

BENJAMIN FRANKLIN Born in Boston, January 17, 1706 Died in Philadelphia, April 17, 1700

Franklin's life, lived during the pioneer days, is ideally American. The seventeenth member of his family, he made his own way from the depths of poverty to the summit of success.

From printer's apprentice he steadily rose to a prominent position as journalist, scientist, author, philosopher and statesman.

To every American schoolboy Franklin's name suggests the following:

- The organization of the police, fire, paving and public library service of Philadelphia.
- 2. The founding of what is now the University of Pennsylvania.
- Poor Richard's Almanac, very extensively read for its literary merit.
- The Declaration of Independence, which Franklin helped to draw up, and signed.
- The friendship of France for the young American Republic, for which Franklin was largely responsible.
- The discovery of electricity. This alone would have made Franklin's name immortal. Discovered in America, electricity has found its greatest and most wonderful development in this country.

Tord Guide



Published by Ford Motor Company, Detroit, Mich., U. S. A

Volume One -- Number Three

- 2 FRONTISPIECE—"The Return to the Farm"
- 3 EDITORIAL

Thrift The Right of Way

5 HEALTH DEPARTMENT

Contagious Diseases

6 SAFETY FIRST DEPARTMENT

Motion Pictures in Safety Work
"Danger, Do Not Start" Signs
Traveling Cranes
Foundry Hazards
Twelve Hours—A Day's Work
The Care of Grinding Wheels
Safety Last
Unsafe Way to Carry Screw-Drivers
Miraculous Escape from Death
Has Your Idea Been Tried Out?
Chewing Tobacco and "Other Things"

16 BANKING

Do You Profit by Profits?

20 HOME AND LIBRARY DEPARTMENT

American Indian
English
Public Library
Art
Art That Everyone Should Know
Geography
Every-Day Science
Care of the Human Body
How We Live
American Government

31 LEGAL AID DEPARTMENT

Real Estate Insurance

34 SUGGESTION DEPARTMENT

Credit for Suggestions Honor Roll A Factory Suggestion



"THE RETURN TO THE FARM"—Troyon

A picture which will help make your home look beautiful. The cattle
and other animals coming back from the fields make us think of the
preparations which have to be made for the winter season

(See page 23)



EDITORIAL

Thrift

In these days of great national prosperity, when the wheels of industry are singing merrily all over the land. when labor is in constant demand and merchants are kept busy as bees in summer time; when the banks are almost bursting with their loads of money; when the farmers are happy, and new enterprises are springing into existence and there is work for everybody with good wages just as conditions are now in this glorious United States, the GUIDE appeals to its readers, the great industrial army of Ford to practise thrift. To urge upon one and all the importance of profiting now in these days of plenty by being exceedingly thrifty and saving, providing not only against a possible rainy day of adversity-which God grant may never come to any of us-but as a wise provision against the coming of the years, when we can no longer measure up to the demand to do a "Man's Work."

Every week should see something laid by or saved from the week's earnings. This your own welfare demands from you as simple justice besides the equally imperative duty you owe to your fellow men. Man cannot live to himself alone no matter how hard he may try. Each one of us is but a single unit dependent upon other units for literally everything that makes life. There are responsibilities we cannot escape. Our brother's welfare must concern us. "Help the Other Fellow" is no illusion, not a cheap cry for applause—it is the very soul of personal happiness fulfilling the Divine Law.

Be thrifty not only in the saving and accumulating of the material things of life, but enjoy that larger thrift of enlarging the mind with useful knowledge. Study the GUIDE from cover to cover. Read good books. Read the newspapers—keep informed of daily events.

Be thrifty—that through the fruits of your thrift others may accomplish more. The money you place in the Savings Bank is loaned to other men for various useful purposes. It goes to help build homes, to finance mercantile business; to employers of labor to make up pay-rolls—and all the while you are not only safeguarded against loss but your money while helping others is earning more money for you.

Be thrifty—because it means constant work and greater usefulness. Be thrifty—it's a Ford habit.

The Right of Way W. G. Moore, Long Island City Branch

What a magnificent thoroughfare is the great highway of life, stretching away behind us into a screen of shadows, and forward, into the impenetrable mists that shroud the horizon. How solemnly important to each one of us becomes this comparison when we reflect that every human being, of every nation, kingdom and tongue, from earliest dawn of human history, have all traveled this way, while the whole living world of today, the great and small, high and low, rich and poor, are still surging forward over the well beaten path.

While the very greatest of us is an insignificant speck in the tremendous tide of travel on the highway of life, and have never been consulted or especially equipped and prepared for the journey, the *manner* of our going is vitally important, while the *fact itself* is commonplace, when we

better understand the rules of the road.

First: Choice of position. A matter of carving out one's location in line, a fight for place, and one becomes advantageously placed in the procession according to the skill, judgment, and persistence with which his claims are advanced

Second: A thorough understanding of the rule prohibiting "speeding," "one step at a time" being the manner of advance.

Third: Constant cultivation of the fighting spirit. Development of the fighting body, for if life is anything, it is a constant warfare all along the line. Our position in the procession is advanced as we win or lose each particular fight. What must one always expect to fight? Why, a thousand enemies. Injustice, Untruthfulness, Intemperance, Brutality, Selfishness, Greed, Disease, Disaster. Perhaps the most singular fact connected with this meeting of enemies is that every time a victory is gained over a foe, his strength passes into the blood and spirit of the winner, making him so much stronger for the next contest.

Fourth: Generosity. In every true traveler, winning victories all along the way, there grows, constantly, a larger generosity towards fallen foes, a deeper pity for other travelers, so much weaker, and he unceasingly

"lends a hand" and "helps the other fellow."

Fifth: Optimism. There is no condition or place in the whole journey of life, where the smiling face, strong, confident step, cheering word, a hearty hand-clasp may not be bestowed as a kingly prerogative, and return to the giver such joy as makes even a kingly heart thrill.

Get in step.
Be a good, fair and square fighter.
A just and generous wayfarer, always.
An optimist from start to finish.



Contagious Diseases

At the present time there are a considerable number of cases of the more common contagious diseases and while precaution should always be the watchword in your home, especially if you have children, a little extra care at this time is advisable.

Diphtheria and scarlet fever are in most cases amenable to treatment when taken early, so that the first thing to do is call your family physician and then don't attempt to discourage him from making (1) a correct diagnosis, (2) immediate report to proper authorities, (3) do not interfere in the treatment.

Just a word in explanation of these three don'ts: (1) Don't say to the physician—"Now, doctor, don't tell us it is scarlet fever—we can't be quarantined just now." Let your doctor go at his work with a free hand and render his decision according to his findings and best judgment, not hampered by your wishes or coercion.

- (2) If his diagnosis is diphtheria or any other contagious disease don't ask the doctor to keep it quiet—not to report it—he is acting contrary to law if he accedes to your request and is unjustly exposing other people. Others have the same right to be protected by having your home quarantined as you have to expect that protection for your children—see to it that it is reported.
- (3) Don't say that the child, wife or anyone else cannot go to the hospital if your physician thinks it best—hospitals are built for the expert care of the sick and are equipped better than any home can possibly be. **Don't** refuse to have antitoxin administered to any case of diphtheria or any person exposed to diphtheria. There is no danger accompanying the administration of antitoxin by a properly trained person. It is the one specific treatment accepted by all medical authorities and has decreased the death rate since its acceptance in 1895 by approximately sixty per cent.

Vaccination as a precaution against smallpox is to be highly recommended. This came into disrepute a few years ago as a result of the method used—the arm frequently becoming infected; however, today, with our knowledge of asepsis and method of preparing individual vaccine points, this is very rare.

