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TAKING IT ON HIGH

TAKING IT ON HIGH

Body-Strength and Brain-Power

By

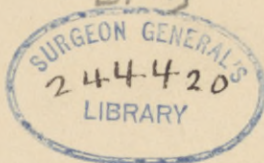
R. R. DANIELS and BERTRAND LYON

With Program of Daily Exercises,
by Doctor William B. Newhall, and a Series of Menus
and Recipes, by Mrs. R. R. Daniels



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FOREWORD

This book is dedicated to the man who wants to do *more*, do it *better*, and do it *easily*.

It shows such a man how to keep his physical machine tuned up to the highest working capacity, and it shows him how to use his powers to the best possible advantage.

It recognizes the fact that no man attains his greatest success without a sound body and a keen brain; that both are absolutely essential to well-balanced efficiency.

It avoids the countless fads and fancies and impractical theories which the average man encounters when he seeks a way to increase his physical energy and his brain power.

It offers sane, concise, practical working methods.

It appeals to all who are ambitious "to take it on high," to all who would learn how to do big things in a big way, *easily*.

THE AUTHORS.

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TAKING IT ON HIGH

CHAPTER I

THE MACHINE AND THE DRIVER

JONES sat on the porch of his comfortable home in a modern American city and watched the hundreds of automobiles as they whirled by. Though he was well-to-do, he had never owned or driven a car. He made up his mind to join the ranks of those who ride.

A week later, Jones might have been seen seated at the wheel of his newly-purchased car on a quiet street near his home, with a competent-looking individual, clad in overalls, seated beside him. Jones was learning to drive.

"You have to keep your wits about you," said the instructor, "and you have to think of several things at once. Give her more gas—look out there!" and the instructor grabbed the wheel just in time to head off a collision with the curb. After a strenuous half-hour, Jones' brain was seething with a mixture of ideas

about when to shove in the clutch, where "low" was located, how to signal for a turn, rules of the road, traffic cops, etc. He had discovered that the driving of an automobile involves some very definite principles of mental efficiency.

After a few busy days his instructor pronounced him competent, so he took his driver's examination and passed with flying colors. The next Sunday he loaded his family into the car and set out on a long country trip. The machine boomed ahead in great shape. All of the things one has to do in managing an automobile had become as habits with Jones; he found that he could even talk to his wife and miss a telegraph pole at the same time.

Suddenly, in the midst of a stretch of sandy road, strange noises were heard within the recesses of Jones' car. It sputtered, gasped and died. We need not recount here the painful details of the next half-hour. Jones shoved the starter button, he shoved the clutch pedal, he even shoved the brakes. He peered anxiously under the hood. The engine was still there and appeared in good health; but the car was a fixture. Some time later, Jones was towed into the garage where he told his

troubles to a competent-looking person in overalls. That individual poked around the machine for a few minutes, announced that the carburetor was out of adjustment, gave a turn or two to a screw or two, stepped on the starter button and away went the car.

From all of which, Jones had learned a lesson, useful even to you and me. Driving an automobile is in the first instance a mental operation, and, to achieve it, the mind of the driver must be working efficiently. He must know what buttons to press, and how to push a pedal and work a lever coordinately, not forgetting, meanwhile, to steer. But the best driver in the world can't drive an automobile that is out of order or out of adjustment. Not only must the driver's mental processes be working efficiently, *but also the machine itself which he is to drive must be physically right.*

The human body and the human mind, which taken together make the man, may be likened unto the automobile and its driver. We are hearing much these days about mind culture and mental efficiency. These are good; they are indispensable; but they will not achieve success unless they operate in a body

machine that is in correct adjustment. Mental efficiency can be built up only on a solid physical foundation.

It is a fact not commonly appreciated that the brain, in which the mind and all its processes have their seat, is a *part of the body*. The brain produces thought, but the brain is a physical thing, most intimately connected and closely tied up with every part of the physical body. That body nourishes and sustains it; and the brain processes are absolutely limited by bodily condition. You can't get your brain right, nor your thought processes efficient, nor your mental life on high levels in a body that is out of order, or functioning badly. The brain worker must build upon his body as a foundation, and this foundation must be solid. This is what Elbert Hubbard meant when he said, "The first requisite is to be a good animal."

Your body is a machine; a wonderful machine; wonderful beyond comparison even with the finest automobile, but like the finest automobile, all the parts are nicely adjusted to act in unity. The more we study the human body, through the use of modern methods and of instruments for scientific research, the more we

learn of its structure and action, the more we realize how much more nearly perfect it is than any man-made machine can ever be. The human machine is made to run in perfect adjustment, which means good health.

How are we to get this perfect adjustment, this exuberant good health with its abundance of physical animal force, and its abundance of nerve and brain power? After you have searched the world over for the "open sesame" to the kingdom of health, after you have delved through the archives of ancient wisdom and have exhausted the skill of modern specialists, you will find that there is but one answer to this all-important question. Take the right care of the physical machine. It is the only logical answer. Any plan of health building and brain building that ignores this fundamental basis is doomed to failure.

The most important concern of your life is so to order the program of your physical routine that the physical machine is kept in proper adjustment. Your personal problem is to learn how to take care of your machine, how to keep it running smoothly and easily, how to take care of it so that every part will be able to per-

form its normal work in a normal way. Usually neglected by the average person, this must become a main concern if you are going to get the most out of the machine you drive; if you are going to keep it out of the junk heap; if you are going to send it over the hills easily; if you are going to use your mental and physical powers to the best advantage.

We are living in a strenuous time and in a country where things move with speed. It may be questioned whether the present-day, high-tension, "do it now" life of America is in all ways most wholesome; but it isn't in our power to change it. To "take it on high" seems necessary for the typical American of to-day. We hope in the pages to follow to give our readers some pertinent information as to how to "take it on high," and do it easily.

CHAPTER II

THE PHYSICAL MACHINE

THE other day I dropped into an automobile sales room. There I saw the latest model of one of the best automobiles made; the last word in automotive engineering. The machine was built on long straight lines and, though heavy, was constructed to utilize to the last unit the power generated by the motor. The salesman started the engine. How quietly and evenly the motor generated the energy which, when carried to the drive-wheels, would take the car and its passengers easily over the highest hills. As I stood there listening to the purr of the powerful motor I couldn't help thinking, "Marvelous as it is, it can not compare with the human machine." Yet in many ways the two are similar.

As the salesman explained the construction and the operation of the various parts of this wonderful piece of mechanism I was surprised to learn how much there really is to know about

the automobile; how much brain work has actually gone into its construction. And I thought to myself, "How much this salesman knows about this machine he is selling; I wonder if he and the other salesmen standing about know half as much about their own bodies." As I looked the men over carefully, I noticed one who was overweight, another, underweight; one had a suspicious puffiness under his eyes, another had an eruption on his face, and still another had a slight rheumatic limp. When I observed some evidence of disease in almost every salesman, I was sure that not a single man knew as much about his own complex physical machine as he did about the automobile he was selling. The salesman explained the improved carburetor in which the gasoline is vaporized, then mixed with just the right proportion of air at the right temperature, soon to be carried on to the cylinders where it is compressed and burned to furnish the power. The human stomach is not unlike the carburetor, or at least that part of the carburetor which first handles the gasoline and prepares it for combustion. The carburetor is at its best when it is not flooded with gasoline; similarly,

the human stomach does its best work when it is not overloaded with food. Too much gasoline in the carburetor, the salesman told me, results in too rich a mixture, which cuts down the power and damages the motor. I could have told him that in the same way too much food in the stomach impedes digestion and prevents the normal amount of digested food from going to the tissues. It is easy to get too rich a mixture in the human stomach. Weakness and lack of endurance are the results.

The prospective customer standing near asked the salesman how many miles the machine would run for each gallon of gasoline. The salesman said, "With the carburetor carefully adjusted so that there is no waste of fuel, you can usually get nine miles to the gallon. But of course if the carburetor is 'off,' and takes too much gasoline, you will have considerably less power and you won't go nearly so far to each gallon. And, too, if you have too rich a mixture, your spark plugs get dirty, the cylinders choked with carbon, and the machine will run badly."

This brought to my mind a man who had called at my office the day before, weak and

run down, suffering from auto-intoxication, his urine filled with indican and uric acid. He was stuffing in three big meals a day in an effort to get strong. I cut his heavy food allowance in two, arranged his diet so that what he ate would not poison him, so that the big load would be taken off his stomach and his digestion built up.

Our lungs correspond to the air side of the carburetor; they furnish air for the human machine. And the blood, as it carries oxygen and food materials in its vital stream to all the tissues of the body, is not unlike the stream of mixed air and vaporized gasoline going out from the carburetor through the manifold into the cylinders. In the next chapter we show how the tissues take oxygen and food materials from the blood and burn them, just as the air and gasoline are sucked into the cylinders of the motor, there to be compressed and burned. The same process is taking place in our bodies as in the automobile cylinders; heat and energy are produced and the waste product is the same in both cases—carbon dioxide.

As I was further examining this beautiful machine, I overheard the salesman explaining

the matter of ignition to a man who evidently knew very little about automobiles. The salesman told him how the electric current travels from the battery, out over the wires to the cylinders; and how, just at the right time, as the mixture reaches its maximum compression, the current jumps from one side of the spark plug to the other, and produces the spark which ignites the mixture. Then comes the explosion which generates the power. How important this little spark! In the same way, how important the nerve impulses flashing from the millions of little spinal batteries out across the multitude of tiny nerve fibers to the muscle cells; and there, quicker than thought itself, causing the combustion of food materials to generate energy to raise your arm, or your leg, to contract the walls of your stomach, to digest your food; energy that, without any effort on your part, produces, night and day, the regular pulsations of the heart upon which life itself depends. No man-made storage battery and intricate electrical wiring can compare with the human nervous system.

The muscles of the body correspond to the cylinders of the car. Here the food is burned

and the power generated. And this brings up one difference between the automobile and the human machine. In the latter food is burned also in the brain cells, where it generates brain energy, the most important energy of all. In speaking of the ignition, we mentioned that a little spark jumped from one side of the spark plug to the other at just a certain time. In fact, the timing device on the automobile regulates the many thousand explosions the minute so that each explosion comes at the right time to add its maximum of power toward turning the drive shaft that runs the machine. In the human body we have the cerebellum which coordinates the muscular movements. All impulses passing to the muscles are regulated by this portion of the brain in such a way that the several thousand muscle fibers which enable you to move an arm or leg, or to breathe, or your heart to pulsate, contract in rhythm so that the movement is smooth and effective. The child, as it totters about learning to walk, is educating his cerebellum to the proper coordination of muscular movement.

The exhaust pipe from the motor corresponds to the kidneys, skin and bowels, the or-

gans of elimination. This spring, as the weather warmed up, my car developed a real attack of spring fever. I had trouble in getting it started in the morning. It wouldn't take even the lowest of hills without considerable effort. The engine "died" while running slowly and was lazy about picking up speed. Finally, when the mechanic looked it over he said, "Your outlet valves are badly choked with carbon. In fact, two or three of them are standing open. The rich mixture you have been carrying all winter is too heavy for the warm weather; the motor can't burn it and the carbon is deposited in the outlet valves. You will have to have these valves cleaned up and the carbon burned out of the motor." And I thought of the man who continues his winter diet over into warm weather; who overworks his kidneys and his liver, and has constipation and sluggish skin action; all as a result of too much heavy food in warm weather.

Nature has equipped our human machine with a radiator. When the body motor, the muscles, are working unusually hard, and an excess of heat is generated, this surplus heat is carried by the blood to the skin, just as in the

cooling system of the automobile the heat is carried by the water to the radiator. In both instances the heat is dispelled into the air; the blood and the water are cooled, and the muscles and the cylinders are thereby kept cool. In the body cooling system, when an excessive amount of heat is generated from within, the tiny blood-vessels of the skin dilate, that the blood may flow to the outside of the body in larger quantities to give up its heat to the surrounding air. Futhermore, when the inside heat becomes excessive, this cooling of the blood is accelerated by means of the perspiration. When necessary, the mouths of the millions of tiny pores in the skin open and flood the skin with perspiration. As this evaporates the skin is cooled much more rapidly. This body radiator is under the control of the involuntary nervous system; it works automatically and at all times to meet the needs of the body.

The salesman waited till the last to tell us the most disagreeable part—the price. But he took out some of the sting by explaining that this price entitled the purchaser to a regular monthly examination of the machine for one

year, and also to whatever adjustments might be found necessary. He said that the company insisted upon this examination; that some small part might get out of adjustment which, if not remedied, would ruin the motor; furthermore that, after the first year, they urged all purchasers to have their machines examined regularly each month. Then I thought, "How much more important, how much more intricate is the human machine, yet how many people think of having it examined regularly to see that everything is in good running order?" The great number of deaths during the prime of life could be lessened if the human machine were inspected even yearly. And if it were inspected monthly, enough money to build two Panama Canals could be saved every year in avoiding preventable diseases. When a man pays six thousand dollars for a high-grade automobile, he feels that five or ten dollars a month is well spent on a regular inspection, yet his body-brain machine, earning for him ten thousand dollars a year, is not worth even a regular yearly inspection.

Old Dame Nature, manufacturer of the

body machine, differs a little from the motor-car builder in her method of doing business. She delivers her machine to its owner free of charge; but if the inspections and adjustments are neglected, she presents a bigger bill at the last—and she always exacts payment.

So when you come to think it over, there is a striking similarity between the automobile and the human machine, both in construction and mode of operation. But the human machine is so much more intricately built, capable of so much greater things, that upon close study the finest automobile appears by comparison but a crude device. The body, moreover, is a self-adjusting, self-regulating machine. It can adapt itself to a wide range of temperatures and climates; to varying conditions of work and rest; and, in a measure, to either bad or good food. It learns to keep in order, as sure in the tropical jungles as in the most healthful environment. This self-adjusting feature of the body machine tends to make us abuse it, to neglect the periodical inspections to which it is entitled. And if we do neglect them, eventually we shall have to pay a price that is appalling.

CHAPTER III

YOUR FUEL AND YOUR FORCE

YOUR body is built, kept in repair and running, on what you eat. Your body really *is* what you eat; what it can do depends upon your food. If you are out for efficiency, get away from the old-time idea that you should "eat what you want." It is important that you take into the body good building material. It is doubly important that your food furnish abundance of the right fuel. Do this so that you may keep your marvelous machine running easily and at its best.

I was talking the other day with a patient, a man who builds sky-scrapers. He told me that every piece of material that enters into the construction of these wonderful buildings is thoroughly tested. The concrete, buried many feet under ground and supporting the steel framework, is made to withstand at least double the tremendous weight and strain, definitely and mathematically determined before-

hand. He told me that the steel girders, whether the massive pieces below or the lighter ones above, are made of selected material carefully manufactured to withstand much more strain than that which the engineers have computed to be probable. Even the cement in floors and in walls must come up to a certain standard of endurance. Nothing is left to chance; every bolt and rivet must carry its part of the load. There must be no weak spot.

It is far more important to build good human bodies than good sky-scrapers. And yet, how carelessly we select the materials which go into the construction of this wonderful body edifice. This carelessness prevails from the time the babe makes its entrance into the world, until disease, or premature old age, brings about the final exit. Even though during the last few years we have not been losing, as formerly, one-third of all of our babies—largely from wrong feeding—there is still room for vast improvement. If you have any doubt as to whether the older children are being fed properly, visit the lunch rooms in the neighborhood of any city school and see the pie, pastry and other flimsy building material that the

children are taking into their stomachs. Every year our government spends millions of dollars in agricultural colleges to teach methods of feeding pigs, calves and colts so that they will make good hogs, cows and horses; and it spends millions more in spreading broadcast this dollar-producing knowledge; but it doesn't spend one-tenth this amount in teaching how to feed boys and girls so that they may make strong men and women.

It is just as important for the adult as it is for the child to select carefully what is going into the structure of the body. Through life the tissues are constantly being torn down and rebuilt. The body tissues are completely renewed every seven years; we should see to it that the rebuilding material is of the best. As our muscles and bones wear out, they must be replaced, as far as possible, with muscles and bones as good as we had during youth. As the various glands and parts of the nervous system change gradually from year to year, they ought to be replaced with others just as good. Your body must be well constructed.

And now we come to the matter of fuel for this wonderful machine. Food, as fuel in the

body, has a threefold function. First, it keeps the body warm. Second, it supplies the energy required for muscular effort. Third, it generates the current of what we call brain-power, that rare vital product that distinguishes man from all other machines and all other animals. Did you ever stop to think that no man-made machine can compare with this human machine in the wonders that it performs? This marvelous mechanism takes your breakfast bacon, eggs and toast, and actually burns them in the body furnace, to keep you warm. Of course, it is true that, in these days of apartments and offices with summer temperature the year around, we do not need nearly the amount of heat we did when we lived out-of-doors, or when dwellings were not kept at blood heat during cold weather. Nevertheless, the body-heating function of food is and always will be essential.

Again, the bacon, eggs and toast that you eat for breakfast are taken by the machine and converted into muscular energy. Though in this era of machinery the average man needs far less food to keep up his muscular strength than he did years ago when everything was

done by hand or foot, yet no artificial mechanism will ever relieve him of the necessity of turning some of his body fuel into muscular energy.

The supreme function of the body furnace, however, is the conversion of the body fuel into brain energy. What a marvel it is that the body can take the bacon and toast and turn them into energy that enables you to think, plan, devise, direct and work intelligently!

There are plenty of man-made machines that convert their fuel into energy; there are plenty of plants that transform their fuel into heat; but there never was and there never will be a machine, except the human body, that will generate from its fuel brain energy—energy that will direct a business and make a success of it, that will run a government and shape the destinies of a people. Moreover, while the body may be kept warm with inferior fuel, while the muscles may function on almost any sort of diet, if you expect to have an abundance of good brain energy, you must have the right fuel. More than anything else, brain energy depends upon food. What you put into your stomach determines the output of your brain.

It is a fact that the food fuel is burned in the body almost identically as coal is burned in the fire-box under the boiler, or gasoline is burned in an automobile engine. In the furnace, the oxygen of the air is taken in through the draft. It is united with the coal, which is carbon, with the result that carbon dioxide is thrown off and heat is produced. The same is true of the gasoline engine; the right mixture of air and vaporized gasoline (gasoline is also carbon in another form) is sucked into the cylinders through the carburetor; here, the mixture is compressed, ignited by the spark and burned instantly; carbon dioxide is formed and energy, in the form of power and heat, is generated.

This is the same chemical process that takes place when food is burned in the body. The principal fuels of the body are carbonaceous foods, carbon in the same way that coal and gasoline are carbons except in a different form. The digested carbonaceous foods are taken from the blood by the tissues; likewise, the oxygen is taken from the red cells of the blood. Then the tissues effect a chemical union of the oxygen and the carbon, whereby energy is developed. In other words, the fuel is burned,

carbon dioxide, the inert waste, is formed, and heat, muscular energy or brain energy, is generated.

It seems strange that so little thought has been given to the matter of fuel for the body machine. The superintendent of a big power plant once told me that he knew just how much electric energy went out over the wires for every ton of coal that was fed under the boilers, provided, of course, that the coal was up to the standard quality. He also stated that when the coal was poor, whether it was difficult to burn or whether it contained fewer heat units, the output of power was always reduced; the power plant worked harder but generated less energy. Does any one ever stop to think that when a man's efficiency is low the fuel food is at fault? The human machine is far more susceptible to poor fuel than any man-made power plant. Yet when a man is low in efficiency we rarely stop to ask whether or not he has taken the right sort of fuel into his machine.

Our government buys thousands of tons of coal every year for the navy. Uncle Sam puts into his battle-ships the latest and most powerful engines that science and skill have pro-

duced. Carefully he selects the fuel for he takes no chance of damaging these expensive engines with inferior coal.

Colorado mines supply part of the coal for the navy. In Denver there is a testing plant where every carload of coal that is shipped to the seaports for the navy is carefully tested. The coal must be easily burnable and it must liberate a large amount of energy.

In a trial trip of one of our large battleships, the government required that the vessel should show a certain minimum speed, and the builders were to receive, in addition to the contract price, a large bonus for every mile per hour which the vessel would make in excess of this requirement. On this momentous occasion, trained pilots were directing the course of the vessel, trained engineers had the throbbing engines under control, striving to put the last ounce of power into the propellers. But down in the hold, in the boiler room, the builders of the boat were personally supervising the feeding of the fuel into the giant boilers, the fuel which was to speed the ship to the point where they would win the bonus. Every lump of coal had been inspected carefully before being put

into the bunkers; and now the stokers, stripped to the waist, their sweating bodies shining in the glare, were carefully feeding into the huge furnaces every lump of coal. In this critical moment everything depended upon the fuel.

How about the man who lives under the high pressure of modern life, striving to do his best every day, who is making every effort to "take it on high"? Does he ever stop to think that coffee and pie, fried foods and fresh bread are hard to burn, and will clog up his furnace with clinkers and cinders? Does he ever stop to think that there are many other foods to take their places that will furnish far more energy and put much more power into his machine?

There is a direct relation between your food and your health, between your food and your efficiency, between what you eat and what you do, between your fuel and your force. If you are going to be just an ordinary man, just a mediocre machine, ordinary fuel will do, but in these times of keen competition, when it is the brain energy that counts, and when it is the last ounce of power that you can crowd into your machine that really takes you over the top, your machine must have hand-picked fuel.

CHAPTER IV

KNIFE AND FORK SUICIDE

I HAD run my new car about a thousand miles, when I began to notice that on cold mornings the engine would hesitate before starting; and when it did start, it would sputter and miss and object for several minutes. It was not taking the hills as it should; the other fellows, even the little ones, were passing me on the long grades. And it got so it didn't run smoothly even on level ground; the motor frequently missed, and when I got into sandy roads it would knock and balk. From day to day I could notice a decided decrease in its power, until I began to think that the wonderful description in the beautiful catalogue was about as nearly true as the average oil stock prospectus, and that the eloquent salesman was only another bunco-man.

Finally I drove around to the agency and told my troubles. They sent the tester out with

me, a bright young fellow with a keen eye and an alert ear. I had driven him but a block when he said, "There is nothing to it; it is simply your carburetor out of adjustment; you are getting too rich a mixture." And he explained that too much gasoline in the mixture means too much fuel in the cylinders, and that this prevents the proper combustion; that, under these conditions, only a very small part of the fuel is burned. The result is that not only much of the high-priced gasoline is wasted, but on account of the small amount that is actually burned, the power is greatly decreased. He further explained that these are really minor considerations compared with the damage that results to the motor when the partly burned fuel in the form of carbon is deposited around the valves and in the cylinders. After a few minutes of turning of screws and trying out, I had a practical demonstration of the fact that the power depends entirely upon the fuel. Too much fuel is worse than too little; when too much fuel is used and not all is burned, a correspondingly small amount of power is generated. But this wasn't all. Even yet my motor didn't behave properly; it didn't sing with its

natural purr until the head was taken off and the valves and cylinders were cleaned of the carbon that had so rapidly accumulated as a result of the excess of fuel.

This experience made me think about similar troubles with the human machine. What about the body carburetor? Does the human system ever get too rich a mixture? My experience with my patients demonstrates more conclusively every year the evils of overeating. A number of years ago a keen observer said, "The American people dig their graves with their teeth." Many eminent medical authorities maintain that a good percentage of all human ills is either the direct or indirect result of what goes into the stomach. Doctor William Osler, the world-renowned physician, says, "The platter kills more than the sword." And this destruction is as great among the poor as among the rich; in the country as in the town.

An alarming fact that becomes more and more apparent to the physician who investigates the matter carefully is the important part which the popular manner of eating plays in the prevalence of disease. A majority of all the people who consult doctors are suffering

from some sort of digestive trouble—"dyspepsia is our natural ill." These digestive disturbances are due in large part to habits of eating that upset the natural rhythm of the digestive organs and hinder normal digestive process. Then, we have a large number of disorders due to defective elimination, to poisoning, usually from undigested, unused food which is retained in the system. Even the germ diseases attack more readily the large number of persons whose digestion is just a little off, whose nutrition is under par, and whose natural defenses are below the normal disease-resisting point.

Not only is much of what we commonly recognize as disease due to wrong eating, but much of the inefficiency, which is, in reality, a form of disease, is likewise due to the same bad habit. Just as too rich a mixture cuts down the power of the automobile motor, so too much food prevents digestion. In this way, over-eating, or eating foods that are hard to digest, actually reduces the amount of food which is assimilated into the blood and into the tissues. Again we insist, *this cuts down the power of the human machine*, reduces the physical energy, the nerve and brain energy, and so in-

terferes with efficiency. Not only does overeating reduce the fuel supply to your brain and to your muscles, but, what is more harmful, too much food results in food poisoning. *Food poisoning is one of the greatest ills of the human race!*

Furthermore, bad dietetic habits decrease your physical and mental working power by overtaxing your nerve force. Overeating converts the human machine into what the engineer calls an engine of low efficiency. It is a fact that nerve energy is required to carry on digestion, to prepare our foods for use by the body. That is why you often get sleepy after a full meal; why you feel logy on Monday morning after the big Sunday dinner. Every particle of food you eat in excess of what you actually need taxes your nervous system to a certain degree, and robs you of nerve force that you might be using in your business or profession.

The other morning in the operating-room of one of our busy hospitals, while we were waiting for the patient to go under the anesthetic, the conversation turned to the matter of breakfast. The surgeon, who is one of the

busiest men as well as one of the most skilful in the West, said, "I have eight operations to do this morning, and I took the breakfast that I always do when I have an extra heavy day before me, a glass of malted milk." A well-known lyceum lecturer told me that he never ate heartily within several hours before going on the platform. He said, "On an empty stomach I can thrill my audience easily; I can carry them to the heights; but on a full stomach I lose my grip on my listeners." One of the brightest men I ever met, considered the best salesman of a large sales force of one of our great corporations, told me that whenever he had an unusually big order to land he always ate little the preceding day, and a light breakfast on the same day; that the added nerve force helped him "to land the big ones" where other men often failed.

The first locomotive ever built could generate only enough power to move itself. Do you know any men like that? The first aeroplanes could not lift themselves off the ground, to say nothing of carrying passengers or freight. Likewise, the early automobile had hardly more than enough power to overcome its own

inertia. Inefficient machines, all of them, our engineers would say, and still, to-day, how many men are there—and women, too—who are failures because so much of their nerve force is consumed in digesting surplus food? Are you one of those who can do but little more than push a knife and fork?

You remember the mechanic told us that too rich a mixture, too much fuel, actually damages the motor by causing a deposit of unburned fuel, carbon, in various parts. In the same way, too much food not only cuts down the power of the human machine, as we have shown, but it injures the machinery by causing an accumulation of waste material. Too much food, or food that is hard to digest, brings about food poisoning—not food poisoning as we usually think of it, due to taking foods that are spoiled before they are eaten, but food poisoning from *foods that spoil after they are eaten*.

If you were to place on your tongue a piece of potassium cyanide the size of a pea you would be dead in fifteen seconds. This is what we mean by death by poisoning. A poison is any substance which, by affecting the blood

or the tissues of the body, may produce death or serious bodily harm. Another poison, which acts in a different way from potassium cyanide, is strychnine. In sufficient quantities, strychnine produces death by paralyzing the nerve centers which control the vital functions. Still another poison acting in a different way is phosphorus. Phosphorus causes disintegration of the muscles and bones, and degeneration of the vital organs, including the heart, liver and kidneys.

The food poisons that we are going to describe are poisons no less truly than potassium cyanide, strychnine and phosphorus; they exert a harmful influence upon the body; the only difference is a difference of degree and speed in their action. Compared with cyanide or strychnine, the food poisons are but little known; nevertheless, they do a million times more injury to the human race than do the poisons that kill so speedily. There is more than one way to commit suicide.

We all know that food is prepared for use in the body by a process we call digestion; that in this process the food is changed chemically to other substances which can be readily taken

into the blood and carried to every tissue. This chemical change in the food during digestion is accomplished by means of the digestive fluids manufactured by the digestive glands and poured into the stomach and intestine. These digestive fluids not only digest the food, but they prevent putrefaction and decomposition while digestion is going on. In this connection, let us remember that the stomach and intestine are warm and moist, and that without the antiseptic effect of the digestive juices the food would sour and rot, just as it does *outside* of the body if kept in a warm moist place.

Digestion is the first step in the utilization of the food. When digestion fails, what happens? The food ferments and decomposes just as it would do outside of the body under similar conditions. During this rotting process chemical substances which are poisons are formed from the food; we term them food poisons. These poisons are absorbed into the blood and carried to every tissue in the body, where they work injury just as do potassium cyanide, strychnine and phosphorus, only in a less degree. Thus it is apparent that our food must

do one of two things—either it must digest and nourish us, or it must ferment and decompose and poison us. And poisoning from food is poisoning just as truly as is poisoning from any one of the familiar poisons we have named, the only difference being in degree.

What are the causes for the failure of digestion and the formation of the food poisons? The most common is overeating; taking more food than the digestive juices can protect from fermentation and putrefaction. Just here let us remember that in general there is a nice adjustment between the digestive capacity and the body requirements. As a rule, your digestive apparatus can take care of all the food you actually need and a little more—in some persons, a great deal more, but usually at least a sufficient amount. But, as soon as you begin to eat food in excess of what you need, usually only a part of it can be digested; the balance will ferment and decompose and form the food poisons that we are describing.

It is true that food requirements vary to a wide degree. Some persons need much more food than others, and the same man may need a different amount of food at different times.

If you are out-of-doors much of the time in the winter, you need more food to keep the body warm than in summer. The young person whose tissues are active needs more food than the old. Large individuals, except those whose tissues are composed chiefly of fat, need more food than small people. This statement, however, does not refer to the bloated boys with the big bay-windows out in front. Of course the man who does physical labor uses up, and really needs, considerably more food than the man who sits at his desk and does mental work. Fortunately, the general rule is that the power of digestion is nicely adjusted to these various needs of the body. But when you eat in excess of these needs, which means in excess of the amount that can be taken care of by the digestive fluids, fermentation and decomposition, that is to say, suicidal food poisoning, results.

Overeating is not the only cause of an excess of undigested food in the bowels. In fact, any factor which makes normal digestion difficult or impossible assists in the formation of the food poisons. One of the most important of these factors is the unhygienic preparation of food—bad cooking. Possibly not bad cooking

as we commonly recognize it, but bad cooking as your stomach recognizes it. For example, fried foods are difficult to digest because of the fat which is cooked into the balance of the food.

Again, indiscriminate mixing of foods tends to prevent normal digestion. Our foods should be simple; a meal should consist of only a few kinds of food. The matter of correct food combinations is very important, especially for those whose digestion is somewhat impaired. When you eat grapefruit or other acid fruit together with toast you make the digestion of the toast more difficult than if the fruit were omitted. The reason for this is that starchy foods can be digested only in an alkaline medium. An excess of acid in the meal tends to prevent the formation of such a medium, especially in those whose digestions are not vigorous. There are many other combinations of food mentioned later, which every one who wishes to have a perfect digestion and hundred per cent. bodily efficiency will do well to avoid.

Still another factor which makes normal digestion difficult and favors the formation of food poisons is imperfect mastication. Mastication has three purposes—first, to grind the

food into fine particles; second, partly to digest the starchy foods; and, third and most important, to stimulate the manufacture of all the digestive juices throughout the entire digestive tube. In this way, digestion is partly under our voluntary control, for which reason our food should be chewed thoroughly. A meal well masticated is half digested.

Let us examine the stomach and intestine and see just how our food after it is eaten may become poison. Suppose you have eaten more food than you need; for example, an unusually heavy Sunday dinner on a hot day; and then suppose you sit around most of that afternoon and evening; what happens? If this meal contained fried chicken, fried sweet potatoes, or other fried foods; if you have eaten rich sauces, puddings, pie or cake; if you have eaten much bread or potatoes and with them a salad with vinegar, or a fruit salad which prevents the easy digestion of the bread and the potatoes—if you have committed any of these dietetic errors at your Sunday meal, then only a part of this meal will be digested. The digestive fluids will take care of what they can. The fried foods, the pie and the cake, a part of the

bread, and a part of the potatoes will be passed on into the large intestine half digested. About ten or eleven o'clock in the evening this undigested food will begin to ferment and decompose just as it would do if you would put it in any warm moist place filled with bacteria. In other words, your large intestine becomes a garbage can for the food you ate and could not digest.

As the potatoes, the bread, the pie crust and the cake of your big Sunday dinner ferment, gases and a series of acids and alcohols are formed. If all of the meat that you ate was not digested, and if after you had already eaten enough of other foods, you topped off your dinner with a slice of custard pie or a dessert with eggs or gelatin in it, then these proteid foods will form poisons known as putrins which are far more poisonous than those generated from the starchy foods just mentioned. From the fats are formed the butiric or fatty acids, which are also more or less poisonous even in small amounts.

The first thing that these food poisons do is to irritate the delicate walls of the stomach and the intestines. A burning in the stomach as

well as a gnawing sensation when the stomach is empty, and the vague discomfort often present in that much less sensitive organ, the small intestine, are the direct or indirect results of the irritation arising from these food poisons. Even serious diseases like catarrh of the stomach and bowels may be brought about through the constant irritation of the mucous membrane by these food poisons.

Next these food poisons are taken up by the blood and carried to the liver, the great poison destroyer, which attempts to filter out from the general circulation all poisons from the stomach and intestines. The "sluggish liver" is simply a liver that has been overworked at the task of destroying these food poisons.

Even though that faithful servant, the liver, works hard night and day to keep these poisons out of the general blood stream, sooner or later a certain proportion of them finds its way to every part of the body, and slow suicide has begun. Let us remember that it takes only three minutes after materials enter the blood until they reach every tissue and part of the system. Once in the system, these food poisons do an untold amount of harm. They are the

cause, either directly or indirectly, of more diseases than all other factors combined. Nervousness, rheumatism, catarrh, malnutrition, and anemia are all due in large measure to food poisoning. The presence of food poisons in the system lowers our natural disease-resisting powers against man's arch enemy, the germ. With few exceptions, it is very doubtful if we should ever contract any of the germ diseases except as our disease-resisting powers become lowered through food poisoning.

This brings us to one of the worst effects of food poisoning; an effect that is not commonly recognized, namely: Inefficiency. Food poisons really clog the machine and prevent us from doing our best work. Food poisons deplete the nerve force and rob us of brain energy. *Food poisoning is responsible for more failures in life than any other single factor.* Is this matter of food poisoning merely a theory? By no means. Chemical analysis will demonstrate that these toxic products are being formed in the bodies of thousands, yes, millions of persons; that they are being carried out of the body through every possible channel of excretion. The body sewers are found loaded

with them. In the man who has food poisoning, indican is present in the urine, as well as the acids from fermenting starchy food combined with basic elements from the blood. Chemical analysis of the stools of the food-poisoned person will show that they contain all of the food poisons. In the same way, even the saliva, the sweat, and the secretions of the stomach are found to contain food poisons which the body is trying to eliminate.

While the chemist can determine positively that food poisons are being formed in the body of a person so afflicted, chemical analysis is not necessary; there are many signs of this process which are familiar to all of us. They are the coated tongue, the fetid breath, eructations of food or gas, the sour stomach, gas in the bowels, and bloating of the abdomen. All of these are caused by fermenting and decomposing food. If you have one or more of these symptoms, you have fermenting and decomposing food in the stomach and bowels, and you are being poisoned by your food.

What are the effects upon the system of these food poisons? In different persons they are widely different; their effects, like those

of drugs, are not exactly the same in any two persons. In the robust man who constantly takes more food than his body can utilize, there may be no apparent immediate effects. Just as the body may become accustomed to large doses of poisonous drugs or alcohol when taken constantly, so a person may become accustomed to quantities of food poisons. This is particularly true in those who are especially vigorous, in whom all of the organs are more than ordinarily active. It is true that many persons are so constituted that they can overeat, in fact, can for a time violate many of nature's laws with seeming impunity. The system becomes accustomed to the constant food poisoning, much in the same way that it tolerates the habitual use of morphine and other poisonous drugs.

While a person may continually generate large quantities of food poisons and destroy and eliminate them without producing any immediate apparent bad effect, nevertheless there is a constant injury attending such a process, and the seeming immunity of a certain class of robust people to the effects of food poisoning sooner or later comes to an end. The truth is

that this chronic poisoning of the system gradually wears out the vital organs, hardens the arteries, depletes the vital resistance and gets the man ready for an incurable chronic disease or for sudden death. Early death is the rule among this class of people, while among them occur nearly all of the sudden deaths.

A perfectly healthy man does not drop dead at fifty, nor is he suddenly attacked by Bright's disease or cancer, neither does he contract pneumonia and die in a few hours. Such a person has been food poisoned for probably twenty-five years preceding the apoplexy or heart failure or Bright's disease or cancer or rapidly fatal pneumonia; and on account of this food poisoning his organs have been worn out and his vital force has been depleted to the point where one of the above mentioned diseases became possible.

In the majority of persons, and always in those not particularly vigorous, food poisoning creates more or less immediate disturbance. The nature of this disturbance depends upon the person's peculiarities, upon which organ or part of his body is below normal and presents the point of least resistance. The severity of

the effects depends upon the amount of food poisons and the vulnerability of the person.

The first effect of the food poisons is upon the stomach and bowels. The habits of eating that produce food poisons are responsible for nearly all of the various disturbances of digestion. Most of the symptoms which we recognize as being due to disordered digestion are also positive indications of the manufacture in the stomach and bowels of food poisons.

Furthermore, the irritation to the stomach and intestine from the fermentative and putrefactive processes breaks down the natural disease-resisting power of these organs and makes them easy portals of entry for germs into the body. A good percentage of the germ diseases originate in the stomach and bowels. The germs are able to gain a foothold here on account of the excess food present, preceding the attacks of illness. After the growth and development of the germs, by reason of the lowered resistance of these organs, they gain access to the entire system.

