn. This is largely owing to the fact that grocers usually offer the public the huge cow carrots, coarse in texture and flavor. The little French forcing carrots, eaten young, are as superior to those as the juicy Golden Bantam is to dry field corn.

A moderate daily portion of carrots will not add appreciably to anybody's weight, but it will do no end of good, for the carrot has a quite exceptional nutritive value, due to its richness in mineral salts and its peculiar antiseptic quality which makes it curative even externally, when mashed and applied to a sore. Metchnikoff found it valuable as a preventive of auto-intoxication. At Vichy, France, it is served at every meal, for liver troubles.

Unfortunately, American cooks not only have, as a rule, poor material to begin with, but they don't know how to prepare carrots to make them palatable. The simplest way to retain what is valuable in them is steaming.

If they are boiled, the water should be saved for soup, for the minerals are dissolved in it.

Apart from some French recipes, the most enjoyable way to eat carrots is in a soup with other vegetables (see French and other recipes in appendix).

Spinach, like carrots, is often, nay, usually deprived of most of its value by being boiled and the water poured away instead of being saved for soup. Up to 50 per cent of its exceptional food value may thus be lost. Many who do not like it in the plain, American style, would eat it eagerly as a soufflé, or minced, French style, with plenty of good butter, and with a poached egg dropped on each plate as served.

For overweights, spinach, filling but not fattening, is an ideal food of which unlimited quantities may be eaten without affecting the weight; and the same is true of celery and of lettuce, with romaine, endive, escarolle and the other varieties. All are rich in minerals.

Stewed celery is delicious; so are stewed solid heads of lettuce; but raw celery and lettuce are better still. In summer, if you have a garden, don't fail to make your break-

fast, or part of it, of raw vegetables; carrots, peas, tomatoes, asparagus tips, turnips (preferably yellow), are, like radishes, melons, cucambers, cabbage, onions, celery and lettuce, even more flavorsome raw than cooked. and eaten that way they are sure to retain all their mineral value and the effectiveness of the cellulose as intestinal roughage.

Salads are the portly person's special foods, unless too much oil is used in the dressing; a little vegex or savita mixed with the vinegar gives such a delicious flavor that you won't miss the oil. This is most important.

Vinegar and lemon have long been considered antagonistic to fat. And what a tremendous variety there is of salads! With French artichoke and asparagus tip salads to head the list, I might fill pages with the mere names of all the possible combinations and permutations.

Is a vegetable diet monotonous? Perish the thought! You don't know what you are talking about if you say that. I have mentioned only a few of the available hundreds, nay thousands of varieties, all distinctly different from one another to those who are not anosmic; and affording an endless variety of

flavors—i.e., pleasures—which is what we are after.

Flavor! Flavor! Pleasure! Pleasure! Pleasure! Pleasure! That's what the overfat want. The more they get of it from vegetables and fruits, the more easily will they be lured from the insidiously fattening fascinations of sweets and cereals. That's why I am dwelling on this matter so insistently.

Let me add that not only for the overstout is this vegetarian flavor-pleasure policy the secret of health and a long life, but for most other people, young or old, excepting farmers and lumbermen and a few others who really work hard with their muscles.

I say, young as well as old. Children naturally favor sweets and meats and must be shown the allurements of vegetables.

Prevention is better than cure. Teach them early to like vegetables, and when older it will be much easier for them to resist the temptations of fattening foods. Thus they may keep away the ten pounds excess weight at which insurance companies begin to fine their clients, for the best of reasons.

These dear insurance folk are so anxious to have us live long!

THOUSANDS OF NATURAL FLAVORS

Didn't I exaggerate when I spoke, a moment ago, of "thousands" of varieties of agreeable vegetable flavors? Not in the least; I might have written tens of thousands and more.

When you go to your grocer for potatoes you ask for "potatoes" and he gives you whatever he happens to have on hand. The catalogs of our seedsmen are less elementary; they list a dozen or twenty different varieties of these tubers. And if you will take the trouble to consult *The Vegetable Garden* (Robinson's English version of the wonderful French book of Vilmorin-Andrieux) you will find nearly two hundred varieties of potatoes fully described, and there are, in various parts of the world, many others.

They all have their own flavors, known to epicures. I have seen the eminent operatic basso, Pol Plancon, ordering his potatoes with the same deliberation and discrimination as his wines. That was, of course, in Paris; you couldn't do it anywhere else.

In the volume just referred to the number of different varieties of peas described is 190; of onions, 70; radishes, 60; tomatoes, 35 (there are many more); turnips, 64; carrots,

26; lettuce and romaine, 114; cucumbers, 50; celery, 24; beets, 27; cabbage, 93; melons of all kinds, over 100; and so on.

These are merely samples. Take all the other vegetables, alone or in endless combination in soups and stews, and you will soon reach 10,000 and look around for a higher figure.

No one is in such a good position to estimate the number of kinds of vegetables, cereals, nuts, and fruits in use as food as David Fairchild and his associates of the Plant Introduction Bureau, of the United States Department of Agriculture. In reply to a request, Doctor Kellogg received from P. G. Russell of this bureau, lists of different kinds (printed on pp. 834-838 of *The New Dietetics*), with estimates totaling as follows:

Fruits	
Vegetables	300
Nuts	
Cereals	100
Total	,200

Many of these varieties are not to be had in our markets; but when we consider what tremendous progress we have made in the

last hundred years in the appreciation of plant foods, and bear in mind that in dietetics we now advance as far in a decade as our ancestors did in a century, the future is not very far away when many, if not most of those vegetarian viands will be available to overweights, to console them, with their delectable and endlessly varied flavors, for the (comparatively limited) number of meats and sweets they must indulge in with moderation. Of most of the 900 fruits and vegetables they can eat all they wish.

Most of the 1,200 plant foods listed above can be cooked in dozens of ways alone, and in thousands of ways in countless combinations with others. The figure 10,000 is, therefore, absurdly low. Let us be modest and make it 100,000; for bear in mind that apples, for example, are listed but once among the 600 fruits, but there are 5,000 varieties of apples, all differing slightly or widely in flavor! Can you grasp it?

These are visions of the future. At present, undeniably, the charge that vegetable diet is monotonous is correct. In our villages and smaller towns it is extremely difficult to buy fresh vegetables and fruits, often even the commonest kinds. The canned are a fair substitute and the dehydrated—hard to get as yet—are better; but things are not as they ought to be, and it is no wonder that most people eat only meats and fattening sweets and cereals, because these are so much more easily obtained.

This regrettable state of affairs—regrettable particularly to those in need of vegetable dishes for reducing purposes—is due, of course, to the fact that meats and sweets have heretofore been looked on as staples, vegetables and fruits as mere trimmings—agreeable but unimportant.

FRANCE TO THE RESCUE

The French alone have known the truth. To them we must look for guidance. It has been truly said that where the English and Americans use one vegetable the French use twenty, in delicious combinations (soups and stews) or alone. The vegetable solo is always a feature of a typical French menu and you may call for an encore or two—unless much butter has been used in seasoning them.

Why should not the overweights form an Association for Improved Cooking of Vege-

tables? Speaking of London, Robinson says that "in places of public resort, where the best meat, game, and fish are to be had, the cooking of even the commonest vegetables is disgraceful."

The same is true of the average American eating place, as well as in private houses. Here and there one gets a good vegetable soup, rich and nourishing, but the plate called a vegetable dinner is too often a snare and a delusion.

The other day I called for the manager of a popular restaurant and said: "I am glad you are at last trying to cater to those who do not wish to eat meat at every meal. But few will ever again order a plate of vegetables like this. The spinach is so full of sand that I cannot eat it. The beets are inedible; they should have been cooked several hours longer, being old tubers, tough as leather. The beans are stringy and tasteless. The only edible thing on the plate is the potato, and that has lost its food value because it was peeled and boiled, with the result that all its iron and potash and other mineral salts were drained from it and poured down the sink."

I wish every restaurant keeper in the coun-

try and every housekeeper would send a dime to the Superintendent of Documents in Washington for a copy of Farmers' Bulletin 256, a pamphlet of 48 pages by Maria Parloa, entitled "Preparation of Vegetables for the Table." It is brimful of hints as to how to serve vegetables so they will be tender, succulent, and flavorsome. I know of nothing better calculated to aid the fat person's will in its fight against the lure of sweets and meats.

Speaking of onions, leeks, shallots, garlic, chives, and cibol, Miss Parloa remarks that "much of the delicious flavor of the French and Italian cookery is due to the skillful combination of several of the onion flavors."

It is along that line—including the use of potherbs—notably the spicy and iodine-holding parsley—that we can learn from those two nations how to convert the eating of vegetables from a penance and pious dietetic duty to a gastronomic delight and a joy forever. (It is understood that fresh vegetables should be used wherever possible. Canned tomatoes, corn, beans, asparagus, are good; but in general, dehydrated are better than canned vegetables.)

Even now we are doing pretty well. Don't

try to dodge your duty by saying it is difficult to get vegetables. In the port of New York alone one and one-half billion pounds of fresh vegetables are received in a year. One-half of these are potatoes. Next come onions: one hundred million pounds; followed by sweet potatoes, spinach, tomatoes, cabbage, lettuce. That's encouraging; but the figures would be ten times as large if overweights—and underweights and everybody else—realized fully what a dietetic blessing vegetables are.¹

¹ For further remarks on this all-important topic see the index—under "Vegetables" in my Food and Flavor and in Gardening With Brains.

CHAPTER XVIII

MONKEY FOOD FOR OVERWEIGHTS

"YOU don't mean to assert that I am descended from a monkey?" said a very pretty girl after a lecture on evolution.

Looking at her admiringly, the professor answered: "It must have been a very charming monkey."

I can never forgive Charles Darwin for stubbornly maintaining that at one time in the dim past "the great artery and nerve of the humerus ran through a supracondyloid foramen." That's positively insulting to anyone who has the least pride in his ancestors. It makes my blood boil every time I think of it.

But Darwin was quite right when he wrote that "the early progenitors of man must have been once covered with hair, both sexes having beards; their ears were probably pointed and capable of movement; and their bodies were provided with a tail, having the proper muscles." Near the end of Chapter VI, of his Descent of Man, he sums up his doctrine in this sentence: "The Simiadæ then branched off into two great stems, the New World and the Old World monkeys; and from the latter at a remote period, Man, the wonder and glory of the universe, proceeded."

Personally, I have always felt that, whatever may be true of other people, my remote ancestors must have been monkeys—the kind that spend their lives climbing trees and eating tropical fruits.

Oh, how I envy them! When I read that in Brazil there are more than a hundred kinds of wild oranges, all differing subtly in flavor, I wish some kind fairy would come along and change me back into a simian epicure.