Don't be narrow-minded and place your own meager knowledge of these things against the years of hard work and study and final recommendation of our greatest medical authorities.





Those in charge of our Safety First work will come with well thought out counsel and advice for the hysical welfare of individual workers. To their efforts we urge the most careful attention and prompt o-operation. Help one another by advising with each other, for in a great factory, amid so much owerful machinery, each man becomes his brother's keeper. Labor can only be safe and profitable as he workers are watchful, thoughtful and careful in following instructions.

Motion Pictures in Safety Work

Safeguarding the life and limb of over 41,000 Ford employes is a problem that calls into use every possible resource. Of course the first hing to do is to make conditions such that hazards will be removed—as nearly as possible. But experience shows that only about 20 per cent of the risks or hazards are preventable through mechanical means—that is, guarding. The remaining 80 per cent must be met by educational methods and it is here that the moving picture is demonstrating its worth to a remarkable degree.



Factory employes see Safety film

The accompanying pictures give a good idea of the Ford "Moving Picture Show" in action. The room used for this purpose is in the basement of the main office building and is well equipped with all necessary projecting apparatus and conveniences for the men. About 200 can be accommodated at one time and the meetings are held several times a week.

A typical Safety meeting consists of several films showing the different safety devices and practices in the Ford plant, other films on hygiene and general sanitation and short talks to the men on different phases of safety work. The purpose of the meetings is first to acquaint the men with the work that is being done to protect them, and second, to enthuse them to the end that they will work constantly to prevent accidents, both to themselves and to others.

That the showing of the pictures and the talks on Safety actually helps reduce the number of accidents in the Ford plant is proved by the fact that in June of this year, after the meetings had been going on regularly



Through the motion picture, employes are shown different phases of Safety work

for several weeks, the total number of accidents for the month was but 77. During the warm months the "shows" were discontinued and the number of accidents increased noticeably. Now, with the resumption of the meetings the number of accidents is decreasing once more.

When a guard is installed on a machine it is there permanently. But with the educational work the problem is not settled once the men have been shown the films. They must be frequently reminded of their danger and of their duty to themselves and others in working Safely. The use of Bulletins and the Safety section of the FORD GUIDE are factors in keeping the interest of the men in Safety at a high point, but experience shows that the "trip through the factory" via the moving picture film route is one of the biggest factors in reducing the number of accidents. Without the films on Safety the educational phase of the work would be much harder to carry out.

"Danger, Do Not Start" Signs

If our man working on a furnace had taken the precaution to put a "Danger, Do Not Start" sign on the oil valve when he started work he would have prevented another man from turning on the oil while he was in the furnace.

If still another man had stopped to put one of these signs on a machine which he was repairing the machine would not have been started by a fellow worker who did not know the other man was in danger.

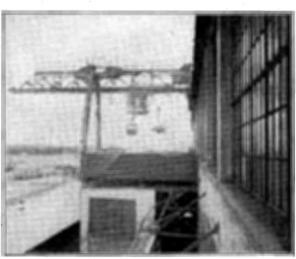
Only good fortune saved these two men from serious accidents. Use the signs. They are intended for your protection if you will let them do so.

Traveling Cranes

This picture shows one of the traveling cranes used for handling pig iron, coke and sand at the foundry. This crane, like so many other pieces of

machinery used in the production of the Ford car, seems to have almost human intelligence and can do an immense amount of work. The two upright sections at the left travel along the wall and carry the horizontal part of the crane which is also fastened to the upright section on wall of the foundry and rides along another rail at that point.

Notice the cab in which the operator rides and underneath this the bucket which may be dropped down



The traveling crane is a cumbersome but very useful piece of equipment

to any point, made to "open its mouth" and take a good big bite of sand or coke after which it is raised and later allowed to dump its load wherever desired. At the right of the cab a large electro-magnet is seen. This is also raised or lowered as desired. It is used to pick up pieces of pig iron, the metal being held to the magnet firmly through the magnetic force.

In actual operation the crane moves to a point over a car of material and the bucket or magnet as needed is lowered into the car where a load is picked up. The crane then moves until the bucket or magnet is over the large platform shown in the picture where it is dumped. The platform is really a huge hopper from which the material slides by gravity into the great cupolas or other parts of the foundry where needed.

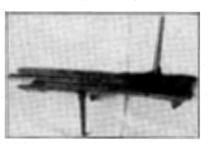
Recently a repair man climbed to the track near the cab but did not pull the switch in the cab as he should have done. As a result the crane caught him, breaking his arm. It was very fortunate that he was not badly hurt or killed. We should all have our minds on our work at all times, but not to the extent of forgetting our safety as this man did.

Foreman Was Surprised

One foreman, when shown a copy of the monthly safety standings, was surprised to learn that there had been an accident in his department which had caused one of his men to lose 17 days. In this case a heavy part had fallen from a machine and injured the man's foot. Every piece of machinery or material of this kind is a hazard if there is any possibility that it may fall from its proper place or from a bench.

Foundry Hazards

Foundrymen are confronted with hazards not found in any other part of the factory. Many of these hazards are extremely hard to overcome



and this simply means that we must all use greatest care to see that accidents are avoided. This queerlooking material is a piece of slag or waste metal and the prongs shown sticking up and down from the central part are as dangerous as nails in boards. See that these are moved out of the way where no one will be likely to step on them and be hurt.

Why Not?

Did you do anything today to prevent an accident to yourself or anybody else? One good Safety thought NOW is worth a thousand excuses tomorrow. Accidents seldom give warning of their approach and once they are upon you there is no retreat.

Safety

It is really distressing to think of the number of persons killed right on our city streets in automobile and street car accidents. Some may have been almost unavoidable but the great majority were the work of the demon Carelessness. Detroit streets are especially congested in these days of rapid growth and everybody is in a hurry—but *Think*. One second's lapse of caution may mean death or whole days of suffering in the hospital. It is far better to lose a few seconds waiting in safety no matter if we may be in great haste than to take a chance and pay the penalty. If *ever* we think Safety it should be when crossing congested streets.

About Running Elevators

Elevator, crane and monorail operators who are competent to handle these dangerous but useful machines have been given permits, by the Safety department. No person is supposed to operate an elevator, a crane or a monorail car without one of these permits.

Recently two men took it upon themselves to do so, however, and for their pains are "enjoying" two weeks' vacation each. These devices must be handled only by those who know how and violators of this rule will have cause to regret their action.

To All Foremen

The company earnestly desires your co-operation in the matter of teaching employes not to put oil or other substances of like nature in milk bottles, as this is a violation of one of the state laws.

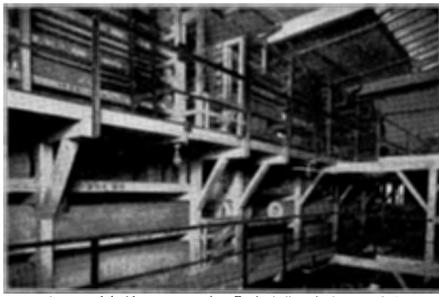
SUPERINTENDENT'S OFFICE.

Twelve Hours—A Day's Work

It is the desire of the Ford Motor Company that none of its employes work more than twelve consecutive hours. This is in large part a safety measure for no man can work as he should for more than twelve hours without rest. If he does he becomes a menace to himself and to others. Eight hours is ordinarily enough but twelve is the limit. It will be to your interest to bear this fact in mind always.