After the food poisons are absorbed into the blood, they affect every part of the body. Chronic lassitude or "that tired feeling," head-

ache and bilious attacks, nervousness, catarrh, rheumatism, and gout are all due to food poisons in the blood. Both general debility and a lowered condition of the vital resistance are more frequently than otherwise the result of chronic food poisoning of the system. And just as important, these food poisons cut down your working power, especially if you are a brain worker; they are the arch enemy of effective effort.

In building the physical foundation for real efficiency, you must avoid food poisoning. The man who tries to increase his brain power and his efficiency while his physical machine is being constantly hampered with toxins generated from unused food is trying to drive his automobile up-hill with the brakes on. If you are going to "take it on high," to do your best and do it easily, avoid these various causes of food toxemia. Don't commit suicide with your knife and fork.

CHAPTER V

SELECTING AND PREPARING YOUR FUEL

THE human body, unlike the automobile, builds itself from within. Like the automobile, it operates as a motor, gaining its energy from the burning of food fuel. Food, then, serves two functions: it supplies building material for the machine itself, and it furnishes fuel to propel the machine. No factor of our daily life is more important, therefore, than wise selection and correct preparation of the food which is to serve this double function.

Most people eat what they want; they follow the old fallacy that the appetite is the best guide; that one needs the foods he likes, and, moreover, these are the ones he can digest. In this way, the average man abandons the matter of food selection to the whims of his cook and the dictates of his palate. Is it any wonder that as a nation we are unhealthy? Is it any wonder that so large a percentage of our young men was found in the hour of our

greatest need to be unfit? Is it any wonder that our death rate during the prime of life is doubling?

This brings us to one of the most important matters in connection with eating. If your automobile refused to start in the morning, if you had considerable difficulty in pulling through the sandy stretches of road,—in short, if the machine were not working well, you wouldn't expect to put it in good order by flooding the carburetor with gasoline or by forcing an additional amount of fuel into the cylinders. Rather, you would have a mechanic look it over. He would probably find that the ignition was out of order, or that there was dirt in the carburetor, or that there was carbon in the valves, or that there was some definite disorder which assuredly could not be set right by merely forcing more fuel into the cylinders. Yet, when the average person doesn't feel well, immediately he begins to eat more. He tries to force his overworked stomach to take care of still more food. He whips it up with a tonic in order to force digestion and drive more food into the muscles. It is just as irrational for the sick or run-down man to try to get strong

by eating more as it is to attempt to make the disabled automobile run by taking in more gasoline.

"How's your appetite?" inquires the ailing man's friend.

"Poor," he replies.

"Well, why don't you take some tonic to sharpen it up? You never can get well unless you eat."

This often-heard popular prescription is fundamentally wrong; it puts the cart before the horse. *An artificially stimulated appetite will cure no bodily ill.*

One of the first rules for that exuberant good health which is the basis for the better brain power is: *When you are sick, don't eat.* The advanced thinkers of the medical profession are recognizing that in many diseases this is one of the ways to a quick cure. *Again, if you are near-sick, or don't feel just right, eat lightly and continue to eat lightly until you feel better.* Ninety per cent. of our indispositions and little ills are either due to indiscretions in diet, or associated so intimately with what we eat, that cutting down the food is one of the first steps toward relief. It is essential to

keep in mind that when the body is disabled in any way or from any cause, the amount of food assimilated is at once decreased. The body forces turn their attention to curing the disease, whatever it may be; therefore, eating lightly, or eating nothing at all, under such circumstances renders nature a great assistance in bringing about the cure. Even the animals know enough to quit eating when something is wrong. *Again we say, when you feel bad, don't eat; when you are a little off, eat lightly.*

The mistake which most persons make in their diet is in eating too much heavy food. In other words, they eat too much of meat, eggs, bread, potatoes, sweets and fats; and they do not eat a sufficient amount of fruit and vegetables. One of the commonest mistaken notions about food is that there is no nourishment in fruit and vegetables, that they contain nothing except water and "roughage." As a matter of fact, they contain the valuable tissue salts and the vitamins. Without both of these, the heavy foods are almost useless; while with their assistance, the body takes the heavy foods and builds them into the tissues, later burning them up to form heat and energy. Your

diet for every day should include an abundance of fruits and vegetables. The people who make a habit of eating such foods are in far better all-the-year-round health than those who confine themselves largely to heavy foods. Nations that include in their diet large amounts of fruit and vegetables are noted for their national vigor, energy and disease-resisting power.

The quantity of food you eat is a matter of extreme importance. In the previous chapter we showed how overeating—our national intemperance—results in food poisoning, the universal ill. Food poisoning is responsible for more disease, more ill-health, more lowered efficiency, more failures, than any other factor and probably all other factors that make for disease. How much one should eat depends somewhat, of course, on the individual. No universal rule can be laid down. While it is true that the body is a machine, still, in different persons it is subjected to such varying influences that no machine-made plan of dietetics will be successful.

The idea that every man, woman and child should eat a certain number of calories for each

unit of body weight is a positive error. In those cases where such a plan seems to be beneficial, the benefit really results from the improved methods of cooking and food selection, rather than the caloric measurement feature.

Under differing conditions the actual need for food in the body varies widely. In winter, if we are outdoors several hours daily, we need much more food than during the summer to keep the body warm. The man who works hard at muscular work needs much more food than the indoor man. Many a business man has broken down his system because he persisted in subsisting on the heavy diet upon which he was raised on the farm. The harvest-hand habit of eating has robbed many a man of his chance for success in life, and landed him in physical bankruptcy at fifty-five. The large man, unless his body bulk is principally fat, needs considerably more food than the small man, although as a rule small men eat more than big men, with the result that they usually overeat. When you are working hard at brain work, exhausting your nerve force at some trying problem, your digestive capacity is lowered and you must temporarily decrease your food.

Again, when you are at your best and feeling well you can digest considerably more food than when you are "just a little off."

Nothing in the realm of a man's physical efficiency is more important than the correct determination of the quantity of food he eats. Nothing means more to him in health, in brain power, in real dollars, than the wise handling of this part of his physical program.

Why not follow my appetite? Why not let it be the guide as to the quantity of food? Why not eat when I am hungry, eat what I want, and continue to eat until I am satisfied? We are going to show later on how your appetite *may* be a safe guide as to the amount you should eat; but it is not a safe guide under all circumstances. The reason for this is that most persons have overeaten, have followed unnatural habits of eating, until their appetites have become abnormal and perverted, until their digestions are deranged, until their call to their meals is not a natural one. It would be just as logical to tell the man who has drunk whisky for twenty years that he can go ahead and drink whatever his appetite calls for, as it would be to tell the food glutton or intemper-

ate eater to go ahead and eat what he wants and whenever he wants it.

“That gnawing hunger” when the stomach is empty is not by any means a normal appetite. It is simply an evidence of digestive disturbance. Like most of the stomach symptoms of indigestion, it is relieved temporarily by taking food. This gnawing becomes more severe in ulcer of the stomach, one of the most dangerous of the stomach diseases. Similarly, any distress in the stomach, or a headache, or faintness, coming several hours after meals, even though it is relieved by eating, is not a normal sign of hunger or real need of food. On the contrary, with normal hunger *there is no distress or discomfort whatever*; the mouth is moist, the tongue is clean and pink; and there is rarely a craving for any particular food, but a desire for almost any good wholesome food. A meal eaten in response to normal hunger is followed by a sense of physical well-being that is many times more pleasureable than the satiety of the average so-called good liver.

As a general rule, two meals a day, with a light lunch at noon, are sufficient. Except for the man who does hard muscular work, the

third meal is superfluous. The average indoor man who has a cranky digestion will assimilate more food by eating twice daily than by eating three times a day, by reason of the added digestive power which the stomach will gain by having more rest. Since it is really the food you digest rather than what you eat that determines how well you are nourished, you can be better fed on two meals a day than on three, provided, of course, that you are not doing hard muscular work.

For the man who performs severe physical labor, a rather light starchy meal is necessary at noon. (See menus in Chapter XXI of this book.) If you find with sufficient trial that you do not keep to a proper weight on two meals a day, then eat a light lunch of cereals or starchy food, as indicated in our menus. But for the average indoor man, especially in the summer, a lunch of fruit, ice-cream, or a glass of malted milk, will be amply sufficient. For the man who has difficulty in keeping down his weight nothing will be quite as effective in preventing obesity as to take nothing at noon except a pint of water and a twenty-minute brisk walk. At first, the light noon

lunch may be followed by a faint feeling, but it will soon pass off, and give place to a clear head, a bright eye, and an energetic afternoon.

A light lunch at noon not only eliminates one superfluous meal, but it takes the drag out of the afternoon work. One of the largest banking institutions in New York furnishes its men a light lunch in the building without charge. This eliminates the heavy noon meal, and its sequel, the after-lunch Havana. They have found this pays; the better afternoon work more than makes up for the cost of the lunch. Many a man is only "*half there*" in the afternoon because he has overtaxed his stomach and his nervous system with a noon lunch of indigestibles. If we could have the same conviviality, recreation and good fellowship at our commercial club lunches and on other similar occasions, with one-third the amount of food, we would be better off.

In this connection, remember that what may seem to you a light meal when compared with what your neighbor eats may in reality be for you a heavy one. The high-strung, nervous man can't use up as much food as the phlegmatic person. The more highly organized we

become, the more efficient, the more capable of big things, at the same time the more susceptible the body becomes to the treatment that it receives, whether good or bad. Poor food and bad treatment do far more harm to a highly bred race horse than to a draft horse. As we develop mentally our bodies need better care. This is the price we have to pay for better brains. In the latter part of this book we go into details in the matter of food selection, telling you just what to eat at each meal.

Is it better to eat dinner at noon or at night? The body needs a certain amount of food every day. The stomach has to prepare this food for use. It is far better to take this food so as to distribute the stomach's task in preparing it as evenly as possible over the twenty-four hours. When you eat breakfast at eight o'clock and dinner at noon, with a light lunch in the evening, you are giving the stomach the greater part of its work for the twenty-four hours in about four or five. By eating dinner at night you distribute the stomach work more evenly over the twenty-four hours. More than this, you are taking your heartiest meal just before your longest rest. Experiments upon animals

have demonstrated that the stomach does its best work when the body and brain are at rest. Trying to do good work, especially brain work, on a full stomach, results in both poor digestion and poor work.

There is still another factor in favor of the dinner at night. You are busy during the day and you can more easily omit the superfluous meal at noon or go with only a very light lunch. But if you have already eaten a hearty dinner at noon, there is a great temptation to eat another dinner at night; two dinners a day often cause insomnia, and usually, poor digestion. This is particularly true of the man who is spending much of his nerve energy in really doing things. Two dinners a day mean a worn-out digestion, in fact, an early wearing out of all of the vital organs.

Next in importance to selecting your foods so as to furnish this wonderful machine with the best building material and fuel, and timing your meals so as to increase your digestion and your working power, comes the matter of the preparation of the food. The real purpose of cooking is to render our food more easily digested, more nutritious; but much of the mod-

ern cooking does just the opposite. Instead of real scientific cooking, instead of preparing our foods so as to increase their digestibility, we make the same mistake as in selecting our food; we follow the dictates of our pampered palates and the notions of our cooks.

Scientific cooking, like other things scientific, is really very simple. It is not our purpose to write a cook book, but we can give here a few simple suggestions about cooking which will increase the digestibility of the food of the average family at least fifty per cent. It is a fact that next to overeating our greatest national food waste is in our cooking. The majority of our cooks are proficient in the art of making digestion difficult. For this reason, no small part of the food goes through the body undigested. Much of the modern cooking decreases the digestion of our food and increases our doctor bills.

All foods should be cooked as simply as possible. If we were to adopt a general rule that no two classes of food, such as meats and vegetables, should be cooked together, we should go a long way toward reforming the kitchen, and relieving the trio of national ills, indiges-

tion, malnutrition and nerve depletion. Food should be seasoned after it is cooked, not during the cooking, the only exception being such seasonings as paprika, (preferable to pepper), onions and mustard, which may be put into the food at any time during cooking. Salt, however, should never be added until just at the completion of the cooking. Every housewife knows that salting meat while it is cooking makes it tough; even more important, every housewife should know that salting vegetables while they are being cooked tends to abstract the most valuable portion of the vegetable, the tissue salts. All other seasonings are to be added after cooking, not cooked into the food.

Simplicity in cooking, avoiding mixtures, rules out the pastries. Cake and pie take up stomach room and stomach strength that ought to be given to real food. Cake and pie are a waste of good food materials. The ingredients which go into these desserts are highly nutritious, but mixing them in the cooking renders the various foods indigestible. Instead of eating pie, have your flour made into hard toast, spread with the butter, and eat the fruit separately, either cooked or raw. Instead of

eating cake, again have the flour made into hard toast, spread with the butter, and eat your eggs on the toast for breakfast. Omit most of the sugar; it is not particularly good food. There are many wholesome desserts which can be made of gelatin, cream and eggs, mixed together without cooking, which in reasonable servings, will really add to the savor and to the nutritive value of the meal.

Our plan of simplicity in cooking also rules out all fried foods. It can be demonstrated that when foods of any kind are fried, the tiny envelopes that surround the cells become soaked with grease. This prevents the digestive juices from penetrating the cell and breaking up the food materials, just as effectively as oiled paper or an oiled slicker turns the rain. Many valuable foods are made indigestible by being fried. What we say about fried foods applies to all foods that are cooked in grease. When meats and potatoes or any other vegetables are cooked together, the fats always present in the meat juices render the vegetables very difficult to digest. Cook your meat by pan broiling, or by oven broiling, roasting, stewing or boiling. The only exception to this is in the

case of bacon, which may be fried; but it should always be fried over a slow fire, so the grease will not be burned.

Next to the usual wrong preparation of deserts, the popular but erroneous way of cooking vegetables causes more stomach overwork, more loss of food materials to the body than any other of the prevalent cooking mistakes. Vegetables are valuable foods, but, for the reasons already given, when fried, or boiled with meat or fats, they are rendered very difficult to digest, often indigestible. Vegetables are easiest digested when steam cooked. They may, however, be cooked by boiling until thoroughly done in as little clear water as possible. The amount of water used should be gaged so that but little is left when the cooking is completed.

Avoid water-logged vegetables; but, on the other hand, do not throw away the water in which the vegetables are cooked.

When potatoes, white or sweet, or beets, are boiled, leave the jackets on to prevent the escape of the valuable tissue salts. With other vegetables, however, these tissue salts are to be saved in the water in which they are cooked;

serve this water with the vegetables; throwing it away is like boiling coffee in a large amount of water, throwing away the water, and serving only the coffee grounds.

Following our rule regarding the mixing of foods, vegetables should not be seasoned until the cooking is completed. Then, just before they are served the seasoning is to be added; butter, cream, meat drippings or meat broths of any kind, cooking oil or olive oil may be used. In this way the vegetables are not made more difficult to digest by being cooked with the fats. Moreover, the delicate vegetable flavor is retained and, when one becomes accustomed to this method of seasoning, he will like it even better than the usual way of cooking butter, cream and meat juices into the vegetables. Bacon and cabbage, or pork and beans can be digested by almost any stomach if the vegetables and meats are cooked separately and mixed after cooking. Incidentally, the flavor is even better.

Bread is supposed to be the staff of life, but when we consider the thousands of cases of intestinal indigestion due in no small part to overeating of half-baked and hastily swallowed

bread, we are inclined to think that it would be more accurate to call bread the staff of death. All breads should be made so that they require mastication, because mastication is the first step in the digestion of this kind of food. Unchewed bread can be only partly digested; the remaining part is wasted—still worse, cumpers the intestinal tract. Bread, moreover, when soaked by the digestive juices, should disintegrate or separate into fine particles. Furthermore, bread should be baked sufficiently to rupture the starch granules; otherwise, the starch remains undigested. In the light of these facts it is easy to see why much of the bread eaten fails to be digested and simply ferments and decomposes in the bowels, filling the system with toxins.

One ounce of flour prepared in the form of a pancake represents an indigestible half-baked mass which means that much food lost to the body; and, as a result of the fermentation, more or less toxemia. One moon-sized, sour, doughy, discouraged pancake can rob a salesman of a big order. This same ounce of flour made up in a slice of hard toast will be digested easily, will furnish the body a full quota of food ma-

terial, and will not leave an undigested mass in the bowels to form poisons. Ordinary hot breads, fresh breads, and breads made with sweetening, are sinners no less than the pancake. Bake your bread thoroughly, then chew it thoroughly; and it will really deserve its time-honored title—the staff of life. In Chapter XXI of this book we are giving some bread recipes, which will enable you to make good, wholesome bread that will tax your stomach but little and nourish your muscles well.

Fruits are valuable foods. Usually they should be eaten raw. When fruits are cooked, sugar should not be cooked into them, as it toughens the fiber in the fruit and tends to make it difficult to digest. For the same reason, preserves are practically indigestible; while jellies also are not easily digested. Cooking a large amount of sugar into sour fruits does not destroy the acid; it simply covers it up so that the tongue doesn't detect it. A better plan is to add sufficient soda to the fruit as it is cooking; this neutralizes or destroys the acid. Then a moderate amount of sugar mixed with the fruit after it is cooked will make it just as

palatable and more easily digested than when cooked in the ordinary way.

A salad made of raw vegetables should be a part of every dinner the year around. In the winter the salad may be made of raw cabbage and apples and celery, if obtainable. In the summer, salad vegetables are abundant; don't neglect to get your share. Salad vegetables should be kept in a cool place and, if necessary, freshened by being placed in cold water for a few minutes before being used. A raw vegetable salad is a valuable, appetizing and attractive dish, when the vegetables have been kept and prepared in the right way. Even the cucumber, if it is not made flabby by soaking in vinegar and salt water, may be easily digested by the average stomach. Salads should be dressed with salt, paprika, olive oil and a little vinegar or lemon-juice. Mayonnaise dressing, when made correctly, is quite nourishing, especially in winter, and, to most persons, quite palatable.

We will add just a few words as to food combinations. If you want to make your digestion easy, not only should your food be cooked simply, but each meal should be com-

posed of only a few kinds of food, and these in compatible combinations. If you will avoid combining bread and potatoes with your meat, or acid fruit with your starchy vegetables and bread, your food will be digested much more easily. Of course the man with a robust stomach doesn't notice the extra tax imposed on digestion by a complicated meal, but the man with an impaired digestion must utilize his limited digestive power to the best advantage, which means that for one thing he must avoid incompatible mixtures of food.

Instead of having grapefruit or other acid fruit with your breakfast when you are also eating cereal and toast, use prunes, or figs, or pears, which contain very little acid. Instead of mixing, in the usual way, meat, potatoes and bread at the same dinner, take either the potatoes and bread, or the meat. And, when you have a potato meal, keep everything sour out of that meal; your digestion will be much better. In Chapter XXI we give menus which suggest combinations of foods that are compatible when used together.

We have discussed the matter of selecting the building material and the fuel for this won-

derful machine; the advantageous time for meals; cooking so as to make the food more nutritious; combining the food so as to form meals that are easily digested; and now, last but not least, comes the important matter of mastication. There is no question that nature intended us to use our teeth; in the natural state, most foods require considerable mastication. Man is almost the only herbivorous animal with whom mastication has become a lost art. All animals that subsist largely on grains chew their food thoroughly. Man, to the detriment of his digestion, grinds his grains artificially; while much of the balance of his food he swallows in masses just sufficiently small to avoid choking. Incidentally, pyorrhea and most of the serious teeth and gum diseases are due to failure to masticate.

One of the first important functions that thorough mastication accomplishes is the right selection of the food. People who chew their food thoroughly almost invariably avoid rich, highly seasoned dishes. You rarely see a person who chews thoroughly eat candy or pastry. He prefers plain, nutritious food. In fact, any one who will form the habit of thorough mas-

tication will soon leave off the indigestible dishes.

We all know that thorough mastication grinds the food into fine particles so that it can be easily saturated by the digestive juices. Hence, when a meal is well chewed, digestion goes on rapidly and easily. On the other hand, if you underwork your teeth, you overwork your stomach.

If your food, especially your starchy food, remains in the mouth for a sufficient length of time its digestion is partly accomplished by the action of the saliva. Most of our indigestion is starch indigestion; this can be largely avoided by keeping the food in the mouth long enough to insure an abundant outflow of saliva.

Thorough mastication also stimulates the manufacture of all of the digestive juices. When you chew your food well you set to work the nerves that control all of the digestive glands in the body. In this way, thorough mastication insures the digestion of all food. This abundant flow of the digestive juices will cure most cases of constipation.

Last but not least, chewing regulates the appetite. Rapid eating is the mother of gluttony.

On the other hand, thorough mastication brings about a normal sense of satisfaction when the stomach is comfortably filled. Chewing your food well tells you when you have had enough before you have overeaten. Thorough mastication satisfies the appetite nerves in a normal way.

Mastication is the first step toward the digestion of the food. It is the only step under our direct control. When it is carried out as nature intended, it enables us to improve the entire digestion process. It assists us to select our food; it gives us a normal sense of satisfaction when we have had really enough. A meal well chewed is half digested.

How, then, can you get a normal appetite? How can you eat all you want? First, select your food as we have indicated in the first part of this chapter; next, have it cooked right; then combine your foods as we have indicated, so as to make digestion easy; finally, practise thorough mastication. Do these things and you can eat all you want; you can be sure that you are supplying this wonderful machine rightly with building and repair material, with brain and muscle fuel.

CHAPTER VI

EVERY-DAY POISONS THAT SLOW DOWN YOUR MACHINE

WHAT would you think of a man if you saw him go around to the back of his car, take off the cap from his half-filled gasoline tank, and pour in a cup of lubricating oil or a pint of water? You would think the man was insane, would you not? And it would be next to insanity to put something into the gasoline which would make the motor miss and sputter, run badly and possibly damage the delicate mechanism. Yet every day we see people all around us putting things into their stomachs which will do far more harm to the body machine than could possibly be done by lubricating oil or water in the gasoline. And they keep it up, day after day, and year after year. The surprising part of it is that when their machine begins to miss fire, in looking for the cause they never stop to think of the every-day poisons they are taking into their systems.

What are these poisons that slow down the machine? By far the most destructive are the food poisons, or the toxins generated from unused, undigested food. Next to food poisons come those derived from coffee, tea and tobacco. Now that King Alcohol has been dethroned almost throughout the globe, we scarcely need mention alcohol and the various other poisons that are found in all alcoholic drinks. But a class of poisons that are worthy of mention are the soda fountain drinks that relieve fatigue and speed you up, only, of course, to let you down with a thud later on. The "later on" may come during the last two hours of the day, or it may come at the age of fifty, when you need every ounce of your energy, mental and physical, to reach the goal of success.

Last, but not least, of the every-day poisons are the drugs of all sorts that people get into the chronic habit of taking. Few except physicians, or those interested in the sale of drugs, realize the millions of dollars spent every year for drugs, and the millions of people who use them. Pick up any of our Sunday papers and notice the large amount of advertising space

that is devoted to extolling the virtues of various patent medicines. Somebody foots the bill. Patent-medicine ads and the fake testimonials are everywhere in evidence. Now, however, the better magazines refuse these advertisements. I wish that every chronic user of patent medicine could walk down "Patent Medicine Row," at Newport, and see the mansions that have been built by the venders of patent medicines of all sorts. These men are much like the mining and oil promoters; when one particular bait loses favor with the public, they are ready with a new one.

We shall not dwell at any length here on the subject of food poisons, as this matter was fully discussed in Chapter IV. We wish merely to remind the reader that, in general classification, the poisons generated from the decomposition of surplus food in the intestine fall in the same category with those derived from coffee, tobacco and vicious patent medicines.

On my vacation trip to the coast last year I met, in a small store in one of the tourist towns, an old patient whose family I had taken care of during the early years of my practise. At that time, the man was apparently prosperous

—a merchant with a rapidly increasing business such as often goes with rapidly growing cities. But it was understood that the man was operating on very limited capital; in fact, it was common knowledge among his intimate business associates that he was stretching his small capital out too thin, "doing business on a shoe-string," borrowing from the bank at a high rate of interest, to meet the needs of his rapidly growing business. And, as it was hinted about that he was expanding too rapidly for his capital, he became a less desirable risk at the bank and the rate of interest was increased, until all the profits of his business went to pay the excessive interest.

Soon the inevitable happened. The man failed; he lost everything, even to his beautiful home. The man consulted me a number of times about his health. He was a rather thin, wiry individual, always working on his nerve force. He led the strenuous life, and he attributed his frequent attacks of sick headaches, his nervousness and his depleted nerve energy, to the fact that he was working hard. But after going into his case the first time, I knew that he was mistaken. The man was drinking six

cups of coffee a day! He was conducting his health business just as he was conducting his commercial business. He said he must have his coffee in the morning to speed up, and he had to have it at noon to keep up the speed, and he needed it again at night to hold up for the after-dinner work at the office. He was borrowing nerve energy at one per cent. a month; and a few months before the crash came I tided him over a breakdown in his health that resulted largely from his use of coffee.

As I again shook the hand of my friend and looked into his face, I couldn't help but note that he had aged twenty years in the past ten. The prematurely gray hair, the strained facial expression, the lack of luster in his eye told me that he was still conducting his health business on the one-per-cent.-a-month-interest basis. He is still mortgaging to-morrow to speed up a little to-day. The business world has ruled him out long ago, as it generally does the one-per-cent.-a-month man. He is now simply a salesman at a very moderate salary. Two of his daughters are helping to keep the wolf from the door by teaching.

Coffee may be said to be our national drink,

Last year the consumption in the United States amounted to over a billion pounds and this consumption is increasing rapidly from year to year. For our population we consume a far greater amount of coffee than any other civilized country. In this connection it is interesting to note that nervous diseases and sudden death from apoplexy and heart failure are far more prevalent in the United States than elsewhere, and that these disorders are rapidly increasing.

Of course coffee is in no sense a food; it is a drug. It is surprising that a drug of this nature should come into universal use. We know of no drug so widely used that is capable of doing so much harm. As a drug, coffee, just like all drugs, has two effects upon the system—its direct action, and the reaction.

The effect of coffee is due largely to the caffeine which it contains, although its volatile oils also play an important part in producing coffee poisoning. The brunt of the injurious effects of caffeine is borne by the nervous system, the heart and the kidneys. Caffeine is a drug used in medicine; it is a powerful stimulant to the nervous system, both to that portion,

controlling the muscles and to that part which carries on intellectual processes.

The first effect of caffeine upon the nerve centers is to whip them into an unusual, injurious activity. Through one part of the nervous system this produces apparently greater muscular strength, often gives a sense of relief from fatigue. This overstimulation, however, always causes a tremor, or trembling of the muscles. In most persons it can be seen only upon careful examination, but occasionally it is quite apparent. The effect of caffeine upon the intellectual centers, like that of all intoxicants, is to give rise to a sense of exhilaration, but the reaction, the after effects of caffeine are nerve exhaustion, decreased muscular power, and mental depression. All these are due to the exhaustion of the nerve centers. It is a scientific law that action and reaction are always equal, but in opposite directions.

Caffeine affects the heart in much the same manner as it does the nerve centers. First, it stimulates the heart, whips it up, causing it to beat more forcibly. Then, as the effects of the drug wear off there is a corresponding heart depression; the beat becomes more feeble than

normal. Caffeine raises the blood pressure, which means that an additional strain is put upon every artery in the body. Then, as the effects wear off, the blood pressure falls even below normal.

In coffee drinkers much of the injurious effect of the caffeine must be borne by the kidneys. Caffeine causes congestion of the kidneys. In those who are unaccustomed to its use this brings about temporarily an increased amount of urine. Of course this congestion sooner or later weakens the kidneys, then the waste materials gradually accumulate in the body, and in this way the basis is laid for chronic disease of some sort, usually of a serious character. The muddy complexion of many coffee drinkers is caused by weakness of the action of the kidneys which permits quantities of waste material to remain in the system. The ultimate effect of kidney congestion is to bring about their complete degeneration, Bright's disease. As the amount of coffee consumed in the United States has increased from year to year, so there has been a corresponding increase in Bright's disease.

The pleasing aroma that welcomes the coffee

drinker to the breakfast table and gives him an appetite for his bacon and eggs is perfectly harmless as a perfume; however, the volatile oils which give the coffee this aroma when taken into the stomach are decidedly injurious. They irritate both the stomach and the bowels. In those who have a sensitive stomach this irritation is often so great that the coffee is discontinued. The combination of the caffeine and the volatile oils causes stomach acidity, especially in those of a nervous type. This effect is so frequent that the acid stomach could almost be called the coffee stomach. The irritation from these oils is sufficient to produce a laxative effect. Many coffee drinkers find an excuse for the morning cup in the fact that without it they are constipated. In those whose digestive organs are not particularly vigorous the irritation from this element of the coffee in a few years helps to bring on gastritis or catarrh of the intestine.

Just as in all abuses, the ultimate effect of coffee upon the system depends largely upon the characteristics of the person and the amount of vital force he possesses. Roughly, the coffee drinkers, as far as the effect is concerned, may

be divided into two great classes. The first of these are persons of a nervous temperament. In these, coffee affects particularly the nerve centers, causing nervousness, insomnia, nervous exhaustion, and headaches when the coffee is discontinued, and eventually, headaches at any time. In persons of this type, coffee in time may induce complete nerve exhaustion, loss of memory and blunting of the intellect. General muscular weakness and heart weakness—the coffee heart—is common among this class of coffee drinkers. The cold hands and feet are frequently due to the “coffee heart.”

The other class of the coffee drinkers belongs to the sanguine and phlegmatic temperaments, the apparently robust, hearty persons. In such persons, coffee produces no immediately apparent bad effects, but, take note, the price is paid, and all at once, instead of on the installment plan. These persons continue coffee under the delusion that it does them no harm. The fact is, that the effect of the caffeine is expended largely upon the arteries, heart and kidneys. These organs, being of low irritability, may be abused for years with little or no pain or inconvenience, until death is but a few

months off. In these persons the coffee maintains a high blood pressure, causes hardening of the arteries, and makes possible early death from apoplexy. As a result of stimulating the heart every day for years with coffee, the muscles of that organ gradually degenerate, and thus chronic coffee drinkers invite sudden death from heart failure.

In the light of these facts showing the varying influence of coffee upon different persons, it is easily to be seen how a man and his wife may drink coffee for years—the man because “it doesn’t hurt him,” the woman because her husband drinks it and he is strong, with the result that the man may drop dead at fifty with heart failure or apoplexy, while the woman may spend thirty of the best years of her life a nervous invalid.

Coffee, even the morning cup, is a one-percent. mortgage on to-morrow which you can ill afford to pay, especially when, in the long run, you will have more real nerve energy and mental vigor without it. The constant overstimulation day after day from coffee eventually robs you of your nerve force and your efficiency. Cut it out. It may be one of several

things or it may be the one thing that will keep you from taking it on high easily.

What we have said about coffee applies to a considerable extent to tea, for the reason that caffeine under the name of theine is the element which lends the tea its stimulating effect. Tea contains from one to three per cent. of caffeine, which gives it its bitter taste. This same form of caffeine is found in a number of other plants, including the cola-nut; it is also related to cocaine and theobromine, the latter being the stimulating element of cocoa. Tea differs from coffee in that it contains a large amount of tannin—from twelve to seventeen per cent.

The tea habit as we usually see it is really more injurious than the ordinary use of coffee, for the reason that the amount of caffeine in tea is so small that the tea drinker, to get sufficient stimulation, is soon induced either to make his favorite beverage stronger, or to drink more to get stimulation. In this way he soon takes into his system large amounts of tannin. Tannin is an astringent, used as such in medicine; thus its effect upon the lining of the stomach and intestines is materially to decrease the amount of the digestive secretions. Hence, tea

drinking interferes decidedly with digestion; it lowers the digestive capacity, and it is an important cause of constipation. In fact, the nervous indigestion of the tea drinker, with its accompanying constipation and flatulence, so frequently seen in women, is due almost entirely to the combined evil effects of the caffeine upon the nervous system, and of the tannin upon the organs of digestion.

Doctor Elmer H. Funk, associate in medicine at the Jefferson Medical College at Philadelphia, in one of his latest works tells us that tea used in excess affects powerfully the stability of the motor and vasomotor nerves, affects the action of the heart and the digestive functions, producing flatulent dyspepsia, tremulousness of the limbs, pallor of the face and of the balance of the surface of the body, irregular heart action and feeble pulse, nightmare and loss of appetite, headaches, nausea, vomiting, and obstinate neuralgia. To this we wish to add that for the man or woman who is already inclined to be nervous, one cup of tea a day is using tea in excess, and in such a person may produce the above results to a greater or less

degree, depending, of course, upon the vulnerability of the person.

The tobacco habit is among the most widespread and damaging of the health destroying habits. Tobacco strikes at the vital parts; it is in reality a nerve poison. It attacks insidiously the brain and the nervous system, that portion of the body which has under its control all of the vital parts of our body machine. Tobacco subtracts from the sum total of your brain energy, the most valuable of all your energies. There is not a single organ in the body of the tobacco user that is wholly exempt from its damaging influence. Remember that there is not a single instance in which tobacco has anything but injurious effects, relatively small as they may be in some cases. The man who uses tobacco without apparent harm is doing himself more permanent injury than the man who feels the bad effects of even one cigar.

Nicotine, the poisonous element of tobacco, is contained in varying amounts in different tobaccos; some Havana tobaccos contain only one per cent., while other tobaccos contain as

much as six per cent. Nicotine is a deadly poison. Two drops placed on the tongue of a small dog caused death in one minute, while a large mastiff dropped dead almost instantly when ten drops were placed on his tongue. The instant death of a canary was caused by one drop being held near its bill. It is a well-known fact that one cigar contains sufficient nicotine to kill two men. In fact the collapse, nausea, diarrhea, weakness, faintness, and lowered arterial pressure following the first cigar furnish a good example of nicotine poisoning in the man who has not developed toleration for tobacco. Tobacco is no longer, as formerly, used as a medicine. On account of its varying effects on different persons and its not infrequent poisonous action, it is considered unsafe as a remedy.

Of course we do not mean to imply that tobacco as ordinarily used has such violently poisonous effects upon men. In smoking and chewing but a fraction of the total nicotine in tobacco is actually received into the system. Our contention is that tobacco is a true poison, even though mild as ordinarily used, and the prudent man—the man who wishes to build

his physical life wisely—should not be foolish enough to load his system with any continuous poison, even though it be relatively mild in effect. Furthermore, few persons have a large enough fund of vital force that they can afford to use up even a part of this margin in an unnecessary way. When we are considering such precious resources as nerve force and vital power, who would say that he “has them to burn”?

Nicotine is rapidly absorbed by the skin and mucous membrane. It is a nerve poison; it affects the nerve centers controlling the vital organs and the intellectual centers of the brain. Through its action on the nerves of digestion, nicotine interferes decidedly with this important process, although it may increase the activity of the bowels. Nicotine affects the nervous mechanism of the heart in such a way as to increase the blood pressure in a few minutes, in extreme cases as much as twenty-five points. Thus tobacco using becomes a frequent cause for high blood pressure and arterial sclerosis. The effect of nicotine upon the brain is one of depression. Tobacco is not an intellectual stimulant, it is just the reverse; it interferes with

brain work, it cuts down mental energy and ambition.

Just as with most other poisons, the effects of tobacco are different in different persons. In some, the heart bears the brunt of the poison, in others, the digestive organs, while in most persons the entire nervous system is more or less affected. It follows from this that the persons with a highly irritable nervous system, those who are usually the easiest victims of the habit, are hurt the most. Naturally, the man whose health is below par is hurt more than the robust man. Though most persons easily form a toleration for tobacco, the nervous man, the man who is injured most by its use, usually has the greatest difficulty in becoming accustomed to it. Nevertheless, a toleration for tobacco means in reality that the nervous system is becoming deadened to its effect; it means that the body's protector, which protested vigorously at the first smoke or chew, is now permitting a genuine poison to enter the system.

Except for cigarette smoking, the use of tobacco in one form is as injurious as in another. The average tobacco user takes sufficient of the drug, in whichever form he uses it, to keep him-

self under its influence. In the chewing of tobacco the nicotine is absorbed into the system with greater ease and in larger amounts than when used in any other form. Furthermore, the tobacco chewing tends usually to interfere with digestion and thus to strike at the very fountain-head of all health.

Besides the nicotine, tobacco smoke, so chemists tell us, contains several poisonous substances. Pyridine, quinoline, hydrocyanic acid, aldehydes, ammonia, and carbon monoxide, are all found in tobacco smoke. Hydrocyanic acid is a deadly poison, while one of the aldehydes known as furfural is a constituent of the harmful fusel-oil of alcohol. Carbon monoxide is another deadly poison; it is the poisonous element of illuminating gas. It destroys the red blood corpuscles. The anemia which frequently occurs in smokers may be explained in this way. Thus, while the smoker gets, possibly, less nicotine than the man who chews, he takes into his system varying amounts of poisonous materials. About the only difference between cigar and pipe smokers is that the latter get smaller amounts of nicotine at one time, but at more frequent intervals.

Cigarette smoking is by far the most injurious manner in which tobacco is used. The cigarette smoker does not consume any more tobacco than the cigar smoker, sixty cigarettes being equivalent to about ten average cigars, but the cigarette smoker "inhales" or draws the smoke down into the bronchial tubes and thus exposes to the tobacco fumes a far greater mucous membrane surface. This means that much more of the poisons are absorbed into the system.

Again, the ease with which the cigarette is kept constantly at hand permits frequent indulgence and in this way the cigarette smoker can keep himself thoroughly under the influence of the drug. The cigarette smoker frequently resembles the morphine and opium user in the color of the skin, the state of his nutrition and elimination, and his mental and moral characteristics.

Smoking in a closed room is more injurious than smoking in the open, because the smoke is being reinhaled and a greater percentage of its poisonous elements is being absorbed.