Brazilian pineapples are so fragrant where they grow that a field of them saturates the air for a mile around with intoxicating fragrance; whereas the prematurely harvested pineapples offered in our markets have not a trace of fragrance unless you press your nose against them. The monkeys have decidedly the best of it.

All children are monkeys in their huge enjoyment of fruit. There is nothing in the way of food that will make them so happy as a bunch of sweet grapes, or a handful of cherries, or a ripe peach, pear, or apple. They even eat the other boys' core unless the cruel answer is, "There ain't going to be no core this time."

If children were left in this monkey stage of natural fruit appetite till they grow up, and beyond, they would enjoy much better health, live longer, and, what is most to the point, as adults they would not get fat—monkeys never are overfat, because they live on fruits and vegetables.

Only a few fruits are fattening, like bananas, ripe olives and avocados (also stupidly called alligator pears). The avocado contains over 17 per cent of oil; in some regions it is known as the "butter fruit."

MOSTLY WATER, ACIDS AND MINERALS

Barring these, an overweight may eat all the ripe fruit he wants, while growing beautifully thinner by degrees.

And no wonder, when you look at the composition of fruits. They are mostly water; as apples, 82.5 per cent; pears, 83.9; peaches, 88.8; cherries, 84; strawberries, 89.1; oranges,

86.7; and so on, culminating in watermelons, 92.9 per cent water.

Compared with these figures the carbohydrates, or fuel elements which fatten, are insignificant, varying in the sample fruits just named from peaches, 5.8 to apples, 12.5.

Grapes go higher (12 to 25) and should therefore not be eaten too freely by those who wish to reduce, unless other sweets and starches are avoided on the same day.

If you look at the "ash" column you will find small figures, mostly under I per cent; but the food minerals, as has been pointed out repeatedly in the preceding pages, are so amazingly potent that only microscopic amounts are needed to produce almost miraculous effects on our tissues. All the iron in your body would hardly suffice for one small nail, but if it were removed you would die instantly.

Fruits from which the water has been removed are, of course, less desirable for those wishing to reduce their weight. Dried apples have a fuel value of 49.1 per cent; dates, 65.7; figs, 62.8; prunes, 66.2; raisins, 74.7.

In eating dried fruits, therefore, discretion is the better part of valor, unless you think

you can make faces and twiddle your fingers on the tip of your nose at that gaping grave, like William Johnston, author of *The Fun of Being a Fat Man*.

If you follow my directions you can have more fun by lingering lovingly over a date or two than by bolting a dozen or two; and the date of your death will be thus postponed a decade or two.

A TRAGIC TALE OF THE TROPICS

Not long before the Great War began, some 4,000 out of 6,000 railway laborers died simply because they did not know the food and health value of fruit, or "monkey food," as they derisively called it.

It happened down in Bolivia and Brazil. Alfred W. McCann tells the whole story in detail in *The Science of Eating*, where you ought to read it. Briefly summed up, the facts are that these laborers succumbed to acidosis, "beri-beri," and tuberculosis, because all the food they ate was of the acid-forming kind—white bread, crackers, refined sugar, tapioca, lard, macaroni, and others of our staples.

The disease began by the swelling of limbs,

followed by wasting away, until prior to death nothing remained but skin and bone.

Chief Engineer Ashmead was among those stricken. He found himself "taking on flesh" and he lost his appetite for bread and meat. He had never before cared for oranges, but now nature came to his rescue; for the first time in his life he felt a craving for orange juice.

He heeded the hint, and when the doctor ordered him away he ate little but oranges all the way across the ocean, and soon recovered.

Oranges and other fruits, abundant in the forest all around those railroad laborers, could have saved their lives. All they needed was some base-forming (alkaline) food elements, such as are found in fruits.

That is a singular but all-important fact, a knowledge of which will make thousands look on fruit eating in an entirely new light.

FEAR NOT FRUIT ACIDS

In their pardonable ignorance, these thousands, nay hundreds of thousands, believe that fruit eating is likely to produce an acid condition of the stomach, the blood and the tissues, whereas it is just the other way!

Fruit acids do not act like mineral acids. On the contrary, they are oxydized in the body into alkaline carbonates, the deadly enemy of injurious acids.

Add to this that in fresh fruits the mineral salts also are alkaline, and you see at once why these fruits, and particularly oranges, lemons, pomelos (grapefruit), and grapes, are invaluable in such disorders as acidosis, neuritis, beri-beri, scurvy, anæmia.

Also, in rheumatism, that baffling disease from which the overfat so often suffer. Doctor Kellogg emphatically controverts the popular notion that acid fruits should be avoided in rheumatism: "When eaten, the acids are burned or oxydized, setting free the bases, so while the acid has a sour flavor and produces acid effects in the mouth and stomach, when absorbed into the blood the acid disappears, leaving behind the soda and potash which serve a useful purpose in rheumatism by neutralizing the acid products of tissue wastes which have a tendency to accumulate in this disease."

"Melons," he adds, "and especially the muskmelon, are especially valuable in rheumatism, because they tend strongly to alkalinize the blood and tissue fluids. The cantaloupe is in this respect more efficient than any other fruit. Potato soup or purée should appear often on the bill of fare of the rheumatic patient on account of its rich stores of bases which alkalinize the tissue fluids, and potatoes and root vegetables should largely take the place of bread and cereals."

MORE FALLACIES

As it is of the utmost importance that overweights should be persuaded to eat fruit in preference to all other foods, a few other fallacies must here be corrected. The author of a popular book sounds a warning against eating fruit at the same meal with other foods because it "interferes with digestion." But the world's leading authority on the digestion of food, Professor Pavlov, of Petrograd, has demonstrated by actual experiments that the acids of fruits stimulate the stomach to produce gastric acid, and that these fruits acids are able to a considerable degree to take the place of the natural acid of the stomach when this is absent.

Ergo, eat fruit at all meals, unless you are

¹ For further helpful details his The New Dietetics p. 734.

what is called "sensitized" to strawberries or some other fruits; but few are in that unfortunate condition. Overweights who think fruit does not agree with them eaten with other food, should have fruit alone for one daily meal.

Still another erroneous notion which has retarded the millenial age when fruit will be man's chief food, is embodied in the old maxim that it is gold in the morning, silver at noon, lead at night. Fruit is, on the contrary, "golden all the time," declares Doctor Kellogg, who ranks with Pavlov as an authority on what goes on in the alimentary canal.

Nor is there any ground for the fear entertained by some persons that it is injurious to eat cream or milk with fresh fruit because of the acid in the fruit. As a matter of fact, when you take milk or cream into the stomach it is always met at once by an acid (hydrochloric) which is much stronger than that of any ripe fruit.

If the addition of cream or milk to strawberries, blueberries, sliced peaches, or baked apples were harmful, how many Americans would be alive to-day? It is the excess of *sugar*, not the milk, that often makes the mixture injurious. Should fruit be eaten before or after meals? Before, I think, so as to get the full benefit of the luscious, subtle flavors, compared with which the flavors of the more substantial and fattening foods following the fruit will seem rather coarse and carnal, so that you will be less tempted to overindulge in them.

For dessert—more fruit; why not?—for the pleasure it gives and also for a special reason given by Doctor Kellogg, who says that "the eating of fruits, especially at the close of a meal, is the best method of cleaning the teeth. Chewing a stalk of celery, an apple, or fresh pineapple is a very efficient method of cleaning the teeth."

THE FUN OF EATING FRUIT

While fruits are thus proven to be the most digestible, beneficial, healthful and weight-reducing of all foods, the biggest thing in their favor is nevertheless their fragrance and flavor.

Nature created them as a lure to animals, so as to insure the dissemination of the seeds. Let us take a hint from nature, using them in wholesale fashion to lure men, women, and children away from coarser foods—all foods are coarse compared with melons, peaches,

cherries, apples, pears, plums, papaws, and so on to the end of the list.

I need not dwell again on the orgies of gastronomical delight we can indulge in by slowly, slowly, very slowly eating, say, a strawberry or a slice of pineapple, exhaling the aroma-laden air from the oral cavity into the olfactory chamber till the nerve endings tremble and thrill with ecstatic joy—joy purely sensual, but adorably healthful and exhilarating.

The expression "like cows in clover" is often used to indicate the climax of contentment, but even cows are wise enough to know that fruit is "it"—that there is nothing in the world like a good apple.

Up in Maine our neighbor has seven cows. He lets them out of the barn at six in the morning. They don't know anything about racing records, but you ought to see those cows run, each one trying to reach our apple trees first, to gobble up the night's windfalls! Hereafter, please, when you wish to indicate superlative bliss, don't say "cows in clover" but cows in the orchard.

If you want to eat the windfalls yourself and don't know at sight which are the best, take those that have been sampled by the wasps. They know—you cannot fool *them* with inferior fruit, no matter how nice it may look.

WISE CANDY MAKERS, FOOLISH FRUIT MEN

If the fruit men in our cities were wise they would offer for sale only the kind of apples and pears and plums and peaches that the wasps and ants select for their meals; in other words, flavorsome, sun-ripened fruit.

If they did that, they would in a few years sell twenty times as much fruit as they now do and none would be left on their hands to rot, because the consumers would gobble up all they could get, entranced by the flavor; foremost among them the enlightened overweights.

Candy makers know the value of flavor, the lure of which enables them to sell their confection at retail by wholesale; the more delicious the flavor, the greater the demand.

Oh, that the fruit men could be made thus to realize the commercial value of flavor! I devoted a whole chapter to this subject in Food and Flavor, therefore will content myself here with referring to what an agricultural

expert, E. V. Wilcox, has written lately about flavor and melons. There is a big sale in the East for cantaloupes of the right kind, he says: "Almost every carload of the Imperial Valley crop is picked at the right stage and is well packed and cared for in shipment, with the result that Imperial cantaloupes come on the Eastern markets in good condition and flavor. But later Maryland cantaloupes from near-by truck farms are hauled in, green, insipid, and hopeless. A good local cantaloupe is a rare thing on the market. For years the Maryland agricultural authorities have been pleading with the growers to let their fruit ripen to a point where it will have flavor, but so far to little purpose."

The consequence, he adds, is that the consumers, "quit eating cantaloupes as soon as the Imperial Valley season is over and do not begin again until the Arizona melons and Rocky Fords come in much later in the season."

In this case the local growers are to blame; but more frequently the failure to sell fruit in such large quantities as it should be sold is due to the short-sighted policy of the dealers

¹ In the Country Gentleman, November 4, 1922.

in offering little besides fruits of such varieties as the Ben Davis apple, Elberta peach, and Concord grape, which are showy but have little or no flavor.