The Care of Grinding Wheels

Grinding wheels play an important part in preparing the Ford car for use. But you will probably be surprised to know that grinding wheels, unlike the Ford car, must be handled with the greatest of care even though they do appear to be made of unbreakable stone.



A corner of the big store room where Ford grinding wheels are stocked

When grinding wheels leave the factory where they are made, they must be carefully crated and packed so that they will not receive any jolt which might result in a crack that would remain unnoticed until the wheel had been started—and that is an extremely bad time to look for defects in wheels.

Upon arrival at the Ford plant these wheels are carefully inspected as will be noticed from the accompanying chart. They are then stored in the elaborate system of racks provided for them as shown by the cut. There are now in use and reserve in the Ford plant 22,479 disc cloth wheels and 54,491 grinding wheels; the former used for buffing or polishing and the

latter for grinding metal castings and other parts of the Ford car, as well as the cutting tools used in the shops. The value of these wheels is \$95,752.85.

Each wheel is carefully marked for the safe speed at which it may be operated and great care is used to see that they do not run faster, as this would be very likely to cause them to break and fly into a thousand pieces. Ford grinding wheels operate at from 800 to 1700 revolutions per minute, according to their diameter.

		Check shipment w	ith order	
	Receiving { Check shipment with order Damages { Wet Wheels broken Count number of wheels.			
	. (Count number of v	wheels.	
		Re-count		
	Wheel Stock Room	n { Inspection Washers	Sound Pit holes Cracks Balance Flange bear	ring
		Washers	Hole {	Size Lead
		Daily inspection Note waste Wheels properly us Compare each shif Production		
	Ur Co Co Tr	niform conditions orrect fixtures orrect balance ue flanges	Correct wheel	s on each job
GRINDING WHEELS		oper supervision_	Clean water	At grinding point Size of flow Amount
	Sa	fety First	Guards Suction pipes Washers Belts	
	Clark Diag What	Inspection Uniform heat Curing Glue		
	Cloth Disc Wheels	Correct amount Speed Pressure Grades and grain	ıs	
	$\operatorname{Diamonds}_{} \left\{ egin{array}{l} \operatorname{Pro} \\ \operatorname{Gra} \\ \operatorname{Cor} \\ \operatorname{Fix} \\ \operatorname{Wa} \end{array} \right.$	oper use ades rrect setting tures tter		
	Special Wheels {	Strict attention Note results—Re- Co-operation of H	order ead Foreman	Report Cards Attention Suggestions Finish—Produc- tion
				(P. O. I.

Safety Last

A belt room foreman allowed the spikes on the ladders in his department to become dull and the result was that when a millwright started to use one of his ladders, it slipped and resulted in a sprained ankle for the millwright. Every foreman is held responsible for the condition of ladders in his department. If ladders need repairs see that they are sent to the Millwright department at once for repairs.

An employe was standing between two piles of stock near an aisle. He suddenly jumped backward without looking and the result was that he stepped squarely in front of a tractor. Only the fact that the tractor operator saw him and stopped quickly, prevented a serious accident.

Browning crane operators should see that no one passes under the buckets or magnets and that persons riding on the front should mount from the side of the step instead of directly in front of the crane. These simple suggestions if carried out will prevent many accidents.

Working and "Visiting" Do Not Mix Well

A bench worker was talking to a man nearby and at the same time trying to place a 15-pound weight on his bench without looking to see just what he was doing. The result was the weight fell from the bench and struck his foot. It is dangerous to try to do too many things at once and visiting with a fellow worker is one thing that can easily be left out—especially when it is liable to cause somebody else an injury.

An Unsafe Way to Carry Screw-Drivers

This picture may bring a new thought to you-unless you have been the victim of an accident like this shown here. Screw-drivers should never be carried in the hip pocket. Most overall suits have a special pocket on the right leg between the hip and the knee. If you do not have such, a belt can be used for this purpose or carry the screw-driver in your hand. The hip pocket is the most dangerous place of all to carry a really dangerous tool. Think of this. You certainly do not want to be guilty of putting someone's eye out in this way.



Miraculous Escape From Death

Many accidents and "close calls," once they are all over and nobody is seriously hurt, seem really laughable and the case illustrated here will

probably cause you to smile.



We believe it is well generally to show Ford men just how their fellow workers looked after an accident but there are exceptions to this rule and the case in question is one exception. Our modesty forbids photographing this man exactly as he appeared, for he was dressed almost entirely in his birthday clothes after the excitement was over, as the picture suggests.

While starting to repair a punch press this man was drawn into the machine when his towel, which was tied to his coat lapel, in some way caught on a swiftly revolving shaft and his clothing was almost entirely removed

fough is believed partly responsible for the accident. He was severely bruised but suffered no broken bones. His escape was miraculous.

In a written statement this man says:

'Under no circumstances work on or near revolving shafting or machinery.

"Make no repairs until the machinery has been shut down and all is safe."

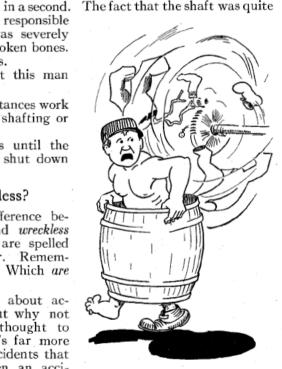
Are You Wreckless?

There's a mighty difference between being reckless and wreckless even though the words are spelled alike except for one letter. Remember, you cannot be both. Which are you?

You hear a great deal about accidents that happened but why not devote more time and thought to preventing accidents. It's far more pleasant to talk about accidents that did NOT happen. When an acci-

dent might have happened, but did not, it is a safe bet that somebody, somewhere, was on the job.

A "stitch" of caution taken in time to prevent an accident is worth nine "stitches" taken later trying to "sew up" the wound that thoughtlessness and indifference caused.



Have You a Safety Idea? Don't Hesitate

If you have a suggestion for Safety or see some dangerous condition that should be taken care of at once—don't hesitate. Tomorrow may be too late and you may be the victim of a bad accident.

If you think the trouble should be taken care of at once, call the Safety department, phone 104, or come to the office, at M 2-2, just east of the Medical department. An inspector will be sent out with you to examine the condition you think dangerous and decide what to do about it.

Should you have a suggestion for the changing of a machine or other equipment to make it safer, write out your suggestion and put it in one of the suggestion boxes where it will be taken up by the Suggestion department for further consideration. Then if your idea is adopted you will be given due credit. Keep thinking Safety always and your effort will surely be rewarded.

Has Your Idea Been Tried Out?

Many Ford workers—and thinkers—know what a keen satisfaction comes with seeing their ideas tried out. At such a time one feels that even though ours is a big organization, he is not lost and in fact is taking a

vital part in making this very organization more efficient and its product, the Ford car, even better than it is now.

The accompanying picture shows what is called a "gin pole" and it is the idea of one of the millwrights. It is portable and is used to lift heavy material high enough that it may be easily loaded upon trucks or platforms. This is a safe way of handling heavy material and may be adopted for regular use in the factory. The model shown here is a small size, used as an experiment.



Device originated by a Ford workman for lifting material

Ford thinkers are sure to improve working conditions and make the factory a safer place in which to work. Get in the Thinkers' class and see if you don't think it well worth while.

Chewing Tobacco "and Other Things"

This picture shows a plug of tobacco brought to the Safety department



What the camera showed in the "loaded" plug of tobacco

by a chewer probably to get an "official" decision as to whether or not it was safe to chew this particular plug.

The Safety department did not "hand down" a decision. the chewer being told to use his own judgment, but advised that the meat found in this plug be cooked before eating if he insisted upon eating it. We do not know whether this is a rabbit's foot, or a rat's or what, but many who have looked at this plug

have said "Never again," and sworn off chewing forever. And it is a dirty habit, isn't it?