Tobacco, then, hurts in some manner every one who uses it. Men who are below par in

their health are hurt far more than vigorous men. Men who lead indoor lives, doing sedentary and brain work, are injured much more than those who lead an outdoor life or who do muscular work. Tobacco does far more harm in the young and in the old than in the middle-aged. A small amount of tobacco in one person will do as much, if not more, harm than a large amount in another. The thin, dyspeptic office man who smokes only one cigar or a "few pipefuls" a day, and thinks it doesn't hurt him because his robust neighbor smokes ten to fifteen cigars daily, is mistaken; frequently he is hurt much more than his neighbor.

While tobacco affects different persons in different ways, in practically every tobacco user it causes some form of disordered digestion, usually associated with an excess of acid in the stomach. This hyperacidity favors the formation of gastric ulcer. As a result of failure to digest the food properly we may have weakness, lack of endurance and other evidences of malnutrition. Tobacco, through its effect on the nervous system, interferes with the proper burning of the food. Thus, tobacco is an anti-fat; it keeps the thin man thin; it does, how-

ever, take away the fat man's appetite and often prevents his eating sufficient food to increase his weight. Nevertheless, this is as harmful a way to keep down the weight as to take drugs used for that purpose.

Tobacco, by preventing the proper burning of the food, also prevents its proper elimination. Thus tobacco causes a retention in the body of waste materials which lead to auto-intoxication, with headaches, depressed state of mind, lack of energy and irritability of temper as well as nervousness, rheumatism and catarrh. In vigorous men this auto-intoxication may be manifest in no other way than by a rise in the blood pressure and premature hardening of the arteries. Tobacco is one of the most common causes of high blood pressure and arterial sclerosis. In this way many vigorous men who use large quantities of tobacco with apparent immunity are getting ready to die young, of apoplexy, or heart disease incident to hardened arteries. In considering tobacco as a common cause of that rapidly increasing disease, hardening of the arteries, it is interesting to note that in recent experiments with rabbits, arterial sclerosis was brought about by putting tobacco

water in the food, as well as by their inhaling tobacco smoke.

Years of smoking sometimes cause dimness and sometimes loss of vision, due to atrophy of the optic nerve. Similarly, from the effect of nicotine on the nerves of hearing, deafness is sometimes caused. The extensive use of tobacco—in some persons but little tobacco—may affect the heart, causing palpitation, irregular heart beat, pain and shortness of breath on exertion. This condition, known as “tobacco heart,” has been the cause of death from sudden heart failure in high altitudes. A number of persons with tobacco heart have died on trains while crossing the western mountains.

It can readily be seen that tobacco, in preventing the proper digestion and utilization of the food and the elimination of the waste, lowers greatly the natural disease-resisting power of the body. So, while the tobacco user may be unusually vigorous and stay well in spite of the habit, nevertheless, he is more susceptible to disease, and should disease become established, it is more difficult to bring about a cure. In fact, it is usually impossible to cure chronic disease in tobacco users unless the drug is dis-

continued. The first step for the tobacco user who makes up his mind to live for health, is to give up the habit. For a man to exert some care with his food, and to continue the use of tobacco, is to "strain at a gnat and swallow a camel." Tobacco, even in small quantities, will usually do more harm to the man below the health standard, than correction of food will do good. And, the less the tobacco user eats, the more nicotine will be absorbed into the system; so it is not advisable, as long as tobacco is used, to attempt to correct the universal habit of overeating. The first step toward health must be to cut off tobacco.

We have seen the harmful effect of tobacco in a physical way, but in its effect upon the brain it does far more damage than upon the other organs of the body. Tobacco is a nerve poison; it seeks out the delicate nerve centers, and the brain bears the brunt of the constant poisoning of the tobacco habitué. Tobacco, by its powerful narcotic effect, dulls the mentality, robs a man of his ambition and energy, and takes away the power to think clearly, to weigh carefully and to decide quickly. In these days of sharp competition and great requirements,

these are the essentials to success; no man, who wants or needs to do his best can afford to use even a small amount of the drug.

Many a five-thousand-dollar-a-year man is plugging along at one hundred and twenty-five dollars a month because tobacco is robbing him of his efficiency. Meylan, of Columbia University, in summing up his studies of the tobacco habit in students, says, "The use of tobacco by college students is closely associated with idleness, lack of ambition, lack of application, and low scholarship." Tobacco does its greatest harm among brain workers. The soothing, quieting effect of a narcotic drug is a delusion and a snare; while tobacco is "quieting the nerves," it is stealthily stealing away the brain power, sapping the ambition, and destroying the body and mind.

Irreparable injury is done to the kidneys, arteries and parts of the nervous system, as a result of years of tobacco using; but practically all the evil effects of the drug gradually disappear when it is discontinued. There is not an easy way to quit tobacco; like any other narcotic drug, after the habit is formed it holds its victim securely in its clutches and considerable

exertion of will power is required to break away. If the user's mind is thoroughly made up to overcome the habit, it is much easier; but the longer the drug has been used, and the larger the quantity, the harder it is to discontinue its use. The man whom tobacco injures the most finds it hardest to quit; in fact, the more the drug is injuring the victim, the harder it becomes to abandon it.

The easiest way to cure the tobacco habit is to stop short and not go back to it even in small quantities. Tapering off rarely succeeds, and in the end it is much harder than stopping short. In the same way, the surest way to remain cured is to leave it absolutely alone. The heavy smoker rarely confines himself to a small amount of tobacco for any length of time; he soon has increased to the usual amount; if he hasn't, by teasing himself with a small quantity he is put to greater inconvenience than is compensated for by the satisfaction obtained.

One of the greatest helps in curing the tobacco habit is proper food. There is no question but that the irritation to the stomach from overeating in general, as well as the irritation to the nervous system from chronic food poi-

soning, calls for the "quieting" effect of tobacco. The man who eats only plain, easily digested foods, in amounts not to exceed his real needs, has no desire for stimulants, narcotics and alcoholics. Our menus in the latter part of this book are suitable for the average man in stopping tobacco, and their use will assist greatly in overcoming the desire for the drug. The writer has seen confirmed tobacco users who, after ten days, had no difficulty in staying away from the usual smoke or chew, and in two months' time had lost entirely their desire, simply by discontinuing the use of the tobacco and following the proper diet.

Daily care of the skin hastens the elimination of the accumulated poison through the pores, and assists in overcoming the habit and in getting the body in good condition. Sweat baths and Turkish baths are also valuable. Systematic exercise, by lending a greater stability to the nervous system, is also a help in relieving the nervous symptoms. Systematic exercise strengthens the will and helps the victim to resist temptation. The chewing of gum or gentian, or lovage, is permissible, but the use of bromides, atropine, or narcotic drugs that

frequently form a part of the tobacco cures, should be avoided. The cure should be a physiologic one; the drug should be cut short, and the overburdened organs should be relieved in a normal way.

This brings us to the last but by no means the least harmful of the every-day poisons that slow down your machine—drugs. And when we say drugs we mean much of the medicine that people are in the habit of taking, from little innocent-looking digestive tablets, to the dangerous headache remedies that are responsible for many sudden deaths every year. With but few exceptions, drugs are poisons. Their effect on the body is due to the effort which the body puts forth to eliminate them. This effort is always attended by more or less harm, even in the person who takes drugs only occasionally. Too often drugs are whips; they spur on the tired organ that really needs rest. Except in emergencies, drugs, at best, usually afford only a little temporary relief, often purchased at a fearful price. Furthermore, drug taking leads the sick man away from the real cause of his disease; hence, away from a real cure.

Physicians everywhere are prescribing drugs much less than even a few years ago; it is interesting to note that almost no drugs are now being used in the treatment of pneumonia, typhoid fever and other acute diseases. In the same way, physicians everywhere are prescribing smaller amounts of drugs in the chronic diseases. It is being rapidly recognized that chronic drug taking is often a cause for chronic disease. We are all beginning to believe the great truth that it is nature that really cures, and that drugs are often likely to interfere with nature's effort to bring about the cure.

However, drug taking in the form of patent medicines is rapidly on the increase. Promiscuous drug taking in this way is most injurious for the reason that, not only are large quantities of really harmful drugs often used, but the self-diagnosis of the patent-medicine devotee often leads the victim to take drugs which are never recommended by physicians for the particular ailment from which he suffers.

The most popular patent medicines are the cathartics. It is estimated that over a third of the people of the United States use cathartics regularly. Not only is this conclusive evidence

that our habits of eating are wrong, but it is evidence that a large number of people are being led away from measures that would correct constipation and the digestive disturbances upon which it depends. Any physician will tell you that the long continued use of cathartics and laxative drugs depletes the digestion and thus strikes at the very fountain-head of health and vigor.

Probably the next most widely used class of patent medicines is that containing the stimulants and sedatives. Something to whip you up in the morning, to keep you going during the day; then, something else to quiet you down at night so that you can sleep. These drugs are usually offered for sale under the delusive names of tonics, nerve foods, nerve remedies, etc.

Of these drugs, the well-known scientist, Professor D. S. Gordon, says:

“The influence of all drugs which affect the nervous system must be in the direction of disintegration. The healthy mind stands in clear and normal relations to Nature. It feels pain as pain. It feels action as pleasure. The drug which conceals pain or gives false pleasure when pleasure does not exist, forces a lie upon

the nervous system. The drug which disposes to reverie rather than to work, which makes us feel well when we are not well, destroys the sanity of life. All stimulants, narcotics and tonics which affect the nervous system in whatever way, reduce the truthfulness of sensation, thought and action. Toward insanity all such influences lead; and their effect, slight though it be, is one of the same nature as mania. The man who would see clearly, think truthfully and act effectively, must avoid them all. Emergency aside, he can not safely force upon his nervous system even the smallest falsehood. And here lies the one great unanswerable argument for total abstinence; not abstinence from alcohol alone, but from all nerve poisons and emotional excesses."

In this connection it should be mentioned that a certain class of immensely popular patent medicines, usually advertised for their tonic properties, are compounded very largely of alcohol, and depend for whatever effect they have mainly upon alcoholic stimulation. Even in these "dry" times, alcohol by the carload is being shipped out of the patent-medicine factories, and consumed by large numbers of people, disguised as "tonics," "blood builders," "liver regulators," etc.

A fact of tremendous and alarming import brought out by the last census is that, during

the past thirty years, the number of men dying in the prime of life has doubled. This increase of deaths is due to what are known as the degenerative diseases: Bright's disease, diseases of the heart, and those incident to hardening of the arteries. Right along with this increase in deaths during the prime of life, and tremendous increase in degenerative diseases, it is shown that during the same period we have multiplied the consumption of drugs four and one-half times. For them we are now spending over half a billion dollars every year. It has further been shown that the use of drugs is an important cause of these degenerative diseases; that Bright's disease and hardening of the arteries are superinduced in no small part by the use of drugs.

This matter was considered of such importance by our government that a pamphlet in regard to it was issued by The National Bureau of Public Health, entitled *Drug Intoxication an Economic Waste, and a Menace to Public Health*. In it the dangers of drug taking, including the promiscuous and long continued use of drugs in the form of patent medicines, have been clearly pointed out. This

pamphlet goes into detail and shows that such popular drugs as calomel, headache tablets, sleep-producing remedies, and even quinine, aspirin, and the salicylates (so popular for rheumatism), each and every one is objectionable, and that each works harm to the human body in its own particular way. It is true that they produce, oftentimes, an apparently good effect, but in reality they are hostile to the human mechanism and, in the long run, the user must pay for their temporary benefits a price many times greater than such benefits are worth. The whole matter is summed up in these words: "All of the important or active medicaments, of necessity have harmful influences when taken indiscriminately, or for a continued length of time."

The very essence of the patent-medicine habit is that it consists of taking drugs "indiscriminately," and "for a continued length of time." It is for this reason that we consider patent medicines among the most injurious of the every-day poisons that slow down the machine.

CHAPTER VII

CARE OF THE SKIN AND CLOTHING

THE skin is much more than a covering for the body. It is an important organ just as the kidneys and stomach are important organs. We are all familiar with the rôle which the skin plays in protecting the body from the outside world by means of our pain and temperature senses, located in its area. But there are other far more important functions which the skin performs to which we seldom pay any attention, but which must be well discharged to keep the body at the top notch of health.

The first and most important of these functions is that of elimination. The skin is one of the great body sewers. Through its pores no small part of the waste materials of the system are eliminated. This process of elimination goes on unconsciously. In warm weather the perspiration with its load of waste materials is usually quite apparent, but in cold weather the pores of the skin are carrying out the im-

purities of the body just the same, by means of invisible perspiration. Remember that whether you are conscious of it or not, day and night, the skin is at work eliminating body waste.

In the man who has a sluggish skin the waste materials accumulate in the system and disease of some kind follows. Rheumatism, catarrh, nervousness, and general debility are frequently partly due to defective elimination. One of our great prevalent maladies, Bright's disease, and its associated disorders, can be traced in part to the sluggish skin. The skin and the kidneys do the same kind of work. When the skin fails to do its share, the kidneys are overworked, eventually they break down and the result is Bright's disease, with associated arteriosclerosis and its evil effect upon every part of the body.

On the other hand, when our skin is active the impurities are carried out of the body rapidly; thus we can avoid the various diseases, including the "catching cold" habit, that depend upon poor elimination. An active skin is not only one of the chief essentials to longevity but it is one of the big things that make for the bright eye, the clear brain, and the quick step.

How are we going to keep the skin active? The answer is simple: take good care of it. Our skin, like the rest of the body, is designed to operate automatically, provided it gets the right care.

The skin should be cleansed daily in order to keep the pores cleaned out and to keep the blood circulating vigorously. For most persons this daily treatment should be a sponge bath. In our chapter on "Tuning Up for the Day's Run," we tell you just how to take a sponge bath that requires but little time and which will keep the skin in active condition. The sponge bath should always be taken in *tepid*, not cold water. The cold plunge, or even the cold sponge bath is too great a shock for the average person. While a sense of stimulation and exhilaration may accompany cold bathing, the tepid bath accomplishes just as much permanent good, and avoids the nerve depletion that often follows continuous cold bathing.

For those who don't use the daily tepid sponge, and in cold weather for the man or woman who "feels the cold," the dry rub is recommended. (See Chapter XIX.)

The aboriginal, who from all accounts was the embodiment of perfect health, exposed his skin to the air. Our skin action and our health generally would be bettered by following as far as possible the same habit. After your morning sponge or rub-down take your morning exercise before putting on your clothes. You will soon really enjoy this air bath; moreover, it toughens the skin and assists in avoiding colds.

While you are tuning up for the day, your rub-down will rub away any grouch that you may have. In fact, there is no part of your daily care that will give you quite as much pleasure after you have formed the habit, as your morning sponge. It lends a sense of exhilaration; the day's prospects look brighter; and it adds much to one's sense of physical well-being. To begin the day clean enhances one's self-respect, adds to his courage, and increases the qualities that make for success. A few minutes spent each morning in putting your skin right will be more than compensated for in increased health, energy and real dollars.

From ancient times there comes to us a thought concerning the care of the human body

which it is a pity has been largely lost in modern days. The ancients looked upon the human body as a temple worthy to be reverently kept, carefully cleaned and set in order each day. It would be well for us if we, like the ancients, would make the daily right care of our bodies something of a religion—if we regarded it as a sacred duty to perform faithfully those hygienic rites which keep the body-temple a fit dwelling place for mind and soul.

In addition to the daily sponge bath or rub-down every one should have a hot tub bath or hot shower bath with soap "whether he needs it or not," at least three times a week in the summer and twice a week in the winter. Those who try an occasional real bath are always ready to testify as to its beneficial effects.

Of late years the shower bath has become increasingly popular, and justly so. A hot shower bath taken with plenty of soap is really more effective as a genuine cleansing process than a tub bath. Because even in the best tub bath one can not escape rinsing in a solution of his own dirt. Furthermore, by the shower-bath method we escape any risk of infection from the uncleanness or disease of a previous

user of the tub—an important point in public or hotel baths, but one which is by no means negligible even in private homes. The bathtub may or may not be strictly antiseptic; the shower bath is always clean.

After you have taken your morning sponge and rub-down, and have taken your morning exercise with the skin exposed, it is time to think of clothing. You will be feeling so good that you will be loath to burden your body with the habiliments which custom and climate dictate as necessary, but it must be done. Let us then consider the matter of clothing. The first mistake to avoid in regard to clothing is to avoid putting on too much. In other words, remember that the skin is a protector; it is an error to over-protect this protector.

This brings us to another important function of the skin, that of regulating the heat production in the body. From the cradle to the grave, day in and day out, when you are awake and when you are asleep, the tissues are constantly burning up food materials that produce heat. This food burning and heat production is under the control of the heat centers in the brain; these heat centers regulate

the heat production to meet the need of the body. This regulation in turn is maintained largely by a multitude of little nerves in the skin. When the weather turns cool suddenly, or even when you go from a warm room to a cold room, the message is flashed from the skin to the brain that more heat is needed. At once the heat centers speed up the heat production in the body and the body radiators are turned on. On the other hand, on a hot summer day when you need little or no heat, if your skin is working right, the nerve centers of the brain are apprised of the outside warmth by the nerves of the skin, and the heat production is lowered to the minimum.

In order that the skin may carry out this important function of heat regulation, keep you warm in cold weather and keep you cool in hot weather, and protect you against sudden changes, *it must not be over-clothed*. You can see that if your skin is covered so tightly that the air can't get to it the body fires are likely to lag in cold weather and to become too active in hot weather. Over-clothing the body prevents the proper heat regulation in both summer and winter. How are we going to clothe

ourselves so that our body fires may be regulated at all seasons?

Let us begin with the underwear; the right selection of your underwear has far more to do with your daily health, comfort and efficiency than most people think. In selecting our underwear, as in selecting all of our clothing, our problem is to maintain the body at its normal temperature, to prevent an undue loss of heat, but at the same time to keep the skin in active condition. Because of the varying circumstances under which different persons live, no set rule can be made covering every case.

The indoor man must, of course, dress differently from the outdoor man. One rule we should make is this: If we spend any considerable amount of time indoors, our clothing while indoors should be very little heavier in winter than it is in the summer. The reason for this is obvious. Our steam-heated houses and offices are just about as warm in winter as in summer. Consequently, there is no need in winter, while indoors, to wear clothing heavier than in summer. If we do, we shall be overclothing the body, overheating the skin surface and rendering it over-susceptible to the cold

air, with the result that we feel the cold far more easily upon going out-of-doors; we shall find it more difficult to keep warm and much easier to catch cold.

In summer we should wear the very lightest underwear—the A. B. C. of skin health in summer is the B. V. D. In winter, if we spend most of our time indoors we should wear a garment but little heavier. We should increase the weight of the outside clothing in winter even when indoors and, when going out-of-doors we can, of course, add a sufficient amount of clothing by putting on an overcoat. In this way the heavy clothing can be put on only as it is needed. Of course those who spend most of their time out-of-doors can wear heavier underclothing without being obliged to overheat the skin surface a good part of the time. At all times you should wear sufficient clothing to keep the body comfortable, but the underclothing should be comparatively light and the outside clothing heavy enough to afford ample protection.

As we pointed out above, light underwear in the winter and summer affords the skin ample ventilation—one of the essentials to

good health; it also makes it possible for the body to regulate the heat production to meet its actual needs. It is almost true to say that one can dress in cold weather so heavily that he will keep cold. Incidentally, while he is doing this there will be large amounts of waste materials and food materials accumulating in the body which ordinarily would be burned up to keep the body warm, provided, of course, that the regulator, the skin, was being cared for and clothed so as to keep the body furnaces going normally.

And here is another fact about underwear. Nature intended that our skin should be kept dry. Heavy underwear, in preventing proper ventilation, allows the skin to become moist from both the invisible and visible perspiration, especially while we are indoors. For this reason, on going out-of-doors the skin will be more or less moist, and we are more likely to feel the cold. Heavy underwear, by keeping the skin moist—especially before underwear changing time in the spring—is one of the chief causes for those spring colds that are so hard to shake off. Wearing heavy underwear while you are indoors means that the under-

wear itself becomes more or less saturated with the perspiration; then, when you go out-of-doors in cold weather your skin is covered by a soggy covering that becomes chilled very easily. In the end you are much colder than if you wore light underwear that permitted both the skin and the underwear to keep dry.

Wool is a mighty good covering for the skin of a sheep, but poorly adapted for the skin of mankind. Centuries ago, when woolen underwear for the human species came into general use, we did not know what we know now—that the sheep's skin functions physiologically in a manner totally different from that of man: sheep don't sweat; men do. Consequently, while the sheep can wear wool next to his skin without its becoming saturated with perspiration, and damp and dirty, this is just what happens when man attempts to adopt the sheep's underclothing. Woolen underwear is unhealthful for men. The wool absorbs the impurities of the body, retaining these impurities in its fiber. When we consider the large amount of impurities that are constantly going out of the skin in the invisible perspiration, it is easy to see how within a few hours after

clean woolen underwear has been put on, it is really dirty, and how, until the underwear is changed, the man's body is covered with a fabric that is literally saturated with its own secretions. As our friend Shakespeare says, "He stews in his own grease."

Loose woven undergarments, such as the mesh underwear, permit the fresh air with its life-giving oxygen to reach the skin surface, and allow the escape of the vitiated air loaded with gaseous body poisons. With this kind of underwear the skin is able to do its share of the work in carrying off the body waste. With this sort of underwear the body fires are fanned in winter and smothered in summer; the skin is kept dry, the underwear is kept dry, sudden chilling in cold weather is prevented and the "catching cold" habit is usually eliminated.

The body should be clothed evenly. In this respect women are worse offenders than men, although men frequently, by wearing in the winter short underwear and low shoes, leave their legs and ankles without sufficient protection. As a matter of fact, the ankles and the wrists are the parts of the body where the blood comes closest to the surface and, if we are to

retain as much as possible of the body heat in winter, these parts of the body should be clothed as heavily as any other part. In fact, the rule should be that the body should be clothed evenly all over. High shoes, not low, should be worn in winter; likewise, underwear with long sleeves and legs sufficiently long to be tucked down into the shoes.

No small part of our health depends upon good skin action. By keeping the skin active, by clothing it properly, we can keep warmer in winter, and more of our impurities will be burned up than by following the usual hit-and-miss habits of skin care and clothing. Wear cotton underwear, not woolen, preferably mesh, as light as possible in summer and but very little heavier in winter, especially if you live indoors. In winter sufficient clothing to afford ample protection should be added when we leave the summer atmosphere of our offices and flats, to go out-of-doors.

Here a word of warning is in order against overheated houses and offices. Sixty-eight degrees is the best indoor temperature in winter time; but many rooms are constantly kept at seventy-five or eighty degrees. In effects

on the skin action, the seven degrees between sixty-eight and seventy-five degrees make a difference much greater than most people appreciate. When the room is too hot, the skin and underclothing both become moist, and the skin becomes over-sensitive—its system of defense against cold is broken down. Then, when we go outdoors, the skin is over susceptible to chill, and we easily take cold. Keep yourself from indoor overheat in winter if you want your skin to protect you as it should.

CHAPTER VIII

CONSTIPATION

CONSTIPATION is the failure of the lower bowel to evacuate itself totally, or in part, in the normal length of time. Food should remain in the system only from twenty-four to thirty-six hours; if the residue is not eliminated in this length of time, constipation exists. Thus constipation may be total or partial. It is possible for one to have a bowel movement every day and at the same time be constipated, a portion of the food remaining in the large intestine longer than the normal time.

Constipation is due to many causes, but by far the most important and the most common cause is to be found in the usual habits of eating. Nine cases out of ten of constipation are traceable almost entirely to the food; constipation is a food disorder. As we shall show later, constipation is not a disease in itself; on the contrary, it is usually the result of digestive

disturbances. Constipation does not cause indigestion; indigestion causes constipation. With the exception of occasional cases, the failure of the bowels to evacuate themselves regularly and completely is due to one or more of the following causes: over-distention of the intestine from gas; lack of sufficient bulky material in the diet; lack of normal secretions, particularly the bile.

Over-distention of the intestine from gas is simply due to eating more food than can be digested and used, or to eating foods that are difficult to digest. Either of these errors in diet results in the accumulation of unused food in the lower bowel. This food ferments and decomposes, and forms gases which distend the bowel and overstretch the muscles of which it is composed. This overstretching weakens these muscles, with the result that the bowel contents are not pushed along as rapidly as they should be. Constipation does not cause gas; on the contrary, gas is the result of unsuitable food; then constipation comes on as the result of the over-distention of the bowel muscles by this gas.

Lack of residue in the bowel is simply the

result of not eating sufficient bulky food, such as fruits and vegetables, and coarse breads. Fine white flour and the usual concentrated diet which omits vegetables, salads and fruits, because they are "not nourishing," is one of the leading causes for the wide-spread prevalence of constipation. This coarse material, which should be a part of every meal, stimulates the nerves which control the muscles of the bowel, as well as those which control the secreting glands. In this way sufficient bulky food in the diet increases the muscular activity of the bowel, and increases the flow of digestive juices.

Beginning with the saliva in the mouth, every one of our digestive secretions is laxative in its effect. This is particularly true of the bile, which may be considered the natural laxative. An abundance of all of these secretions is necessary to normal bowel activity; lack of them is due usually to improper diet, and to insufficient mastication. When we chew our food thoroughly, the nerves of the stomach and intestine are affected in such a way as to cause an abundance of all of the digestive secretions to be poured out into the digestive tube. In

the same way, rough, bulky food in the diet, such as fruits, vegetables and coarse bread, stimulates the nerves of digestion and increases all of the digestive fluids. Plenty of digestive juice means normal bowel activity. To get this juice, it is necessary to chew our food thoroughly, to eat plenty of bulky food, and at the same time to keep the intestine in healthy condition, by avoiding both overeating and the eating of rich foods that are difficult to digest.

Just here let us call attention to the fact that the "sluggish liver," which is so frequently blamed for constipation, is nothing more nor less than a catarrhal condition of the bile passages, the result of an unhealthy condition of the intestine, due, in turn, to overeating, and to bad food hygiene generally. Every case of "sluggish liver" has been brought about by the fermentation and putrefaction of undigested, unused food in the intestine.

Still another cause for constipation, which is more frequent in young people, is inattention to nature's calls—lack of regularity. It is an easy matter to develop constipation by failing to give the bowels a regular daily opportunity to evacuate themselves. Every one should have

a regular time for this health-bringing habit; either just on arising, or just after breakfast, is preferable.

Constipation is ordinarily blamed for a large percentage of all of our ills. The average person afflicted with this disorder usually attributes to it every deviation he suffers from the normal health standard. This is, in good part, a mistake. While normal bowel activity is necessary to good health, constipation in itself causes but a small part of our sickness. The facts are these: Constipation is due principally to the fermentation and putrefaction of unused food in the bowels, plus a number of other less important factors. The poisons that are formed, as this food ferments and decomposes, are the principal cause of the many ills which accompany constipation. In this way, the same factors which cause constipation, cause at the same time most of the ills which accompany this disorder, and which are usually attributed to it. Only by delaying the expulsion of food that has become a poison, does constipation really cause any considerable amount of disease.

A real cure of constipation and the accom-

panying disorders is to be accomplished only by removing the various causes of the trouble, and by adopting a diet and habits of eating which restore the intestinal tube, and its various secretions, to normal conditions. We do not mean by this merely the addition to the usual diet of irritating material, or patent breakfast foods which tend to overstimulate the intestine for a time; but rather the adoption of normal habits of eating.

In curing constipation, overeating should receive first attention; not only overeating on meats, but on breads and other foods as well. This is necessary in order to avoid fermentation in the bowels, which is one of the principal causes of constipation. Living on two meals a day, with or without the light lunch at noon, will do much toward getting away from the habit of overeating. Avoiding all soft breads and masticating all foods thoroughly will also help materially in restoring a normal appetite, which protects one against the habit of taking more food than he can digest and use up.

Nearly every one is familiar with the fact that vegetables, particularly those of the non-starchy kind, and those used in preparing sal-

ads, likewise fruits and bran, are particularly helpful in combating constipation; every meal should contain some of this laxative material. These foods stimulate the nerves of digestion, increase the muscular activity of the bowels, and the amount of digestive juices. Our concentrated foods must be "balanced up" by a liberal addition of these bulky foods. Everything we mention in this book about avoiding fried foods, cooking so as to make foods easily digested, is directly applicable to the cure of constipation.

One of the first essentials to effect a cure is to leave off all physics, cathartics and laxatives. Most of these drugs operate by irritating the delicate intestinal wall. Especially is this true of those that are taken to "stir up the liver"; even though they are "vegetable remedies," they upset the digestion and overstimulate the already depleted intestinal tract. This is the reason why they tend to make constipation more chronic. Laxatives must be avoided by those who want to restore the intestinal tract to a healthful condition. About the only exception to this rule is in the case of the saline laxatives, those composed of the

various combinations of mineral salts. This class of laxatives is valuable occasionally for a thorough cleaning out, but as every one knows, when used extensively, they tend to increase constipation. Petroleum oil is not open to the same objection that may be made to most of the laxative and cathartic drugs; it tends to increase the muscular activity of the digestive tube in an apparently harmless way. It does not, however, remove the unsuitable diet and bad habits of eating which are the real causes.

In the cure of constipation, the bowels must have some assistance, temporarily, while a healthy condition is being restored through proper habits of eating. This assistance may be had through the enema. The enema is better for this purpose than any laxative medicine, because it is the only method of evacuating the bowels that is not habit-forming. After beginning the proper diet, from a few days to two or three weeks are needed before the bowels move normally; in the meantime they should be moved daily with an enema of from one to two quarts of water. Take the enema while lying on the left side. In the

majority of cases in a few days the amount of water used in the enema may be gradually cut down, until within two or three weeks, at the most, the stool will become soft, and the enema may be left off entirely. This is practically the only way by which the bowels may be educated to move normally.

Exercise is of great value in relieving constipation. Exercise increases the digestive power by sending out a call for more food in the body. Systematic exercise causes a larger amount of the food we eat to be consumed; in this way less food ferments in the lower bowel; the result is a healthier, more nearly normal condition of that organ. Exercise also actually increases the movement of the muscles of the intestine, especially bending exercises.

Physical efficiency and constipation can not dwell together. Intestines loaded with putrefying and decomposing waste materials, distilling poisonous gases into the blood stream, can not live in the same body with a sweet breath, a bright eye, an elastic step, a clear brain. If you are suffering from constipation, you should set in motion at once the physiological forces that will free you from this in-

cubus, for there is no use talking about efficiency in spite of constipation. You might as well try to take it on high with the brakes on. Clean out the body sewers and train them to keep themselves clean. Utilize nature's laws and don't dally with pink pills. You will be surprised to see the improvement in the power of the body motor.

CHAPTER IX

THE BIG FOUR: SYSTEMATIC EXERCISE, REGULAR REST, FRESH AIR AND PLAY

WE have heard much of the Big Four in the Peace Conference at Paris, and the great part they played in shaping the world's destiny. There is a Big Four in every man's physical life that plays an equally important part in shaping his fate. They are Systematic Exercise, Regular Rest, Fresh Air and Play. Systematic exercise is needed by every man who is going to reach his greatest mental and physical possibilities. Rest, it goes without saying, is necessary to the human machine, which in this respect differs from the automobile. Fresh air, rich in life-sustaining oxygen, is essential to every person, and more especially the indoor man must take care of his fresh air supply. Lastly, all animals, including man, need play. It is said by experts that most people are up to only about thirty per cent. of their efficiency; that they are doing about a third of what they

really can do. Most of us need to speed up; but in speeding up, we should not forget the need of the system for these four things. In fact, it is only through their aid that speed can be sustained.

Next to the proper diet there is nothing which contributes as largely toward maintaining good health and the highest physical and mental efficiency as systematic exercise. By systematic exercise we mean the regular daily use of the muscles for the purpose of exercise only. It is a demonstrated fact that *work doesn't take the place of exercise*; work exhausts the muscles and depletes the nerve force. Systematic exercise, when properly carried out, even in a man who does hard physical work, assists in the recuperation of the muscles, rests the body, and, if you please, gets the muscles ready for more work. On the other hand, systematic exercise in a brain worker draws the blood away from the brain, rests the tired nerves and keeps the nerve force up to par.

Just how is systematic exercise beneficial to the man who works eight hours or more daily with his muscles? Practically all manual labor, no matter how varied it may be, involves the

use of only a part of the body muscles, and often an overuse of these muscles. Systematic exercise brings all the muscles into play; it uses the unused muscles. The result is that the blood, with its waste material, is forced out of the tired muscles, while new blood with food materials to rebuild the muscles is forced in. Systematic exercise stimulates the functions of the kidneys and skin and hurries the waste out of the body, forces the blood rapidly through the lungs and accelerates the digestion of the food to supply new building material.

While there might be an opportunity for argument in regard to the need for systematic physical exercise in the laboring man, there can be no doubt as to the real necessity for exercise for the brain worker. It is a fact that most cases of physical breakdown in brain workers, and in the people who lead the sedentary indoor life, are due in good part to lack of physical exercise. A certain amount of muscular activity is necessary to really good health, and to the maximum amount of mental vigor. Use of the muscles increases the nerve force, stimulates the circulation and carries the waste out of the body. Using your muscles after a

day in the office of six or eight hours of brain work draws the blood away from the tired brain cells; carries it around through the lungs, where it receives fresh oxygen; forces it through the kidneys, where the waste materials are eliminated; and, finally, brings it back charged with food material that nourishes those weary brain cells. The more brain work a man does, the more he should balance up that brain work with systematic exercise.

To be of real value, exercise must be taken regularly; it must be taken systematically; it must become a part of our daily life. To over-exercise for a few days, and then to neglect the exercise for a week, is to do harm rather than good. The man who works with his muscles should exercise at least once a day, while the sedentary worker needs systematic exercise twice daily. But remember that *regularity is the keynote* to real benefit. To get all out of systematic exercise that is to be had, exercise as regularly as you go to bed at night and get up in the morning. And remember that one should not omit his exercise at night just because he is tired. As we have shown, the

more tired we are after the day's work, the more we are in need of at least a few minutes' exercise, in order to draw the blood away from the tired brain cells and tired muscles and to insure restful sleep.

Systematic exercise should not be made laborious. There is a genuine exhilaration that comes from using one's muscles, and this ought to make exercise a recreation. Exercises can be varied from time to time in such a way as to increase very materially their interest. There are many devices that aid in increasing effectiveness and add much to the enjoyment of physical exercise. Any or all of these are usually good. The average man, however, who is really interested in up-building his health and increasing his efficiency, does not need anything more than this real incentive to carry out his exercises faithfully. The knowledge that he is doing a big thing along the line of self-development overcomes the monotony and adds to the real satisfaction of his daily ten or fifteen minutes' exercise. Just here we might add that systematic exercise is one of the greatest aids in developing the will-power. Making

your muscles obey your will is a big help in developing that higher self-control that makes for real success.

The best time for the exercise is just after getting up or just before retiring; begin the day and end the day with a few minutes' exercise. This plan is particularly convenient because exercise is best taken with little or no clothing, and in this manner gives us the opportunity to accustom the skin to the air, which means fewer colds and a better circulation.

The most important factor, next to regularity, is concentrating the mind on the particular muscles used. This is done more easily by working before a mirror and watching the play of the muscles. To this end, your exercises must be simple and only one or two sets of muscles should be used at a time. But remember that exercise is increased in effectiveness many times by keeping one's mind centered on the muscles that are being used. This is the reason why the athlete, with an hour's training each day in the gymnasium becomes much better developed physically, and has much more real strength and endurance than the mechanic who uses his muscles much harder for eight hours

a day. Most persons exercise automatically; which means that they operate the muscles largely through the lower spinal nerve cells. If we add the full use of the upper brain cells by mental concentration, five minutes of this kind of exercise will be equal to a half-hour of the automatic kind.

The length of time one should exercise depends largely on the person; one of large muscular development needs to exercise for a longer time, or more vigorously than one not so developed. A good rule to make, however, is always to stop the use of any one set of muscles when they begin to feel fatigued. By taking your exercise as we suggest, with the mind concentrated upon the muscles, ten minutes, twice a day, is sufficient. In fact, even five minutes twice daily will make a vast difference in the physical condition of any one.

Walking is the original, elemental, universal exercise of the human race in nature's gymnasium, the great out-of-doors. Walking involves the movement of nearly all the large muscles of the body, as well as the smaller ones. However, as walking with most of us is purely an automatic action, a longer time is required

to get the same beneficial effect received by the use, for example, of Indian clubs. This may be overcome by walking with a springing step, thus directing the attention of the brain to the muscles that are brought into use.

In Chapter XXII of this book you will find detailed suggestions as to just how to exercise to get the most out of the time you put into it—a series of definite daily exercises which will increase your physical strength.

Let us next consider the matter of regular rest. Rest is made necessary by fatigue; what is fatigue? Fatigue, whether it be mental or physical, is simply the sensation which you feel when the blood becomes overcharged with waste materials. It is nature's way of telling you when it is time to quit working and give the body an opportunity to clean up. In the fourth chapter, on "Knife and Fork Suicide," we have shown how overeating and wrong eating cause an excessive amount of waste materials in the blood. It is true beyond question that waste materials from overeating constitute, in the average person, the greater part of the total body waste. *When this chief cause of waste is removed we become fatigued much*

less easily. In other words, the reason why most people become fatigued as easily as they do, in fact, the cause for that "chronic tired feeling," is that the body is overcharged with unnecessary food-poisoning. Eliminate this source of waste material and you eliminate one-half of the fatigue; you increase your working power, and decrease very materially the need for rest.

It is a positive fact that as the average work goes from day to day, people become tired at their tasks largely because of food-poisoning and poor elimination due to bad hygiene. So it is that if you will eat carefully, take only easily digested food and only the amount of food that you actually need, keep your skin in active condition, take a little systematic physical exercise every day, and get sufficient fresh air, you will find that you can do a tremendous amount of work without getting tired. This is especially true of brain work.

However, fatigue will come sooner or later, and when it does come *it must be heeded.* In fact, our work should be so divided, our day should be so ordered, that we anticipate fatigue and take sufficient rest before we become actu-

ally tired. In this way we can always keep our work up to the highest standard. Every one knows that, as he begins to tire, his work is of poor quality; he becomes less efficient. Consequently, it is true economy of time to take a breathing spell, and let down the tension before we get tired.