People will buy fruit that looks fine for its appearance—a few times; but if it has no flavor they don't "get the habit"; that's proved by what I have just quoted concerning melons.

The improvement of our fruit markets along these lines is a matter of tremendous importance to stout persons, who should do all they can to enlighten their fruiterers by insisting on buying only those fruits that are ripe and rich in flavor and therefore calculated to counteract the lure of fattening sweets and cereals.

Please enlighten your fruiterer also—you alone can do it—on the subject of ripe fruit. It is to his advantage to have it in stock unripe, because in that condition it keeps longer. It is to your advantage to have it ripe, because unripe fruit contains pectic acid, which is very bad for your stomach.

All attempts to popularize the Japanese persimmon in our country have failed simply because people don't know that they are not fit to eat till they look like rotten tomatoes though perfectly sound, healthful, and deliciously sweet. When half-ripe they are sour, bitter, pectic, injurious.

An Australian friend of mine went into a fancy fruit store on Fifth Avenue one day for some bananas. He knew that bananas must be perfectly ripe to be digestible and at their sweetest, and that they are not in that condition till the skins turn black.

The clerk showed him the usual yellow bananas universally demanded by unenlight-ened customers—bananas unripe and extremely indigestible. The Australian, of course, did not want these. Going out, he saw a pile of ripe bananas, with blackened skins, "How much for these?" he asked; and the clerk answered in a contemptuous tone, "Those you can have for nothing."

So, after all, instead of swearing at the fruiterer for offering you unripe fruit, you ought to blame yourself. If you sternly refuse the stone-hard pears and peaches he habitually offers you, ripe ones would soon appear in their place.

This is a matter of tremendous importance to overweights, for—let me say it once more—

their salvation and cure depend, more than on anything else, on their learning to like ripe fruits and vegetables better than the cloying sweets and starches and fats which are responsible for their present condition.

P. S. In searching for the best fruit don't let anyone fool you with the stale old lie that the highly educated and cared-for Oregon and Washington apples, while big and beautiful, are not equal in flavor to the Eastern neglected small, plain fruit. They are not only richer in flavor, but have a mellow velvety substance which makes them doubly agreeable to eat.

A year ago I had a violent dispute on this point with a friend who had once eaten an insipid apple in Portland, and who was then on his way back there to lecture to the students of Eugene University. A few weeks later I got a letter of abject apology for ever denying that Oregon apples were the best in the world.

CHAPTER XIX

MAKE YOUR OWN MENUS

IT is customary in books on weight control to pepper the pages with menus prescribing exactly what the controllers should eat.

These menus doubtless have their uses for those who have given no attention to the subject of food and feeding and need to be guided like the blind in the street.

While writing this book I have become more and more convinced that it is better to provide women and men who wish to reduce, with lucid information which will enable them to make their own menus.

In the four preceding chapters, and in the chapters on mineral salts and roughage (X and XI), I have endeavored to do this. Digest their contents thoroughly and you will have no difficulty in deciding at any time what to eat and why.

Get it fixed in your mind that (1) the most fattening foods are those made with sugar fat, and flour; that (2) you should be on your guard also against foods rich in proteins (meats, eggs, dried legumes) because, while these are not so fattening as sweets and starches, they overwork and clog the organs of waste elimination (liver, kidneys, thyroid) thus soaking the whole body with fatigue poisons, with the result that your will to reduce becomes flabby; that (3) your best friends are vegetables and fruits, of which you may eat almost gluttonously with impunity, nay, with advantage, in view of the need for bulk or roughage and for plenty of mineral salts, without which the body languishes like a tender plant in the unwatered desert.

The index will aid in finding instantly what you wish to know about this or that food; many readers of books do not seem to realize the importance of an index as a time saver and guide.

This method has the advantage of not compelling you to adopt a rigid system of selfdenial and overturning all you food habits.

DIFFICULTIES IN THE WAY

How amusingly diverse these food habits are is shown by the fact that all attempts at community kitchens have failed because no two families could agree as to what should be cooked and how.

Nor is this difference in taste and preference the only difficulty. One man's food is another man's poison. It is better to let each one eat what he finds agrees best with him, provided, of course, it does not thwart his noble efforts to reduce his girth.

Another objection to rigidly prescribed menus is that they do not make allowance for weather, climate, and season. The colder the day the more of sweets, fats, and starches you may eat without adding to your weight.

The need of variety is another thing usually forgotten in printed menus for the stout. The reason so many persons never have a good appetite and, therefore, suffer from dyspepsia is that their diet is too monotonous.

A very special reason for variety is to make sure that we get into our alimentary canal all the food minerals. Some are scarce; and different foods vary greatly, as we have seen, in their mineral contents and the proportions of them.

Therefore, in making your own menus, put in as many different foods—particularly vegetables and fruits—as possible.

It is not necessary to have many different things at each meal, provided the desirable variety is insured at successive meals.

Herbert Spencer was a great sufferer from the pangs of indigestion. He had to give up most edibles, yet he related that once in a while he indulged in a regular gastronomic spree and was benefited by it instead of hurt.

He didn't know the real reason. It was that at these feasts he got the minerals that were craved by his system, which was sulking in disease because it did not get them regularly.

If I may seem to overemphasize the need of food minerals, it is because most other writers on my subject, while dwelling on the importance of menus in which the other food elements (proteins, hydrocarbons, fats) are properly balanced, have ignored the minerals or simply mentioned them as "among those present."

In making your own menus you must, of course, have some way of knowing if you are doing the right thing. A good pair of scales will tell you. Weigh yourself once or twice a week, always at the same hour and making allowance for the varying weight of your clothes.

If you are not losing, put the screws tighter on the sweets, starches, and fats, while eating correspondingly more of the vegetables and fruits.

What could be simpler than this method of girth control?

Don't try to reduce fast. If you lose one pound a week, that makes fifty-two in a year, which is probably more than you want to lose. Perhaps you wish to lose only twenty-five pounds. In that case two or three pounds a month ought to be enough.

But let there be no backsliding! A single hearty meal of pudding, cakes, candy, and other sweets may undo a fortnight's judicious dieting.

"It doesn't pay to hurry," as the snail said when it fell off the tree it had taken a week to climb.

In making up your bill of fare don't forget for one moment that flavor and mineral salts are by far the most important things for you. These you want in profusion, all other things in moderation — except bran and other cellulose.

This "bran new" doctrine is the only one that is quite up-to-date; it is the doctrine of the immediate future. It will rid the world of obesity and all the ills that go with it.

SOUP AND PIE FOR BREAKFAST

The average American breakfast menu is made up almost entirely of fattening foods; one would think it had been planned especially for emaciated persons who wish to get stout quick.

It begins usually with a cereal to which cream or milk is added, and several spoonfuls of sugar. Then come bacon and eggs, likewise fattening. Then griddle cakes, with butter and syrup. Potatoes go with the bacon or ham; bread and butter are never absent, and the coffee, too, is made fattening with cream and sugar. It is to laugh—or weep.

Advice to overweights about to eat that kind of a breakfast, Don't.

Why not? Haven't I approved of every one of those items, allowing the overfat to eat anything they like?

Yes—but in moderation. You may have some cereal with trimmings; or some bacon (two or three thin slices and one egg); or two thin griddle cakes, with a little syrup; or a slice or two of whole-wheat bread with a

little butter—but not all these things at once and in profusion.

"But I shall starve on such a restricted diet," you exclaim.

Don't worry. You are not honest with yourself. What you really dread is losing pleasure, not nourishment, for you know that you are overnourished. But you need not lose any pleasure. If you use your olfactory chamber, as explained in the chapter on "Linked Pleasure Long-Drawn-Out," you can get no end of gastronomic fun out of a mere fraction of the breakfast you are eating now. That's the great lesson of this book.

Nor is that all. You can get a lot more of fun by eating also vegetables and fruits with your breakfast. Of these you can eat as much as you like.

Vegetables at breakfast? Why not? Potatoes you are eating now; why not, for a change, a small sweet potato, or a taste of parsnip or Jerusalem artichoke, or carrots, or spinach, or chard, or eggplant, or onions, or celery, or coleslaw, or sauerkraut, or tomatoes, or peas, salsify, squash, cauliflower, and so on?

Raw vegetables are particularly desirable for your breakfast—celery, tomatoes, yellow turnips, peas, corn, radishes, asparagus tips, cucumbers—all these are better and more valuable raw than cooked; when you eat them raw you know that *none* of the precious minerals have been wasted in the cooking water.

Sarah Bernhardt eats grated raw carrots every morning and attributes her health largely to this habit (see Index under carrots).

If you prefer your breakfast vegetables warm, they can be cooked in a hundred appetizing ways, preferably as a soup.

"Soup for breakfast? Are you crazy?"

No, Madam, I am not crazy. I am from Missouri (born there, 1854); therefore I "want to be shown," and no one has ever shown me why I should not eat soup the first thing in the morning. I have never in my life abstained from doing sensible things simply because other people didn't do them.

Breakfast is the very time for thick soups. You don't want a thick soup for dinner, because several other nourishing viands follow it; but for breakfast a thick vegetable soup is just the thing. Try it; you will be delighted—and hugely benefited.¹

¹When the French Ex-Premier Clemenceau was in New York newspaper readers were amused to find that he ate onion soup for breakfast; but that's an old French custom; potatoes are added to the onions in the pot.

See appendix for receipes. Persons who don't like carrots alone are enchanted with them as chief ingredients of such a soup.

When Alfred W. McCann, though not a doctor, but a food chemist, achieved his amazing cure of the German mariners referred to on a preceding page, he gave them a soup made of wheat bran, cabbage, carrots, parsnips, spinach, onions, turnips, and potato skins (to which were added, gradually, unbuttered whole-wheat bread and egg yolks, orange juice, and milk). Forty-seven of the stricken were dismissed from the hospital in ten days as cured.

A vegetable soup that can work such a quick miracle on men afflicted with a deadly disease—think what such a soup will do for you who are simply tired and dull and inefficient because you are too fat and don't eat enough mineral food!

If every man, woman, and child ate such a vegetable soup for breakfast instead of cereals, meats, and sweets, within a year most of the doctors would have to seek a pleasanter employment than that of healing the sick, and obesity would vanish.

A GOOD OLD AMERICAN CUSTOM

Fruits for breakfast will not seem so revolutionary a suggestion as vegetables. In fact, the beginning of the day's first meal with fruit is a good old American custom which should never be given up.

Raw or cooked, it is always palatable and wholesome, and, with the exception of bananas, grapes, and avocados, it can be eaten in unlimited quantities.