It Pays to Pile Stock Carefully

Accident reports during the past month indicate that there was too much carelessness in piling stock. Bruised hands and feet, crushed fingers and toes have been reported nearly every day. Much of the stock that Ford men handle is necessarily heavy and almost certain to cause a painful injury if the handler loses control of it.

Above all things the stock should be piled carefully so that it cannot topple over. We had one case recently where a pile of stock was put up so carelessly that it fell over on the man who had piled it and badly crushed his toes. Perhaps this man got just what he deserved for his carelessness and certainly it is better to have a man the victim of his own carelessness if someone must be the victim. But far better than this is to think as we work and make sure that whatever we do is done right and Safely.

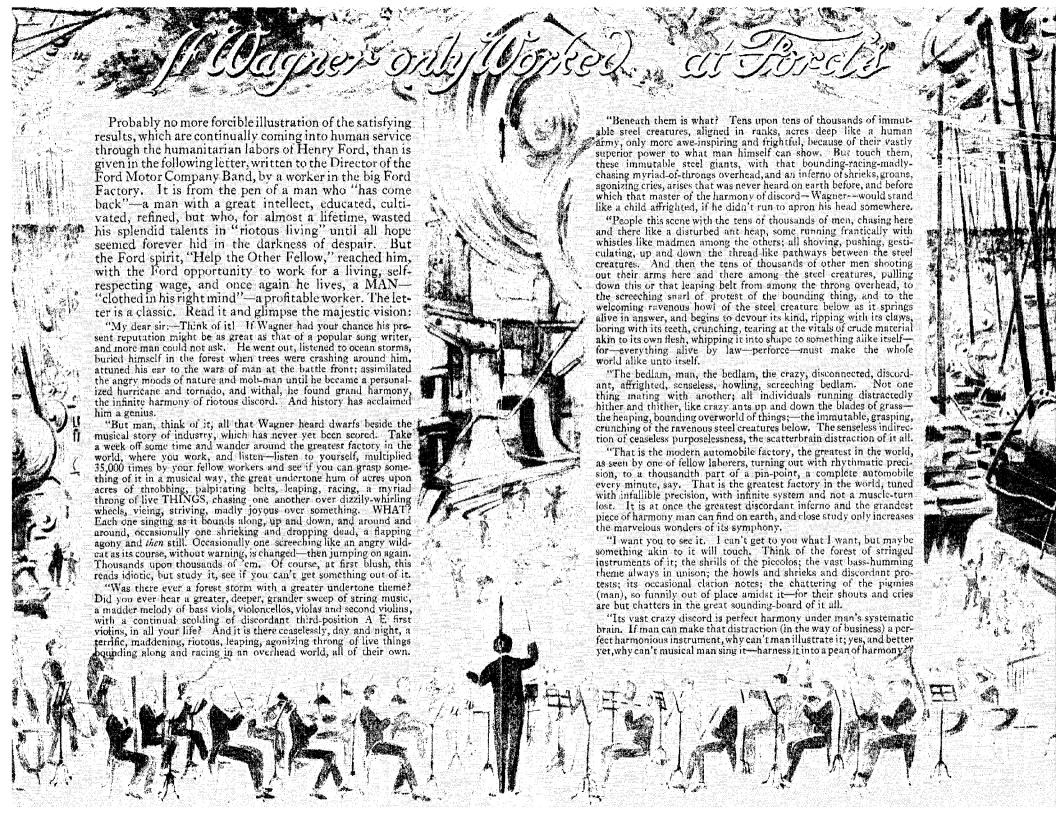
Use Safe Tools Only

All tools given out to you at the cribs are supposed to be in first class condition. When they are not, refuse to take them for you are running a big chance if you work with unsafe tools. The heads of hammers, chisels and punches should not be run over. If they are, insist upon their being dressed properly before you accept them.

Care should also be taken by those calling for electric portable grinders, to see that they are guarded properly and that washers are in place on both sides of the wheel.

Never

When in doubt never take a chance. The safe course never leads to the hospital or the morgue. Thoughtlessness does.





A typical Indian as the white man found him



There are large ideals and earnest desires behind the "Guide" and every effort will be given to have it a reliable medium through which shall come to every reader a practical force for "Helping the Other Fellow."

The Educational Department will present practical lessons to assist those who are learning or reviewing these subjects, giving valuable information in History, Geography, Our National Government, Art that everyone should know, Everyday Science, How We Live and How to Care for the Body.

American Indian

Swift of foot was Hiawatha;
He could shoot an arrow from him
And run forward with such fleetness,
That the arrow fell behind him!
Strong of arm was Hiawatha;
He could shoot ten arrows upward,
Shoot them with such strength and swiftness,
That the tenth had left the bow-string
Ere the first to carth had fallen!
—"The Song of Hiawatha"—Longfellow.

The early European settlers in America found a strange race of men, the American Indian, already living in this country.

The Indian had a copper-colored skin, very straight black hair, small, dark, deep-set eyes, high cheek-bones and a very strong body equal to almost any test of endurance.

For instance, the red man could run many miles without food, and as swiftly as any animal in the woods. He could imitate sound so well that the wild animals would mistake his voice for the call of their mates.

Although physically the Indian could at every point outstrip the white man, he was a child mentally. Moreover, he lived in filth, wandered from place to place, was lazy, ignorant, cruel and tricky.

As a friend, the Indian could be trusted; as a foe, he was treacherous. This race that had shown no great mental progress in hundreds of years was the kind of people found here by the white settlers. The latter had themselves shown no development physically for centuries, but mentally there had been no limit to the progress made.

For instance, the Indian could cross only a small body of water in a canoe which he had made and which he propelled with his own hands, while his white-skinned visitor could cross an extensive ocean in boats with sails, propelled by the wind.

Who was to be master of the new world? Should the Indian stay with his bow and arrow and his child-like simplicity or should the white man with his great mind, able to find and make use of the wonderful treasures in the rivers, mountains and plains, become supreme?

Time has answered the question. Whenever there has been a struggle between the strength of an animal and the mind of man, man's mind has won. The Indian's physical superiority was no match for the European's mental power. Since the arrival of the latter our country has made wonderful strides.

One can readily see that in the year 1917 America would be in no better condition in the way we live than three hundred years ago when the settlers from the old world began to arrive, if the red man had been allowed to have his way.

English

Whenever you find a word in the GUIDE, the meaning of which you do not understand, be sure that you look it up in the dictionary to find out its meaning. Then use the word yourself in a sentence. (See copies of the Guide, Vol. 1, No. 1, page 9, and No. 2, pages 9 and 10.)

It is important that you should form the "dictionary habit."

A knowledge of words and their meanings can be used in at least two ways:

First, another person's ideas can be made clear to you by the use of the right words. You may not use these same words when you write and speak; but at least you can understand the words when some one else uses them.

Secondly, your own ideas can be made clear to another by the use of the proper words.

Foreigners who come to the United States to live, plainly must first learn to speak English before they can hope to become good citizens.

It is impossible always to use the same words to express different ideas and therefore one should be able to use just the word or expression for the idea that one wishes to convey.

A number of great writers say that they learned how to express their ideas by studying how others used the English language successfully and then patterned after them.

Read this and then see how well you can write it in your own words. "It is one of the severest tests of friendship to tell your friend his faults. If you are angry with a man, or hate him, it is not hard to go to him and stab him with words; but so to love a man that you cannot bear to see the stain of sin upon him, and to speak painful truth through loving words, that is friendship. But few have such friends. Our enemies usually teach us what we are, at the point of the sword."—Beecher.

