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PERSONAL EFFICIENCY IN BUSINESS

BY

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CHAPTER I

THE MAN WHO KNOWS

THE first mark of greatness is a question mark. The two favorite words of the man born to get ahead are *Why* and *How*. "Why is a thing done as it is? How can it be done better?" Answer these two questions properly, habitually, and you guarantee a great future anywhere.

A job is worth not what it pays, but what it teaches. There are in America today a number of men with salaries of \$50,000 or more, who held jobs not so long ago at \$15 a week. How did they gain such promotion? For every dollar in money each man took from his job he took fifty or a hundred dollars' worth of knowledge. Thus each man ultimately fixed his own salary. The way to make an occupation valuable is to look on it as an education.

The call of the business world is for the man who knows. If also he is a man who thinks and who works, a thousand doors of opportunity swing wide before him; he has but to choose, to enter, to command.

There are in business education three principal studies: How to get a job, how to hold it, how to reach from it to a higher one. If every employee had learned these primary lessons of good workmanship, there would be no problem of unemployment.

I think I have found the master key to the problems of unemployment. The president of a great corporation gave it to me, and I pass it on to you. It should unlock many problems of industry also, and that of promotion in particular. For when a man makes himself so valuable that his company never would discharge him, they will promote him; he is the type of man who belongs among the directors.

I was speeding to my work in the early morning, when, upon changing cars, I observed a long line of men reaching from the doors of a big industrial plant far out into the street and back around the corner. A policeman eyed them closely. "What's the meeting, officer?" I queried. "That's no meeting," he grunted, "that's only a bunch of down-and-outs looking for a job."

"And will they get it?" I asked him. "Not on your life," he boomed—"not with that

company. You have to know too blamed much to get on their payroll. Friend of mine went there for a job once. They put him through a regular third degree, made him answer questions about himself and his trade that his mother, doctor, parson and old boss couldn't answer all together. My pal got an all-day headache just thinking about their questions. He wasn't classy enough for such a high-brow concern. These guys won't any of 'em land—you can go to the other door and watch 'em pass out."

"And what's your pal doing now?" I mused. "Driving a truck—that's all he knows," was the answer.

I did not go around to the other door—I will not see failures anywhere. But here was a great industrial concern with a real educational test for employment—and I had to see the president! I chanced to know something about the president. He came to work before his employees, he liked early risers. He was mathematical to a fault, yet one of his hobbies was sociological investigation. He loved promptness and preciseness. Thinking over all these points, I sent to his office a memorandum like this:

There are several hundred men outside your factory looking for work. Will they get it, and if not, why not? Can you give me three minutes to talk about this?

The messenger was back. "The president will see you." I had quickly drafted a list of questions, to economize every second—the answers of the president appear below. The great man looked me over, looked me through, by one swift, comprehensive glance. I also looked him through, but not over—when you have looked a man through, looking him over is a waste of time. Having reached a mental understanding with me, the president opened up.

"We shall engage perhaps twenty per cent of the men outside. The other eighty per cent we cannot use. Of the twenty per cent engaged, probably half will leave or be discharged under six months. That is, only ten per cent of the men who apply for a job are able to get and keep it.

"What is wrong with the ninety per cent? I will tell you. They *don't know* literally hundreds of things that good workmen ought to know, but that most men will not take the time and pains to learn.

"They don't know how to work; we have to teach them. They don't know how to

think; we try to teach them, but as yet have no reason to be proud of our success. They don't know what they can do best; we may have to transfer a man a half dozen times before he happens on a line of work that really interests him. They don't know what or when or how to eat; I figure that the average employee's working capacity is lowered twenty per cent by foolish meal habits. They don't know how to live in their homes, and keep well for their work; this company loses \$40,000 a year from preventable illness of employees, and the employees themselves lose more than that. They don't know where to look for technical knowledge and the solution of their trade problems; our educational department has to answer for them hundreds of questions they ought to answer for themselves, or find answered in a book or magazine they should have on file. They don't know how to plan their future in this company or elsewhere; I judge that perhaps one man in fifty has clearly in mind a purpose, plan, picture, of his own life work—the other forty-nine men are drifting, empty-eyed, empty-hearted. They don't know why they are living at all, these men who come

here for a job; and looking for work without feeling the joy of work is like picking roses in the dark—you get more thorns than flowers.

“Lately we put in the newspapers two advertisements—one for laborers to take jobs at \$15 a week, the other for a manager to fill a \$5000 executive position. Hundreds of men have begged for the \$15 job—and not one has applied for the \$5000 salary. Why? Because a \$5000 man must possess five thousand dollars’ worth of knowledge to sell this company every year, and the men having the right kind and amount of knowledge are, so far, altogether absent.

“Our employment bureau is conducted more or less scientifically. To get a position here, a man must know certain things, and prove his knowledge at the first interview. Among other things he must know how to look an official straight in the eye; how to keep his nerve when looked at; how to tell briefly what he can do, what he has done, what he hopes to do; how to answer questions promptly, truthfully and concisely; how to be deferential without being servile; how to size up the requirements of a new

job; how to dress neatly and becomingly, yet not flashily or in the so-called height of style; how to take small pay with big chance of promotion; how to do the least thing as well as though it were the greatest. Our test for a man is really this: Does he know how to *work for his company*, and how to *think for himself*!"

Suddenly the president was fingering his watch. I rose to meet the unconscious gesture. "And your test for me is, do I know when to go? I do. Thank you for the great lesson you have pointed out."

But the lesson was not yet complete—I always check up a man's opinions by his actions, and I had to learn something of the life and work of the president himself. The man who had been longest with the company—a thoughtful, kindly patriarch about seventy—furnished the data required.

"How did your president earn his position, how does he hold it?" I asked the veteran employee. "Well, sir," he replied, "the Chief won his place by knowing more about the company's business than any other man here; and he keeps it, I think, by always knowing just what to do in a crisis. Let me

explain. I was here thirty years ago, when the Chief came, hardly more than a boy, and took a job at \$10 a week. From the very first he had to know the why and how of everything. He borrowed technical books from libraries; talked with officials whenever he could make a chance; found an experienced man in his line too old for active work and took business lessons from the old fellow; did all sorts of unheard-of things, to master the science of his trade.

"It wasn't long before the head of the department came to consult this boy whenever a hard problem was being considered. Then one day the head of the department resigned. Before another manager could be found, a crisis developed in that branch of the business, and the whole reputation of the company was involved. The high officials were in a panic. What did that boy do but walk into the directors' meeting and tell the owners of the business how to handle the situation! Of course they made him head of the department.

"He held the position a couple of years, made a lot of improvements, earned a large salary increase, and saved a few thousand

dollars. Then he did a most unusual thing. He asked for another job in a more difficult branch of the business—a job that meant lower, harder work, and the pay scarcely a fourth of what he was getting. Some of the directors called him a fool—though now they realize he was a genius; but they transferred him as requested. Within a year he had invented a scheme for cutting costs that he sold to the company for several thousand dollars and a good royalty. Soon he had a share in the business, and a comprehensive idea of the present, past and future of each department. He was always breaking out in some new place, with some new plan for enlarging the business or reducing the expense. There was no way to keep him down—he knew so much about the work he had no competition. There never was a man who so combined a knowledge of the great principles on which the business rests, with a knowledge of the fine details by which it revolves. He promoted himself to the presidency, he paved his own way by digging through problems, laying down principles, smoothing out difficulties, girding up men!”

The interview was over, and I did some

thinking. Here was a sharp, telling contrast. The man who hunts a job fails to get it because he *doesn't know*; and the millionaire corporation president made his job, holds his job, because he *does* know. In our own work, we are all on our way toward one of these extremes. Toward which? Toward the ruin found in the gullies of ignorance—or toward the splendor found on the peaks of knowledge?

Every great business, trade or profession has in it some one man who knows. He is the man for all men to study. Where did he get his knowledge? Why did he get it? How does he make use of it? What could *you* achieve with such knowledge? Is there any reason why you should not know as much, think as much, do as much, earn as much, be as much, as the man above you? In your occupation, who *is* the man who knows? How far have you analyzed his method, watched his performance, traced his record, observed his life?

The greatest lever in the world is self-education. By it the world's leaders have raised themselves from weakness, poverty, obscurity, to heights of power, eminence and

trust. A leader is but a man who knows more than the other fellow, and uses better what he knows. The backbone of strong leadership is long learning. Would you become a world-leader? Then you must know and apply the fundamental principles of leadership, which are as follows.

1. *Know your job.* Learn exactly what you are paid to do—and not to do. Organize each class of work on a time schedule, and keep to the schedule. Find the standard output, and the maximum, for a week, a day, an hour; make your output measure up always between the standard and the maximum. Write out a list of all the mistakes apt to occur in your line of work; then take special, itemized precaution to prevent each. Analyze the merits and demerits of every tool, machine, material, supply; compare with different brands of manufacture, and with scientific standards of performance; reject faulty equipment, demand the best utensils for your work. Make a list of the new books in your profession, devote an evening or two a week to study and application of improved methods. Join a national trade association or professional society, and

make friends with the leaders in your line. Locate a man who has done bigger, better things than you have; study him, the principles, aims and methods that made him; detect, and correct, your special habits of failure.

2. *Know the job ahead.* Regard your present position, however lowly or exalted it may be, as a mere stepping-stone to a place of larger usefulness and power. The man who isn't getting ready for something higher is getting ready for something lower — as every down-and-outer fifty or sixty years old could sadly testify. A job, like a suit of boy's clothes, was made to be outgrown. If you don't feel yourself outgrowing yours, you should see a business doctor—your mind is poorly nourished, stunted, or malformed. Get a bigger job directly in view, then plan how to grow to fill it. Make yourself a silent understudy to the man higher up; watch how he does things, practice doing them, figure how to do them better; some day his resignation or promotion, or a chance offered elsewhere, will surely call you to the place you are ready to fill.

3. *Know the rules of health.* You can add

ten or twenty years to your life, prevent needless worry and trouble in your family, save each year an estimated average of two weeks' pay, and increase your earning capacity thirty per cent or more. How? By learning the modern science of health, and putting illness at your minimum, energy at your maximum. Illness is either ignorance or indolence; therefore unnecessary and inexcusable, except in rare cases. Among the forms of preventable diseases are colds, indigestion, constipation, grippe, headache, nervousness, many organic troubles and nearly all functional derangements, premature old age, chronic fatigue, worry, pessimism, poverty. Worry a disease? Pessimism a disease? Poverty a disease? Yes. Any condition abnormal or subnormal is a disease; and worry, pessimism, poverty, are conditions of body and mind both abnormal and subnormal. You can banish, you can prevent, almost any so-called affliction by learning to eat right, sleep right, bathe right, breathe right, dress right, work right, play right, think right. Get a few good books on health, build a stronger physique, enhance both longevity and productivity.

4. *Know the science of finance.* Make a list of the extra things you must know or do, in order to earn a larger salary ; then put your spare time and energy on the problem of increasing your bank account. Of course you *have* a bank account—if not, start one today, with a dollar if that is all you can spare. A man who earns \$10 a week and saves one dollar is making more than a man who earns \$100 a week and saves nothing. Buy on the budget plan. If you have never kept account of your personal expenses, do so for at least six months ; then you will know how much you waste, and one of the first signs of wisdom for any man is to know how much he wastes. Apply at the best banks near you for literature on personal finance — every bank should freely distribute this or tell patrons where to find it. Plan your investments ahead, with at least as much delight as you plan your vacations ahead. Money? Good for nothing but to make your dreams come true. Every man should be a colossal dreamer, but the greater a dreamer a man is, the more useless he is, until he has beneath him a solid money base.

5. *Know human nature.* Is your customer,

your dealer, your employer, your employee, a human lion, a human eagle, a human ostrich, a human fish, or a human fox? Maybe he is a human vegetable, or a human weed. And perhaps he is well nigh a superman. To please him, serve him, move him, mould him, you must find what and where he is. All good advertising, all productive salesmanship, all kindly and effective service, rests on the principles of applied psychology. The masters of trade are the knowers of men. Character analysis should be taught in every school, followed in every church, used in every sanitarium, wielded on every battlefield and in every place of business. Do you know *yourself*? Are you thoroughly informed on your talents and possibilities, your faults and weaknesses, your habits and tendencies for good or ill? Have you sized up your character and career as impartially and scientifically as you would judge a race-horse before buying? To do a large and safe business with yourself, you must have a reliable rating on your own personality. The first move toward success is to become an expert in self-appraisal. No man ever failed who knew himself. The mark of a big man

is that other men regard him his own best reference. To build high, dig deep; to ensure a commanding reputation, explore the depths of yourself and lay a faultless character foundation.

6. *Know the power of ambition.* Look down the roster of the leaders of America today—the merchants, lawyers, doctors, bankers, authors, teachers, preachers. You find that a large proportion of the most influential men began life with a handicap. Some were very poor; others had to fight with disease and infirmity; others lived so far from civilization that they could not get even a high school course; others came from families despised in the community; others had to work so hard from early childhood that their bodies were spent, minds warped, hearts broken, when they reached manhood. But they all won out! The highest reward is reserved for the man with the highest resolve. When a real man meets a handicap, he breaks it up and makes a ladder out of it. A lot of hope and a lot more hustle puts any handicap far behind. What is your handicap? What holds you back? What makes you fearful, weak, discouraged, when

you ought to be forging ahead? Stop cringing, start climbing. Strengthen your muscles and sharpen your wits on your difficulty—that's what difficulties are for. Be wiser and better with each failure—here is the lesson in all failure. It takes a big defeat to put a big man far ahead. Learn from defeat, smile at defeat, stand on defeat, grow by defeat, and defeat is changed into victory.

7. *Know the sovereign satisfaction that crowns loyal service.* The two highest aims of a good workman are these: to do something better than it was ever done before, and to render a daily service that money cannot pay for. Whoever carries out these aims will reach the top of his profession. Work for money and you grow poor; work for merit and you grow rich. A director in the world's largest corporation of its kind—a manufacturing company able to produce \$36,000 worth of goods an hour—was asked how the company had succeeded, in the face of tremendous obstacles. He answered, "The president has for twenty years done the least thing as carefully as though it were the greatest, and the greatest thing as kindly as though it were the least." The way out

of subjection is by removing objection. Don't look for compliments—look for complaints. Measure your ambition not by its motion but by its perfection. The greatest is born of the best. It is a sign that a man is matured when his ambition changes from wanting his work the greatest to wanting it the best. You reap a royal salary by sowing a loyal service. But the real joy is in the sowing. Money palls, fame wearies, pleasure stings, youth dies, hope turns to grief; the one immortal happiness worth knowing is the sure delight in the habit of genuine, scientific service—service to your customer, your employer, your neighbor, your friend, and your enemy. The greatest ruler this country ever had was Abraham Lincoln, for he served on the largest scale. He toiled more than others, he studied more than he toiled, that he might prepare to serve his generation well. And for this he is loved supremely.

You would carve your name high on the scroll of history? Then remember: Wisdom lies in knowing how to add to the weal of the world.

CHAPTER II

EVERYMAN'S WORKSHOP

THERE are more efficiency facts in an efficient factory than anywhere else in the world. Apart from the intrinsic value of factory study to the factory worker, the subject is of remarkable interest and benefit to the student of personal achievement. For he will find the great, modern factory a liberal education in ambition, production, economy, regularity, precision, loyalty, responsibility, courtesy, thoroughness, grit, coöperation, machine power, money power, man power.

If I were a college president, I would urge the passage of a law requiring every candidate for graduation to spend three months in factory work; to analyze factory methods, principles, tools, machines, costs, aims and products; then to write a monograph on the subject, with the main purpose to apply the lessons he has learned from the factory to the life of the man. This would be a good

start at least toward efficiency in education.

If I were the head of a religious denomination, I would put in every theological seminary a plain-facts course on the system of welfare work and human helpfulness carried out by the really big factory owner; and I would compel every theological student to be a welfare worker for a time, under such a man, before obtaining a license to preach. This would be a good start toward efficiency in the church.

Why open thus an article on factory efficiency? Because, after long and thorough study of the matter, I am convinced that the educational, social and moral power of the factory in a community is the greatest potential force of any institution we have—not excepting the college or the church; that this power is wholly unsuspected by the average community, and largely unused by the average factory; that waste power is the first thing to correct in efficiency study; and that the business of an efficiency engineer is to regard community-building and man-building the outstanding features of his work. The newest and best million dollar factories are founded squarely on this fun-

damental principle: *To make money, you must make men first; and to make the most money, you must make the biggest men.*

Now that we have the fundamental principle in mind, let us get down to facts. The most important fact is that hundreds of books, and thousands of magazine articles, have been recently published, applying to every department of factory management, suiting the needs of every owner, builder, official or employee, and solving almost any problem that could arise in factory operation. Many a plant has saved hundreds, even thousands, of dollars by installing a new method or device for economical production, learned from a modern book or magazine.

Every factory should elect an efficiency board from its leading officers and workers to investigate, consider, compile, discuss, and distribute to the various departments all the current news of better, faster, cheaper, methods. This board has five sources of knowledge: (1) recent books by factory experts; (2) articles and advertisements in technical magazines; (3) bulletins and reports from national engineering societies; (4) campaign literature of other com-

panies in the same field; (5) laboratory studies and shop tests in its own plant. Further, we recommend serious consideration of the efficiency engineer plan, which lately has been adopted by so many factories, and which has proved so highly beneficial.

Cases in point. A tool factory, by modern efficiency methods, increased the average output of the employees from sixty-seven per cent of the maximum to ninety-one per cent. A pulp mill, designed to produce twelve tons a day, was made to produce thirty-six tons. A belt plant so reduced time and labor that a standard job formerly taking 322 machine hours and costing \$37.50 in wages now requires only 188 hours and wages of \$20.09. A motor car factory has spent \$5,000,000 on efficiency development, has installed more than two thousand special machines, has lowered ten thousand costs, and now manufactures automobiles for just half the original factory expense, claiming to undersell all competitors, and to have gained a volume of business that more than pays it for the original five million dollar investment in factory efficiency.

How are such things done? The answer

would be a large library. We can here but outline, roughly and briefly, a number of plans and devices lately found profitable, and suggest a trial where they are adaptable.

They are grouped under seven principal headings, though certain of the items overlap.

1 BUILDINGS AND SURROUNDINGS

Plan ahead, in detail, before breaking sod. Plan each building in relation to every other, to all the operations and costs under its own roof, to future developments of the plant for a hundred years, and to the special difficulties and problems that your experience has not yet overcome. Read standard books on scientific management, and the catalogues of a score of architects and builders.

Employ an expert designer, outside your own concern, to draft your structural plans. Tell him all your needs and problems, fully and minutely, but leave actual control with him. Don't skimp on quality of materials—a slight defect may cost you thousands of dollars later; also, upkeep is less for high-grade buildings, and character of work in them better.

Choose the type of building—there are

seven chief types—to fit your need exactly; the loft type, of steel or reinforced concrete, with concrete or brick walls, being usually most economical of space and labor, yet by no means universally best. Make window sash of steel, to increase light and diminish fire risk. Have interior walls in form of movable partitions, to shift as development requires; with columns uniformly spaced—from sixteen to twenty-five feet. Order special machine foundations, centralized in building, for heaviest machine tools. Gauge height of roof so that belt lengths will be right, and readjustment in countershafting needless.

Paint white lines on shop floors, to mark off routing aisles. Construct shipping platform under same roof with assembling floor. Save work space by running electric wires and exhaust pipes under floors. Halve trucking costs by putting a mezzanine floor in the packing rooms, for cases. Shorten transmission lines by centering power plant among other departments. Conserve health of employees by installing an air heater, washer, humidifier and distributor; with excess heat utilized where possible.

Consider these items, now available: mill-white gloss paint to reduce light bills and increase the workers' efficiency through saving their eyes; fire-proof, thief-proof and mischief-proof fence; unbreakable wood block floors; non-sweating gypsum roof tile; coal breaker storm-proof and fire-proof yet 93 per cent glass; automatic ventilators; automatic rolling doors; rust-preventing graphite paint; chemical hardener for cement floors; maintenance-cutting wire glass; all-steel fire doors; dumb-waiters with automatic brake; one-man window sash operating device.

2 MACHINERY AND EQUIPMENT

Here is a prolific source of loss, from a multitude of trifling defects or neglects, whose aggregate will be thousands of dollars wasted. A few suggestions. Don't equip on a friend's opinion, or even an expert's advice. Look up advertising directories in foremost engineering magazines, write all concerns of possible advantage, study and compare literature (you will have hundreds of documents) and don't decide on specifications till you are sure of the best equipment. Don't despair if your building is old — a rearrangement of machines can always be

made, given the knowledge of new methods.

Find your power leaks, in engine, boiler room, shafting, belting. Save loss of power by having regular inspection of shafting and belting, to keep in line and in order, and thus reduce friction load. Make quarter turn drives with ropes instead of belts. Have your belt lacings of standardized measurements, to fit each belt width. Cut down friction losses by seeing that blowers, fans, air-compressors and centrifugal pumps are not overpowered. Investigate the possibilities of electric meters in measuring power. Install a system of power house records, and compare with standard costs.

Prevent accidents by safety shields and guards, safety matches only, guaranteed emergency stops, the pulmotor and other life-saving devices, medical apparatus for emergency use, and so forth; a man's life in your factory is worth \$2500 to \$7500 by law, and a few hundred dollars in precautions will be a good investment.

Locate probabilities of money loss from defective parts, and ensure against it; thus, a pipe-line blow-out due to a faulty gasket may cost you several thousand dollars (one plant

figures a \$1400-an-hour loss would result from one such mishap); therefore, a gasket warranted by supreme tests under oil, acid, alkali, temperature, is the only safe and economical one, whatever the first cost.

Look into such modern equipment features as the following — ask yourself how many your factory needs: pulley-hugging, power-saving belt with no shut-downs; one-man trucks of seventy-two case capacity; self-aligning motor ball bearings with normal thrust 5000 pounds; heat and power conservation through asbestos materials; unit steel bins, lockers and shelving for twenty-five per cent more storage capacity; automatic drill grinder ensuring proper edge; patent swivel, noiseless truck casters; industrial trucks with special battery to increase work 300 per cent; noiseless gear driving; electric portable tools; portable, one-motion belt lacer; long-life leather lubricator; boiler setting to overcome air infiltration losses; ice-barrel “bubble” drinking fountain for health economy; metal hose to end hose troubles and reduce costs; non-valve, non-pulsation air compressor and vacuum pump; automatic and special machines to reduce overhead; free counsel

on sanitation problems; free book on power transmission equipment; current list of supply houses that you might investigate to your advantage, with no obligation.

3 MANAGEMENT AND SUPERVISION

Here is the weakest point in general factory operation. To handle right the man who handles the work is to double the work, the pleasure, the profit, the all-round satisfaction. But to manage men at high speed for large returns you must be a trained psychologist as well as commercial engineer—or must employ an efficiency man who knows brain-building as a fundamental of business-building. Managerial power is mental influence.

Get a few books on mental engineering, and learn how to gear up the most powerful, and most delicate, machine ever built—the human brain. Learn what your men are *thinking*, about their work, their future, their personal and industrial efficiency. Cut out the class-and-mass prejudice, make every worker feel himself a partner in the business. Create in every man the upright mental attitude of success and the willingness to study, labor, sacrifice, as much as may be necessary.

Equip and maintain a planning room with expert staff in charge, for designing, comparing, correlating, details of work in advance—this room is to your plant what your brain is to your body. Train from out your present organization, or add to it, an efficiency board or engineer, whose function will be to set up ideal standards of performance, to devise practical ways of keeping to them uniformly, to prepare each worker for greater achievement by education, equipment and incentive, and to clear away difficulties that prevent maximum attainment.

Find how much you are losing by needless motions; by faulty equipment; by haphazard arrangement; by slow, untaught, unfit, workers; by antiquated methods; by flimsy ideals. Quit guessing; put a trained investigator with a stop-watch on every piece of work, and let him show you the one best and quickest way, by modern principles of intensive industry.

Form the habit of submitting your problems to a manufacturers' service bureau, and obtaining scientific, practical, impartial advice. Look up such aids to better management as these: automatic call system, to find

men at once; daily comparison book for classified reports from all departments; mechanical devices for standardizing work — temperature indicator and hardness tester, for example; inter-department help, such as the new gravity conveyer system; books, libraries and courses on manufacturing principles, methods, and problems.

4 MATERIALS AND SUPPLIES

You can buy more cheaply by following hints like these. Learn the minimum required—then by systematic distribution keep down the reckless use; for instance, cotton waste per man per year should be had for about \$1.15, but often costs twice that, from faulty standardization and careless distribution. Make a study of scientific testing, keeping and forecasting of stock. Have all requisitions taken from the planning department, no orders initiated in the store-room.

Classify materials and supplies according to specific use; label with letters of the alphabet; group together, indexed and vowelized, on a space unit floor-plan; devise a stock-blank for each class of stores, giving record of those ordered, those delivered, those assigned, those available; and by these blanks

ensure against deficiency or excess of materials. (Only an expert can do this right.) Coöperate with other manufacturers, if possible, to develop a new source of raw stuff more cheaply.

Find other fabrics in place of those now becoming more expensive; thus, corrugated pasteboard for small packing boxes may be generally used in place of wood; and veneers and built-up parts often substituted for wood in the product itself. Keep your finger on the pulse of the market; and check up your methods of purchase by a modern book on the subject. Items worth considering: automatic coal sampler, to determine heat units paid for; pencils adapted to work and writing of user; non-smudging, quick-filing, standardized tracing cloth; sheet metal fabric that resists decay, rust, corrosion; energy-saving solid belt dressing; factory lighting system that reduces spoilage from errors of vision; scout-plan to locate bargains in buying; reward-scheme for material suggestions from workers.

5 ESTIMATES AND COSTS

Let me here quote a recent statement from the new Federal Trade Commission:

"Only ten per cent of our manufacturers know the actual cost of manufacture and sale of their products; forty per cent estimate their costs; fifty per cent have no method, but price their goods arbitrarily. There were 22,000 business failures in the United States last year. The first and greatest need of American manufacturers is for better methods of cost accounting."

To supply this need is a main purpose of the Commission, and we urge every manufacturer, corporation accountant, industrial engineer, to follow up the work and seek the aid of this national clearing-house of business counsel. Other helps: Learn what your trade associations have done to investigate the costs of running your kind of business, and adopt a uniform system. Judge your costs by your credits—when you can always borrow money from a bank on showing your balance sheet, you may know that your costs are in a healthy condition. Study the standard methods of bookkeeping and cost accounting—don't pin to an unsafe custom because it is a custom.

Get a firm of certified accountants who are also expert industrial engineers to examine

your books periodically, and if necessary change your whole scheme of cost-process. Obtain from a national bureau of statistics all the pertinent information on your special line of manufacture, with forecast of probable trade conditions for the next few years—particularly those resulting from the Great War.

Investigate the new plans to increase production by increasing pay; in one case a manufacturer cut costs thirty-two per cent, and raised output eighty-nine per cent, by paying twenty-eight per cent more wages and getting three times that increase of work! Learn how to look for leaks—a half dozen modern books on solution of cost problem should be worth a hundred times their price. A few aids to cost reducing: arc welder that saves sixty-three per cent from old-fashioned methods; automatic counter that prevents mistakes and lost time; electric truck; patent hoist that enables a man to lift a ton by a thirty pound pressure; new device for measuring production scientifically; cost-keeping time recorder, that prints time in modern terms of decimal fractions of hour; standardized stock room equipment, to speed pro-

duction and diminish overhead; power analysis chart indicating power needed for unit of production; boiler system of feeding, ninety per cent cheaper than pump; automatic furnace to handle fuel more economically; safety insurance by stop and check valves; guaranteed gauges, thermometers, testers and scales of many kinds; bibliography of cost-reducing methods.

6 LABOR AND OUTPUT

First law of industrial mathematics: An ounce of quality weighs more than a pound of quantity. Second law: Neither quality nor quantity should be sacrificed to the other. You can teach your employees to do first better work, and then faster work, and you can also increase their wages and your profits, together. How?

Train your men! Do it by science and the experience of others. Instinct never taught a man how to work. This job—the hardest job—a specialist must handle. First, engage your expert. Have him go over each item of investigation and standardization leading to the one best way of doing every bit of work. Then have him teach the workers, one by one, how to change their methods and con-

form to the ideal schedule. With units of time and motion firmly established you can set a bonus for each worker, on some of the various modern plans, whereby he is rewarded in cash for his gain in proficiency.

Don't be satisfied with any hereditary wage plan, it is almost sure to be defective. But don't spring a new one on your men till you have spent months in careful, scientific study of its minutest features—the overcoming of prejudice and inertia is a difficult problem, and you mustn't go to it unprepared.

Investigate the new time card systems, whereby each man virtually pays himself. Put high-grade men at the costly machines, to save unproductive machine-time. Determine piece-prices accurately, with the prevalent wage-cutting, price-cutting habits of old strictly abolished. Surround the employee with his tools and raw materials by a shelving system that saves time in handling. Devise instruction cards, with each man's work laid out to the last detail in the planning department. Also maintain a card-record history of each employee, with gains noted, and faults to be overcome. Develop the coöperative spirit, as recently shown by

a famous factory whose descriptive booklet is entitled "Workers Together."

Learn how to move the product more quickly and cheaply, by such means as the electric traveling crane, the electric portable hoist, the iron duct and exhaust fan method, the trackless engine truck. Unite all departments by an interphone system of calls and signals, and work it to the limit. Find whether such helps as these would serve you: one man truck lifting up to 1200 pounds with no helper needed; machine to pile cases and barrels economically and safely; gravity conveying appliances for many transportation uses; wire-bound boxes that save fifty per cent on boxing labor and ninety per cent on nails; individual machine motor-drives to save lost work of line shaft drive; all-metal elevator that increases speed and safety; expansion joint that requires no watching; scale-elevating truck that finds short weights without rehandling; oil engine that cuts labor cost fifty per cent.

7 HOME AND COMMUNITY

The zeal and skill of any body of workers will be largely increased by a healthful, comfortable, happy and progressive home life.

The most successful corporations have found it "good business" to furnish their employees attractive homes at low rates and easy terms; to teach the women how to cook and sew and buy and plan and beautify their cottages; to help the men save money and provide for old age; to study out the family problems of sanitation, education, recreation, and to offer coöperation on a scientific, sympathetic basis, without charity or paternalism, but in a spirit of mutual advancement.

Furthermore, an employee will think better, feel better, work better, if he knows his company enjoys the admiration and respect of the community at large; hence the place your factory holds in the minds and hearts of the people outside may well occupy your attention. Have you asked the leading citizens to inspect your plant? Have you made your grounds and buildings worthy of civic pride? Have you taken real interest in the welfare of your community, and given a hundredth part as much thought to making your factory a social center as you have to making it a commercial success?

You will never get the most and best from your employees till their home life means as ;

much to you as you expect your factory to mean to them. While you skimp on sympathy, they will on service. Every great institution has, by virtue of its size, a great mission to perform. Don't neglect yours. A factory is a place where character is made. How big is your factory, on this scale of measurement?

WORKSHOP EFFICIENCY TEST

FOR ANY OWNER, DIRECTOR, MANAGER, OR DEPARTMENT CHIEF

Directions. First read the chapter "Everyman's Workshop." Then grade yourself on these questions fairly, but too low rather than too high. Where answer is Yes, write numeral 5 in space opposite. Where answer is No, leave space blank. Add numerals for approximate efficiency percentage of your workshop.

1. Were your buildings specially designed for you by expert industrial engineers?.....
2. Is all space utilized on principles of scientific management?.....
3. Do you know power and transmission are at minimum standard cost?.....
4. Did you investigate a score of equipment companies before buying from any?.....
5. Have you a complete modern system for locating leaks, wastes and losses?.....
6. Are your safety-guards and accident-preventives up to modern regulations?.....
7. Have you put in each department time-study, motion-study, tool-study, book-study, man-study?.....
8. Do all your employees aim to improve both quality and quantity of product?.....
9. Are your officials technically trained in the science of management?.....

10. Have you personally read at least five modern books on operation?.....
11. Do you frequently consult national efficiency engineers on various problems?.....
12. Is an efficiency board of your own working scientifically and satisfactorily?.....
13. Has your accounting system been approved by recognized authorities?.....
14. Are your buying, manufacturing and selling costs decreasing proportionally, every year?
15. Can you always borrow money from a bank, on showing your balance sheet?... ..
16. Have you in the past three months answered at least fifty advertisements in technical magazines?.....
17. Does every employee know that he will always get a square deal from you?.....
18. Can your average workman do twenty per cent more work than he could a year ago?
19. Are you regularly informed by trade journals, trade associations, book lists, bureaus of statistics, and the Federal Trade Commission?
20. Have you made a thorough study of the home lives of your employees, and offered co-operation on lines of health, economy and enjoyment?.....

Total equals approximate grade in per cent of your workshop efficiency.

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CHAPTER III

EFFICIENCY IN THE FACTORY

ONE of the greatest social needs of to-day is for a mental, moral, industrial and financial clearing-house of ideas, where the principles, aims and methods of the leading trades and professions may be interchanged and improved.

A teacher or minister could often learn more about his own work from a manufacturer than from another teacher or minister. There are about 250,000 manufactories in the United States, with about 7,000,000 employees, and a yearly output valued at \$30,000,000. Any field of such magnitude is worthy of close study by a man with a man's size ambition.

A more vital reason for knowing factory conditions lies in the certainty that the *families* of employers and employees are directly affected by these conditions. The health, prosperity, morality and usefulness of perhaps 25,000,000 people thus depend on

the right management of the factory systems of this country. Furthermore, every one of us gains or loses by the way in which factories are conducted—most of our clothing, work appliances, house furnishings, even our food and drink, bears a factory mark.

The owner or manager of a great modern factory must know, or know where to find out, at least 10,000 different things, a few hundred of which we will barely suggest in this chapter.

The first thing to do, when making a plan for a factory building, is to consult a competent authority, known as an "industrial engineer," and certified by some national organization such as the American Institute of Consulting Engineers, or the American Society of Mechanical Engineers. You need an expert's advice, from cellar to roof.

In choosing a location, these are a few primary points for you and the architectural engineer to determine: superiority of city or suburb; area needed and cost of land; wages demanded in that section; proximity and abundance of labor, materials and power supply; weather and climate as affecting work and workers; shipping facilities;

market for products; home sites for employees.

The building must be adapted to its own specific use. What are to be the methods of manufacture? Have you collected and compared minute descriptions of other factory buildings and systems—a score to a hundred? What will be your machinery equipment, where and how disposed? How will your delivery scheme be most effective and economical, incoming for materials, outgoing for products, retaining for materials and products in storage? How should the yards, tools, desks, departments, be arranged according to the principle of scientific management? Have you figured in detail your designs, estimates and costs, with all specifications minute and proportional? Does your finished plan allow for changes, extensions and improvements later on, without injury to the building or to the scheme of manufacture? What kind of building offers the lowest insurance rates, the least depreciation, the largest salvage?