Raw fruit is best. If you want it cooked, apple sauce (with little sugar) is preferable to prunes. A prune is a plum which has so much sugar in it that when exposed to the sun it does not decay (like other plums), but dries.

Dried apricots, peaches, cherries, tomatoes, have little sugar content and will serve as delectable substitutes for prunes.

There are some persons with whom fruit does not agree. But in most of these cases the trouble simply is that they do not sufficiently masticate it. This is particularly true of bananas, apples, pears, and pineapples. Unripe and overripe fruits are to be zealously avoided.

Don't eat the sweet preserved fruit when you can get it fresh.

Banish the granulated-sugar bowl from your table. You will soon enjoy the natural flavor of fruits, including berries, much more than when you court adiposity by burying them under a saccharine snowstorm.

After a night's rest the stomach's muscles and glands are refreshed and strengthened. Normal persons can, therefore, eat things at breakfast which it might not be so safe to take later in the day. The breakfast table is for this reason a good place for gastronomic experiments—all sorts of mixtures.

This makes meal time more interesting—gives us a chance to use our brains, judgment, taste.

More than once I have been laughed at for my novel breakfast mixtures by persons who did not realize how funny *they* were.

If we let our cooks make all sorts of mixtures in the kitchen, why shouldn't we make them ourselves at table?

The poet Emerson used to be laughed at for eating pie at breakfast. "What is pie for?" he asked, plaintively.

He was right. The morning meal is the time for pie.

For overweights? Certainly; why not?

There isn't much pastry in a piece of pie; and what there is can be made less by leaving out the lower crust, as in deep-dish apple pie.¹

Give me a bowl of rich vegetable soup and a deep-dish apple pie—or a pumpkin or cherry or cranberry pie—for breakfast, and I shall not envy a millionaire with all the luxuries he can command.

LUNCHES FOR CITY FOLK

City folk, I say, because country folk usually have no lunch. They eat dinner at noon, and at night there is supper, which, for the overstout, needs defattening, so to speak, as much as the conventional breakfast.

As, however, most country folk are more or less given to hard muscular exercise it doesn't so much matter what they eat, provided they get plenty of minerals. Fat farmers, as I have said before, are rare freaks.

In our cities the lunch question for overweights is a very serious one. In ninety out of every hundred eating places it is difficult to get anything really edible except meats and

¹ For further remarks on this noble achievement of American gastronomy see pages 466-473 of Food and Flavor, where this important subject is thoroughly discussed and remedies are suggested for the deplorable decline of American pie-etry. Concerning varieties of cheese consult Index of the same book.

sweets. Vegetables and fruits are treated as mere trimmings; if you try to make a meal of them the waiter thinks you haven't money enough to pay for a meat dish, or wonders whether he hadn't better telephone for an officer and have you taken to a lunatic asylum.

There are signs of improvement. In New York, at any rate, there are growing up a considerable number of lunch places, like Schrafft's and Child's, where one can get a "vegetable dinner," vegetable soup, and plain or mixed salads, sufficient to make a satisfactory meal. There will be more of these soon if wise overweights make known their demands.

At home you can have anything you please; but in large cities the number of persons who lunch away from home probably exceeds that of at-home eaters. Pending the reform of the restaurants (from the girth controller's point of view), it is easy enough to solve the problem by way of office lunches.

Thousands are taking these now, thereby saving money, as well as time for a midday walk.

Sandwiches are naturally preferred for office lunches, and there is no reason why you shouldn't have them. The bread may have a little butter on it, and if you eat only two or three sandwiches, made with thin slices, the filling may be almost anything, although non-fattening ingredients (vegetables and fruits) will, of course, accelerate your cure.

Hundred of sandwich combinations are possible. Samples: tomatoes; lettuce with purée of hard-boiled eggs; preserved fruits, marmalades, and jellies, thinly spread because they are sweet; cheese, in great variety—these loom up particularly large; thin slices of lean meat, if you eat meat twice a day; peanut or almond butter.

There are hundreds of kinds of crackers and fancy biscuits for your office lunch. You don't want to eat sugar wafers or sugar cookies, but among the others there are plenty you can eat—in moderation, of course, as they are all made of flour, which turns to sugar in the liver.

If your breakfast has not been fattening and you intend to eat no sweet dessert with your dinner, there is no reason why you should not have a few dates or figs for lunch; or a few nuts—a dozen delicious kinds to choose from and to vary your office menu.

There is more *lasting* flavor in nuts than in anything else; you can chew and chew forever on an almond or pecan or walnut, or a hazel or Brazil nut, getting no end of pleasure out of its flavor.

By adding to nuts or fruits some lettuce or other greens you get a balanced ration which would sustain life indefinitely.

But of all midday meals, fruit lunches are the best because fruit is almost all water and mineral salts, which are absorbed at once, putting no burden on the stomach and keeping your brain clear for the afternoon's work.

SIX-COURSE DINNERS ARE O. K.

It's the easiest thing in the world—after you have read the foregoing chapters—to arrange the bill of fare for dinners that are at once enjoyable and not fattening.

You may safely allow yourself five or six courses—soup, hors d'œuvre, fish or meat, vegetables, dessert. I put soups first because it is well to begin by putting something warm into the stomach.

Soup is often not included in weightreducing menus, evidently because of the mistaken notion that liquids taken with meals are particularly fattening (see Chapter XII). But soups are not fattening, unless specially made so.

Leaving thick soups (with or without meat stock) for breakfast, as suggested on a preceding page (or for lunch, if convenient—or both), the girth controller should order—or have his wife or cook make at home—the clear soups, which are more valuable for flavoring than as food. They should be as savory and delicious as possible, so as to make the digestive juices flow freely and head off indigestion.

To make their soups flavorful, the French, as we have seen, use bones (broken up with a mallet) as well as meats and savory herbs galore. Add the gravy and remains of yesterday's dinner—anything to insure plenty of gastronomic pleasure.

A Frenchman, Ferdinand Grandi, has written a book on Les 700 Potages—so you need not worry about lack of variety.¹

Horse duffers, as a friend of mine used to call the hors d'œuvre, are particularly important to overweights; not the Scandinavian and

¹ See the pages on "Seven Hundred Soups" (212-215) in my Food and Flavor; also, p. 123.

Russian kinds made up of meat and fish sandwiches, sausage and other cold cuts, pickles and diverse heavy things that make a meal in themselves, but the more civilized kind which includes celery, radishes, an olive or two, and —well, yes, a thin slice of brown bread with a teaspoonful of caviar will do no harm—it's very appetizing (if you like it).

Why not vary this by adding raw vegetables? Baby turnips or carrots, asparagus tips, and so on, might be used, with all their mineral salts intact, thus making this the most important part of the dinner from the up-tothe-minute dietetic point of view.

The meat or no-meat question is amply discussed in Chapter XVI. If you eat meat or fish, choose the leaner sorts; eat slowly and don't forget the olfactory chamber. Meat is distinctly a pleasure food. To eat much of it is undoubtedly bad for your health; why, therefore, eat a big portion or a second helping, since you know how to get more pleasure from one small portion?

How about vegetables? Of these you may eat aplenty unless they are cooked with cream sauce or too much grease. Eat them with your meat, or as a separate course, as the

French do. Same with salads. Every dinner should include a salad, and a cooked vegetable or two, besides the raw ones included among the hors d'œuvre. That way lie health and slimness.

Sweets are inseparably associated with the idea of dessert and, in moderation, they are not to be condemned entirely, even though sugar is your worst enemy.

Unless, however, your will to reduce is very firm, it is wise not to dally much with desserts, which represent the world, the flesh, and the devil.

"Get thee behind me, sugar," is a grand slogan for overweights.

Fruits, including berries—raw or cooked—are the best desserts for them.

SAMPLE MENUS

Consistency has been called a jewel. Maybe it is. As I am not in the jewelry business, however, but trying to point out the quickest ways to get rid of superfluous fat, I shall now be deliberately inconsistent in presenting two sets of sample menus, each of them covering three meals a day for a week, one for warm weather—whenever it may come—the other for cold weather.

They are intended for the use of busy persons who want to begin to reduce their waist measure at once, without waiting to assimilate the dietetic information gathered into this volume. This can then be done at leisure, while the "too, too solid flesh" has "begun to melt," as Brother Shakespeare would say.

If you reduce slowly—say, one pound a week—the fat is less likely to come back.

If any of the dishes on the following menus do not appeal to your taste, substitute others of the same value. The foregoing pages show what these are. If you choose wrong ones, the scales will tell at once.

I hesitated a moment to prescribe vegetable soup for breakfast because for anyone outside of France that means a startling innovation—and most people are discouragingly stubborn in their food habits. I am, however, convinced that if you will oblige me by trying my plan (as explained on p. 269) for a few weeks, you will feel so exhilarated, so delighted with your increased vitality and efficiency, that you will eat thick vegetable soup for breakfast—or make it lunch if your prefer—the rest of your life.

The soup need be made only two or three

times a week (see recipes in Appendix), for it is just as good warmed up, if not better. Remember, however, that you must not warm up the whole pot, but only as much as vou need each time. Use fireless cooker for convenience.

Use fresh vegetables whenever possible, or the dehydrated. Canned tomatoes, corn, pod beans (stringless), okra, asparagus, peas, are not to be despised if you cannot get the fresh or dehydrated.

To obviate the nuisance of having scales and mathematics in the dining room, I have devised the simple plan of marking with one star (*) those dishes of which you should partake sparingly; ** means the things which you may eat somewhat more freely; while *** means eat all you please—and more: you cannot have too much in the way of mineral salts, and you need a lot of roughage to escape auto-intoxication. If you have two or three complete bowel movements a day there is perhaps no reason why you should not have meat twice a day. Not advised, however. Too much protein shortens life.

So far as individuals are concerned, these sample menus are of course more or less experimental; some persons have to cut down their food intake more heroically than others. If you find you are losing less than a pound a week you must eat less of the ** dishes and still less of the *.

Insurance tables showing what you should weigh for your age, sex, and height are in the Appendix.

Reduction of weight can be accelerated considerably by omitting one breakfast, one lunch, and one dinner each week; or by taking only two meals a day regularly.

Hunger pangs ought to please you; they mean that your fat is being gnawed at. They can be appeased (without stopping that process) by sipping a glass of water or nibbling at a cracker.

For safe, short cures see "Cures" in Index. No sugar or cream or salt, please, with fruit, berries, and cereals. Soon you will not miss them. Learn to like natural flavors. See Chapter VII.

The fruits, vegetables, and salads in these menus are interchangeable—according to what the market provides.