If you are eating correctly, if the body machine is tuned up in good shape, you will be surprised to see how easily you will recuperate, how quickly you will become rested. A few minutes' rest at noon will leave you nearly as fresh as you began in the morning. When you are working hard, short rests of a minute or two during the day will relieve to a surprising degree the tired brain and muscles.

Rest for the brain worker means, in part, a change of occupation, or change of work. Anything which uses the muscles draws the blood away from the tired brain cells, and carries it vigorously around through the lungs and kidneys where it is cleaned of its fatigue poisons. Thus physical exercise rests the brain. It is beyond doubt true that physical exercise increases your brain power; so the brain worker must do a certain amount of physical work

every day in order to keep his brain output up to the maximum in quality and quantity.

Rockefeller attributed much of his success to the fact that he regularly rested for five minutes in the middle of every day. It is said that he had a couch in his private office, and that with his accustomed punctuality, at a certain time each day he would lie down and lose himself for five minutes. It is easy to form the habit of sleeping for just a few minutes at a time, and after one has formed this habit, if he sleeps no longer than five minutes, he will be surprised to find how refreshed he is when he awakens. Ten minutes spent in rest at noon will add twenty per cent. to the afternoon's efficiency. Add to this a light lunch instead of the heavy meal, leave off the after-lunch cigar, and you will take the drag out of the afternoon; you will go right through to five o'clock with plenty of pep and punch. You don't need a couch for the after-lunch forty winks; you can simply tilt back on your chair or lean forward with your head on the desk. The habit is very easily formed; try it.

Cut out the night work. Our practical working schedules in Chapter XXIV do not include

any time for work after six P. M. Night work is the poorest sort of economy; in fact, it is real extravagance of time and energy. Working at night rapidly cuts down a man's efficiency, and takes the punch out of his day work. Exhaustive tests have shown that a man will actually accomplish more in a week by working only eight or nine hours during the day, than by adding two or three hours at night. After five-thirty or six o'clock is the time for your recreation.

This brings us to the matter of sleep. Let us begin by saying that we don't believe in the Big Ben habit. Sleep is a period of elimination, of recuperation, and, more important, of tissue rebuilding. While we are asleep most of the waste materials are carried out of the body. In the case of the hearty eater, the man who takes considerably more food than he needs, or in the man who doesn't digest nearly all the food he eats, there is, of course, an excessive amount of this waste, and an additional amount of sleep is needed to carry it off; otherwise, the man will suffer from auto-intoxication. It is said that Edison sleeps but two or three hours a day. At the same time

Edison tells us that he is a very light eater. He takes but two meals daily, with rarely any meat. This is the secret of Edison's need for little sleep.

Our rule for sleeping is this: Get as much sleep as your body seems to call for. If you are a hearty eater, and feel that the pleasures at the table are paramount, get all the sleep you can. The more you are able to take, the better your system will withstand your habits of eating. On the other hand, if your time is too valuable to spend in unnecessary sleep, then look well to your food. But remember that to shorten your sleeping hours arbitrarily, without decreasing your actual need for sleep, is to invite physical bankruptcy.

So, if you wish to cut down your sleep, eat lightly and carefully, as we indicate in Chapter XXI. Take your hearty meal at night, with little or no lunch at noon. Retire early, but before retiring rub the body thoroughly with a dry towel, and take ten minutes' physical exercise with the skin exposed to the air (see Chapter XIX). Sleep in a well-ventilated room, or better still, on a sleeping porch. Do this; then sleep until you awaken volun-

tarily. You may be certain that you will not only sleep well, but that *nature will call you early*. Best of all, you will have that get-up-and-get-at-it feeling; you won't have that impulse to choke the alarm and turn over for another snooze.

The third member of our physical Big Four is fresh air. Develop the fresh-air habit. In these days of high-priced living, fresh air is the only valuable thing that doesn't cost real money. As far as possible when you are indoors, have plenty of ventilation in your office and in your living-room. Of course, in the winter this ventilation increases the coal bill, but it is cheaper than the big doctor bills that bad air costs. Our winter colds, our spring breakdowns, much of the nervous prostration, rheumatism, and various other disorders are in part bad-air diseases. They don't overtake folks who have the fresh-air habit.

In summer, most of us get sufficient fresh air. It is in winter that we live largely on second-hand air. Many big factories and many offices have found that efficient ventilating systems are paying big dividends in increased output. If, in every office and in every

household, it was a regular habit to open wide the windows every three hours or even three times daily, and allow a complete change of air, our winter ills would be cut down fifty per cent., and our working power increased accordingly. The most modern assembly halls and auditoriums have a complete change of air every four minutes. Every office man should combine exercise and fresh air in brisk walks morning, noon and night. The most important of these is the noon walk; and when you are out, especially in the winter-time, breathe deeply, get all of the old air out of the lungs, fill them with fresh air and charge the blood with plenty of life-giving oxygen.

Outdoor sleeping helps much to solve the fresh-air problem of the indoor man. If you can't get fresh air during the eight hours that you spend in your office, if you can't get as much as you ought to have in your living-room at other times, you can get your share at night if you sleep out-of-doors. Furthermore, if one prepares properly for outdoor sleeping, he will really enjoy it. In winter, heavy night clothing is needed, including a snugly fitted cap over the head and part of the face, and sleeping

sox on the feet. The outdoor sleeper must have plenty of bed clothing over him, and, just as necessary, a layer or two of building paper should be laid between the springs and the mattress to keep the cold air from coming up from below. Artificial heat in the bed is also necessary in extreme weather. A practical and convenient method is to fill a half-gallon jug with boiling water, tie the cork in, and insulate it by wrapping it in a bathtowel or an equivalent covering. Prepared in this way, it will remain warm and "comfy" all night long, in any weather. Sleeping in the fresh air is more restful and more enjoyable than indoors, and less sleep is actually needed.

This brings us to the last, but one of the most important factors in the development of mental and physical efficiency and the attainment of real success. This factor is recreation—play. There never was anything more true than the old saying, "All work and no play makes Jack a dull boy." A large percentage of all the men who have succeeded, who have "arrived," a good part of the men who are doing the world's big jobs to-day, are men who take regular time for play. Play is just as

essential as work to one's success. It is the letting go and grabbing again with a harder hold that really makes for the greatest achievement.

"But," you may say, "I have no time for play, if I am going to win in this day of keen competition, I have to keep everlastingly at it." This is a mistake. The man who has a daily time for play not only works many years longer, lasts many more years, but he actually does more work. Resting the brain, resting the muscles, resting one's faculties, relaxing completely, "forgetting it" for a few hours, puts your brain, your thinking powers and your muscles in better condition; and when you get back at it you can do far better work, and do far more work, than you can without the daily play.

Again you will say, "I get my play out of my work; there isn't anything in life that I enjoy quite as much as the things that I am doing, the things that mean the most to me." This may be true; we hope it is; we believe that real success depends upon this great faculty of getting your greatest enjoyment out of your work; but even if this be true, it will pay

you to play a while every day, because after you play you can do so much better work. Every well ordered life has a time for recreation. In the latter part of this book in the schedules for different persons we have included time for the daily recreation.

Of course the time that offers the best opportunity for recreation is the evening, after the day's work is done. In summer it should include something that takes us out-of-doors into the fresh air. Summer-time affords many chances for outdoor evening recreation—an auto ride, or better, a walk in the park, an hour or so of work in the garden or on the lawn, or a game of tennis; but by all means take your recreation out-of-doors.

In the winter it is even more important than in the summer that one get his recreation out-of-doors. The fact is, however, that we usually go to the theater, the movie, or to a social function, or spend the evening in reading. How much better to spend a half-hour in a brisk walk, either before or after the evening recreation.

And remember that play, to be real play,

can't be done alone; you must have company. So make your recreation something that will include your wife and family, or if you don't happen to have either of these, a friend or two. You will get a great deal more out of your play if you have some one to play with you.

Just the other day I examined a man sixty-six years old. He came in "just to be looked over"; he didn't think there was anything the matter with him, and there wasn't. He told me that he hadn't had a vacation in forty-two years, and that during that time he had not lost a day at the office, and that this was a record that was not equaled by any other employee of the concern who took regular vacations.

This might seem to be evidence that vacations are not essential. Such is not, however, an inevitable conclusion. It is rather an argument against the way vacations are usually spent. Most people think they are not having a good time on a vacation unless they abuse their health in some way. In summer our evening recreation is spoiled with a cigar or two, or a soda-fountain decoction which upsets the dinner digestion. The evening at cards is

usually followed by a lunch which is indigestible. Not infrequently the two or three hours are spent in tobacco-laden air.

When a man goes on a fishing trip, he usually has in his basket a bottle or two and a box of cigars, which rob him of much of the good the trip holds for him. During the summer, how many people are sick on Monday, after a Sunday trip to the mountains, or to the country, or the seashore. They will usually tell you it was the water they drank, or the "bright sun"; they forget the cake and pickles and indigestible sandwiches in the lunch basket, and the iced drink after they arrived. Summer resorts that set a big table are the most popular, which accounts for the fact that no small percentage of the people who come back from their summer vacations have an attack of fall illness. When you take your play and your rest, let your stomach and your body rest also. Make a particular effort at that time to take good care of your human machine, and you will get the full benefit of your play.

Don't forget the playtime. Every one, even the overworked housewife, should have one full day in the week, or two half-days, without

work. In addition to this, the Saturday afternoon holiday, if spent rightly, is a health and efficiency promoter. Then add a week or two or longer out of every year for a real vacation, spent out-of-doors, minus the cigars, minus the stuffing, and filled with plenty of fresh air and wholesome exercise. Don't forget that play is just as important to your success as work. As we said before, it is the let-go-and-rest-a-minute, and the grab-hold-that-much-harder, that in the end will take you over the top easily.

The man who has his "Big Four"—Systematic Exercise, Regular Rest, Fresh Air and Play—on the job and working for him all of the time, has taken a long, long step toward emancipation from his physical limitations. They will serve him better than all the doctors and all the medicine in the world. They will achieve for him the terms of a victorious peace, in which he will be free, with his physical machine running smoothly and well, to go forward to the highest conquests of which the human kind is capable in the realm of development.

CHAPTER X

YOUR VIEW-POINT

“It’s all in the way you look at it.” Many and many a time we have heard that saying, without letting the full significance of it sink into our minds. I stood, one glorious July day, in a deep mountain canyon. At my feet a dashing mountain torrent tumbled and foamed in its mad rush over the giant rocks. As I looked across the surging sea of foam, and listened to the thunderous music of the rolling waters, I thought, “What power—what bigness is here!” Far above me, clear-cut against the sky-line, I saw a balanced rock, seemingly no larger than a man’s hand, and the thought came to me, “I would like to roll that little rock down here and see this mighty stream roll it down the canyon like a pebble.” Hours later I stood in the shadow of that rock, on the mountain’s crest, and gazed in awe at its huge walls of granite, towering far above my head. Far below me, I saw the mountain

stream, now shrunk to the size of a slender silver thread, almost lost in the depths, and I thought, "What a difference the point of view makes."

But the physical view-point, applied to material objects, is not half so important as the mental view-point. And these view-points vary even more widely. We have "many men of many minds," but after all, the determining factor of a man's mind is his view-point.

It was New Year's Eve. The lobby of a big Denver hotel was filled with men, lounging, smoking and chatting together in little groups of two or three. "Well, Bill," said a jovial-looking man with a close-cropped gray mustache, "what do you think of the prospects for the New Year?"

The younger man addressed as "Bill," growled: "Bum prospect; bad as last year, and maybe worse. War conditions and high prices, and rotten business, and then the 'flu' to cap the climax. Can you beat it, Jim?"

The other man laughed and clapped him on the back. "Brace up, you old pessimist. The war is over and the 'flu' is on the run. Don't gloom around in the past, look ahead. Nine-

teen hundred nineteen is dead and gone now. Let's buckle into 1920."

Bill shook his head despondently. "Trouble enough when it gets here. I hate to see it come. I tell you, business is going to be rotten. Why, look how it has been the last four months: everything upset, everybody sick, and—"

The other man sprang to his feet, waving a protesting hand. "Forget it, Bill, forget it! Nineteen-nineteen is ancient history and 1920 is going to be the biggest year yet, chuck full of chances for a man who keeps his eyes open. Let's go for a walk and see if you can't walk some of the grouch out of your system."

After they had gone, a gentleman who had overheard the conversation, remarked to his friend: "The old man is really the younger of the two, and I tell you he will accomplish more yet, in spite of his years. He has the Forward Look."

"*The Forward Look!*" What a world of meaning is packed in that short phrase. Thousands of men and women just at this time are turning their faces toward the new year; some bravely and hopefully, others wearily and de-

spondently; but in every mind is the thought, "What will 1921 have in store for me?" The answer depends entirely upon the individual. Bill and Jim are two common types of humanity, and each has a multitude of followers. Blessed is he who has the *forward look*, who hails the new year with a cheer, believing that it is going to be the best yet.

The forward look is a hopeful look. It is potent with vision power which enables a man to keep his eyes open and grasp new opportunities. The man without the *forward look* sees only lost opportunities, catches no vision of coming possibilities, no gleam of a new dawn. His future lies behind him. He expects the worst, and he generally gets it.

You will say that Jim and Bill are radically different types, and that between the two a great gulf is fixed; that they have nothing in common. In reality they have everything in common. The vast difference is simply a difference in *Mental Attitude*. Bill's attitude is negative. He has suspicions of everybody, views everything with distrust. He sees only the hole in the doughnut. No matter what good thing may come up, he is constitutionally

“ag’in’ it.” In the end he degenerates into what Elbert Hubbard used to call a “belliker.”

On the other hand, Jim’s attitude is positive. He has faith in himself and other people. He expects the best and generally finds it. He is confident that the New Year is going to be “the best yet.” Always hopeful, courageous and cheerful, his *mental attitude* toward life is that of the man who faces the sun with both hands wide open for all the blessings that life can give, and by the power of right thinking, by the constructive, positive attitude of his mind he attracts to himself the blessings that he desires. Always the greenest sod of the earth is just under his feet, the highest spot in the heavens directly over his head.

Everywhere men are coming to realize that the attitude of the mind has much to do with the health of the body. This fact is recognized, not alone by leading physicians and men of science, but by psychologists and men of business. Stanley Krebs has a powerful lecture, “Two Snakes in the Business Brain,” which he designates as “Fear” and “Worry”; but the man with the *forward look* fills his mind so

full of "Hope" and "Faith" that the snakes are soon crowded out. Scientific laboratory tests prove that even a dog will not digest his meal when worried.

Strangely enough, some people seem to prefer the negative attitude and take great satisfaction, apparently, in dwelling on the gloomy side of things. They hate to admit that anything is good or growing better. They are like the old lady who was congratulated on her improved appearance and replied, "Yes, I am some better than I wuz, but I am not as well as I hev been." But those who have an honest desire to change their negative conditions can come out into the wholesome sunlight simply by *reversing* their *mental attitude*. Not only individuals, but, in many cases, entire families have been known completely to reverse their condition by reversal of their thought. What a wonderful thing it is to face the world and stand erect, "four-square" to every wind that blows. How much better than to stand with "one foot in the grave" and the other on a banana peel.

A world full of opportunities lies open to all of us, but we do not all look at it in the same

way. Some are looking backward instead of forward; some look down, while others look up.

“Two men looked out from the prison bars—
One saw the mud, the other saw the stars.”

Back of the bars which we call chance, or fate, or luck, or environment, or circumstance, we all stand, wondering what we shall get out of the new year. The answer is simple: We shall get out of it the measure we put into it. And we shall put into it, each of us, according to his *mental attitude*.

Many men of many minds have many viewpoints of Life—Religion, Business and Work. One measures life by what he can *get out of it*, another by what he *puts into it*. The first measures success by his *income*; the second measures it by his *outgo* or overflow. Brown views religion as an impractical dream of an unknown future, while his friend White regards it as a means of “life more abundant” in the living present. Equally do the viewpoints of business vary. My neighbor, who drudges at his business and finds no joy in it, has a very narrow conception of business. His boundary lines are limited and cramped. In

his mind it is bounded something like this: bounded on the East by the Alarm Clock, on the West by Quitting Time, on the North by the Last Pay-day, and on the South by the Next Pay-day.

When I use the word "business," I use it in its fullest, broadest sense. Times have changed and in these modern days we need a new definition of "business"—a definition bigger, broader, better. We are getting away from the old, narrow, sweat-shop ideas and old-fashioned cutthroat methods of business. My conception of business is not of something sordid and selfish, mercenary and miserly, greedy and grasping. My conception of business is of something teeming with opportunities, big with possibilities, throbbing with human interest.

I see it as a rich and costly fabric, weaving on the loom of modern commerce; and as the bright shuttle of achievement flashes in and out, I see the web grow and the pattern is completed, shot through and through with the golden threads of human efficiency.

One of our ablest executives, who is a figure of national prominence, said a striking thing

recently. He said: "In winning Success, under modern conditions, a man's business attitude counts more than his business ability." But most important of all, it seems to me, is a man's attitude toward his life-work. Here we find two extreme view-points. All admit that we are living in a strenuous time, that competition is keen, that men are straining every nerve to keep pace with the rush and whirl of a commercial age—that a man simply must hustle or become a back number.

What are we going to do about it? That is the vital question. Some take the view that the game is not worth the candle, refuse to hustle, give up their ambition to climb the heights, and remain contentedly on the low levels of mediocrity. Others are not content to remain at the bottom, not content with a bare living, not content with mediocre achievements. So these struggle and strive to fight their way above the bread-and-butter line—work hard to rise above the ordinary, and achieve something in life well worth while. They *will* to win success at any price, *will* to do something big, regardless of the cost. No

matter what the wear and tear may be on body, brain and soul, they "take it on high," even if it wrecks the whole machine. These are the two extreme view-points and neither is right. Here is the Big Idea—the idea back of this book, the central idea which runs like a thread of gold through every chapter—*Take it on high, but learn how to do it with ease!*

Master the laws of efficiency so you can do big things without strain. Learn how to run your machine without wear and tear. Conserve your physical and mental forces so intelligently that you do not exhaust your reserves. To accomplish more with less effort, that is the ultimate goal.

It is possible to do big things in a big way without tearing yourself to pieces. Don't be content to play "second fiddle." Don't give up your ambition for fear you can't stand the strain. Don't go to the other extreme and wreck yourself in a mad rush for success. You need not pursue either course.

Two men were arguing whether it was better to be a big toad in a small puddle or a small toad in a big puddle. But while they were at

it, another man quietly prepared himself to "take it on high" and became a big toad in a big puddle.

It's all in the state of mind, the mental attitude. The average man can do far more than he has ever done; he has barely touched his latent powers. If only he knew how to use his force he could take the hills on high with ease, and glory in his strength, as a strong man rejoices to run a race and suffers no harm from the running.

Get the right view-point.

"If you think you are beaten, you are;
If you think you dare not, you don't;
If you like to win but you think you can't,
It is almost certain you won't.
If you think you'll lose, you've lost;
For out in the world you'll find
Success begins with a *fellow's will*
It's all in the state of mind.

"If you think you're outclassed, you are;
You've got to think high to rise;
You've got to be sure of yourself before
You can ever win a prize.
Life's battles don't always go
To the strongest and fastest man;
But soon or late the man who wins
Is the one who thinks he can."

CHAPTER XI

BETTER BRAIN ACTION

THE average man does not use his head for half what it is worth. He realizes this in a general sort of way, but takes no definite steps to develop his brain power. Nowadays, as of old, the race is to the swift—the battle to the strong—but the battle of life to-day is waged with the brain for a weapon.

Head work is what counts. Some one has said that a man is worth about two dollars a day from his chin down, and two hundred dollars a day from his chin up. He may be as strong as a mule, and as stubborn, but he will not get very far unless there is a good brain back of his efforts. The newsboy out at the stockyards made a remark during a recent stock show which hit the nail on the head. The boy had a trained dog and he was entertaining the crowd by putting the dog through a series of tricks. By and by, a big burly man with a bull neck and a red nose elbowed his way into

the crowd. He was one of these fat, pompous, flat-top-headed fellows with a big bay-window in front. Looking at him, any one would find it easy to believe in the Darwinian theory. In fact, a discriminating observer would arrive at the conclusion that he had not only started on his journey from the monkey, but that he had a round trip ticket and had started on the return trip. He stood watching the clever performance of the dog for a few minutes, and then having more money than anything else, he said, "Hey, Kid, what will you take for him?"

The boy shook his head, "Don't want to sell him, Mister."

"Oh, yes, you do," and he thrust a twenty-dollar bill into the boy's hand and led the dog away before the dazed boy recovered his wits. But the next day, the pompous one came back, roughly dragging the dog with him.

"Here, Kid, your dog is no good—take him back and give me my money." But the boy had both arms around his pet's neck and paid no attention. "I tell you, he's no good—I tried him out and he wouldn't do a single trick."

For answer, the boy turned to the dog with a low whistle and at the signal the dog repeated

his performance of the day before without a fault, while an admiring crowd gathered.

The man shook his head and said, "Well, he wouldn't do anything for me."

The boy looked up with a twinkle in his eye and said, "Well, you see, Mister, *you've* got to know more than the dog."

This is an age of complex high-power machinery, but no modern machinery can ever equal the marvelous mechanism of the human brain. The man who has a ninety horse-power brain must know how to care for it and how to run it. But first he must develop it. Why is it that a brain of this high power is so rare? Chiefly because so few men give any time or attention to the cultivation of the mind—so few follow any intelligent system of brain development—so few persistently do those things, day by day, which lead to better brain action—so few form the *student habit*. We are living in a commercial age and men are chasing the Almighty Dollar so hard and fast that they neglect their own self-development. They concentrate everything on building new business, but nothing on building new brain cells. But is it not a mistake to give so much atten-

tion to the business and so little to the man behind the business? Certainly the size of that business in the long run will be measured by the size of the man back of it. I believe it was Emerson who said that a great institution is but the lengthened shadow of one man.

The time has come when men must give serious attention to brain building for business. I say brain building advisedly, for *it is possible* to build new brain cells. I know that many people believe that "it can't be done," especially in the case of adults. There is a popular delusion that the brain power of a grown man is a fixed quantity, that when people grow up they are doomed to go through life with the same amount of brains. Absolutely false!

Building new brain cells is a *scientific fact*. Modern psychology points the way for the man who is willing to learn and furnishes the principles which he can use to build upon as a solid foundation. I do not make this statement without abundant proof to support my assertion. Take down from the shelves of your library, if you will, the volumes of James and Munsterburg, or of any other master psychologist. Read them, and after wading through

a mass of impractical material as far as your work is concerned—pages of psychic phenomena, theoretical therapeutics—you will find a few great fundamental principles which are eminently practical for you. Out of it all, you can sift out the knowledge you need, the points which fit your case and, however the authorities may disagree on other points, there are three or four fundamentals on which all the psychologists—who have any standing with the universities—are agreed. So on these principles you can take your stand and use them as a solid foundation for your brain building. These three are the A. B. C. of practical psychology.

1. All conscious sensation, thought and feeling are related to, and depend upon, nerve action.
2. Stimuli from the organs of sense, passing over the sensory nerves to the brain, discharge through the motor nerves, resulting in thought, feeling, or action.
3. All acts, thoughts and feelings, which are persisted in, establish nerve centers and paths in the brain, which become the physical basis of subsequent thought and conduct.

Now, there is nothing very abstruse or hard to understand in these laws—no mystery about them—all very simple. Let us pause for a moment to define and analyze our proposition.

What is meant by “stimuli”? Simply the effect produced on the senses by physical waves, such as air waves, light waves, heat waves, etc. As for the sensory and motor nerves, just think of them as two telegraph wires, each for a separate purpose; one to carry a message to the brain, the other to flash back the answer. Suppose you should touch your finger to a red-hot stove, what would happen? Instantly the sensory nerves or wire would send a message of pain to the brain and quicker than a flash the brain would send back a command to remove your finger from the danger. So incredibly swift is the action that it seems hard to believe that all this takes place before you jerk your finger away from the stove, but such is the case and the “stimuli” have become ancient history before you can emit the first “cuss word.”

It is strange how slow people are to believe that it is possible to develop new brain cells. They will readily admit that it is possible to

develop new muscle by persisting in certain physical exercises, but they are skeptical about "growing brains." As a matter of fact brain cells can be developed as readily as muscle, and both respond to the same laws.

Use means growth—non-use leads to weakness and decay. Many experiments have been conducted to demonstrate that brain building is a scientific fact. Chief among these, are the experiments of Professor Elmer Gates on the brain cells in man and animals.

In every case he found these cells susceptible to *training*. One of the most remarkable of his experiments was made with seven shepherd puppies. Two of them were kept in a dark room from the day of their birth, where no ray of light ever entered their eyes. Two were sent out on a farm, where they lived the ordinary dog's life.

But the other three were put under special training to develop the sense of color—to distinguish between different hues, shades and tints of color. They were trained for several hours daily and by different methods. The most striking method used was as follows: A hall, about fifty feet long and three feet wide,

was carpeted with copper plates. These plates were of various colors and were so connected with copper induction coil that a current of electricity could be passed through them. At first the electric current was turned on so that the plates of all colors but one were charged. Then they made the puppies travel from one end of the hall to the other and every time a pup stepped on the wrong color he got a shock that made his toes tingle. They soon learned that one color was safe. Then the current was switched and a different color was selected, and the poor pup had a new lesson to learn. But the result of this training was marvelous. The pups soon learned to distinguish all colors and hundreds of shades and tints of color. At the end of twelve months the test was concluded and the dogs were all chloroformed.

Then a scientific examination was made in the laboratory, of the sight region of their brains in the back part of the cerebrum.

In the case of the dogs that had been kept in the dark room, they found absolutely no more development than in a new-born puppy. The dogs that had lived on the farm had the sight

regions of their brains much more highly developed than those that had never seen a ray of light. The internal structure was different and a greater number of brain cells were developed. In their sight regions they had an average of eighty-nine well developed cells per square millimeter. These dogs had been using their faculties out on the farm; they had learned the difference between the gray light of dawn and the dusky shade of twilight; they had learned the color of the cornstalk and the tree trunk, and to detect the brown coat of the rabbit outlined against the snow. But the surprise came when examination was made of the three dogs that had received the special training.

They found their sight regions as well developed as those of the human brain. The chemical compounds of the cells were more complex and they had twelve hundred cells to the square millimeter of surface. By training, Professor Gates gave these dogs more brain cells and better brain cells in twelve months than nature has given the normal dog in ten thousand years!

Very few of us would be willing to admit

that we could not equal a shepherd puppy in the development of our brain cells. In fact, the boy was absolutely right when he said, "You've got to know more than the dog."

Referring to our third principle, we find how habits are formed. As we persist in certain actions or lines of thought, we establish nerve centers. These centers are formed by cells having a similar function to perform. In time these form a physical basis for all subsequent thought and action, until finally we have a brain path. Then as we travel this path day after day, the groove is worn deeper and deeper, until at last it is clear cut and sharply defined and we have formed a habit.

After much travel, the brain path becomes fixed and we have a life habit. When permanence is established, it becomes easy for us to reproduce the same thought or action. We say it has become "second nature to us." We can do it "unconsciously," "without thinking." The violinist furnishes a striking example of this law. At first, he must think of several things at once and his task is most difficult. He must read the notes of the music before him, he must make his own finger-board as he

plays, and at the same time he must give attention to the bowing—most difficult of all. So his execution as an amateur is slow and awkward, his playing full of discord. But, by and by, he establishes certain brain paths and then, and not until then, can he secure the coordination necessary to play smoothly.

Then, at last comes the day when he is able to sweep the strings with the hand of a master. He reads without effort the notes before him, he does not need to watch his fingering or think of his bowing, yet all is perfect, for it is habit developed through long hours of regular faithful practise; and now he tucks the violin under his chin and calls forth melody divine through the magic of the bow, his soul intent only on the masterpiece he is playing.

The annals of criminology are full of instances which show the power of habit. "Slippery Jim" Williams was one of the cleverest crooks the world has ever seen. He was finally caught and sent to prison, where he served time for several years. Then he made his escape and for years he baffled the detectives of two continents. They searched for him far and wide, and all the time he was living right in

New York City. But at last, in spite of his cleverness and iron will-power, the power of habit betrayed him in an unguarded moment. One day "Slippery Jim" stood watching a chain gang go down the street, headed for Sing Sing, and as he saw again that peculiar, shuffling lock-step, old memories stirred within him. And when he started on, all unconsciously he fell into the old lock-step which he had learned so well years before. He had not walked any distance before a Pinkerton detective recognized that step, took him to the station, and there found he had caught the notorious "Slippery Jim." He was betrayed by a law of his own mind.

A good story is told of General Joe Wheeler—veteran of the Civil War. He entered the service again in the Philippines and one day, while leading a charge up San Juan Hill, he whipped out his sword and called to his men, "After 'em, boys! The Yanks are on the run!" It had been many a year since he had fought the "Yanks," but that old brain-path was working again.

How vitally important it is for each man to give attention to his brain paths, and to form

habits that will work for him instead of against him. Efficiency habits are just as easy to form as inefficiency habits. Every man has the power of choice.

And now we come to the fourth principle—upon which all psychologists are agreed. Short and simple, but pregnant with meaning, just four short words, but they voice the most inspiring truth in psychology: *Power goes where directed*. So a man can direct his own brain building, develop the new brain cells he most needs, turn his very weakness into strength! Yes, power goes where directed, and choice of direction is so tremendously important! It determines the career, absolutely, of every one of us. Luck or chance, circumstance or environment are only trifles.

“One ship sails East and another West
 By the self-same winds that blow;
 ’Tis the set of the sail and not the gale
 That determines the way they go.
 Like the waves of the sea are the ways of
 Fate,
 As we voyage along through Life.
 ’Tis the set of the soul that determines the
 goal,
 And not the calm or the strife.”

Ah, yes! It is the set of your sail, the slant of your mind, that fixes your goal, and unerringly marks your destination.

Sometimes I hear a man say, "Well, I guess this brain building is all right for young fellows, but an old codger like me can't develop new brain cells." I say to him, "You are wrong. I have frequently had men in my classes who were past sixty years of age and they not only made rapid progress, but often surpassed much younger men in the class. It is true that in youth the brain is more plastic and the mind more receptive, but no man is too old to develop new brain cells as long as he honestly desires to learn. *Better brain action is possible for any man who wants it enough to be willing to work for it.*"

It is a sad day for us when we stop growing, and it is a pitiful thing to see any man indulge in the false belief that he is "too old to learn."

The older men, with all their ripe experience and judgment are needed just as much in the world's work as the younger men with their enthusiasm and energy. James J. Hill, the empire builder, once uttered a truth so striking that it will live as long as the English lan-

guage endures. Standing before a great audience in Minneapolis, he said, with all the earnestness of his conviction: "Old men sell their wisdom—young men sell their dreams. Civilization needs both."

Young men, who read this, youth is yours, and tireless energy and enthusiasm and high ideals, but most of all the world needs your dreams, your creative visions. Old men, who may read this, experience is yours, and cool judgment and all the priceless lessons of life you have learned and garnered through the years, but most of all the world needs the practical benefit of your wisdom. And just as the young man can profit by the wise counsel of the older man, he in turn can lean upon the buoyant hope and enthusiasm of the young man.

Standing together, they give the most valuable service to humanity. "Civilization needs both."

Every man must do his own brain building; no one else can do it for him. Using these principles as a solid foundation, each can make his own application in a practical way, direct his thought force in the line of his ambition and

develop his mental faculties to the nth power. Better brain action is not an idle dream, it can be made a living reality. There is a vast difference between thinking in circles, and thinking in a straight line. When you develop the mental habit of straight thinking and put the clear-cut, definite, direct drive of a powerful brain back of your efforts, you will be able to accomplish ten times more than you have ever done, to achieve the big things you have dreamed about. You will do more and do it easier. You will be able to take the hills on high without tearing your machine to pieces.

After all, mind is the engineer. Let us see to it that the engineer is on the job. A certain hotel proprietor hired a big green Swede for a janitor. He warned him that he must rise early and begin work every morning at four o'clock. The second day the Swede was an hour late, but gave the excuse that he did not know what time it was, as he had no watch. So the proprietor gave him an alarm clock, showed him how to set it and gave him final warning, "The next time you are late I will fire you." All went well for a week and then Larsen showed up an hour late. His boss immediately

fired him in spite of his protests that the clock had stopped and the alarm did not go off. Going back to his room, Larsen dejectedly examined the alarm clock, then took it apart and found a big dead cockroach in the works. Rushing excitedly down to his employer, he held out the clock and exclaimed, "No wonder the clock don't go—the engineer bane dead."

Above all men I take off my hat to the Thinker. "The Drudge may fret and tinker, or hammer with lusty blows; but back of him stands the Thinker—the clear-eyed man who knows."

CHAPTER XII

A PERSONAL INVENTORY

THERE is a certain slang phrase, which is very expressive; a phrase often used in times of uncertainty: "Where are we at?" This is the modern way of expressing in terse form the same idea that Daniel Webster had in mind when he lifted up his sonorous voice at the opening of his famous speech in reply to Hayne, and said: "When the Mariner has been tossed for many days on stormy seas, he naturally avails himself of the first lull in the storm, the first glimpse of the sun, to take his bearings, and ascertain how far he has drifted from his true course."

But nowadays, since Daniel has left us, we say: "Where are we at?" It's a mighty good question at that, a question that leads us somewhere, and if we get a straight answer, it "gets us somewhere."

A man generally asks it when he has lost his way, mentally, or morally, or physically, or

financially. Simeon Ford tells a story that describes such a situation. It was a dark and stormy night. A man was riding a bicycle out on a lonely country road. He rode rapidly and with much anxiety, for a big storm was coming up, and he feared it would break before he could reach the town. At last, he came to a fork in the road, but did not know which way led to the town. He dismounted but found nothing to help him to decide. Then he noticed the dim outline of a tall sign-post at the corner, but was unable to read the direction at the top. He had only one match, but decided to climb the sign-post in the desperate hope that he could read the sign by the flicker of his last match. Slowly and arduously he climbed, gripping the post with his knees as he struggled up. He reached the top, hung on with one hand, while with the other he carefully scratched his precious match. For a moment it sputtered, then flared up, and he read by its feeble light, just two words, "Fresh Paint."

The wise man does not wait until he is hopelessly lost before he takes his bearings. Frequently he consults his compass. The prudent business man regularly checks up his accounts

and balances his books. The first month of the new year is an especially busy one for him. At this time every progressive merchant checks up on his stock. Each store or shop or factory, as the case may be, has been making an inventory.

Systematically and accurately every item is checked and classified, and in the end the merchant knows exactly "where he is at" in regard to his stock. It is no longer a matter of estimate or guesswork. He knows *definitely*—he knows what he has on his shelves, and how much he has in the warehouse. He knows in what lines he is overstocked, and he knows in what goods his stock is short. This knowledge enables him to plan his business intelligently, so he can proceed to push his sales on his over-supply and to replenish his depleted stocks. In this way he is enabled to keep his business balance, maintain his efficiency, and continue his business growth and expansion.

No one questions either the necessity or the value of a business inventory.

But why not make a *personal inventory*? Why turn all our attention to the business and none to the *man behind the business*? Which

is more important, the business, or the man who creates the business?

I think it is high time for us to direct our attention to the man, and that a personal inventory is of inestimable value.

But this is one of the things each man must work out for himself—no one else can do it for him—he must work out his own salvation. Perhaps that is why the average man dodges this issue and never makes a personal inventory.

When a man makes an honest effort to correct his faults and improve his methods, he takes a long step forward toward the success goal. Don't wait for somebody else to come along and analyze your weakness and put his finger on your shortcomings—find them for yourself. Honest introspection—self-analysis—will do it. A few searching, personal questions, questions so pertinent that they would be impertinent if the other fellow asked them, will soon show you just "where you are at." Spend ten minutes every morning before breakfast asking yourself these questions—and answering them squarely. Keep this up for six months, or even for thirty days, and you will

be able to determine definitely what you need to do to be saved.

Is my work really worth doing? If so, am I doing it efficiently?

Do I get pleasure and enjoyment out of my daily work?

Am I thoroughly equipped—well prepared for my employment?

Do I utilize all my spare moments of time?

Am I "fit" for this day's work?

It is not enough to ask these questions—you must be square with yourself and insist upon an honest answer. Then, knowing just exactly what your personal stock of goods is, you can begin to replenish—rebuild, reorganize—reconstruct.

If you are overstocked on some things—out they go! If you are short on others—supply the deficiency! Better to strike a balance now, than to be a bankrupt later on!

This applies equally to the man who is in business for himself and the man who is working for somebody else. In both cases, the self-questioning method will enable a man to make appraisal of his true value.

The present abnormal labor situation has

brought out some very striking incidents. Recently a young fellow applied for a job and his first question was, "What will you pay me?"

"Well," said the boss, "I will pay you just exactly what you are worth."

"No, siree," was the quick reply, "I won't work for that."

P. D. Armour, who employed thousands of men during his successful business career, believed in giving every employee a chance to determine his own value. "Yes," he said once to a friend, "I give every man who works for me plenty of rope—if he isn't big enough for his job, he soon tangles up in it and trips himself, and down he goes; but if he is too big for his job, he makes himself a ladder out of that rope, and climbs up by it to something bigger."

Start your personal inventory this very day! Find out just what your working tools are, and what they are worth.

Take stock of your physical equipment. How about your body? Will it stand the stress and strain of all you ought to do? Are you making the effort necessary to keep yourself in first-class physical condition?

Are you "physically fit" for all emergencies?
Any weak place in the machine that ought
to be looked after and repaired?

Make your inventory from toes to teeth.

Take stock of your mental equipment. Is
your brain keen and alert?

Are you using your head "for all it is
worth?"

Is your mental force up to par?

Are you reading good books which will
make you stronger in your work?