Public Library How the Public Library Can Help You in Your Home

A public library is usually an attractive building both inside and out and therefore a pleasant place in which to do one's reading.

There are times, however, when one prefers to read at home rather than at the library. For the benefit of those who may not understand just how to draw a book from the library for home use, the following suggestions may be of service:

A card is necessary to entitle a person to take books from the library. A resident of Detroit, fourteen or more years old, is entitled to library privileges in that city. Children under fourteen may also have a card provided some one will be responsible for the books drawn.

The librarian or assistant at the desk will make out a card for you.

No person may draw a book without a card. Give name and number of the book desired to the librarian, who will get it for you. The book may be kept several weeks, at the end of which time, if it is not returned, a fine of two cents a day must be paid for each day overtime.

Every courtesy will be shown you by the librarian. If you are in doubt about any matters do not hesitate to ask questions at the desk.

Art

(See Frontispiece)

Constantin Troyon (pronounced Trwa yon), was born in Sevres, France, in 1810. He died in 1865 when still a young man. He began his life as an artist in the porcelain factory of his birthplace. He soon became a famous painter. He is perhaps the most famous French animal painter. The painting, "The Return to the Farm," is in the Louvre, a famous art gallery in Paris.

Art That Everyone Should Know

The progress that the primitive artists made in sketching the animals around them and carving sticks of wood so that they resembled the human form, indicated that mental growth was advancing.

A brain is necessary for training of any sort. Muscular control is possible only when the mind governing the muscles is itself trained.

In human beings the relationship between muscular and mental control can easily be seen. Children have an undeveloped mind and have difficulty in controlling their movements.

The early artists were a good deal like children in that they could not represent perfectly with their hands what they saw with their eyes.

For instance, a child observes that a horse has two eyes and in attempting to sketch the animal, gives it two eyes when only one Man manage



Primitive line sketches of the early artists

can properly be shown. The drawings of the early artists resemble those made by children and show often as little brain development as a child's.

But great things come from small beginnings and what is great in art has grown out of what was very simple and rudimentary.

When man as a race was in a primitive state of development his art reflected his child-like mind, but as the human brain developed mental growth was shown in a higher type of art and other forms of expression.

"If you notice little pleasures
As you notice little pains,
If you quite forget your losses
And remember all your gains.
If you look for others' virtues
And their faults refuse to see,
What a comforting, delightful,
Cheerful place your world will be."

Geography

In our previous lesson in Geography we have observed the exact location of Detroit. (See Ford Guide, Vol. 1, No. 2, page 12.) As a representative American city, a few facts about it would prove very instructive.

A record of the city's growth in population will interest us.

In 1820, less than a hundred years ago, there were only 1422 people in Detroit. In 1860 the number had grown to 45,619; in 1880, not quite forty years ago, there were 116,340. Then ten years later in 1890, the population had increased to 205,876; then to 285,704 in 1900. From 1900 to Jan. 1, 1916, the city's population has risen rapidly to 673,000.

Most American cities have shown a steady but not unusual growth in the last fifty years. Detroit's population on the contrary has made such rapid strides that today it is about three times the size that it was

twenty years ago.

By consulting your map you will find a reason for the city's development. Detroit is on the Detroit river. All the waters of the three Great Lakes pass through this river on its way to the sea. Detroit is at the gateway of the other two Great Lakes.

Because of the large amount of shipping that passes through the Detroit river, the river has been called "The Dardanelles of the New

World," and the greatest water highway of travel in the world.

The river is about twenty-five miles long, half a mile wide and thirty feet deep at Detroit. The city has a water front of more than nine miles; is seven miles distant from Lake St. Clair, eight from Lake Erie.

A waterway of some sort seems necessary for the growth of practically

all of the large cities of the world.

In addition to its accessibility by water, Detroit is near enough to Cleveland, Buffalo, New York, St. Louis, Chicago and other large American cities as to reach these by rail or to be reached by them without much loss of time.

Great industrial plants have been built here because raw products can be obtained and manufactured products made at a reasonable cost.

Detroit's growth has been greatly promoted in the last ten years by the automobile industry.

Ouestions

What is the latitude of Detroit? In what way has this anything to do with he city's growth? What are the chief manufactures of Detroit? What besides he latitude and the location of Detroit has helped the growth of the city?



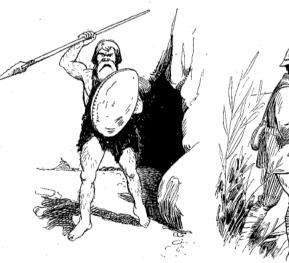
The busy water-front of Detroit

Every-Day Science

(Read lessons on this subject in previous numbers of the Guide)

By using his "stored-up" knowledge, man can make himself master of his surroundings in a manner utterly beyond the power of other animals.

Self-protection was the first necessity of man. The knowledge which he acquired from experience and which he was able to apply intelligently gave him the advantage over other living forms.



How man defended himself in the early days



Man has greatly developed the art of defense

In a thousand years man's body has changed but little; his brain, however, has grown tremendously, and has produced some very remarkable devices. (See Guide, Vol. 1, No. 2, pages 13 and 15.)

In striking contrast to the story of man's life on the earth is that of other animals, and plants. Almost all living forms have shown remarkable physical changes or have entirely disappeared. For example, the animals that were on the earth hundreds of years ago were very large and frequently covered with a hard

coat like a coat-of-mail.

These immense animals have become extinct. Similarly the large fern-like plants from which our coal beds have been derived are no longer in existence.

But man has survived all hardships since his arrival on the earth because of his superior mental equipment. Wherever man has lived he has found a way to make himself



Great size and strength are not always the best protection

master of his surroundings, not with the strength of his body but with the help of science.

Some animals are fleet-footed and thus can escape from their foes, but man in his railroad trains can outrun the fastest animals. In like manner it is possible for human beings to swim more swiftly and for greater distances in the ships which they have built than even the best swimmer among animals.

Similarly man has mastered the art of flying.

While many kinds of animals with great strength and other adaptations have had to make room for other animals, man and his descendants have continued to live on the earth.

Mental strength rather than physical prowess has made it possible or man to become master of his surroundings. Once protected from his enemies he could gratify his curiosity about his environment. It did not take him long to discover some of nature's most valuable secrets and then apply them to his daily life.

In several instances the applications made have been mentioned above. Dur object in future lessons will be to discuss more of these discoveries and their applications.

The Care of the Human Body (Review lessons in this subject in Nos. 1 and 2)

The Body Needs Air to Sustain Life This Air Should be Without Dust and other Poisons

We can do a great deal to keep the air that we breathe pure. Nature provides ways for keeping the air out-of-doors clean and pure. These nethods can be employed indoors with good results.



For instance, a rain or a snowstorm washes the atmosphere and thus removes a great deal of dust. The air in buildings can similarly be washed by machinery.

The sun kills a great deal of dangerous plant-dust that is always in the air. This is another reason for the comparative purity of the air out-ofdoors. By allowing the sun to get into living-rooms, the same sort of dust can be killed there. Dark rooms are not healthful.

Breezes and winds out-of-doors keep the air in motion and thus prevent its becoming stagnant. In like manner proper ventilation of rooms with the help of windows and doors helps to purify the air and makes living conunshine and fresh air are very beneficial ditions more healthful. One should

always sleep in a well-ventilated room in which the windows are kept open.

Care should be taken never to stir up dust when one is sweeping or cleaning a room. Vacuum cleaners are better than brooms and a damp cloth for dusting is better than a feather-duster.