If you have auto-intoxication, don't forget the colon foods with each meal (Chapter XI).

In winter you may eat more of the * dishes—provided you sleep with a window open and skate, walk, or otherwise exercise outdoors.

Once a week you may have pork sausage with griddle cakes; or waffles with butter and syrup.

You may even do that in warmer weather provided you eat nothing but fruit and greens the rest of the day.

Watch the scales! They will tell whether the following menus are right for you. If not, I have just told you how you can make them so. Hitch your wagon to three stars and you will soon startle your friends by your improved appearance, health, and efficiency. All aboard for a long life and a happy one!

If your favorite cereal has been demineralized, eat bran with it, thus restoring the minerals and at the same time supplying roughage for the colon.

Concerning drinks with meals see Chapter XII. If coffee and tea keep you awake avoid them as you would opium or heroin. Lemonade (unsweetened) is by far the best drink for overweights. Cereal coffees, skim or malted milk, koumiss, etc., are O. K.; so is ginger ale.

GIRTH CONTROL

FOR WARM WEATHER

MONDAY

Breakfast

***Vegetable soup (or ***radishes, no salt) **Hot toast with

*butter 1 baked apple

(no very little cream. sugar)

Lunck

***Lettuce salad (no oil)

Cheese sandwich **Pear or *peaches

Dinner

**Chicken soup **Roast Beef **Steamed potatoes Asparagus on **toast (or stewed carrots)

*Ice cream (no cake)

TUESDAY

Breakfast

***Vegetable soup (or ***raw grated carrots) **Bran muffins and butter 2 oranges (or 1 cantaloupe)

Lunch

**Broiled fish, lean (or cold ham, lean) **Sliced cucumbers (fresh) or **tomatoes *Whole-wheat bread

Dinner

Tomato soup (clear) 2 small lamb chops *Spinach (or peas, or pod beans). cream)

WEDNESDAY

Breakfast

***Vegetable soup (or ***raw peas **Young cob corn)

**Poached egg on toast
1 small cantaloupe (or other fruit)

Lunch

***Vegetable salad *Tongue sandwich 2 figs or 3 dates

Dinner

**Bouillon (or boiled onions) **Broiled chicken (no skin) Lettuce and tomato salad *Whole-wheat bread and butter **Orange or lemon ice (not too sweet)

THURSDAY

Breakfast

***Grapefruit. or orange **Oatmeal. with

spoonfuls of bran. and whole milk

*1 poached egg

Lunch

Lima beans. anv etyle *Spinach, or carrots

***Cottage cheese and **Crackers *Rhubarb or peach or

apple pie

Dinner

Tomato soup **Beefsteak **Steamed potatoes with parsley ***Strawberries (or *shortcake, no cream)

FRIDAY

Breakfast

1 cantaloupe (no sugar or salt)

Cereal, with bran, little sugar, plenty skim milk

Lunch

***Vegetable soup (or grated raw carrots) stewed apples, peaches, or pears Tongue or egg sandwich

Dinner

**Consommé with egg poached in it *Sliced tomatoes **Fish, in season, plain or with lemon butter Pod-bean salad *Ice cream

SATURDAY

Breakfast

- ***Vegetable soup (or radishes, no salt)
- *1 egg, posched, boiled or coddled
- **2 slices toast, with butter

Lunch

- **Cantaloupe or pears *Tongue sandwich
- ***Lettuce and tomato salad (no oil)

Dinner

- **Potato or pea soup
- *Olives
- **Roast lamb ***Spinach or carrots
- ***Cantaloupe or peaches

SUNDAY

Breakfast

- **Cantaloupe, or oranges
- **Baked potato, with *butter
- 1 poached or boiled egg

Lunch

- ***Grapes, peaches, or
- plums ***Beet and pod-bean salad
- ***Broiled tomatoes **Cheese sandwich

Dinner

- **Clear broth **Chicken, any style ***Boiled onions (or
 - carrots, peas, or pod beans) **Steamed potatoes
 - 'Ice cream or
 - *Cream peppermints

FOR COLD WEATHER

MONDAY

Breakfast

***Vegetable soup (or **parsnips, fried in bacon fat or butter) 2 thin slices toast. with film of butter

Lunch

- ***Spinach with 1 poached egg **Steamed rice with
- stewed fruit
- **Cheese and crackers

Dinner

- ***Tomato soup (fresh
- or canned)
- ***Raw celery **Roast lamb
- **Steamed potato
- ***Romaine or lettuce
- salad ***Sliced oranges 1/2 grapefruit

TUESDAY

Breakfast

- ***Vegetable soup, or **baked potato
- l poached egg on **toast
- lapple or pear or **preserved blueberries

Lunch

- *1 Tongue or beef sand-
- wich ***Celery salad or plain
- celery 1 grapefruit or 2 oranges

Dinner

- ***Mutton broth **Roast chicken skin or stuffing)
- ***Boiled onions cranberry sauce
- ***Endive or lettuce salad
- ***Apple sauce, no cream and little sugar

WEDNESDAY

Breakfast

- ***Vegetable soup. or grated raw carrots *2 thin slices of broiled bacon with 1 egg (not fried)
 - l baked apple (no cream and little sugar)

Lunch

- **Spaghetti with tomato sauce
- ***Apple or pear

Dinner

- **Chicken soup
- ***Raw celery **Fish or roast beef,
- lean Vegetable salad
 - *Bread and butter *Ice cream

THURSDAY

Breakfas

***Vegetable soup, or stewed tomatoes *Corn muffins or toast and sweet but-

*2 slices bacon and 1 egg (not fried)

Lunch

**Steamed rice with stewed fruit **Squash

**Deep dish apple pie

Dinner

***Tomato soup
***Grated carrots
**Roast turkey
****Cranberry sauce (not
too sweet)

***Endive, romaine or lettuce salad **Chesse and crackers

FRIDAY

Breakfast

and *butter

1 ripe grapefruit (no sugar) 1 waffle or 3 griddle cakes with syrup

Lunch

*Potato salad

Salices toast with orange marmalade

Cottage cheese and a few crackers

Dinner

Cream of celery soup

Broiled mushrooms,
or stewed carrots

Broiled fish (in sea-

son)

***Lettuce and tomato
salad

***Sliced oranges, or an apple or pear

SATURDAY

Breakfast

Finnan haddie, or fish souffié **1 baked potato *Apples or pears

Lunch

**Plain omelette with
**Canned blueberries
or *strawberries or
*peach jam
1 grapefruit

Dinner

***Vegetable soup
***Raw celery or stewed
knob celery
**Broiled steak

*Canned corn
***Lettuce or escarole

salad
Sliced oranges (no sugar)

SUNDAY

Breakfast

**Vegetable soup, or 4 raw soaked prunes *2 slices broiled bacon **2 slices toast

Lunch

Spinach with 1 poached egg

Sliced oranges, bananas and grapefruit in their own juice: or dates or 2 figs or muts and raisins

Dinner

***Mutton, beef, or clam broth ***Raw celery or hot house radishes

**Roast or boiled chicken (no skin or dressing)

dressing)

**Vegetable salad

*2 thin slices bread

*Ice cream (no cake)

*Pumpkin or cranberry pie

DON'T FOOL YOURSELF

Remember that there must be no second helpings. Suppress the desire sternly and make up your mind to eat more slowly next time, which makes one helping equal to two, so far as pleasure is concerned, and more pleasure is what you want, not more food.

Don't fool yourself by enriching the allowed dishes with sugar or oil, or eating between meals or before retiring. That will frustrate your whole regimen.

When I had typhoid fever in a Swiss hospital the nurse one day was surprised because the thermometer I had had under my arm was unexpectedly low.

"Have you taken it out to cool it?" she asked.

"You don't suppose I would try to fool the doctor and thus injure myself?" I asked.

"Some patients do it," she answered.

CHAPTER XX

GAINING WEIGHT FOR HEALTH AND BEAUTY

IT was Oliver Herford, I believe, who said that all mankind can be divided into two groups—those who wish to grow thinner and those who wish to grow fatter.

The second group, however, constitutes a considerable minority.

It should be larger, especially among young women and men, for the reason that excessive underweight is compatible with neither health nor beauty.

The emaciated, consumptive Venus of Botticelli is an absurdity. Cupid does not favor underweight girls unless they have exceptionally beautiful faces and winsome ways. Thousands of lonely spinsters would have been happily married had they, in their 'teens and twenties, weighed twenty pounds more.

Let me cite here a paragraph from the chapter on Schopenhauer's Theory of Love in my Romantic Love and Personal Beauty (The Macmillan Co.): "A certain plumpness or fullness of flesh is the next thing considered in sexual selection; for this is an indication of health and promises a sound progeny. Excessive leanness is repulsive, and so is excessive stoutness, which is often an indication of sterility."

"A well-developed bust has a magic effect on a man," the great philosopher adds.

There's no doubt of that. Girls who have well-rounded arms wear short sleeves instinctively—prompted by Cupid; the others don't—if they are wise. And is it the thin or the plump girls that theatrical managers exhibit to lure men?

Ergo, put fat or flesh under your skin, willowy young lady! Don't try to look like the lean and lank caricatures in the awful fashion plates. Men laugh or shudder at those. They never laugh at a plump girl, even if she overdoes it a little. If she is wise, she will not overdo but read my chapters on how to reduce the moment she crosses the divide. A stitch in time saves nine.

PIGS TEACH US NOTHING

At first thought, it seems that nothing could be easier than to put on the extra flesh required for beauty and health.

What does a farmer do when he wants to fatten a pig?

He gives it plenty of fattening foods—potatoes, corn and other cereals—and no exercise at all, and day by day in every way his hogs grow fatter and fatter.

But if a human underweight tries this simple method the chances are ten to one he or she will fail. Why?

Because human underweights, as a rule, are not so healthy as the farmer's animals. And if they are not healthy, an abundance of fattening food will not agree with them. Stomachs will balk, and indigestion result. The food cannot be assimilated and the undesirable thinness is actually aggravated.

Thus we can easily explain the paradoxical statement (which has puzzled many writers on this subject) that "often the thinnest man eats the most."

He wouldn't be so thin if he ate less and gave his stomach and intestines a chance to digest and assimilate what he does eat.

A few extreme cases will show how emaciation results from ill health. Let me speak from personal experience, which is always the most reliable.

Three times in my life I have been at death's door—when I had typhoid fever, when pneumonia prostrated me, and when auto-intoxication brought me slowly to the verge of the grave.

In each case I lost from thirty to forty pounds. Nor were my health, normal appearance, and efficiency restored until I had regained what I had lost.

The insurance companies consider excessive underweights quite as undesirable risks as the heavyweights.