Do you attend lectures and study classes
which will increase your efficiency? Are you
building any new brain cells?

Are you wandering in circles, or thinking
straight to the point?

Make your inventory of the brain behind
your business.

In most cases a man's capital is tied up in
himself. Especially is this true of the pro-
fessional man. All his natural ability, his
acquired knowledge, his special training, make
up his capital. They represent what he has
invested in himself. They are his most valu-
able assets.

Isn't it true that when you add to your

knowledge of your business, or to your skill and efficiency in your profession, that you have added just that much to your capital?

If you can increase your efficiency enough to add even ten dollars a month to your salary (which any man can do) you have added two thousand dollars to your capital. Ten dollars a month represents six per cent. interest on two thousand, and it is the best security in the world. Self-investment is always safest, because no one can take it away from you but yourself.

Think it over, and ask yourself if your capital is any bigger to-day than it was a year ago. A little personal introspection of this kind will be to you what accurate bookkeeping is to a merchant. If you give yourself an honest answer, you will sometimes find that your appraisal value has dropped down to about "fried zero," as our friend Togo would say. But it is worth trying. Begin to-day to *get better acquainted with the man under your hat*. Talk it over with yourself. And in these little talks ask yourself some straight questions and insist on straight answers. Socrates became the wisest man in Greece by asking questions.

Some questions bring an answer that is illuminating.

What is holding me back?

That is the question many an ambitious man asks himself when the truth comes home to him that he is not making satisfactory progress.

And in these soul-searching moments which occur in the lives of people who are honest with themselves, the answer to this question is vitally important. In many cases a man is held back by some dead weight which slows up his speed, some unnecessary handicap which impedes his progress.

When a runner strips for the race, he casts off his heavy clothing and goes on the track in a light-weight running suit made for the purpose. The traveler, who would go fast and far, travels light. The soldier on a long hard march carries no surplus baggage. When the aeronaut feels his balloon sinking dangerously fast, he throws the ballast overboard. The swimmer who battles for his life in the sea casts off shoes, clothing, unbuckles the belt which holds his jewels—lets all go. The miner lost in the desert throws away his sack of gold dust, his gems, every ounce of treasure which burdens him, as

he struggles on in search of the life-giving water-hole.

From all these a lesson can be learned, a lesson that applies to all who run the race of life or battle for existence.

If you would make better progress, throw off that which hinders; cast aside the surplus baggage; eliminate your particular handicap.

Elimination is the key which may unlock the closed door of your problem, *the answer* to that searching personal question, what is holding me back?

A personal inventory will help you to find the starting point.

Many a man realizes that he is not forging ahead as he should—knows that he is falling far short of the goal of his ambitions—honestly feels that he is entitled to a bigger place in the world and wonders why he has not gained it. He works hard, has good habits, lives within his income, and apparently has every qualification for success and every reason to expect it in much larger measure, but somehow the months go by and the years roll around and he doesn't get ahead—he is just "getting by."

Somewhere there is a *reason*.

Hunt for the handicap.

And when you find it, cast it off—forever!

“Yes,” said the proprietor of a big store, “Brown is a capable fellow, but he always carries a grouch around with him that weighs a ton. I keep him on the payroll because he knows his business, but he never makes any friends for the house, and a man like that never goes any higher with me.”

“Cut out” the grouch, Brown.

“That’s the third stroke of bad luck I’ve had this year,” complained a professional man.

“Bad luck, nothing,” said his wife, who knew him. “It happened because of your habit of putting off doing your part until the last minute of the eleventh hour.”

“Nix” on the eleventh-hour habit, Doctor!

“The trouble with the people in my office,” said a prominent business man, “is that every last one of them has some pet habit or fault or handicap that keeps him from getting anywhere. Now there’s White, always behind hand, late to his work, late to appointments, late everywhere. If he could get rid of that habit he could get a much better position.

“Black is a strong man, but he has too many

irons in the fire, and too many things outside his business to attend to. He might have been promoted a long time ago if he didn't scatter his forces so much.

"Miss Gray is the best stenographer I ever had, but she has such a harsh voice that she irritates me every time she speaks. If she just had a pleasing, well-modulated voice, she would be a perfect stenographer.

"And that other girl, Miss Green, is bright and apt, but she is terribly handicapped by keeping late hours—too many dances and card parties. If she would take care of herself and double her amount of sleep, I could afford to double her salary." And so he went on through the list pointing out the specific handicap in each case.

But Brown and Black, and Gray and Green did not know these things were true. But they did know, all of them, that "the boss himself" was burdened with a *worry habit*, that was rapidly tearing down his efficiency, and it was a common remark that if he would fuss and fret less, he could accomplish far more and develop a bigger business.

He who would win must strip for the race,

A story is told of the darky who was about to join the army and was asked what branch of the service he preferred, infantry or cavalry?

He promptly replied, "Ah puffuhs to jine de cavalry, Boss, den I kin ride."

It was so arranged, but a few hours later he returned and earnestly urged the recruiting officer to change him to the infantry.

"Well," said the officer, "I thought you were anxious to get into the cavalry, so you could ride—what made you change your mind?"

"Well, Boss," said Snowball, "Ah jes got to thinkin' how it would be when we done got up front of de ole Kaiser and all dem Hun Germans, and Ah jes made up mah mind dat if the order come 'to charge,' Ah could git to 'em fas enuf on foot; but if de order come to 'retreat,' Ah don't want to be boddered wid no hoss."

What is your handicap?

Nine cases out of ten you can find it for yourself, by a rigid personal inventory; but if you can't, get a specialist to help you.

A doctor may tell you it is too much fat and not enough exercise, or too many cigars. Or he may find that you are poorly nourished, that

the machine doesn't get the right fuel, on account of the way you eat. A dentist may tell you it is a blind abscess at the root of a tooth. A psychologist may tell you that you are thinking in circles and suffering from morbid negative suggestion. A lawyer may tell you that you are an "easy mark" and everybody takes advantage of you. A teacher of public speaking may tell you that you lack self-confidence and poise, do not express yourself well, use poor English and thus make a bad impression on people that you meet. A minister may tell you that your heart is not right toward God. An efficiency expert may tell you that your business methods are crooked and out of date. A banker may tell you that your credit is bad and that you are loaded with too much wild-cat oil stock.

And they may all be right.

But in the last analysis, "it's up to you" to answer your own question, "What is holding me back," and to work out the solution *by eliminating your handicap.*

CHAPTER XIII

SELF-STARTERS

THE most wonderful thing that has happened in the industrial world during the lifetime of man is the manufacture and sale of the automobile. The auto has revolutionized things in the last ten years. Twenty or twenty-five years ago when a "horseless carriage" was seen on the street it was considered a curiosity, but now we are in luck if we don't get run over by one of the "durn things" whenever we try to cross the street. They are getting so thick in the city, it is said, that all people may be divided into two classes: those who get out of the way and those who don't; or, in other words, the quick and the dead.

It was while watching the traffic on Broadway and noting the predominance of the automobile that this "self-starter" idea came to me. A long line of machines stood along the curb, and the owners were continually coming and

going. But I noticed a great difference in the manner of their going—many of these machines had to be cranked up before they would go. Others were ready to go instantly, without “cranking up.” And the thought came to me, “People are just like that, a whole army of people in this world have to be cranked up before they will go.” The other class of people, fewer in number, but far more efficient, are ready to go instantly, to start without being cranked up. They are the self-starters. And they are the salt of the earth.

And then I noticed another thing as I watched these automobiles along the curb. The cheaper machines were always the kind that had to be cranked up; the higher priced machines did not require it. Just so it is in the business world. The same thing applies to all workers. The cheap workman is the one who requires some one to come and crank him up before he will start to do anything. The high salaried man is the one who does not require any one else to crank him up. You can bank on one thing: You have to pay for every bit of supervising you require in this world. The man who does your cranking for you is not

doing it for fun. He takes a bit out of your pay envelope or a slice off your salary.

Our self-starter has that rare and valuable combination, originality and initiative; a combination which can always be cashed in the open market at one hundred cents on the dollar. So the self-starter idea is a very practical one. It is a matter not only of increased efficiency, but of increased earning power. It measures up big in dollars and cents. I say "rare combination" advisedly. Employers everywhere say that originality and initiative are the rarest faculties, the hardest to find, and the most highly prized among their workers.

Some time ago I asked a big man who employs thousands of people every year, this question: "What is your biggest problem in hiring efficient help?"

"Well," he said, "I'll tell you. I have the most trouble in trying to get an employee to do the right thing in the right way *without being told*. It's an absolute fact that it is harder work to get some of them to do a thing right than it is to do it myself. When you have to *tell* a man *what* to do and then *show* him *how* to do it and then *watch* him to see that he does it

right, it becomes a very expensive proposition. It doesn't pay to take the time of a ten-thousand-dollar man to watch a ten-dollar clerk. I'm willing to pay the price to any man who can do good work right along without being watched, who has some ideas of his own and will act on his own initiative."

The head of a big department store was showing a friend through the store. As they passed from one department to another he commented on different members of his working force. "Now there is a man," he said, "who has been with this firm nearly seven years and in all that time he has never given me a single new idea—not a suggestion for the good of the store in all those years. I'm wishing him on to some of my competitors and I think he is going to change his place before long." A few minutes later he said: "Did you notice that slip of a girl who went down the aisle? I am paying that girl more than any buyer in this store because she is just chuck full of original ideas. She has given me so many good new ideas about the business that she has earned her salary ten times over."

But the greatest reward that comes to a self-

starter can not be measured in money. That would be to put the effect before the cause. The greatest reward lies in the development of personal power and efficiency. In this commercial age the common question is: "What is there in it for me?" And here is the answer: *self-reliance* first of all; the *power of decision*; the *ability to grasp opportunity*; *capacity for independent thinking*; and the *joy of creative work*—all these things shall be added unto the self-starter.

Elbert Hubbard once said: "*The World reserves its big Prizes for Initiative.*" And initiative is doing the right thing without being told. But next to doing the right thing without being told, is to do it when you are told once. There are those who never do a thing without being told twice. Such get no honors and small pay. Next, there are those who do the right thing only when necessity pushes them, and these get indifference instead of honors, and a pittance for pay."

In his old age Alexander Graham Bell was asked, "What is your best advice to any young person starting out in the world?" The old gentleman, looking back over the ripe experi-

ence of his successful career, made answer: "Young man, get an idea of your own—stick to it—and put your whole heart and soul into it every day of your life." Bell was a genius, with the mind of an inventor, but hard-headed, practical business men agree with him on this point.

A man who had been drifting along for years as a clerk in an inferior position, went to his banker for advice. After explaining his situation he said: "I wish you would take time to write me a good long letter and outline a plan and tell me what to do to better my position in the world."

The old banker snorted: "Humph! I don't have to think it over—I can tell you right now, in short order—*wake up and start something.*"

There is no such thing as standing still in these modern times. If you are not going forward, you are already slipping back. The world moves, competition is keen, and the pace is swift. If you lose step with the march of progress you soon fall behind. That fellow was right who said: "You've got to run as fast as you can to stay where you are." Whatever you do, don't stand still; start something; keep

going. Procrastination and indecision are twin devils. The man who fights them must "wake up" and keep wide awake.

It is said that another man first had the idea of the Ford motor and car, but he slept for twenty years while the spider of procrastination spun cobwebs in his brain, and Henry Ford "beat him to it" and secured the patent, which led to fame and fortune.

Why is it that so many of the big executives in our cities, the builders and leaders, are boys who came from the farm? Because the boy on the farm is a self-starter. Out on the old farm he learns self-reliance—that priceless asset. Out there close to nature, he learns to observe—to meet the difficulties of primitive life and conquer them. He is early thrown upon his own resources, and he soon learns to think and act for himself. He goes through the "University of Hard Knocks," and he comes out with the degree of self-starter. That degree qualifies him for entrance in any field of action. He needs no boosting or cranking. All he asks is a fair field and no favors. And in the end he wins to the high places by sheer ability, and holds the balance of power. Such men

have made the United States a power in the world to-day.

Self-reliance, initiative, power of decision, are distinctively American traits.

When our soldier boys got into action on the battle-fields of Europe, it did not take them long to demonstrate that they were self-starters. That indomitable spirit carried Old Glory over the top to Victory, and established the military power of America on an equal basis with her commercial power.

On the other hand, let us look at the country lying to the south of us, a country rich, beyond the dreams of man, in natural resources, a land undeveloped and ungoverned, Mexico—the land of “Mañana.” And just as the self-starter spirit of the American has brought America to the front in the march of Civilization, so the Mañana spirit of the Mexican has kept Mexico far in the rear.

Elbert Hubbard wrote a wonderful little booklet entitled *A Message to Garcia*—a booklet which has been translated into thirty-six different languages and brought its author fame and fortune. The day after it came from the press a big railroad company bought ten

thousand copies for its employees. Other concerns did likewise and the "Message" was read by the millions. Why? Simply because it expressed the experience of thousands of employers, everywhere, because it carried a big idea—an idea which I call the "self-starter idea." Read it, and get a vivid picture of that "fellow named Rowan" who delivered the message. Do not picture him dressed in immaculate white, reclining at ease under a palm tree, eating a ripe banana, and indolently listening to the songs of the tropical birds and the languorous rhythm of the waves of the sea on a tropical shore. Not at all! See him land from an open boat and disappear into the jungle with that message strapped to his belt; see him, alone and on foot, fighting his way through the jungle, where heat and thirst and stinging insects and poisonous reptiles combined to pull him down; where unseen dangers lurked in his path day and night. See him for three weeks in that jungle and then see him come out on the other side, "having *delivered* his message to Garcia."

But, as Hubbard says, the best thing about it all was that he took the message entrusted

to him and did not stop to ask, "Where is he at?"

When your big opportunity comes, there may be no time to ask questions.

When your chance comes to carry a message to Garcia, be ready—ready to recognize it and start.

The trouble with most people is that they do not recognize their opportunity to carry the message when it comes. They are looking for something different, an opulent chance, a princely opportunity, a "soft snap." They would like to carry the message, oh, yes, but they want to ride on upholstered cushions, rolling smoothly along on rubber tires, over oiled surface boulevards. They are not ready to buckle on their belts and go into the open jungle on foot.

Rowan had those rare twin qualities, Go-at-it-iveness and Stick-to-it-iveness. He had the resourcefulness to blaze his own trail.

In business life, the masses follow along the beaten track. Only occasionally can you find one with the originality and resourcefulness to blaze a new trail. Most people travel the same old beaten path and wear it so deep, that it

becomes a rut. You know the old story of the calf path; the calf that wandered through the woods where Philadelphia now stands, and as it wandered it strayed from side to side, nibbling a bunch of tender grass here and there, leaving a winding track through the forest. Then came another calf and followed that same crooked trail, and by and by came the dogs and the men, all following it, until they made a crooked road of it, and it is said some of the streets of that city are crooked to this day. Let us learn to blaze a new trail and blaze it straight!

Some time ago a National City Bank prepared an efficiency test for all their employees. High on the list of questions were these: "How often does the employee do the right thing in the right way without being told?" "What is his measure of self-reliance?" "Does he have to be shown, or will he go ahead without some one to supervise him?" "Has he any initiative?"

All these things are added unto a self-starter: self-reliance, power of decision, resourcefulness, ability to grasp opportunity,

and—greatest of all—a capacity for independent thinking and creative work.

Really to think for yourself, to do creative work, to say: "This is mine, my own idea," or to improve on the idea of another, all this is to know the joy of creative work. And when one attains this, he is ready for *leadership*. A self-starter is a human machine with a dynamo called resourcefulness. It has four wheels: originality and initiative, go-at-it-iveness and stick-to-it-iveness, and it can take the hills on high every time.

Edmund Vance Cook gives us these lines in one of his "Impertinent Poems":

"Are you a Trailer, or are you a Trolley?
Are you tagged to a Leader through wisdom
or folly?

Are you somebody else or you?
Do you vote by the symbol and swallow it
"straight"?

Do you pray by the book, do you pay by the
rate?

Do you tie your cravat by the calendar's date?
Do you follow a cue?

"Are you a writer or that which is worded?
Are you a shepherd or one of the herded?
Which are you, a what or a who?"

It sounds well to call yourself 'One of the
Flock,'

But a sheep is a sheep after all, at the block
You're nothing but mutton, or possibly stock.
Would you flavor a stew?

"Are you a being and boss of your soul?
Or are you a mummy to carry a scroll?

Are you somebody else or you?
When you finally pass to the heavenly wicket,
Where Peter the Scrutinous stands on his
picket,
Are you going to give him a blank for a ticket?
Do you think it will do?"

CHAPTER XIV

COMMON-SENSE EFFICIENCY

EFFICIENCY is the most abused word in the vocabulary of modern business. But who can coin a new word to take its place? We have no synonym for it. There is no substitute for it. The thing it stands for is so vitally essential that we can not go far without it.

Given the right mental attitude, persistent and intelligent effort to develop new brain cells, and the initiative to start, what next? In what direction shall our self-starter go? How shall our brain builder direct and use his mental forces to the best advantage?

Common-sense efficiency is the answer. In spite of all we have suffered from the impractical super-scientific methods and the self-sufficiency of so-called efficiency experts, who operate to the tune of a thousand dollars a day; the world is still tremendously interested in genuine common-sense efficiency; the kind that

saves time and energy and money, and gets results. So wide-spread is this interest that the word "efficiency" has become the keynote of the twentieth century. It appeals to all who want to do things, and do them *better*.

When we come to analyze and define this marvelous word, we find a great variety of definitions. So many and varied that it sometimes leaves one in the puzzled state of the old philosophers who pondered over that question of philosophy: "Which was first, the hen or the egg?" But out of this chaos of opinion we have finally evolved a clear-cut definition upon which the leading efficiency experts of the world are agreed: "*The ability to accomplish the greatest result with the least expenditure of time and energy.*" Looking over three definitions by three different authorities, Morton Hardy, Ida Tarbell and Harrington Emerson, the consensus of opinion seems to be that the person who is efficient is one who can do the most in the best way with the least effort.

Now, when we submit this definition to the acid test of analysis, we see at once that the idea of efficiency here presented is absolutely op-

posed to the hard and strenuous way of doing things. In other words, the modern efficiency teaches that the right way, the scientific way, is ever the most direct way, and that the efficiency of the individual is measured by the *ease* with which he does the thing. So you see it is not a case of doing things by main strength and awkwardness. Batting your head against a stone wall "does not get you anywhere," and many of the difficult, awkward ways of doing things in the past have been thrown forever on the junk heap.

Our efficiency experts also agree that the average man is only fifty per cent. efficient. Some put it even stronger than that. Along comes J. S. Knox, the efficiency expert from Galesburg, Illinois, and tells us that the Great American Desert is not located where it is popularly supposed to be. He says that the geographies are all wrong in regard to that matter; that we have been laboring under a delusion in regard to the exact location of the desert. He states most emphatically that the Great American Desert is located just under the hat of the average man.

Now, let us give a little more attention to

our definition. I am one who believes it is a great mistake to skim lightly over the surface of a topic and I am not content with the idea of imparting merely a brilliant and superficial outside finish. The world is full of people who have heard the word efficiency a thousand times but could not give a clear-cut definition nor could they give the first law of efficiency. Above all else, I hope to go right down to the root of things. It is harder work to dig down and lay a foundation, a solid foundation, or to delve deep for the fundamental principles, than it is to follow the line of least resistance and treat the subject superficially, but I am sure we shall be more than repaid for the extra effort, not only in our ultimate understanding and grasp of the subject, but in the supreme self-satisfaction which comes from doing a thing well.

The first question to ask is this: What is the first law of efficiency? The answer can be given in three words—**ELIMINATE LOST MOTION**—and this applies not only to physical, but to mental motion, and further, lost motion has the broader significance of waste. It may apply, not only to loss of energy, but to

loss or waste of money, food, or any natural resources.

Eliminate lost motion. This then is our starting point in our quest for personal efficiency. What a world of meaning is to be found in these three simple words; and let us keep in mind that the last two of these words are equivalent to one bigger word—WASTE. To-day the greatest brains of the world are studying to overcome the problems of waste. A truly efficient person abhors waste in the same cold-blooded manner that nature abhors a vacuum, and all the methods worked out by our efficiency experts are aimed at waste.

I have studied these methods very carefully the past few years, and have watched the working plans used by the big efficiency experts in the East. These experts are frequently engaged by stores, factories and other plants, at a colossal salary, to go over the plant thoroughly and make an exhaustive efficiency report. When this report comes in, it generally looks like an *in*-efficiency report. In every case which has come under my observation I find that the experts made the test on four points: 1. Eliminating lost motion. 2. Shortening dis-

tances. 3. Sequence of motion. 4. Gravity, or working with natural laws.

In order to make this clear, let me tell you of some general tests that have been made. The first test was made with bricklayers. After the experts had watched a gang of twenty-two men for three days they began to eliminate the lost motion. They found that the men were using an average of about nineteen motions to each brick before it was finally in place. As a result of applying this first law they were able to reduce these nineteen motions to an average of two to three motions per brick. Next, they applied the principle of shortening distance. The men had been stooping and picking the bricks up from a platform which was on a level with their feet. This platform was raised about three feet, which materially shortened the distance and lessened the labor. Next, they invented a more convenient hod which held more bricks and arranged them in a more convenient way, so they were able to apply sequence of motion and also the law of gravity. As a final result of this test, at the end of thirty days eight men were able to do the same amount of work that twenty-two men

had been doing, and to do it better and with less effort.

Another very interesting test was that made by a large publishing house in the East. They started a circulation campaign in which it was necessary to send out many thousands of letters. The efficiency experts were put on the job to see if they could get better results. They watched the girls who were working on the stamping and mailing of the envelopes. They found the envelopes were piled in the wrong way, so these were moved closer to the girls and piled on edge. Next, they worked out a new plan for stamping. A long strip of stamps was fed over a wet sponge directly over the pile of letters, so that one girl by manipulating the envelope with one hand, and by a single pressure on the stamp with the thumb of the other hand, was able to increase the speed from eighteen letters a minute to as high as one hundred fifty. Before the experts came in, the girls had been tossing the letters into a large basket three or four feet away. The basket was arranged directly under the place where the stamp was applied, so that all that was necessary was to drop the letter. This seems

a simple thing but it proved to be very effective—taking advantage of the law of gravity, you see. The result was that on the sixth day of the test more letters were mailed than had been mailed in the first three days combined. When you consider that over one hundred girls were working on this job, you can realize the enormous saving.

I recall another concrete example in the life of Abraham Lincoln, which especially illustrates the value of *common-sense* efficiency. When Lincoln was a young fellow he started down the river one day in a boat with a comrade. They were heavily loaded with hides and pelts and several barrels of molasses and vinegar. The third day they struck a milldam and were grounded. The nose of the boat hung over the dam and they were left high and dry. The best local authority on the subject was of the opinion that the case was hopeless and that the boat would stick there until high water came but Lincoln applied some common-sense efficiency. He rolled those barrels to the front end of the boat, which hung over the dam, thus shifting the balance of the weight. Then he calmly bored a hole in the other end, keeping

the plug handy, and let the water they had taken drain out. In a few minutes the boat slid over the dam and Lincoln proceeded on his way rejoicing.

These simple instances make very clear, I think, the application of the four test points of efficiency.

On further analysis of efficiency we find there are two divisions, or two kinds of efficiency: Personal efficiency and Cooperative efficiency. Some people have one kind, some the other. A very few have both and many have neither.

Personal efficiency is the first step; cooperative efficiency is the second—the more advanced step. I never knew any one who had cooperative efficiency who had not first acquired personal efficiency. But this advanced step or second division has been generally overlooked. Thousands of people have given years to development of personal efficiency but have stopped short of the second step and thereby missed the logical result of all the work they had done; failed to reap the harvest which is the natural fruition of the sowing done in the personal work. I suppose it would be safe to

say that practically every man or woman who reads this has given much time to the development of personal efficiency during the past few years. But I doubt if more than a few have made the larger application in cooperative efficiency. This is the need of the hour. Employers tell me it is the weakest link in their chain. In fact, it is so rare that I have been inclined to change the subject of this chapter and call it "The Missing Link." Thousands of employees are personally efficient, but they fail to fit in as a working unit with others; fail to do team work; fail to cooperate. And we must recognize the fact that we are living in an age that absolutely *demands cooperation*. There was a time when nearly every man was in business for himself—a free-lance—a time when business was made up of a multitude of one-man concerns, and it was not so necessary to work harmoniously and efficiently with others.

But modern conditions have changed all this. To-day we have an age of organization, combination and capitalization. One great business firm to-day does the business formerly done by thousands of little concerns. So it

becomes necessary, under this new plan, for many heads and hands to work together; for many to work for a common goal, for big aggregate results. This makes cooperative efficiency an absolute necessity.

Everywhere I go, traveling from one part of the country to another, one city to another, I find that men are organizing as never before; not only in a business way but also in a fraternal way.

We have Chambers of Commerce, our Real Estate Exchanges, our Salesmanship Clubs, our Civic and Commercial Associations and our Rotary Clubs, and always with one big idea back of them—a big idea that can be expressed in one big word—*together*.

We are getting away from the old adage, "Every man for himself and the devil take the hindmost." The slogan of to-day is "*Together, together.*" We must realize that we have a *common interest*, that our welfare is bound up with that of the other fellow; that we rise or fall together.

Some time ago I saw a picture in a western city which vividly illustrated this point. The scene was laid in the Rocky Mountains, near a

mining camp. Pat and Mike were returning from their work, with their dinner-pails in hand and their picks over their shoulders. They were following a narrow mountain trail which ran along the edge of a precipice—below them was a sheer drop of a thousand feet, to the right a perpendicular wall of granite. Suddenly a snowslide started above them, and before they could get out of the way, they were caught in the onrushing avalanche, and hurled over the edge of the cliff. But as they went over, Pat had the good luck to catch the point of his pick on the rim of the rocky ledge, and Mike caught hold of Pat's leg. There they swung in mid-air, below them a terrible fall to death on the rocks, Pat clinging desperately to the handle of his pick—Mike clinging desperately to Pat's leg. All that held them from death was the few inches of steel in the slender tip of that pick, caught firmly over the jutting rock.

There they swung, until finally Mike's weight began to tell on Pat's leg. He grew heavier and heavier and at last Pat grew "sore." His temper exploded, and glaring vindictively at his companion, he said between

gasps for breath: "Moike, leggo me leg or Oi'll soak ye over the head wid me pick."

So it is with many of us in our cooperation. When we feel the weight of the other fellow pulling on us we get "sore," lose our self-control and "soak him" and then we all go down together.

Let us learn to say "Our," "We," "Altogether."

Sometimes the poet catches the vision and crystallizes a big idea in one stanza, which expresses it better than a whole chapter of prose. So Kipling picked up his magic pen and wrote:

"Oh, it's not the guns or Armament,
Or the funds that they can pay.
It's the *close cooperation* that makes them win
the day.
It's not the individual
Or the Army as a whole,
*It's the everlastin' teamwork of every bloomin'
soul.*"

That's the keynote of success in winning both battles and business—the "everlastin' teamwork of every bloomin' soul."

Common sense dictates that a man must at-

tain personal efficiency before his cooperation is of any value!

Personal efficiency is of value only as it relates itself to others and cooperates. In fact, it is possible to have a high degree of personal efficiency and be a failure. Every big business concern has on its payroll some one who has a high degree of personal efficiency, but who will not work harmoniously with others; absolutely "no good" in teamwork, and such an employee is a detriment to the firm.

I remember a fellow in college who was a star athlete, the strongest man we had. In football he knew every point of the game. He was powerful as an ox, could run swiftly, catch the ball unerringly, buck the line like a battering ram. No man could kick goal so surely as he, or tackle so hard.

He was master of every part of the game, as far as personal prowess was concerned, but when he made the team and went into the big games, he was a detriment to the team, and lost more than he won. Simply because he would not do teamwork! Always trying to pull off some spectacular lone play, until at last he was dropped from the team.

In the game of "Life," as in football, a man must play his part in relation to other parts, play up to the positions on each side of him. Personal efficiency alone can carry a man only so far, then he is done, unless he can take the advanced step and adjust himself to work with others. He must keep in mind the common goal and the final score. That counts far more than any end run he may make, personally. Sometimes he must sacrifice his own run for the sake of the score, and let some one else make the touch-down.

The two great essentials in cooperative efficiency are adaptability and adjustability. Many a time a man has been saved in a tight pinch by adapting himself quickly to the circumstances, not only in the serious affairs of life, but also in unexpected situations, which furnish the comedy of life. The story of Henry Watterson's pass is a case in point. A young man in Chicago was very anxious to attend the races in Kentucky, but unfortunately lacked the necessary cash for a railroad ticket. He confided his troubles to a friend who had once been a reporter on Colonel Watterson's paper in Louisville. This friend

promptly offered him the use of his reporter's pass and it was gladly accepted. But after the young man had boarded the train and inspected the pass he grew uneasy. The description did not tally very well with his own general plans and specifications. His anxiety increased as the conductor approached, but he assumed an indifferent air and handed over the pass.

The conductor looked at it, then looked at the young man, and the more he looked the more he doubted. He asked a few leading questions and the answers strengthened his doubts. At last he said: "I know how to settle it—just occurs to me that Colonel Watterson himself is back in the Pullman. I just took up his pass a while ago. Come with me and if you are a reporter on his paper as you say, he can identify you."

The young man began to wish the train would run off the track, but he had to go along. The conductor led him up to a distinguished-looking gentleman with white hair and said: "Colonel Watterson, this young fellow is traveling on a pass as a reporter on the *Louisville Courier*, so I brought him in for you

to identify." The young man waited for the lightning to strike, but to his amazement the colonel shook him cordially by the hand and said:

"How are you, Jim! Yes, this is one of the best reporters I have on my staff." The conductor apologetically withdrew, while the young man wondered. After a few minutes' conversation with the colonel he attempted to thank him.

"Colonel Watterson," he said, "I can't begin to thank you for helping me out of such a hole, and I a total stranger to you. Of course you knew all the time that you had never laid eyes on me before and that I was only bluffing."

"Don't mention it, my boy, don't mention it," was the genial response, "I was glad you had the presence of mind to keep still—nothing like adapting yourself to the situation, my boy—adjusting yourself to the emergency of the hour. I was glad to help you out, in fact it rather helped me out—you see I'm traveling on a pass, too—but as it happens, *I'm not Colonel Watterson.*"

When it comes to a practical application of

the four testing points of efficiency as outlined, each one must work it out for himself. In your daily work, no matter what it may be, you can use these principles in a common-sense, practical way to great advantage. You may be the manager of a big store and find that you can eliminate a lot of lost motion, and use the energy you have been wasting. You may be a clerk in that same store and find that you can greatly increase your efficiency behind the counter by rearranging your goods so as to shorten distance. You may be a professional man, scattering your forces and falling far short of your goal, because you do not use the principle of sequence of motion. You may be a manufacturer who might double the earning capacity of his plant by simply taking advantage of natural laws, and pulling with the current instead of against it. No matter where or what your work may be, you can improve it by making a careful survey of your own efficiency and applying these four working principles. Back of it all, and all the time, "there must be a genuine desire to cooperate with the other fellow."

Let us take a common example, familiar to

all—the modern department store. Here teamwork in selling is the paramount issue. Passing the customer from one department to another is the method and it brings marvelous results wherever it is tried out. Salespeople should always remember this fact: the average customer has *more than one want or need* each time he comes to your store. True, he may come for a single article, the expedient thing which can not be put off till later, but at the same time he needs half a dozen things kept in that same store. He knows this and knows that he must purchase them soon, but he puts off the evil day as long as possible. Now the salespeople of that store will do that customer a positive favor by doing the teamwork necessary to sell all the articles he needs on one trip, instead of leaving him to make three or four trips later, or possibly to supply his needs at some other store. And think of the time that is saved for all concerned, and the lost motion that is eliminated on both sides! Cooperation in selling will make five sales grow where one grew before. Lack of it will lose the firm more sales than all their advertising can gain.

Some time ago a prosperous business man

by the name of Jones, went into a store to buy a collar. He knew of several other articles kept in that store which he must buy soon, but he needed the collar immediately, so that was all he asked for. But after he had selected his collar the salesman skilfully called his attention to a certain necktie and suggested that it would match the suit he was wearing. Now Jones didn't need the necktie, but he "fell for it" and departed. Now, here is the point of the story. On this same day that store was having a sale on overcoats, and Jones *needed* an overcoat. He knew he needed it and was planning to get it within a few days. Had that salesman used half the skill in suggesting to him the overcoat sale in another department, only a few steps away, that he had used in suggesting the necktie he could have sold him a fifty-dollar overcoat which he needed, more easily than he sold him the fifty-cent necktie, which he did not need. As it happened, Jones bought his overcoat the same week, but at another store, where he chanced to see a coat in the window that took his fancy. The first store lost the sale not because Jones did not have faith in their goods, but because they lacked cooperative efficiency

between their departments. Had his attention been called to the overcoat at the right time, he would undoubtedly have bought then and there. Just in this way sales are lost every day in every store in the land. And when the firm loses, every one connected with the firm loses. It cuts down the score for the year.

Little by little higher ideals of service are coming into business life. Service is the most common-sense thing in the world. It is at once the inspiration and the crown of the highest efficiency. But without cooperation it is impossible. Last year a national convention in Chicago adopted a wonderful slogan—"The strength of each for the good of all." It is worthy to be inscribed in letters of ivory and gold over the door of every business house and factory in the land.

In all our striving for efficiency, the ultimate goal should be better service to mankind.

Berton Braley had the right idea when he wrote "Business is Business."

"Business is Business," the little man said,
"A battle where everything goes,
Where the only gospel is 'get ahead,'
And never spare friends or foes.

Slay or be slain, is the slogan cold.

You must struggle and slash and tear.
For Business is Business—a fight for gold
Where all that you do is fair.”

“Business is Business,” the big man said,
“A battle, to make of earth,
A place to yield us more wine and bread,
More pleasure and joy and mirth.
There are still some bandits and buccaneers,
Some jungle bred beasts of trade,
But their number dwindles with passing
years,
And dead is the Code they made.”

“Business is Business,” the big man said,
“But it’s something that’s more, far more,
For it makes sweet gardens of deserts dead
And cities it built now roar,
Where once the deer and the wild wolf ran
From the Pioneers’ swift advance,
Business is magic that toils for man,
Business is true Romance.

“And those who make it a ruthless fight
Have only themselves to blame
If they feel no whit of the keen delight
In playing the Bigger Game.
The game that calls on the Heart and Head
And the best of man’s strength and nerve.
Business is Business,” the big man said,
“And that business is *To Serve.*”

CHAPTER XV

SHOCK ABSORBERS

THE pleasure of an auto trip across country depends largely upon the smoothness with which the machine runs, the freedom from jolts and jars and bumps.

All kinds of roads will be found on the journey—roads dry and roads wet—roads both straight and crooked—rough and smooth—uphill and down—and makeshifts for roads, which are in reality only an endless chain of ruts, bumps and chuckholes, which shake up the passengers until they feel seasick. But over all these roads the machine must make its way, and if it is a high-class auto, it will go smoothly over all obstacles without disturbing the comfort of those who ride.

For their comfort it is equipped with a modern device called a shock absorber, which takes care of the jolts and jars; absorbs the shocks which would otherwise land with full force upon the weary frame of the helpless passen-

ger. Not only this, but air-filled pneumatic tires are used, which act as shock absorbers to protect the motor and the more delicate mechanism of the machine from the jolts of the hard bumps.

As we journey along the highway of life our pleasure and comfort and well-being are likewise determined by the smoothness of our travel. Likewise we find all kinds of roads, and many a hard place in the road, many a bump that jars us to the very center of our being.

We, too, need shock absorbers—something to equip the human machine in such a way that the life within may be protected from the danger of all shocks, either trifling or terrible. What shall we use for shock absorbers, you and I and the other fellow? Many people would answer "Religion," for they turn to divine help in all the trials and troubles of life. But religion is something so big it can not be adequately treated in the limited space of this chapter.

Others would answer "Friends," for they find solace in human friendship when "everything goes dead wrong." But it is my pur-

pose in this article to deal only with those resources which a man has within himself, those aids which he can use for himself.

There are five shock absorbers which are available in time of need for each and every one of us. Fortified with these five, we can travel more smoothly over the rugged ways, and get more joy out of the journey. The first of these is *philosophy*. This does not necessarily mean an abstract, abstruse subject, of interest only to the scholar. It means something which teaches a man "how to live." Every man should work out his own philosophy of life, in order that he may "take things philosophically" when he strikes the rough places. It draws clearly the dividing line between the externals and the fundamentals of existence and enables one to lay hold of the eternal verities of life. In the history of mankind philosophy has been the initiative to positive science. The philosopher watches the procession of life pass by and sees with understanding eyes. Behind the act he sees the cause. Secure in this knowledge he is unshaken in the storms of life. He knows that such ills are common to all, and when trouble overtakes him, he says,

like the Oriental philosopher, "This, too, will pass."

Another shock absorber is a *sense of humor*. In the stress of circumstances it is the saving grace that keeps men sane. It is the little leaven in the loaf. It is a gift which should be cultivated. Many a time it saves the situation, or wins out at a critical moment. A never-failing humor helps to ease us over the rough places, and proves a veritable life-saver in the hour of crisis. This gift is not limited to race, or sex, or to young or old. It is always generous, spontaneous, free-hearted. It is not to be confused with mere cleverness, or an attempt to be smart. It is not akin to ridicule.

Three young men, students in a theological seminary, were out strolling one day, when they saw approaching them, down the road, an old man with a long white beard. His old-fashioned appearance excited their levity and they indulged in hilarious laughter and made sport of him among themselves. When they met the old man, one bowed in mock humility and said, "Good evening, Father Abraham!" The second bowed and said, "Good morning, Father Jacob!" and the third with a low bow

said, "Good day, Father Isaac!" The old man looked at them keenly for a moment, then answered gravely, "You are mistaken, I am neither Abraham, Isaac or Jacob; but Saul, the son of Kish, who went forth in search of his father's three asses; and lo! he hath found them."