The structure may be of wood, or wood and brick walls, or steel frame and brick or hollow tile or concrete walls, or reinforced

concrete frame and brick or concrete walls. About sixty-one per cent of all the structural material employed in the United States is wood. The percentage is fast changing to a preference for concrete—in 1890 the output of cement was 300,000 barrels, but in 1913 it was over 89,550,527 barrels. The yearly depreciation of wood is about one and one-quarter per cent, while that of concrete is less than half of one per cent. The insurance rate on wood buildings (with contents) is 100 to 125 cents per \$100, while that on concrete buildings (with contents) is only twenty to forty-five, approximately.

A wood building may cost \$100,000 and a concrete \$140,000, on first estimates. But in the long run they will cost about the same, owing to the lesser depreciation of concrete, its lower insurance, its weather-resistance, its non-susceptibility to vibration and oscillation, its evenness of temperature, and smaller demand for power supply. Among the advantages of concrete are that it is fireproof, waterproof and verminproof, easy and economical to build, allows more windows and less walls, gains strength and solidity with age. Among the disadvantages of concrete

are that it has little or no salvage value, may be damp, looks ugly, makes machinery connections difficult and future extensions almost impossible. An advantage of hollow tile is the insulation of the building from heat and cold. The only safe way is to think long and compare widely before specifying the material.

Now as to floors. A floor may be a thief. Do you know that a certain type of floor, for example, robs the workers of the normal body heat so that they feel excessively and prematurely tired? Also, it adds to nerve-strain and foot-fatigue because of the hardness of its compact. Molding-rooms may need a mastic and asphalt composition, concrete or brick floor, forge-shops an earth or cinder floor, car-houses a concrete base and granolithic finish, machine-shops a creosoted wood plank on concrete base, offices a maple or yellow pine over concrete.

Your choice of a roof is even more complex; it may be tile, or tin, or slate, or shingles, or composition, or asbestos, or sheet metal, or concrete, or tar and gravel. The points to consider, in specifying a roof, are its ventilation, illumination, water-shedding capacity,

endurance, appearance, low cost of repair, suitability to the nature of the factory.

The matter of fire protection is a very serious one. About 2000 fires occur every year in the factory buildings of the United States, with a money loss of \$25,000 each or more—usually much more. Nearly all might be prevented by such means of foresight as these: fireproof building materials; protection of steel framing with brick, tile or concrete; self-closing doors; windows with metal shutters; cut-off walls; hollow metal and asbestos wood partitions; separation of belt towers by brick partitions with fire doors; separate outside stairways; automatic sprinklers, fire alarms and extinguishers; frequent inspections and fire drills; red lights at all exits; inflammable materials fully enclosed; order and cleanliness throughout the factory; printed fire instructions posted largely in prominent places.

A worker's efficiency may vary as much as thirty per cent, according to the temperature of the room and the purity, humidity, and circulation of the air. It is now fashionable, and desirable, *to wash the air* in a big factory. As many as 221,000 particles of dust have

been counted in a single cubic foot of air on lower Broadway, New York. Dust, being a conglomeration of the worst kinds of filth, must be kept out of the organism of the most effective worker.

The heating system should also be a ventilating system. The modern "fan" system of heating largely solves this problem, by keeping the air in circulation, and preventing cold drafts from outside through forcing gentle currents of pure air into all the rooms of the factory. The average steam engine uses only about twenty per cent of its heat production in work radiation, leaving about eighty per cent unused. Why not heat your building by utilizing all this waste?

The exterior walls of factories are now mostly glass. Many structures have window areas of seventy-five per cent of their whole outer surface. A leading authority on industrial engineering says: "No one single factor is as important as light, whether natural or artificial, as an aid in keeping production at a high efficiency throughout the entire working day." Another says: "Light is more valuable than space. The factories erected today probably require and get fifty

per cent more light than was common a generation ago."

Experts declare that twenty-five per cent of all the avoidable accidents in factories are due to poor illumination. On dark days, certain factories have lost an average of an hour a day for each employee; yet a labor improvement or increase of only four minutes daily per man will generally pay for the installation of a good lighting system. A fine scheme of illumination reduces errors; increases production; lowers manufacturing costs, lessens the eye-strain, fatigue, headache, nervousness and irritability of employees; adds to cheerfulness of surroundings, and therefore to the willing spirit of workers; renders supervision easier and more economical; promotes hygiene, cleanliness and order; prevents loss of tools, (and tempers); aids regularity and uniformity in work.

Electric light seems to be the only kind fulfilling all the conditions: that it be ample, uniform, steady, mild, shaded but concentrated, both general and specific. An overhead system is better than drop lights; but drops are also needed on close, fine work.

A low ceiling indicates small lamps in large numbers; a twelve-foot ceiling takes 60- to 100-watt tungsten lamps, instead of a glaring arc lamp, while a fifty-foot ceiling calls for perhaps 500-watt tungsten lamps. Efficient reflectors, glass usually being preferred, may increase the power of illumination as much as sixty per cent. The lighting system should be inspected daily if possible, for renewals, cleaning repairs and so forth.

Color is an important factor. Ceilings should be white, or some tint very near white. Green, or buff, or blue, somewhat darker but still light in shade, with a few ornamental panels, would be desirable for the walls.

From the standpoint of health nothing is more vital to a factory than drainage. Among the requisites are a dry subsoil, prevention of sewer gases, immediate removal of waste, constant ingress of pure air, incineration of garbage and other refuse.

A remarkable feature of modern factory ownership lies in the phrase, "Beauty serves utility." Flowers, drives, and fountains, model cottages and other attractions, now form an integral part of the business scheme

of the largest manufacturing plants, with bright colors, mottoes, pictures and statuary gracing the interiors.

When Charles W. Eliot, President Emeritus of Harvard, said "No man should be employed at a task which a machine can perform," he put into words one of the great efficiency truths of modern industry. The more the factory man of today eliminates human labor, the more efficient he makes his plant and the more productive he makes the labor of the human machines he employs.

This brings to mind a large factory where the old-fashioned trucking system has been well nigh eliminated by the installation of a mechanical conveyor system which carries on its broad belts a steady procession of manufacture, climbing from floor to floor, running along the ceiling, crossing the street to the packing room, and finally, delivering the finished product, in great boxes and cases, to the warehouse. A complementary device utilizes the cheapest power known. Down smooth spiral chutes goes the merchandise, not only annihilating the space between floors but speeding up (or rather down) the delivery of the product, saving

thousands of steps and reducing the pay roll. Many another example of progress in factory economy through judicious selection of labor-saving machinery might be cited. But these are typical and sufficient for my purpose here. The point is this: study your manufacturing problem closely—do not rest till you are on speaking terms with every machine on the market which will save a step or speed along your product.

In the last few years it has been discovered that workers do not know how to work. There may be 100 ways of doing the same job—and of course ninety-nine of them must be wrong. How to locate and eliminate the ninety-nine wrong methods, how to evolve and establish the one right method: this is the great problem of the manufacturer. An authority states that, because of incompetence of both employers and employees, in the trades alone “the loss is probably more than sufficient to pension, under full pay, one-half of the workers of the country.” To put it concretely, half the motions of the 30,000,000 workers in the United States are utterly wasted. Probably nine-tenths of their thoughts are also wasted. Teach a man how

to work and how to think—and you make him at least 300 per cent more valuable to the business and to himself. Scientific management teaches him how to work, and personal efficiency teaches him how to think.

The Taylor plan of scientific management is based on (a) scientific system of work, (b) scientific choice of the man for his work, (c) scientific training of the man in his work, (d) scientific promotion of the man through his work. The Taylor principle is that tasks should be set only as the result of scientific investigation, and on the basis of mutual interest, benefit and satisfaction. Mr. Taylor himself defines it thus: "Science, not rule of thumb; harmony, not discord; coöperation, not individualism; maximum output, in place of restricted output; the development of each man to his greatest efficiency and prosperity."

An outline, condensed, of the Taylor system, we give as follows:

1. Find ten or fifteen men in a given trade peculiarly skilled in the work to be analyzed.
2. Study their exact series of elementary motions or operations, with implements used.
3. Study with a stop-watch the time required to make such elementary movements, then select the quickest way of doing each.
4. Eliminate all slow, false and useless movements.

5. Collect into one series the quickest and best movements, as well as the best implements.
6. Standardize all work accordingly, and train workers in new methods.
7. Provide just rewards, and human interest factors in rousing, impelling and educating workers.

By the Taylor system, unusual results have been achieved. In a bicycle factory the working period was shortened from ten and a half to eight and a half hours, the pay and the output remained the same, and the accuracy was two thirds greater than at the former slow rate. In a big steel plant, employees were taught to load forty-seven and a half tons of pig iron daily instead of their usual amount of twelve and a half tons; their average earnings were increased from \$1.15 to \$1.88 daily; the savings to the company ran from \$35,000 to \$80,000 yearly. A very simple example is that of a girl in an office who applied the principles to herself and learned to stamp 110 envelopes a minute.

Next to Mr. Taylor, the leader in this field is perhaps Mr. Gilbreth. He has revolutionized the ancient, onerous and profitless trade of the bricklayer, till now it comes under the dignity and reward of skilled labor. On the Gilbreth system a man lays 350 bricks per hour—as against the former systemless aver-

age of 120 per hour. Mr. Gilbreth says: "Wherever motion study has been applied, the workman's output has been doubled." A manufacturer, indeed any employer and any employee, unfamiliar with Taylor and Gilbreth, has overlooked a fine chance for at least a forty per cent gain in working output and income.

There is a human side, and a purely mechanical side, to industrial management. Each is indispensable, neither may safely be neglected. No man ever did his best merely for wages. We have the statement of an authority: "The average workman engaged in construction work under the wage system is capable of increasing his output seventy per cent if given sufficient incentive to do so, and this without the least physical injury to himself." And the same truth applies to the mental worker, as I know from experience.

A little reflection will show how unfair the wage method of payment is to both employer and employee, since flat wages can never gauge the actual amount of work done. The newer and better systems include the following:

Bonus system. Worker is paid a regular

minimum wage, with piece-rate award in addition.

Differential piece-rate system (Taylor). Worker is paid minimum for piece jobs, with higher rate for daily output over a certain amount.

Task work with bonus system (Gantt). Worker is paid regular daily wage, and lump bonus if he reaches fixed standard of output (bonus usually about one-third of wages).

Premium system (Towne-Halsey). Worker is paid bonus, but means and methods are left to the men, not ordained by the manager.

FACTORY EFFICIENCY TEST

FOR SELF-APPLICATION BY ANY OWNER, MANAGER, DIRECTOR, SUPERVISOR, OR OTHER OFFICIAL OF A MANUFACTURING PLANT

Key to the Test. Where the answer to a given query is Yes, write 5 in the blank space opposite. Where it is No, or uncertain, leave space blank. To find your percentage, add column of numerals. Most of these questions cannot be answered fairly without expert knowledge.

1. Do you consider your product, firm, opportunity, the finest in the world?.....
2. Was your factory planned throughout by a certified engineer, and built for its own specific use on sanitary, economic principles?
3. Are the heating and ventilating systems adequate, hygienic?
4. Is the light, both natural and artificial, up to the maximum of quality and quantity,

- | | | |
|-----|--|-------|
| | but down to the minimum of cost?..... | ..... |
| 5. | Have you accurate knowledge of every labor saving device applicable to your business? ..... | ..... |
| 6. | Have you taken all possible fire protection and precaution?..... | ..... |
| 7. | Are all your methods based on scientific management? ..... | ..... |
| 8. | Have you adopted cost-finding and cost-keeping systems guaranteed correct by a leading authority?..... | ..... |
| 9. | Do you choose your employees by the modern vocation-test plan?..... | ..... |
| 10. | Does your pay system include the bonus, premium, stint, or other incentive and reward besides mere wages?..... | ..... |
| 11. | Do you require exact daily reports from all departments? ..... | ..... |
| 12. | Are there systematic ways of improvement established in all departments?..... | ..... |
| 13. | Have you carried welfare work to its limits of usefulness?..... | ..... |
| 14. | Is every employee contented, loyal, cheerful, enthusiastic?..... | ..... |
| 15. | Do you teach your employees how to think, eat, bathe, dress, work, relax, read, plan, study, for promotion and achievement?.. | ..... |
| 16. | Do you tell each worker exactly what to do, how to do it, then hold him entirely responsible for results?..... | ..... |
| 17. | Have you compared all your methods, in detail, with those of at least a dozen other factories in the same field?..... | ..... |
| 18. | Have you read at least 10 books on industrial management, and formed a factory library of at least 100 books, for your officials and employees?..... | ..... |
| 19. | Do you admit employees, elected by employees, to your list of shareholders and board of directors?..... | ..... |
| 20. | Are you glad to be told you are wrong, by an expert, employee, or even an outsider? ..... | ..... |

Add column of figures, to find your approximate grade in factory efficiency.

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CHAPTER IV

EVERYMAN'S OFFICE

THE modern office is the ante-room to professional or industrial success. No matter what your ambition may be, the route must pass through the office, be mapped by the office. The solution of nine-tenths of a man's business problems may be had, either directly or indirectly, from the new science of American office management.

The study is of basic value and interest; first, because every man or woman who expects to do things worth while now has, or later will have, an office to be managed; second, because anybody with a primary education and ordinary common sense can apply the fundamental principles at once — there are no technical terms nor abstruse calculations involved, as in most departments of business organization; and third, because the study generally produces a corresponding change for the better in a man's life, a productive system for the office almost always

ending in a productive system for the home. •

The best way to do anything opens a better way to do everything. The best way to manage an office opens a better way to manage a home, a school, a church, a farm, a brain, a purpose, a life. The *principles* of productive, economical, influential management are the same everywhere. To the professional man, the business owner, the office manager or the department head who wants to increase the output and decrease the cost of office work, we would submit the following line of approach to his problem: First, read two or more of the new books on office efficiency, to gain a broad view of the subject, leaving pencil check on margin opposite any points worth future consideration, and having your secretary go over these items, to classify and index under office departments. Then organize new departments, or expand old ones, to complete a modern office staff and cover a scientific schedule, putting items you have checked in care of the department head concerned. Then subscribe for at least one professional magazine, and buy at least two recent books, for each major department, such as "The Cost and Account-

ing," "The Advertising and Selling," "The Appliances and Equipment," and so forth, instructing each department head to locate all new and good plans or ideas, answer the advertisements that appeal to him, and report to you. Then you will have an excellent beginning for an A-1 office.

In case your office force is large you could profitably give special training to your head men—by correspondence courses, personal visits to national corporations, or individual consultation with business engineers of different kinds, called by you to examine your office equipment and personnel. If your clerks are few, one may act as head of several departments; but have the entire office and corps departmentalized, charted, scheduled, and managed right—even if your present staff consists of a typist and an office boy.

The main divisions are these: Construction, arrangement, equipment, employment, organization, execution, finance, recording, buying, shipping, storekeeping, mailing, filing, education, stimulation, supervision, expansion, the desk and day of the manager. We offer suggestions under each.

1. *Construction.* Locate if possible in high office building for more light and air, less noise and dust, better conveniences. Guarantee proper ventilation by consulting engineer. Compare in detail the principal systems of lighting—direct, indirect, semi-indirect, and choose the one best for your office. Have partitions for all rooms of department heads. Paint walls a cheerful but restful color, with maximum of light reflection. Be sure that sanitary conditions and appliances of building are adequate, modern.

2. *Arrangement.* Map out floor plan on cardboard by route of letters and orders to be handled; trace progress of each order from mail desk to record of shipment, follow an order, see it checked, filed, executed; obtain itemized reports of all departments, on work done or undone; examine detail of desks and departments, guarantee a rapid, straight-line routing process through office. Thus the mail, sales, and financial departments and the order clerk should be in line, with production and accounting departments close by, and manager near head officials. Estimate kind and amount of work to be done by each department, with number of helpers

and size of equipment needed; then give each employee a minimum floor space of 100 square feet, including five-foot desk space, forty-two inch inter-desk space, three-foot aisle space, and equipment space large enough to avoid cramping (most offices err on the side of too little space). Have each group of materials or utensils placed around the person using it. Separate mental and manual departments, removing noisy operations (multigraphing, addressing, tabulating, and the like), so as not to disturb officials, paid for thinking. Let manager's desk afford view of entire office.

3. *Equipment.* Choose the "sanitary" type of desk with each adapted to requirements of work and user, and flat top in preference to roll top. Assign each drawer for special contents, all desks being standardized and regularly inspected, with report on condition and suggestions for improvement. Look up new forms of desks and devices now being made for efficiency methods. Buy anti-fatigue chairs, with cane seat or wooden saddle seat, and spindle or adjustable spring backs, for routine desk workers. Give particular study to filing cabinets or systems;

before installing any, or expanding, consult a filing expert or a modern book on the subject, and compare catalogues. Let all furniture harmonize in color and contour. Subscribe for at least two office magazines, read them yourself, and delegate employees to answer advertisements of new office appliances. Wherever possible, considering cost, amount and quality of work, substitute machine power for man power. Among the mechanical office aids worth investigating are these: Dictating machine, reducing average cost per letter from 4.3 cents to 2.7 cents; typewriter with new speed attachments; portable stenographic machine, rate 150 to 250 words per minute, office cash register, to give itemized current statement of daily business; adding machine, guaranteeing in 30 seconds accurate total of fifty sums with six figures each; duplicating machines, capacity 5000 letters an hour; billing machines, addressing machines, accounting machines, printing machines—machines for almost every operation often repeated; pneumatic chutes and carriers, for messages and parcels; automatic pencil sharpeners; paper-fastening devices, obviating clips; mail open-

ers, envelope sealers, stamp affixers; time cards and clocks, for speeding and standardizing routine work.

4. *Employment.* Hire every man by science—not by chance. Regard his health, ability, character, experience, mentality, personality, ideality, and see that he fits the job in view. Study how large concerns have reduced the cost of hiring and training employees. Have requirements for all positions standardized and listed on a question blank, for applicant to fill out before personal interview. Arrange mental and mechanical tests, or adapt from other offices, to show knowledge and skill of applicant for each technical position. Get a few modern books on business psychology and character analysis; learn the importance of vocational fitness. Put each new worker on probation, with incentives and instructions for making good. Fill vacancies by promoting subordinates on a scientific plan.

5. *Organization.* List all clerical duties of each department; find total work to be done; apportion set jobs to each desk, on time-study basis; keep same helper on same job, to attain maximum speed—but in spare time put each worker on some other departmental

task, to vary monotony and supply trained assistants for demands of rush season. Prepare office chart and manual, give copies to each employee, and instructions for use. Where possible, assign employees according to mental aptitudes—thus an “ear-minded” clerk becomes a good telephone operator, but an “eye-minded” clerk a better multigraph operator. Make everybody an understudy to somebody else, with promotion sure to follow merit. Appoint committees and conferences, evolve better methods in weekly or monthly meetings.

6. *Execution.* Aim at a production total 30 per cent or more in advance of the present, but avoid the common error of “speeding up” the work and not building up the worker. Get efficiency tables from industrial experts, on every motion made in your office and every piece of labor turned out; compare with your daily records; learn yourself, then teach your employees, how to make short cuts and equal average output of the best offices. Ask the companies manufacturing typewriters, desks, office machines, books, files, records and appliances, for literature on their methods and services—often you can obtain free

an estimate for a better system, or a new collection of ideas extremely valuable. Find the one best, quickest, easiest way to do everything in the office; put exact description on paper; file these instructions in cabinets or permanent scrapbooks; develop thus a standardized method for each job, and have it always done that way. List all duties and responsibilities of each employee with standard time for each job; and work schedule complete with items classified, under Daily, Recurrent, Special, and enough of each to occupy employee every minute but not cause hurry or excess fatigue. Fix salaries not by time spent but by amount of work done. Promote on efficiency—not seniority. Pay expenses of delegates to visit great corporations and conventions, for new ideas. Beat last year's record in each department—or know the reason why!

7. *Finance.* Eliminate poor help—errors cost too much. Have all accounting, addressing, billing, and other routine operations done by machines, where amount of work justifies. Avoid bad debts by following scientific methods of large collection agencies. Buy stationery, materials and supplies

wholesale, having first standardized printed forms and records, to utilize large quantities. Print on your own duplicator. Pay by voucher checks. Have all supplies put in regular place, and kept there. Encourage small economies in every department. Try fountain pens for accountants, with points made specially. Train clerks to seal and stamp envelopes on scientific principles. Buy and study a modern book on financing a business. Get the proper official to join a national organization of accountants, and subscribe for accountancy journals. Connect with foremost institutions such as the Federal Trade Commission, the National Chamber of Commerce, the National Efficiency Society and learn their business economies. Engage a business expert to find and stop the daily office leaks.

8. *Recording.* Place every transaction in writing—leave nothing to memory. But save writing and typing through a complete set of printed forms; such as time cards, inventory cards, requisition slips, report blanks, sale summaries, credit and collection cards, personal memoranda, complaint and suggestion boxes, calendar reminders, pads

for telephone calls and orders—twenty to a hundred printed forms are needed, according to kind of business and amount done. Employ loose-leaf records where possible, even catalogues are now made on the loose-leaf principle. Study all your records for three cardinal points: accuracy, availability, durability.

9, 10 and 11. *Buying, shipping and store-keeping.* While they are departments of office work in many cases, these items are really factory operations, to be learned in books, magazines and reports on factory management.

12. *Mailing.* Answer letters on first reading. Dictate in quiet room. Forbid interruptions. Keep same stenographer for personal correspondence. Try out dictating machine. Develop series of form paragraphs for routine letters, number each, refer to numerals instead of repeating sentences. Be friendly but crisp. Learn short-cut methods of correspondence, from business schools, typewriter companies, teachers of Business English.

13. *Filing.* Get one of the filing manuals recently published, see whether your filing

system belongs in this century, or the last. Judge it by these points: unit construction, minimum motion, accuracy of placement, ease of reference, economy of floor space, adjustment to business capacity for growth, safety against fire. Study main features of the different systems: alphabetic, numeric, geographic, topical, decimal, compound; fit a system to your needs. Have all loose papers, notes, memoranda, filed as carefully as letters. Put a filing clerk in charge of entire system, and train the clerk. Separate permanent and transient divisions, under current file, back file, and storage file. Prepare file index or catalogue, so absence of clerk need not interrupt day's work. Use metal or celluloid guides, instead of cardboard. Investigate merits of new visible card index. Keep a daily "tickler file" going for each desk. Store valuable papers, duplicate dealers' and customers' lists in a fire-proof safe, not a filing cabinet.

14. *Education.* Give each employee, by oral and typed instructions, a broad general view of the company's aims and policies, and a keen, systematic knowledge of his own work. Teach concentration, responsibility,

loyalty, enthusiasm, health, tact, optimism, thoroughness, ambition, speed, contentment. Organize a training school for employees with night study clubs, mail study courses, library features, and other personal aids; join a national business education association, learn how to train your employees wisely and well. See that every worker can pass examination with at least eighty per cent grade on his part of the office manual. Provide an efficiency test for self-grading, and a method for self-improvement as desired. Look up educational methods of the most powerful corporations, emulate, adapt. Order an efficiency book or booklet for every employee; discuss it, apply it.

15. *Stimulation*. Incentive is the backbone of industry. Compare the methods for rewarding employees—by cash bonus, merit mark, commission, prize contest or promotion. Resolve to maintain a scheme of rewarding scientifically, each week or month, everybody in your office who will turn out more and better work.

16. *Supcrvision*. Require weekly statements from department chiefs to office manager, and daily reports from the employees

to their respective chief. Compare tabulations of work done by each department with past record, with standardized performance, and with future possibility. Show status of each department by grade cards or the "graphic chart." Frequently go through a file drawer, a bunch of outbound mail, a set of carbon letters, find and correct mistakes, obviate recurrence by memorandum of constructive criticism, typed for the individual—not presented orally.

17. *Expansion.* Look ahead five, ten, twenty years. Plan for growth of your work, office, equipment, employees, duties, opportunities. When you buy a desk or a machine, put it first in your mental picture of the business headquarters in 1940. Look at yourself in the same light—what do you need, professionally or personally, to make you big enough and strong enough to handle twice the job and earn twice the pay of the present? Hire, handle, train, promote employees with the future of each clearly in view. Study every large concern in your line, locate your faults and deficiencies, then dislocate them. Draw a map of the progress you will make—and regularly find where you are.

18. *The desk and day of the manager.* The first man to educate in your office is the manager, particularly if he is you. Running an office right is learned only by experience. A few required traits: Execution large; system and sympathy blended; outlook and insight balanced; thoroughness a watchword; influence good, and strong; knowledge of human nature; kindness, optimism, keenness, discipline; current trade progress; love of work; business experience in as many office lines as possible. A few suggestions. Make a list of everything you have to do, classify according to calendar, on a big sheet, rule four divisions—Day, Week, Month, Year, and type list for each division, totals covering all duties and responsibilities. Then take small sheet, apportion day into hours, half-hours or ten-minute periods, and put day's work on exact schedule. Follow same plan for each employee, and check up frequently. Train your secretary to keep memorandum system perfectly, and take all routine burden from your mind. Start your work at eight in the morning, or earlier; and close your desk at four or five in the afternoon—you will gain at both ends. Promptly

file every paper, keep your desk absolutely clean. Build your private office sound-proof, let stenographer be outside. Hold short daily conferences with department chiefs, and weekly meetings of the entire official staff. Make each day's appointments conform to schedule. See visitors, except most important ones, by previous engagement only. Use telephone wherever possible, but file memorandum of all telephone transactions. Look into modern electric devices, such as the annunciator, call button, and indicator system for reaching anybody instantly; the dictograph without oral transmitter, for conveying simultaneous orders to each department or reporting conversation without presence of stenographer; the telautograph or electric pen attachment, for writing a message and reproducing at once in various parts of the building or even miles away, by electric wire and fountain pen receiving instrument. Make a study of combining courtesy and brevity. Educate other officials to do all your work they can do, leaving you free to plan, supervise, initiate, enlarge, improve. Join business clubs, chambers of commerce, efficiency societies, trade

associations, and learn what the other fellow is doing to make his work better than yours. The secrets of both service and profit lie in the science of management. To manage your work, you must first manage yourself.

OFFICE APPRAISAL TEST

FOR COMPUTING AND INCREASING THE VALUE OF YOUR OFFICE PLAN, METHOD, FORCE AND EQUIPMENT

Directions. First read the chapter "Everyman's Office." Then ask yourself these questions. Where answer is Yes, write numeral 5 in blank space. Where answer is No, leave space empty. Where answer is indeterminate, write numeral between 1 and 5 that expresses degree of assurance. Obtain your efficiency grade by adding numerals, but consider Test only partial and approximate.

1. Is your office departmentalized and standardized, on lines of this chapter?.....
2. Have light, heat, ventilation, drinking water, luncheon, been approved by experts?
3. Are all routine manual operations by machine, with employees paid for **thinking**?
4. Do you publish an office manual, and train all workers in its use?.....
5. Have you a straight-line routing process in faultless operation?.....
6. Do you engage, transfer, promote helpers by vocation, character and efficiency tests?
7. Are there at least twenty-five standardized office forms, printed or duplicated?.....
8. Have you compared each item of equipment and supplies with two or more other kinds?
9. Do your stenographers type ten square inches an hour for every dollar a week in wages?

10. Is your production 25 per cent more, with costs 25 per cent less, than a couple of years ago? 1
11. Does each employee average less than five days a year in lay-off?.....
12. Have three-fourths of your employees stayed with you permanently?.....
13. Is Mr. Purinton's definition of Efficiency understood and carried out by all the force?
14. Does every worker follow a calendar-clock time schedule for all work?.....
15. Does every department head belong to some efficiency organization?.....
16. Have you a house organ, a suggestion box, a bulletin board, a chart series, a reward system?
17. Can you personally do eight hours' work in six hours, comparing former schedule with present?.....
18. Have you read at least two books on office management, one on costs, one on advertising, one on personal efficiency?.....
19. Do you take a general business magazine, an office journal, and a "trade paper" for each department?.....
20. Have you instituted welfare work on approved lines with results that satisfy both company and employees?.....

Total gives your approximate grade in office appraisal

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CHAPTER V

EFFICIENCY IN THE OFFICE

EVERY business, like every wheel, has a hub. The office is the hub.

A spoke of a wheel may be damaged and repaired, without much loss. But when the hub is smashed, the wheel is gone, with the cargo it conveys.

If the enterprise you carry seems shaky, or the road to your goal eternally hard and long, the fault is not with the load or the road, but with the hub of your conveyance. Look for all your business troubles in the office. You may say you have enough and don't need to "look" for more! You are wrong—a man never has enough trouble till he stops making it.

We may carry the analogy further. We may name the four wheels of every business, calling them the *Product* wheel, the *Employer* wheel, the *Employee* wheel, and the *Consumer* wheel. The hub, in each case, is the office. By means of the office the Prod-

uct must be measured and delivered; the plans of the Employer carried forth and his dynamics gauged; the skill and service of the Employee extended; the satisfaction and profitable patronage of the Consumer quickly and easily attained.

By the word "business" I mean every human service for which pay is received. The teacher, the preacher, the doctor, the poet, the sage, all are business men. Or if they are not, they should be. A man without a business side to him is an unfinished product. He is no more complete than a wagon-bed off its wheels.

Industrial experts tell us that in the United States about 90 per cent of all business undertakings end in the ditch. The explanation is quite simple—about 90 per cent of the business offices are improperly managed and equipped. Success is a compound of shrewd thought, good work, and kindly feeling. But, alas, only about 10 per cent of the office managers in this country are awake to their opportunities. The other 90 per cent are headed for destruction—going it blind.

A brief survey of the modern science of office management would include the follow-

ing items, which may be held of first importance, among others of lesser utility.

An office needs an architectural plan;—to choose and occupy one bereft of this plan would be as unscientific as to build a factory on a guess, or open a store in a barn. The basic feature of this floor plan is the *time value* of the respective workers, from the manager to the errand boy. Large offices occupy an entire floor, the circuit of which means a walk of perhaps 100 to 300 feet. Suppose the manager travels this route a dozen times a day, to execute or supervise a task or group of tasks. He walks perhaps 3000 feet, wastes probably a half hour, and expends at least 150,000 foot-pounds of nervous energy, simply on a mechanical operation of walking a certain distance without rhyme or reason.

This largely explains the “tired business man,” who frequents the lowbrow comedy on the homœopathic principle—to relieve his own absurdity. By a sane “routing” system the desks and departments requiring his personal attendance may be grouped near his private office; while the work needing his general supervision may be

carried to him by the office boy. Suppose the time of the manager is worth \$2 an hour, that of the office boy 10 cents an hour; by transferring a half-hour of daily promenading from the manager to the boy, we save approximately 95 cents a day, and put the physical fatigue where it belongs, on the worker whose strength is least valuable to the company. The constantly recurring interviews between executives, managers and department heads may be disposed of in a shorter order than before if a properly arranged system of automatic or intercommunicating telephones has been established.

We referred to the manager's "private office." We assume that he has one. If he hasn't, he should get one. That word *Private* on a glass door exerts a magic power. It raises the inmate of the secret room far above common mortals, in the opinion of his clerks, his clients, and himself. The chief executive in any business requires a certain amount of silence and seclusion. Should space or funds be limited, a temporary partition of opaque glass, or even a set of plain, substantial screens, would give the psychological effect of a private office.

The nervous and muscular effort required in the day's work of any high-salaried man should be reduced to a minimum. All his routine duties may be handled by trained employees, or by special devices and machines. Roughly, a \$10 man should do four times as much physical toil as a \$40 man, the latter being paid for mental efficiency, not muscular force. The mind can expend in one hour as much nervous energy as the body would in five hours.

Let S represent the salary of an office worker, UT the useless time he spends, UF the useless fatigue he carries around with him, and P the profit to the company that hires him. Then here we have an efficiency formula, by which to measure his value:

$$S - (UT + UF) = P$$

The problem of first importance in any office is to make UT and UF as near zero as possible. A good way to start would be for somebody to count the steps taken by a "good business man" in his office during one whole day—without his awareness—then figure how a little head-work would save most of the foot-work, and present him with the tabulation.

A general rule for subordinate employees holds to this effect: A good stenographer, a good office boy, and a set of mechanical devices will do the work of three ordinary stenographers, and do it better. I have applied this rule to my own office, where one \$15 typist and a \$5 boy have turned out as much work as three \$10 typists formerly handled; the \$10 weekly saving soon paid for the machines we bought, and one \$15 clerk is usually a better investment than three \$10 ones.

A pertinent example of the growing use of machines may be found in the art of book-keeping, which is now performed chiefly by a moderate-priced man operating a few keys on a mechanical invention that will add, subtract, multiply and divide, compute interest, and do other interesting and necessary things more quickly and accurately than the human brain could. Also more cheaply, in the long run. The time is coming when all the work of an office will be divided between highly-skilled, highly-paid specialists who plan, order and supervise, and a few low-priced workers who manipulate a large number of marvelous tools and instruments.

Adding machines may now be had from \$2.50 up. Mimeographs and multigraphs not only produce letters, blank forms, and other type-written documents in ten-thousand lots, but also print your letterheads, bill-heads, and advertising booklets. For a small business, a small duplicator guaranteed to reproduce 1000 copies of a letter or other one-sheet manuscript may be purchased for little. Every growing business has a mailing list of customers or clients, actual and prospective; for the regular communications that should be sent these individuals a high-quality addressing machine will be found worthy of a trial—it should surpass the typewriter in speed, accuracy and economy, for the recurrent mailing of bills or announcements to the same list of names.

The typewriter of today is 300 per cent more efficient than the machine of fifteen years ago. It will be news to many office managers to learn that fifty special varieties of typewriter, each designed for a special use or line of business, are now manufactured; and to buy one without looking up the other forty-nine is to run the risk of losing a time-saver and money-saver. In both dicta-

tion and transcription, many short-cuts have been found. The dictating machine, properly worked, will save perhaps 20 per cent of the manager's time usually spent on dictation, and perhaps 30 per cent of the stenographer's time. A new method of fingering the typewriter is said to reduce the fatigue and double the daily output of the typist. One of the most revolutionary changes abolishes the whole scheme of shorthand hieroglyphics, prints on a small device the dictation notes in phonetic English characters, preserves the notes in legible form, and enables a lower-priced clerk to complete the transcription while the higher-priced one takes more dictation.

What is your corps of typists doing every day? What should they do? What can they do? Are they given a scientific daily schedule, to complete or surpass? These questions, applying also to every other clerk or official, seldom find the proper answer in an office. A leading typewriter company has evolved a system of cutting stenographic costs by measuring, facilitating and improving the daily output of the typewriter; some book on this line should be read and studied

by every stenographer and every office manager; the probable saving would be 30 cents in every dollar spent for stenography and typewriting.

Regarding his equipment, schedule, training, methods and supplies, every office worker—manager as well as clerk—should ask himself these questions: “Have I borrowed my alleged system from my neighbor? Have I inherited it from my predecessor? Have I hit upon it by guessing out of my own ignorant head?” If the honest reply to any of these queries is “Yes”—now is the time to wake up, look around, and get in line with progress. First rule in business: Remember that the biggest grows out of the best. The quantity of a man’s work is fixed by the quality, hence every man may determine the size of his own future.