Some girls, it is true, are marvels of health at eighteen or twenty, though weighing under a hundred. They would be formally more beautiful, however, and more alluring to men seeking a mate, if they weighed twenty pounds more.

WHAT A FRENCH DOCTOR FOUND

Dr. M. Natier, of Paris, in his recent studies as to what conduces to longevity, came to the conclusion that to be healthy and alert in mind, one must be gaining in weight up to the age of twenty; from twenty to thirty one can be gaining in weight reasonably; but from thirty to forty the weight must be stationary, and after forty the weight should decline.

Very old persons may seem painfully emaciated and yet be in sound health—for their age.

For them to try to gain weight would be foolish and dangerous. The rules to be given in the following paragraphs for gaining weight are therefore mostly for persons under forty and for older ones who are far below their normal weight, owing to the ravages of disease.

We have seen that it would be foolish for underweights to simply reverse the rules given in the foregoing chapters for losing weight—unless they are as healthy as the farmer's pigs.

As a rule they are not. Personal experience and observation have convinced me that in more than half the cases of subnormal weight the cause is auto-intoxication, which can be easily remedied by following the directions given in Chapter XI. Read that first of all.

Doctor Christian, the well-known weight specialist, has found in thousands of cases that hyperacidity of the stomach is the immediate cause of abnormal thinness.

That being the case, young women and men

who wish to gain flesh should read Chapter X, about mineral foods which neutralize acidity; also Chapter XVII, about fruits which, seemingly acid, have an alkaline reaction in the alimentary canal.

In some cases (cancer and Graves' disease, for example), the cause of underweight is not so easily ascertained, but must be left to a reliable physician. Of course, dietetic and other measures for gaining weight are bound to be ineffective until the auto-intoxication and other diseased conditions are remedied.

DON'T HURRY; DON'T WORRY

If you will think the matter over you will find that those of your young friends of either sex who are underweight are always in a hurry. Rushing from place to place, from task to task, they do not know the meaning of the word repose.

They hurry through their meals, burn up in incessant nervous activity what little fat they have on or in their bodies, until there's little left of them but skin and bones.

This overactivity, this eternal haste, is a disease, too—a phase of weak nerves—which must be cured before the girth can be enlarged to normal size by eating fattening food.

It's a question of will power. Read the foregoing chapter on the will. If you are a young girl, let the lure of greater beauty help make you eager to gain weight; if a young man, the lure of greater efficiency, vigor, virility.

Learn to loaf, to indulge in dolce far niente, to sleep nine or ten hours, to take afternoon naps.

You cannot stop a boat at once by turning off steam. But you can slow down gradually, and once you have learned the meaning of the three R's—Rest, Relaxation, Repose—you will enjoy them tremendously.

Employ, furthermore, the mind cure—that is, your will power—in suppressing the foolish habit of worrying which keeps thousands who are in the skin-and-bones state from gaining the weight they need for beauty or health.

Physiologists have proved that worry, like other depressing mental states, actually causes poisons to accumulate in the body.

Most people worry too much. As Schopenhauer remarked, "If they haven't big things to worry about they worry about trifles."

Astronomy is the best cure for this mental vice!

It tells you that this planet is nothing but one of the minute satellites of one small sun there are three billions of suns, most of them much bigger than ours!

Our planet is a mere grain of sand in the universe and you are a mere grain of sand on this planet—or, to change the figure—a mere transient droplet in the spray of Niagara Falls; yet you mope about your puffed-up trifles of disappointments as if the fate of a world depended on them. Stop it—and gain weight!

Stop acting as if you, a miserable terrestrial microbe, were a godlike cosmic personality whose every petty ache should be set to music and proclaimed to the world by a Caruso!

The method of auto-suggestion to which the visit of Emil Coué has drawn general attention was applied years ago by Dr. Eugene Christian.¹ He showed a lady of fifty how to gain weight by swearing at her troubles!

She was thin, nervous, irritable, despondent, and thought her days were numbered. After a thorough diagnosis he promised to cure her (all other doctors had failed) if she would do exactly what he told her.

¹ See Lesson XI of his excellent book on Weight Control. New York: Corrective Eating Society.

She promised, and he said: "All right, then, here is my prescription. You must learn to say, 'Trouble, to h-ll with it.' Say this every time you think a thought or see an object that is not pleasant. Say it a thousand times a day and a thousand times at night if you are awake."

The lady was shocked. She made no reply and went home chagrined. But she could not get his advice out of her mind and presently followed it.

In three weeks she came back, weighing eight pounds more and radiating happiness.

A FUNNY PARADOX

One of the funniest paradoxes I know is that while "vegetating"—or call it loafing—is a great help for overslim persons who wish to gain weight, hard work or strenuous exercises are as important for them as for overweights who are eager to reduce.

Even more important, some professionals claim; and the reason is easy to guess. It is that underweights usually nibble at foods that are not fattening, while muscular work, gymnastic exercises, and outdoor sports, including gardening, are sure to give them a better

appetite and more power to digest and assimilate fats and sweets and cereals which do increase weight.

Therefore, my dear young underweights, read the fourth and fifth chapters of this book and find out what exercises are best for losing weight—or gaining—it's all the same, paradoxical as it may seem.

By this time it must be clear to underweights that I have not slighted them by devoting to them only one of my chapters. As a matter of fact nine of the foregoing, besides the present one—or one-half the total number, IV, V, VII, X, XI, XII, XV, XVII, XVIII—are just as important for underweights as for overweights.

JUST WHAT TO DO

And now let me tell you just what to do, and how to start, to gain weight.

First of all, read and reread the chapter on "Bran, Blueberries, and Petroleum," for the chances are ten to one that if you are under forty and very thin you are suffering from auto-intoxication; until that is cured—and usually it's as easy as falling off a log—all other measures are useless. Your house will

be a pesthouse until you get rid of the sewergas poisons.

In Chapter XI you will find instances of almost startling weight increase from simply curing habitual constipation.

Curing your colon troubles will help to put your stomach "on its feet." Next, bring into action your machine guns for attacking the acidosis which has been crippling your whole digestive tract and with it every organ in the body.

These machine guns you will find described in the most important chapter in this book—No. X, on mineral salts. These salts are the alkaline antidote to acidosis and chronic malnutrition in general.

Summing up the results of the researches of Bunge, Mendel, Osborne, McCullum, and others, Doctor Kellogg calls attention to the fact that in numerous instances of lack of vigor and efficiency, and semi-invalidism, the trouble has been traced to a deficiency of vitamins, lime, iron, and other salts in the food.

When such persons are placed on a dietary which supplies the needed mineral foods "they often make surprisingly rapid gains in weight,

strength, mental and physical vigor, and in general physical well-being; the blood corpuscles increase in number, the blood becomes richer in hemoglobin, the appetite improves and a notable physical uplift is experienced."

These are the cases that have so long puzzled and baffled the doctors—it is surprising that most of them are so slow to learn the vital importance of colon hygiene and mineral salts. (Perhaps it isn't surprising. Most people are not favorably interested in things that ruin their business.)

For all persons except doctors, prevention is better than cure. Therefore parents whose children are abnormally thin should ward off troubles later in life by giving them the benefit of the advice embodied in the ten chapters of my book just mentioned, particularly IV, X, XI, XV, XVII, XVIII, and XX.

Having strengthened his stomach through colon hygiene and cured acidosis with a diet containing plenty of mineral salts, the man or woman, boy or girl bent on gaining weight should seek to still further increase the appetite. The best way to do this is indicated in Chapter VII, on "Linked Pleasure LongDrawn-Out." Read that over and over again till you know it by heart.

Not infrequently, overthin young persons are anosmic, or nearly so, which explains their lack of appetite.

Are you anosmic? It is easy to find out. Let a friend blindfold you, then take an almond, an English walnut, a Brazil nut, and a pecan; cut each into very small pieces (so you cannot tell them apart by the feel on your tongue); then put a teaspoonful of each, in succession, into your mouth. If you cannot, on chewing each and breathing out through your nose, tell which is which, you are anosmic, and I am awfully sorry for you.

Luckily, appearances are sometimes deceptive. By slowly and consciously guiding the expired air into the olfactory chamber, you may after a while discover, to your joy, that, after all, you can tell which is the pecan, which the almond, the Brazil nut, the walnut. Then you are not anosmic, but simply need to train your olfactory nerve endings inside the nose.

In any case, every young underweight should try to indulge in the gastronomic orgies of sensual delights I have described so enthusiastically in Chapter VII. They will cause a richer flow of stronger digestive juices in all parts of your alimentary canal and soon you will be able to eat anything and as much as you please, without indigestion, and gain weight ad libitum.

THE MOST FATTENING FOODS

The Battle Creek method of gaining weight is doubtless the most effective. It is thus summed up by Doctor Kellogg:

"For two or three days make the diet consist wholly of fruits and bran. Bran may be taken in various ways, in combination with fruits, as mixed with the fruit juices, or in purees. After two or three days of this regimen, which will have the effect to increase the activity of the bowels and to change the intestinal flora, a liberal diet may be eaten and will probably be digested, for the reason that the digestive organs improve rapidly under the regimen suggested. The improved appetite renders the taking of an increased quantity of food possible. This increase should amount to 25 to 50 per cent. A person who can take 50 per cent more food daily than he actually requires should gain in weight several pounds a week."

To suggest special menus for young underweights whose digestive powers have thus been restored would surely be superfluous. While avoiding excesses which might again cripple the stomach, they may revel in dozens of kinds of cakes and in fat meats and fish and sausages and cream and mayonnaise and ripe olives and sweet potatoes and bread and avocados and whole milk and bananas and corn bread and dates and figs and prunes, and—listen to this: griddle cakes or waffles with all the butter and maple syrup or molasses they wish! Can you beat it? Is life worth living?

Looking at the sleek, fat squirrels in the woods and parks before they hide in their winter holes suggests that nothing is more fattening (for us, too) than nuts freely eaten (though carefully chewed; watch the squirrels doing it).

All nuts are fattening and—alone or with sugar—most appetizing; some (like pecans, hickory, Brazil, hazel, almonds, English walnuts) because of their large percentage of fat; others (like litchi, chestnuts, cocoanuts, peanuts) because of their carbohydrate contents (starch and sugar).

Richest in mineral contents and therefore to be specially recommended are Brazil nuts, beechnuts, butternuts, pistachios, filberts, almonds.

If you prefer the others, eat them and get your extra mineral salts from greens and vegetables and jams and jellies and preserves and raw fruits and natural sweets, such as honey and maple syrup and, particularly, chocolates, which are far preferable to candies made of cane sugar, besides being exceptionally fattening—as long as your stomach holds out.