One should never cough or sneeze into the air, as by so doing disease germs from one's nose and mouth are spread broadcast. You can easily give your neighbor a cold by sneezing into the air which he will have to breathe. Next time that you have a cold find out whether anyone working near you also has a cold. If so, that is probably where you got yours.

Just as you "caught" your cold from another, so you may com-



A vacuum cleaner helps keep the air free from dust

municate it to another. When you sneeze or cough, do so in a handkerchief and thus hold the germs imprisoned. Change your handkerchief often.

You would not steal a friend's pocketbook, neither should you rob him of his health.

Questions

Why do all members of your family often have a cold at the same time?

Why should you be careful about kissing, or breathing into another's face, when you have a cold?

Why is a warm, poorly-ventilated room a good place in which to take a cold?

> How would you explain this, "The best way to cure a cold is not to get one"?



How We Live

(See page 16, Vol. 1, No. 1, and page 22, Vol. 1, No. 2, of the Guide.)

All races of man in the United States may enjoy health, happiness, comfort, safety and opportunity.

Representatives of all the races of man have come to America and have made their homes here. Black men from Africa and Asia, brown people from the islands of the Pacific Ocean, men of the vellow race from Asia, and white men from Europe, all have come to live in the home of the red man, the American Indian.





How the black man lives in Africa

How millions of yellow people live in Asia

The Caucasian (white man) has driven the red man away, has made the Ethiopian (black man) his slave, and has used the Malay (brown man) and the Mongolian (yellow man) as his servants.

In spite of the fact that all the races are represented here, the Caucaian has become the dominating one. It has given its languages to the Jnited States. It has built up practically all of the large factories and other places of business.

There are good reasons for this, although they may be difficult to give. The white race has shown a far greater capability to help itself, to overome difficulties and to make progress than any of the others. Contrast, or example, the habits and customs of the American Indian who lived on his continent hundreds of years before any other race of mankind, and vho now, as in the ancient times, is still living in tents in some places, vith the habits and customs of the Caucasian.

As a result of the white man's mastery he has become more and more ivilized, and has done a great deal to civilize the people of other races who have lived with him.

The Caucasian has built up a democracy of a hundred million people in the United States. All men are given an opportunity to make a living here, a better opportunity than almost anywhere else on the earth.





What the white man found when he reached America

What the white man has done in America

The health of each individual is protected as far as possible; his happiness, safety, and comfort are all provided for, regardless of "color, creed. or previous condition of servitude."

How many of the blessings of this free country we enjoy depends upon us personally and upon HOW WE LIVE.

American Government

The People of America Establish a Government by the People

The government of the United States is a democracy. One hundred million people govern themselves.

In a democracy there is no king who, through his own power, can make the laws of the country. The word democracy implies that the people make the laws themselves; then by their votes they elect an executive officer who sees to it that these laws are obeyed. (See Guide, Vol. 1, No. 2, page 23.)

The question naturally arises: How did the people from Europe, who had always lived under a monarchical form of government, come to make their own laws and establish their own form of government, in the New World?

THE FORD GUIDE

On July 4, 1776, the so-called thirteen original colonies declared their independence and claimed the right to be a self-governing nation. Several years after, the people of our country ceased to be subjects of England and became citizens of the United States of America.

In the absence of a King, as ruler, it was necessary to find an executive officer; and when laws ceased to be thrust upon the people from without, a law-making body had to be organized.

Hence the office of President of the United States was created; and the Congress, made up of the Senate and the House of Representatives, was organized. The latter is the national law-making body.

Thus by making their own laws and providing for the enforcement of these laws the people of the United States established their Government by the People.

After more than a hundred years of self-government many problems remain to be solved; but in spite of this fact the United States has been able to teach some real lessons both to its own people and to other nations.

How the American democracy has learned to govern itself and the lessons it has been able to teach others are matters that will be discussed in future articles.

Salted Down

(Copyright by George Matthew Adams)

I saved five dollars every week, against the day that's wet and dank. Sometimes it made my spirit shriek, to put that plunder in the bank. For there were sights I longed to sec, and junketings I wished to make; to save was such a strain on me, I thought my old tin heart would break. But Susan Jane, my thrifty wife, was always watching at my side; and she would say, "You bet your life, you do not let the kopecks slide. Our strong-box must not spring a leak," my wife would say, in solemn tones; "and at the end of every week, you'll pickle five gun-metal bones." I used to wish that Susan Jane were more like other wives I know, that she would think it safe and sane to let the coin for pleasure go. Then I lay down with divers ills, and spent three weary months in bed, my stomach full of drugs and pills, and poultices upon my head. We paid the druggist and the nurse, the doc, who brought me back to health; and if I dodged the village hearse, it was because I'd saved some wealth. To every man there comes a day when Fortune wears a gloomy frown; and, while you're earning coin, I say, it's wise to salt some rubles down.

A branch of the Legal Department of the Ford Motor Company is maintained at the home factory in the "W" Building, near the John R. entrance on Manchester Avenue, and is open to employes between the hours of 8:30 and 5:30 of every working day excepting Saturday, when the hours are from 8:30 to 12:30.

This department gives free service and assistance to Ford employes both in advising them in any legal difficulties and relieving them from legal entanglements. A great many of the difficulties in which employes find themselves have a legal phase and in furthering educational work this department is always ready to co-operate in assisting the men to receive all the broad benefits of the Profit-Sharing Plan.

With forty-two thousand men it is clearly impossible to conduct any cases or law suits for them, but advice will always be given and, if money is lacking, actual legal assistance can be secured.

The activities of the department are devoted chiefly to the following main divisions which arise in the average daily life of an employe:

Real Estate

The Educational Department will explain to you that the Ford Motor Company wishes each of its employes at some time to own his own home. In this connection we wish to impress upon you at once that the Ford Motor Company has no property to sell to its employes and has no connection whatever with any real estate firms or individuals who may attempt to sell you real estate. We ask that you please report to us promptly any person who attempts to sell you property and who states that the Ford Motor Company owns or is interested in the same.

When, however, you, as an employe, have found a house and lot that suits you and you wish to buy it and which you believe you can carry and pay for, if you come to us, we will guide you through the transaction, examine the abstract, contract and deed to the property and even make an examination as to the value of it, providing you are in doubt as to whether it is worth the amount asked.

We do not care, however, to examine abstracts for property which you are buying for purely speculative purposes and this also applies to your other investments, as it would be impossible for the Legal Department to inquire into values of stocks, bonds or securities which involve commercial values. Also, we advise that this service is intended chiefly for those whom through lack of business experience are not able to protect themselves fully in involved transactions and the time of the department cannot be taken up in legal aid work for employes who are able to take care of themselves. There is no attempt made by the Legal

is defined to the control of the con

Department to take care of the legal business of all of the employes of the Ford Motor Company, as to do so would necessitate the employment of a great many lawyers. Those, however, who are financially unable to secure the services of a good attorney or who are so inexperienced in business matters as to endanger themselves in a complicated business deal, such as the purchase or building of a house, will be aided to the fullest extent by this department.

In order that we may give you full measure of assistance, we urge you to come to us for advice when you are thinking of buying property, BEFORE YOU HAVE PAID ANY MONEY ON THE CONTRACT. You should not close a purchase and then come to us for advice as to the title, value, etc., of the premises, as it is then very difficult for us to relieve you from the entanglement into which you may have gotten yourself. We also urge that you do not buy any vacant lots unless you are able to pay at least twenty-five per cent of the purchase price as a first payment and most emphatically urge that you do not buy on a SUB-CONTRACT, LEASE or OPTION.