The difference between the president and the manager of a concern is that the president works a telescope and the manager a microscope. A few examples of managerial, microscopic, mastery of detail: Carbon paper that gives twenty clear copies; typewriter ribbon guaranteed for 75,000 clean impressions; typewriter cabinet with special

drawers, files and racks, to hold all records and supplies needed by the operator; cushion pads to silence noise of typewriter; self-closing inkstand to prevent waste of ink, smearing and spilling; bottle for liquid paste with patent device to save daubing the fingers; wastepaper baling machine, reducing fire risk and turning loss into profit; envelope opener and sealer; parcel sealer and labeler; stamp perforator, detacher and affixer; paper clips of diverse forms and sizes, to suit the best work of each, with clipping machine for permanent binding of loose sheets; rubber bands guaranteed not to break for five years; waste-basket solid, rustless, fire-resisting.

Under the heading *Safety and Sanitation* come various implements, inventions and precautions; such as the fire-proof filing cabinet, at least one being essential in every office; the check writer and protector, that makes forgery and check "raising" impossible; an economy expense book for each department, serving as an automatic guard against waste; patent ventilators in all windows, permitting free access of pure air at all times without draught or discomfort; sanitary

mouthpiece for telephone; sanitary moistener for stamps and envelopes; fit-the-back chairs for all sedentary workers; overhead electric lights carefully shaded, with a brilliant, hooded, portable and turnable drop for each desk or table where close work, hard on the eyesight, is demanded; liquid soap; individual towels or paper towels; abundance of pure, soft, drinking water in a closed, sanitary container; individual glasses or paper drinking cups; teaching of health habits to employees, with assurance of regular and reliable examination by a physician.

A primary factor in good office work is a large number of large windows, and the location of each desk so that a constant flood of light pours over the left shoulder of the worker. To avoid the glare of direct reflection, some office managers prefer window-shades hung at the bottom, which are raised to meet the angle of the sun. The color of walls and ceilings makes a pronounced difference in the illumination—the superior brands of white paint are said to increase daylight about twenty-five per cent, and of course the bills for artificial lighting are reduced, together with the costs of spoilage

and accident, while more work and better work is accomplished.

Health statistics recently compiled show that mental capacity and endurance relate not only to the supply of pure, fresh air in a room, but also to its circulation. If air partially breathed is kept moving, the minds and fingers of the workers act more swiftly and forcefully. A good custom is to ventilate the office completely at the noon hour, every day; and a wise experiment would be to use an electric fan at low speed, during the afternoon hours, even in the winter time. Currents of air generate currents of thought.

Speaking of "currents" reminds us of electricity—one of the growing aids to office management. The old-fashioned "buzzer" is being replaced by an electric sign-system; when the manager wants a certain document or assistant, he presses a button and flashes a light of a certain color—presto, the paper or the person is beside him. And instead of giving roundabout orders to a particular department on a particular job, he gets the man directly on the wire from his own desk by the new interphone system of communication.

A good habit in an office—one to be highly recommended—is the habit of thinking. While unusual, this habit may be cultivated. For instance, have we compared in our work the economy and utility of wood pencils, paper pencils, and those of the metallic “propel” variety? Do we sharpen away 30 per cent of the lead without thinking? Do we pay ten cents for one pencil beautifully varnished and engraved—or three cents for one just as good if not so pretty, bought in gross lots?

Have we figured the cost of producing our letter-heads by the four different methods—printing, lithographing, embossing, engraving? Lithographing, in large orders, may be cheaper than printing; while embossing is cheaper than engraving, and often serves as well.

A glass desk pad is clean, attractive, expeditious; but if a man writes much, or signs his name to hundreds of letters and checks, a large blotter pad, with a dozen blotter sheets inserted, will save the man the usual fatigue of writing on a hard surface. A steel pen, a fountain pen or a glass pen—which is better for us? Every pen point should be

temperamental, chosen to fit the user, according to the slant, source and force of his handwriting.

Much pen work in the average office will be found superfluous, and may be saved by a complete set of rubber stamps for routine records and labels, with a rack for the stamps and the name of each lettered above its place. Another little thing of large effect is the proper use of the end-flap, open-seal envelope, with or without the "window" feature; in some lines of trade this envelope, carrying one-cent postage, has brought results that mean a saving of hundreds of dollars a year in postage alone.

Office management deserves a volume in itself; we can here but suggest a few points of recent development. The most vital principle we consider to be this: Change your "time-clock" for a time-stamp! The old idea of good workmanship was that a man should spend nine or ten or twelve hours on the job—then a "time-clock" was needed, to threaten the man with loss of pay if he didn't stick around. The new idea of good workmanship is that a man shall do the most and best possible, in the least time possible, with

the least annoyance and fatigue possible—and now the time-stamp merely records what the man *does*, this alone being the reckoning of his pay. The value of a worker is not how much he is “on the job,” but how much he is in the job. Certain things that formerly took me three days to accomplish I can now finish in three hours—I have learned to focus mind, body and heart on the thing I am doing.

We mentioned the time-stamp. Every act, order, and operation in a business office should be standardized, whether it be wrapping a bundle, typing a letter, posting an account, or entertaining a visitor. Each employee, from the manager down, should know in how short a time his work can be done effectively, and should keep a daily record until he forms the habit of equalling the standard of possible output. Here the machine called a “time recorder” will be found essential, to compute amount and cost of work. I have had a typist who could write with a flourish five letters on her machine while the girl next her barely had two letters finished. Why should they get the same salary? Promotions and rewards should fol-

low not only a maximum record-breaking feat, but also a steady improvement over one's daily habit.

Here a caution should be noted. Often the most faithful clerk is the least rapid in his mental processes, and should not be reprimanded for lack of interest. When employees are chosen by the new vocation tests for physical, mental and temperamental fitness, both employer and employees gain immensely. To make a typist of a born executive, or a salesman of a born mechanic, is a fatal business blunder—and a frequent money loss.

By alternating the positions of slow and fast workers, a total net gain is often reached, as the rapid clerks by spirit and example hasten the sluggards. Two girls who naturally gossip and chew gum should not be located alongside each other—granted that they belong in a business at all. When a worker has fully mastered his job, it may be well to segregate him, by a partition or otherwise, in order that lazy and foolish employees may not disturb him, and that he may have a little time and space in which to prepare himself for greater advancement.

Many offices unwittingly employ a hidden corps of peculiar but highly efficient specialists. These persons are specialists in small talk and imitation conversation, and they begin to specialize whenever the "boss" goes out. Small talk is the kind that makes you feel small when somebody says you said it. Imitation conversation includes slang, bluff, boast, roast, raillery and gossip.

The best way to eliminate friction and ensure satisfaction among the workers in any trade or profession is to adopt this rule. *Make every employee a partner in the business.* Whoever is not worth becoming a partner is not worth being an employee. How to engineer this radical move would require a long, technical discussion, and the yielding of certain adjustments and concessions on both sides, which are seldom granted without a full explanation of the principle and method of profit-sharing. We commend the subject to every business official, as worthy of deep study. The force in an "office force" is the force of attraction—not compulsion. To make the work attractive is to make the worker effective.

We pause, for lack of space. A thousand

other items belong to good office management. We have not here presented the facts about filing systems; cost-finding, cost-keeping, and cost-reducing methods; advertising and salesmanship; office furniture and furnishings; books and magazines for an office library; health habits of all workers; training, education and promotion of employees; treatment of clients or customers; principles and policies of the management, with qualitative and quantitative measure of the product. These matters belong in the realm of the business counsel, or efficiency engineer, who should be consulted personally. A number of firms and institutions recommending or supplying efficiency engineers may be found in almost any large city, about twenty of these being located in New York. Some are very good—and very expensive. Others are quite good—and reasonable in price. A few are poor—and as costly as poor things always are. It is wise, before entering into contract with an efficiency engineer, to consult an impartial authority.

Next to ability and effort, the greatest thing in a man's vocation is Opportunity. Every office means concentrated opportu-

ity. Here alone may every worker have direct touch with his fellow employees, with the heads of the business, with their patrons, and with their associates and friends in the entire commercial world. A man who does good work will be discovered sooner in an office than anywhere else. And Destiny waits for the man who is found quietly doing his best.

OFFICE EFFICIENCY TEST

FOR ASSISTING ANY OFFICE IN THE USE OF MODERN METHODS

Directions. If answer is Yes, write 4 in blank space at end of dotted line. If answer is No, or indeterminate, leave space blank. To find your percentage, add column of figures. Most of these questions, to be answered properly, demand supervision by an expert. Even then, the resulting grade will be only partial and approximate.

1. Is every operation standardized and recorded?
2. Are all desks, supplies, departments, arranged on a scientific "routing" plan?... ..
3. Is all your buying done wholesale, on a comparative, competitive basis?..... ..
4. Have you adopted the best cost-finding, cost-keeping, and cost-cutting systems?... ..
5. Was each employee obtained, and assigned, according to reliable vocational tests?... ..
6. Has the formula $S-(UT+UF)=P$ been applied to every employee?..... ..
7. Have you installed approved charting, filing and recording systems?..... ..
8. Are salaries and wages governed solely by quality and quantity of work done?..... ..
9. Have you reduced stenographic and type-writing costs 30 per cent, relatively, from what they were a year ago?..... ..

-
10. Are machines, mechanical aids and electrical devices used wherever possible?....
 11. Are the heat, light, ventilation, drinking water, etc., approved by sanitation experts?
 12. Have you answered pertinent advertisements in the best trade journals and business magazines—then studied the results?
 13. Has every employee a daily schedule and memorandum pad to work by?.....
 14. Is the talk in your office the least and best possible?
 15. Can you yourself do as much in one hour as you formerly could in 3 hours?.....
 16. Is it your invariable rule to "satisfy the customer" at any cost?.....
 17. Have your credit losses been reduced to zero?
 18. Do you maintain a business library of books and magazines chosen by experts, and do you instruct employees how to use it?.....
 19. Have you changed the "time-clock" penalty system to the time-stamp reward system?
 20. Do you somehow make every employee a partner in the business?.....
 21. Is the "continuation school" a part of your efficiency scheme?.....
 22. Would every employee rather work for you on three-quarters pay than for any other concern on full pay?... ..
 23. Do you belong to a national efficiency organization?
 24. Have you had your whole business analyzed by an efficiency engineer?.....
 25. Are your net profits increasing every year?
-

Total equals your approximate grade in office efficiency.

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CHAPTER VI

A DAY AT THE OFFICE

OUR day's work is the measure by which the fates apportion our career. Not genius, nor influence, nor affluence, but a scientific work schedule, makes the great man or the great business. Whoever can order his own day can order his own destiny.

There are three types of mental workers. There are (1) those whose workday is unordered, unfinished and unfinanced; (2) those whose workday is ordered by somebody else for them, on a plan more or less scientific; and (3) those whose workday is ordered by themselves, for themselves, for the business, for the mutual benefit of all concerned. In the first class are the failures; in the second class are the partial successes; in the third class are the big successes, actual or potential. In which class are you?

The standardizing of *mental* operations for brain workers has not yet been accomplished

by efficiency engineers. We consider this problem of the highest import. As mental power exceeds manual power, so should mental process outrun and outreach manual process. Your true gauge of efficiency is how much and how fast you *think*.

The daily capacity of a tool or machine is the unit of measuring labor—and the mechanic is paid according to his use of this capacity. But the daily capacity of the *mind* is the unit of measuring *management*; and the executive should be paid on the same principle as the mechanic, not for holding a job but for turning out work. A good manager not only regulates people and policies—he originates plans and purposes. A manager who does not produce and execute original ideas for the concern is not a manager, but a foreman. Probably eighty per cent of the office managers of the country are simply foremen, prematurely and unduly exalted.

Whoever has charge of a business, an office, or even a desk, should make a thorough study of the ways of standardizing mental operations. There are company and department managers who can do the work of eight hours in three hours. Also, there are man-

agers who, by dint of much hurry and fret and sweat, can do the work of three hours in eight hours. The difference lies in the presence or absence of a scientific work schedule organized and operated by the modern rules of industry, psychology, sociology, hygiene, economy, production and finance.

When I first took charge of an office, many years ago, the work of the manager, being unorganized, consumed about ten hours a day. The "leaks" were prolific, and the overhead ate up the profits. Wages were low, and mistakes many. Nobody was satisfied—nobody, therefore, did his best work. A scientific schedule was evolved, first for the manager, then for each employee. Results: expenses cut, leaks abolished, wages and profits increased together, mistakes prevented—also grouches, and my routine duties done in three hours a day. Since then, I have made a special study of managerial methods, and would here outline the most valuable.

Experiments indicate that the office executive without professional training in office procedure wastes thirty to forty per cent of the time, energy and money he expends on office routine. Why should a manager, be-

cause he is a manager, do things a good factory-hand would be ashamed of? Your first move is to find how much you waste.

On the basis of your entire income, figure what each minute of your office time is worth to the company. Then take a sheet of cardboard and rule off six vertical columns. In the first, put all your executive duties and acts, from the least to the largest. In the second, put the average daily time required for each. In the third, put the managerial cost of each (number of minutes multiplied by your salary per minute). In the fourth, put your estimate of the productive value of each item—what the piece of work actually brings the company. In the fifth, put the difference between the cost and the value of each of your jobs, the cost probably exceeding the value of most items. In the sixth and last column, put the annual loss on each item (daily loss multiplied by number of working days a year). Then add the sixth column, to find complete yearly waste in managerial time.

A second way, simpler than the estimate, is the experiment. See how many minutes you can clip off each group of daily tasks.

Before attempting this, read a few books on personal efficiency; or enroll in a mail course on business administration; or employ an efficiency engineer to watch you for several days and offer suggestions. Examples: you should reduce your correspondence period a third or a half, by adopting the new automatic business letter writer, and teaching your secretary to write most of your letters through a combination of keyed business forms. You should save about eighteen seconds on every telephone call, by means of the automatic telephone system. You should gain a half hour a day by routing your work on a scientific plan, similar to that used in the big factories. You should increase your output and decrease mistakes by regarding the law of energy and fatigue, which demands that certain hours of the day be reserved for your hardest jobs. You should expedite your work by seeing that no friction, confusion, dissatisfaction, or other emotional rubbish gets in the gear of your mental machinery.

A third means of arriving at waste in management is the substitute method. How much of your daily work should be done

by a lower-priced man? Go over the entire list of your duties and responsibilities, check all that you could now or later delegate or divide, then look around for the right employee to handle each part of your work thus reassigned. The first rule of the man at the top should be this: *Never do what anybody else can do*. Probably half of the letters, calls and interviews that now take your time should be handled by a subordinate. You should be concerned with big matters and big men. Details must be delegated. I have in mind the president of a national organization who was extremely worried by a long line of daily visitors; they had to "see the president," and spent two hours a day calling him away from his real work. He would not offend them, and could not chat with them. An efficiency man was consulted. He picked a member of the president's staff who was friendly, talkative and attractive; told the president how to train the employee as a reception committee; gave the employee a high-sounding title for use among visitors; and returned to the president an hour and a half each day, with everybody satisfied. On every bit of routine work, your continual,

exhaustive query should be: "Who else can do this, without loss of business, prestige or good will?" The principle applies to everything, from supervising your help and purchasing your supplies to answering your telephone calls and sharpening your pencils. To do more great work, you must do less little work.

Having appraised your system by one, or all three, of the foregoing methods, you may want suggestions for improving the business and cutting down waste of time, strength and money on the executive side.

1. Locate near your office the desks or departments that you consult or inspect most frequently. Build a straight-line route for all mail and other daily routine matters; then see that the route is followed right, to prevent mistakes and delays.

2. Plan every piece of work from start to finish; time each operation by itself; reduce the time wherever possible; then put each job on your daily schedule for a certain hour; and keep to the schedule.

3. Have conferences and interviews by appointment in advance. Do not let your associates or employees break in on you when-

ever and however they please—most interruptions are needless, and fatal to order and output. Reserve an hour each day for reports, complaints and consultations. Let each worker know just when, and only when, you are available.

4. Try the plan of requesting callers to send you in advance of calling a memorandum stating object and principal points of the desired visit. You can digest this at odd moments, have leading questions prepared in advance for the visitor, and clip several minutes off the interview.

5. Emphasize punctuality. Be on the minute yourself. Earn a reputation for strictness as to promptness. If a man is late in seeing you, don't let the next engagement suffer, but reduce the time allotted the late comer by so much, and explain why. Keep your watches and clocks right—in a big concern the head men often lose several hours a week from chronometers out of gear. You can rent for about four cents a day a guaranteed clock to serve as a guide for all clocks and watches in the place; this model clock is daily set with standard time by electricity from clock headquarters.

6. Apportion the minimum time for each interview, and put the time on your schedule in advance. Keep the schedule before you, and the caller within his time. The President of the United States limits most callers to five minutes—and some he restricts to three. If he can do it, you can. The secret is habitual concentration plus habitual courtesy.

7. Make a chart of the aptitudes and abilities of your office workers, and evolve a plan to create among them a corps of special assistants for yourself. All employees should be given some responsibility other than mechanical. Train your subordinates to criticise and supervise their own work; I know an eighteen-year-old stenographer who is a more ruthless critic of herself than her employer is of her—and in passing on her own work she saves his time and her feelings.

8. Have your tools and implements not only the best, but the best for you. It will pay you to spend half a day in a big stationery store, and find the pen that exactly suits your hand, your handwriting. Note the number, and keep a supply ahead. Can you work better at a roll-top or a flat-top desk?

How many compartments should it have, what kind, how arranged? A single desk manufacturer now produces fifty styles of business desk. Obtain catalogues, and choose the one desk made for you.

9. Be comfortable. Is it a penance, or a privilege, to occupy your swivel chair? How about light, heat, ventilation, drinking water, toilet arrangements—have they been approved by an expert? Are your walls and ceilings bright and cheery? Does your office furniture convey the impression of both solidity and beauty, of elegance with simplicity? Do all your items of equipment harmonize? Efficiency engineers declare that a man works longer, better, more easily, amid proper surroundings; and the way your office looks and feels will be duly reflected in the character and amount of your work. Pride in having all things appropriate is not extravagance but economy.

10. Let each department be an automatic guide on its own production, by means of the proper training and tools. Your work is to check up on totals, having seen first that every total has once reached the maximum. Your stenographer, as illustration, should

turn out sixty average letters a day. If she does not her equipment is faulty—either implement, or incentive, or instruction. You will save time if you complain less and coöperate more. When production falls below standard, the first man to regulate is the manager.

11. Put more work on office machines. Whatever a machine can do as well as a man, it usually does more rapidly and more cheaply. Almost every office could use to advantage a computing machine, a dictating machine, a duplicating machine, a billing machine, other machines. As all machine operations reduce time and cost of inspection, you may well consider the matter exhaustively.

12. Subscribe for at least four business periodicals, make them a part of your spare time reading. They should include (1) a general business magazine; (2) a personal efficiency magazine; (3) a publication devoted to office work and appliances; (4) the leading journal of your trade or profession.

13. Rotate your duties of management. As the rotation of crops tends to make a healthy, fertile soil, so the rotation of jobs tends to make a healthy, fertile mind. Alter-

nate your mental and manual work through the day. Don't grind at one sort of labor long enough to dull the cutting edge of your brain. Plan your schedule so you can leave it, go at something altogether different, then come back to the unfinished work.

14. Concentrate most when you feel best, put your crucial tasks of the day at the high tide of your mentality. The mind, like the sea, ebbs and flows. The full volume of the mind is reached in most people at about 10 a. m., while the ebb usually occurs at 4 to 5 p. m. Don't waste the morning hours from 8 to 11 by seeing after minor details, or doing any sort of mechanical work. Do your thinking, planning, organizing, then.

15. Learn the nature and cause of fatigue, and ways to prevent or cure it. Most "brain fag" is unnatural, unnecessary. Do you grow tired, nervous, confused, irritable, depressed? The cause is probably one of these violations of health: (a) poor ventilation; (b) shallow breathing; (c) faulty posture; (d) tight clothing; (e) lack of system; (f) emotional waste; (g) stomach disorder; (h) mental disturbance; (i) deficient or defective sleep; (j) wrong eating habits; (k) eye strain or

derangement; (l) unwise recreation; (m) too little drinking water; (n) too little exercise; (o) constipation and autointoxication; (p) preventable disease; (q) monotony; (r) dislike of work; (s) untrue sex ideation or expression; (t) moral weakness or compromise. You observe these causes do not include "overwork," which is, generally speaking, a myth. Overworking is generally underthinking.

16. Avoid error, waste, confusion by preparing an office manual covering all principles and methods for employees to follow. Have specially typed a supplementary sheet of individual helps and instructions for each worker, with standards of daily performance, and schedule where possible. Make your manual effective by studying first the office manuals of different large corporations.

17. Buy three or four modern books on office administration for yourself. Keep them, study them at home. The past few years have witnessed remarkable developments in your field; the new books on efficient management fully treat of scores of topics that we cannot even mention here.

18. Obtain from the Plan and Purchase Department of The Independent Efficiency Service a compendium of the recent labor and time saving methods and devices, which other managers have used to advantage. The right combination of these will probably save you an hour a day.

19. Keep in close touch with every part of the business machine; first, by daily or weekly reports on all work done, all mistakes and all improvements, all needs and complaints; second, by the interphone system for direct, instant communication with all principal desks; third, by frequent unexpected and informal conferences. Make every worker feel that you are always watching him, not as a spy or slave driver, but as a helper and guide.

20. Be at your desk early. An hour before noon is worth two hours after noon. There is no good reason why a clerk should start business at eight o'clock—and a manager at nine-thirty. When you are cured of the heavy breakfast habit, the up-late-at-night habit, and all other habits that result in early morning laziness, you will be on the job at eight o'clock, or sooner. Physical energy is

greatest from one to two hours after waking; and if you know how to concentrate, your thinking demands a big volume of energy. Don't waste it by reading trifles in the morning paper, or grumbling at your coffee or potatoes, or oversleeping and becoming enervated.

21. Eat for efficiency. You wouldn't dump a hod of coal into a \$5000 automobile and expect to go far on such fuel; but you probably treat your stomach worse—and wonder why you don't get more done, why you are tired, cross and headachey, why so many things go wrong. Your breakfast and luncheon habit makes or breaks your day more than any other one factor; I have personally doubled my day's output of work by the scientific regulation of this one matter. You can take a course by mail in efficient eating—and find your health, energy, buoyancy, vim, largely and rapidly increased.

22. Devote a little time on rising to breathing and stretching exercises, and a tonic bath, to clear and electrify your brain. But also learn to relax perfectly once or twice a day, for just a few minutes, when business cares and duties press too hard and close.

And late in the afternoon, spend an hour if you can renewing brain and body by exercise in the open air.

23. On the basis of the foregoing outline build your daily schedule, with each five-minute period from 8 o'clock till 6 definitely assigned. Experiment, a few days or weeks, until you have a program so finely adjusted as to ensure the daily completion of every task without hurry, and equally without loss of time. A closed desk should always be a clean desk; and the way to guarantee a clean desk every night is to standardize absolutely the regular daily routine. This does not mean rush or nerve strain—you should allow a half hour at least for seclusion without interruption during the day, and a full hour for luncheon. Nor does it mean rigidity of plan—you may leave a few minutes at the close of each hour for delays from interruptions, or a half hour in the late afternoon when all held-over matters can be finished up. Only make your schedule, try it out, certify it, follow it.

24. Set as your goal a five-hour day for routine. Then put the rest of your working hours on building up your business and yourself. Don't be always pointing to the neg-

ative pole of your brain. Five hours a day is long enough to squeeze pennies, count motions, fuss over clocks and putty up leaks. Your mind must expand with the new era dawning on the world. Some time each day, pry yourself loose from your job long enough to glimpse the great things ahead, and to seize coming opportunities by imagination and resolution. No man was ever supremely effective without inspiration. Your real work is moulding tomorrow while managing to-day.

OFFICE MANAGER'S TEST

**BY WHICH ANY PERSON HAVING CHARGE OF A
BUSINESS, A DEPARTMENT OR A DESK,
MAY APPLY SELF ANALYSIS FOR
IMPROVED EFFICIENCY**

Directions. First read the chapter "A Day at the Office." Then grade yourself on the following questions. Where answer is Yes, write numeral 4 in space opposite. Where answer is No, leave space blank. Where answer is partial affirmative write numeral under 4 that you deem correct. Add numerals for approximate grade.

1. Is your routine work done in five hours a day?
2. Have you figured how much time you waste, by efficiency standards?..... .
3. Are you a graduate of a high-class course in business administration?..... .
4. Do you know how to standardize a mental operation?
5. Have you delegated or divided all duties that a lower-priced man could complete?
6. Are you familiar with scientific management as recently applied to offices?..... .

7. Is every process of routine planned thorough-
out before execution?.....
8. Do you know that all the timepieces in your
place are kept right?.....
9. Have you reduced half your daily inter-
views to five minutes or less?.....
10. Are you training each employee to be his
own critic and supervisor?.....
11. Did you personally select your office desk,
chair, pen, files?.....
12. Have you investigated the uses of forty or
more office machines?.....
13. Do you subscribe for the business maga-
zines (4) mentioned in this chapter?....
14. Have you consulted the office department
of the Independent Efficiency Service?...
15. Do you own at least four modern books on
office administration?.....
16. Is your most exacting work timed for the
early morning?.....
17. Have you tried rotation of jobs, to avoid
fatigue?
18. Are you able to prevent "brain fag," or
cure it speedily?.....
19. Do you and all employees follow an office
manual carefully?.....
20. Can you get a satisfactory report from any
department on five minutes' notice?.....
21. Do all your associates refrain from inter-
rupting you when you are busy?.....
22. Is your daily schedule, accounting for each
five-minute period, in satisfactory op-
eration?
23. Have you learned efficient eating, from a
sane specialist?.....
24. Are you sure that you breathe and exercise
properly?
25. Can you play hard enough, or dream high
enough, to make you forget efficiency a
little while each day?.....

Total equals your approximate grade in
efficient management.

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CHAPTER VII

THE CLEAN DESK

THE big man follows the program of the clean desk in his work and life; the small man does not. The clean desk is first aid to clean work, clean profit, clean reputation. If you want to "come clean" your work must travel on the clean desk.

The term should be defined. A clean desk signifies not merely a piece of furniture but more a mental process and a moral principle. A clear brain is back of a clean desk and an open heart is back of the clear brain. The dominance of a clean desk in a man's office argues that the man is prompt, neat, accurate, thorough and scientific; that his work is organized properly and fully; that his equipment is modern and complete; that his helpers are willing, deft and painstaking; that the policy, method and spirit of the whole establishment are up to the highest professional standards of aim and achievement.

From the desk of the office man radiate all

of the lines of influence upon the employee and the patron. A clean desk provides the clean start and the clean finish for every day's work. It will pay you richly to analyze and organize your desk with relation to its purpose, plan, procedure. The *finality* of your desk is that it must be clean — or be closed.

No matter what your business or profession is, your most powerful rival is working on the clean desk principle. Nobody now can expect to take the lead otherwise. If you could search the private offices of the men who are setting the pace in your line, and if you could watch them at their daily work, you would discover that one of the big secrets of their power, speed, energy, continuity, clarity and coördination is the reliance they put in the daily, hourly and momentary operation of the clean desk. Physical or mental confusion, delay or disappointment cannot exist where the clean desk predominates.

Before the development of the new science of efficiency engineering, the medieval business or professional man who never got anywhere much was likely to have a desk that

looked about thus. Papers, letters and bits of half-finished jobs were scattered in all directions, without relation to each other or to the work of the day. People came in at all hours and dumped more papers on the desk without rime or reason. Elbow-room was out of the question, so the man had to be a contortionist to do his work at all. When a certain paper was wanted, the only way to get it was to search through the desk, which was an old-fashioned roll-top with a dozen drawers and cubby-holes to catch the papers that dropped out of sight in confusion and disgrace. Hunting for lost articles took so much time that the man didn't have a chance to earn a living. He never caught up with his work. He was reliable and regular as a rabbit. He took his business cares home with him, because he did not clean them up in the office, and to the poverty inflicted on his wife he added misery also. When a client or customer wanted immediate action or report, everybody in the office was seized with consternation.

Among the total impossibilities of life was an exact knowledge of how the business was going. The only way to hide the man's in-

efficiency was to put a screen around the desk, which was done when a high official or a visitor threatened to approach and find out the shameful condition of the man's desk. Each bit of work had to be gone over several times, because when the man laid it down for a little while it got buried in a pile of papers and had to be resurrected. Often the atmosphere was rent with sharp words, because when the man lost something he blamed it, as men do, on somebody else.

The clean desk has a mental value. It makes you alert, steady, poised. It improves coördination of mind and muscle. It leaves no place in the brain for doubt, speculation, recrimination, or other kind of mental cobwebs. It conveys to you and through you a consciousness of mastery of your job, that is equally good for you, your employees and your customers.

The clean desk has a financial value. It hastens production. It lessens spoilage. It reduces waste of time and money caused by needless mistakes. It helps to fix responsibility and thus to increase personal pride in achievement. It stands on the side of progress, which in turn favors financial reward.

The clean desk has a social value. It sets a good example. It raises you in the estimation of your fellows. It proves and demonstrates the superiority of modern business methods. It gives an air of execution and reliability to the whole place.

The clean desk has a moral value. It substitutes backbone for wishbone. It blends conscience, intelligence and science. It is firm as a rock, because it stands on the principle that the only way to do anything is the right way. No man ever made for himself a clean desk without being made thereby a stronger, better man.

It is the wandering mind that collects foolish notions, and a wandering mind has no place to wander in a room with a clean desk. And it is certain that hundreds of thousands of people who are driven, hurried, worried, perplexed, without avail and without excuse, would find relief by adoption of the same salutary method.

We will describe the clean desk by telling you how to secure one for yourself. This, we believe, is the best way to describe anything worth having. The essentials and characteristics of the clean desk are:

1. Elimination. The first move is to clear everything off your desk and out of it. Have it entirely empty. Renew it with a good cleansing oil, dry thoroughly and polish well. Take off spots and stains. Open drawers and expose to the direct sunlight a few hours if possible. Ask a furniture dealer or cabinet maker how to have the desk look like new. Keep it empty while you read the paragraphs below, then put back your papers, tools and supplies according to the directions here given. Don't let a single article go on the desk or into it before you know where the item belongs and whether it belongs in the desk at all. Most of the trouble in a desk proceeds from articles that never should have been there.

2. Adaptation. Your desk should be suitable to your work in height, width, length, shape, number and extent of compartments. If your desk is not suitable to your job and your personality, get another. You can order from more than a hundred different styles now offered by the various national desk manufacturers. Your work must be measured for your desk to fit, as your body is measured for your coat to fit. Your desk

is for usage and not for storage. It is a work-bench, not a warehouse. Therefore it should accommodate only the tools, implements and supplies that your daily work demands, with no space left for holding letters, papers, half-done jobs or other items that should be filed away promptly. Never lay away in your desk a piece of work either finished or unfinished. Don't allow room for this. A flat-top desk is preferable to a roll-top nine times out of ten, because the flat-top is easy to keep clean, gives a larger surface to work on, hides nothing from the gaze of the public, and cannot tempt you to tuck things away in corners and cubby-holes when they should be placed immediately where they belong. The desk should be large enough to give you plenty of space to work freely and rapidly. It should be noiseless in operation. It should match, if possible, the furniture and wood-work in the room. It should be supplied with an exclusive lock and two keys, one key remaining in your possession, the other being kept in safe deposit by the secretary or treasurer of your company.

3. System. A place for everything and everything in its place should be the rule.

Don't leave a thing outside its own compartment, or drop it into some other. If necessary put labels on all the drawers and follow the labels in using the drawers. Even the top of the desk should be kept in order; papers should be deposited only by certain persons at certain places on the desk in line with the work operation, which should go from left to right; your unfinished work will thus be always on your left, finished work on the right, and a clear space between. All papers should be classified before being placed on the desk with large clips, rubber bands or desk baskets to hold each classification. There should be no piling of unsorted papers on the desk and no filing of papers or anything else in the desk.

4. Arrangement. Give yourself room enough to breathe; allow not less than three feet on all sides between you and the next person. If other workers are seated near you, do not have your desk facing theirs directly but have the desk placed side by side or back to back, the only violation of this rule being when you pass work frequently to or from another desk. Choose the location of your desk with regard to the most air and

light available. If your work demands concentration of thought, be as far away as possible from the road frequently traveled by employees or merchandise.

5. Collocation. We include under this term the filing, clipping and memorandum systems by which your work is organized and the finished product stored. These systems should be apart from the desk, which must always be considered a work-bench only, but they should be grouped as near the desk as may be desired. The moment a piece of work leaves the desk it should be filed in the proper receptacle. Nothing should lie around loose. The foundation of a clean desk is a personal filing system that combines accuracy, thoroughness, simplicity, durability and speed. This cannot be overemphasized.

6. Completion. Every particle of work not finished and ready to file should go in a desk basket or other temporary holder, with a memorandum of time of completion. No bit of half-done work should stay loose on the desk. Nor should it be filed away in a permanent receptacle, or tucked away in a desk drawer. Work to be completed, if unavoidably interrupted, should be kept in view but

not in disorder. A wire, wood or wicker basket should be designated for this purpose. And it should not be used for any other purpose. Half-done jobs lying around in a forlorn, helpless manner do perhaps most to derange a desk. Train your hand to sort your work as you drop it.

7. Classification. Prepare a complete list of all materials and supplies that go naturally in keeping with the desk. These would include, besides your vocational, technical implements, the ordinary desk articles such as pens and pencils, blotters, clips, rubber bands, mucilage, pins, labels, rulers, scissors, erasers, knife, and so forth.

8. Organization. When your catalogue of tools, appliances and materials is complete, go over the list and check those used regularly, with double check on those needed most often. Place all checked items in the desk, with the double-checked ones for quickest handling in the drawers or other compartments of the desk nearest you. Have regard also to the side of the desk on which you will employ the various items in your work, placing in the right-hand drawers those to be used on the right-hand side of the surface of

the desk. A little careful thought in the disposal of each item will enable you to clip a fraction of a minute from the time usually taken to withdraw it and replace it.

9. Ownership. Two workers ought never to share the same desk, unless the nature of the work demands that two or more people do it together. Individuality underlies progress, and the joint control of a desk hampers individuality. The cost of a desk is immaterial so far as this point is concerned, but the sense of personal ownership is vital to success. A person should no more be deprived of his own desk in business than his own dresser at home. The personality even of a routine worker must be developed before the routine is handled in a superior manner.

10. Coöperation. All the desks in your room or department must be as clean as your own, if the full effect of yours is to be gained. If one person in a room has grippe or measles, others are almost sure to get the same disease. One sick-looking desk in a room will demoralize the others. Don't be satisfied merely to have a clean desk yourself, plan how to make it the possession and habit of everybody else.

11. Duplication. The mental and material key to your filing system should be in the possession of at least two persons--one other besides yourself. The requirements of the clean desk forbid that any matter be filed in the desk; hence both you and your assistant should know exactly where to find all matter preserved outside the desk; otherwise in the absence of either of you the work of the day would be held up. If you have a secretary or other close helper, you should also keep on file a memorandum of instructions for the day's work that might be carried out by a substitute secretary fairly well.

12. Standardization. All utensils, materials and supplies for desk work should be standardized; if they are not, the effect of an unknown product bought in emergency may delay you or impair your work. Every article in your desk should measure up to certain well-defined standards of performance. You should know what these standards are, and how to apply them. Being satisfied that you have the best work materials and appliances on the market, you should then order ahead in large quantities, first to obtain the advantages of wholesale prices,

second, to guarantee you against shortage.