Remember that many young girls are thin, pale, and anæmic simply because they eat too much candy and chocolates. Thus are their best friends turned into enemies. Read Chapter VII to find out how you can get more fun out of one pound of chocolate creams a week than out of seven.

CHAPTER XXI

SUMMARY

Remember That-

- -The grave doth gape thrice wider for overweights, page 7.
- -Overfeeding leads to deadly diseases, page 8.
- -Women are the greater sufferers, page 9.
- —Brain workers gain in wits what they lose in weight, page 11.
- -President Taft was made young again by losing seventy-five pounds, page 13.
- -Turkish baths reduce weight (for the moment), but not flesh, page 18.
- -Thyroid is dangerous, page 18.
- -Purgatives, rubber garments, and massage are no good, page 19.
- -Farmers, explorers, lumbermen, are never fat, page 21.
- -Fat accumulates where muscles are lazy, page 23.
- —The obesity bend and other exercises are helpful, page 24.
- —All exercise should be brisk, page 24.

- —The mind must be interested, page 26.
- -Housework does not help much, page 26.
- —The Greeks fought stoutness for military reasons, page 29.
- —Fat is body fuel, page 31.
- -Fasting helps to reduce—is it a good way? Page 32.
- -Hunger cure is an excellent remedy in obesity, page 33.
- -Single meals may be omitted, page 33.
- -Extra oxygen helps to reduce, page 34.
- -Mouth breathing is dangerous, page 35.
- —Deep breathing burns up blubber, page 37.
- —Deep breathing makes exercises for reducing more effective, page 39.
- —Swimming and outdoor sports do wonders and are good for both reducing and gaining, page 41.
- —Gardening beats even walking and climbing, page 46.
- -Morning work helps most, page 47.
- -Garden products do not fatten, page 48.
- -Gluttony is decreasing, page 52.
- —Obesity sometimes results from disease, page 55.
- —Gluttony defeats its own end and kills more than the sword, page 55.

- —Less food means more pleasure, page 55.
- -Most table pleasures come from breathing out through the nose, page 57.
- —There are only four tastes, but thousands of olfactory flavors, page 60.
- —These prevent gluttonous excesses, page 64.
- -Eating slowly is all-important, page 64.
- —Gluttony also means eating too fast, page 65.
- -Your looks, your health, your purse are helped by eating slowly, page 67.
- —Simple foods yield treasures of delight, page 69.
- -Epicures fletcherize instinctively, page 71.
- -Indifference to food is a calamity, page 71.
- —The olfactory chambers in the nose are the seat of gastronomic delights, page 75.
- —It is our hygienic duty to indulge in orgies of sensualism, page 77.
- -Overweights with flabby wills are ridiculous, page 81.
- —The will to reduce can be scared—and lured. How it is done. Page 83.
- Overeating results in 100 hours of discomfort to every hour of enjoyment, page 85.
- -Table pleasures, no longer dangerous, become the overweight's best friend, page 88.

- —Bolting food is a criminal waste of pleasure, page 90.
- -Childhood is the time to cure fast eating, page 91.
- —Absent-mindedness at table is most injurious, page 92.
- -Talking at table should be done between courses, page 93.
- —Girls who wish to get slim should not eat sweets, especially between meals, page 94.
- -No self-denial is called for if the will is trained, page 94.
- —Training the will is great fun, page 95.
- —You should enjoy the linked flavor long-drawn-out in the olfactory chamber as much as possible, page 95.
- —The old Greeks had rules for getting thin, page 96.
- —The Banting method of reducing is no longer approved, page 97.
- -Doctors disagree, page 99.
- -Verboten is no good—you must eat some fattening foods daily, page 99.
- —It is wicked and suicidal to forbid foods rich in mineral salts, like milk and potatoes, page 102.

- —Mathematics are out of place in the dining room, page 102.
- —Calories and vitamines have been dethroned, page 102.
- —Gluttony is excusable when it is a result of mineral starvation, page 106.
- —Table pleasures may become your best friend, page 107.
- —Mineral salts are the real elixir of life—and great aids to slimness, page 108.
- —This is the most important dietetic discovery ever made, page 109.
- —Astonishing miracles are performed by these minerals, page 109.
- —Blood needs iron; bones and teeth need lime, page 109.
- —Animals have instinctive knowledge of food minerals which we should acquire, page
- —In a reducing diet, minerals and bulk must not be reduced, page 116.
- —Otherwise more harm is done than good, page 116.
- —You may eat "calories" by wholesale and yet starve and lose health, page 119.
- -Vitamines also are probably a mere fad; not

- needed, at any rate, if you eat plenty of salts—not salt, page 121.
- —Drug-store salts are no good—they must come from the garden, field, and forest, page 124.
- —Table salt greatly increases your bulk and weight, page 127.
- —You may eat sweet butter, but not salt, page 130.
- -Fletcher made a fatal blunder, page 134.
- —Age is not a matter of years—to feel young is to be young, page 136.
- -You may live a strictly hygienic life and yet be deathly sick because your sewer pipes are out of order, page 138.
- -Most men and women commit suicide by auto-intoxication resulting from stagnant and incomplete bowel action, page 138.
- —A host of diseases result from constipation; a startling list, page 142.
- -Fat and slim alike are benefited, page 147.
- —Overweights are particularly liable to this, page 147.
- -X-rays have thrown a flood of light on this question, page 148.
- -Mineral oil and roughage (bran, blueberries. etc.) do wonders, page 150.

- -Agar is also helpful, page 151.
- -Drugs should be avoided. Why? Page 152.
- —A healthy colon means a healthy stomach, page 155.
- -You must not eat too little, either, page 158.
- -Alcohol is very fattening, page 160.
- -Fruit juice may take its place, page 161.
- -Milk has its uses for overweights, page 164.
- -All liquids should be eaten, page 166.
- —Lime water in milk is useless and objectionable, page 166.
- —You may drink water, or not, with your meals—just as you please, page 167.
- —Very hot or cold drinks should be avoided, page 171.
- —Seven hours only of sleep help you get fat, not thin, page 174.
- -Insomnia has many causes, page 176.
- —It can usually be cured without drugs, page 178.
- -Thinking in bed is fatal, page 183.
- -Your worst enemy is sugar, page 187.
- —You can have a gorgeous time without gorging, page 193.
- —The mania for sweets can be curbed, page 196.
- -Every human body is a sugar factory; starch becomes sugar in the liver, page 198.

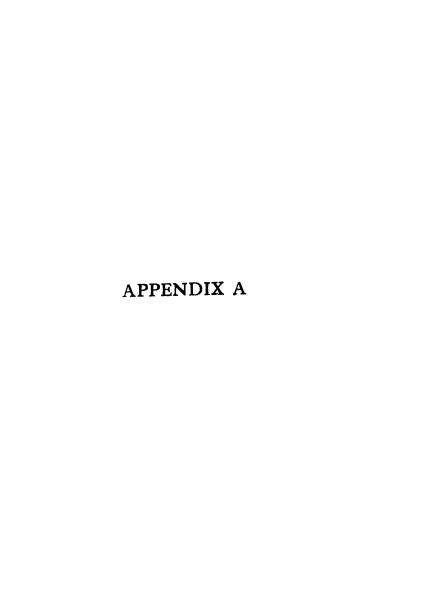
- —Animals fed on demineralized bread die sooner than if not fed at all, page 200.
- -Offsetting foods are for the rich only, page 202.
- -Whole-wheat bread reduces impulse to overeat, page 203.
- —There are objections to cereals, page 204.
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- —The enjoyment of food can be greatly increased, page 205.
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APPENDIX A

WHAT YOU SHOULD WEIGH

THE following Tables of Heights and Weights are based on the report of the Medico Actuarial Investigation, 1912, covering an analysis of 221,819 men and 136,504 women. They indicate the average heights and weights taken with shoes on and coat and vest or waist off.

It is customary in books on overweight to print these tables and let it go at that. They are useful in a general way, but they are too generous to overweights. There are so many of them that the average weight is considerably higher than it should be for perfect health. Doctor Christian has discussed this point lucidly in Lesson IV of his Weight Control. His figures for ideal as compared with average weights are rather discouraging for overweights, though he makes reasonable allowances.

Good advice is given by Prof. Irving Fisher and Dr. Eugene Lyman Fisk in their admirable book, *How To Live* (of which nearly 200,000 copies have been sold) in a table

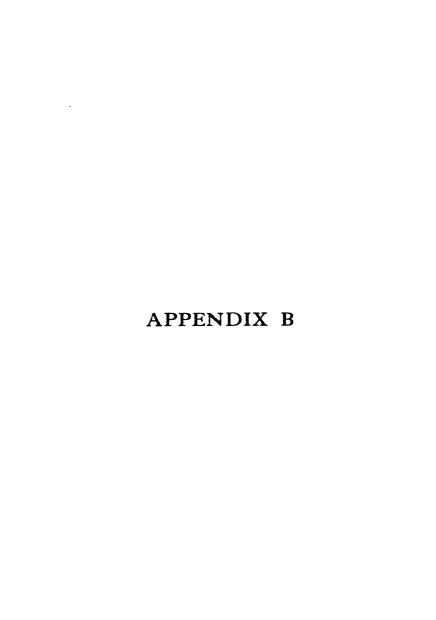
AVERAGE HEIGHTS AND WEIGHTS OF WOMEN

6 0 F. F.	152	156	158	101	163 1	167	171	176	171			6 ff.	5 in.	171	186	194	201	201	212	216	212	210
6 ft.	147	151	154	157	160	104	168	173	174			6 ft	4 in.	172	181	189	166	201	8	308	211	213
6 ft.	•											6 ff.	3 in	167	176	184	190	195	8	202	8	202
5 ft.	•															179						
•												6 ft.	ı i	157	166	173	178	182	186	188	190	191
5 ft.	134	140	143	146	150	15.	157	191	163			6 ft.	o in	152	181	167	172	176	180	182	58 1	184
5 ft.	130	136	139	142	146	150	153	156	158	7,65	MEN	5 ft.	11 in.	147	156	162	166	170	174	176	171	178
5 ft	128	132	135	138	143	146	149	152	153	5	Š	5 ft.	10 in.	142	152	157	191	165	168	170	171	173
5 ft.	122	128	131	134	138	143	145	148	148		*EIGHIS	5 (7.	9 in.	138	148	153	156	160	163	165	166	168
5 ft.	118	125	128	131	134	138	141	144	1			5 ft.	8 in.	134	144	149	152	155	158	160	161	163
5 ft.	1 2	122	124	127	130	135	138	141	141		IS AND	5 ft.	7 in.	130	140	145	148	150	153	155	156	158
5 ft.	112	119	121	124	127	132	135	138	138		EIGH	5 ft.	6 in.	126	136	141	144	146	149	151	152	153
5 ft.	100	118	119	122	125	129	132	135	135		AVEKAGE HEIGHIS	5 ft.	5 m.	122	132	137	140	142	145	147	148	149
5 ft	107	114	117	120	123	127	130	133	133	4 0 0 0 0	VEKA	5	4 in.	118	128	133	136	138	141	143	141	145
4 ;	100	112	115	118	121	125	128	131	131	•	€	5 ff.	3 in.	115	125	129	133	135	138	140	141	142
4 ft.	1 2	110	113	116	119	123	126	129	129			5 ft.	2 in.	112	122	126	130	132	135	137	138	139
4 ft	1 2	2 2	=	114	117	121	124	127	127			5. 1.	l in.	109	119	124	128	130	133	135	136	137
# .	i 2	5 5	200	112	115	119	123	125	125			5	O ii	107	117	122	128	128	131	133	134	135
	7 K	3 8	8 8	2 8	*	\$	5	2	8				Age	75	8	25	8	8	3	10	28	鋻.