Many of us are inclined to take things too seriously, and especially to take ourselves too seriously. It's worth a lot to be able to see the funny side of things. Blessed is he who has that saving grace—that rare gift—a *sense of humor*.

Another way in which many of the shocks can be absorbed is by means of what I would call "*a safety margin*." In financial affairs, the man with some reserve can tide over the panic. Without it, he is "caught in a pinch," has no margin of safety, no reserve to draw upon, and either becomes bankrupt or suffers a serious financial blow from which he never recovers. The same thing applies in the matter of health and physical vigor. When sickness comes, or accident, or any manner of trouble, that man is best able to stand the shock, throw off the destructive agencies and

recover, who has reserve strength and vitality to draw upon. Any plan of living which does not allow a fair margin of safety is faulty. Sooner or later that margin will be needed, and badly needed.

Perhaps the most remarkable shock absorber of all is what Orison Swett Marden calls "*mental chemistry*." In his book entitled, *Peace, Power and Plenty*, he explains mental chemistry as follows:

"The experiments made by Professor Elmer C. Gates have shown that irascible, malevolent, and depressing emotions generate in the system injurious compounds, some of which are extremely poisonous; and that agreeable, happy emotions generate chemical compounds of nutritious value, which stimulate the cells to manufacture energy.

"'For each bad emotion,' says Professor Gates, 'there is a corresponding chemical change in the tissues of the body. Every good emotion makes a life-promoting change. Every thought which enters the mind is registered in the brain by a change in the structure of its cells. The change is a physical change more or less permanent.

"Any one may go into the business of building his own mind for an hour each day, calling up pleasant memories and ideas. Let him summon feelings of benevolence and unselfish-

ness, making this a regular exercise like swinging dumb-bells. Let him gradually increase the time devoted to these psychical gymnastics until it reaches sixty or ninety minutes per diem. At the end of a month he will find the change in himself surprising. The alteration will be apparent in his actions and thoughts. It will have registered in the cell structure of his brain.'

"There are many ways of ruining the body besides smoking or getting drunk, or indulging in other sensual vices. Anger changes the chemical properties of the saliva to a poison dangerous to life. It is well known that sudden and violent emotions have not only weakened the heart in a few hours, but have also caused death and insanity.

"That man is truly great who can rule his mental kingdom, who at will can master his moods; who knows enough of mental chemistry to neutralize a fit of the 'blues,' to antidote any evil, poisonous thought with the opposite thought, just as a chemist neutralizes an acid that is eating into his flesh by applying an alkaline antidote. A man ignorant of chemistry might apply another acid which would eat still further into his flesh; but the chemist knows the antidote of the particular acid that is doing the mischief, and can kill its corrosive, eating quality in an instant."

So the mental chemist knows how to counteract the corrosive, wearing, tearing power

of the despondent, depressing thought by its cheerful antidote. He knows that the optimistic thought is sure death to the pessimistic thought; that harmony will quickly neutralize any form of discord; that the health thought will antidote the ailing, sick thought; that the love thought will kill the hatred thought, the jealous, revengeful thought. He does not need to suffer mental anguish, because he always has his mental remedy with him. The moment he applies its antidote, the fatal corrosive power of the malignant thought is neutralized.

If children were taught mental chemistry, as they are taught physical chemistry, there would be no ailing pessimists, no victims of the "blues." We should not see so many long dejected, gloomy faces everywhere. We should not see so many criminals, so many sorrowful, tragic failures in every rank of society, in every walk of life.

Many of us keep our minds more or less poisoned much of the time because of our ignorance of mental chemistry. We suffer from mental self-poison and do not know it. Neither

do we know how to antidote the poison passions which are working havoc in our bodies.

Nothing else will so exhaust the vitality and whittle away life as violent fits of hatred, bitter jealousy, or determination for revenge. We see the victims of these passions worn out, haggard, old, even before they have reached middle life. There are cases on record where fierce jealousy and hatred raging through the system aged the victims by years in a few days or weeks.

Yet these mental poisons are just as easily antidoted, conquered, as physical poisons which have well-known antidotes. If we are sick with a fever we go to a physician for a remedy; but when jealousy or hatred is raging within us we suffer tortures until the fever gradually wears itself out, not knowing that by an application of love which would quickly antidote it, we could easily have avoided not only the suffering but also the wear and tear of the entire system, especially of the delicate brain structure.

“As there is no filth, no impurity, in any water which can not be removed by the science

of chemistry, so there is no human mind so filthy, so poisoned with vicious thinking and vicious habits, so saturated with vice, that it can not be cleared up by right thinking; by the counter-suggestion of the thing that has polluted it.

“It is the poison-specialist’s, the toxicologist’s duty to know what will antidote every kind of poison. He would not try to save a patient from arsenic poison with the antidote for morphine. He must have the arsenic antidote, and he can usually tell by the symptoms in each case what poison has been taken.”

Many a precious life has been lost which could have been saved if people around the victim at the time had only known the antidote of the poison taken. I have known a man poisoned with carbolic acid to be given the antidote for prussic acid, which, of course, did not save the patient, because it was not the right antidote.

The time will come when every intelligent person will be expert enough in mental chemistry to be able to apply the proper antidotes for special forms of mental poisoning.

We shall find that it is just as easy to counteract an unfriendly, disagreeable, vicious thought by turning on the counter-thought, as

it is to rob the hot water of its burning power by turning on the cold-water faucet. We shall be able to regulate the temperature of our thought as the temperature of water. If the water is too hot we simply turn on the cold faucet. If we feel our brain heating up with hot temper, we shall simply turn on the love thought, the peace thought, and the anger heat will be instantly cooled.

In other words, it is perfectly possible, and not very difficult, absolutely to control the quality of the thought, to regulate our peace of mind, to maintain poise and balance, a sweet, peaceful mental serenity, under the most trying circumstances.

It will be absolutely impossible, by any kind of aggravation or work or passion or torture, to disturb the balance, the dignified serenity of the coming man. It will be impossible to make him suffer, because he knows the secret of counteracting the vicious, harmful thought so that it will be neutralized or will fall flat. If the coming man feels the "blues" coming on, he will be able to counteract this condition in an instant. He will know how to stop the eating of the acid thought with the alkali thought,

If he feels a sense of weakness coming on he will immediately annihilate it by a flood thought of strength and robustness—vigor.

Think, for example, how many human ills can be antidoted by the magical chemistry of the love thought! It is a solvent for selfishness and greed, a destroyer of hatred, envy and jealousy, of revenge.

Think what it would mean if we could only keep the mind filled with loving, helpful, hopeful, encouraging, cheerful, fearless suggestions! We would not then need to deny their opposites, for, when the positive is present, the negative flees.

We can not drive the darkness out of a room. We let in the light and the darkness flees.

The way to get rid of discord is to flood the mind with harmony; then discord vanishes, as darkness flees before the light.

The way to get despondency and discouragement out of the mind is to fill it with encouraging, hopeful, cheerful pictures. Discouragement and despondency are killed by their opposites. They are the natural antidotes.

An acid is instantly killed by the presence of an alkali. Fire can not exist in the presence

of its opposite, carbonic-acid gas or water. We can not drive hatred, jealousy, revenge out of the mind by will power, by trying to force them out. Love is the alkali which will immediately neutralize, antidote them.

The trouble with most people is that they try to drive out the bad in themselves instead of antidoting it with the good. They try to force hatred out of their minds without the assistance of its antidote.

Change the mental attitude—think love, feel love for that object which we hated, and the hatred is instantly neutralized. Whenever you are timid, inclined to express doubt, fear or anxiety in any form, expel these destructive suggestions with their counter-suggestions.

The last and greatest of our five shock absorbers is *self-control*. Without this all the others are useless. It is the balance wheel of the human mind. That rare faculty which holds us steady when reverses come, when sudden losses come, when unexpected bad news comes, when bitter disappointment or failure or defeat comes home to us.

That inner brake on the brain which keeps

a man from "flying to pieces" or "blowing up," that attitude which best reveals the God-like spirit of man; that is the faculty which gives man dominion over all things. And the high-strung, excitable American, with his tendency to "blow up" can well learn a lesson from the calm poise of the Japanese. In a recent Japanese play, the leading character exclaims, at the climax of the drama, "I have committed the unpardonable sin! I have lost my self-control."

So as we continue our journey, let us use our shock absorbers, that we may travel more smoothly.

Philosophy, a sense of humor, a safety margin, mental chemistry and last, but not least, self-control.

"He that ruleth his own spirit, is greater than he that taketh a city."

The man of the future, the leader of tomorrow, will be able to do both.

CHAPTER XVI

PRACTICAL MEMORY TRAINING

IN determining how much a man really knows, his memory is the supreme test. It is the utility test, because no knowledge is useful, no learning has any practical applied value, unless it can be remembered. It represents available knowledge. It is cash on hand.

Memory training means mental efficiency. Some one has said that the difference between a trained memory and an untrained memory is just the difference between a mind equipped with a filing cabinet and a mind equipped with a waste-paper basket. Both may contain the same amount of information, but you can *find it* in the filing cabinet *when you need it!* You are no stronger mentally than your memory.

An old saying comes to mind:

“It is not what you eat, but what you digest, that makes you strong;

It is not what you earn, but what you save, that makes you rich;

It is not what you learn, but what you *remember*, that makes you wise.”

The things a man has forgotten are of no present value to him. His net quick assets are the things he remembers.

A good joke was played on an old official of the English Foreign Office when he retired from the service. His colleagues, who had a sense of humor, placed a card in the shape of a funeral tablet upon the mantelpiece of his old room, bearing these words: "In memory of 'X,' who departed this official life on the 30th of March, 1873. Scrupulous in the avoidance of every duty, he gracefully escaped the obligations of this transitory life. Regarding virtue as a thing beyond price, he was careful not to degrade it by practice. His mind was a storehouse of knowledge, *of which he had lost the key.* Pax nobis."

The English official is not the only one who has lost that key—the magic key we call memory—but many lose it *before* they retire from service.

In the development of personal efficiency, we find that practical memory training is the most direct way to develop accuracy. In fact, a poor memory and inaccuracy generally go hand in hand. Important as the perceptive

faculties are, they are of little value unless accompanied by a keen memory which records and retains all observations. It is not enough to notice, we must notice and *remember*. It is surprising how general is this weakness. Practical tests made with large classes of both men and women have demonstrated over and over again that poor memories are the rule and not the exception.

The value of a good memory can hardly be estimated. It is worth developing, and beyond all question, it can be developed. No matter how weak your memory may be at present, you can greatly increase its power. No royal road leads to the achievement, but there is a way.

Many methods and memory systems have been offered, good, bad and indifferent. They have been widely advertised, and we have grown familiar with such striking head-lines as: "Stop Forgetting." "You Are No Stronger Than Your Memory." "A Wandering Mind Never Arrives at a Supreme Conclusion."

Thousands have taken these courses, with highly beneficial results; and can bear personal

testimony to their value. While others have received but little benefit. Sometimes this has been the fault of the system; sometimes the fault of the student, who did not apply himself.

The greatest weakness of many systems of memory training lies in the fact that they are built around some elaborate "key," or intricate "cue" arrangement, which is harder to remember than the thing itself. They are like the teacher who says to the student: "Now you can remember the meaning of the word 'near' by associating it with 'propinquity' and 'juxtaposition.'" After struggling with such impractical systems, the discouraged memory student decides that "the cure is worse than the cold."

Some have marked out very ingenious and more or less practical systems for themselves. Every one is familiar with the old "string on the finger" to jog the memory.

A business man came down to his office recently with a long piece of string wrapped around his finger. About noon his partner noticed it and said: "Jim, what's that string on your finger for?" "Oh," said Jim, "my wife

tied that on there this morning, so I wouldn't forget to mail a letter for her." "Well, did you mail it?" "No—she forgot to give it to me."

He who would develop a great memory must clearly understand what memory is, and the channels through which impressions are received. There are many of these though we shall only mention the three main channels which receive the impressions to be recorded. These three are, the Visual, the Aural, the Motor.

The visual memory records that which comes to us through the eye. It is the most common form, and generally the best developed part of the average memory, because most used.

The aural memory records that which comes to us through the ear. It is not, as a rule, nearly so well developed as the visual. Most people remember what they see far better than what they hear. Exceptions to the rule are found in the man who can come home after a sermon or a lecture, and give an accurate outline of it, and repeat much of it, word for word; or the woman who can hum the air of a new opera after hearing it once. They have de-

veloped the aural memory to a high degree of efficiency by use. Others who hear the same sermon or listen to the same opera may be unable to repeat even the text, or reproduce any part of the melody. Their aural sense is weak and undeveloped, and generally they have no standard of tone values. But these same people may be able to give you reel after reel of a "movie" they have seen! They remember what they *see*, but they fail utterly to retain what they *hear*.

Of course, a well balanced mind has both the visual and aural memory well developed. A strong visual sense is found with a keen perceptive faculty—its owner has formed the habit of noticing accurately. He never forgets a face, but he may be at a loss to recall the name, simply because he has never *seen* the name. He has only heard it, and his aural memory was not able to retain it. Such a man is quick to remember dates, statistics—all forms of figures and numbers.

I once knew a shipping clerk who was an expert along this line. He could instantly give the stock number of almost any piece of merchandise in the large department store where

he worked. "Yes," he said, "give me a good look at it, and after that, if anybody wants to know that number, I just shut my eyes and she floats up." Needless to say, this particular ability saved a lot of time and made him a valuable man to the firm.

But the ability to remember what is heard is rarer. In the memory tests which I have used many times in large classes, I found on an average only one man out of forty whose aural memory was stronger than his visual. About one out of twenty had the two equally developed. All the rest were very slow on any test they could not see. Some could not repeat a stanza or paragraph accurately after hearing it twenty-five times.

How rarely do we find any one who can reproduce for us a lecture or a play which he has heard, or any part of it. But we all know the inspired idiot who comes to us grinning from ear to ear and says, "I heard a dandy story last night." Then he indulges in a fit of silent merriment, while you wait. "Funniest story I ever heard in my life!" Another fit of prolonged laughter, which continues until you patiently interrupt. "Well, what was it?"

Come on and tell it." "Oh, it sure was a dandy!" And then he proceeds, between spasms, to lead you on, until he has aroused your anticipations, and then, just as he comes to the point of the story, a blank expression spreads over his face, and a fishy look creeps into his eyes, and he comes to a dead stop. It is only too apparent, as you watch him, that there is "nobody home." After a moment of mental anguish, he stammers, "I—I forget the rest of it, but—ha! ha!—it sure was a dandy story." And off he goes into another fit of unseemly merriment, until you can hardly restrain a savage desire to kick him hard enough to jar his sleeping memory into life. "The saddest words of tongue or pen, are these two words, '*I forgot.*'"

The ability to tell a good story, and tell it well, is an art in itself. He who would excel in this, must first of all train his aural memory to grasp a new story when he hears it, to grasp it instantly, vividly, accurately. He must "catch it on the fly," for he may never hear that story again. He must stamp it so indelibly on his brain that he can reproduce it.

The third form is known as motor memory,

It refers to all that comes to us through the sense of touch. The clerk in the grocery store, who sells many packages and parcels by weight, soon becomes an adept. By the power of his motor sense he can "heft" a package and often guess its exact weight, or within a few ounces of it. The saleswoman who handles dress goods soon learns to distinguish linen, silk, cotton and many other fabrics simply by the touch—the "feel of it." She knows what it is without seeing, because of the impressions previously recorded on the motor memory cells of the brain. She knows the texture of different goods and fabrics, and becomes a good judge of quality.

This kind of memory is best developed in the blind and the deaf. Being deprived of the visual and aural, they concentrate on the motor, and develop it to a wonderful degree. They acquire a rare delicacy of touch which is almost equal to an extra sense. Helen Keller, and many others not so well known, have demonstrated the marvelous possibilities of motor memory. This high efficiency seems to be nature's compensation for the loss of the other faculties.

Any practical system of training must not overlook any one of these three channels, as outlined, but special emphasis must be laid upon the visual and the aural. Begin with the aural. Find out how weak it is, or how strong—give yourself daily tests. Select a paragraph to commit, preferably one with a sequence of ideas. The following is good for this purpose:

“He who knows, and knows that he knows, is wise—follow him.

He who knows, and knows not that he knows, is simple—lead him.

He who knows not, and knows that he knows not, is ignorant—teach him.

He who knows not, and knows not that he knows not, is a fool—shun him.”

Read this carefully, then test your memory, and see if you can repeat it aloud, without referring to the book. If not, read again, close the book, and test again. If you are still unable to recall certain parts, continue the test, until you can give the entire quotation accurately, word for word. Make your test after each reading, and keep count to see how many times you have to go over it, before you master

it. Once or twice is sufficient for a good memory, but few can do this without training. Many require ten to twenty perusals before they can repeat it.

Think of the waste of time! What a pity to go through life with a poor memory! Think of the hours saved by a trained memory which can grasp a paragraph accurately on *one* reading, instead of *ten*! It would be a tremendous amount in a lifetime.

Ask yourself a few pointed questions:

Can you recall instantly any piece of information you may need from day to day?

When you want it in a hurry is it *there* or "*somewhere*"?

How many times must you see a face in order to connect it with the right name?

How many times do you look up the same old telephone number, or address, a price, or a stock number, an insurance rate, or a friend's initials, before you get them recorded on the tablet of your memory, ready for immediate use?

Once is enough! It ought to be *there*.

Life is short. Time is worth more than money!

Save your time and mental energy for real thinking, for constructive, creative work. Don't waste it on brain-racking efforts to remember trifles, or on the time-killing, irritating work of "looking things up" over and over again.

In the preceding quotation, some members of a class made what might be termed a "very free" translation. One young fellow "reproduced" the last sentence somewhat as follows:

"He who don't know, and don't know that he don't know, is a bonehead—ditch him."

He had the idea, but his negative was decidedly blurred. He was not yet ready for the advanced step, "logical memory" or memorizing ideas.

First must come the clear-cut accuracy which comes as a direct result of training the "rote memory." Verbal memory first; logical memory and sequence later. Further, we must not overlook the distinction between remembering and recollecting. To remember implies that a thing existed in the memory, not that it is actually present in the thoughts at the moment, but that it recurs without effort. Remembrance is the storehouse—recollection, the act

calling out the thought from the repository. "He remembers everything he hears and can recollect any statement when called upon." These words are often confused, and we say we can not remember a thing, when we mean we can not recollect it. It is possible to remember, and yet not recollect. Look well to your "recollector," so that you may call up instantly, at the very moment needed, the fact your memory has stored away.

And then we find that receptivity is one thing, and retentiveness is another—that it is fully as important to hold fast the point gained, as it is to grasp it in the first place. I doubt if any one thing is so destructive to retentiveness as the hasty and careless reading of the daily newspaper. Day after day, such a reader skims through its numerous columns, without any effort to retain what he reads, until his mind becomes a sieve, with meshes so wide it catches nothing. The modern newspaper is the father of mental dyspepsia. Contrast the mental weakness of such dyspeptics with the strength of our memory experts. Recorded in the annals of the past century are men and women who could speak every living

language; other students who have performed marvelous feats of memory under most difficult tests. It is said that we have two newspaper men in America to-day who can read an entire column of a newspaper once and repeat it, word for word. William McKinley, Russell Conwell, Gladstone, are only a few examples of men noted for their great faculty of memory.

Of course, we can not expect every one to possess such an extraordinary memory as old Eli. This old darky had such a remarkable memory, it is said, that his master once made a wager with the Devil, that if Eli ever forgot anything, the Devil could have him.

So, one day, the Devil suddenly appeared where the old darky was plowing corn with a typical dun-colored mule of the South.

The Devil commandingly spoke one word, "Eli!"

The darky dropped the lines in a hurry and replied, "Yes, suh."

"Do you like eggs?" asked the Devil.

"Ah sho does," replied Eli, rolling the whites of his eyes.

The Devil disappeared, and Eli saw him no

more. Then just twenty years later to a day, the Devil suddenly appeared before Eli, while he was plowing in the same field.

“Eli!”

“Yes, suh.”

“How?”

And without an instant's hesitation Eli replied, “Fried.”

The most subtle compliment you can possibly pay any one you have recently met is to call him by name when you meet again. It may be a weakness in human nature but the average individual likes to be remembered, and likes to hear his own name spoken. If so, it is a weakness almost universal. But, the fact remains that you can make a decidedly good impression on the other fellow by being able to call him by name. In order to do this, one must be able to remember names and faces. This ability is well worth cultivating, for it is a most valuable asset in business, as well as in the social and professional world. It is a big factor in personal acquaintance. It is a friend-winner, while the lack of it is a friend-loser.

Remembering names and faces is one of the most practical parts of memory training, and

doubtless the most valuable. The late George W. Boldt made the Waldorf-Astoria famous by applying this idea to the hotel business. He laid down the law that the employees who came in contact with the guests must be able to address them by name. To forget a name was the unpardonable sin in that institution. The guest who registered there was agreeably surprised to hear himself called by name as he came down on the elevator ten minutes later, and felt highly complimented when he found that every one connected with the hotel seemed to know him. As a result he stopped there always when in the city, and always the good impression was deepened by the fact that they did not forget his name during his absence, but greeted him as readily after months had intervened as though they had seen him only yesterday.

The merchant who can call each of his customers by name has a large "regular trade" and plenty of "good will."

The professional man who knows his clients personally, and never forgets their names, has many friends and a wide practise.

All are agreed that such a memory is a wonderful asset, well worth striving for, and most are willing to pay the price, in time, money and effort.

But how can it be acquired? That is the important question. What practical system or method can one use to attain this desired result? What help is at hand for the ambitious? What steps lead to the goal?

First of all, the student must realize that remembering names and faces will require both visual and aural power. A thousand times I have heard this remark: "Oh, it's easy for me to remember faces. I never forget a face, but I just can't remember names."

Mighty little good it does in such a case to remember the face if you can't find the name that goes with it. One can't say, "How do you do, Mr. Face with the Red Nose?" Or, "Hello, Mr. Mustache!" Or, "Good afternoon, Mrs. Wart on the Chin!"

The name's the thing! The face is of no value to you without the name.

Some who fail to remember names, resort to little tricks or subterfuges to cover up their

weakness. But this camouflage is so thin that it seldom fools anybody. The most common form is to pretend to be uncertain how the elusive name should be spelled, and seek a little first-hand information on this point.

"Let me see," said a forgetful doctor, to a wealthy patient whose name he should have remembered, "Do you spell your name with an "i" or an "e"? "Why, Doctor!" said the lady reproachfully, "you know very well there is only one way to spell my name—H-i-l-l."

Other name forgetters have become adepts at clearing the throat at the proper moment, and substituting a cough or a bark for the name. "Ah! How do you do? Very glad to see you, Mrs.—Hm-m-wuff-wuff."

All this clever ingenuity could be spent to far better advantage on a little persistent study and practise of the laws of memory. Chief among these is the law of ASSOCIATION. It enables us to remember one thing by relating it to another which we associated with it. It stimulates a sort of "bring-together" memory. When you meet a man, give attention to his name, note his appearance, any striking

physical characteristic or peculiarity; note his voice and manner; especially, learn his business and location. Then link all these facts together, and associate his name in your mind with one or two points in particular.

Say to yourself, "This man's name is Brown. He has big, brown eyes and wears a baggy brown suit." "This is Wilson. He is a lawyer in the Temple Building." "This is Bowman. I will remember him by his big, booming voice." "This little fellow is Richards, and he has a bad squint in his left eye."

Associate these points firmly in your mind when you first get the name, and they are more likely to stick. Make up your mind that you are going to remember the name of every person you meet, and then follow a system. Make a clear, firm mental impression. Develop a brain picture. Deepen and intensify it by repetition. Make a brain cell record cabinet and file your picture for future reference. You alone know the combination lock to that cabinet.

For a time, it is a good plan to carry a notebook, in which you can jot down and classify

the things you wish to memorize. Such a notebook carried in the right pocket brings more "good luck" than a rabbit's foot.

Some names, like some faces, can never be forgotten. For example, Doctor Toothaker, the dentist. We can all sympathize with the old lady who concluded that her deafness was growing decidedly worse when she was introduced to "Mr. Specknoodle."

The law of association should never be used to designate certain people by nicknames. Sooner or later you will betray yourself. A young lady was introduced to a young man who had remarkably prominent eyes. Mentally she nicknamed him "pop-eye." A few weeks later she met him on the street, and to her horror, heard herself saying "Hello, Pop-eye!" Another woman, prominent in church work, privately held a nickname for the new minister, the Reverend Poulter, associating him with poultry. Later, at a church social, she astounded the entire gathering by addressing him as "Doctor Chicken."

You may be able to fix the new name in your mind by making other associations. You may say, "His name is Wilson, or Harding—same

as the president of the United States." Or, you may say to yourself, "His name is Blanchard—same as the name of that boy I went to school with, years ago." Meeting these men a week later, the law of association will flash to you the thought, "same as the president," "same as my old chum," and the required name will spring to your lips.

Be prepared, first of all, to make a good clear impression for your mental photograph. Bring to it the organization of all your faculties, plus attention. *Full, concentrated attention is absolutely necessary.* Eye and ear must both be on the alert to get that name. Be sure that you do get it when introduced. Many introducers have a most abominable habit of mumbling the name so it can not be understood. You can't forget it, because you never knew it.

When one of these chronic mumblers "who talks as if he had some hot mush in his mouth," says to you, "Mr. Jones, I want you to meet Mr. Um-Wha," don't mumble in reply, "Pleastumeetcha," but come right back at him, and ask for the name. Insist on getting it, and get it right. Then your memory will have a

fair chance. Don't blame yourself for forgetting something you never knew.

When introduced, focus all your attention on the name, hear it—speak it—write it—see it—taste it—smell it—feel of it with a grip that never lets go! And, ten to one, you will never forget it.

Classification helps many people to remember. Some use the alphabet system, fixing in mind the particular letter of the alphabet with which the name begins. Or you may classify according to groups. For instance, the color group, such as Mr. Black, Mr. White, Mr. Green, etc. The animal group, such as Mr. Wolf, Mr. Lamb, Mr. Fox, etc. Or, better still, classify according to nationality. Last night at the banquet you met Mr. Swanson, the Swede; Mr. O'Connor, an Irishman; Mr. McDonald, a Scotchman; Mr. Silverstein, the Jew, etc.

But one of the most important factors in remembering names and faces is that of repetition. After getting a clear impression it is necessary to deepen it. Write the names in a note-book kept for this special purpose, and frequently repeat them aloud. One reason

that we remember faces so much better than names is that we see the face several times, deepen the impression by looking at the new face again and again, while we hear the name spoken only once, in most cases.

Granville gives us the "Golden Rule of Memory:"

"Observe and reflect.
Link thought with thought,
Then think of the impression."

While in this brief article it is impossible to cover fully the subject of memory training, I have at least outlined "the way" sufficiently for one to follow if he has "the will."

There are many delusions and fancies concerning this subject. One of these is that a good memory is exceedingly difficult to attain, and in the average case, an impossibility. The fact is, any one who will persistently work on any sane method can accomplish remarkable results.

Another fancy is that those minds which are most receptive are least retentive. In other words, that one who memorizes easily and quickly, forgets easily and quickly. As a mat-

ter of fact, just the opposite is true. I have proved this point time and time again in my classes, by actual test. Almost invariably, those students with a quick, keen memory, who were first to master a problem or paragraph, were also the ones who could reproduce the same thing accurately a month later; while the slow ones were the weakest in a test of retentiveness.

Perhaps the most popular illusion or fancy is that there is some royal road leading to the portals of a great memory—some mysterious secret which can be used as an enchanted key to unlock this treasure-house of the mind, with a simple turn of the wrist.

I know of no royal road, except the road of hard work.

The first step which leads to increased mental capacity is to master the art of definite, concise perception. This is accomplished by *noticing*, with *concentrated* interest and *undivided attention*.

Careless, indifferent perception is the chief trouble. Divided interest wastes power.

The common tendency is to notice every-

thing in general, and nothing in particular; to perceive several things at the same time, but none with sufficient accuracy to form a clear mental image.

In memory, as in a career, not many things indifferently, but one thing supremely well, is the demand of the hour.

Memory is mental photography. The mind is like a great camera. If we want a good picture, we must hold steady in concentration, and our intensity is equivalent to a good light exposure. We must learn to *focalize*. Association, Classification, Repetition—all these are but ways and means necessary to the skilful operation of this marvelous mental camera.

Other laws of this chapter, equally important, show the student how to develop his memory films.

This, then, is our working method. A method, sound, sane and sensible, built on the bedrock of psychology, and operating according to the laws of the human mind.

“But,” you ask, “is there no easy way to the goal—no golden key to unlock the massive door which bars the way to the treasure-house

of the mind? Is there no magic password which will admit us instantly into the presence of the muse of memory? Is there no mysterious secret in memory training?" Certainly there is no password, and of mystery and magic there is none. But there is a secret, a secret so simple that it is really no secret at all. Yes, there are three secrets, so simple that I can tell them in less than a dozen words.

The first secret which will enable you to develop a wonderful memory is this, *Trust it and test it*. In those five simple words you will find the key. First of all, you must have faith in your memory, or it will never respond. Do you trust your memory, or are you one of those who are continually saying, "Oh, I have an awfully poor memory"?

Every time you make that negative suggestion, you weaken and discourage your memory. By repetition, you bring about the very thing you fear. That very suggestion rises, like a barrier, between many a man and the strong and efficient memory which might be his. Substitute for this negative suggestion this positive suggestion, "My memory is all right, but it has never had a fair chance. It

has not been trained, but now I am going to give it a good chance to develop." Have *faith* in your memory; trust it fully, and you will be surprised to see how it responds.

Then take the next step, and *test* it. In memorizing a selection, do not make the common mistake of reading it over and over and over again and never stopping to test your memory. In this way you do not know what part the mind has grasped, and what it has not. The whole method is aimless and inefficient.

Take your selection and say, "Now I am going to memorize this on one reading." That is possible. Then, after you have read it once, shut the book and shut your eyes, if necessary, and test your memory, to see if the lines are there. Very likely, only part will be there, but the very testing will show you what part is missing—will call your attention to the blank space in your photograph; so when you go over it again, you will grasp the missing part.

Then test the memory after the second reading. You may still find some vacant spots. If so, try again and test again, and keep it up until you have a perfect mental photograph. You will find that it will not be necessary by

this method to read the article half as many times as by the old, haphazard way.

The second secret is contained in two words, "*Eliminate abuses.*" These are, chiefly, making negative suggestions about your memory, and omnivorous reading, without giving thought to what you read.

And now for the third secret in three words: "*Enthusiastic daily exercise.*"

Let no day go by that you do not glean and garner some gem for the memory storehouse. It may be some striking paragraph from a great speech; it may be some bit of verse which touches the heart, or it may be only a line, or a new word for your vocabulary. Whatever it may be, give your memory a chance on it and do it with *enthusiasm*.

Day by day, and month after month, as you utilize these three secrets you will build up a wonderful memory; and at the same time add to the riches of your mind. Truly has it been said, "Memory is the treasury of the mind."

This God-given faculty is a marvelous thing. "Cell after cell, fiber after fiber in the numberless minute elements of the brain have been indissolubly connected by channels of nervous

communication, impressed and modified by acts and ideas, till the whole has become a supreme register of past experiences, ready to be called up at a moment's notice by the wonderful power of association."

All that you are—all that you ever have been is written there as vividly as the handwriting on the wall. Of all the wonderful miracles none other is so inscrutably marvelous as the human memory.

Like a golden thread it unites all the parts of our past life; otherwise, they would be scattered in fragments. Between what you are to-day and what you were yesterday, a gap of unconsciousness lies—the nocturnal sleep, and only memory can cross that gap. Memory alone can span the bridge between your to-day and your yesterday.

Suppose to-night, after you fall asleep, this mystic thread of memory would snap. In the morning when you awaken, all would be a blank—all the acts of your past life gone—all the old associations gone—all ties that bind you to the present broken—everything blotted out—your very name forgotten!

So let us realize what a blessing this God-

given faculty is—let us develop it and use it. Apply the golden rule of memory, "Observe and reflect, link thought with thought," and store them away in the treasure-house of the mind, to be held in trust for the service of humanity, so that memory may become the Recording Angel of your daily life.

CHAPTER XVII

WORKING IN HARMONY

I BELIEVE it was Aristotle who said: "The good of all goods—the consummation of man's happiness, is his work."

This idea of finding happiness in your every-day work does not seem to appeal to the present generation. They seek happiness in everything under the sun except work. As a rule, their idea of having a good time is to get away from work. Anything but that! Anything is fun, no matter how arduous, just so it is not connected with work. But in this belief they cheat themselves. When you figure what a large per cent. of their waking hours most people must spend at their daily work, and realize that it represents the larger part of their lifetime, it is plain to be seen that if they do not find happiness in their work they are not likely to find it anywhere, or at least their chances are exceedingly limited. There are people who really like to work. They get

more real enjoyment out of their work every day than most pleasure-seekers do in a year. It's great to have your fun as you go along, to enjoy your work day by day! But this is impossible unless you are working in harmony. If you are out of harmony with your job, or your boss, or your fellow-workers, your work is more likely to be a grievous burden and a source of misery to you.

There is no joy in it for you, and soon you become a drudge. No one can afford to work in discord or friction. That is the surest way to destroy your efficiency. In fact, they conflict with the very first law of efficiency—"Eliminate lost motion." Friction or inharmony is the very worst kind of lost motion. It means precious time and energy wasted in the present, and the after-effect is so bad that it discounts the future. Oil your business machinery by all means. Establish harmony, not only in your own personal, independent work, but also in working with others. We all know what effect harmony or the lack of it has on our individual accomplishments. How much we can do in a day when we are serene mentally and all is well in our environment! And

how little we accomplish in a day when we lose our temper, or worry or fret. One outburst of temper is enough to spoil the day's work. A few minutes of discord or worry are more wearing and burn more nervous energy than hours of hard work. The same thing applies on a larger scale when we are working with others. Without harmony, cooperation is impossible. That is the chief reason why efficient cooperation is so rare, so hard to attain. It is ruined by countless petty bickerings and animosities. Oil is far better than sand for keeping business machinery running smoothly. It is a crime to shovel grit or gravel or rocks upon the bearings. The running of the business world is seriously damaged by whatever creates friction. Every employer of labor realizes this, and is always on the lookout for trouble-makers—always listening keenly for the note of discord which mars the smooth hum of his mighty machinery. He knows that one negative discordant person can disrupt the work of an entire department, just as readily as a tiny copper shaving in a wheel box can set a railway train on fire. And when that person is found, out he goes! He is just as dangerous as a

smoker in a powder-mill. So the employer who handles much labor must become an expert in detecting both discord and harmony. His ear must be as keen to catch the positives and negatives as is the ear of the musician to catch the flats and sharps. Upon this ability depends the progress of his working organization. When he hears the smooth, steady hum of his big business machine, without a discordant note anywhere, he knows that all the parts are working harmoniously without friction, and that he can depend on big aggregate results. He knows this just as surely as each man knows whether his own individual mechanism is working right or not; whether "all's well" or "something wrong." Big business to-day runs smoothly. If it is mixed up with worry and anxiety and discord and inharmony it is not big business, neither is it good business, and this applies to the individual as well as to the mass. There has been too much of a tendency toward "Americanitis" in the past. One of our New York financiers testified recently that he was anxious all day about making money and worried all night for fear he should lose what he had made. We are

told by our European friends that Americans do not know how to live. One distinguished critic made this statement: "In the United States there is everywhere comfort, but no joy. The ambition of getting more and fretting over what is lost absorbs life."

Probably the greatest factor in working in harmony is cheerfulness. "He alone is the happy man who has learned to extract happiness, not from ideal conditions, but from the actual ones about him. The man who has mastered the secret will not wait for ideal surroundings; he will not wait until next year, next decade, until he gets rich, until he can travel abroad, until he can afford to surround himself with works of the great masters; but he will make the most out of life to-day, where he is."

"Happy the man, and happy he alone,
 He who can call to-day his own;
 He who, secure within himself, can say:
 'To-morrow, do thy worst, for I have
 lived to-day!'"

"There are many out-of-door sports, and the very presence of nature is to many people a great joy. How true it is that, if we are cheer-

ful and contented, all nature smiles with us—the air seems more balmy, the sky more clear, the earth has a brighter green, the trees have a richer foliage, the flowers are more fragrant, the birds sing more sweetly, and the sun, moon and stars all appear more beautiful. It is a grand thing to live—to open the eyes in the morning and look out upon the world, to drink in the pure air and enjoy the sweet sunshine, to feel the pulse bound, and the being thrill with the consciousness of strength and power in every nerve; it is a good thing simply to be alive, and it is a good world we live in, in spite of the abuse we are fond of giving it.” Cheerfulness is indeed a mighty power and a sure road to harmony.

“Nothing will supply the want of sunshine to peaches,” said Emerson, “and to make knowledge valuable you must have the cheerfulness of wisdom.”

“Wondrous is the strength of cheerfulness,” said Carlyle, “altogether past calculation its powers of endurance. Efforts to be permanently useful must be uniformly joyous—a spirit all sunshine, graceful from very gladness, beautiful because bright.”

"The cheerful man carries with him perpetually, in his presence and personality, an influence that acts upon others as summer warmth on the fields and forests. It wakes up and calls out the best that is in them. It makes them stronger, braver, and happier. Such a man makes a little spot of this world a lighter, brighter, warmer place for other people to live in. To meet him in the morning is to get inspiration which makes all the day's struggles and tasks easier. His hearty handshake puts a thrill of new vigor into your veins. After talking with him for a few minutes, you feel an exhilaration of spirits, a quickening of energy, a renewal of zest and interest in living, and are ready for any duty or service."

"Great hearts there are among men," says Hillis, of Plymouth pulpit; "they carry a volume of manhood; their presence is sunshine; their coming changes our climate; they oil the bearings of life; their shadow always falls behind them; they make right living easy. Blessed are the happiness-makers: they represent the best forces in civilization!"