13. Renewal. To make certain that your desk equipment is always complete, arrange to have your stock clerk visit your desk and take inventory about once a month.

14. Care. Tools and supplies should be kept in order by a clerk or the office boy. It is a rule in some concerns for an employee thus delegated to make the rounds of the desks once a day, for the purpose of sharpening knives and pencils, refilling fountain pens and ink-bottles, replenishing stocks that are low, and otherwise keeping desk materials in good shape.

15. Schedule. Work of the day must be planned ahead by the calendar and the clock so that each general class of office routine may come at the same time each day. A list of work items covering all these classifications should be kept by you, and another by your secretary, if you have one, or by your employer if you are a secretary.

16. Regularity. The stream of work should be steady, should follow the same route right along, and should be originally planned according to scientific time-and-motion study. The law of averages taken

over a few days or weeks should establish the period of time that each job or set of jobs will probably consume.

17. Continuity. Form the habit of completing every job before starting another, and of completing it in the order specified on your schedule. One of the principle sources of confusion, error, haste, waste and ill temper in a business concern or in a household is the pernicious and insidious habit of dropping one piece of work, taking up another, going back to the first, snatching up the second, taking on a third, and so mixing and mangling the whole performance that nothing gets finished right. Make it a rule never even to think about two series or kinds of work at the same time. Think only of what you are doing, get that work finished and cleared away before allowing another matter to enter your consciousness.

18. Variation. Monotony of desk labor should be avoided, otherwise brain fag, eye strain, body fatigue, nerve exhaustion, may result. Concentration must be offset by relaxation. Different sets of nerves, muscles and brain cells should be exercised in turn, that others may be rested. If most of your

work is of one special kind, whether manual or mental, you should create natural or arbitrary divisions of time and effort by which the consecutive periods of work for hand, eye or brain are made short enough to prevent fatigue, loss of interest or growth of irritability. The men who keep young and strong and can turn out the largest amount of work frequently get up from their desk, move around, relax and rest by doing something different.

19. Speed. This does not mean hurry—the man who hastens never hurries. Rather it means the adoption of the new short-cut methods of handling desk and office work, the right combination of which for your particular needs would reduce and simplify your working day. Among these helps for the saving of time are the following: Machine computation and tabulation to lift routine burdens of both head and hand; printed office and desk forms wherever possible to save typing and writing; use of different colored standardized stationery for instructions, records and reports to be distinguished at a glance; improved methods of speedier typewriting and dictating; pneumatic tubes and

other automatic systems of carriers for quick delivery of messages; telephone and interphone schemes of conferences and memoranda to take the place of personal interviews when possible; code of symbols and abbreviations worked out among helpers in handling correspondence, filing system, records and memoranda. Details of such plans, implements and devices should be secured from a national efficiency organization.

20. Records. As each item on your daily desk program is completed and cleared away, it should be checked off on the memorandum containing your schedule. Thus you will know at any hour of the day just where you stand in relation to the schedule, with a record of the finished jobs and a statement of the unfinished. A good plan for a desk worker is to have several hundred copies of a standardized schedule form sheet printed in two columns, the left-hand vertical column showing hours, half-hours or shorter periods during the day for each appointment, job or group of jobs, with the latter specified on the sheet opposite the time scheduled for it, and the vertical right-hand column consisting of horizontal dotted lines for addi-

tional work or special memoranda relating to any certain days; at the bottom of the sheet also blank space is left for notes and comments, while at the top a blank line appears for the date which is filled in by a pen or typewriter. This blank program of industry when carried out and checked off may be filed away as a record of the work of the day, week, month or year. The first move toward increasing the output of tomorrow is to measure the output of today.

21. Clean-up. The last item on your daily schedule should be a memorandum to clear everything off your desk, leaving it for the night as bare of work as though it were never used. A clean desk in the morning is just as important as a clean face.

22. Comfort. It is a sign of rare wisdom for a man to specialize in comfort and contentment while at work. See that your desk chair fits your desk and your body, so that you naturally sit straight without effort and do your work without strain. Plan your work so that extreme mental or physical activity does not come right after a heavy meal. Wear clothing designed to promote, not impair, the functions of respiration, cir-

culatation, digestion. Why should a factory worker be comfortable and a desk worker not? The powerful, prodigious desk workers *are*.

23. Consultation. The suggestions here made, with any others that may occur to you in studying the matter out, should of course be discussed and approved by the heads of your company or department or any other superior officials to whom you are responsible, in advance of adoption by yourself. You may find that objections or modifications have to be considered. You will certainly find that the operation of your desk is too closely connected with other employees and departments for you to make radical changes on your own responsibility. Likely as not a few of your business associates have technical books or magazines with valuable ideas along the lines here mapped out. Other men you know may have improved on these improvements. Before starting innovations, get all the knowledge you can from all the sources available.

24. Coördination. There are but two alternatives for a man with a clean desk to regard as possible; he must either co-ordinate

the schedules of all his co-workers with his own daily program, or he must be independent of them all. Every item on your list of daily accomplishment which is a required factor in the establishment and maintenance of a clean desk is almost sure to be tied up with somebody else's mode, manner and time of performance. Your moves must articulate with all others on which the result of your work depends. Before you fix the new standards of the clean desk as your infallible guide, you should learn how far your associates and subordinates are able and willing to help you to put your new program into effect. Whoever wins in a ball game, a battle or a business does it finally by team work.

25. Education. All new methods of work have to be explained, illustrated, demonstrated, over and over until each employee knows by heart the how of the method and why of the principle. You may wisely take an empty desk, or choose that of one of your employees, and make it a model for teaching desk efficiency. When you have it properly organized and equipped, you may spend to advantage an hour or two a week in showing all your desk workers how the clean desk

should be operated. To reform a man's method you must inform the man's mind. To improve the work you must educate the worker. National societies now having such matters in charge may profitably be consulted as to the training of office helpers in relation to the clean desk and to other approved methods and systems of better office work.

Your desk is the face of your business organism. People see it first and by its looks judge the nature and character of your business. Also by the cleanness, order, contentment and cheer it radiates will be measured the influence you exert for good on employees, clients, or customers, and visitors. Both office industry and office hospitality require this rule: Keep your desk as clean as your face. Your desk should smile as cordially as your face, and only a clean desk wears a smile of welcome.

CHAPTER VIII

DISORDER VS. RED TAPE

A CLOSE inspection of a thousand American offices reveals an astonishing fact. Most of them are not American at all, but either German or Russian. And, more alarming still, the managers and owners are unconscious of the fact.

The gentlemen who operate these offices are nominal Americans. They would be highly insulted if you called them anything else, particularly if you called them German or Russian. But psychologists know that a fellow is never so angry as when you call him what he really is; hence the fact of a man's being insulted over what you call him proves the designation correct. We judge that in every thousand offices of the United States about two hundred are American, three hundred are German, five hundred are Russian.

A man's race is determined not by the country where he lives, but by the state of

mind in which he dwells and the material surroundings that reflect the state of mind. You don't have to live in Germany to be a German, or in Russia to be a Russian. A man may live in America and still be in his mental and moral nature anything from a Chinese to an Arab. I myself have seen American Chinamen, also American Arabs.

Germany stands for red tape. Russia stands for disorder. America stands for the union of system and freedom, of humanity and science, of modern method and eternal principle, of moral service and material reward, of bold individuality and firm authority, of close economy and open generosity, of keen work and care-free play; in short, of all the extremes that are extremely good when harmonized with their opposites, but extremely bad when allowed to run loose and run away with themselves.

Germany stands for a blind, slavish, cruel, criminal subordination to a rule of thumb;—and the man or the business concern guilty of the same folly may rightly be called German. Russia stands for a spirit of revolt, equally blind and equally destructive, though perhaps not so criminally base;—and the man

or business concern guilty of this folly may rightly be called Russian. The office that is not American does not belong in America. And, sooner or later, it will be properly and justly crowded out by the law of competition.

Perhaps one office manager out of five is a born executive, organizer and leader, backed with a real working knowledge of the new scientific methods of management. He can be trusted to guide the business properly, avoiding the sharp decline of disorder that shoots down one side of the road to ruin, and also the dangerous mountain of red tape that looms up on the other side. But most office managers and workers, being fitted for their job neither by temperament nor by training, are apt to veer off the road and either smash in a valley of disorder or crash against a mountain of red tape. Either mistake will wreck your business machine. An automobile is upset equally well by overturning it on the up-side or the down-side of a mountain road.

The business man, also the business concern, to take and hold the place of leadership, is the one to guard most against a natural tendency to extremes produced by tempera-

ment, custom, education and environment. The first move in stabilizing office work is to study the office worker. Doing this we find that where disorder prevails the employees generally are stupid, sluggish, careless, flippant, crude, slow, disrespectful, unartistic, or otherwise mentally defective; or they are untrained in the right methods of doing their work and unsupervised in the process; or they are content with small pay and lack the overwhelming ambition that pushes a born leader out and on and up; or they live so far away from the broad new lines of business progress that they do not know what a modern office looks like; or they lack the nerve, will and enterprise to adopt the few suggestions for improvement that may happen to drift their way.

On the other hand, we find that the office bound up and tied around with red tape only marks the mental qualities of the people in it. They are too conservative, backward and sheeplike; or they have allowed themselves to become so frightfully systematic that they are now purely automatic; or they are governed by a mathematical sense of precision which by itself never got anybody any-

where; or they are too lazy and selfish to try new methods which might wear the rust off their brain and thus expose the character of the poor, dull thing; or they fear they would lose their job if they pointed a finger a fraction of an inch away from the line of routine marked out by a cranky or domineering boss.

The real picture of a man is not his photograph but his method of work. It is a good rule never to employ anybody who has worked in an office where either disorder or red tape is customary; you are likely to find that in either case the worker has been demoralized. When we are fully civilized, we will determine a man's place in society not by the gloss on his family crest nor by the gold of his patrimony, but by the appearance and the output of his workshop.

Abnormal states and conditions of your office produce an effect on your business like that produced on your health by abnormal states and conditions of your body. There are business doctors nowadays whose practice is limited to the diagnosis and cure of ailments of American offices. One of these business doctors, finding your office in a state of disorder, would probably diagnose

the trouble as mental measles. But if he found your office in a condition of red tape, he would diagnose the trouble as mental paralysis. Either affliction puts an end to commercial efficiency, and either unless cured will result in commercial death. Of the two, the mental measles of disorder, being epidemic, will be found to exist more widely; but the mental paralysis of red tape, being chronic and deep-seated, will be found harder to cure. Also the latter is harder to diagnose—you can tell at a glance when a person has the measles, but you cannot thus determine whether he is partly paralyzed.

The new method in health culture is to diagnose a man before he is ill, then to provide him with instructions to keep him in health, not merely with prescriptions to get him out of sickness. The new method for guaranteeing health to a man's business will be similar, when it arrives. And it should have been here a hundred years ago, to prevent the annual crop of many thousands of cases of business failure, dissolution, death, which might have been avoided by the use of intelligent precautionary measures. Did you ever have your office diagnosed by a

competent business doctor? If not, your business organization is liable at any time to fall the victim of serious disease or premature death. A few days and a few dollars invested now in such examination will repay you a hundred, or even a thousand, times in the prosperous health of your business five or ten or twenty years from now.

What are the symptoms and results of disorder? How does it lower the vim, lessen the volume, cripple the power of a business office and a business organization? It causes delays, errors and complaints. It reduces output by increasing fatigue. It tends to the loss of valuable papers. It aggravates the risk of both fire and theft. It makes employees work over time. It creates the irritability that follows nerve strain. It leads to bad feelings of many kinds. It produces a most unfavorable impression in the eyes of visitors whether customers, clients, patrons, directors, salesmen, publicists, creditors, debtors or messengers. It cuts down both wages and profits, leaving both employee and employer unfairly paid for their work and their capital invested. It occasions mutual distrust and disrespect on the part of

employees to employer, of employer to employees, and of employees among themselves.

Now let us turn to the other extreme. We find that red tape induces results equally dangerous and equally unnecessary. While its effects are different, they are no less undesirable. Red tape points backward instead of forward. It means loss of time in the cumbersome handling of roundabout methods. It holds up work in the absence of certain employees, or in emergency of any kind. It employs men to do the work of machines, instead of employing machines to do the work of men. It wastes money on utensils, materials and supplies that are not needed. It reduces production by failing to furnish right motive and incentive. It delays or inhibits promotion. It cramps energy, destroys initiative, leaves latent powers undeveloped, closes the door to opportunity, pushes down all employees to the fatal dead-level of mechanical routine. It bases the whole structure of business on the marshy ground of misplaced confidence, making the pillars of authority men who have no real capacity for leadership. It rewards the stability of mediocrity and pun-

ishes the ambition of genius. While disorder is more fatal to the business, red tape is more fatal to the man, which is worse.

If now the reader wishes to put his office to the test of an impartial examination, how shall he proceed? How is it possible to know whether one is caught in either extreme of mismanagement, or is drifting toward it? Self knowledge both complete and reliable is exceedingly rare. Even a doctor, when ill, has to employ another doctor to diagnose and cure him. How then shall a plain business man get a clear view of his own commercial and industrial organism?

We regard perhaps of highest value the method of contrast, whereby two undesirable extremes are fully depicted so that the observer can measure himself by each, and thus learn to avoid the specific errors of each. Many people otherwise sensible foolishly imagine that the way to see how you look is to stand in front of a mirror. No, not so. All that a mirror can do is to show whether or not you are dressed in the usual manner. But as the usual manner is seldom the right manner, a glance in your mirror may be a further aid to self-deception. The scientific

method of judging your appearance is to get in your mind's eye two complete pictures before you look at yourself. The first picture should be that of a man giddily, gaudily overdressed, a riot of superfluous color and style; the second, that of a man poorly, carelessly underdressed, a deficiency of neatness and thoughtfulness. If you study these contrasting types, and point by point compare your own attire with that of each, you will get a sane view of whether you are overdressed or underdressed.

We will apply here the method of contrast. The accompanying table is compiled from a study of the prominent features of a number of both types of office—the type afflicted with disorder and the type afflicted with red tape. The outline is to be regarded in each case merely as a composite photograph, rather than a detailed picture of any one office. The way to compare your office with both extremes is not to expect a majority of the features of either as here given to apply exactly to your case, but to see how many of them describe your condition partially or approximately, then to count and compare the totals of each column of de-

scriptive phrases. The larger of the two numerals will of course be found on the side of the extreme where lies your actual or probable danger.

Forty points are named in each column. If a thorough, calm and impartial consideration leads you to check in either or both columns ten or more points of resemblance to your office, you may be sure it is time to wake up and look around for somebody or something to pull you out of the rut of commercial decline where your business machine is traveling.

A highly commendable plan is to call together all the members of your office force, then read to them this chapter, pausing a minute or so after each point in the table and requesting each member to vote regarding each point, on blank slips of paper distributed before the reading; numerals from one to forty should be typed or written on the ballots in advance of distribution, and they should be arranged in numerical order, then clipped together for speedy handling. The marks on the ballot should be merely symbols, perhaps a capital D for Disorder and a capital R for Red Tape; or any other

marks might be used that would not reveal the identity of the voter. A single sheet of paper with the forty numerals and with two columns ruled off might be preferable to the series of ballots. The only important thing is to have each employee cast his vote on every point frankly and freely, which he will not do if he is forced to sign his name or otherwise to make known his identity relating to his expression of opinion. The joint view of employer and employees is fundamental to the formation of an accurate estimate of a business organization.

Now let us take a definite example of how to avoid both extremes, that of confusion and irresponsibility on one side, that of complexity and monotony on the other. Take the problem of making, keeping and closing appointments or interviews in a private office. One extreme is to have no schedule of appointments, no arrangement in advance, no time limit, and no method of persuading the caller to get up and go when he should. The other extreme is to have a time schedule and limit so precise and relentless that the nerves of the people involved are strained to the point of breaking, and the in-

terview while closed promptly ends with a virtual command for the visitor to get out, which leaves a bad impression and spoils the whole effect. Some business men try to soften this forced departure of the caller who doesn't know when he is through, by having a secretary or messenger boy rush into the office at a certain time or on a certain signal and proclaim to the man at the desk that he is wanted immediately on important business elsewhere! This method of closing an interview is wearing and wasteful. Moreover it is deceitful. Worse, it is stupid. A business man who cannot get a caller to leave without dragging in a false and feverish summons from nowhere, is too dumb-headed and numb-hearted to be in business at all. Yet there are men who actually pride themselves on their feeble recourse to a subterfuge of this kind.

How should business appointments be made, kept, closed? A model system has been worked out by the President of the United States. A schedule of appointments, invariably made in advance by his secretary, is laid on his desk every morning. Most of these appointments are limited on the

schedule for three to five minutes, the majority three. When the caller enters he is invited to have a seat—there are no standing interviews. The President has learned by a few direct questions or implications to extract the meat of the matter in a caller's mind before this gentleman knows what is being done to him. The answers and remarks of the visitor, with comments of his own, the President quickly jots down for later transcription and classification by his secretary. When the time set for the interview is up, or possibly sooner, the President collects his notes, rises as though unconsciously, tells the caller that the matter will be attended to promptly and fully, then graciously bows him out. If he was a half minute late in coming the bow is not so gracious. If he was a minute late without a quick and valid excuse, thereafter he is regarded with suspicion by the President and may as well ask no more favors whatsoever.

This method of handling appointments does what every business method should do—combines and blends shrewdness and kindness in such a way that the shrewdness is not apparent or the kindness transparent.

The President during an interview keeps the clock *in* his mind but *out* of his heart. Speed that kills courtesy kills the future of the man who tolerates it. But on the other hand courtesy that kills speed kills the future of the business. The caller on the President is first made to feel at home in a comfortable chair, at a psychological distance from the desk. He is pleased and flattered when he observes the President taking notes of the interview—who would not be rather exalted in spirit to have the President of the United States for his amanuensis? The caller is honored further by having the President ask his opinion, rather than imposing an objection or a foregone conclusion. By the time the interview should be over, the caller is in such a right mellow mood that he just naturally rises when the President does, hardly noticing at all, and finds himself outside the door and on his way home safely before he realizes what has happened to him. The time of the President has been saved—and the temper of the caller.

The fundamental problem of office management is contained in the following question. Should an office be run by no system,

or by an uncertain system, or by a wrong system, or by too much of the right system, or by the exact amount needed of the one right system? You must answer it one way or another. Everybody who works in your office, and everything that is done, planned, thought or produced there is somehow affected, for good or ill, by the answer. Out of the hundreds of items of office operations that might well be considered, we will refer briefly to one general principle, and to one specific method.

The general principle is that of the measurement of man-power, and the placing, educating and rewarding of employees on the basis of this measurement. Each worker is paid to do a certain kind of work, or different groups of a certain kind of work. How much of that specific work can be done, should be done, is or is not done by each worker during the time which is the unit of pay, whether a week, a day, an hour or a minute? Few office managers, hardly any office workers, could answer this question promptly, fully and scientifically. Man-power is several times as costly as machine-power. Hence man-power should be determined even more

accurately than machine-power. You would not buy an office machine without first proving its capacity for work, in the number of operations it will perform without error in a given time, and in the uniform cost of each. Why should you be less logical and businesslike in paying for the work of human hands and brains?

Permit us to quote a chapter from our own office experience. Once we had a typist who could do in thirty minutes a regular standardized piece of typewriting that another typist took eighty minutes to complete. And the first operator did the work better—she had gone to a modern business school and was thoroughly grounded in the principles of grammar, punctuation, spelling, tabulation, and business copy. But the second typist had certain qualifications for other branches of office work that were fully as essential as typewriting speed, and that the speed expert did not have at all. Hence the first had no right to look down upon the character and ability of the second, as we found she was doing.

Here was a problem. If we kept both girls on typewriting work and paid them an equal

salary one of two bad results would happen; if we paid them by the hour the first typist would be cheated, if we paid them by the job the second typist would starve, and in either case the business would suffer by the adoption of a method unfair and unwise both morally and financially. We found this to be the solution of the problem—which might not work in any other office, and is given here by way of illustrating the right principle, not necessarily of demonstrating the right method.

Classify all work as either general or special, according to whether it requires ability and training of a general or a special character. Establish for general work a minimum salary by the hour that will enable the employee to live decently and not much more. Establish for special work a salary by the job, or the quantity and quality of piece work, that has been tested and approved by the largest and best organizations in your line of business. Compare the daily output of each worker for a specified period, as regards both quantity and quality, with records of performance like those adopted in the great factories to measure the daily out-

put of the expert employee. Let highly trained workers devote a certain amount of time each day to general office duties, and on the other hand train the general workers along the lines of their special untrained aptitudes for a certain time each day so that they may qualify later for the expert class. Then keep two sets of pay slips for each employee, covering the general pay by the hour and the special pay by the job. Call a meeting of the entire office force and explain the new method fully, so that each worker is satisfied regarding its absolute fairness, and is moreover stimulated to reach the expert class and the expert pay in the shortest time possible.

The two tracks on which the engine of personal ambition must be made to run are satisfaction and stimulation; if either track is defective, the engine won't go, or it will go to smash. By the adoption of a method similar to the foregoing, the two extreme types of workers represented by those in our office receive better treatment and do better work than would be possible without a standardized system of gauging, regulating and rewarding personal production. The

typist in question earns more than if paid just by the day, the second typist earns more than if paid just by the job, and the salary of each takes into account both merit and demerit on a basis of absolute impartiality. The one clear line of advance for a business man to follow is that of equal justice to employer and employee.

Now let us quote an illustration of specific *method*, one of broad human interest and appeal—the noon-day lunch; and the regulation of the lunch hour, the lunch menu, the lunch aftermath. A wretched-looking man stumbled, crawled and quavered into our office not long ago, for a personal consultation about his physical, mental, industrial and financial state of health. He was so nervous he could hardly talk straight, certainly he could not think straight, but the substance of his complaint was this.

“My health is going to pieces. My work has become so poor that I have been threatened with discharge, but cannot afford to lose my position because I have helpless dependents looking to me for support. Every day, usually between one and three o’clock, I am troubled with such a headache that I can

hardly see. Often there are other kinds of physical distress. My brain is confused, I get irritable and say things I am sorry for, I make blunders in my work, and am generally good for nothing. Have taken different kinds of medicine without results. Appetite is so poor for dinner in the evening that I eat almost nothing, and whether I eat or don't I hardly ever enjoy a good night's sleep. Can you tell me what is wrong? Would the study of personal efficiency locate the reason for my trouble and the method of cure?"

We never pronounce an opinion offhand. We require first a complete investigation. So, after giving this man a little general advice and encouragement, we prepared a long set of questions for the man to answer, then had a consultation with the office manager where he worked, to gain permission to conduct a scientific investigation. Here were some of the ruinous habits of the office and the man, relating to the noon meal, and combining to produce the man's distress in the early afternoon.

Lunch hour was irregular—sometimes twelve o'clock and sometimes two. Only

forty-five minutes was allowed for lunch, including time of going and coming. Work was so badly regulated that the peak load of the man's day often came about noon-time, and then he had a meal sent in from a nearby restaurant and worked on while he ate. Immediately after lunch he was put on the sort of job that required hard mental concentration. He was mentally tired just before lunch as a rule; then he walked fast to the restaurant because he had so little time, and was physically out of breath just before he ate. Before he had swallowed the last mouthful he hurried back to the office. He not only ate fast but he ate the wrong things. One day he had pork-chops and fried potatoes; another day a cheese sandwich and a glass of milk; another day ham and eggs, potato salad and mince pie; and other days even worse things, if that were possible. These are all good foods, but not one is good for a hasty lunch in combination with the other foods that this man chose. We figured that every day he was violating during the lunch hour, and all unconsciously, anywhere from six to fifteen basic laws of health.

He was given a method of hygiene, psy-

chology and efficiency to try for a month in connection with his noon meal. He felt better the first day. He gained new hope and courage in less than a week. At the close of the month he had a new grip on himself. And in three months his afternoon pains and worries had all disappeared. Meanwhile the office had been reorganized with the approval and assistance of the manager, so that other employees could regulate their noon lunch by a system orderly and effective, instead of chance or luck disorderly and ruinous. The office manager estimates that an average of 15 per cent more work is accomplished during the afternoon because of this one improvement, and also from 10 to 30 per cent better work, depending on conditions and individuals.

We judge that the complete process of changing an office from one of disorder to one of order, in the many departments where such a change is required, would mean 50 to 75 per cent greater production, at a cost materially *decreased from that involved in the present low output*. We have described, and that partially, only two items from scores that might be considered to advan-

tage. How many phases or departments of your work should be thus analyzed, and re-organized if necessary?

Nothing succeeds now but the most work, done in the best way, for the highest motive and the surest reward. Expert knowledge, analysis, training, planning, supervision, execution—all must be had by the man or the concern aiming for the prizes of leadership. There are five main sources of information, inspiration, education, co-operation, supervision, and supply. Every office manager, worker, helper of any kind should have such close personal acquaintance with all these national sources of modern office efficiency that he could turn to the right one at any time for the solution of any problem, the settlement of any difficulty, the achievement of any ambition. The sources are these.

1. Books on office management. The last few years have witnessed a remarkable development in the United States of business literature. All the departments of office work are included, such as bookkeeping, accounting, financing, credits and collections, cost-finding and cost-reducing, wages and salaries, economy and production, filing, ad-

dressings, typewriting, advertising and selling, business correspondence, employer and employees, scientific management, records and reports, furniture and supplies, tools and machines, modern standards, human engineering, welfare work. A modern office contains anywhere from five to a hundred of these books, depending on the kind of work and the size of the organization.

2. Business magazines and trade journals. A few of these are devoted strictly to office work; others, while presenting a variety of business subjects, always contain valuable suggestions on improved office method. You should find it a most profitable investment to subscribe for each of these classes of periodicals, at least one of each; preferably two or three.

3. Home study courses in Personal Efficiency. Any man, whoever he is and whatever he does, needs the help of one of these courses if he is of the fighting age—from eighteen to forty-five inclusive. He can learn thus how the great men of the country fight and win their business battles—and he cannot learn fully in any other way. Physical, mental, financial, social and industrial

improvement will result, for the betterment of his work in particular and his life in general.

4. National efficiency organizations. Membership in one or more of these will not only put you and keep you in direct touch with the leaders of the nation who are founders and managers of these societies, but will also furnish you with bulletins and reports of many kinds to inform you of the results of late experiment and research in the big factories, shops, stores, offices, municipalities, efficiency laboratories and schools, government institutions, and great universities.

5. Personal consultation with office experts and efficiency engineers. This costs a good deal and is generally advisable in large offices only. But every office manager and department head should know the kind, scope and quality of service now offered by a number of these business experts, and should employ one or more if the needs of the office, extent of the work, and possible increase of profits would justify the expense.

The great problem of the alert, ambitious man is to locate the business authorities mentioned above, and secure an introduc-

tion. Their different headquarters are scattered all over the United States. Months of research and comparison would be needed, as well as hundreds of dollars in cost of stationery, postage, typing and overhead, to obtain a full directory of these efficiency leaders. The best way is to consult a national clearing house of efficiency information. Special reports may be had for a small fee, and sometimes without charge to members. One of these clearing houses is the Efficiency Publishing Company, 21 East Fortieth Street, New York. Another is the National Efficiency Society, 119 West Fortieth Street, New York.

The primary test of a man's business knowledge is how he regards, analyzes, arranges, equips, conducts his office. And the final test of his power is what he does by means of it.

OFFICE ROAD MAP

KEY TO MAP. Column one shows the bad results and danger signals of Disorder, column two the bad results and danger signals of Red Tape. Imagine the double vertical line down the center of the page to be the road leading straight to efficiency and success. Imagine the vertical line at the left side of the road

to be the brink of a precipice falling by a sheer drop of several hundred feet to the chasm of Disorder. Imagine the vertical line forming the right boundary of the road to be the bottom of a steep cliff rising to a mountain of Red Tape. Imagine yourself guiding your business machine carefully, safely and swiftly on the road between the chasm below and the cliff above. Remember that each danger signal here shown, to the left or to the right, should be heeded as promptly as though it were a big red sign of "Warning" placed beside a road on which you were driving an automobile.

Now observe the narrow blank lines bordering the road on both sides. Each line is placed opposite a danger signal. When you believe a danger signal applies to the way you are running your office, put check mark on blank line immediately opposite, the lines referring to Disorder signals following the signals and those referring to Red Tape signals preceding the signals. Check all that apply to your work or workers even partially or approximately. Do *not* give yourself the benefit of the doubt. Finish the checking process by counting each column of check marks, the larger number signifying the extreme where your danger lies. If you locate ten or more signals, on either side of the road, you may infer that the present methods of handling your business machine are fraught with peril and should be changed quickly and permanently. See accompanying chapter for suggestions leading to improvement.

DISORDER	RED TAPE
1 Dirt and dust visible	— Sanitation overdone
2 Hands of workers soiled	— Hands of workers manicured
3 Clothing untidy	— Appearance too prim or too fashionable
4 Nothing locked up	— Everything locked up
5 No place for anything	— Receptacles too many and too complicated
6 Filing systems inadequate or obsolete	— Filing system and clerks too costly
7 Costs unknown	— Risks never taken
8 Debt habitual	— Credit unused
9 Materials and supplies bought indiscriminately	— Materials and supplies bought preferentially
10 Furnishings bare and ugly	— Furnishings inappropriate or extravagant
11 No time schedule	— Clock made a fetish
12 Workers often late	— Workers come on time but hate to
13 Frequent demands to work overtime	— Chronic unwillingness to work overtime
14 Pencils usually dull	— Pencils always sharpened by machine
15 Not enough machines	— Not enough brains
16 No understudies	— Employees jealous and employer suspicious
17 Too few officials	— Too many officials and too many in a place
18 No office forms	— Confusing multiplicity of office forms
19 Written memoranda lacking	— Written memoranda too frequent and too explicit
20 No written reports of work	— Written reports wearisome, trifling and unnecessary

21 Standardization foolishly omitted —	Standardization foolishly idolized —
22 No delegation of authority —	No delegation of responsibility —
23 Slang, smoking, gum-chewing permitted —	Nothing human permitted —
24 Talk foolish and excessive —	Atmosphere silent and oppressive —
25 No efficiency study —	Efficiency study wholly mechanical and material —
26 Vacations irregular —	Vacations immovable —
27 Clean desk unknown —	Desk too clean to be productive —
28 Conflict or duplication of efforts —	Conflict or duplication of orders —
29 No suggestion box —	Suggestions by employees used without credit or reward —
30 Promotion by guess —	Promotion by the calendar —
31 Health and comfort of employees disregarded —	Health and comfort of officials too highly regarded —
32 Ignorance of modern method —	Exaltation of method above principle, motive or output —
33 Workers paid for time only —	Workers paid for job only —
34 Management lazy or stupid —	Management cowardly or greedy —
35 Complaints heard but not satisfied —	Complaints hushed up —
36 Rights and duties of employer neglected —	Rights and duties of employees neglected —

37 Disrespect toward superiors	—	—	Disrespect toward subordinates
38 Individualism run wild	—	—	Politics or graft run wild
39 Human interest but no human appeal	—	—	No human interest and wrong appeal
40 Character of work and workers merely crude	—	—	Character more bad than crude, more soul- less than senseless

Your total number of signals to serve as warning

.....

Disorder Red Tape

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CHAPTER IX

THE EFFICIENT SALESMAN

SALESMANSHIP is the science of service; the knack of knowing people's wants; the art of turning money into friendship; the business of making the world better and getting paid for doing it.

The good salesman is the great civilizer—whether we buy neater shoes or sweeter pianos, we are indebted to the salesman for another slice of civilization. No matter what we resolve to do, have or be, there are invaluable aids that we must first buy.

Every successful man is a salesman. The doctor sells prescriptions, the teacher sells instructions, the lawyer sells consultations, the banker sells credits, the farmer sells crops, the preacher sells sermons, the inventor sells ideas. Anybody old enough to be a citizen must be either a salesman or a tramp.

More than half the population of any country is engaged in selling something. There are about 60,000,000 people in the United

States who try to exchange a commodity or a service for money or its equivalent—and probably less than 100,000 really know scientific salesmanship; the rest bungle their job. Every college and high school should teach the student how to do his best work, then how to sell it for the best price. Learning void of earning is spurious education, and no institution of learning deserves the name until it shows every graduate how to find a good market for his life product.

We are not interested in money-making, apart from something more valuable. If the main object in salesmanship were money-making, it would not be discussed here. But salesmanship is the master-key to a large success in any trade or profession. And the very people who need most to grasp it are the ones who never consider it—the faithful, conscientious, philanthropic workers who give good service and starve on poor pay. The teacher able to fill a better place but not to find it; the doctor skilled and devoted, but modest and uncommercial; the preacher too old to be a pastor, but just old enough to be a counselor and guide; the inventor, philosopher, poet or musician radiant with lustrous

ideas, but too rare and fine to seek the suffocating shambles; the tireless, uncomplaining housewife and mother doing the work of three men and deprived of the salary of one—these are a few of the splendid altruists who for the sake of justice and decency ought to learn how to command better pay! Salvation to the unselfish lies in salesmanship. You can't be fair to the other fellow without being fair to yourself.

In so brief an article we are limited to the sphere of the professional salesman. But most of the principles here suggested apply to your work, whatever it may be; and by adopting these truths wisely, you should increase your income whether salary, fees or profits. To reach your maximum of prosperity and usefulness, you must be an expert salesman, or be allied with an expert salesman.

There are ten basic factors in scientific salesmanship: the man, the motive, the method, the product, the price, the maker, the buyer, the sale, the service, the future. Anybody who sells a commodity or a service should study these ten fundamentals fairly and fully.

THE MAN

He must have both instinct and training for the work. One of my numerous objections to poets is their lofty assumption that they, forsooth, are "born, not made." Every good workman is both born and made—born to his *kind* of work—then made to his *quality*. The ordinary clerk in a store is neither born nor bred for his job—and the store-keeper wonders why times are so hard. Among the natural qualifications of the good salesman are these: Health, tact, courtesy, reliability, loyalty, enthusiasm, helpfulness, alertness, judgment, foresight, courage, confidence, persistence, accuracy, patience, good humor, sympathy, neatness, economy, regularity, sincerity, gameness, pleasing voice, conversational power, attractive appearance, friendly but deferential manner, enjoyment of work, tireless industry. Among the vocational acquirements of the good salesman are these: Knowledge of human nature, knowledge of the market, knowledge of the goods, pride in the product, scientific team-work, familiarity with modern merchandising methods, acquaintance with new developments in

advertising and selling, care of stock, handling of customers, frequent conferences, tabulation and comparison of reports, improvement the daily watchword, greater profit the final result but better service the first aim of all endeavor. About one man in every hundred may become a good salesman; if you are an employer of salesmen, how do you eliminate the other ninety-nine? How, moreover, do you find and train the one? Almost any business could increase its profits thirty per cent or more by adopting a scientific system of employing, training and managing the salesforce.