Insurance

We have obtained from the Commissioner of Insurance of this State the standing and responsibility of most of the life insurance companies doing business in Detroit, and we will advise you as to the responsibility of any company in which you are contemplating taking out insurance. The insurance contracts of most of the old line companies are very similar and the question as to whether the insurance is good or not depends mostly upon the financial responsibility of the company. We, of course, cannot guarantee the responsibility of any concern, but we can and will advise you as to whether or not they have complied with the laws of the State of Michigan and as to whether or not their financial statements show a sound condition of the company.

We can also advise you as to the policies offered you and as to the best form suitable in each case. In this connection we again advise you that the Ford Motor Company does not sell insurance, nor has it any relation with any insurance company, and we would thank you for information as to any insurance agent who solicits insurance from you on the grounds that they are selling Ford Motor Company policies.

We urge you also not to make application for any insurance until you are satisfied that it is the company you want, that the kind of policy and premium is correct and that you can carry out the terms of the policy and pay all the premiums.

Naturalization

The Ford Motor Company wants every employe to become a citizen of the United States. In Detroit we have made arrangements with the officers of the Courts whereby especial attention is given to our men on all naturalization matters.

If you will come to us, we will advise you as to the quickest and easiest manner of securing both your first and second papers and will guide you through the Courts until you receive full citizenship.

Debts and Garnishments

The Ford Motor Company wants every employe to pay his debts and it is the policy of this company to discourage suits and garnishments against employes. It insists that all its men pay without having to be called to the department and told to do so. This especially applies to all men who are receiving a share of the profits, for there is no reason why a man receiving a minimum income of five dollars a day should have any standing debts upon which he is unable to make substantial payments. If, however, on account of sickness or other misfortunes an employe has fallen behind, we will assist him in securing the consent of the creditors to an extension of time, thereby relieving the employe of worry and loss of time, as well as saving him the court costs incident to garnishment suits. We urge employes to come to us frankly as to their debts and believe they will find it better than to endeavor to evade creditors and keep the knowledge from the company.

General

The service of this department is not confined to the matters which we have explained here, but it will give to employes general advice and guidance in any of their legal matters. This includes controversies with your landlord as to possession of the property which you are renting from him, advice on leases, contracts, building specifications and requirements, etc., etc. This is done for the employe in order that the Educational Department may be assisted in giving the employe full measure of benefit in enjoying the privileges of the Profit-Sharing system of the company.

Some General Suggestions

About Lunches—Have correct change when buying lunches. This is important because all want to get their lunches, coffee, milk, etc., as quickly as possible as the lunch hour is short and every minute is valuable.

Street Cars—Safety requires that persons get into the cars and that they do not stand on the steps. Remember this—if not for your own sake then for the sake of some one else who is taking a chance on the steps. When you are inside think of safety and heed the call of the conductor to "step up in front, please." If some stupid individual blocks the way try to get past him or get him to realize the danger of others and "move up."

Trucking—Truckers and in fact everybody using the aisles in the factory should remember to keep to the right. This is a good rule anywhere and means safety for you. And it is always far easier to get around when we all keep to the right.

Have you a suggestion for Safety? If not, why not keep on the alert to find something that you think could be safer? It's mighty interesting and may save you or your fellow-worker from being hurt some day.



The Department of Suggestions opens a wide door through which the individual worker can reach the Company direct with the evidence that his mind is working as well as his hands. Here is the opportunity and the earnest invitation to each individual worker to develop his own thinking abilities; to have recognition given his personal ideas; to have his mental ability recognized; to get the chance for promotion and reward his merits deserve. Here is the short-cut to the Company's attention. Drop your suggestions into the boxes freely, not one will be passed over—the Suggestion Box is for your benefit. Watch the "Roll of Honor."

Credit for Suggestions

The suggestion box is the medium through which the Company hopes to locate good ideas and the men who are in the habit of having them. If the ideas can be used to advantage, the men who have them should be placed where they will be given opportunity to think of more of them to the added advantage both to themselves and the Company.

This should be perfectly plain, and meet with the approval of all concerned, and it does among those who themselves have, and recognize in others, that spirit of co-operation which sees the mutual interest of Company and employes.

Sometimes ideas are stolen, intentionally or otherwise. It is hard and sometimes almost impossible to know, after an improvement is made, just who was responsible for the first idea that brought about the improvement. The records of the Suggestion System are intended to remove any doubt as to who deserves credit and if suggestions are offered before other men have done any work on the idea, this can be done.

The workman who sees a chance for improvement and keeps it to himself for fear of taking someone's work away from him, or for fear that someone else will get the credit for his idea, is a sure loser. Someone else will eventually see the improvement, get the credit for it, and together with the man whose work is taken away from him, get a better job, while the man who first saw the improvement and did not suggest it, will grow old on his first job. It is a poor sort of consolation for a man's old age to know that no one ever stole an idea from him.

The system should not be used to offer ideas on subjects in which the creation and operation of ideas is a part of the suggestor's regular daily work. A petty repair should not be made the subject of a suggestion. The basis of a suggestion should properly be a new idea and there is nothing new in the proposal to fix equipment which is out of order. It is, of course, the intention to make repairs as they are needed, and as it is impossible for a foreman, without assistance, to keep a personal knowledge of the condition of each detail of the equipment in his department, the need of a repair should be reported at once to the foreman. If a man knows a new or better way of making a repair, than that which is ordinarily used, then it could properly be treated as a suggestion.

Sometimes a man will not offer suggestions because he is afraid of incurring the enmity of his foreman. No wise foreman will object to a suggestion which tends towards the betterment of the work in his

THE FORD GUIDE

department. The foreman who encourages suggestions from his workmen will invariably produce better results in his department, and if he trains someone else for his job, stands a good chance of a better one for himself. The fellow who is afraid someone else will get credit for an improvement in his work is afraid of his job and is not the type of man wanted in the Ford organization.

There is no acceptable excuse for a foreman objecting to his men sending in suggestions. If it is a good suggestion, it should be adopted, and the suggestor given credit for it—these are the objects of the suggestion system; and in opposing the sending of suggestions, a foreman is fighting these objects. He can't fight them long and remain a foreman.

If you are in doubt about doing anything, the question to ask yourself is this: Will it better conditions in any way? Will it improve or lower the cost of the product? In short, is it to be to the best interest of the Company for which you are working? If it is, then do it and you'll find that you are not only working for the Company, but for your own interest and advancement.

Honor Roll

The following men have been credited for suggestions which have been adopted:

I. M. ARMSTRONG Tool Stock, Dept. 702. For suggesting rods placed on toilet walls.

Motor, Dept. 500. For suggesting guard for piston and connecting rod conveyor.

R. D. BLISS Carpenter Shop, Dept. 1608. For suggesting chisels for glaziers to remove putty.

R. D. BLISS Carpenter Shop, Dept. 1608. For suggesting larger size wheels for glazier trucks.

FRANK M. BOSTWICK
Safety, Dept. 1606. For suggesting a traffic
watchman on ground floor of A Building.

HERMAN BUTZIER

Machine Tool Repair, Dept. 1801. For suggesting a 45 degree to 30 degree angle cutter for milling clutch teeth.

CON C. CAHILL
Paint, Dept. 1008. For suggesting a cap for
sprinkler heads.

ALLEN P. CHRISTIAN
Millwright, Dept. 1600. For suggesting use of
Marine socket lights on monoral cabs.