When we come to analyze harmony further in relation to efficiency, we find it has an important bearing on the fourth law of efficiency, "Gravity, or working with natural law." The laws of this universe work in harmony. Man has only to fall in line. There is a divine order of things. Did you ever stop to think that

order is not only Heaven's first law but the first law of earth as well? The planets move in their systems, so unerringly that science can forecast an eclipse to the fraction of a minute. The waves of light which travel to us trillions of miles through space record a regular pulsation on our scientific instruments. Regularly the seasons come and go, the tides ebb and flow and every atom of physical life moves to a universal rhythm.

Let us keep step with the music! Yes, harmony is the natural way, the right way for man to work. Without it, he fails to work with natural law and can never attain a high degree of efficiency. Nor can he find joy or happiness in his work. Ralph Waldo Trine wrote a wonderful book, which he called *In Tune with the Infinite*, in which he shows clearly and impressively the importance of keeping "in tune."

After all is said and done, what are we striving for in this world? What one thing, above all else, is each in his own way seeking and working to attain before the last curtain falls, and "Death, the kind old nurse, rocks us all to sleep"? Is it not happiness?

“Money,” you say. But why money? You can not eat it, drink it or wear it! You can not carry much of it with you in this world, and none in the next! Why “money” except that you think it will buy for you, in one form or another, happiness. Or you may answer “fame.” But of what value is fame, unless it brings happiness? Achievements in science or art or literature? These are sought, not for themselves alone, but for the happiness they bring, either in the joy of creative work, or in the thought of a deathless name or in contemplation of the benefits to posterity. Even so it is with those who give their lives to religion, or to the great humanitarian movements. In unselfish service they find their truest happiness.

So, in the last analysis, *happiness* is the ultimate goal we are all seeking, either consciously or unconsciously. If Aristotle was right, how important then that we should look well to our work—removing every obstacle that may cause discord, adding every positive factor that makes for peace and harmony.

May we all come to know that priceless thing, “*the joy of the working.*”

CHAPTER XVIII

GETTING THE MOST OUT OF A DAY

MOST of us have more time than money. Yet time is rarer far than money and worth much more. In spite of this fact we waste it, lose it, squander it, fritter and fool it away.

Lost money can often be recovered, but not so with time.

I would like to see printed in the "want-ad" columns of all the daily newspapers in the world this "ad": *Lost! somewhere between Sunrise and Sunset Two Golden Hours, each set with sixty Diamond minutes. No reward is offered, for they are gone forever.* If you are ambitious to get the most out of a day, begin to-day to appreciate the value of time. Cultivate your sense of time. Have you ever noticed what a difference there is in people in regard to their time sense?

Some have no time sense whatever; time slips away from them before they are aware. Ask such a one what time it is and he is un-

able to guess within an hour of the correct time, and his guess is generally far behind the clock. On the other hand, some have developed their time sense to such a high degree that they can tell you the exact time, or within a few minutes of it. Such people are generally ahead with their work and they get a lot out of a day.

In his great poem, entitled "If," Kipling writes:

If you can fill the unforgiving minute with sixty seconds' worth of distance run.

Ah! that "unforgiving minute!" What a world of meaning in that line! How many of us have lost that minute and remain unforgiven!

Time is sure to slip away from us unless we can work out some efficient system which will utilize "the unforgiving minute." When we wonder where our time goes, and follow this up with careful investigation, we find the leaks, not in the hours and days, but in the odd moments—the little bits of time, "the unforgiving minutes."

There are nine thousand, nine hundred and

ninety-nine excuses for not doing the things we ought to do, but of them all, the weakest and most foolish is this, "I haven't time." Invariably that is the excuse when one is told to take up some study for his self-development, "No time for it." Now, as a matter of fact, he has all the time there is; it is simply a matter of his utilizing his time and choosing how to use it wisely. Abraham Lincoln said, out of the fulness of his experience with human nature: "When I want to get something done I get a busy man to do it." He was right.

The man who is doing much is the man who has developed a capacity to do more and more. The man who is doing little is the one who has not learned how to get the most out of his time, and he is the one who is liable to shirk new responsibilities. As we take on new responsibilities we gain the power to do more in less time. We learn to do it easier and to do it better. That is the most wonderful thing about personal efficiency.

There are many ways of wasting time, but there are three ways that predominate. The first is by doing absolutely nothing—indulging in blank periods of existence. Like the

old man who said, "Every day I set and think, and set and think, and set and think, and lots of times I jest set."

The second way of wasting time is in spending it doing things which are detrimental and foolish, while the third and most common way is in doing things in the hardest and most laborious manner, which requires a maximum of energy to produce a minimum of result.

Modern efficiency teaches us that the right way is the direct way, and that we should conserve both energy and time. This requirement makes it absolutely necessary for every one to map out his day; to plan his work, and prepare an every-day working schedule which will utilize his minutes and his hours to the best possible advantage. The daily schedules which are submitted in the following chapters may not fit all individuals, but they will at least suggest to you how to work out a similar outline for yourself. Across the face of the great clock of time there is written but one word, "Now." Work out your schedule to-day. Don't delay while more precious time slips by. Don't let the spider of procrastination spin cobwebs in your brain while the best of life

goes by. The land of "Mañana" is close at hand. "By the street of Bye-and-Bye one arrives at the House of Never."

Rip Van Winkle is depicted as an old man, but there are plenty of young Rip Van Winkles all about us. A few of them sleep, others just "set," more are directing their power in the wrong way, or forming detrimental habits of temper or dissipation. But by far the greater number are wasting time and energy by doing their work in an indirect, laborious, inefficient manner. To all of these, a daily efficiency schedule, worked out as suggested, is a veritable life-saver. Only in this way can one get the most out of existence. Life is so short. We should strive to make every day a "red letter day." This is impossible unless we ourselves are fit.

To be fit, physically and mentally, it is necessary to be well both in brain and body. No day amounts to much for a sick person. Brain and body must both be in healthy, normal condition. Pulling together, they can pull a bigger load; running on a track, they can go farther. System is the track, and daily-efficiency schedules are the rails. To appre-

ciate the full glory of any day, I repeat, one must be both physically and mentally in tune. Was it not Emerson, the sage of Concord, who said, "Give me health, a good book, and a June day, and I will make the pomp of kings look ridiculous"? The individual must have the power to rise triumphant above all the petty cares, the trials which would spoil his day. He must be master of environment, stronger than any circumstance. Negative conditions have in themselves no power to defeat him. Let him not blame any outside thing for spoiling his day. "The fault, dear Brutus, is not in our stars, but in ourselves, that we are underlings."

Every schedule should make allowance for a little time each day for yourself. Some minutes for the cultural side of life as well as the practical. Some for solitude as well as for society. Just how to get the most out of the day is a subject worthy of your most serious thought. Some very helpful suggestions can be gleaned from Arnold Bennett's excellent little book, *How to Live on Twenty-four Hours a Day*. Says this clever writer:

"Let us begin at once to examine the budget of the day's time. You say your day is

already full to overflowing. How? You actually spend in earning your livelihood how much? Seven hours, on the average? And in actual sleep, seven? I will add two hours and be generous and I will defy you to account to me on the spur of the moment for the other eight hours.

"Philosophers have explained space. They have not explained time. It is the inexplicable material of everything. With it, all is possible; without it, nothing. The supply of time is truly a daily miracle, an affair genuinely astonishing when one examines it. You wake up in the morning, and lo! your purse is magically filled with twenty-four hours of unmanufactured tissue of the universe of your life! It is yours. It is the most precious of possessions. A highly singular commodity, showered upon you in a manner as singular as the commodity itself.

"For remark! No one can take it from you. It is unstealable. And no one receives either more or less than you receive.

"Talk about an Ideal Democracy! In the realm of time there is no aristocracy of wealth, and no aristocracy of intellect. Genius is never rewarded by even one extra hour a day. And there is no punishment. Waste your infinitely precious commodity as much as you will, and the supply will never be withheld from you. No mysterious power will say: 'This man is a fool, if not a knave. He does not deserve time; he shall be cut off at the meter.'

It is more certain than consols, and payment of income is not affected by Sundays. Moreover, you can not draw on the future. Impossible to get into debt! You can only waste the passing moment. You can not waste to-morrow; it is kept for you. You can not waste the next hour; it is kept for you.

"I said the affair was a miracle. Is it not?"

"You have to live on this twenty-four hours of daily time. Out of it you have to spin health, pleasure, money, content, respect, and the evolution of your immortal soul. Its right use, its most effective use, is a matter of the highest urgency and of the most thrilling actuality. All depends on that, your happiness—the elusive prize you are all clutching for, my friends!—depends on that. Strange that the newspapers, so enterprising and up-to-date as they are, are not full of 'How to live on a given income of time,' instead of 'How to live on a given income of money!' Money is far commoner than time. When one reflects, he perceives that money is about the commonest thing there is. It encumbers the earth in gross heaps. If one can't contrive to live on a certain income of money, one earns a little more—or steals it, or advertises for it. One doesn't necessarily muddle one's life because one can't manage a thousand pounds a year; one braces the muscles and makes the guineas and balances the budget. But if one can not arrange that an income of twenty-four hours a day shall exactly cover all proper items of expendi-

ture, one does muddle one's life definitely. The supply of time, though gloriously regular, is cruelly restricted.

"Which of us lives on twenty-four hours a day? And when I say 'lives' I do not mean exists nor 'muddles through.' Which of us is free from that uneasy feeling that the 'Great spending departments of his daily life are not managed as they ought to be'? Which of us is quite sure that his fine suit is not surmounted by a shameful hat, or that in attending to the crockery he has not forgotten the quality of the food? Which of us is not saying to himself all his life, 'I shall alter that when I have a little more time'?"

"We never shall have any more time. We have, and we always have had, all the time there is. It is the realization of this profound and neglected truth (which, by the way, I have not discovered) which has led me to the minute practical examination of daily time expenditure."

Let us not put off the day when we are to become "Chancellor of the Exchequer of Time." Let us begin to balance our budget of the hours—yes, and of the minutes. In the gold room of the United States mint, the floor is carefully swept to save the fine dust which has sifted down and would otherwise be lost. This saving amounts to a small fortune in the

course of a year. Equally precious are the fine bits of time which slip through our fingers, to be lost forever.

“Dost thou love life?” said Benjamin Franklin, “then waste not time; for time is the stuff from which life is made.”

CHAPTER XIX

TUNING UP THE MACHINE FOR THE DAY'S RUN

ANY automobile man will tell you that most machines do not find their way to the junk heap on account of real legitimate wear. The average auto breaks down principally because of neglect; neglect to keep the machine properly adjusted and well oiled; neglect to look after a hundred little details that in the end mean the real life of the car. Automobile men will tell you that if the average good automobile is kept in adjustment and well cared for, the usual premature going to pieces would be absolutely avoided; in fact, it would be almost impossible to wear out the mechanism.

The body is a far more delicate machine than the automobile. It needs better care. The fact is, it doesn't get as good care as the average automobile. Like the machine, the body goes to pieces, not so much from wear and tear, not from overwork, but chiefly from neglect. *Take good care of your physical ma-*

chine. If you will spend a few minutes every morning in tuning up for the day's run, your eight hours' work will not only be worth ten hours of ordinary work, but you will work twenty years longer.

Don't get up by the alarm clock. Remember that if your habits of eating, and your habits of rest, are rightly arranged, as we have suggested, you will waken voluntarily at the hour when thrifty folks begin to stir about, and without that turn-over-and-take-another snooze feeling. On first wakening, stretch yourself out in bed, relax all the muscles thoroughly, and take your ten deep breaths. As you inhale, push up the abdomen, then toward the close of the breath swell out the upper part of the chest, and fill the upper corners of the lungs. Exhale slowly and easily. Repeat ten times. This deep breathing stimulates the heart action, equalizes the circulation, and sends the blood charged with life-giving oxygen to the brain, which has lain dormant during sleep. You will find the ten breaths are real awakeners.

After your ten breaths you will jump out of bed with a genuine desire to get the most

out of the day. Drop your clothing, and with the body nude, spend at least five minutes at your morning exercise. In taking the exercise be guided by our instructions in Chapter IX. Also follow Doctor Newhall's exercises in Chapter XXII. Five to ten minutes' exercise taken as advised, twice daily, will keep any one in good physical condition.

After your exercise you are ready for your sponge bath. Proceed by drawing into the bathtub about four inches of tepid (not cold) water. Then stoop over the tub and with a sponge, or better, a coarse knit wash cloth, sponge the upper part of the body. While sponging, dip the wash cloth into the water frequently and rub the skin vigorously. Then rub this half of the body thoroughly with a dry towel, and, if you wish, with a flesh brush, until the skin is thoroughly dried and of a pink color.

Sponge the lower part of the body by stepping into the tub and rubbing the lower abdomen and lower limbs thoroughly with the water as directed above. Then step out of the tub, dry and rub pink the lower part of the body as you did the upper. This is the care

the average man should give his skin. Those who are debilitated should omit the sponging, especially in cold weather, taking in its stead a daily rubbing of the skin with a dry towel or flesh brush.

To follow out this plan of skin treatment successfully, and to get the most out of it, several precautions should be observed. The bathroom and the water should be sufficiently warm to avoid chilling. Even the vigorous man, with rare exceptions, should not use cold water, but in its stead tepid water. All the good to be had from the cold bath is to be obtained from the tepid bath as just described, and none of its bad effects. If, after following up the tepid sponge in a warm room, for a month, there is still a tendency to chilliness soon afterward, the sponging should be omitted, and only the dry rub used.

Those having sensitive skins should not use a coarse towel or stiff flesh brush. Moreover, while the rubbing should be thorough, it should not be sufficiently violent to irritate or injure the skin. Just on rising is the best time for the bath; it will invigorate you for the day, put added "pep" into each hour. However, if con-

venience demands, the sponge and rub-down may be taken later in the day, or just before retiring. If the bathroom is not accessible this bath may be taken just as effectively from a large basin or bucket of water.

On first beginning this skin treatment, considerable rubbing—especially for any one having a sluggish skin—is necessary to bring about a good reaction. After a few weeks, however, a few minutes of this skin treatment will bring the skin up to a pink color.

After you have spent the night in the fresh air, taken your ten breaths, had your exercise, and your sponge bath, your brain and your body are in prime condition for the morning study hour; the best period of the day, the time when you should do your most exacting work—especially if it is brain work—the time when you plan out your day; the time when you unravel the knotty problems. See our working schedules in Chapter XXIV.

The most important part of your tuning up for the day's run is your breakfast. Many a day's fine work is spoiled by what the man does in his twenty minutes at the breakfast table. If you are going to be at the top notch during

the forenoon; if you are going to take the lag out of the afternoon's work; if you are going to have the clear eye, the quick step, and the keen brain at four P. M., look well to your breakfast. Eat plenty, but don't overeat, and, above all, eat foods that are easily digested, foods that don't draw on your nerve force, foods that don't overwork your stomach, foods that do not rob you of the vigor that you ought to put into your day's work. See our daily bills of fare, Chapter XXI.

This brings us up to the walk to work. Here the man who is obliged to walk to his work has the advantage over the man who goes in his automobile. Don't walk too vigorously just after your meal, but rather take it leisurely. If you are a suburbanite, we hope that you live a sufficient distance from the car line so that you can get a fifteen or twenty minutes' walk at this time of day. It will put still more "pep" into your morning's work, and take out still more of the drag from the afternoon. But don't rob the walk of all the good it has in store for you by lighting a cigar, or a cigarette, or a pipe.

In addition to the five essentials to the day's

tuning up already mentioned, there is one more important thing that must not be neglected: it is the morning attention to the bowels. You should have a regular time for this important matter. Regular attention goes far toward correcting the universal ill—constipation. In the big power plants, early in the morning the ashes and clinkers are cleaned out for the day's run. The best time for you to give nature a chance to clean out your power plant is just after the breakfast; do it daily without fail.

To sum up, follow regularly these six steps in tuning up your machine for the day's run: the ten deep breaths in bed; your five minutes' morning exercise; your sponge bath; your digestible breakfast; ten minutes at stool; and your ten minutes' morning walk. This list may look formidable to you; it may look like a lot of bother, but, like the flivver, it isn't so bad as it looks. Form the habit. Get into the routine of doing these things and you will be surprised to find how little additional time they will require. In fact, thirty minutes invested in the morning in these six items of tuning up will be returned to you several-fold before night. They will actually save you

time when you most need it, and pay you big dividends in increased working power. Not only can you make the time spent in this morning tuning-up the most valuable of the entire day in real dollars, but the satisfaction and pleasure you will get in running your machine in perfect tune will in itself more than compensate for the time and effort spent. Begin the day right, and you will "take it on high" easily.

CHAPTER XX

TUNING UP THE DRIVER FOR THE DAY'S RUN

AFTER the machine is all ready for the trip, who is going to run it? What kind of a driver do you want for your car?

Brain is the engineer that runs the body. Mind is the master driver.

It is not enough to put your machine in order. No matter how perfectly it may be adjusted, how fit for the day's run, a reckless or unskilled driver may damage it seriously before noonday or wreck it before sunset.

The driver, too, must be "tuned up" just as carefully as the machine. No, Bill, "a little something wet" before you start will not do the trick, nor will "a nip now and then" during the day keep you in tune.

In the wet old days before the big drought, that kind of tuning up was tried out very thoroughly, and it sent so many good machines into the ditch that it is no longer considered reliable. No, the days when men took a little

liquid joy to brace them up for the day's drive are forever past. The man of to-day and to-morrow must depend upon himself—draw upon his inner reserves for the nerve and skill necessary to make the run.

The mark of a master driver is mental poise. Beyond all question that is the dominant quality that distinguishes him. When he gets up in the morning he makes it his first business to assure himself of his poise. Never start the day's journey without it: To make sure of it, stock up overnight.

The best and surest way to make certain of poise in the morning is to begin the night before. Call upon your subconscious mind—the mind that never forgets, the mind that works while you sleep, the mind of mighty reserves, the great “within” of yourself.

The best way to reach your subconsciousness is by auto-suggestion. Sounds like psychology, you say? So it is, but not so profound as it sounds. All admit the far-reaching influence of suggestion, the wonderful force which is more subtle than reasoning, more potent than argument. Suggestion is used to move others to action, but auto-suggestion or

self-suggestion is far greater, because it touches the mainsprings of your own individual life. It is personal, individual, subjective in the fullest sense.

Repeat a suggestion which has been made to you, and it becomes auto-suggestion. Repeat it aloud, and you will receive a double self-impression. Audible affirmation is a good habit to form. It is a positive application of: "Sez I to myself, sez I."

James Whitcomb Riley used to tell a story in his inimitable way, of the old man down in Indiana who had a habit of talking to himself. One day a neighbor took him to task,

"Uncle, why do you always go around talkin' out loud to yerself?"

"Well," said the old fellow, "I got two good reasons: in the fust place, I like to talk to a smart man, and in the second place, by heck, I like to hear a smart man talk!"

On such a basis we can all indulge in the audible affirmation habit. And I repeat, the best time to reach the subconscious, and get in tune for the next day's work, is just before you go to sleep. Throw off all worries and troubles, then hang up new pictures on the walls,

Prepare the mind as carefully for the night as you do the body by means of the bath.

It is an accepted fact that the thought or image you hold in mind just before you fall asleep goes on working long hours after you have lost consciousness. The kind of thought you hold will determine whether you waken in the morning refreshed or exhausted. The action of your subconscious mind while you sleep will determine whether you will get up "feeling fit," or more tired than when you went to bed.

You can not afford to hold any negative thought to sleep on. It is worse than an old-fashioned "corn-shuck" mattress. At least once in twenty-four hours be at peace with all the world. "Why should a man lie down at night like a camel of the desert, with a heavy burden on his back?"

Imagine yourself as the man or woman you hope to be, filled with happiness, prosperity, power, doing the thing you most earnestly desire to do of all the things in the world. Go to sleep with a smile on your face, remembering that the subconscious mind is most susceptible during sleep, and give it a joyful, constructive

message to carry into the land of dreams. Picture yourself as you would be; image success; claim it as your own! See it vividly! Visualize your ideals! Then back it all up with some positive, audible affirmation which will sink into your subconscious mind, grow into your life, and become a part of you while you sleep; to be out-pictured in your life and find expression in your work to-morrow.

To think rightly is to create. To reach the great "within" of yourself, through auto-suggestion while you sleep, is to put yourself in harmony for the coming day. Then, when the new day dawns, you will be all tuned up for the drive.

In making your affirmation, be sure to make it in the present. Avoid the "has-been" or "hope-to-be" thought. Be an "Izzer." Bring your positive statement down to the here and now, and say: "*I am strong, capable, successful! I have opportunity in my grasp, now, and I am winning out. My work is big and constantly growing bigger.*"

Auto-suggestion is a wonderful factor in maintaining health. In the chapters of this book much valuable advice and information are

given on right eating. As you use this knowledge, couple it with the potent power of suggestion. Put back of it the positive thought, that the food you are putting into your mouth will nourish and strengthen you, and the benefit you will derive will be twofold.

Deep breathing is another big factor in keeping one in tune. When discord creeps in, and the road is long and full of bumps, how it helps to throw back the shoulders and lift up the lungs and take a big, full breath, clear from the diaphragm to the chin—a regular lung sweeper! And while you take it, take also the suggestion that you are drawing into your system “life more abundant.” Soon you will feel a vibration of power and harmony through your whole being.

Physical culture directors tell us that in gymnasium work, the man who works on his muscles and continually holds the suggestion that the exercise is making him strong, develops much more rapidly than the one who takes the same exercise mechanically and puts no thought back of it.

Voice specialists tell us that the pupil must *think* the tone, in order to make good pro-

gress; that suggestion is necessary to develop a musical brain.

As it helps in all activities, so it helps to acquire *poise*.

No man can force himself into harmony. He can not lift himself by the boot-straps. He can not tune himself up with a sledge hammer. He must recognize a higher law, and use a more subtle means. In the preceding illustrations the practical application of such a law is shown. In a similar way, suggestion will help or hinder you in your daily work, keep you happy and harmonious, or discordant and miserable, according to your attitude. It all depends upon whether the suggestion is positive or negative.

If you think your work is a drag and a burden and killing you, it will, very likely, wear you out in the end, and you will find no joy along the way; but if you take the positive suggestion, that you have only begun to use your resources, that you have a mighty reserve to draw upon, that you are learning how to use your power more efficiently every day, *then you will become a master driver, enjoy life as*

you travel along, and go over the top on high with ease.

“The human mind may be attuned to any key, high or low, base or noble, by the power of suggestion.”

Strike the positive keynote!

Throw away your old tallow candles and kerosene lamps. Turn on the electricity! *This is the modern way!*

CHAPTER XXI

THE DAILY BILL OF FARE

THE following menus are planned along hygienic lines and are in harmony with the dietetic principles set forth elsewhere in this book. While it is not expected that they will be slavishly followed, it should be borne in mind that they are scientifically constructed. Each day's bill of fare as here given indicates (a) the kinds of foods which are at once safe, nutritious, easily digested and palatable; (b) the quantity of food necessary for the proper sustenance of the average person for one day; (c) the combinations of foods which work well when taken together into the human stomach.

Careful study of these menus will enable you to understand the principles of food selection and combination upon which they are built. Many minor changes for the sake of variety, or dictated by market conditions, can be made without violating these principles.

NOTE—This chapter is contributed by Mrs. R. R. Daniels.

We suggest, however, that until you have gained an understanding of the reasons underlying the planning of these daily menus, you should follow them as closely as possible. Remember that they are *daily* menus; each meal is planned with reference to the others for the same day. To combine some items from breakfast with others from lunch and dinner would result in totally unhygienic food combinations and would totally destroy the dietetic balance for the day.

On the pages following each menu are given hygienic recipes and directions for cooking the various foods and dishes suggested.

Again we wish to emphasize the fact that food may be cooked so as to make it easily digested and the resulting dishes be just as palatable and just as appetizing, *or even more so*, than when cooked in ordinary ways, with little or no thought as to nutritive value in digestibility. The holiday dinner menus afford plenty of good things to eat, with the mischief makers of the ordinary holiday dinners eliminated.

A WINTER MENU

NUMBER ONE

Breakfast

Breakfast Food with Cream
Whole Wheat Bread or Corn Meal Gems
Butter Bacon
Cereal Coffee

Lunch (No. 1)

Hard Toast, Buttered
Apples or Other Fresh Cooked Fruit
Figs and Nuts
Cereal Coffee or Glass Milk

or (No. 2)

Hard Toast, Buttered
Cheese or Nuts Cereal Coffee
Gelatin or Custard

Dinner

Clear Soup
Beef, Steak or Roast, or Lamb Chops or Roast
or Fish, Baked or Broiled
Two Cooked Non-Starchy Vegetables
Combination Salad
Baked Apple with Cream

NOTE—Lunch No. 1 is suitable for the average man who does but little muscular work. Lunch No. 2 contains more starchy food and should be used by those doing hard work.

RECIPES AND DIRECTIONS

WINTER MENU NUMBER ONE

Breakfast Food may include any of the dry foods. Corn foods are good for winter use.

Whole Wheat Bread is to be made of whole wheat, graham, or white flour, preferably the first two. To one quart of the flour should be added a heaping teaspoonful of first-class baking powder, a pinch of salt, and a tablespoonful of melted butter or olive oil. These ingredients should be thoroughly mixed with the dry flour, and the baking pan and the oven should be got in readiness for baking. Then sufficient sweet milk should be added to the flour with its ingredients to make a stiff dough. After mixing quickly, put the loaf into an ungreased pan and flatten out to the thickness of about an inch and a half. It should then be put into a moderate oven and baked until thoroughly done and well browned. This bread should not be eaten until cold.

Corn Meal Gems. One cup yellow corn meal mush, one cup white flour, four level teaspoons baking powder, one cup milk, two tea-

spoons melted butter, one-half teaspoon salt. Thin the mush with the milk. Add butter and flour gradually. Beat well until batter is perfectly smooth and creamy. Stir in baking powder and pour at once into small, hot iron gem pans that have merely been wiped out with a bit of greased paper to prevent sticking. Bake in moderately hot oven. When done, split crosswise and toast. Butter lightly, replace halves together and serve.

The advantage in the use of iron pans for any kind of gems, instead of the more commonly used tin or enamel ware, is the formation of a deep rich crust without the use of grease for the purpose.

The Non-Starchy Vegetables may be selected from the following, using the best grade of canned vegetables when the fresh are not to be had: Tomatoes, cabbage, cauliflower, spinach, onions, beets, turnips, parsnips, carrots, peas, string beans and asparagus.

Combination Salad may be made from any or all of the following vegetables: lettuce, raw cabbage, water cress, celery, endive, raw tomatoes, cucumbers, radishes and raw onions. Spinach and cauliflower may be used. Car-

rots may be ground in a vegetable mill, or diced, and added to the salad.

A good winter salad may be made of lettuce, celery and canned tomatoes, equal parts; or cabbage, carrots and celery, chopped fine or ground in a vegetable mill, with canned tomatoes and onions added, if desired.

Salads should be dressed with salt, lemon juice and olive oil; paprika may be added if desired. Mayonnaise dressing may be used.

A WINTER MENU

NUMBER TWO

Breakfast

Cereal Breakfast Food, with Cream
Hard Toast with Butter
Bacon
Stewed Prunes
Cereal Coffee with Cream and Sugar

Lunch (No. 1)

Salsify or Oyster Plant Soup
or Cream of Celery Soup
Hygienic Croutons
Hard Toast with Butter
Baked Apple or Stewed Figs with
Whipped Cream

or (No. 2)

Bunch of Raisins or Half-Dozen Pressed Figs
Raw Apples Nuts
Cereal Coffee with Cream and Sugar

or

Malted Milk, made with hot water and cream

Dinner

Beefsteak
Brussels Sprouts or Canned Peas
Parsnips or Carrots Combination Salad
Canned Pineapple or other Fruit,
with Whipped Cream

RECIPES AND DIRECTIONS

WINTER MENU NUMBER TWO

The Breakfast Food may be either any of the dry prepared foods or (except oatmeal) any of those to be cooked—the former are preferred. When the cooked breakfast foods are used they should be cooked from one to three hours, depending on whether they have been cooked previously in the process of manufacture. Sugar should not be eaten on the breakfast foods.

The Hard Toast may be made from white, graham or rye bread. The bread is to be cut thin, dried out in a slow oven, and browned on both sides.

Bacon is to be fried to suit. Do not let the bacon cook too fast; if the grease is scorched it is more difficult to digest. Bacon medium done is better than crisp.

Salsify Soup. Prepare the oyster plant by scraping off the skin (hold under water to prevent its discoloration); cut in dices and cook in a little water until quite tender; then mash well, add a lump of butter, salt and pepper to

taste, and about two cups of milk to each cup of the cooked vegetable; heat just to boiling, and serve.

Celery Soup may be made in the same way as the Salsify Soup.

Hygienic Croutons. Tear into small pieces part or whole loaf of bread, white or whole wheat. Dry out and brown lightly in slow oven. Serve hot.

Nuts should be chewed unusually well; use either almonds, pecans, or filberts.

Beefsteak should be broiled, either on a broiler or pan-broiled in a hot skillet, without grease, turning frequently. It is most wholesome cooked medium-rare.

The Vegetables may be prepared for cooking in the usual way, then boil in as little water as possible until done. Again vegetables should not be drained, either while cooking or afterward, as the water in which they are cooked contains the valuable mineral salts. Serve with drawn butter or meat drippings, season with salt and paprika.

Combination Salad may be prepared to suit the taste by mixing several of the raw vegetables. Often left-over cold vegetables may

also be added. A good winter salad can be made of either head lettuce or chopped cabbage, fresh or canned tomatoes, and celery or ground carrots, with a little onion, if desired. Also canned peas and string beans may be included. A good dressing for the salad is made of olive oil, lemon juice, salt and paprika; or mayonnaise dressing may be used.

Canned pineapple is a good dessert with a meat meal, since it contains a ferment which assists in digesting the meat. Any fruit at this meal should not contain much sugar.

A¹ SUMMER MENU

NUMBER THREE

Breakfast (No. 1)

Hygienic Biscuits Butter

Bacon or Nuts

Raspberries and Cream

Cereal Coffee

or (No. 2)

Hard Toast Butter

Bacon or One or Two Eggs

Cantaloupe

Cereal Coffee

Lunch

Combination Salad Nuts

Buttermilk or Cold Malted Milk

Fresh Fruit with Cream, Plain or Whipped
or Ice-Cream or Sherbert

Dinner

Cream of Asparagus Soup

Hard Toast or Croutons

One Starchy Vegetable (See List)

Two Cooked Non-Starchy Vegetables

Gelatin sprinkled with Ground Nuts served
with Whipped Cream

RECIPES AND DIRECTIONS

SUMMER MENU NUMBER THREE

Biscuits may be made by using one-fourth white flour, one-half whole wheat flour, and one-fourth bran, mixed thoroughly. To one quart of the flour add sufficient baking powder to make the biscuits light, two or more teaspoonfuls, Price's or Royal preferred (no harm can come from good baking powder); a tablespoonful of melted butter, or olive oil; and salt to suit. These ingredients should be mixed thoroughly with the flour; if chilled, the biscuits will be lighter. After the oven has been heated moderately hot and everything is in readiness for baking, sufficient milk should be added to the flour to make a wet dough. The dough should be rolled quickly, and as little as possible, then cut and put into the oven in an ungreased pan. The baking should be continued until the biscuits are baked well and are brown on both sides. To be light and of a good flavor, the biscuits should be made quickly; not more than two minutes should elapse between the time the milk is added to

the flour and the biscuits are ready for baking. When baked, they should not be more than an inch thick. For variety one-half graham and one-half whole wheat, or all white flour may be used.

Menu No. 2 should not be used oftener than two or three times a week. Most persons can not properly take care of eggs more frequently than this.

The Eggs should be cooked in any way except by frying.

The Cereal Coffee may be taken with plenty of cream and but little sugar.

Cream of Asparagus Soup. One quart rich milk, one can asparagus, or one and one-half pounds fresh asparagus, two tablespoons butter, a bit of onion. Scald onion with the milk and remove it. Break canned asparagus into bits and heat in pan with butter, being very careful not to scorch. If fresh asparagus is used, cook until tender and prepare the same as the canned asparagus. Season asparagus well with salt and pepper, add the hot milk and serve. A spoonful of whipped cream used as a float adds greatly to the soup.

The Starchy Vegetables include the follow-

ing: artichokes, bananas, beans (navy, butter and lima), breads (white, graham, rye, whole or entire wheat), cereals, corn (meal or green corn), crackers (of every kind), macaroni, malted milk, mushrooms, noodles, peanut butter, peas (dried), potatoes (Irish or sweet), pumpkin, rice winter squash, sago, spaghetti, tapioca, vermicelli.

A SUMMER MENU

NUMBER FOUR

Breakfast

Omelette
Hard Toast Butter
Pears
Cereal Coffee

Lunch (No. 1)

Fruit Salad Nuts
Buttermilk, Cocoa or Cereal Coffee
or (No. 2)

Hard Toast Butter
Gelatin Salad with Mayonnaise Dressing
Cheese Nuts
Buttermilk or Cereal Coffee

Dinner

Succotash
Hygienic Biscuits Butter
Summer Squash or Carrots and Turnips
Cabbage or Cauliflower
Celery or Radishes
Prune Whip Melon
Cereal Coffee or Cocoa

RECIPES AND DIRECTIONS

SUMMER MENU NUMBER FOUR

Omelette. Use one egg for each person. Separate the yolks from the whites. To the yolks add melted butter or diced bacon, cooked a few minutes, and a tablespoonful of cream for each egg, with salt, pepper and a dash of paprika. Beat thoroughly, then add the well-beaten whites. Stir all together, pour into a buttered drip pan and bake in a hot oven until the omelette is puffed up and is baked a light brown. Serve immediately.

Pears should be fully ripe; in this condition they contain practically no acid and may be eaten with the starchy food. The pears may be eaten raw, or baked, or stewed.

Fruit Salad may be made from any fruits and from almost all fruits except bananas. Bananas are not really a fruit. In the summer time the body of the salad may be made of grapes, with other fruits added to suit the taste. Celery, diced rather fine, may also be included. Dress with whipped cream to which has been added sufficient mayonnaise dressing to suit the taste. Serve on lettuce.

Gelatine Salad is made as usual of gelatin and chopped salad vegetables with salad seasoning, prepared in individual molds.

Buttermilk should be the Bulgarian variety, not the churn buttermilk.

Hygienic Biscuits. (For recipe see directions for previous menu.)

Carrots and Turnips should be washed, peeled, diced and cooked together—the combined flavors are better than that of either one. Like all vegetables they should be cooked in as little water as possible and cooked down well; no water should be drained off. In draining the water from vegetables much of the food value is lost. After cooking, season with cream, butter and salt to suit. Meat liquors are excellent for this purpose.

Fresh Succotash is made of the green beans broken up fine, and corn cut from the cob, cooked together and seasoned just as the cooking is completed, with cream, butter, salt and paprika. Shell beans may be used instead of the green beans. A good seasoning is made by cutting up fine a slice of bacon and boiling for twenty minutes; when the succotash is cooked

add the bacon and the water in which it was cooked.

Prune Whip is made as follows: Make a thin custard of one pint of milk, yolk one egg, one-third cup sugar, one-half heaping teaspoon corn starch, one teaspoonful vanilla. Cool and add one-half pint cream and one-half pound cooked prune pulp. Freeze in ice-cream freezer moderately stiff.

MENU NUMBER FIVE

Breakfast

Cooked Whole Wheat Cereal Cream
White Flour Biscuit Butter
Bacon, Nuts, or Cheese
Cereal Coffee

Lunch (No. 1)

Dish of Fruit with Cream or Ice-Cream

or (No. 2)

Hard Toast, Well Buttered
Cream Cheese (three ounces), or Nut Meats
Glass Milk or Cup Cereal Coffee

Dinner

Vegetable Curry
Spinach, or Other Greens; Combination Salad
Ice-Cream

or (Fish Dinner)

Spanish Salad Tomato Soup
Baked White Fish or Other Fish with To-
mato Sauce or Lemon
Carrots and Peas Spinach or Parsnips
Grapefruit

RECIPES AND DIRECTIONS

MENU NUMBER FIVE

White Flour Biscuits may be made the same as the ordinary biscuits, except white flour alone may be used, or one cup of bran may be added to three cups of the white flour. When using bran, use a little more baking powder.

Vegetable Curry, for serving four persons liberally, may be made as follows: Cook thoroughly one and one-half cups of rice. Just before the rice is done, take a half can of tomatoes, from which the juice has been drained, or the equivalent in fresh tomatoes; mash, heat; add one pint of well cooked string beans, most of the fluid being cooked out, and, if desired, one cup of peas, out of which the juice has been cooked; also any other cold, left-over vegetables; and one cup of strong meat liquor from a roast or boil of the day before; four teaspoonfuls of grated cheese, salt, paprika and curry powder to suit. These ingredients should be mixed thoroughly and heated together to the boiling point. When the rice is cooked, line the edges and cover the bottom of a chop plate

or a vegetable dish with it, and pour over the mixed vegetables; sprinkle with a little grated cheese, brown quickly in the oven and serve immediately. The portions served may be large, since this dish constitutes practically a meal.

Spanish Salad. For each person take a slice one-fourth inch thick of a large-sized Spanish onion. On top of this spread about one-fourth inch thick pimento cream cheese, and serve on a lettuce leaf. Over the whole pour a dressing made of a little cider vinegar, salt, paprika, one small Mexican red pepper chopped fine, and olive oil.

In Baking Fish successfully it is important to avoid overcooking, which leaves it dry and unpalatable. It is also important to serve the fish just as soon as it is done.

Tomato Sauce is made by running through the colander two cups of washed tomatoes and adding salt and paprika to taste. If the tomatoes are not sufficiently sour add a few drops of lemon juice.