THE MOTIVE

Why sell anything? To make money? No. You are a failure if you don't make money, but a worse failure if that is all you do. The ultimate reason for every commercial transaction is to give *something worth more than money*, that money cannot buy. Every customer is a good friend or a poor customer. Gain his friendship and his purse will open itself. An authority on selling declares you need not expect to make a sale

while you have the money-thought in your mind. You can always sell to the man who knows you will *serve* him, and you should not sell to any other man. Recently the head of a great insurance company died. His daughter, hardly more than a girl, with no business experience, took his place—and the foolish wiseacres foretold quick ruin! The girl not only held the business together, she largely increased the profits in the first year. She gives her principal rule of success: "I always try to benefit the customer, without regard to my fee." Enthusiasm for the quality of your product, the reputation of your company, the satisfaction to the customer from the sale, the service to the customer on the side, and finally a just and generous money award to yourself; here is the true motive in salesmanship.

THE METHOD

This may be by advertisement, by appointment, by special introduction, by letter, by telephone, by telegraph, or by one of several other means of approach. Time and place are as crucial as method—when is your prospective customer in the best humor, when

has he the most time and money, where would he most likely be seen? The varieties of method must be learned both theoretically and practically—every clerk in a business should buy and study one or more books on merchandising, advertising, speaking, business psychology, commercial correspondence; and should take a mail course in modern salesmanship from an expert or institution of recognized authority.

THE PRODUCT

Is it guaranteed? Is it the best of its kind? Has it ever failed to give satisfaction? If so, why? And how are you preventing a recurrence of complaint? When rival products meet it in a fair field, does yours always win out? Would you sell it in preference to any other, even if the other brought a larger commission or salary? Does it meet a universal need? Is it advertised properly, so your work of introducing its character is reduced to the minimum? Do you know every step in its manufacture? Have you studied and disproved the claims of all your competitors? A few score of questions like these, analyzing your product

and your relation to it, should augment your influence and extend your sales.

THE PRICE

Never be satisfied to charge exactly what your competitor does for the same article or service. Always give (a) better quality, or (b) larger quantity, or (c) lower price, or (d) supplemental value. A standard price on a standard product may always be *apparently* reduced to the customer by offering more for his money through a supplemental value whose actual cost may be trifling. Examples of a supplemental value: A national seedsman gives to the customer a booklet showing new ways of selecting and cooking vegetables; a great life insurance company gives a perennial subscription to a health magazine; a commercial school gives a test blank enabling the prospective student to judge the worth of any school in that line; a periodical for mothers gives an invitation to consult without charge a corps of experts on all problems relating to motherhood and the home; a high school gives a series of talks on vocational guidance, wherein the pupils are told by successful men how to

reach the top of a trade or profession. A sale or a service is really incomplete without an occasional extra value, that the customer does not pay for, and was not looking for. The good effect is even more of psychology than of economy.

THE MAKER

In a factory or office building you may frequently observe a sign like this: "No Pedlers, Tramps or Beggars allowed." Most people wear a sign like this in their *mind*, they flash it on the unknown salesman, they put him in their mental catalogue with tramps and beggars. One of the quickest ways to rout this hostile feeling is to represent a firm nationally known, liked and trusted. I would rather sell shoestrings for a man whose name is a household word than sell automobiles for a man whose name is a moral cipher. When the unknown salesman of an unknown house comes to my office, he gets no further than the door; but if he represents a famous concern—no matter what he sells—I feel morally bound, by the moral standing of his company, to give the man at least a hearing. An old salesman may suc-

ceed with a young concern, but a young salesman should sell for an old concern. Has the institution whose product you sell the highest reputation of any of the kind in your community? Both your sales-sheet and your self-respect wait for the answer.

THE BUYER

He should be studied, like a chessboard or a battlefield. He should be humored, like a child or a crazy person. He should be followed, challenged, outwitted, overcome. Yet, strange to tell and impossible to perform, he should be respected, consulted, obeyed, esteemed and helped with your deepest feeling toward him friendly and your every move honest. The majority of lost sales are a psychological reflex from an offense, usually unconscious, by the seller against the consumer. Not one salesman in fifty knows how to impress the customer favorably, *apart from the sale*. Your dress, your manner, your walk, your facial expression, your tone of voice, your subconscious feeling, your choice of words, your evident mastery of the science of selling, your tact and courtesy joined with truth and sincerity

—all these and many more factors, understood and applied, predispose the customer in your favor without regard to what you sell. The dean of traveling men in America is eighty-nine years old—and still on the job; has been a salesman for seventy years and has sold 57,000 windmills in thirty-two years—a world's record. He attributes most of his success to the fact that he never offends a buyer, but always tries to be as thorough a gentleman as if entertaining the buyer in his own home. Is the man you try to sell to always sorry when he can't buy—sorry because he likes and respects you so much? If not, you are a poor salesman; find what's wrong with you.

THE SALE

The preparation, conduct and completion of the sale must be learned from experts, in books or courses on salesmanship. Treatment of the sale needs a volume to itself. The rash clerk who supposes that salesmanship is merely handing out and talking up goods to a customer grievously errs. The progress of the sale depends on (a) character of the goods; (b) knowledge of the

goods; (c) analysis and description of the goods; (d) fitness of the salesman to sell the goods; (e) location of the buyer; (f) introduction to the buyer; (g) knowledge of the nature, habits and needs of the buyer; (h) approach to the buyer; (i) presentation to the buyer; (j) anticipation of questions, interruptions or objections; (k) completion of the sale, by cash or signature of the buyer; (l) satisfaction of the buyer, both immediate and ultimate.

Besides these major points, there are scores of lesser items and subheadings for the good salesman to reckon with. Suppose, for example, under caption (d) you want to sell something big, where the service and the profit are worth while, and you don't know whether to choose pianos or threshing-machines. If you love music, if you wear fine raiment with delight and distinction, if your best friends are women, if your brain-center of inhabitiveness is large, if your sentiment is stronger than your logic—sell pianos. But if you were brought up on a farm and know how much a farmer needs good machinery, if you possess mechanical skill and a liking for the whirr of the wheels,

if you are a "man's man"—sell threshing-machines. Failure to sell is primarily failure to be interested in what you have to sell.

Another cardinal point is knowledge of the buyer, which only a scientific study of character analysis will provide. What motive will prompt him when he buys? What reason, or what emotion, will he follow? I have in mind two rich men. The first likes to be known as a plunger and a "good sport"; the second is proud of his reputation for caution, closeness and conservatism;—appeal to the gambler in the first, but to the miser in the second, and you make a sale; reverse the method and you make two cordial enemies, with every chance of a sale now or hereafter gone to Mexico. The sequence in every sale is uniform, with five steps: *attention, attraction, deliberation, conviction, action*. But the way in which these five steps are taken differs with each buyer; and in lieu of twenty or thirty years of actual knowledge of buyers, the only substitute is a thorough training in the art of salesmanship by a corps of experts in manufacture, psychology, advertising, trade, merchandising, efficiency and finance.

THE SERVICE

A fundamental desire to please, accommodate and help is the life of real salesmanship. The other day I went shopping for a suitcase. I knew exactly what I wanted. The clerk in the first store said he didn't have it, grunted, looked sour, left me to depart in a state of much relief at escaping his presence. The clerk in the second store said he had something just as good, tried to sell me a cheap counterfeit, and put a harrowing strain on my nerves, as I wanted violently to seize him and eject him from the store-business. The clerk in the third store said he knew just what I wanted, would soon have a limited bargain sale on the very suitcase I described, and would telephone me as soon as the goods arrived, so I could have first choice! In that one sentence he revealed, or concealed, five kinds of special consideration or service. Furthermore, in the conversation he discovered that I wanted certain facts on a different line of goods altogether; whereupon he took the trouble to get the facts and give them to me. What happened? I was sure I could find my suit-

case by walking a few blocks further; but this salesman, having only a promise to sell, got such a grip on me that I went home and waited days and days for that telephone message. And the suit-case *was* just what I wanted. First law of salesmanship: Offer a service apart from the sale, and if possible before the sale. The man who hires the clerks for a chain of a thousand stores—the largest corporation of its kind in the world, and the mightiest ever known—says this: “Every clerk of ours has got to build up a personal following, to make record sales.” And you build up a personal following by studying how to render a personal service to each customer wherever possible.

THE FUTURE

Of course you want “repeat” orders—though I don’t like the word, it sounds commercial, flippant and unfriendly, along with the words “prospect” and “selling talk” and “size him up” and “tie him down” and other slang terms of pseudo-salesmanship. Now future business goes back to a system of *right relationship* between the buyer and the seller, the seller and the employer, the em-

ployer and the manufacturer, the manufacturer and the dealer in raw materials. Do you know that the cost of your product or service has been cut to the lowest notch, without lowering the quality? Are all the employees contented? Is provision made for the steady advancement of each, and more pay for better work? Will the demand for what you sell be greater, a year from now, ten years from now, or can something else take its place? Have you studied out all possible ways of increasing profits, to the manufacturer or your employer, and to yourself? Could you sell to your regular customers anything they needed, simply on the basis of their confidence in you? Are you so well known to leading members of your trade or profession that if you lost your present job, others would be offered you by successful institutions? Have you set a figure on the ultimate value of your time and work, about five times what you now receive, and are you steadily climbing toward it?

What do you sell? How can you make it better, sell it faster, sell it to more people, sell it for a higher price? Next to being a good workman, being a good salesman

counts most in every-day life. Whoever you are, whatever you do, however you aspire, you need salesmanship. Your ideas or inventions or poems or sermons or dreams, they must be *sold*, not put away to wither and rot. From dreams to deeds, from deeds to dollars—find this path. The purpose in salesmanship is service, and the power in service is salesmanship. Each completes the other; and whichever knowledge you lack, go forth and get it.

SALESMAN'S EFFICIENCY TEST

FOR DETERMINING THE SKILL AND PROGRESS OF ANY MAN OR WOMAN PROFESSIONALLY ENGAGED IN SELLING GOODS OR SERVICES

Directions. Read this chapter first. Then grade yourself honestly—too low rather than too high. When answer to test query is Yes, write 5 in space opposite. When answer is No, leave space blank. Find your approximate grade by adding numerals.

1. Are you a "born" salesman or saleswoman,
by vocational guidance tests?.....
2. Did you go into your work because you
liked it better than any other?.....
3. Would you stay in it if you had an inde-
pendent fortune left you suddenly?.....
4. Are your sales more, and profits greater,
each year?.....
5. Do you make it a rule to please every cus-
tomer at any cost?.....
6. Have you analyzed, in your case, the ten
factors of salesmanship (see chapter)?... ..
7. Are you a graduate of a modern school of
scientific salesmanship?.....

8. Do you read two or more trade journals, for new ideas and methods?.....
 9. Have you a shelf of books on your specialty, its manufacture, sale and use?....
 10. Are you such an expert that your employer or superior often asks your advice?.....
 11. When you lose a sale, are you just as cordial and friendly to the customer?.....
 12. Does each customer soon regard you as a personal friend?.....
 13. Do you consider service a part of every sale?
 14. Are you familiar with at least five ways of selling your product?.....
 15. Is the house you work for the best in your line?
 16. Do you study customers and associates, by character analysis methods?.....
 17. If you lost your position, could you make your clientele a future asset?.....
 18. Can you "close" the sale in five out of every six possible cases?.....
 19. Would your employers give you more money to keep you from another concern?
 20. Do you hold your calling a mission, as truly as that of the teacher or preacher?.....
-

Total equals your percentage (approximate) in knowledge and use of the science of salesmanship.

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CHAPTER X

BUILDING AN OFFICE LIBRARY

CAN the reading of a book raise the salary of a clerk to \$100 a week and promise him in less than a year to be head of his department? Put this question to an old-fashioned business man—the sort who boasts that he is practical because he never had the intelligence or nerve to try anything new—and he will answer you with a short and emphatic No.

Put this question to a modern, reliable efficiency engineer and he would answer you in one of two ways. If, because of the breadth of his experience he had the facts in his personal possession, he would answer Yes unqualifiedly; but if, because of lack of experience he did not possess the facts, he would merely beg to defer judgment, awaiting proof. We have in mind the case of a young man who was lifted to such a point of eminence by the power of a book to inform and inspire him. Let us briefly give the story.

James Bell was a confidential clerk in a big mail order company. He had formed a habit, rather unusual but most desirable, of spending a certain amount of time in studying the trade journals and business magazines relating to his work, and answering advertisements that looked favorable or copying addresses for later use in time of need. One day he ran across the announcement of a new book on business letter writing that seemed particularly valuable. His work had to do mostly with the correspondence of the firm and he saw here a chance for a lot of professional education that would sometime come in handy.

He bought the book. He studied it evenings, when other fellows were playing pool or attending cheap shows. He carried the book in his pocket and read a bit now and then during spare moments. He thought over the principles involved and the methods taught. He composed imaginary letters, he criticized real letters. He drove the teachings of that book into his mind and heart from every possible angle and in every possible way.

Then he went after more knowledge—by

this time the game was too fascinating to stop. He found over a dozen recent books on the science and art of conducting business correspondence. He bought them all, and in six months had them fairly well mastered, employing a younger brother at home to put questions to him at random from the various books in order to test his knowledge of them. When he arrived at an examination grade of 90 per cent on the different books, he proceeded forthwith to put his knowledge to work.

Being full of enthusiasm over the possibilities of improving his department in various ways, young Bell decided that caution was immediately and imperatively necessary. A decision like this, made before starting to monkey with the business of the firm, would save many a bright, ambitious young fellow the loss of his job.

He never offered an open criticism, but he took home at night once or twice a week the carbon copies from the files of letters that were most vital to the success of the company, and analyzed these letters over night, returning them to the files before office hours the next morning. Soon he had a list of a

dozen habitual faults and mistakes in the substance, form, ethics, arrangement, psychology, technical nature or human appeal of the letters of the firm, and he set about to remedy these faults by way of exercise in self-training for a higher opening when it came. Furthermore, he answered the advertisements of a lot of competing concerns, using another address and the borrowed name of a friend, the purpose being to criticise their letters also and to compose ultimately the best of them all. Bell discovered that more than 80 per cent of all the communications of rival houses mailed to prospective customers were inferior to the kind he knew he could turn out if he had the chance; whereupon he was greatly encouraged to study the game harder and play it faster to a splendid finish. Looking over his job to find the best opportunities, he spied the one that looked most promising and secretly made ready to grasp it.

It happened that a very important sales letter was written each year at a certain time before the rush season to several thousand old and new customers—and the time for the mailing of this letter was only a few

weeks off. Bell had a clear idea of the wrong methods previously used in the composition of the letter and also of the right methods that should be used. For his own satisfaction he worked out an ideal letter, then filed it away in the hope that a sudden turn of fortune would provide the chance to use it. The very day before this letter was to be dictated, the man who was supposed to do the dictating was called out of town unexpectedly, and as the only person to see him leave the office was young Bell, all matters for immediate attention would naturally be left in Bell's hands. But the chief had forgotten the big letter for tomorrow!

A sudden thought flashed across the boy's mind, then was overtaken by a daring resolve. He took the letter he had written himself, verified it with a big O. K. at the bottom over his initials, and started the regular machinery to run the letter through and send it out broadcast—the official document of the firm! He knew that if the letter failed, his professional career was done for. Happily his chief was to be gone a couple of weeks, and if the letter won out there was a chance that the profit to the company might

argue in favor of letting Bell keep his job. So he plugged along, trying to look as unconcerned as possible.

The blow fell at the worst time. Bell was in the large milling room where dozens of clerks were assembled when a boy brought the message: "The president wishes to see you."

The president was a gruff old codger. He held up the letter, already too familiar to Bell, and snapped, "Did you write that?" Bell merely nodded—his voice had suddenly fled. "Well, you're fired!" the president said. "This company has been founded for two generations, and we never before had to deal with such a gross violation of discipline. I wish you to explain the matter fully to the board of directors now meeting in the room adjoining." The president rose. A flood of new courage surged over Bell—here was a chance for the real man in him to explain a man's deed to a roomful of real men waiting to hear all about it. Once more Bell saw his chance and seized it.

While he knew he had been technically wrong, he felt he had been morally right. So he told the directors the why and how of

everything. He took from his pocket a copy of the letter used the year before and a copy of the one he had composed. He had marked the dissimilar passages and points in the two letters a few days before, and was prepared to show why the letter he had written was scientifically correct while the other was not. He asked to be told what results his letter had brought and how they compared with the letter of the year before. He said he was more interested in proving a principle than in holding a job.

"Young man," said the president, "we wanted to see if your character as shown by this interview was as strong and clear as your mind as shown by that letter. Your letter has brought us \$18,000 worth of new business already and we estimate the final total will be over \$30,000. We had to discharge you to maintain proper discipline. But we offer you, starting next week, the position of correspondence manager of the company at a salary of \$100 a week. Also we desire you to coach the younger employees in the best ways to prepare themselves for promotion by effective spare time reading along modern lines."

Of course the name of the young man here mentioned is fictitious, but the main points are true, and they illustrate a mighty principle and procedure in business training that no man with belief in his own future can afford to neglect. The books on business correspondence that this young man bought and mastered did not cost him over \$30. The net profits to the company from a single letter produced by study of these books were in the neighborhood of \$3000. The young man's investment in a business library was repaid a hundred times over in the first year. Also he was jumped over the heads of scores of clerks who had been much longer with the company, and was given a salary over three times what he had drawn before.

While this example is unusual, both in speed and in extent of a young man's rise to the top of his profession because of mastering the right kind of books, every line of professional, commercial or industrial activity holds opportunities of a like nature to the man able to recognize and take advantage of them. And to supply the books necessary for this personal training, every concern large enough to employ a stenographer and

an office boy should create and conduct for itself a business library, following or adapting the methods now used by the largest railroads, banks, stores, offices, and factories.

The science of business now demands that every worker know his particular line as well as a college professor knows his. Lack of study is evidence of stagnation. Every man must grow to equal the size of his job, or every man's job must grow to equal the size of the man. Either development proceeds from the heart of the best vocational, industrial, commercial, technical, psychological and philosophical books, which ought to be in every business organization so recent, abundant, convenient, that every official or employee who wants to know specifically how to handle himself, his job and his future may have close at hand a modern book to help him solve each problem. The nearest public library is never near enough a business concern to make that concern rise above the others in character, prosperity and usefulness; it must have its own library for its own use.

The National City Bank of New York is one of the five largest banking institutions

of the United States, and was the prime organizer of the new international American banking corporation founded to promote the extension of American industry throughout the world. Whatever this bank does commands the attention of the great financiers. A huge working library is one of its main features. Classes are held for all grades of employees, from its office boys to its post-graduate college men. All the principles and methods of the banking business are taught by executives of the institution, and by trained professors from the best university faculties. The president of the institution, Frank A. Vanderlip, says that in addition to doing a full day's work at his bench or desk a young man should make another day out of his spare time and devote this day to learning all about his profession, so as to understand the meaning of everything he does, the approved process and the fundamental principle, and thus be equipped to rise to any height of opportunity that may appear. The phenomenal success of Mr. Vanderlip in promoting the huge War Savings Thrift campaign is but a reflection of the way he educated his own employees. And he himself is

certainly the greatest student of them all.

A big store also needs a big library, and a competent system of reading and studying for clerks and executives. The first "store university" based on the proper selection and use of books was founded by John Wanamaker and has graduated thousands of students. The founder states frankly that whatever success has been attained by the Wanamaker stores in service to the community has been due largely to the education of store employees. Hundreds of books are used regularly for this purpose. A preparatory institute of commerce and a university with postgraduate courses furnish, practically without cost to the student, both technical training for work and a general training for life, to all employees from the youngest to the oldest. They are taught not only how to judge and sell goods, but also how to please the customer at any cost; how to tell the exact truth about the store and the merchandise; how to be careful, thoughtful and courteous; how to dress neatly; how to avoid offense in word or manner; how to cultivate and radiate optimism; how to conserve health; how to save money; how to develop

personality; how to take a sensible vacation; how to enjoy play, music and literature; how to understand business aims and principles; how to render community service; how to improve home life.

A great factory also needs a great library. We note a few points of interest from a recent personal visit to the National Cash Register Company. Probably no manufacturing plant in the country has done more to utilize current publications for the benefit of employees and officials. The library occupies one of the largest, lightest and brightest rooms, near the main entrance of the administration building, so that employees may stop whenever they have a little time for reading or studying. The library contains several thousand books, magazines, digests and reviews, technical reports, industrial bulletins, classified lists and bibliographies, and other guides to effective reading by employees, with enough floor space to accommodate more than a hundred persons reading at the same time.

The library is open week days from 7.30 a. m. to 5.30 p. m. An expert librarian has charge of the books, and employs a number

of assistants to help her handle the volume of requests for information of all kinds. The arrival of new books is noted on a printed leaflet for general distribution every month; books mentioned on one of these lists showed that 124 new volumes were added to the library in a single month and embraced such a variety of topics as the following: advertising, auditing, cams, coal tar dyes, cooking, housekeeping, dies, drawing, electricity, electrotyping, emery industry, enameling, French, inspirational reading, lubrication, machinery, mathematics, metal coloring, millwrighting, Monroe Doctrine, miscellaneous, out-of-doors books, paint, patents, printing, retailing, safety shop management, steel, salesmanship, stenography, theatricals, welding.

The efficiency of this library is denoted by its popularity. The record of a recent year shows that 1116 employees and executives were members of the library; questions about study, reference, personal and industrial problems to the number of 2130 were asked and answered; the books circulated reached the number of 12,200; and the reading attendance for the year was 16,257. The

members of the library drew for home study an average of a book a month. How many of your employees or associates read a book a month right along, on expert advice, for their own professional and personal advancement? The National Cash Register Company is the dominant organization in its own field throughout the world. If the president, John H. Patterson, regards a modern library system fundamental—as he does—to the highest mentality, productivity and general welfare of his employees, would it not pay you to see just how a library can be made to serve the interests of your business organization?

What now are the first moves to make in building an office library? We will map out a general construction program whose specific details must of course be handled by local officials, and may be modified or developed to suit individual circumstances or preferences.

1. Before you make any move at all, get your people interested. Make them want a library. Show them what it will do. Start with the high officials, but do not stop there. Go slowly and carefully; produce an array of facts, to convince mind, heart and pocket-

book of all the members of your organization that they need a library. Use one or more of the following methods.

Read this chapter first to a small group of high officials, then perhaps to the library committee noted in paragraph 2 below. Have a questionnaire printed, typewritten or duplicated for distribution among all your officials, the purpose of the questionnaire being to find what book or books each of your head men has found most valuable in shaping his career, helping him over hard places, teaching him greater proficiency in his trade, business or profession, training him to think more clearly and rapidly, increasing his income, reducing the cost of working or living, or otherwise helping the man to get ahead in the world.

The questionnaire might also ask what method he followed in buying, selecting and using publications for his home library; what three books he would consider most valuable for the average employee of your concern to read and study; what business, trade or professional journal he considers the best in your line; what plans, methods or ideas taken from current books and mag-

azines have been financially profitable in his department; and what kind of home study he regards the best to prepare any worker for the job higher up. A questionnaire along this line should prove exceedingly valuable.

A lecture, blackboard talk, or question-box address by an experienced librarian, or by an official of a large company owning and conducting a library with marked results in the form of benefits to employer and employees, would be a most desirable educational feature by way of demonstrating what books can do for business efficiency. A wealth of facts and illustrations along this line should be available from publishers of business books, the editors of library journals and professional magazines, and the officials of the great national library organizations mentioned in paragraphs below. You need a lot of bedrock facts to show what a library has done for other concerns before you start an agitation to build one.

2. Make a library survey to include all departments and all employees. Only this can properly determine the number and variety of the publications you need. A blank form to serve as a model for this might be had

from one of the library associations mentioned below. Or you might create your own survey system analogous to the methods of community survey adopted by such national organizations as the Russell Sage Foundation or the Survey Associates. This matter and all matters pertaining to the library should be handled by a library committee composed of three to seven members or with a representative from each department, the majority of the committee being officials of the organization selected by officials, and the minority being employees selected by employees.

The survey should include among other points the following: number and classification of departments; number of employees in each; relative chance of promotion in each; comparative questions, problems and difficulties in each that might be solved by a good library service; number and classification of home libraries of employees; average amount of spare time that employees would devote to reading and studying if they had opportunity; kind and extent of reading done by employees for self-improvement; names or subjects of books the em-

ployees would like to have in the library; general education of employees as a whole; size, extent, quality and availability of the nearest public library; specific needs and uses for company library, determined by nature of work being done or by local conditions; views and experiences of employees and officials who have been connected with or have access to an office or institutional library maintained by some other organization.

3. Consult an experienced librarian. Do this before you buy a single book. To start a business library without consulting a librarian would be as foolish as to start a business building without consulting an architect. The matter of creating and conducting a library forms a science in itself. You should be able to procure valuable advice from the head of the nearest large library. Editors of library journals could offer excellent counsel; if your concern is large enough to afford the services of a trained organizer, you would do well to apply to the American Library Association for one of its graduate experts.

4. Your library should contain books ultimately that apply to every department of

your work and every official and employee of your company. You would be helped in making out your list by studying the classified bibliographies of libraries conducted by leading corporations and private institutions; a record of such bibliographies may doubtless be had from officials of the Special Libraries Association, or possibly from the director of a large public library located near you.

5. Get all the available free literature and free education on office tools, machines, furniture, equipment and supplies. Scores of manufacturers of articles to aid office work include in their descriptive literature valuable hints to office workers on handling their job. Some of these manufacturers employ experts to assist without charge both actual and potential customers. You should have all these sources of information classified in your library under topical headings. Most literature of this kind is mailed by the publishers without charge or at less than actual cost; and the small fee usually charged by a clearing house or consulting bureau specializing on efficiency data is considerably less than you would have to spend in making independent investigations for yourself. To

get this matter clearly before you, write for Check List on Office Efficiency mailed free by the Plan and Purchase Department of the Independent Efficiency Service, 119 West Fortieth Street, New York.

6. Find or train a good librarian. This matter is exceedingly important. You should employ a graduate librarian; or send a member of your concern best fitted for the post to a regular library school for a period of resident training; or have an expert organizer from a library school or association come to your establishment and personally supervise not only the education but also the selection of your librarian.

7. Make your reading room the most attractive place on the premises. You can afford to employ a first class decorator who is also a color expert and knows how to paint a room in soft, restful colors, cheerful and attractive in appearance. A few choice portraits or engravings or reproductions of famous paintings should be hung on the walls. To secure both physical relaxation and mental concentration, silence should be enjoined and maintained.

There should be ample light everywhere,

and the chairs at reading desks and tables should be so placed if possible that the eyes of readers are away from the windows and toward the bookshelves or the blank walls. But do not be discouraged if you cannot immediately observe all these points; you can if necessary build a library without any reading room in the beginning by limiting your distribution of books to a circulating plan, requiring only a few book-shelves in a secluded corner to start with.

8. Show employees how to use books to the best advantage. First is the avoiding of injury to books that results from marking or defacing them; from handling with soiled fingers; from neglecting to use book-marks and creasing pages instead, or leaving book wide open, face down; from tearing or cutting unevenly the pages of new books; and from opening new books the wrong way and thus weakening their binding or breaking their backs. However, the most important thing is to get employees to want to read and study books for themselves. To accomplish this the library directors of large corporations have adopted a variety of means and methods, a few of which we name briefly.

Suggestion box offers reward of \$1 and upward for any practical idea found in book or magazine of library. All publications in library placed on shelves by topical and numerical classification, so that any employee can find the book he wants for himself, take it to library desk and have record made without asking help from library officials. New books worthy of it given blackboard demonstration before gathering of employees. Book review department in house organ or special bulletin gives attractive mention of new publications just arrived. Pocket folders giving complete list of technical books in library furnished to employees of every department and carried or placed on file for reference. Opportunity given to employees who cannot visit the library personally to make selection of books and forward to library by special clerk detailed for that purpose, who delivers book to employee on return trip. Classes for employees based on textbooks or collateral reading from library. Special readings from new books given periodically by trained public speaker. Daily or weekly reading course mapped out for different classes of employees.

Every dollar and every hour you devote to building up an office library means a permanent investment that should bring the highest dividends of any outlay of time and money. The bulwarks of a business enterprise are the standard books embodied in the work of employees.

CHAPTER XI

THE BEST OFFICE I EVER SAW

HOW to become an optimist: Go to school to Big Business. Whoever has done this knows that industrial leadership rests on the purpose to make everything better and everybody greater. Which facts mean optimism applied and supplied.

When a good, but ignorant and therefore sour gentleman bemoans the graft, greed and materialism of the business world, I gently conduct the benighted brother to a spot whence he may view the workings of a great, modern office. He is strangely but fortunately smitten with silence, he departs refuted and crestfallen.

The best features of a dozen laudable institutions are combined in the modern office. It is a library, a training school, a health resort, a laboratory, a theater, a transit company, a battle field, a home, a factory, a service bureau, a religious order, and a municipal improvement society.

It is a library—the books on technical and personal efficiency that every worker needs are waiting for him and he is taught how to read and utilize them.

It is a training school—production is based primarily on education, and increase of knowledge is understood to provide increase of pay.

It is a health resort—the modern principles of diet, exercise, relaxation, sanitation, home hygiene, prevention of disease, are taught and practised.

It is a laboratory—newer and better ways of doing things are being invented continually, results are all put to a scientific test.

It is a theater—every member of the company knows exactly what he is to say and do on time, in conjunction with all the rest.

It is a transit company—the start and stop of motion is scheduled to the minute, and a time table is furnished to every employee.

It is a battlefield—the whole regiment of workers unite to win the daily war against waste, idleness, carelessness, fatigue, delay and discourtesy.

It is a home—everybody from the president to the scrub woman is made to feel like

a member of a big family, with real affection and esteem permeating the business relationship.

It is a factory—the current methods of shop management are applied or adapted, the standards of measuring factory costs and output are made the office guide.

It is a service bureau—all the employees work for each other as well as for themselves, and in their day's routine are impelled by a motive at least partially unselfish.

It is a religious order—the ideals and aspirations of every member of the force are thoughtfully considered, and the earnestness of purpose felt by a monk or a crusader is dominant through the day's work.

It is a municipal improvement society—the results of high grade work, thought and character in the office radiate to the homes of the workers, and the whole community is thereby uplifted.

The best office I ever saw proved the statements in the foregoing paragraphs by its own remarkable organization. Some of the points in which it was unique will be named below. This office employed over two hundred helpers and was the management center

of a corporation employing thousands of people and endowed with large capital. Some of the methods and plans may not exactly fit your office, but all are worth considering. The way a man *thinks*, for and about his business, finally makes the business—and the man!

The organization of this office was modeled after a big factory or department store. The following divisions were established and maintained: Planning and Producing, Advertising and Selling, Investigating and Buying, Inspecting and Storekeeping, Routing and Shipping, Managing and Financing, Billing and Filing, Accounting and Collecting, Typing and Mailing, Educating and Promoting. All duties and responsibilities of each department and each employee were differentiated, standardized, scheduled, posted. All matters were thus confined to the department where they belonged—there was no misunderstanding, no evasion of responsibility.

The new methods of scientific management were applied to the office, as they had previously been applied to shops and factories. Only in the past few years have the means of reducing costs, waste motion and

squandered time been available for use in office work. The first book that appeared on scientific management in the office was in the hands of department heads a week after its publication. That example of promptness was typical of the office regime.

Every complete operation was recorded on printed blanks, each department using a different color for quick identification; thus the progress of all business was traced, instantly and accurately, and everybody might know if anybody made a mistake or caused a delay. Each desk was confined to a single operation, and placed in the right order for papers or articles to be handed from and to the adjoining desks quickly and finally. The rule of the clean desk was applied to clerks as well as to officials—only documents and implements relating to one particular job were in view at any time. The psychological effect of absolute neatness on the employee more than compensated for the little extra time that neatness took.

Efficiency standards were created for implements and machines, as well as for employees. For example, in all departments where paper clips were used, this question

was asked: "What should a perfect paper clip do and be—and is the kind we now have the best possible?" The consensus of opinion over all departments was that the best clip should be neat, inexpensive, durable, reversible, pliable, free of projecting points, capable of holding many papers firmly, light in weight to insure minimum postage. It was found that prior to standarization no clip in the whole office met more than five of the eight points of merit. A similar condition was revealed in practically all the varieties of office equipment. Each department voted on the tools and appliances preferred, and each worker took a personal pride in using the implement he had thus chosen.

Every cost was pared down to the figure known to be minimum. Thus, a cost-finding expert, employed to analyze and improve methods, revealed the fact that certain letters cost from ten cents to twelve cents, whereas letters of their kind should have cost only six cents to seven cents. The source of this particular waste was complex, including failure to charge the right overhead to cost of letters, lack of instruction of certain stenographers in short-cut devices, absence

of speed-standards, temperamental unfitness of some of the typists for their work, needless time spent on letters by officials commanding high salary. When the costs in each department were known to a penny and brought down to the estimate and by the advice of experts, the profits almost doubled.

The time of the high-salaried man was saved in every possible way. The only letters dictated personally were those that could not be handled by a correspondence clerk with the help of recent books and courses on Business English together with the use of "form" paragraph books recently published for gaining time in dictation. The head typist under each important official was trained to correct letters for him and given power of attorney to sign routine letters. Automatic telephone call systems were provided to save hunting and waiting for members of desired conferences who might be anywhere in the building, but exactly where no one could otherwise tell. Not only were the highly paid officers kept on work that they alone could do, but every employee was taught to separate manual from mental work and delegate the former gradually to a ma-

chine or a lower-priced worker. This principle is now operative in most factories, but has yet to be introduced into the average office.

Every worker was given a serial number, and all important work was marked with a rubber stamp for check-up. The office manager said there was no more reason for labeling package goods with the number of the packer, which is done by all good factories, than for designating who did what in a big office; moreover, this saved time, as writing a number on reports and elsewhere took one-fourth as long as writing the average name.

Nothing was left to chance or guess work. The right way to do everything was proved, recorded and announced, in a manner similar to that now characteristic of the best factories. A bureau of standards was founded and maintained, with each department head a member and the whole bureau constituting the final authority on methods of work. A book of standards, containing specifications for the time and manner of every job, large and small, was open to all the workers, after each had been taught from the book his or her standard of performance. This book

made impossible disputes concerning methods, mistakes of individuals working haphazard, and loss from errors and delays when experienced operators were absent—the book of standards furnishing duplicate records and specifications which any worker could easily follow. Every process carried on by all departments was completely standardized, as all parts of a high grade machine are now standardized. For example, the manner of typing letters was determined by joint committee for the whole office. The spacing, punctuation, margin, greeting and signature, and other details, were made uniform, being based on the principles of economy and psychology now applied to letter writing. Advantages: No waste of time in directing stenographers how to write letters, no waste of money in excess postage, no mistakes or delays from errors of typists through incorrect or uncertain habits of typing.

A list of the important makes of furniture, tools and facilities relating to each department was kept on file in the department, with tests of new aids to efficiency being made frequently, and prizes offered to the indi-

vidual whose experiments or ideas produced more and better work. The list was modeled after that originated by the Plan and Purchase Department of the Independent Efficiency Service, and was supplemented by regular reading of the business and professional journals applying to the various departments. These publications were kept on file in the office library, where any employee could conveniently consult them.