J. B. COTE Supt. Office. For suggesting dic guard on Press No. 5007, located at F-13 x 1.

C. DILLMAN Coil Unit Box, Dept. 520. For suggesting dip method for painting Coil Unit Box Covers.

V. M. DIRKIS Pressed Steel Tool, Dept. 1803. For suggesting lathes be equipped with blue print holder.

J. W. EDDY Front Axle Parts, Dept. 328. For suggesting combination of radius rod brazing and width testing operations with straightening and lug testing operations. H. B. EGGLESTON Transmission Cover, Dept. 315. For suggesting installation of electric bell between E-28 x 10 and E-31 x 11.

C. E. FISHER Transmission Parts, Dept. 302. For suggesting taper instead of cylindrical shaped punch points on Machine No. 19110.

C. FREEMAN Machine Tool Repair, Dept. 1801. For suggesting that high speed tool bits be cut from original stock at an angle.

FRANCIS J. GILLEY

Top, Dept. 505. For suggesting re-grinding
and re-use of worn down trimming knives.

C. GIORCHICA Crank Case, Dept. 401. For suggesting screen guards around lathe belts at G-10-11-12 x 10.

ROBERT E. GLASER

Machine Valve and Push Rod, Dept. 306.

For suggesting guard on visc at B 14 x 5.

CHAS. GUSTAVUS Differential Gear, Dept. 318. For suggesting offset end wrenches for machine-setters.

W. C. HENRY Magneto, Dept. 512. For suggesting change in rail guard by Machines Nos. 261 and 9912, located at M-23-4.

FRANK HOWATH
Differential Cases, Dept. 317. For drawing
attention to danger existing at M-1-20, where
drive shaft housing is passed from Machine
No. 5969 to No. 2737.

ARTHUR JOHNSON
Transmission, Dept. 302. For suggesting four larger dimension cutters in place of seven cutters used on Die 1825533.

Cold Heading, Dept. 325. For suggesting double ended hexagon punches on cold heading machines.

FRANCIS D. LACY

Transmission, Dept. 302. For suggesting sheet metal shelves on Lathes at B-30 x 2.

HARRY M. LANSGFORD

Electrical, Dept. 1601. For suggesting trimming of large tree in front of Administration Building.

CHAS, D. LEARY

Tool Room, Dept. 1800. For suggesting supply of factory maps and list of department locations for various departments.

PETER McGREGOR

Pressed Steel Tool, Dept. 1803. For suggesting checking of high speed steel from tool cribs.

I. MAYLE

Machine Shop, Millwright Dept. 1603. For suggesting an improved stock and chip box hook eye.

E. C. MENGEL

Window Cleaning Dept. For suggesting reuse of purged ammonia from cooling system.

J. C. MILLER

Bushing, Dept. 319. For suggesting more clearance on T-518 flat cutter end.

H. PFEIFFER

Electrical, Dept. 1601. For suggesting Pyrene fire extinguishers at Power House generators.

LOUIS H. PRAGER

Tire Experimental, Dept. 522. For suggesting improved ventilation of Tire Experimental Dept.

IAS, H. REDFERN

Front Axle Parts, Dept. 328. For suggesting change in lower bushing of T-203 facing machine.

E. RICHARDSON

Grinding, Dept. 307. For suggesting change in slot in taper tool block on lathes, at B-15 x 8.

A. J. SOWKIN

Con. Rod and Univ. Joint, Dept. 305. For suggesting changes in T-49 die.

C. V. SPARKS

Machine Tool Repair, Dept. 1801. For suggesting extra saw for heavy cold sawing machine in Dept. 701.

J. STREIFF

General Stock, Dept. 5-B. For suggesting use of dust settler by X & Y Building sweepers.

CHAS. E. TANSLEY

Factory Service, Dept. 6. For suggesting extension to bar rest in Millwright Dept.

GEO. A. TILL

Pressed Steel Tool, Dept. 1803. For suggesting new sheet steel stock rack at G-7 X 1.

GEO, A. TILL

Pressed Steel Tool, Dept. 1803. For suggesting sawdust barrel at Crib No. 23.

ROBT. F. TOOLE

Tool, Dept. 1800. For suggesting that high speed steel tool bits be held more closely to size.

H. TSCHUDI

Inspection, Dept. 801. For suggesting change in punch riveting commutator roller clevis pin.

FRANK VOLZ

Transmission, Dept. 302. For suggesting chuck wrench with detachable high speed steel bit.

JOHN S. WESLEY

Front Axle Parts, Dept. 328. For suggesting sawdust cans be labelled "sawdust" and painted.

C. J. WETZEL

Tool, Dept. 1800. For suggesting cyaniding of cast iron parallels.

H. F. WILLIAMS

Inspection, Dept. 801. For suggesting regular tube cleaning brushes for T-400 Inspectors.

E. E. WILLIAMS

Transmission Covers, Dept. 322. For suggesting improved support for scrap boxes at H-1-30-31.

LLOYD WORFENDEN

Tool, Dept. 1800. For suggesting safety guards in front of rear wheels of low, heavy capacity trucks.

A Factory Suggestion

Milk is brought into the factory largely in glass bottles, because this s considered the most sanitary way and protects the milk against conamination. But we should be careful to see that the bottles are used only for milk and not as drinking cups. We should also be very careful o return the bottles to the racks left by the lunch men to be picked up later.

There have been several injuries and still more narrow escapes from erious accident because some men working overhead carelessly left nilk bottles on beams or other places where the vibration of the machinery ooner or later caused them to fall. This should never be done—such houghtlessness is inexcusable. Thinking first, then acting on sound udgment, will save many from lost time and suffering.



ALEXANDER HAMILTON

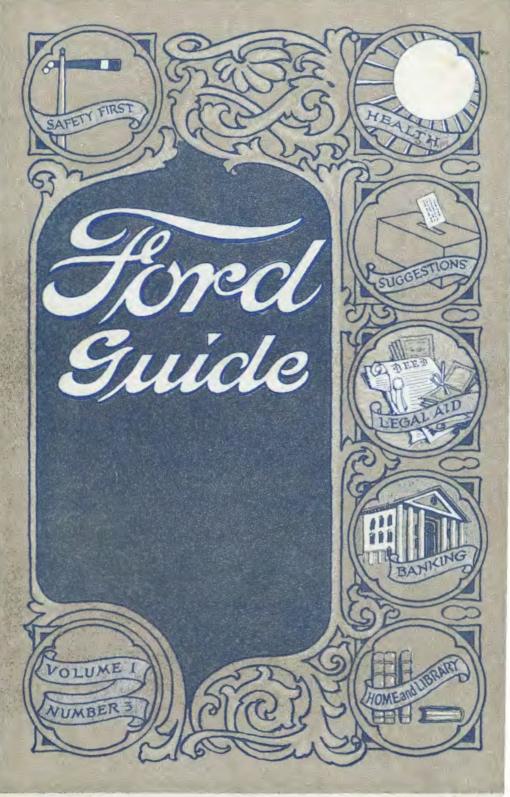
Born on the Island of Nevis, West Indies, January 11, 1757 Died in Weehauken, N. J., July 12, 1804

Hamilton, like Benjamin Franklin, in the early days of the American Republic, was very active in establishing the new government.

Although of foreign birth, Hamilton came to America at an early age, became imbued with American ideas and institutions, and left his indelible influence upon them for posterity.

Hamilton was a soldier, an orator, a statesman, and a student of finance and constitutional law.

The firm financial basis of the new country at the very outset was due almost exclusively to Hamilton. The Constitution of the United States and its adoption, a monumental task, was more the work of Alexander Hamilton than that of any other American.



30 11