Carrots and Peas when cooked together make a dish both unusually attractive and palatable. They are to be cooked in a little clear

water until done, when a dressing of cream with the seasoning may be added.

Spinach is best cooked by being steam-cooked or cooked in a pressure cooker; when using the latter take care to avoid over-cooking. Spinach is one of the most valuable of our leaf vegetables, by reason of the large amount of iron which it carries. This valuable food material, however, is lost when the spinach is cooked through one or two waters and the water drained off. A simple way to cook spinach and still retain all its food elements is to wash, put in an ordinary pot and bruise with a potato masher until sufficient juice has exuded and starts to cooking. From this on the spinach can easily be cooked in its own juice.

MENU NUMBER SIX

Breakfast

Emmer Cereal Cream
Corn Gems Butter Stewed Figs
 Bacon
Cereal Coffee, Cream and Sugar

Lunch (No. 1)

Two or Three Baked Apples Cream
Cereal Coffee, or Glass of Milk

or (No. 2)

Cream of Pea Soup
Hard Toast Butter
Dish Prunes

Dinner (No. 1)

Beef Pot Roast with Gravy
Combination Salad
Cauliflower or Buttered Beets
Carrots or Browned Parsnips
Pineapple

or (No. 2)

Broiled Hamburger Steak
Creamed Onions or Stewed Tomatoes
Spinach or Peas
Head Lettuce with Thousand Island Dressing
Queen Ann White Canned Cherries

RECIPES AND DIRECTIONS

MENU NUMBER SIX

The Emmer Cereal should be cooked three hours in a double boiler. The mistake is frequently made of cooking this class of cereal too short a time. A sufficient amount for several mornings may be cooked at one time, and what is left over warmed each morning until used. Reheating improves the flavor.

Corn Gems are made according to recipe in Menu Number One.

The Stewed Figs may be prepared from either the black or the brown stewing figs, the former preferred; they should be cooked down well, when very little or no sugar will be needed.

The Baked Apples may be prepared by taking a good sweet cooking apple, of which there are many varieties, taking out a large core, filling the centers with raisins or figs and baking without sugar.

The Cream of Pea Soup is made by cooking the peas thoroughly (canned peas may be used), mashing fine and adding equal amounts

of milk, a lump of butter, salt to suit and a little paprika.

Beef Pot Roast. Select a good shoulder piece or rump roast. Sear well the entire surface in a hot frying pan. Then place in a hot kettle with a cup of boiling water, and simmer slowly until quite tender, allowing the water to boil away and be replenished two or three times—using hot water always. After the first half-hour's cooking add salt and pepper to taste. When it has "browned down" the last time remove the meat from the pot, add a pinch of powdered sage, a tablespoon of gelatine that has been dissolved and a cup or two of cold water. Let boil up for a few minutes. This will make a delicious brown gravy, smooth and of a nice consistency requiring no flour thickening.

Broiled Hamburger Steak. The required amount of round steak, trimmed and ground. Place on meat board, knead and roll until smooth. Mould into shape of beef filet, about an inch thick. Broil the same as any steak, over coals or in gas broiling oven. Have heat sufficient to sear and seal the outside immediately. Juices will be retained and it will hold

together perfectly, so prepared and cooked. When done, rare or medium, season with salt and pepper and serve with parsley butter.

Thousand Island Salad Dressing. Place the yolks of two fresh eggs in a very cold bowl. Beat until thick. Add, a few drops at a time, one-half cup olive oil. When this process is finished add two tablespoons each of cider vinegar and lemon juice, one-half teaspoon salt and a dash of white pepper. In another cold bowl chop fine one tablespoon of chives, one tablespoon pimentoes, and one hard-boiled egg. Add to first mixture gradually. Serve with crisp head lettuce.

AN AUTUMN MENU

NUMBER EIGHT

Breakfast

Cantaloupe
Nuts

Fresh Fruit with Cream
Glass of Milk

Lunch

A Cream Soup
Hard Toast Butter
Bacon
Roasting Ears with Butter
Cereal Coffee

Dinner

Lamb, Mutton, Chicken or Fish
Two Cooked Non-Starchy Vegetables
Combination Salad
Peaches and Cream
Cereal Coffee

RECIPES AND DIRECTIONS

AUTUMN MENUS NUMBERS SEVEN AND EIGHT

Corn should be eaten when young and juicy. It should be put to cook in boiling water and should be boiled from seven to fifteen minutes; salt should not be added to the water while cooking; nor should the corn, when cooked, be allowed to stand in the water. Corn is delicious when roasted in the oven in its shucks. Butter and salt may be eaten on the corn, and it should be chewed thoroughly, until each grain is broken up and dissolved. If eaten in this way about all the corn may be taken that is desired.

In both of these menus there is one light meal; in one it is given at noon, in the other it is given in the morning. Almost every one, especially in the summer, can take in two meals all of the food that is necessary.

The Eggs may be cooked any way except fried; soft boiled or coddled are best.

Buttermilk is a valuable summer food for most persons. That which is artificially pre-

pared and contains all of the fat of the milk is superior to the churn buttermilk. The culture in tablet form with the directions for making the buttermilk may be obtained at any drug store.

Fresh Fruit includes any on the market except the banana. Cream and milk may be eaten with it. The acid will curdle the milk, but this curdling is the first step in the digestion of the milk.

MENU NUMBER NINE

For the Man Who Likes a Light Breakfast

Breakfast

Fruit, any of the cooked fruits, such as baked apples, stewed figs, prunes, or any other dried fruit, with cream; also small portion of grapefruit, or an orange if desired.

Nuts, either Almonds, Pecans or Filberts
Cereal Coffee with Cream and Sugar

Lunch (No. 1)

Cream Tomato Soup Hard Toast, Buttered
 Celery Olives
Boiled Rice Butter
 Canned Pears

or (No. 2)

Oyster Stew Hard Toast, Buttered
 Celery Olives
 Slice of Pineapple

Dinner

Head Lettuce with Cottage Cheese Dressing
 Baked Potatoes with Butter
 Mashed Turnips
 Hot Buttered Beets
Gelatin Dessert with Whipped Cream

RECIPES AND DIRECTIONS

MENU NUMBER NINE

The Dried Fruits should first be washed thoroughly and then put to soak for twelve hours, or long enough to permit the fruit to soften, after which it should be put on to cook in the same water—it should not boil, but just simmer slowly until quite tender. Do not make the mistake of draining off the water in which the fruit is soaked, as it contains much of the natural sugar and flavor.

Nuts must be chewed well—about twenty to twenty-five is the usual number to be eaten at a meal.

Cream Tomato Soup for a family of six: A three-pound can, or one quart of tomatoes, one and a half pints of milk, lump of butter the size of a small egg, salt, paprika, soda. Cook the tomatoes and put through a colander if desired. Heat the milk just to the boiling point, but take care it does not boil, stir the soda into the tomatoes, after which mix milk and tomatoes and add the seasoning. The amount of soda needed depends upon the acidity of the

tomatoes; by tasting the tomatoes one can soon learn by experience the amount needed. Enough soda should always be used to keep the soup from curdling. Do not mix the milk and tomatoes until just before the soup is to be served.

Oyster Stew. Don't cook the oysters in the milk. Take half milk and cream, heat almost to the boiling point, add salt and pepper, then add the oysters and their liquor. Heat the stew again almost to the boiling point, add a lump of butter, and serve.

The Lettuce should be crisp. The cottage cheese dressing is made by adding to a teacupful of the cheese one-fourth of a cup of cream, a little salad dressing, salt and paprika. Chopped watercress also makes a pleasing addition. Olive oil may also be added. Stir the ingredients well and serve liberally on the lettuce.

Baked Potatoes. To bake potatoes well is not so simple a matter as it may seem. Select a medium-sized potato, scrub well, as all of the potato except the thin outside paper-like covering is to be eaten; the most valuable portion

of the potato lies just under this skin and is usually lost in peeling. The potatoes should be baked in a moderate oven; when well done pierce the skin in several places with a sharp fork and allow them to stand in the oven fifteen minutes before serving. With most potatoes this procedure releases the moisture and leaves them mealy and dry.

RECIPES AND DIRECTIONS

HOLIDAY DINNER MENUS

The Gelatin Salad is to be made of the gelatin, salad vegetables and salad seasoning, prepared in individual molds.

Celery Bouillon: Dice celery, boil until tender, mash through sieve, add cream, butter and other seasoning.

Oyster Cocktail: Made by placing three medium-sized oysters in a cocktail glass, covering with cocktail sauce with a dash of horseradish added.

Mayonnaise Dressing is made by beating into the yolk of an egg sufficient olive oil added a drop at a time to make a thick mixture. A little lemon juice, salt and paprika are added.

The Cranberry Sauce is made in the usual way except that sufficient baking soda to neutralize the acid of the berries should be stirred into the sauce just as the cooking is about completed, then add but a small amount of sugar to sweeten to suit. The less sugar present in a dinner of this sort, the better.

The Turkey may be roasted with the stuff-

ing, but the stuffing should not be eaten. It is practically indigestible.

The Vegetables should be steam-cooked or boiled until well done in a little clear water; after being taken from the fire they may be dressed with melted butter or from the drippings from the turkey.

The Combination Salad may be made of lettuce, canned or fresh tomatoes, celery, chopped apples and cabbage, radishes, peppers—any palatable combination of these or other fresh vegetables dressed with a little vinegar and olive oil, salt and pepper, or mayonnaise dressing.

The Apple Dessert is made as follows: Select large apples, wash but do not peel, take out large cores, fill the centers with equal parts of shredded cocoanut, figs and raisins chopped together, with a few pecan nuts added. Bake without sugar. After taking out of the oven put a drop or two of vanilla flavoring on the center of each apple.

CHAPTER XXII

THE DAILY EXERCISE PROGRAM

EXERCISE, to be of any permanent value, must be regularly followed. Spasmodic, irregular exercise does more harm than good. The dosage should be small, but oft repeated. The movements used, in the words of a famous teacher, should be "safe, short, easy, beneficial and pleasing." No apparatus should be requisite. The aim should be to conserve energy and develop vitality. Any system is wrong which consumes much energy or lowers vitality. The business man in modern life has no need for large muscles. Therefore, heavy weights, apparatus, and long sustained muscular effort are contra-indicated, because their chief aim is muscular development. Tensing the muscles, or holding the muscles in a fixed position and vibrating them is harmful because it uses up nervous energy too rapidly.

The dosage of exercise should be chiefly di-

NOTE—This chapter is contributed by Dr. William B. Newhall.

rected to the larger muscle groups. Most men and some women use their arms and legs enough, so the emphasis should be placed on the muscle-groups and organs of the middle third of the body. Each period of exercise should leave one in a gentle perspiration, breathing deeply, and with a feeling of exhilaration. One should always stop short of fatigue, especially in early morning exercises. In exercises designed to develop vitality, little mental concentration is desirable. The attention should be fixed only to the point of obtaining good form.

The best time to exercise is in the late afternoon, but each day's order should include enough early morning exercise to render the body flexible, clear it of accumulated toxins, and flood it with vitalized blood. In exercising, wear as little clothing as is consistent with good taste. Keep the waist line free. Wear loose slippers. Have the room comfortably warm, flooded with fresh air—the sun shining in, if possible. Devote from five to ten minutes to each day's order of exercises. The examples given can all be done in six minutes without hurrying. Exercise slowly at first,

until the form of the movement is learned; then with more speed and vigor. As the exercises become familiar, increase the dosage but do not devote more than ten minutes to any one period. Better repeat the periods at intervals during the day if more exercise is needed.

At first, some of the movements may cause muscular soreness. A warm bath and continuance of the exercise will soon remedy the discomfort. Do not give up. Exercising lightly and regularly is the quickest and surest way to overcome the soreness. A sponge or shower bath should, if possible, be taken in connection with each daily exercise period, preceding it, if in the morning on arising; following it, if later in the day. A dry rub with a coarse towel is a fair substitute.

In the following pages will be found an order of exercises for each day in the week. This is the best way to use them. If desired, each day's order may be used for one week. A conscientious effort to follow the program outlined will speedily demonstrate its value, and result in a clear eye, springy step, and general feeling of exuberant vitality.

First Day's Order

1. Position: Stand erect, feet at an angle of forty-five degrees, heels together, hands at sides, head up, chin drawn well back.

2. Inhale deeply, count ten, exhale slowly; five times.

3. Raise arms forward (count 1), swing to sides at horizontal (count 2), return forward (count 3), lower to sides (count 4). Repeat eight times.

4. Raise arms forward (1), upward to overhead (2), return to forward (3), lower to sides (4). Repeat eight times.

5. Place hands on hips. Raise right leg forward, knee stiff (1), swing leg back as far as possible (2), swing leg forward (3), lower to floor (4). Repeat four times.

6. Same exercise as No. 5, but with left leg.

7. Hands at sides. Bend body forward, hands hanging loose, knees straight (1), raise arms to sides horizontal, keeping waist bent (2), lower arms (3), raise body to position (4). Repeat six times.

8. Hands on hips. Bend body to right (1),

bend to extreme left (2), bend to extreme right (3), resume position (4). Eight times.

9. Hands on hips. Stationary run. Run on balls of feet, raising knees fairly high. Keep in one spot. One hundred steps.

10. Inhale deeply, count five, exhale slowly; six times.

Second Day's Order

1. Position: Stand erect, heels together, toes turned out, hands at sides, head up, chin drawn back.

2. Inhale deeply, at same time raising arms forward upward slowly to full extension overhead (1), exhale slowly and lower arms (2). Six times.

3. Raise arms forward and take one full step forward with right foot (1), swing arms to sides horizontal (2), swing arms to front horizontal (3), lower arms and step back to position (4). Repeat with left foot forward. Eight times.

4. Raise arms forward and rise on toes (1), raise arms upward to full extension overhead, and step out well to right (2), lower arms to

front horizontal and step back, keeping on toes (3), lower arms and sink on heels (4). Repeat, but stepping out to left side. Eight times.

5. Raise right leg forward and right arm forward (1), swing both arm and leg backward as far as possible (2), swing forward (3), return to position (4). Four times.

6. Same as No. 5, but with left arm and leg. Four times.

7. Bend body forward, arms hanging (1), swing arms to right side and twist body to right (2), swing arms down and untwist body (3), return to position (4). Repeat, but swing and twist to left. Six times.

8. Hands on hips. Bend body to right as far as possible and raise left leg sidewise as high as you can (1), return to position (2). Repeat, but to opposite side (3) and return (4). Six times.

9. Hands on hips. Stationary run. Keep knees stiff and raise feet well up in front. Run on toes. One hundred steps.

10. Inhale deeply, at same time raising arms to full extension overhead. Exhale slowly and lower arms. Five times.

Third Day's Order

1. Position: Stand with feet spread wide apart, body erect, arms bent, fists closed and on chest. This is the fundamental position for the following exercises.

2. Inhale deeply and draw elbows well back, count six, exhale slowly. Five times.

3. Thrust arms forward hard (1), bring hands back to chest (2), thrust arms overhead (3), return to chest (4). Eight times.

4. Thrust arms sidewise (1), bring hands to chest (2), thrust arms downward behind hips (3), bring hands back to chest (4). Eight times.

5. Bend right knee, keeping left straight (1), swing weight over to left knee and bend it, keeping right knee straight (2), swing weight over to right knee as in count 1 (3), return to position (4). Eight times.

6. Swing hands down between legs as far as you can (1), return hands to chest (2), thrust arms forward (3), return to position (4). Eight times.

7. Swing hands down between legs (1), swing hands to full extension overhead (2),

swing down between legs (3), return to position (4). Eight times.

8. Swing hands down between legs (1), swing arms up forward and open arms wide (2), swing down between legs (3), return to position (4). Eight times.

9. Swing hands down between legs (1), swing as far to right as possible (2), swing down between legs (3), return to position (4). Eight times.

10. Inhale deeply, pummel chest lightly and exhale. Five times.

Fourth Day's Order

1. Position: Stand erect, heels together, fists closed, hands on chest.

2. Inhale deeply, at same time extending arms to sides horizontal, exhale and return hands to chest. Five times.

3. Thrust right hand forward and at same time take one full step forward with right foot (1), return to position (2), thrust left hand forward and take left step forward (3), return to position (4). Eight times.

4. Thrust right hand sidewise and take one

full step to right side (1), return to position (2), thrust and step to left side (3), return to position (4). Eight times.

5. Thrust right hand overhead and take one full step backward with right foot (1), return to position (2), thrust left hand overhead and step back with left foot (3), return to position (4). Eight times.

6. Bend forward, keeping knees straight, and touch toes (1), return to position with hands on chest (2), thrust both hands forward with right (left) foot (3), return to position (4). Eight times.

7. Bend forward and touch toes (1), return to position with hands on chest (2), thrust both hands to sides horizontal and step to right (left) side (3), return to position (4). Eight times.

8. Bend forward and touch toes (1), return to position (2), thrust arms to full extension overhead and at same time jump feet wide apart (3), return to position, jumping feet together (4). Eight times.

9. Bend forward and touch toes (1), swing hands to full extension overhead (2), swing

hands down and touch toes (3), return to position (4). Eight times.

10. Inhale deeply, at same time raising arms high overhead, exhale and lower arms. Five times.

Fifth Day's Order

1. Position: Hands on floor, twelve inches in front of feet; knees bent, weight evenly distributed between hands and feet.

2. Inhale deeply and at same time rise to feet, exhale and resume crouch. Six times.

3. Extend right leg backward (1), return to crouch (2), extend left leg backward (3), return to crouch (4). Eight times.

4. Extend both legs backward (1), resume crouch (2). Four times.

5. Extend right leg straight to right side (1), resume crouch (2), extend left leg to left side (3), resume crouch (4). Six times.

6. Position: Hands on floor, legs extended straight back, weight on hands and toes. Raise right leg up as high as possible (1), lower to floor (2), raise left leg (3), lower to floor (4). Six times.

7. Position as in No. 6. Jump feet wide apart (1), return to position (2). Eight times.

8. Position same as in No. 6. Bend arms and touch chest to floor (1), return to position (2). Four times.

9. Position same as in No. 6. Jump hands and feet wide apart (1), return to position (2). Six times.

10. Stand erect. Inhale deeply, exhale slowly. Five times.

Sixth Day's Order

1. Position: Sit on the floor, body erect, legs extended, hands on thighs.

2. Inhale deeply, at same time raising hands high overhead, exhale, lower arms. Five times.

3. Place hands on floor at sides. Raise body until supported only on hands and heels (1), lower to floor (2). Eight times.

4. Position as in No. 3. Raise both legs six inches above floor (1), separate legs wide (2), close legs (3), lower to floor (4). Six times.

5. Position as in No. 3. Raise right leg as high as possible (1), lower to floor (2), raise left leg (3), lower to floor (4). Eight times.

6. Lie flat on back, arms extended in line with body. Raise right leg straight up, knee stiff, toe pointed (1), lower to floor (2), raise left leg (3), lower to floor (4). Eight times.

7. Position as in No. 6. Draw knees to chest and clasp with arms (1), extend legs and unclasp arms (2). Eight times.

8. Position: Lie flat on abdomen, arms extended in line with body. Raise right leg and left arm, keeping knee and elbow stiff (1), lower to floor (2), raise left leg and right arm (3), lower to floor (4). Eight times

9. Position as in No. 8, but with palms of hands on floor at sides of chest. Raise body until supported on hands and toes (1), jump feet together (3), lower to floor (4). Six times.

10. Position: Lie flat on back, arms extended at sides. Inhale deeply and extend arms overhead, exhale and bring arms to hips. Five times.

Seventh Day's Order

Occupational Exercises

1. Position: Stand erect, heels together, chin drawn back, hands at sides.

2. *Sifting Sand.* Bend knees until sitting on heels, at same time grasp double handful of sand (imaginary) from pile between feet (1), straighten knees, stand erect and lift sand high overhead (2). Eight times.

3. *Swaying Pole.* Hands high overhead, fingers interlaced, sway to right side (1), sway to extreme left (2). Eight times.

4. *Chopping Block.* Both hands at right side, grasping ax. Swing ax. Swing ax up over right shoulder and strike left oblique, at the same time stepping to left oblique (1), return to position (2). Repeat to right. Eight times.

5. *Pumping.* Both hands at chest, fists closed, palms down. Push arms down hard and bend knees (1), return to position (2). Eight times.

6. *Tearing Cloth.* Position as in No. 5. Swing arms to sides horizontal and at same time step right foot well forward (1), return to position (2), swing arms to sides and step left foot forward (3), return to position (4). Eight times.

7. *Stirring Paste.* Hands on hips. Bend forward at hips, to right, backward, to left,

making head describe a circle (1), circle head to left (2). Eight times.

8. *Army Bend*. Hands extended high overhead. Bend at waist, keeping knees straight and touch toes (1), return hands to overhead and as far back as possible (2). Eight times.

9. *Flag Waving*. Left hand on hip, right hand straight overhead. Make right hand describe circle three feet in diameter, circling at hips (1). Repeat with left hand overhead (2). Eight times.

10. Inhale deeply, at same time raising arms sidewise to overhead, exhale slowly and lower hands down in front of and close to the body. Six times.

CHAPTER XXIII

THE PLAN OF A DAY

DAYS are the stuff that life is made of. He who fails to make his days count, shortens his life. Happy is the man who *lives*, fully, actively, usefully, zestfully, each day. Even the dumb animal, hunted, wounded, pursued, dragging itself wretchedly to some hole or corner, feels by instinct that there is something fine and worth preserving in the texture of this thing we call living.

So our days are given to us to make what we can of them in the process of existence—the business of living. To-morrow will be another day, another life-jewel placed in our hands: what shall we do with it? What can we make of it more than the dumb beast does?

The first requisite is a plan. We can not build a house without a plan; no more can we build a day without a plan. The purpose of this chapter is to give you some hints as to how to make a day-plan. No one plan will suit all

people. The same plan will hardly suit two people. You must make your own plan; without a plan you can not build a day. But certain features must be common to all good day-plans; some of these we desire to suggest.

The right time to begin a day is fairly early the evening before. The night's sleep is the parent of the day's work. Sleep enough. The alarm clock, like other stimulants, should be avoided. Nature has given you an alarm clock; wind it up by going to bed at nine or ten o'clock, and you won't need a Big Ben.

Don't begin your mental day by mulling over your cares and worries. When consciousness has come to you through your natural awakening, fill your lungs with a few deep breaths of good oxygen, and your mind with the best thoughts you can make real in your consciousness. Put off your problems till later; strive now to get your mentality in tune for the day's work. Now is the time to strike the keynotes of poise, power, self-control, and idealism that shall guide you through the day.

On rising, begin to live right away. There are some very pleasant little things one can do in this part of the day, in place of the drowsy,

half-alive meandering that uses up the first half-hour for many folks. Let's begin by waking up the skin with a brisk rub or a smart sponge bath. Don't go to extremes by having the water too cold. When you have your skin awake and alive, next get the muscular system and circulation into the game by five or ten minutes of brisk exercise. When you have done this, you will find that you are pretty well alive all over and all through your body. With the skin tingling with pink well-being, the lungs filled with glad morning air, and the muscles surging with healthfully pulsing blood, you are ready to turn the machine over to the driver for the first morning run, the study-hour.

The study-hour is not for students only, nor for such people alone as ministers and writers. It is time well spent for every man who courts success.

We do not mean that the study-hour should be a literal hour of sixty minutes; allot what time you can to it; if you can make it a full hour, so much the better. It should be a precious time, set apart from the distracting influences of the day's work, which you can devote

to the mastery of principles underlying that work. What you do in this hour should push back your horizon, expand your outlook, broaden your views. It should lift you out of your rut; if you let the rut get deep it will be your grave. Avoid using your study-hour on detail work. Try to reserve it for the big things, the fundamentals. The test of the right use of the mental morning-hour is this: Has it stimulated and enriched your mind and spirit? Has it so fortified you that you are safe against the shocks and jars of the day? Has it tuned up your courage and will-power so that you can plow through the tasks and problems of the day, on high gear?

Regarding breakfast, we suggest three things. First, eat breakfast. The no-breakfast plan is illogical and unphysiological. All animals eat in the morning. Secondly, take plenty of time for breakfast. For that matter, no meal should be eaten in a rush; but the temptation to bolt the meal seems greatest at breakfast-time for most people. Thirdly, let the breakfast be an easy job for the digestive machinery, both in quantity and quality. You've got other more important things to do

to-day; so don't invest a big lot of your force in the digesting of your breakfast.

Breakfast-time is the time to begin the application of another principle if you want to build a good day—don't tamper with your nervous system by either stimulants or sedatives. Avoid that morning coffee, and omit that after-breakfast smoke.

Another principle of day-planning comes into play after breakfast—the principle of variety, the alternation of varied activities. You've already had exercise, mental work and breakfast—now walk part or all of the way to work, if possible. Walk moderately; don't rush.

Get to your work in good physical trim and in good mental poise. Now you are ready for three or four hours of high-pressure mental work. Your machine is in good shape, and you can "step on her" with safety. Even here, however, "safety first" should be your rule; have the machine under control at all times. A good deal of the "rush" and "hustle" of the American man of affairs is like that of Chaucer's lawyer, who always seemed busier than he was. By planning your work intelli-

gently and deliberately, you can cut out lost motion and save time. Many a man can increase the amount of work accomplished in a day if the first half-hour is given to planning it carefully.

Two ten-minute or even five-minute recesses, at ten-thirty and three-thirty, with deep breathing of fresh air, a good drink of water, and complete relaxation from mental pressure, will in most cases be a highly profitable expenditure of time—again the alternation of activities. Certainly there should be a release from pressure at the middle of the day. Eating lunch is not the most important reason for the noon hour away from the desk. If the lunch is eaten under pressure, gulped on the run, as is so often the case, it is worse than no lunch. Leave the office *and its business*, relax the mind, get a bit of exercise, and eat moderately and deliberately. This sane lunch-hour program will tune up the machine for the afternoon's run.

The total amount of first-class mental labor that the average man can perform is not over nine hours a day—eight hours is a safer figure. More than this can, of course, be done under

stress—anybody can run pretty fast for a little while. But any man should figure his working capacity and that of his employees, not in terms of a day, but in terms of a year or a period of years. By and large, the man who is forced, or who forces himself, beyond eight or nine hours a day will accomplish less in a year than the man who holds himself within these limits. England found this out during the war.

When you quit, quit. Don't carry home odd jobs or business worries from the office. Shed them with your office coat. The late afternoon is a fine time for exercise, especially recreational exercise. It is a splendid time to hoe your garden and weed your brain. You will make in the end by bending your plans, if conditions possibly allow, for some kind of outdoor relaxation and good time between work and dinner.

The evening dinner should be the main meal of the well-planned day. But don't shovel in too much fuel; remember that a thin fire makes the most steam. Season your dinner with jollity and pleasant social intercourse. If you have come through your well-planned day "on high," as we have suggested, and have not

abused your machine, you will have enthusiasm and good-temper and nerve-force in abundance at dinner-time, to devote to the helpful encouragement and good-cheer which you owe your family; and Jimmie won't whisper to Susie in awe-stricken tones, "Look out for pa; he's got a grouch to-night."

The evening time should be your free time, your leeway time. It can be spent in a variety of ways—in reading, or in social intercourse, or in riding your hobby (and you ought to have a hobby), or in any one of a hundred ways. It ought to be free from unwholesome stimulation, physical or mental, and ought to end early enough to insure a full night's sleep.

CHAPTER XXIV

PRACTICAL WORKING SCHEDULES

SEE if any of these fit your case. If not, select the one which comes nearest to it, and adapt it to your particular needs. Very few changes will be necessary.

Daily Schedule for the Professional Man

6:00 A. M. Rise; sponge bath; exercise.

6:30 A. M. Morning toilet; shave and dress; short walk.

7:00 A. M. Morning study hour.

8:00 A. M. Breakfast.

8:30 A. M. Read paper, and plan the day's work.

9:00 A. M. Leave for office.

9:30 A. M. Look over the day's appointments; read mail.

10:00 A. M. Begin on appointments.

12:30 P. M. Lunch.

1:00 P. M. Walk fifteen minutes; rest fifteen minutes.

1:30 P. M. Begin on appointments.

4:30 P. M. Dictate letters and clean up the day's work.

5:00 P. M. Leave for home.

5:30 P. M. Brisk walk; play and recreation.

6:00 P. M. Dinner.

7:00 P. M. Rest period.

7:30 P. M. Recreation—Twice a week (not to exceed) theater or social function. (Five days of week spend period 7:30 to 9:00 getting acquainted with your family.)

9:00 P. M. Light reading.

9:30 P. M. Exercise and prepare for bed.

10:00 P. M. Retire; use auto-suggestion; let go.

Daily Schedule for the Business Man

6:00 A. M. Rise; bath and rub-down; exercise; toilet; shave; dress.

6:45 A. M. Map out the day's work.

7:00 A. M. Study period; personal development (memory, public speaking, etc.).

7:30 A. M. Breakfast.

8:00 A. M. Leave for office. Walk part way—at least fifteen minutes.

8:30 A. M. Read mail; then make a specific list of the ten most important things to be done during the day; proceed with the forenoon's work.

12:00 M. Lunch; once or twice weekly attend Monday Luncheon of Commercial Association or other club lunch.

1:30 P. M. Brisk walk.

1:45 P. M. After-lunch rest.

2:00 P. M. Begin afternoon's work.

5:30 P. M. Leave for home.

6:00 P. M. Lie down and rest for fifteen minutes.

6:15 P. M. Dinner.

7:15 P. M. Rest period.

7:45 P. M. Play with family. Twice a week some social affair, or theater.

9:00 P. M. Light reading.

9:30 P. M. Relaxation exercises; prepare for bed.

10:00 P. M. Retire; take forty deep breaths; throw off all business worry and go to sleep.

Daily Schedule for Clerks and Salespeople

6:00 A. M. Rise; sponge bath; exercise.

6:30 A. M. Morning toilet; shave; dress.

6:45 A. M. Work about house; furnace, lawn, etc.

7:00 A. M. Study period; personal efficiency work.

7:30 A. M. Breakfast.

8:00 A. M. Leave for place of business; walk fifteen minutes of the way.

8:30 A. M. Begin day's work.

12:00 M. Lunch.

12:40 P. M. Ten-minute walk.

12:50 P. M. Ten-minute rest.

1:00 P. M. Begin work.

5:30 P. M. Leave for home.

6:00 P. M. Complete relaxation for fifteen minutes.

6:15 P. M. Dinner.

7:15 P. M. Rest period.

7:45 P. M. Recreation—out-of-doors, in summer; movies, dances or late-hour social festivities not to exceed twice a week.

9:00 P. M. Light reading, study or correspondence courses.

9:30 P. M. Exercise; prepare for bed.

10:00 P. M. Retire; prepare the mind for a refreshing sleep by auto-suggestion.

Daily Schedule for the Physical Worker

5:30 A. M. Rise; rub-down; toilet; shave; dress.

6:15 A. M. Work about the house.

6:30 A. M. Half-hour of study.

7:00 A. M. Breakfast.

7:30 A. M. Leave for work.

8:00 A. M. Begin work.

12:00 M. Lunch.

12:30 P. M. Relax and rest.

1:00 P. M. Begin work.

5:00 P. M. Quit, and start for home.

5:30 P. M. Take bath; change clothes, rest till dinner.

6:00 P. M. Dinner.

7:00 P. M. Half-hour rest.

7:30 P. M. Hour of recreation with family.

8:30 P. M. Read or study.

9:00 P. M. Ten minutes' setting-up exercises; prepare for bed.

9:30 P. M. Go to bed; hold a positive thought in the mind before going to sleep.

*Daily Schedule for Stenographers and
Office Workers*

- 6:00 A. M. Rise; bath and exercise.
6:30 A. M. Toilet and dress.
6:45 A. M. Housework.
7:00 A. M. Study period; special attention to personal efficiency.
7:30 A. M. Breakfast.
8:00 A. M. Walk to office.
8:30 A. M. Begin routine work.
12:00 M. Light lunch.
12:30 P. M. Twenty minutes' vigorous walking, with deep breathing.
1:00 P. M. Begin routine work.
5:30 P. M. Walk home.
6:00 P. M. Lie down and rest for fifteen minutes.
6:15 P. M. Dinner.
7:15 P. M. Rest period.
7:45 P. M. Recreation—games, social affairs, etc.
9:00 P. M. Read fiction or study.
9:30 P. M. Physical culture; prepare for bed.
10:00 P. M. Go to bed; give the subconscious mind a happy thought to sleep on.

Daily Schedule for the Teacher

5:30 A. M. Rise; bath; exercise.

6:00 A. M. Toilet; dress.

6:15 A. M. Study, and outline the day's work.

7:00 A. M. Breakfast.

7:30 A. M. Start for school; walk fifteen minutes of the way.

8:00 A. M. Begin school work.

12:00 M. Light lunch and ten minutes' relaxation. (If afternoon session begins later, allow more time for lunch and rest, and include fifteen minutes' brisk walk.)

12:30 P. M. Begin school work.

4:30 P. M. Leave for home. *Walk.*

5:00 P. M. One hour of complete rest.

6:00 P. M. Dinner.

7:00 P. M. Lie down and relax.

7:30 P. M. Study and professional work.

8:00 P. M. Recreation—picture show, dance or social hour, or music.

9:00 P. M. Prepare for bed; physical exercises.

9:30 P. M. Retire; free the mind; smile and go to sleep.

CHAPTER XXV

SPEEDING UP OR SLOWING DOWN

SPEED laws vary in different localities, but in one respect every man is a law unto himself.

His personal progress and rate of achievement are not limited by any city ordinance. The question of speed is a vitally important one in these modern times.

The world does move, and it moves rapidly. *Are you speeding up or slowing down?* It's one or the other. The man who answers "neither" is fooling himself. There is no such thing as standing still. The current of existence is strong, and those who stop swimming, even for an instant, begin to drift downstream. Competition is so keen that there is more truth than poetry in the assertion that "You've got to run as fast as you can to stay where you are."

Don't overlook this point. *The pace has already been set.* It may be too fast for you, but

it will not be changed to suit your convenience. "Either make the pace or be ruled out," is the verdict. Don't be lulled into a sense of false security by either of these delusions: "I'm doing the best I can," or "I'm doing well enough now." No, you are not doing the best you can, and your "best you can" may not be "good enough," even now. Next year it may not be half good enough. Your only safe plan is to make "your best" still better and increase your speed.

To prepare the crews for the great annual boat races of the big universities, in the East, the stroke is gradually increased throughout the period of training. Men who can not make the raised stroke are dropped out. It is necessary to move fast in order to qualify in any race. It takes speed to play in the Big League. Contrary to the common belief, the human machine is in far more danger from "slowing down" than from "speeding up."

Every man comes to a time in his life when he begins to "slow down," either consciously or unconsciously. The dangers which beset this course are often hidden. Many of the points brought out in the preceding chapters have

been written with special reference to the young man.

But this question of slowing down comes home to the older man as well. The old plan was for a man to "retire" from active life entirely at fifty or fifty-five years of age, and rust out in a few years. The new plan prolongs the life of the old man by keeping him reasonably active; fit mentally and physically to the end. But by far the most important case is the man between forty and fifty who has begun to slow down and doesn't know it. Such a man must realize that he is likely to "slow down" as the vigor and enthusiasm of youth begin to wane. He must meet this danger by matching his experience and judgment against the vitality of youth. Above all else, he must learn to conserve every ounce of his energy and use it wisely. No more can he afford to waste his energy as in younger days. His only salvation lies in learning how to "take it on high" easily. If the older man will conserve his energy and use the skill and judgment he has acquired through years of experience, he can maintain the pace. He often makes better speed than the younger man, whose youth and

dash and endurance are more than counter-balanced by the mistakes he makes—his energy wasted through misdirected effort. Then, too, the young man often “slows down” deliberately—takes a notion “to knock off work for a while”; thinks he can pick it up some time later, just where he left it. Nearly always this is a fatal mistake. Often these temporary lapses become permanent. Or, if he does try to “come back,” he finds it very difficult to work up to his old-time form and speed again. In many cases it is never regained. “Slowing down” is so dangerous for a young man that in the end it generally proves to be *absolutely fatal*.

But the one man, above all others, who is continually slowing down is *the chronic backslider*. He may be either old or young. He is found in the ranks of youth, as well as in the ranks of those who are old enough to know better. No matter how often he may speed up, he is sure after a little spurt to “slow down.” No matter how great the enthusiasm and fire with which he begins, he is sure to “quit cold” after a little trial. And nearly always he has a “good reason” at hand to excuse his failures—

a "reason" which fools no one but himself. There is such a big army of these chronic backsliders in the world that huge fortunes have been made out of their weaknesses.

We all know people who simply can not, or will not "see a thing through." They would rather forfeit all the money they have put into a scheme, however good, than continue their payments and fulfill their contract to the end.

The chronic backslider never sees anything through. He may make a brave start, with plenty of speed, but soon he slows down and falls by the wayside. He is one of those who never *arrives*.

The doctor may prescribe for him a better diet, but he does not benefit, because after a few days he slides right back to his old habits of eating. The professor may outline for him a valuable course of study, but he fails to profit, because after a few lessons he lets go and "quits." Tom Reed must have had the chronic backslider in mind when he uttered his now famous saying at Washington, "God hates a quitter."

Those who have read this book through "to the bitter end" have found many points on self-

development. You may not agree with some of the ideas expressed. The only way to test the matter, to prove the value of the plan, or suggestion, is to *try it out fully*. Don't belittle the value of any part, or point, however small. Try it, test it fully, keep it up, and in the end you will agree with the writers. It is not enough to *read* it; you must *do* it.

If you will spend a few minutes each day following the working schedules of this book, or applying the principles outlined, you will double your physical and mental working force. These few minutes each day will pay you rich dividends in abounding health, real happiness, and actual dollars.

Leadership is a state of mind made manifest by constant productive activity.

Action is the thing.

Speed is the way.

Do it now is the password.

Keeping everlastingly at it is the weapon of defense.

May you keep your brain alive, and your body young, to the end of the journey.

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