Every office worker, excepting the company officials and department heads, was given a percentage on all savings to the company resulting from a plan or idea suggested by the employee. On this basis, a number of subordinate helpers had increased their income until it almost equaled that of their department heads. One of the young fellows with both mathematical and mechanical ability made his hobby that of collecting all valuable literature about office machines. When a certain type of calculating machine was put on the market he saw its possibilities and arranged for a trial in the office. Under the old calculating method, the average invoice, containing twelve or more items, took about six minutes to check, by men clerks

receiving about \$18 a week. By the machine method, the average time for checking was reduced to three and a half minutes, by girl operators at \$12 a week. In less than two years the entire cost of modern machine equipment, amounting to thousands of dollars, was paid from the savings—and all subsequent savings were clear profit. The young man who first suggested the calculating machine is now receiving what would be in itself a good living from his royalties on the suggestion.

But the smallest economies were equally encouraged. A stenographer who kept her eyes open saw that a number of departments mailed letters frequently that took either double or triple postage. She resolved to help cut down this waste. By corresponding with leading paper manufacturers she found that a certain lightweight paper could be well substituted for enclosure publications and also for letters of unusual length. The adoption of this paper cut the postage—and the young woman's idea has brought her more than enough to pay carfares regularly.

The comfort of employees was regarded as a commercial asset. Noise was reduced

to a minimum by the use of felt on walls and ceilings to deaden the sound of machines; typewriter appliances with similar purpose; segregation of all machines apart from the purely mental operations; rubber heels or synthetic soles and heels for shoes of employees; other new devices to save the ears and nerves. A special system of lighting was installed, whereby each desk had perfect illumination by day or night. It was found that a certain combination of the three principal lighting schemes (direct, indirect and semi-direct) would be best for this particular office; the system resulted in saving an hour a day for each employee, and promoted better health and feeling by removing the eye-strain that even slightly poor illumination must produce. The temperature was kept uniform, never going below 62 degrees in winter and rarely above 72 degrees in summer. The initial expense of the heating, ventilating and refrigerating plant was considerable; but scientific tests had shown that the best work was done with the temperature about 65 degrees and that a variation much below 62 degrees or above 72 degrees meant a loss of as much as twenty per cent

in quality and quantity of output; the prevention of this loss produced a saving in a few years equaling the price of the automatic temperature plant.

A regular system of health insurance was organized under a corps of hygienists, physicians and psychologists. Every new employee was given thorough physical examination during the preliminary try-out; and reëxamination of everybody in the office was provided without charge once or twice a year. General instructions were given for best daily plans of eating, exercising, bathing, sleeping and other health-producing habits. Special attention was focused on the efficiency lunch, as experiments showed that the amount and kind of food, the mode of preparation, the time and manner of eating at the noon hour, affected the output of the early afternoon as much as twenty-five per cent. The lunch hour was regular for each employee—one of the worst habits of many offices being to send the clerks to lunch anywhere from twelve to two o'clock, without regard to the efficiency depending on regularity of meals and consequent good digestion. The office health program of this

company cost several thousand dollars a year to maintain, but the saving was much greater than the cost. The average employee loses nine days a year from illness, and the slowing down of activity during several days before and after the illness would mean probably six days more during the year. The average time of employees was worth about \$3 a day; hence the annual loss to the company before the health system was organized came to about \$9000. Most of this loss was eliminated by the health promotion system.

Daily rest periods of ten minutes each were provided at 10:30 and 3:30—the best factory procedure follows this rule for the increase of efficiency, and the principle obtains equally in office work. The morning period was devoted to an inspiring talk, a thought-provoking plan suggested for improving the work, a report of special advancement or achievement, or some other kind of mental stimulus. The afternoon period was devoted to music or reading or rest or gymnastics.

The desks were all occupied, with work under way, on the stroke of the opening hour in the morning, and no one stopped work at

night a second before the clock struck five. In many offices the laxness prevailing here means a large annual waste seldom accounted for. It takes a minute or two after the opening time for the workers to lay aside wraps, arrange work, secure implements and be actually under way. Also at closing time a few moments are consumed without effect if employees allow themselves to *leave* the office on the stroke of the hour. Three minutes a day was the average time lost in this office. That meant a loss of nearly \$1200 a year to the company. When this matter was explained, the workers volunteered to come three minutes before the opening hour and stay three minutes after the closing hour, to be sure of preventing this loss.

The heads of most departments began work an hour earlier than their employees, and were free to quit work also an hour earlier. The daily schedule was based on the function of the brain rather than the revolution of the clock. It is a well known physiological fact that the brain is clearest, strongest and best early in the morning; furthermore, the silence and comparative solitude of the office before the arrival of

employees added to the effectiveness of mental operations. Not only was the law of concentration thus observed, but the men who did the thinking had the opportunity of spending an extra hour in the open air every afternoon—and mental workers need to absorb more of the great out-of-doors than physical or clerical workers do.

Every new or merely mechanical employee was given some kind of daily work in which he or she was able to excel supremely. The sense of pride and pleasure thus gratified slowly permeated the whole working day; and in order to sustain the interest during hours that might otherwise have been filled with drudgery, the period of exercising the special talents of employees was fixed, wherever possible, late in the afternoon. If a young fellow had a special knack with his pen, he was put to lettering show cards or designing plans for a half hour each day; if a typewriter girl enjoyed cookery, she was taught the science of nutrition and encouraged to help arrange menus for the noon efficiency lunch of the employees; if anybody showed special aptitude or inclination, this fact was grasped and

utilized. Better work resulted, because of a personal heart interest in the company.

The office library, containing all sorts of books on technical, personal and professional advancement, was open to all employees on Monday, Wednesday and Friday evenings, from seven to ten o'clock. A trained librarian was in charge to help the workers choose and use the best books in the best way. No employee was required to visit the library, but each was expected to read not less than one evening a week for his own betterment and that of his work. Brief examinations on the books read were given periodically to those who desired them, and the result of this examination had something to do with promotions of employees. Each department voted at certain times on the efficiency books desired by its members; these books were then ordered, from the regular library appropriation of the company.

The study of correspondence courses aiming at better workmanship or a higher position was encouraged by the offer of the company to pay half the tuition cost of any mail course bearing on his work that any employee might care to take.

A cardinal principle of the company was that every employee should be satisfied in case of misunderstanding or dispute. This good rule is now applied in most large factories and stores, but to the *customer* only, whereas it should apply just as much to the employee. This office had organized an adjustment committee whose business it was to satisfy complaints. The decision of no department head was final—every employee had the right to appeal. But the appeal must be made in writing and the truth of it shown by affidavit and seal of a notary. The worker who entered the complaint had to pay the fee of the notary; this was only twenty-five cents, but the cost was enough to insure the absence of needless complaints, and the rule to put the matter in writing made the dissatisfied person properly cautious in stating the facts of the case.

Both good work and fast work resulted from a system of rewards combining the bonus and the fine. Where the fine is largely employed without the bonus, discouragement results; where the bonus is employed without the fine, slipshod work results; the methods should always be operated as one.

This office made a comparative study of the special reward features adopted by many different corporations throughout the United States, and from this study prepared a reward scheme particularly suited to this office. The efficiency gain was remarkable. For example, in the addressing department 8500 names per day increased 3200 names per day after the bonus plan was in operation six weeks, the bonus being a dollar a month for each additional 100 names a day over 1000, and the fine being one cent for each mistake.

The committee on savings, formed of higher members of the firm who were financial experts, gave any employee, without charge, advice on the best ways to invest surplus earnings. Every employee was urged, though not required, to save at least a small portion of the weekly salary; and a fixed rule of the company was that before a worker was in line for promotion he had to have money in the bank or in approved securities.

Employees were chosen by science, not chance. Each prospective member of the force was given a series of tests for the general qualifications and characteristics of a good office worker, and another for the

special traits and talents needed in the work of his own department. The tests were combined from the different methods of employment experts, industrial psychologists, character analysts, business and efficiency engineers. Most concerns make one of two mistakes when hiring new helpers; that of neglecting all vocational guidance principles, or that of using only one of the various methods. No one method is complete or infallible. As much as forty per cent increase of efficiency was gained in certain cases by this office, through putting the worker just where he belonged, physically, mentally, temperamentally and spiritually.

About ninety per cent of all vacancies were filled by promotions, new men being employed in lower grades of work only. The cost of breaking in a new employee runs from \$40 to \$150. This needless charge was avoided through training every worker, in spare moments, to take some other worker's place, and to prepare scientifically for the place higher up. During slack season (which occurs in almost every office) the members of each department were taught how to become emergency helpers for other depart-

ments in the rush season. Thus the force was kept uniform, each worker had more pay in the rush season, and each was ready to take somebody's place when a vacancy occurred.

The educational committee was always on the lookout for new ways of rendering the work of each department more productive and scientific. Take filing, for example. A number of recent books describing the many filing systems, and the best use for each, were obtained as soon as published, and each clerk in the various filing departments was asked to read a little while each week, on the company's time, and to suggest ways of improvement. The most practical and economical suggestion was rewarded suitably. And so with other departments.

Vacations were scattered through the year. Psychologists know that extremely hot weather does not refresh a person on vacation as much as a milder season of the year. Furthermore, the effort to crowd all vacations into the summer produces overwork, irritation, confusion and fatigue. About one third of the employees had no choice as to vacation time. They were sent

off during the autumn, winter, or spring, with an extra day as a bonus.

Whenever an official or employee left the company he was asked to state in writing all his reasons for departure, with specific suggestions or criticisms regarding anybody or anything in the business. He was given a day, salary continuing, to prepare the statement. These records of approval or disapproval, which were franker than those which would have been made by men still on the payroll, were used as a means of detecting the blunders, weaknesses and faults in the work, plan or method.

The most vivid and unvarying policy regarding employees was to get and keep their *heart* interest, by fair dealing and real coöperation. A few means toward this end were: Limited shares of the company stock sold to employees after a year of service, on easy terms but with advantages equal to those given the large stockholders; modification of the pension system, guaranteeing an old age free from want if the employee had risen to the height of his possibilities; weeding out of inferior people, thus making the office force an industrial aristocracy, congenial,

mutually respectful and helpful; hygienic, economic and sympathetic aid in home life as it was needed; wise elevation of personality, shown by printing the name of each employee on his desk or cabinet in type like that on the glass doors of high officials, no man being a "headliner" because of drawing more pay; minority membership of employees on the advisory board of the company, these worker members being elected by the employees themselves, and urged to get up and speak in meeting as frankly and promptly as the president of the company; analysis of the greatest ambition and highest aspiration of employees, with expert counsel and systematic aid for the ultimate accomplishment of life's big purpose for even the humblest worker.

Would not some of these ideas, or better ones they might suggest, make *your* office a place for happier and finer work, a source of larger and easier revenue, a help to higher service and more satisfying progress?

SUPPLEMENTARY OFFICE TEST

FOR GAUGING THE PROBABLE EFFECTIVENESS OF THE MANUAL AND MENTAL OPERATIONS IN ANY OFFICE

Directions. First read the chapter "The Best Office I Ever Saw." Then grade your office by answering the following questions. Where answer is Yes, write numeral 4 in space opposite. Where answer is No, leave space blank. Where answer is partial affirmative, write numeral under 4 that seems to you fair. To determine your percentage (approximately) in office efficiency, add column of numerals.

1. Does everybody in your office like his work and the company he works for?.....
2. Are employees chosen, or transferred, by modern vocational guidance tests?.....
3. Do you embody features of the twelve institutions Mr. Purinton mentions in this chapter?
4. Have you applied to your office the principles of scientific management?.....
5. Is your organization modeled after that of a big factory or department store?.....
6. Are efficiency standards maintained for all implements, machines, methods, employees?
7. Has a financial expert reduced every cost to the standardized minimum?.....
8. Have personal time-saving methods been worked out for all high-salaried men?...
9. Are prizes given or percentages guaranteed, for improvement suggestions by employees?
10. Is every employee thinking for the business or profession, some time each week?....
11. Has every department head gone over the office check list of The Independent Efficiency Service?.....
12. Do you maintain a Bureau of Standards and teach employees from a book of standards?
13. Have you in operation a system of health counsel and instruction?.....
14. Has the lay-off due to illness been lowered to three days or less a year for each worker?

15. Do all employees know how to choose and eat an efficiency lunch?.....
 16. Does your office library contain at least 100 books on personal and technical efficiency?
 17. Are employees taught how to read and study for business advancement?.....
 18. Does everybody in the office regularly save at least 5 per cent of his salary?.....
 19. Have you created a pension plan, or method of stock-sharing for employees?.....
 20. Are 80 per cent of your force earning at least 10 per cent more this year than last?
 21. Do you fill vacancies by promotions, and train employees to be ready for the place higher up?.....
 22. Is it a rule of the office to satisfy the employee as thoroughly as the customer?..
 23. Does the office learn something from everybody who leaves, or is discharged?..
 24. Can you state two reasons why you personally are not doing better, greater, more profitable work?.....
 25. Have you found in this chapter or test at least four ideas that you can and will use?.....
-

Total equals your approximate grade in efficiency of modern office principle and method

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Chapter XII

THE JOB HIGHER UP

A MAN of forty-five, employed in a large business, was lately heard grumbling and complaining in a most distressing manner.

"What's the use of working for this company? I've been here twenty years, and I haven't had one real promotion. The only time they raised my pay was when I married and set up housekeeping—and they didn't seem to want to raise me even then.

"A dozen fellows have been boosted over my head. My department boss came here only five years ago, and was below me when he came. It's darned unpleasant to have to take orders from a man who was a clerk under you before he got a pull somewhere and landed a first-rate job. And yesterday he had his salary shoved up again.

"The high cost of living has pinched my family so that we can't get along decently on my wages. The wife is sickly and all worn

out; the children are ashamed to go to school with their old patched clothes; I never ask my friends home any more—the place is too shabby. And it's all the company's fault. Why don't they give a good man a square deal? If I knew where to get another job, I wouldn't be here another day. The whole scheme of employment in this country is rotten. I'm sick of it. The anarchists are the only people worth following."

Hearing such talk, I knew there must be somewhere a great misunderstanding—all enmity is merely ambiguity. So I began to investigate. Happening to know a leading official of the company, I went to him for the inside facts—having first gained his promise not to discharge the employee with anarchistic sentiments. "What's wrong with this man—or is the fault with the company, and the man right?" I asked.

The official went to a big filing cabinet, drew forth a card, read the contents, and then spoke. "We have here an efficiency record of all our employees, with scientific reasons why they should, or should not, be promoted. Let me give you some facts regarding the man who complained of the

company. He is not progressive—he hates new methods and objects to new ideas. He complains at overtime—he would rather leave a job in the middle than stay five minutes past closing hour. He has a mean disposition—other employees do not like him. He never offers to help a fellow workman out of a hard pinch. He does not care to read the new trade books and magazines in the company's library. He will not study in leisure time for self-advancement, though the company has offered to pay half the tuition cost of the best mail course in his line. He very freely criticises the men higher up—always in their absence, however; but as for *constructive* criticism and unselfish co-operation, he was never known to give it. He allows prejudice and personal interest to warp his judgment and throttle his ambition. He looks half-sick most of the time, evidently being too lazy or self-indulgent to master the laws of health. He stays away from the gatherings of employees, planned for their enjoyment and profit; he seems to have no real interest here excepting on pay-day."

"Then why do you keep him at all?" I in-

terrputed. "Well," the official replied, "he is a fairly good routine worker, and we happen to know that his wife is a remarkably fine woman, with a heartbreaking struggle to make ends meet. This company, like most of the big corporations, would rather be kind and fair to its employees than strictly just to itself. And this employee, like millions of other employees, would rather complain of his lot and pity himself like a spoiled child than work long enough, think hard enough, plan far enough, to earn a better place and bigger salary. We don't promote our men. They promote themselves. We merely help them up, when they want help—and pay them more when they earn more. The employees in a modern concern always do the promoting. The employer merely changes the figures on the price-tag."

So now, when I hear an alleged man grumbling at his "boss," at hard times, at unfair competition, I do not sympathize with him. I study him, as an archæological specimen of boneheaded folly and cave-man egotism.

From personal statements of leading Americans—the great industrial, financial

and professional figures of the country,—I have gathered a few recipes for self-promotion that our ambitious readers may use profitably.

First of all must be the realization that business promotion does not “happen.” The man who outruns you in the race for the top did a lot of hard training in secret. The world measures him at his goal—but Fate measured him through his grilling. To be envious or critical or sour when a fellow succeeds while you fail is merely to handicap yourself the more. The man who does not climb is a mental or moral cripple. He needs cure—not commiseration.

Perhaps you have wondered why promotion did not come as you expected; nearly every worker has to face disappointment of this kind repeatedly. Ask yourself this question: “*Why* have I not reached a place of influence and affluence twice as good as the one I hold?” Keep that *Why* eternally before you, till you know what is wrong with you. Then ask another question: “*How* can I redeem the faults and prevent the mistakes of the past—how can I do the kind of work that earns promotion, commands promo-

tion?" You may say there is no chance where you are—the town, or the concern, or the men in the concern, may be too small. Rubbish! Don't you know that the heads of some of the largest corporations in the world sprang from a community so petty and restricted that hardly anybody in the next county knew it existed? Not where you came from, but where you are going is your place of residence. A man with a cosmopolitan mind may live twenty miles from the nearest store—and be on his way to the top of a national enterprise. Your life plan creates your life position.

The first way to get ahead is to look behind. Something has kept you down. What? Something in your physical, mental or moral make-up has been a hurdle that you could not jump. It may be weakness, or surliness, or sickness, or laziness, or pride, or extravagance, or disloyalty, or unreliability, or stupidity, or a bad habit, or old-fogyism, or worry, or unhappy home life, or lack of vision to see and power to grasp opportunity. When a horse falls down in a race, the rider locates the trouble and takes precautions against the recurrence of it. When you fall

down, as every man does who keeps going, aren't you worth as much to yourself as a race-horse would be to a jockey? Each personal fault is a nail in your foot—don't blame the track, pull the nail.

Extend your analysis further. When a man you know takes a higher position, catalogue the reasons. Ask him, or his chief, why the promotion came. Also, conversely, when a man you know loses a job, or takes a lower one, or gets a cut in pay, or makes a business failure—find the cause. Prepare a complete list of these elements of promotion, and of retrogression, for your own guidance and frequent study.

Train yourself to see yourself through the eyes of your employer. Constantly remind yourself that in the business battle your personality is nothing, your effectuality is everything. Make your employer's interests your own, rather than expecting him to make yours his. He is looking for some one he can trust as well as he would trust himself. Your brain without your heart is merely a machine—and machines are never promoted. The paradox of personal advancement is that when you think first of yourself

you lose ground, but when you think first of your customer and employer you find a mysterious force pushing you on and up.

Invest a little money in your own future. Don't ask your employer to bear all the cost of your efficiency training. There seems to be a general impression among both mental and manual workers that there is a law forbidding an employee to spend his own money for the improvement of his own work. This, I assure you, is not the case. Why should your company pay the whole expense of modernizing you, when the lifelong advantage in skill and earning power will be yours? Apportion at least three per cent of your annual income to your professional education. Thus, if you happen to earn \$2000 a year, put \$20 a year into modern technical books, \$20 into trade magazines and associational bulletins, \$20 into personal efficiency, engineering or experimental equipment. The records of big men show that an employee has the best chance of promotion who does what he has to do with rare skill, speed, or economy. The richest young man in America, John D. Rockefeller, Jr., affirms that success lies in doing *common things uncommonly well*.

Devote one evening a week to studying the qualifications, duties and responsibilities of the place next above yours, in line with yours. Don't study the man who holds the job—study the job. You are not trying to supplant him—you are trying to be ready for promotion in case he should leave, or to earn a similar position elsewhere. But you may properly cultivate the good qualities of the man higher up. What has he that you have not? More specialized knowledge—more power of execution—more personal influence—more physical endurance—more self-control—more tenacity of purpose? You will find one thing universally true: The higher a man climbs, the more he shakes off personal weakness, folly and eccentricity. A higher job is always harder on a man's lower tendencies. You can't break a single rule of health, efficiency or morality—and be as fit as you were before. What are these rules? How closely do you observe them? How much keener is the man above you in this matter?

Note the special kind and amount of technical education you will need in the higher position—then obtain catalogues of the dif-

ferent correspondence schools, and enter the course you deem best. If you are a manual worker, you probably need a specialized course in a higher form of industrial operation; but if you are an executive, you probably need a general course in the fundamentals of business conduct. The one course, however, that you certainly need is the basic study of personal efficiency — the modern science of managing your work, your time, your thought, your self, your future.

Aim to spend from two to four evenings a week in home study and experiment. A plan worth trying is to make Monday and Tuesday evenings work evenings—Wednesday evening play time—Thursday and Friday evenings work periods—and Saturday evening the crowning pleasure season. Or, you could well devote Monday, Tuesday and Wednesday evenings to promotion training, then have the remaining nights free of work-thought. For several years, when I was doing work peculiarly hard and unpleasant, as efficiency training, the only chance for professional study and creative thought was between the hours of 9 p. m. and 1 a. m. Some of our plans that have since proved

most valuable were developed after midnight, when seclusion was perfect and mental focus powerful. We do not recommend the habit of midnight toil. But we are convinced that the young man who hopes to succeed must be *willing* to work all night—he is so aflame with the ardor of ambition. A healthy grown person under forty should work an average of sixty hours a week; if his hands are not occupied all this time, his brain should be. With your eight-hour day goes eight-hour pay, the small, common pay of the millions of small men, who stop working when the whistle blows, and stop thinking before they commence. About the only thing you need to fear in business is the fear of doing too much. Crowd your capacity, then watch it expand. Brain-cells, unlike body-cells, have to be stimulated. When you turn on the electric light, think of the man who harnessed electricity—he has worked more than twelve hours a day for the past thirty years. The greater the force you command, the longer you must be on the job.

Search out the business problems that confront your head men, resolve to find a solution for one or more of those yet unsolved.

They may concern buying, or manufacturing, or selling, or advertising, or accounting, or operating, or cost-cutting, or time-saving, or help-handling, or a dozen other departments. You have some great, natural gift or leaning—every man has, for a special branch of industrial experiment and progress. What are you doing with your talent? Using it for promoting yourself? Or letting it lie buried under the routine of your day's work? Or throwing it away in mental, emotional or physical dissipation? Learn what your special power is, then focus it on a special problem of your employer; devise a practical solution, put your plan up to him—and yourself on the waiting-list for promotion!

Resolve to become your own critic, supervisor and inspector, thus guaranteeing the excellence of your work and saving time and trouble for your employer. Half the worry of the man higher up is caused by mistakes of employees. A big salary is the pay for big responsibility. When you make yourself always and utterly responsible, you put yourself automatically into the high official class, and only time is needed for demonstration. J. Ogden Armour, who employs 40,000 men

and does a business of \$500,000,000 a year, says that promotion is bound to come to the man who sets a new pace wherever he is—always working a little harder, and thinking a little more quickly, than the fellow beside him. Guaranteed recipe for promotion: Do your own work both faster and better than it was ever done before.

Expel from your mind, however, the idiotic notion that when you raise the quality of your work you bestow a benefit on your employer or customer. You serve yourself most when you serve others best. The world's big men grew into leadership not by working for a wage but by striving for a purpose. No man is great until he can do his best without remembering the matter of reward. How to reach the top: Do your best because it is your best and nothing less will satisfy you.

Cultivate the spirit of coöperation. Also master the science of it. How quickly and gladly would you help a man over a hard place in some other department? How well do you know the relation of your department with every other? How fully have you learned the aims, principles, policies, meth-

ods and products of your company as a whole? Every phase of the business has a bearing on your work. If you look at nothing but your own little job, you are as poor a stick as a second baseman in a ball-game would be if he never watched the batter or first base! The fine plays in business result from the fine team work. The height of a sound building is according to the breadth of its base; and to build a high career you must have, in the first place, a broad business knowledge.

A few personal suggestions, from the lives of men of power. Make friends with people of superior attainment—knowledge, skill, reputation, character, influence; the more big men you can meet, the sooner you are likely to advance; probably forty per cent of the sudden promotions to high places are at the instigation of magnates watching a fine worker when he did not know they were doing it. Pay small attention to your “social set”—they can’t help you; they are likely to hinder you, and the less you dally with society the better chance you have to dominate the real world of real men. But don’t neglect your personal appearance; always look

your best; wear the styles that most become you; in choosing and caring for your business attire, be highly fastidious without being highly fashionable. Guard against flaws in your health equipment; a larger salary means more responsibility and more nervous strain; be prepared; avoid illness later by adopting now the most efficient habits of eating, sleeping, exercising, working, resting and playing. Find where you stand in personal efficiency—apply several of our tests published in "Efficient Living" and "The Triumph of the Man Who Acts." Carry a note-book with you always, and in spare time work out ideas for later development. Keep a filing system at home, with all the clippings you can gather, weekly or monthly, on personal and technical efficiency, from newspapers and magazines. Devote fifteen minutes a day, outside of business hours, to constructive thinking about your work, your field, your future.

Above all, don't envy the man who succeeds. Emulate him! Heed the words of Charles M. Schwab, who knows how to climb to the top, if any man does. Mr. Schwab says: "The high officials at the Bethlehem

Steel Works are not geniuses or prodigies—they have won out by using normal brains to think beyond their manifest daily duty; they all began at the bottom and worked their way up, simply by using head and hands a little more freely and effectively than the average man. Success is a compound of superloyal service and a specialized brain.”

Every good workman has two jobs—that of laborer for his employer, and that of promotion engineer for himself. How are you handling the second job?

SELF PROMOTION TEST

**BY WHICH ANY PROFESSIONAL OR INDUSTRIAL
WORKER, ON SALARY OR WAGES, MAY
ENGINEER AND EARN PROMOTION
FOR HIMSELF**

Directions. First read the chapter “The Job Higher Up.” Then grade yourself on the following questions. Where answer is Yes, write numeral 4 in space opposite. Where answer is No, leave space blank. Where answer is partial affirmative, write numeral under 4 that you consider fair. Obtain your approximate percentage by adding numerals. Questions will be gladly answered by officials of the American Efficiency Foundation, 21 East 40th Street, N. Y. City.

1. Do you believe that employees promote themselves?
2. Have you picked out the higher place you want—or one like it?.....
3. Are you regularly training yourself, in mind and body, for this position?.....
4. Would you rather do better work than receive higher pay?.....
5. Do you always blame yourself when failure

- and disappointment come?.....
6. Have you found at least four causes in yourself to explain why promotion is slow?.. ..
 7. Would you rather work ten minutes over the hour than one minute under?.....
 8. Do you spend at least 3 per cent of your salary for technical books, courses, journals, experiments?.....
 9. Have you investigated two or more correspondence schools in your line?.....
 10. Are you studying, or have you completed, a course in personal efficiency?.....
 11. Did you ever stay awake till 2 a. m.—working out a business problem?.....
 12. Do you average ten hours a day in professional activity, manual or mental?.....
 13. Are half your evenings devoted to preparation for business advancement?.....
 14. Is your greatest talent or power being used in your present position?.....
 15. Does your chief rely on your work without having to inspect it?.....
 16. Do your fellow workers all respect you, and like you?.....
 17. Are all your criticisms of the company or officials made to the men concerned?—not about them?.....
 18. Would you rather be “called down” justly than boosted up unjustly?.....
 19. Have you studied all the aims, policies, methods and products of your concern?.. ..
 20. Are half your friends men who know more and earn more than you do?.....
 21. Is your manner always kindly, your appearance always neat?.....
 22. Have you learned from authorities how to eat efficiently, and think efficiently?.....
 23. Do you keep silent regarding your ambition, preferring deeds to words?.....
 24. Could you invest \$1,000 cash or more in a new business opportunity?.....
 25. Do you keep your nerve, temper, health and optimism under all circumstances?... ..

Add column of numerals for your approximate grade in the new science of self promotion
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Chapter XIII.

A BUSY MAN'S READING

THERE is a powerful, subtle fascination about the words "the largest of its kind in the world." Whoever speaks thus of the sale of a product, the growth of an institution or the extent of a public service, engages our attention from the start. We feel that the largest of its kind is likely to be also the best. Admiring its greatness and respecting its goodness, we want to learn all about it. We learn most and best from the person or institution that commands our admiration and respect at the same time.

Everybody who can read the English language ought to be interested in the library that recently became the largest of its kind in the world. The International War Library of America was the greatest ever known to civilization. The honor of establishing and extending it belongs to the American Library Association in co-opera-

tion with the Library of Congress and the American people. It was the first and only library system of world-wide scope and influence. Created from a library war fund of \$1,700,000 and from gift books worth as much more, it had been organized to serve in various capacities five million actual or potential clients, from over two thousand branches, stations and departments located in all parts of the world where American soldiers were training, fighting or convalescing.

During the first year of operation it possessed more than 3,000,000 books and distributed more than 5,000,000 magazines. To get some idea of the gigantic proportions of this work, we have but to note that the average large city library contains only a few thousand periodicals and a few hundred thousand books, while the Library of Congress, heretofore the largest in the world, has only about two million volumes. The American International War Library thus exceeded by 50 per cent or more in less than a year the size of the largest library hitherto existing, which had taken a life-time to build up. Here is a shining example of a big thing done promptly and effectively.

But the mere size of the project is not the main feature. It never is. The underlying principles, motives and methods account for the size and should be studied accordingly. A great new need has been met in a great new way. The need itself is not new, but the recognition, classification and supply of the need is emphatically new and deserves more than a passing thought.

The relation of a man's reading to his life and work has always been a matter of neglect, or chance, or speculation, or argumentation. This was before the war. Now we know better. We know what kinds of books men like to read, and what kind they should read for the best physical, mental, social, moral and spiritual results. We know what kinds of books are useless for all practical purposes—and should never have been published. We know what kinds of books are most suitable for different kinds of men doing different kinds of work. We know how, when and where men should read for the highest benefit. We know how far the expert advice and help of a competent librarian is necessary. We know in what ways the library system and service should be im-

proved in American cities and towns for the men who are fighting by working at home. There are many other things we know about the importance and use of books in every-day life, that we have learned or may learn from the outcome of the work of the International War Library. Some far-sighted millionaire could render an immortal service to humanity by having the results of all this work compiled and studied, then adapted and distributed to all the public libraries of the United States.

Before the evolution of the war library, no way had been found to discover and record the literary habits and preferences of busy men. While every modern scientific librarian keeps a record of the number of books requested by patrons of the library, and of the classification of books by subjects and authors, no such record in peace times gave a clue to the number of *men* who visited the library in comparison with the number of women and children, or who read the books at home after they were drawn by women or children.

Moreover, a superstition has prevailed to the effect that a strong, live, energetic man

should rather avoid a public library as a gloomy, tiresome place foolishly yet solemnly frequented by book worms, callow youths, dried-up spinsters, worn-out grandfathers, and incurable cranks. Furthermore, the busy men of this country as a class never took time to investigate the contents of public libraries and learn for themselves what books and periodicals were there available to supply their professional and personal needs. A dark, impassable gulf yawned between the average busy man's life and the nearest public library.

The war has changed all this. We have got a new glimpse—a regular five reel motion picture—of the literary side of a busy man's nature. We have caught snapshots of hundreds of thousands of men reading as they never read before. We have learned from the direct statements of countless officers and privates that *books are as necessary to the highest war efficiency as are guns, helmets and gas masks*. From undeniable records and proofs we find that real men want real books for a dozen purposes—and all of them practical. The notion that a library is a predestined gathering place for

"highbrows" has now been forever exploded. The largest exclusive body of men readers the world ever saw—millions of the liveliest, strongest, busiest young Americans, just gave for our benefit a remarkable demonstration of a new power in literature to help a man's work, hasten his progress, mould his character, govern his life.

Do real men want real books? To supply the demand among soldiers, many of the war librarians had to work from 5.45 A. M. to 11.30 P. M., and even then could not begin to furnish books fast enough. The report from a certain camp shows an average attendance of a thousand a day and on one day there were fifty-three men sitting on the floor at one time. A record of another branch states that of all the men there in training, one out of every four reads and returns a book a week. Another branch indicates the popularity of the service by a concrete instance. Two friends were reading two books on a certain evening and expected to finish before lights were out; but each grew so interested that they finally exchanged books and couldn't stop reading long enough to go to bed; upon the turning

out of the lights in the barracks, the two men proceeded to the company bath-house where the lights burn all night, and each man finished the second book, though the readings took, respectively, till 11.30 P. M. and 1 A. M. There is in every man a latent hunger for plenty of the right kind of reading; but by the eternal paradox of things only our fighting men could and would prove this fact.

Now the trained American soldier is the finest type of average American to be found on earth today. What he does stands, what he says goes. How he uses a library should interest every man who respects the judgment or admires the action of a winning soldier. Why should the amount and variety of reading done by our boys in camp and field serve as a guide for the busy man at home? We mention a few reasons.

Because our fighting forces taken as a whole constitute the most representative body of real Americans that the world ever saw; ages run from twenty to sixty years; occupations cover the whole field of business, trades and the professions; classes and walks of life extend from the highest to the

lowest, from the richest to the poorest, from the wisest to the least educated. Furthermore, the system of choosing and using books in a war library carries out so fully the spirit of democracy and freedom that every man goes after the books he really wants, with none of the artificial restraint of the ordinary family and society.

Because American soldiers are the busiest men of our time; they put in a fourteen-hour day right along, and sometimes an eighteen or twenty-hour day; if any class of men have *no* leisure for literature these are the ones; but because they know they have to read in order to make good, they do read more than twice as much as any class of civilian workers in the United States.

Because the war library gives every man the opportunity of reading to his heart's content with no cost and with no inconvenience; the books are at hand, with few distractions to interrupt him; so the habit of reading becomes natural to him, perhaps for the first time in his life.

Because American soldiers have made the quickest and largest success in their vocational field of any equal body of men that

civilization has produced; all the factors in their education and environment that have helped to get results are worthy of close study; and by the testimony of the highest military authorities no other one agency has been of larger service to the soldier than the war library.

Because business today is a war, just as war today is a business; the leader, no matter who he is or what he does, has to be a fighter; and the same principles and methods that produce the best fighter in the trench or on the sea will produce the best fighter in the shop, factory, mine, mill, store, office, garden, schoolroom, or pulpit. The same literary needs are fundamental to the progress of the soldier and to that of the business or professional man, the only difference being that the wants of the soldier in this particular have been recognized and met, while those of the business or professional man have not. Our soldiers today will become our teachers tomorrow.

The first important lesson may be learned from a recent statement in the *War Library Bulletin* published by the American Library Association. We read as follows: "The

book selection has become increasingly a matter of supplying the definite needs as reported by requests from the camps themselves. The preliminary purchase of books covered the general field of knowledge, although emphasizing military and technical subjects. As time has gone on, the proportion of military and technical books has increased rapidly, and at present probably 80 per cent of the calls from the camp are for books specially needed for training for the front. In the selection of these books, many experts have been called upon." How many business or professional men that you know spend 80 per cent of all their time for reading in study of technical and vocational books designed to promote their personal and official advancement? What percentage of the daily or weekly time you allot for reading have you devoted to this purpose?

Why should a soldier training to fight for his country and humanity read more and study harder to prepare for his work than a private citizen training to fight for his concern, his family and himself in the business war that he has to face? Does it take war to sharpen a man's wit no less than his

sword? If the right selection and amount of spare-time reading hastens a man's performance and promotion, as thousands of soldiers have clearly proved, why does not every ambitious man utilize the same source of help which is as free to civilians in the public library as to soldiers in the war library? We consider 80 per cent vocational and technical books too high in proportion of reading matter for the busy man at home to encompass; probably 40 per cent would be nearer the right proportion; but every man should figure this out for himself till he knows how much he is reading, and how much he ought to read for self-advancement.