inserted between pages 260 and 261: "apparently all heavyweights, regardless of type, are at a disadvantage as compared with the good lightweights. Lightweight, therefore, after full maturity, is an advantage unless it is due to some form of disease or malnutrition. 'A lean horse for a long race' is a motto justified by life-insurance experience. In early life the risk of overnutrition rather than undernutrition should be taken, but after thirty, watch your weight and keep it at the average weight for age of thirty."

That's easily remembered and the table will do the rest.

As for underweights, they will be heartened by the words of Dr. A. S. Knight, medical director of the Metropolitan Life Insurance Co.: "Underweight is hardly worthy of consideration in insurance selection after age thirty-five; and, even at the younger ages, this impairment is largely limited in significance to the taller men. . . . Except in extreme cases which are rarely met with, underweight when complicated by any other impairment is very obviously an asset rather than a detriment and needs very little attention in insurance medical selection."



APPENDIX B

RECIPES THAT MAKE VEGETABLES APPETIZING

By Mrs. Henry T. Finck

THE following recipes are intended to help overcome the abnormal craze for sweets and meats which is making people fat and shortens life for millions of women and men.

VEGETABLE SOUP

The chief ingredients for this important soup, which is recommended for breakfast or lunch daily, are carrots, celery, and onions, cut in small pieces and cooked in water till tender. It is best to use old carrots, the tougher pieces of celery, and onions with a good strong flavor. Add also a little potato.

The variations on this theme are endless. No accurate quantities can be given, as it can be mixed, like salads, to suit individual tastes.

Tomatoes, canned or fresh, suggest themselves as the first change. White turnips, mixed with the original ingredients, add a pleasant flavor. A "bouquet garni" is another change. It contains parsley, scallions, a sprig of thyme, a small piece of bay leaf, a whole clove or two, and a clove of garlic, these being tied up in a bit of muslin and removed before serving the soup. Any of these may be omitted and the quantities varied at will.

This soup may also be made with any meat stock, or even with fish stock.

Chopped raw parsley is a valuable and delicious addition to any of the combinations.

French cooks often use three or four varieties of the onion family together to give flavor—onion, leek, and garlic, for instance.

Vegex or savita in small quantities—about a teaspoonful to soup sufficient for six people—is another excellent change.

Mushroom catsup and Worcestershire sauce in *small* quantities make agreeable additions to the flavor. It is best to take the top of the Worcestershire bottle, otherwise it may be too salt.

Odd bits of gravies, or of vegetables, or water vegetables (like spinach) may have been boiled in, are valuable additions to this soup.

LETTUCE IN CREAM

(From Theodore Child's Delicate Feasting)

Take hearts of cabbage lettuce, at least one for each person, wash and blanch fifteen minutes in boiling water, in an uncovered saucepan. Drain the lettuce thoroughly in a colander after throwing cold water over it.

In a baking dish put a quarter pint of cream, small lumps of butter, and the lettuce heads. Pour on more seasoned cream, and cover all with a thin layer of crumbs. Bake one and a quarter hours in a moderate oven where it will simmer gently. Serve in the dish in which it was baked.

TOMATOES À LA CREOLE (Mrs. Cecile Le Gierse)

Cut 6 large ripe tomatoes in half crosswise. Put them in a buttered baking dish, then cover them with a dressing made with

I large onion and

2 green peppers chopped fine which have been seasoned with salt and paprika, then add some small pieces of butter and bake till tomatoes are tender. Keep them warm while making the following sauce: To I cup of rich cream add the juice from the cooked tomatoes, salt, and paprika. Make a roux of butter and flour, I tablespoon butter and I rounded tablespoonful of flour, add the cream and vegetable juice and let this boil up three times, so that it is thoroughly cooked but not oily. Pour this sauce over the tomatoes and serve at once in the dish they were baked in.

CELERY AU JUS

(Century Cook Book)

Cut heads of celery into pieces six inches long, leaving them attached to the root; remove the coarse branches.

Make a brown roux with

- 2 tablespoonfuls butter
- 2 tablespoonfuls flour
- 2 cups stock, add when the butter and flour are well browned. In this, place the celery and cook very slowly for twenty-five minutes.

Any good meat gravy can be used with the stock or instead of it.

Half a teaspoonful, or more, according to taste, of vegex or savita will add greatly to the savoriness of this dish.

CARROTS AU JUS

Young carrots, cooked like the celery au jus, are especially good. Mutton broth is best for them, and they need longer cooking than the celery. Scrape and slice the carrots and put them raw in the gravy and cook till tender. They are improved by the addition of vegex or savita.

CARROTS AU JUS WITH TOMATOES

Carrots au jus may be agreeably varied by adding an equal quantity of canned tomatoes and stewing thoroughly.

CARROTS VICHY STYLE

Steam young carrots till tender, then peel and slice. Brown the slices carefully in butter so that both sides will be delicately browned, then add sugar, about 1½ rounded tablespoonfuls to a frying-panful of carrots, and let this melt and caramel. Do not burn the carrots, either in the butter or after the sugar is added.

string beans with gravy ("Oscar" of the Waldorf)

Put cold string beans into a saucepan with a little chopped parsley and onions fried in butter, seasoning to taste, and stir over the fire about ten minutes. Then pour in sufficient stock and gravy from roast meat to moisten, and cook gently fifteen minutes. Skim out the beans, add yolks of 2 or 3 eggs to the gravy to thicken it, and pour over the beans, serving them hot.

ITALIAN VEGETABLE STEW

(Miss Thompson)

3 tablespoonfuls fat

3 medium sized onions

6 green peppers

2 cups canned tomatoes

2 teaspoonfuls salt

1 teaspoonful paprika

1/8 white pepper

1/2 package spaghetti

Fry onion in fat till slightly brown, add peppers and cook about ten minutes. Add tomatoes and seasoning and stew together until well done and rather thick.

Boil spaghetti without breaking, arrange on a platter and pour vegetable mixture over it.

SPINACH CUSTARD

I cupful spinach, chopped fine and pressed through a sieve.

2 cupsful milk2 eggsSeasoning. Bake like a custard.

SPINACH FRENCH STYLE La Cuisinière de la Campagne

After the spinach is carefully looked over and thoroughly washed, cook it with as little water as possible. Stir frequently to keep from burning. When cooked tender, chop it and press through a strainer. Put it back on a slow fire in the saucepan for fifteen minutes with a good-sized piece of butter, a little salt, a little sugar, a pinch of flour and a few grains of nutmeg—though this may be omitted. Moisten this with a little milk or cream, and simmer fifteen minutes longer. Gravy may be used instead of cream. You may garnish with fried croûtons.

Or it may be prepared with a little flour, salt, and pepper, and thickened with the yolks of two or three eggs. This is to be garnished with poached eggs, or hard boiled eggs cut in slices.

A little onion juice is sometimes added to the chopped spinach before it returns to the fire for the final cooking. Spinach should always be chopped and put through a sieve to get its finest flavor. When it is picked fresh in the garden, and cooked at once, it is good even in the old-fashioned, American way, without making it into a purée.

VEGETABLE SALADS

All steamed vegetables make good salads. Combinations suggest themselves in endless varieties. In seasoning use three parts of vinegar to one of oil. Mayonnaise is a delicious addition, but not a necessary one, to salad which has been thoroughly seasoned in this marinade. A clove of garlic, or ¼ teaspoonful of vegex, mixed with the dressing, make a pleasant change of flavor, also taragon vinegar, or the herb, or prepared mustard.

FOUR-VEGETABLE SOUP

4 large potatoes

2 medium-sized leeks

4 medium-sized carrots

1/2 pint tomatoes

2 quarts water

Simmer four hours or more, then press through a fine sieve and season with salt and butter. Do not thicken with flour, as that changes the flavor. The soup should be like a thick cream soup and water may be added to make the right consistency.

ASPARAGUS SOUP

Clean and scrape one large bunch of asparagus. Cut off the tips and cook them separately.

Cook the rest of the asparagus in three pints of water. When tender press through a sieve, leaving out nothing but the dry and tough parts of the asparagus. This should make a thin, creamy, green soup. Thicken this with an even tablespoonful of flour and just before serving add the tips, the water they were cooked in and a few tablespoonfuls of cream, just enough to cloud the soup. Heat thoroughly and serve at once.

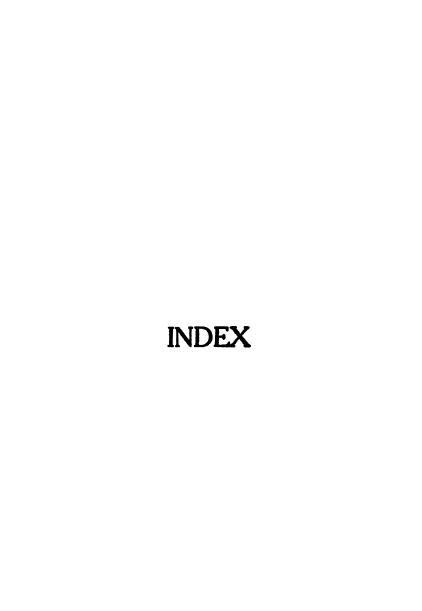
ASPARAGUS

Use cold with a French dressing.

Or hot with Hollandaise or cream sauce.

Or on buttered toast, moistened with the water the asparagus was cooked in. In this case the asparagus should be cut into pieces a half inch in length.

This water should be saved and added to soup, as should any water used for boiling vegetables.



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THE END.

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