Another lesson relates to the value of good fiction as a mental tonic and sedative combined. Next to the demand for books that will teach them how to handle their job, the largest call for books on the part of soldiers comes for tales of adventure, mystery and romance. These help the boys to forget their job of fighting and by the power of imagination lose themselves in another world.

No man ever yet put all his mind into his work until he was able to put all his work out

of his mind. As the streets of a town, dusty and dirty from excessive heat and travel, are cleansed and refreshed by a stream of water from the town pumping station, so must the grooves of the brain when filled with the dust of care, worry and fatigue likewise be cleansed and refreshed by a stream of thought from the pure and deep reservoirs of imagination. A friend of one of the biggest railway magnates and empire builders in the history of America was traveling with him once on an ocean steamer, and unexpectedly came upon him while he was in the act of throwing overboard a huge package of strange-looking books. The face of the big man thereupon assumed the expression of a small boy neatly caught in the jam jar; but upon being pressed for an explanation of his act and expression, the big man mysteriously took the friend aside and whispered that the package of literature was composed of thrilling detective stories and Wild West Indian tales that he had been reading in order to relax his mind, but he wouldn't for the world confess the fact to his business friends and clients! Most big men, after a life-time of costly experiences, have learned the les-

son of reading yourself away from your job—our soldiers in less than a year have learned the same lesson to a degree of perfection most enjoyable and invaluable.

Another lesson points to the wisdom of having a clear purpose in reading and of choosing the literature that will give you certain definite results in your work, life and character. If a man were to spend half an hour a day walking around himself in a circle, what should we think of his amount of intelligence? Why should a man's mind travel more aimlessly than his body? Why should he read more stupidly and wastefully than he walks? Our soldiers when they read follow marching orders—they see what they want from a book, they go after it, and they get it. They read as they shoot, aiming at something and hitting the mark. Our soldiers do not read trash. They read books and periodicals that will give them physical knowledge, mental outlook, moral force and spiritual faith. When a man is training to meet death, literary tastes undergo transformation; he ceases to care for the latest news of the sporting circle or the social set or the political grab-bag or the local gossip

manufacturers; he has no time to waste on the petty, foul, superficial or trite in literature. But death is no more serious than life, and a man training to meet life should learn to read as wisely and effectively as a soldier. From the statements of military authorities and the records of camp and field librarians we have noted a few of the main reasons and purposes that American soldiers have in mind when they take up a certain book or periodical. They do not always analyze their own mental process, but the results of their instinctive choice of books reveal their subconscious choice, whether analyzed or not.

They read to prepare themselves for new tasks, opportunities and responsibilities.

They read to learn the trend of current events in their line of action the world over.

They read to be able to forecast probabilities and rise to the top in emergencies.

They read to broaden their minds and equip themselves with knowledge that was lacking in their early education.

They read to take their minds off the dangers and difficulties of their work.

They read to soften the pain of wounds and the memory of scars.

They read to conquer loneliness by the mental and moral companionship a good book affords.

They read to shorten the suspense of waiting for only God knows what to happen to them.

They read to overcome physical fatigue with mental refreshment.

They read to understand and remember more clearly what they are fighting for.

They read to think harder and thus to fight better.

They read to get in line for a commission and other chances for promotion.

They read to avoid wasting time and strength in dangerous or vicious amusements.

They read to improve themselves in matters of dress, morals and military conduct.

They read to learn the exact truth in case of argument.

They read to help solve personal and professional problems of all kinds.

They read to break up the depressing monotony of mechanical routine.

They read to develop the free imagination that must offset compulsory action.

They read to learn how to handle their minds and bodies more effectively.

They read to renew their courage, faith, optimism, endurance.

They read to grasp more firmly the basic truths of life and to ground themselves in principles on which they stand immovable.

As a good soldier on the front battle line of your business or profession, how many of such purposes as the foregoing do you carry out in your daily reading? Every modern fighter must be reinforced by the faith, knowledge, courage, poise, relaxation and refreshment that a good book supplies.

Comparing the literary methods, purposes and habits of the American soldier with the American civilian, we find that the latter is likely to fall into a number of mistakes. He reads without thinking. He reads without expert guidance. He reads without regard to the care of his eyes. He reads from idleness, or curiosity, or superficiality, or some other vain, empty motive. He reads at wrong times, in wrong places. He reads too many newspapers and not enough standard books. He reads fiction because it is new instead of because it is good. He reads trivial, sensa-

tional stuff merely because it is advertised shrewdly. He reads no books on health, diet, sanitation or psychology, fearing to look at the inside of himself. He reads no books of religion, poetry or mysticism, stupidly and rashly supposing that these books have no practical value. In short, the average American has *never learned how to read*. All he can do is to recognize the physical form of the letters and words; but these do not comprehend the science of reading any more than the tables of arithmetic comprehend the science of banking. Whoever knows fully how to read must have learned twice—first as a child, second as a man. The complete science of reading has yet to be taught, and first to be evolved.

We here present a few of the foundation principles and rules of a modern science of reading, with regard most to the needs, desires and limitations of the busy man. For this purpose we have obtained and co-ordinated the suggestions of teachers, authors, publishers, librarians, physicians, oculists, welfare workers, business counselors, and efficiency engineers. No science is complete without modification and supervision by the

leading authorities in other branches of related studies; the art of learning to read must be acquired through a system of instruction finely blended from different sources.

The first group of suggestions relates to the care of the eyes. We misuse our eyesight probably more than the people of any other nation. We are becoming a race of spectacle-wearers, but no kind of spectacles yet produced will cure the mental and moral blindness that usually precedes physical blindness. The spiritual vision is generally clouded before the eyesight fails. What are some of the causes of the American defect of prematurely bad eye-sight? A multiplicity and superfluity of reading matter, with small type, cheap paper, and a mental and moral value just as small and cheap; a habit of seeking the bright lights during most of our spare time; a feverish desire to be forever seeing something new; a neglect of the open spaces and the starlight skies; a chronic spiritual nearsightedness.

Watch a street-car full of men reading madly on their way to work all the latest trifles in the morning newspaper and you see

them ruining not only their eyes but their mental vision, spiritual perception, moral focus, vital energy. But we are not preaching a sermon, we are teaching a lesson. We give accordingly the scientific directions for the proper care of the eyes during reading and at other times.

Be sure that the light for your regular work or occasional reading falls over the left shoulder from a window or lamp not more than a few feet away, and that no bright light either natural or artificial is directly in front of you anywhere in the room. Avoid tight or high collars, which impede the circulation in the head and are likely to cause eye trouble. Hold your work or reading matter always at a proper distance from the eyes; do not get so interested in a book or magazine that you draw it within a few inches of your face and so run the risk of nearsightedness. Have regard to your posture; do not read when lying down or traveling in a conveyance of any kind, as the attempt to read from a wrong angle of vision tends to produce eye strain, headache and probably serious disorders. Never read in places that are poorly lighted, such as train

stations, ferry boats, hallways and other public rooms. If you do much close work, form the habit of using a light-weight eye-shade, that you can get for as little as twenty-five cents from a good stationery or department store. Do not use your eyes for continuous reading, work or study longer than a half-hour at a time; rest them by changing work for a little while, or by getting up and moving around the room, or at least by looking out through the window onto a broader physical and mental horizon for a few moments. If your eyes are ever weak, hot, painful or otherwise uncomfortable, take this warning and immediately consult a good oculist. Do not buy glasses from an ordinary optical store without an individual prescription by a first-class oculist, whose fee though it may look large will be a saving in the end. Do not even wear colored glasses as a protection from light unless your oculist orders them for you. Do not consult the proprietor of an "optical parlor" or any eye specialist who advertises in the newspapers. Do not use eye remedies or tonics of any kind merely on the recommendation of a druggist. Remember that the

best tonics for the eyes are cool air, cool water and a cool head. If you are doing clerical or literary work, or if you are past thirty-five years of age, have an examination by your oculist once a year and thus prevent the gradual development of eye troubles and weaknesses, that may be prevented more easily than cured. Form the habit of closing and resting the eyes when waiting for an appointment, or riding on a street-car, or sitting in a room with many brilliant, glaring, unshaded lights. Read less; have somebody whose eyes are younger read to you. If you have any doubt as to the proper lighting arrangements and effects of your home or place of business, consult a modern book on the science of interior lighting.

Perhaps the first sign of intelligent, fruitful and enjoyable reading is to know what publications are of interest and value to the busy man, where to find them and how to use them. Have you any idea where to look for the publications to help you most in your work, life and education for promotion? There are about 10,000 books and 8,000 periodicals published in the United States every year. Probably 10 per cent of the books and

5 per cent of the periodicals would be found to contain the sort of information, suggestion and co-operation you need and are looking for—the only trouble is you don't know where to look. The solution of this problem is to be had in one or more of the current guides to the new books and regular magazines, which are classified and arranged by topical index for quick and reliable use.

Every busy man should read, or have one of his helpers read for him, one of these modern guides to the selection of current publications. Among them are a book index and a book review digest; a newspaper annual and directory; a list of libraries in the United States; a library journal; a guide to the current periodicals and serials of the United States and Canada; a catalogue of copyright entries furnishing complete lists of all books and periodicals copyrighted in the United States. Those of our readers who wish to keep in touch with the newest and best literature for personal and professional use may obtain further particulars with addresses of publishers of these guides to modern literature, on application to the Efficiency Publishing Company, 21 East For-

tieth Street, New York City. No fee is charged our readers for this service arranged specially by the writer for their benefit, the only condition being the enclosure of a return envelope, stamped and self-addressed.

A word of caution is next in order. Do not buy books or subscribe for magazines just because they are listed in one of the guides mentioned above or because you happen to like the sound of the title. Obtain first from the publishers of any book a prospectus or leaflet with table of contents and description, the same usually being sent free; write first to the publishers of any periodical for a sample copy, enclosing fifteen or twenty cents if it is a monthly and twenty-five or thirty cents if it is a quarterly. A member of your family or business force should be delegated to have this matter in charge, obtaining all preliminary information without bothering you, merely consulting you on the final decision.

A special book and magazine fund should be set aside yearly by every commercial, industrial and professional organization. This amount should range from \$50 to several

hundred dollars a year, depending on the size and nature of the business. It should be apportioned as regularly as the budget for rent, advertising, wages or any other fixed charge, and it should be spent carefully under the direction of a library committee with expert guidance back of the committee. The reading fund appropriation for a small concern should be divided about equally between efficiency magazines, both technical and general, and the standard efficiency books, both technical and general. The appropriation for a large concern should be spent mostly on books, not more than a third to a fifth going for periodicals.

The extent of the business literature now available is known to but few business men. For example, thirty-three magazines in the United States are devoted to general business efficiency, while nearly every trade, science and profession has from one to ten good periodicals. Thus, for example, a modern office which has been properly organized to include six to twenty departments should have on file several business journals of a broad general character, and one technical periodical for each of the sev-

eral departments. A business leader, whether man or institution, can no more expect to keep ahead without reading current business literature than a traveler in a strange land would expect to keep ahead without reading the sign-posts. The business men who are lost were blind first.

A regular appropriation should be made also from your personal income to provide books and magazines for your home library, which should include not only publications for your advancement in business and your conduct of everyday life, but also books and periodicals to cover different aspects of the home and to help your women folks and your boys and girls in various directions. The appropriation for this should be from 2 to 5 per cent of your income. A man who does not spend at least 2 per cent of his salary for current literature might as well prepare to look like a back number himself. A recent canvass of a number of the largest corporations shows that a considerable percentage of both employees and officials are spending all the way from \$40 to \$125 a year in acquiring new knowledge, and that in many cases the investment has been repaid several

times over in the advances, promotions, increased salaries and other rewards that have come to these men with a practical understanding of the great business truth that the way to earn more is to learn more.

A rational distribution of the money and the time spent on reading is a vital point to consider. While it would be absurd to count the pennies and the minutes, a broad general classification of the different kinds of reading you do, with an approximate literary budget, should be thought out and established in mind. Figure the total amount of money and of leisure that you can devote by the day, week or month to the buying and perusing of literature, then fix a general table of percentages that you regard proper and be guided roughly by this table. How much of your reading is light and how much serious? How much is beneficial, how much neutral, how much harmful? What definite results do you expect and obtain from each of your different classes of reading? Do you know what the biggest men today in your line are reading, and whether your choice of literature equals or surpasses theirs in quality, variety and amount? Do you read hap-

hazard, or follow a system as regular as meal time?

Have you gone over this whole matter of the selection, purchase and use of modern books and magazines with an expert librarian, or an unprejudiced book seller or publisher, or an experienced editor? The average man is no more able to secure his own reading matter and organize his reading method safely and profitably without expert advice than he is able to cook his own food or prescribe his own medicine. Whoever doubts this merely confesses to ignorance of the workings of the human mind and the effects of reading and studying on the outcome of the brain. The biggest men freely acknowledge their financial, mental and moral debt to certain books and magazine articles—why should not every man get in touch with the same sources of power? What, when, where and how you read will probably do more to shape your future than any other one thing.

We suggest the following table of percentages for your reading of different kinds: 40 per cent work, business, vocation, occupation, personal efficiency, professional, in-

dustrial or commercial advancement; 20 per cent relaxation, which includes fiction, travel, sport, adventure, mystery, romance, detective and other short stories but not *business* articles or experiences in story form; 15 per cent general culture, which includes biography, history, science, ethics, education, health, finance, economics; 15 per cent current events and opinions and world progress; and the remaining 10 per cent higher life and development, which includes religion, philosophy, psychology, music, poetry, and mysticism. A table of this kind is approximate only; every man must make his own, but we suggest that a study of this one may prove helpful to you in the formation of your own literary budget of time and money.

It should be understood that the final 10 per cent classification, while the lowest numerically, stands for what is highest in actual importance; books and periodicals of this nature while bulking small for the busy man, should be regarded as vitally essential, occupying the same place in the economy of mind and spirit as the vitamins do in the economy of the body, furnishing material for growth and sustenance that no other element

can supply. The 20 per cent classification of the table is too large except for the man who is carrying out the 40 per cent classification; you have to be exceedingly busy and also brainy to justify putting half as much time and money into literature of relaxation as you do into literature of work.

Every man should regard this table in the light of his own personal conditions and peculiarities, such as those of age, work, health, vocation, temperament, leisure, home life, early education, future possibilities. We suggest that you will find this exercise both interesting and beneficial; count up for a day, a week or a month every dollar you spend in buying literature of all kinds and every hour you spend in reading; compare results by this table of percentages and figure just where you stand. It will be easy to estimate hours as well as dollars because the percentages of 40, 20, 15, 15, and 10 could be figured easily as fractions of the 60 minutes in the hour which would be the unit of time. You may discover that some of your percentages are way off, in which case you might wish to organize your reading on a better basis.

A few suggestions for literary economy,

and productivity. Make a sharp distinction between your personal and professional reading. Have your professional or technical journals mailed to your office address, not to your home; and read them in spare moments during the day or before or after business hours; not, however, early in the day if your duties are chiefly mental or managerial, as then you will need all your brain force applied to your work till late in the day. Have books for your personal advancement go to your home address, where they should be kept by themselves in your study or library, and used regularly perhaps one or two evenings in the week. Delegate some of your reading as you do some of your work; have an intelligent employee go over the technical journals and mark items or articles that he knows would interest you; have a member of your family do the same with general books and magazines, then mark certain points or pages for you to read personally. Bear in mind that one rests more while listening than while reading; cultivate the habit of listening to a good reader in your family circle, who can thus entertain the family to good advantage with almost no

cost. The art of reading aloud should be restored; it is a family boon.

Organize a clipping service and a filing system both at home and in your business, to preserve articles and ideas from current reading for later use. A magazine devoted to personal or technical efficiency should not be read without a filing receptacle and method competent to preserve extracts clipped from the first reading. It is well to know of the service rendered by the clipping bureaus and research agencies, and of the suggestions offered by the manufacturers of the principal filing systems and devices.

A few cautions may be worth considering. Don't buy books that have no permanent value, books that are only worth reading once if at all; read such books at a public library or rent them from a circulating library. Don't read from a petty, unworthy motive such as wanting to appear "well posted," or "cultured," or up on the latest novel, or able to converse intelligently; the unfortunate thing about airing your knowledge is that nobody ever does it except in a brain storm. Don't fill your mental machinery with dust and grime from an absorption

of the sensational stuff called "realism"; a realist is a pessimist who has gone blind looking for dirt; you shouldn't want to follow him any more than you would the garbage man. Don't waste time on the gaseous emanations called "best sellers"; give them time to cool off; a safe rule in buying or reading fiction is to wait a year after publication; by that time its character if it has any will have outlived its reputation. Don't read in bed; the strain is bad for your eyes and the habit is bad for your mind. Don't read on Sunday any kind of literature that you ordinarily read on week days. Don't read letters, newspapers, or anything else at the breakfast table; a man cannot feed his mind and his mouth at the same time and expect to escape physical or mental indigestion. Don't read in a crowd and look for much benefit; the finest ideas and purposes do not flourish in a crowd, they germinate and grow in silence and solitude.

Read the newspaper less and the weekly more. For a busy man about all the average newspaper contains of value is the assortment of head-lines, the editorial remarks, and the few special articles or clip-

pings that may bear directly on the man's work. The vital news of the day is nearly all presented by a first-class weekly, and the merely transient and trivial items are eliminated. Watch a crowd of business men riding to or from work and you sadly note that the majority are chronic sufferers from *newspapers*. A small dose of newspaper reading furnishes a valuable tonic, a large dose constitutes a dangerous stimulant likely to induce a mental fever. And the same is true of most of the popular magazines. What happens today is worth knowing just to the extent that what happens tomorrow is worth doing. Not the fact of the news of today really counts, but the effect of the news of today on the views of tomorrow.

A man's worst foes are the ones he never sees. Perhaps the deepest, because the subtlest, danger to a busy man before he starts to read is the fatal idea that whatever is not immediately "practical" is therefore impractical. One of our greatest steel makers, probably the greatest in the world, freely states that much of his phenomenal success was wrought from inspirational books. The head of the largest merchandising organiza-

tion in America says that in appraising the value of a modern factory or industry the plant, methods and tools are worth about 2 per cent, while the *man* is worth 98 per cent; and you create a man by first rousing and renewing the spirit in him, which was never yet done by a merely technical piece of literature. General Foch declares the Bible the best guide for a soldier, because it most sustains the faith and idealism of the soldier.

A man is not a man till he fights hardest for a principle; and to such a man the book means most which most supplies the combination of "tenacity and audacity" conceived by General Pétain to be the final factor in empowering the Allied troops and winning the war. How many books of this kind have you placed in your library, proved in your work, and established in your life?

CHAPTER XIV

SOMETHING TO SELL

EVERY grown, sane, healthy person has something to sell. A person who imagines he has no need of the science of salesmanship has one great vital lesson to learn.

Your market value is likely to be the measure of your character. Because, in establishing a high market price for your work, you are compelled to raise the standards of your personal life. Hence, we regard salesmanship as a moral force, primarily.

When a man is very young and romantic, he despises money. (I do not believe that a lady ever despises money, however young and romantic she may be; therefore I address myself in this chapter to gentlemen, and particularly to those who are gentlemen in preference to being men.)

Nobody is matured who has not made or done something valuable, then sold it profit-

ably. I do not like the "upper crust" of society because it is composed of underdone humanity. Culture without commerce is as raw as cake dough without a kitchen stove. And the person who despises commerce should be fed exclusively on raw cake until he views in its proper light the fundamentality of kitchen performance.

Everybody in this country ought to study salesmanship, and apply the knowledge to his or her own career. Many unsolved problems, many unsuspected needs, many unavailing heartaches, would be relieved by the power of self-salesmanship. I have read hundreds of letters containing queries or difficulties proposed for our solution wherein the supreme lack of the writer is shown to be ignorance of the science of selling—and ignorance of this ignorance!

Most good people are poor, not because they are good but because they are stupid. Professional men—doctors, teachers and preachers—make an average of less than \$20 a week; whereas, for equally good work in a business that employs the principles of modern salesmanship, they could earn \$40 to \$100 a week. The genius proverbially starves—

while the man who can sell the product of the genius piles up wealth to a sickening degree. It is not the salesman who needs salesmanship most—it is the uncommercialized man or woman who has never learned to apply market values and market methods to the finer output of an unselfish life.

We will mention a few cases, out of hundreds of similar ones from our personal correspondence, to show why everybody ought to learn how to sell what he or she has to sell, or should have to sell.

Here is the case of a young writer. She hopes for money and fame as a modern poet. She sends a sample of her wares, for inspection. What do we find, regarding her poem? It is really a sermon in disguise—good philosophy, wretched poetry. The rhyming is too obvious—the author merely hunted the alphabet for words that jingle nicely together, instead of hunting her own heart for images and ideas that harmonize with raptures of human feeling. Many of the words are not poetic—they belong in a scientific or theological treatise. And the verse's poor feet do not move as poetic feet should—some are afflicted with infantile paralysis,

others with St. Vitus' dance. Now the lady moans that magazine editors are unfeeling brutes, and the lot of a poet is martyrdom, alas! How, she begs, may she dispose of her melodies? First she will have to dispose of her mind, and get a new one; the sort of mind she has belongs in a kindergarten for defective children. Would this lady wrap a stale loaf of rye bread in pink ribbons and peppermint hearts—then ask a butcher to buy it for his customers? Why does she follow as crazy a procedure in putting her poem up for sale? If she would study the poetry market half as eagerly as she does her own childish temperament, and if she would work as long and hard at her job as a washer-woman does, she might compose verses good enough to sell.

Here is the case of a young fellow out of work. He has tramped the streets for days, begging strange employers to give him a job. All in vain. Why? Because it is a fine art to sell your services, and this man bungles the business. He looks very seedy and very scared. He whines. He shambles. He mumbles of "hard luck." He can't hold your eye. He can't talk speedily, clearly, to

the point. He fails to introduce himself properly. He asks for a job as a beggar asks for a crust. He is the embodiment of failure. And he foredooms himself to the disappointment that he rashly blames on the employers, who refuse him only as they would refuse a purchase of food in a battered, soiled container. A jobless man is always a poor salesman.

Here is the case of a college student forced by poverty to earn his way through school. He is bright, clean, healthy, strong, ambitious. The fact that he wants to work, and isn't afraid of soiling his hands or losing prestige, puts a premium right away on his character. One of him is worth a dozen of the morally sickly snobs who buy cigarettes and loud apparel on the foolish money of their dad. But the college officials don't know how to teach the art of personal productiveness. They beam benignantly on football games, fraternity "rushes," faculty receptions, and other infantile amusements; but when a real man wants to work instead of fooling, the professors cannot tell him how to market his spare time.

Here is the case of a retired minister. He

is too old to be a pastor—but just old enough to be a counselor. His brain is clearer, his knowledge riper, his faith stronger and his heart younger than when he stood, fifteen hours a day, on the firing-line of duty. But no church wants him; he lacks now the firm step and imposing presence of a popular preacher. He could not save money on his paltry salary. What can he do? His plight is that of the retired physician, teacher, or other professional man, whom physical age alone debars from usefulness. Why should not the experience of these men be worth money to the community? There are kinds of public service that men past seventy could render most efficiently. But the salesmanship is lacking. So the economic waste goes on, and the wise old men half starve.

Here is the case of a middle-aged wife, in the so-called leisure class. Her children are grown, her time is vacant, her heart is empty, her mind is void. She gropes blindly for an occupation. She joins many clubs, she goes in for New Thought or Cosmic Philosophy, she flutters from charity to charity, she takes up all the novel notions in her "set." But she is not satisfied. What this woman

needs is to make herself a producing member of society, to have a work all her own, put herself in it, grow as the work grows, find content in creativity—and the self-respect that comes only with selling for a good price a real masterpiece!

You have something to sell. What is it? Unless you are trained in the science of personal salesmanship, the chances are that the most valuable product of your life is not more than 60 per cent as good as it might be, and not more than 30 per cent as profitable. We insert here a definition. *Personal salesmanship is the art of making your finest product or service the best in its own field, then selling it regularly to the most possible customers for the largest reasonable price.* Everybody can make or do something that many people want made or done. Your first move, in arriving at your market value, is to find what that something is. There are two basic methods—objective and subjective.

1. *Objective.* What do people want most? Food, clothing, shelter, money, work, pleasure, travel, opportunity, education, position, and the public utilities (such as transportation, light, heat) incidental to the satisfac-

tion of these primary needs of humanity. How many young folks, choosing a career, stop to think of the size, profit and permanence of the market for their life work? Pardon a bit of autobiography. When I left college, there were a dozen things I wanted to be—a doctor, a teacher, a preacher, a musician, a poet, an artist, an editor, an advertising manager, a scientist, a manufacturer, a reformer, and a philanthropist. The vocational problem was rather complex. I didn't go off and ask my subliminal self, "What would you like to do, and what would be easiest, O Temperamental Aspect of Me?" No, decidedly not. I spoke thus with myself: "You poor, ignorant, lazy chump; your job right now is to puncture the inflated college notions you would fly to Elysium on, hit earth good and hard, festoon yourself with clean soil, and dig for about twenty years in the field where you can grow the *largest crop of service for humanity*." So I chose efficiency work—the one field of universal outlook and uplift. The demand is now many times greater than we can supply, with more than 500,000 people regular users of our productions. All because I have made life the an-

swer to the question: "What do people want most?"

2. *Subjective.* What can you do best? This problem is even more vital than the preceding query. Solve them both, blend the solutions, and you have a guaranteed recipe for success both financial and spiritual, on condition that you *add the science of salesmanship*.

I will now take a few letters from our correspondence files, and briefly answer them. Each inquirer begs to know just how to sell a personal product.

Here is a farmer, with crops to sell. He should consider the following aids: Bulletins and other agricultural publications of U. S. Department of Agriculture; subscription to three or more farm papers, with regular reading of advertising section as well as editorial; catalogues of leading manufacturers of farming tools and facilities; coöperation with state and county agricultural agents; consultation with reliable advertising agencies in cities nearby; close touch with developments of agricultural extension work of the State university; affiliation with boys' crop-raising clubs and girls' canning clubs;

investigation of new parcel post opportunities for selling farm produce by mail; study of current magazines for advertisements of farmers doing a mail business, and comparison of their literature; employment of regular advertising methods, such as newspapers, street-car cards, posters, hand-bills, mailing lists, attractive signs on the farm where every passer-by will surely notice them.

Here is a teacher with knowledge to sell. He wants a better position, but has no idea how to get it. He should try some of these plans: Public lectures by himself on popular phases of his work, under auspices of a civic or scientific organization; publicity campaign to increase enrolment in his classes; preparation of articles for educational journals; publication of a book or series of books to fill a general need in the classroom; attendance on meetings of educators prominent in State and nation, with a service rendered by him at each meeting; membership in foremost educational associations; original experiment, research or investigation, with results of acknowledged value to his pupils or fellow-teachers; comparison of

other school catalogues, with suggestions for improving the conduct of his own classes; modern helpfulness on social service lines, to make the school building a social center, and the neighbors all friends of the school; aid of advertising expert in writing letters, gaining interviews, and otherwise making connections looking to a higher position.

Here is a stenographer, with service to sell. She wants more pay, and swift promotion. Let her follow such lines of approach as these: Purchase of books on cutting stenographic costs, improving office management, writing business letters, advertising and selling products of the firm, developing a business woman; careful study of these books, and ways found to increase output, decrease outgo, lessen burdens of employer; subscription to a leading office magazine or trade journal, with regular study in spare time; enrolment with a correspondence school teaching personal efficiency or business administration; help of the American Efficiency Foundation and allied organizations, of 21 East 40th Street, New York City, for providing better office facilities.

These are but a few concrete hints for three classes of readers out of hundreds. But they illustrate a fundamental principle we may state thus: *Every good workman has to learn to be his own selling agent.* And the more conscientious or altruistic you are by nature, the more scientifically, resolutely and habitually you must focus thought and energy on the selling side. How? We offer a number of suggestions. They apply not only to business men, but also to bankers, doctors, teachers, preachers, writers, reformers, musicians, mechanics, lawyers, inventors, statesmen, housewives, factory girls and messenger boys.

First, analyze your product. See if it is *worth* selling. Apply all the known tests for similar work, and establish a guaranteed system for repeating such tests in advance of any output. You must build reputation on standardization. If you don't know how to standardize your product, secure outline of specifications from trade journals, technical books, engineers' reports, correspondence courses.

Learn every stage and process of manufacture. Be able to answer any question

about your merchandise, from the raw material to the wrapper. Get a good-natured friend to ask you all manner of questions—then go and find the answers. Be prepared to meet objections and refusals, particularly the “selling talk” of rival concerns, by a complete array of unanswerable facts. Don’t argue about your product. Show proven facts—or keep still.

Welcome hostile criticism; the worse it is, the better for you. Make every critic a business-builder for you, by having the reason for complaint swiftly changed to a reason for satisfaction, thereby rendering future complaints impossible. Never leave a customer dissatisfied—lose money on him first.

Believe utterly in the superiority of your product, in the ability and integrity of the producer, in the vitality and necessity of the service. Let your merchandise be only the object to hang human faith and friendliness upon. Eliminate the barter idea—substitute the benefit idea.

Study the needs, difficulties, problems, of your customer. Be able to offer a solution, or suggestion. Make it your business to promote his business. Organize a service de-

partment, to clinch every sale with permanent satisfaction. Remember that your best salesman is a customer who got more than he bargained for.

Realize that there is now a science of salesmanship, as complete, rigid and minute as the science of mathematics or chemistry. You wouldn't fool with chemicals without a knowledge of the science of handling chemicals; don't fool with sales unprepared—you will be inviting an explosion of friendship and finance. Read several books on the new salesmanship, and study by mail a modern course from a school of national importance; watch current bulletins from the leading salesmanship clubs, and take a professional journal: if you can't do these things personally, arrange for one or more of your associates to be thus informed.

Regard all competitors as teachers. There isn't one of them from whom you could not learn something. Each, in some way, probably excels you. Find how, then put a stop to your inferiority.

Compile a catalogue of great feats of salesmanship, from the lives of famous merchants, inventors, manufacturers, railway

pioneers, commercial chemists, bank founders, empire builders. Make a thorough study of these biographical proofs that you can sell *your* product in a big market for a big price.

Extend your market. Don't make or do something necessarily confined to a small group of customers. Plan to reach out for a world-trade. The conviction that hundreds of thousands of people need your work, and the intention to place it before them, will help mightily to keep your vision clear, your aim firm, your hand true, your heart brave.

Watch the trend of the times and modify your output accordingly. Twenty years ago, the motion picture business was no business at all, and the saloon business was a money-maker. Now, the movies are everywhere, and the saloons are next to nowhere. Twenty years from now, what will the demand for your work be? Plan your production with an eye to the future. Don't peddle candles in the age of electric light.

Learn advertising. You must tell the public what you are doing, tell it frankly and boldly, tell it kindly and thoughtfully, tell it clearly and convincingly, tell it earnestly and often. A good publicity man is your first

lieutenant for a winning sales campaign. At least on this one point Billy Sunday and Charlie Chaplin agree—and on this one point, both are right.

Line up all your forces on the selling side. Articulate the ideal and the commercial. Don't let your man with ideas and your man with dollars pull apart, as they generally do. Make your theoretical man see that he can't start his business building without funds; your material man that he can't complete his building without ideas and principles.

Take a trip to the headquarters of a big merchant, like Wanamaker of New York, Filene of Boston, Marshall Field of Chicago. Spend a week finding out why he succeeded. Prepare a list of at least forty reasons to explain his national reputation—and the contrasting failure of the average petty store-keeper. Then apply these lessons to your own work, your own future.

Make your whole proposition defend itself under a battery-fire of questions, before you let the public assail it. How many people want your product—would pay and can pay your price for it? How is the demand now being filled? Are you able to undersell com-

petition and yet earn a fair profit? Can the market be enlarged at slight cost? Have you had enough repeat orders to be sure of automatic selling after you gain your initial customers? Why and how is your product superior to all others? Can the supremacy be maintained by inherent features that rivals could not steal or copy? Is every patentable feature protected by law? Do you know the weakest department of your organization, and are you working most to build this up? Have you capital enough to swing you over the starvation period? If you had to raise capital suddenly, where and how would you get it? How far will cash sales be possible, how much loss from credit must be figured? Has each worker both heart and purse interest in making the enterprise successful? Are all the officials experts, each at the top of his field? Have you competent counselors, preferably as directors? Can you show many valuable endorsements from prominent individuals and institutions? Are you sure that there is no incurable weakness or defect, somewhere in your proposition? Would you give your life to make your work a tremendous power?

Salesmanship is not the transfer of a bill of goods. It is the right focus of a man's physical, mental and moral powers on the production and distribution of the best thing he can offer to the world. A good salesman has to be a good citizen—and a good citizen has to be a good salesman.

PERSONAL PRODUCTION TEST

BY WHICH ANY READER HAVING A PRODUCT OR A SERVICE TO SELL MAY INCREASE THE VALUE AND REWARD THROUGH BETTER SALESMANSHIP

Directions. First read Mr. Purinton's chapter "Something to Sell." Then grade yourself on these questions. Where answer is Yes, write 4 in space opposite. Where answer is No, leave space blank. Where answer is indeterminate, write numeral under 4 that you deem honest. If you have queries or problems, you are invited to consult Mr. Purinton by letter, American Efficiency Foundation, 21 East Fortieth Street, New York.

1. Do you regard salesmanship a science, a duty, a pleasure and a habit?.....
2. Have you judged your market value by a set of impartial, scientific standards?.....
3. Are you informed on the highest earnings in your business or profession?.....
4. Do you know why your income is less than it should be?.....
5. Have you set out to double your earnings in ten years?.....
6. Has Mr. Purinton's definition of "personal salesmanship" revealed a lack or defect in your method?.....
7. Does what you can do best coincide with what people want most?.....
8. Is your work organized to include an expert sales department?.....

9. Have you read at least four modern books on practical salesmanship?.....
10. Are you, or is your sales manager, a graduate of a good school of salesmanship?..
11. Have you analyzed your product or service by engineering test of standardization?..
12. Do you know every stage, part, function and possibility of what you are selling?..
13. Would you stake your personal reputation on your professional work?.....
14. Is it your business to promote the business of your customer?.....
15. Do you make every criticism or complaint a definite spur to progress?.....
16. Can you regard all competition as instruction, with yourself the student?.....
17. Did you ever compile a list of great feats of salesmanship?
18. Have you put down forty reasons why the big department stores are successful?....
19. Will what you are selling be needed more ten years from now than it is today?.....
20. Are you making a special study of how to extend your market?.....
21. Do you know that all costs of production and distribution are the minimum standard?
22. Have you asked yourself all the questions in next to last paragraph of this chapter?
23. Did you read the earlier chapter "The Efficient Salesman?".....
24. Have you harmonized the ideal and the commercial, in your thought, work and life?
25. Does every sale carry a service with it?....

Add column of numerals for your approximate grade in the science of personal productiveness

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CHAPTER XV

BUSINESS AND THE PROFESSIONS

EVERY business should be in motive a profession; and every profession should be in method a business. The national recognition and adoption of these twin-truths would give America twice her present power as a nation.

Every business should be in motive a profession. The lofty standards of honor, duty, science and service that the professional man follows by temperament and tradition should lead the way in all commercial enterprises.

But, equally, every profession should be in method a business. The union of system, specialization, profit and promotion that the great merchant or manufacturer daily and hourly embodies should serve as a standing lesson in all humanitarian work.

The business man must learn subjective ideals from the professional man. But, even more, the professional man must learn objective measures from the business man. As

a specialist in personal efficiency, I have learned twice as much from doctors, preachers and psychologists as I have from other efficiency engineers. But as a writer, I have learned ten times as much from business men as I have from other writers. The most valuable things any man knows were learned outside the beaten track of his trade. Whoever prides himself on merely knowing his job ought to ponder this statement.

During the past few years I have been consulted on efficiency problems by more than 3000 professional men—teachers, doctors, lawyers, ministers, writers, bankers, musicians, photographers, welfare workers and others. A broad survey of the professional field, based on a thorough study of individual problems, leads to general conclusions affecting the great body of professional men, and applying to them all, no matter what their particular work may be. Every teacher, doctor or preacher ought to be a good business man; if he is not, he cripples needlessly his powers, and cramps wrongfully his opportunities for genuine service on a practical, permanent basis. The object of this article is to emphasize the importance of

business knowledge for the *professional* class.

I do not know of a single profession that has been standardized, modernized, maximized, on the efficiency principle and procedure that have made American stores, factories and corporations the leaders of the world. If a man of science and a man of business get the same salary, year after year, the man of science should probably receive twenty to fifty per cent more than the man of business. He earns it. Why should the man who serves be the man who starves? Faulty method is to blame—with faulty custom and opinion back of it.

The professional man today is handicapped by incomplete business training; by devitalized food; by wrong conception of the meaning and use of money; by vocational uncertainty and unfitness; by waste of motion, time, energy; by neglect of commercial system; by ignorance of operating costs; by lack of suitable advertising; by tradition; by class prejudice; by the narrow mental horizon that marks industrial isolation; by absence of the incentive that rises in the friction of close competition; by unwillingness to learn from anybody outside the profession.

The time of a competent efficiency engineer is worth \$25 to \$100 a day. He is paid that by large corporations. But he could not earn \$25 a month if he looked to professional men as clients, with no other class of fees. Business men are glad to pay for expert criticism and vocational reform. Professional men are not. Here we have a condition that must be remedied not by efficiency experts, but by doctors, teachers and preachers with a broader, saner, clearer view of their own work and life. On this point let me quote a few examples of professional obtuseness and pigheadedness, revealed in the case records of certain efficiency counselors whom I know personally.

A remarkably fine teacher in a school that was running down had read efficiency books with a view to building up the school. He outlined a plan, which he submitted to a faculty meeting. Whereupon a great hubbub ensued. The "cultural" members of the faculty proclaimed efficiency petty and sordid; the "practical" members voted efficiency faddish and theoretical; none of the belligerents knew enough about efficiency to pass judgment on it, but all supposed that, being

college professors, they were qualified to pass judgment on anything. The one real teacher of them, glad to escape with his life and his job, took his plan away, and buried it on his darkest shelf, along with the dust of his other great ideas.

A national association of a certain school of physicians had a president who knew how much the doctors needed businesslike methods. At his own expense, he retained a business counselor, to serve the members of the association. The expert diagnosed conditions, and prescribed certain remedies — financial, mechanical, psychological. How did the president's noble effort result? There weren't enough doctors in the whole association who valued business methods to warrant having the prescription made up for these financial invalids. And the overwhelming objection was, that the efficiency engineer, not being a doctor, must be incapable of advising doctors on any subject whatsoever!

A church organization had trouble raising money, keeping up attendance, and getting the members to work. An efficiency man, besought by a prominent church official on a friendly basis, prepared a technical report

giving the right instructions, and charged nothing for it. The good people were listening somewhat favorably, when, alas, a doubtful brother mentioned mournfully that the business adviser was not a member of "our church," and was even suspected of being unorthodox, theologically. Immediately, everything was off! How could a man with a touch of heresy be a proper guide in efficiency?

A professional union of more than 10,000 photographers wanted an efficiency program, for reduction of costs, increase of business, improvement of the profession. A leading business analyst was consulted. He spent \$50 worth of time in going over the situation, believing the union was financially responsible; then he offered to construct a \$300 business plan for \$75, in view of a belated poverty plea by the union. This plan, if carried out, should have added \$100 a year or more to the income of each of the 10,000 photographers. But the union said they really couldn't afford to spend all of \$75 on efficiency; they hired a cheap near-expert for only \$25; and thus, in saving \$50, they lost a possible yearly gain of \$1,000,000.

These examples of childish professional folly are but a few that have come to my direct notice. Efficiency annals are full of them. We waste no time on protest or criticism. But we do wonder why the majority of professional men are dull-headed, slow-pursed and sour-hearted, when viewing their own best interests. Would it be unprofessional to be unprejudiced?

Last year a certain corporation put \$5,000,000 into the treasury by employing outsiders to tell the company how to run its own business! These outsiders were efficiency engineers. They knew little of the technical details of the industry, but were postgraduates in human nature, practical psychology, publicity, finance, economy, hygiene, employment and equipment. You won't begin to realize the possibilities in your trade or profession till you hire a general business expert to teach you the general business principles now applying equally to all trades and professions. All good work interleaves and overlaps with all other good work; and the *best* corporation president or the *best* master mechanic would be qualified to teach the *average* professional man a hun-

dred points in the man's own profession!

You want clients—the business man wants customers. Well, what's the difference? The appeal to human nature that fills the aisles of a department store would fill the pews of a church, the halls of a college, the alcoves of a library, the seats of an auditorium, or the beds of a sanitarium. Progress demands publicity. Every great leader is a great advertiser. And it takes a better knowledge of the laws of advertising to sell sermons or prescriptions than to sell shoes or pianos.

Your day is long and tiresome, you lack energy, you need more help, more freedom, more time for self-improvement. Why not utilize in your vacation the short cuts and easy ways of scientific management? Are you familiar with time and motion study, have you laid out your work on the quickest route, is your equipment and supply department mechanically perfect?

You find it hard to make collections, you often lose on bad debts. Business men formerly had the same trouble; they have developed means, however, to bring almost any bill-dodging creditor to book, and without

offending or alienating him. Why should the slow-pay and no-pay customers be forced to be honest with their butcher and clothier but allowed to put off indefinitely their minister and doctor? A professional man is a benefactor treated like a beggar when his bill arrives. He must learn financial methods from the business man. If as many as ten per cent of your creditors pay behind time or never, you should particularly study modern collection devices.

You are perhaps the occasional victim of brain fag, nerve exhaustion, irritability, poor sleep, low vitality, or other signs of approaching breakdown. Then your diet must be analyzed. The brain worker whose profession demands not only keen thought but nerve strain and moral responsibility cannot eat as the ordinary man does if he is going to reach the top and stay there. He must learn to reduce the heavy proteins and carbohydrates, but increase the pure albumins, phosphates and mineral salts; to regulate his meal hours according to his working day; to banish thoughts of work while he eats; to masticate and rest properly; to enjoy his food to the uttermost; to create and perpet-

uate real hunger by daily exercise; to solve, in short, the personal equation of the science of nutrition.

You may be handicapped by excess of competition. The average town or city of the United States has, by the reckoning of business ratio, from two to five times as many doctors, ministers, lawyers, bankers, other professional men, as the local population requires. The law of demand and supply that keeps a level-headed grocer, druggist or haberdasher from opening a store in the same block with another store of the same kind should warn the professional man to avoid the similar blunder of settling where, already, competition is too keen. Perhaps, now or later, you should move to another field; or should outrun competition by the modern help of commercial psychology and vocational efficiency, united. How, exactly, would you do either of these things most effectively?

You are probably suffering enormous waste of personal resources by overproduction and underdistribution. A business man who produced as much comparatively, and sold as little, as you do, would go bankrupt in

six months. The most valuable commercial substance is brain fiber. The great engineers, inventors, promoters, corporation presidents are paid \$50,000 or more a year for *thinking* so as to benefit large groups of people in a vital way. No matter how well or how much you think for a handful of clients, you are wasting nerve and brain force tremendously.

Your problem is how to command retainers from large institutions; or how to resell, over and over, the original product or service that you now sell but once. An example of huge professional waste occurs in the pulpit. A preacher who serves a church twenty years has composed 2000 sermons or more — and buried each in his “barrel,” upon delivering once. Why this utter loss? Two thousand pairs of high-grade shoes are worth at least \$10,000; if a clergyman should wear all these shoes only once and then discard them, what sort of names would he be called? Are his sermons of less value than his shoes?

You are subject, daily and hourly, to the annoyance and hindrance of poor help. Only the clerks and stenographers who have been trained to equal their maximum output, of quality or quantity, by *some large company*

even know what their maximum is. Four times out of five, the employee in a private office is a chronic slacker. Do you follow the methods of corporation heads in choosing, handling, equipping, educating, rewarding and promoting employees?

The whole situation boils down to this: whatever you do, or should do, in your profession that a good business man also does, he most likely does better; so you should find a way to learn from him. A profession that is not fundamentally a business merely hides in classic verbiage the road to failure. Thousands of young lawyers, doctors, writers, teachers and preachers half starve, while the young business men who were their college mates prosper and grow fat. Why? Because the first thing a young business man has to do is learn the rules of the *business* game.

Billy Sunday made a hundred thousand penitent New Yorkers "hit the trail" not because he was a good preacher — there are plenty of earnest preachers — but because he was a master of business psychology. Edison, Bell, Burbank, Schwab, Hammond, the Wright Brothers, the Mayo Brothers, are a

few examples out of hundreds where the height of professional skill, joined to the breadth of business knowledge and the depth of business detail, produced national figures of achievement, service and renown. There is no professional work that would not be improved or enlarged by some business addition or affiliation.

How can you put business efficiency in your profession? We may note seven steps to take, as follows.

1. Prepare a list of everything you do, or may have to do, in your daily work. Check each item that a subordinate could not handle, or learn to handle, thus relieving you of all responsibility save that of the highest professional skill. Have each employee prepare a similar list of his or her daily duties, with all those checked that might be performed by a less expensive worker. On some list, every operation should appear.

2. Subscribe for at least two of the best magazines on business method or general efficiency. (Obtain sample copies first, from your newsdealer or bookseller.)

3. Let every employee, work list in hand, go through each magazine as received, both

editorial and advertising sections, for plans, ideas, methods or devices aiming to increase output, decrease cost, or improve character of his or her special group of activities. Let the employee answer advertisements that appeal, but spend no money save postage without consulting you. Appoint a monthly or weekly conference, to look over the descriptive matter thus obtained, authorize expenditures, discuss reports from each department, receive suggestions, map out improvements, award merit marks, bonuses or prizes. If an employee wants a book or mail course that should result in mutual advantage, pay a third or a half the cost.

4. Make your special study that of delegating your work to employees. The average professional man could train subordinates to carry 30 or 40 per cent of his routine duties. He *must* do this, before he can reach a high place in his profession.

5. Compile a catalogue of equipment, noting each tool, implement, machine, material or supply that your work demands. Then write for the Check List of Office Equipment furnished by the American Efficiency Foundation, 21 East 40th Street, New York City.

See how you measure up, on each item. Investigate new possibilities, to aid economy, speed, accuracy, publicity, emulation, satisfaction.

6. Found a *business* library, and work it to the limit. You are proud of owning a professional library; but a professional library without a business library is like a letter without a stamp—it doesn't carry far, no matter how good it may be. You should know, or have an employee who knows, the business principles of production, distribution, conservation, organization, coöperation, promotion, publicity, advertising and selling, finance, correspondence, filing systems, office machines, employees' education, welfare work, health, sanitation, psychology, personal efficiency, home surroundings, optimism and incentive.

7. Join at least two of the great national efficiency organizations, to keep in touch with new developments. Among the best known are American Efficiency Foundation, 21 East 40th Street, New York City; the National Efficiency Society, New York; the United States Chamber of Commerce, Washington, D. C.; the Rotary Clubs (find local

branch in directory of large city nearest you); the National Association of Corporation Schools, Irving Place, New York; The National Civic Federation, Metropolitan Tower, New York.

You can be master of ideals only when you are master of details. The broader your business base, the higher may be your professional attainment. The finer your system, the fuller your service. You must save yourself that you may give more to the world. You must have money that you may be free of worry. You must learn to handle men that they may learn to help your work for humanity. You must gain leadership by letting go all that is less than leadership.

PROFESSIONAL MAN'S BUSINESS TEST

FOR STANDARDIZING HIS WORK, LOCATING POSSIBLE ERRORS, AND INDICATING PROPER BUSINESS METHOD AND EQUIPMENT

Directions. First read the chapter "Business and the Professions." Then answer the following questions. Where answer is Yes, write numeral 4 in space opposite. Where answer is No, leave space blank. Where answer is indeterminate, write numeral under 4 that seems honest. Add numerals for appropriate grade in correlation and application of business principles to your profession.

1. Do you believe that every profession should be in **method** a business?..... ..

2. Are you studying efficiency from an expert outside your profession?.....
3. Have you standardized every mechanical and clerical operation in your work?.....
4. Does innovation appeal to you more than tradition?
5. Did you read and apply to yourself the chapters on business and personal efficiency in this book?.....
6. Has your national professional organization retained a business or efficiency counsel?
7. Do your rivals or competitors imitate your way of doing things?.....
8. Are you advertising your services regularly, scientifically, modestly but effectively?... ..
9. Can you perform as much in eight hours as you formerly did in twelve?.....
10. Do at least eighty per cent of your debtors pay within thirty days?.....
11. Have you made a special study of modern business collection systems?.....
12. Are your eating habits regulated to suit your work, health, age, temperament?.... ..
13. Is your location sufficiently free of competition to afford real opportunity?.....
14. Have you escaped the chronic professional danger of overproduction and underdistribution?
15. Are all your main products utilized fully by some large re-sale plan?.....
16. If you doubled your fees, do you think you could keep 80 per cent of your clients or patrons?
17. Are your employees chosen, trained, managed, promoted, by modern scientific principles?
18. Do you know the approved maximum day's work for every employee?.....
19. Is each employee following some line of professional or industrial education?.....
20. Have you consulted the Independent Efficiency Service on your vital professional problems?
21. Do you subscribe for at least two general business or efficiency magazines?.....

22. Are you a member of a national professional association, and of a national efficiency organization?.....
23. Have you a business library, in regular use by all employees?.....
24. Do you expect to be, in ten years, financially independent?.....
25. Are you following a detailed plan to reach the very top of your profession?.....
-

Total gives your approximate efficiency grade in your profession.

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CHAPTER XVI.

KEEPING BRAIN WORKERS FIT

SUPPOSE you had to lose your hand or your head, which would you rather let go? "Foolish question!" you remark. Foolish? No—logical. Hundreds of thousands of hand workers in this country have been taught to save their hands, while millions of head workers have not been taught to save their heads. The assumption is that hands are more valuable than heads. Are they?

Put the matter another way. If a great insurance company would offer to insure the product of your hands, or the product of your head, would you rather have insurance on the output and reward of your manual effort guaranteed for a lifetime, or insurance on the output and reward of your mental effort guaranteed? Do you earn your income with your body—or with your brain?

Whatever part or function of you makes the income for yourself and your family,

should be insured against disease, disability, accident, impairment or death. A great pianist or violinist now insures his hand for a hundred thousand dollars or more. A great athlete or prize-fighter insures his foot for a similar amount. A great captain of industry, or banker, or lawyer, insures his brain for perhaps \$1,000,000, so that if anything happens to his brain—though he himself retains physical life, the amount of the insurance is paid to his family or his company.

Why should not this modern principle of income insurance be applied with equal justice and beneficence to the humblest worker whose brain power supplies him also with the necessities of life? Barring accidents, every one of us can by a few simple, easy, logical and inexpensive precautions guarantee that the product of our brain will be the most and best possible under the circumstances.

I have spent several years learning how to keep brain workers fit. I have doubled the daily output of my own brain, while increasing its earning capacity several hundred per cent. I have watched other brain workers rise from errand boys to millionaires—and

do it by the regular adoption of such principles of mental and physical hygiene as will be told in the following pages. Conversely, I have seen great minds go to smash because of the failure to conserve mental and physical energies.

A prolonged study of the average conditions, both outer and inner, of the factory workers, and of the office workers, of the United States reveals a surprising situation. The hand workers in the factories are protected, safeguarded, informed and inspired along the new lines of preventive hygiene and production conservation, while the brain workers in the offices are not. The factory employees are given, without charge or at actual cost, many kinds of practical aids to keep them physically and mentally fit. We mention a few: sanitary surroundings, appliances and equipment; guards and uniforms to prevent accidents from tools and machines; regular examinations by the company physicians; home consultations and visits by doctors and nurses; factory talks on hygiene by national experts; meals planned in relation to scientific food values; rest periods allowed after meals in the com-

pany dining room; drinking water guaranteed chemically pure; facilities and instructions provided for bathing, exercising and playing so as to increase vitality and promote longevity; musical, theatrical and literary entertainment furnished as a means to scientific relaxation; welfare work organized to aid the home life or satisfy the personal needs of the individual worker.

Now take the average office located near you and compare the situation. What do you find? Practically none of these helps to the factory worker has been supplied to the office worker. Is the man whose effort is mostly of the hand worth more than the man whose effort is mostly of the brain? Why qualify the former and disqualify the latter? We protest.

The reason for the better treatment of the factory worker is apparent. A man who has sense enough and character enough to build up a national enterprise that employs from 5000 to 50,000 operatives knows human nature well enough to appreciate the production value of the unseen forces in a man's life, that make him feel, hope, think, work, love and live in the right or the wrong way.

So the great factory head, regarding manhood his chief product, puts time, thought and money into making better and stronger men. He finds the investment exceedingly profitable. Whereas, the common variety of peanut-headed, pickle-hearted office manager knows little and cares less about the human side of production.

There is no real difference between a good brain worker and a good body worker. Every brain worker should exercise his body, and every body worker should exercise his brain. Physical or mental work, properly done, takes both mental and physical energy. But the typical brain worker is apt to neglect the laws of hygiene, is often stupid about caring for his body, is prone to be lazy, and is generally of a more delicate physique than the body worker; therefore we will emphasize here the rules of health, vigor, vitality and productivity that most apply to the brain worker.

The two main divisions of the topic are general sanitation and personal hygiene. General sanitation covers the items of drinking water, sanitary fixtures and conveniences, hygienic towels and soap, removal of

'dust and dirt, elimination of noise, comfort of working garments, prevention of disease.

Every human being should drink at least five glasses of water during regular business hours. Bad water is a prolific medium for carrying disease—a single glass of impure water may contain hundreds of deadly germs. Water that comes from any source but a pure mountain stream should be analyzed at the source, then treated to overcome excessive hardness, or mineral, chemical or vegetable impurity when such is found to exist. If the only available drinking water is hard, containing excess of lime and other minerals, it should be softened by chemical process before being distributed for use by employees.

Beware of the cheap household filters that are nothing more than a superficial straining apparatus. They are screwed on to the faucet, and merely collect the large, coarse particles of dirt in the water, leaving you to drink the dangerous elements, which are the small invisible germs. Beware also of any type of filter that has to be taken apart and cleaned or sterilized every few days. If such filters are neglected, or if the sterilizing job

is poorly done, they are worse than no filter at all, since the bacteria multiply faster when collected in the filtering compartment and make the water deadlier than before.

One type of inexpensive filter approved by sanitary engineers is the sand filter when operated by gravity or by pressure. The first type is placed at a higher elevation than the delivery point and allows the water to percolate through it by gravity; the second type is equipped with a special apparatus by which the water is forced through it under pressure. Either of these filters requires a coagulant for sterilizing purposes. The coagulant is usually a sulphate of iron or alumina, placed in the water before it reaches the filter. A layer of substance resembling jelly forms over the sand bed, foreign matters including bacteria are engaged by this means, and so the water leaves the filter in a comparatively pure state. When buying a filter you should always include the apparatus to supply coagulation, and make certain that enough coagulation is furnished regularly.

A guaranteed bottle spring water is ideal for regular use in the home or the office, but the different brands on the market vary so

widely that a comparison should be made before choosing a bottled water. A good water company gives on request a certified analysis of its product. Get a number of these analyses, then ask your physician or druggist to tell you which water is purest, softest and best judged wholly by the analysis. The water one drinks, being used most largely of any food element, should be selected with the utmost care.

Ice water should never be taken into the stomach. Pure ice, either natural or artificial, is almost impossible to obtain, therefore all ice should be kept out of drinking water. Furthermore, nothing should be swallowed whose temperature on entering the mouth is too cold or too hot to be comfortable when applied to the outer surface of the skin. A water cooler that packs the ice around or adjoining the water is the one safe kind to install.

Three solutions of the common drinking cup problem are available. You can give each employee a drinking receptacle of his own; you can supply individual paper cups which are used only once and thrown away; or you can have a sanitary fountain of the

bubbler type placed in your building as a part of your system of water circulation, being careful, however, that the bubbler is equipped with a guard for the mouth, consisting of a projection or attachment that keeps any mouth from touching and infecting the nozzle or vent of the fountain.

The sanitary appliances and conveniences that pertain to the building proper cannot be discussed here for lack of space. But they are vital factors in the efficiency of brain workers, no less than of body workers. Every office manager as well as every factory owner should consult an experienced sanitary engineer on the fundamental items of building equipment, such as lockers, wash rooms, rest rooms, emergency rooms, closets, facilities for the disposal of sewage and its chemical or bacterial treatment. The toilet arrangements of many an office that boasts a gilded front are merely a disease trap in disguise. The owners of hundreds of great factories have proved that modern sanitation is not only a sign of progress and decency but a paying proposition first and foremost, yielding ample returns in health, vitality, energy, ambition, contentment, cheerfulness,

thoughtfulness, care, zeal, endurance. All these traits and habits in employees are steady profit makers. Yet a large proportion of office managers and department heads, outside of those connected with large industrial enterprises, have ignored this fact persistently.

The community cake of soap is a relic of barbarism. All kinds of germs cling to it from the atmosphere and from the soiled, perhaps diseased, hands of other employees. A family tooth brush has not been fashionable for some time. A family cake of soap is almost as undesirable, and we trust may become almost as unfashionable. It will disappear in time, just as the common drinking cup has disappeared by legislation from public rooms and railway coaches in progressive States. The least cut or abrasion of the skin may serve as an entrance for a deadly microbe that loiters unsuspected on a dirty cake of soap. You can order individual cakes for each employee, as are furnished every guest by all good hotels; or you can equip your lavatory with a modern automatic dispenser of liquid soap, which is preferred by the majority of good chemists and physicians. Pure

liquid soap is economical; healthful, containing no free alkali; it works in hard water; lathers quickly and generously; cleans rapidly; tends to prevent chapping of the skin, is used to the last drop.

The office towel is a criminal deed. Whoever perpetrates it or shares in it should be arrested. Would you give up your individual handkerchief and be satisfied with a small section of a partnership handkerchief hung up near a common wash stand? There is no more reason for you to be satisfied with a section of a partnership towel. A public towel is never safe. It may carry germs of eczema, influenza, trachoma, blindness, catarrh, syphilis, tuberculosis; and you don't know the germs are there till you get the disease. Insist on having your own towel in your place of business. If you can't get the individual towel, carry an extra handkerchief with you and use that.

You have your choice of three types of individual towel as office equipment; the separate cloth towel, the attached cloth towel, and the personal paper towel. The separate cloth towel, scientifically made of absorbent crash, may be rented from a towel supply

company, the towels being collected, laundered and returned by the company. Two points should be guaranteed if the separate cloth towel is used: first, that every employee use none but his own towel, which he keeps in a cabinet or locker marked with his own name; second, that the towels be thoroughly boiled in laundering to insure complete sterilization.

The attached cloth towel is used by hundreds of hospitals, hotels, factories, banks, theaters, restaurants, department stores and office buildings. A wooden cabinet, resembling a wash stand with a very high back, holds the towels on a shelf at the top of the back. The towels are all made with eyelets near the edge. A metal rod runs through the eyelets, turns out and bends over to clear the shelf, and drops to a basket below which collects the soiled towels. After each towel is used, it slides down the rod automatically and leaves itself in the basket for the laundry man to take away. The rod by special device is locked firmly in place and the towels cannot be stolen or lost.

The personal paper towel is ideal for a public building, especially where strangers

have to be accommodated. When paper towels were first introduced they were liable to waste in being torn, or being pulled off several at a time, and were liable to infection where a diseased person touched a towel which was left on the roll unused, but the modern cabinet overcomes these two disadvantages.

How do you sweep your office floor? Does your method of sweeping collect and hold the dust—or merely drive it up into the air you breathe? And does it waste three times as much money as the sweeping utensils cost—by reason of the fact that they are old-fashioned, poorly made, inadequate for their purpose? A moistened brush or mop, or a suction cleaner, affords the proper method of sanitary sweeping. One of the newest appliances is a patent brush moist with oil, that catches not only the dirt on the floor, but also the dust in the air, which it holds, moistens, then pushes forward on the floor—instead of allowing it to escape into the air.

Even more modern than the dustless broom is the dustless floor—a floor that raises no dust for a broom to tackle. The material is a composition put on like plaster

over a base of wood, concrete, iron, steel, brick or tile. The floor when dry becomes a solid, smooth sheet and amounts to a seamless tile. The surface, being continuous, allows no cracks or joints where dust, dirt, grease or moisture may gather. The composition is fireproof and waterproof. It is warm, fibrous and resilient, affording special comfort to people whose work requires them to stand on their feet. Dust cannot rise, because it cannot form, as the composition is practically indestructible, and when laid properly will outwear the building of which it forms a part.

If you do much telephoning, a valuable instrument is the telephone accessory which enables you to hear as well as though you had a sound-proof booth built around your desk. This device is really an extension of the wire, formed by placing the receiver in an auditory disc provided with an extension line and double ear tubes similar to those used by the telephone operator. The sound is clarified by entering both ears at once; time is saved by cutting out the necessity for repeating messages; both of your hands are free while you telephone; a bad line full of

buzzings, hissings and sputterings or impaired by circuit disturbances or bad weather is immediately corrected; long distance calls are made as quick and painless as local calls; and the hearing process is guaranteed clear and distinct at all times.

Noise in a business office racks the nerves, confuses the brain, hinders the work, fatigues and frets the worker, induces errors and complaints. Recently a special form of acoustical treatment has been devised to meet any condition of noise found to exist in a large or small office, by placing on the walls a kind of absorbent material resembling felt, which stops the reverberation from typewriters, human voices, machinery, mechanical operations, and other sources of business noise.

The heads of large corporations who have had acoustical treatment applied to the walls of their buildings declare that their employees do more work because it is easier to do, and are less tired at the end of the day because relieved of the nerve strain of noise; that their typists take dictation more quickly and accurately; that the sense of greater comfort reacts favorably on the workers and

the work; that nearly twice as many phonograph operators and office typists can occupy the same room; that even the noises of wagons, automobiles and street cars outside are materially softened; that the effect on visitors, clients and customers of increased dignity, composure and character is not the least of the desirable results produced.

• The principles of personal hygiene are not so easily put into execution. They require examination, organization, reorganization of the individual. The average individual, blind from birth to his own highest welfare, does not want to be examined, organized, reorganized. The price of success, namely self knowledge and self rule, is more than he is willing to pay. Let him go. Offer to aid, instruct and empower him; then if he complains, objects or resists—drop him from your scheme of welfare work. He is a born failure and should be allowed to proceed with his destiny. Personal hygiene is a matter of personal life, and that belongs to the individual worker—not to his employer. Sanitation can be and should be enforced; hygiene cannot be and should not be enforced. We give below the main factors in personal hygiene

of special importance to men and women whose temperament or whose occupation goes to brain rather than brawn.

1. Regular physical examinations. Most of the common types of disease or disability may be recognized before they occur and prevented or minimized to a large extent, through personal examination, yearly or semi-yearly, by a good physician who is also an experienced hygienist and psychologist. If your concern is too small to employ a physician regularly, you can arrange for the examination of the individual worker by application to one of the national health societies furnishing local examinations as a part of its hygienic service. Health consists not in taking prescriptions but in taking precautions.

2. Scientific health instructions. The average person has never learned the fundamental principle of life—how to keep well and strong. You can largely avoid getting sick or feeling tired, depressed, weak or indisposed, by carrying out the simple, easy, rational, inexpensive and remunerative teachings of the modern health school of scientific physicians. Personal instructions

may be had from recent books and popular magazines; or from teachers of health by mail; or from a visiting nurse now available through almost any local health board; or from a national health organization supplying as one of the privileges of membership a series of personal bulletins on the preservation of health; or from one of the large life insurance companies now specializing in the modern science of preventing disease.

3. Food elements and habits for brain workers. The housewife with the husband or son brain worker laboriously figures how to give him the 2000 calories a day he ought to have, but she regards not the chemical nature of the calorie food. If she gives her brain worker a lot of starches, sugars and fats, she may give energy to his body but she will leave his brain powerless. The brain worker must have a higher percentage of protein foods than the body worker, but they must not be of red meat or pork or other indigestible substances; they must be largely milk, butter, eggs, fish, poultry, legumes, cheese, oats, and the more digestible nuts like the pignolia and the pecan. The brain worker must also have a higher percentage than the

body worker of foods containing vitamins, mineral salts, and the direct nerve and brain elements such as potash, phosphorus and iron. The brain worker should take his heavy meal at the close of the day and should live on two meals a day if possible.

4. Individualized muscular motion. A public gymnasium is no place for a man who thinks. Few men who really think are ever found there. But every man who exercises his mind must exercise his muscle for the sake of his health, just as every man who exercises his muscle must exercise his mind for the sake of his wealth. Among the best forms of exercise are golf, tennis, hand ball, swimming, rowing, skating, mountain climbing, wood sawing, garden digging, lawn mowing. And if your wife, being ever maidless and forlorn, should politely hint that a modicum of masculine force applied to a broom or scrubbing brush would promote the well-being of the family, you may take our word for it that broom gymnastics are exceedingly beneficial. Among the kinds of exercise *not* good for a brain worker are boxing, wrestling, tumbling, racing, violent ring or trapeze work.

5. Comfortable work clothes. Why should a factory operative dress in a loose, pliable, comfortable uniform—and an office executive dress in a merely stylish garb, stiff as a fashion plate and senseless as a tailor's dummy? Should a custom rule our body and brain when the custom lessens the power of both? One reason why the mental product of famous authors exceeds and excels the brain output of equally good business men is that the authors do much of their work in a dressing gown and slippers. Their blood is in their brain where it ought to be—not in their feet under tight shoes, or in their neck under a tight collar, or anywhere else in their anatomy under conditions that irritate and distress the mind. You never saw a high collar or a stiff hat on Theodore Roosevelt. The clothing of great financiers like Russell Sage or E. H. Harriman was never of the stylish fit that betokens a foolish character. Thomas A. Edison all his mature life has worn outer garments that looked too large for him but that felt just right. We urge every man always to look neat, well dressed, immaculate. But if you have to choose between style and comfort,

choose comfort. Don't let your clothes put a crimp in your brain by putting a cramp on your body. Great men do not bother with the small superficialities of the current style. And they secure physical ease for themselves as a part of their industrial equipment.

6. Genuine relaxation. The keen, persistent brain worker has to learn to be a vegetable. He must be able to forget that he has a brain or nervous system. He must leave his thoughts behind him in the office, just as the laborer leaves his work behind him in the factory. Now you might think it easy to stop thinking; but if you once really start, I assure you it is not. One of the acute problems of the ambitious brain worker is to make an end of thought while he eats, plays, exercises, sleeps, and is otherwise a normal human being. When your work demands extreme concentration, your whole current of thought must be changed outside of business hours. What will produce for you the quickest and most complete change of thought? Perhaps music, light fiction, or love stories, or detective tales; perhaps a merely physical job of manual work, like hoeing in the garden; perhaps playing with the

children, wandering about in strange places and entertaining new sights and sounds; perhaps walking far into the country by night, communing with the stars and letting the wind sweep away your trivial human cares. The higher you climb toward the pinnacle of leadership, the more firmly and regularly must you free yourself from all responsibility and for a little while make believe you are a boy again.

7. Mental and emotional conservation. A brain worker is hurt twice as much as a day laborer by the poisonous emotions of anger, fear, anxiety, worry, suspicion, suspense, discouragement, dissatisfaction. The mind of the average man is a chronic source of poison to his body. Ultimately this poison reaches the brain; so that, according to poetic justice, the mind that conceives bad thoughts will be destroyed by them. You can't think one sad or mad or bad thought which does not react unfavorably on your brain. The practitioners of psychotherapy claim that much of the ignorance, lethargy and stupidity of the majority of people can be traced to a diseased condition of those portions of the body which are half-physical, half-psy-

chic, such as the spleen, thyroid gland, pituitary body. You can't think straight with the corners of your mouth turned down.

8. Prevention and cure of nerve strain. Mental power is fundamentally nerve control. The nerves are to the brain what the muscles are to the body—you cannot exercise clear, vigorous thought unless you have clean, strong nerves. But the nerves are more than sinews for the brain—they are wires, inconceivably fine, delicate, subtle wires, that convey messages of warning and appeal from any diseased portion or disordered function of the body or mind. A few of the conditions that are merely reflected in bad, weak, trembling or complaining nerves are faulty posture, shallow breathing, lack of muscular exercise, over-eating, auto-intoxication, poorly ventilated sleeping or working rooms, weak or defective eyesight, faltering will or flickering purpose, chronic doubt or pessimism, lack of emotional balance, compromise with conscience, the hurry habit, selfishness or greed, the willingness to do slipshod work, lack of faith in God, your fellows and yourself.

9. Outdoor amusements and occupations.

The body worker regularly consumes from 30 to 60 per cent more oxygen than the brain worker. Muscular effort creates new blood automatically, while mental effort permits the blood to stagnate unless you voluntarily and systematically improve combustion by working, playing and living out of doors as much as possible. Besides, the nervous forces of the human organism are refreshed, invigorated and renewed by the restorative power of sunlight, free air in motion, the magnetic currents of the earth. Nerve and brain health is largely a matter of keeping away from houses. The brain worker who isn't out of doors at least an hour every day is merely taking money from his pay envelope. He doesn't know it, but only because he is mentally asleep—and is robbing himself while walking in his sleep.

10. Vocational guidance, outlook and incentive. A brain worker in the wrong job might as well be paralyzed. He won't and can't move ahead while monotony and mediocrity halt his mental machine. A big, stupid hulk of a man may drone like an ox all his life and be content as the ox; but a keen, sensitive man who holds the brain

worker's job has to be in line with opportunity or fall down and drop out. The right stimulus for a brain worker is a well directed imagination. You have to see a big chance ahead before you can do your best work here and now. The way to keep your brain on edge is to sharpen it on a whetstone of difficulty, then use it to carve out your dream. Without a high dream and a huge purpose, a man is not a man but a mollusc. Your brain is a miracle machine, but the marvelous things you can make it turn out will depend on your systematic, scientific resolve to do the biggest and best work you ever dreamed of doing.