

*FACTS*  
*FROM*  
*Ford*

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*FROM*  
*Ford*





# FACTS FROM FORD



The Big Power Building is 130 feet wide by 400 feet in length, 225 feet from ground to top of smoke stacks. It required 5,200 tons of structural steel (enough to erect a 20-story "skyscraper"). The huge engines are on the ground floor, boilers on third, and fuel, etc., on upper floors.

*Ford Motor Company  
Detroit Michigan*



Henry Ford

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## Preface

In presenting the Fourth Edition of "Facts From Ford," more information is given of the educational efforts—and results secured therefrom, along the lines of Industrial Welfare—than mere description of the mechanical forces of the big factory. Mr. Ford's ambition is "to make men," as against the simple making of machines and money, and thus assist the progress of civilization in the building of higher standards of righteousness and happiness for humanity.

In the factory, change is the order of the day. Progressive efficiency is continuous toward increased production and reduced cost, to make Ford Cars and Fordson Tractors in largest volume while rigidly maintaining the highest in quality and service.

But, forget not the fact that in this little book are outlined, illustrated and interpreted, those fundamentals which have brought success, and that the Ford Factory, in high efficiency and large production, is the greatest institution in the automotive world.

*Highland Park, Michigan, U. S. A.,  
September 1, 1920*

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Specially designed Ford machine. It tightens sixteen screws in one operation

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## HENRY FORD

**T**HE other day a letter arrived from innermost China addressed to "Mr. Henry Ford." It sought information of the Ford car, yet its deeper significance lay in the fact that the writer, when thinking about the Ford car, coupled it, subconsciously perhaps, with Henry Ford. Nor is that letter an exception, for daily, others arrive addressed to the man whose genius visioned and built the Ford car and whose personality has followed—nay, preceded—it to the farthest corners of the world.

Born July 30, 1863, of farmer parents, representative of Michigan's sturdy pioneers of three-quarters of a century ago, Henry Ford's early life paralleled closely that of other farmer boys of that day, a round of daily chores, attending the distant district school, and the all-day's work in the fields in summer. One exception alone marked his boyhood; he had rigged up a shop containing a few tools of his own gathering, and there, during spare time, his passion for things mechanical held sway. At the age of sixteen he left school and the Dearborn farm to become a machinist in Detroit, only a few miles away.

Nights, he did repairing in a watch and jewelry shop. And for eight years Henry Ford followed this line, working in various shops, but always adding to his fund of knowledge of machinery, and preparing himself for greater tasks.

During his twenty-fourth year, his father offered Henry Ford 40 acres of timbered land provided he returned to the farm. He accepted the land and accordingly returned, bringing with him his shop which boasted many new tools. Immediately a sawmill and portable engine were



The First Ford Factory

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obtained and Henry Ford became a lumber manufacturer. The same year he happily married Clara J. Bryant, born and raised only a few miles from his father's farm. The issue of this marriage was an only child, a son, Edsel Bryant Ford.

With some of the first lumber from his mill, Henry Ford built on his new farm a house one and one-half stories high and thirty-one feet square. Into this he and Mrs. Ford moved. His shop was also brought to the new place, where he began work on a steam car. It was the first Ford passenger car, but was soon abandoned, because though boiler after boiler was experimented with, none proved satisfactory.

He stayed on the farm two years, but again left for the city to become night shift engineer in a lighting company at a salary of \$45.00 a month. However, his general ability and genius in making impromptu repairs soon brought him entire charge and raised his salary to \$125.00, which he earned for seven years with the same company. A small brick shed in the rear of his home was fitted into a work shop, and there Henry Ford—often working far into the morning hours—devoted his spare time to creating his first gas car. It was—or is, for it still runs—a two-cylindere motor car with a speed of from 25 to 30 miles an hour. A company was formed with Henry Ford as chief engineer, and a few cars were built. This connection not being satisfactory he withdrew in 1901 to begin building another car which was completed in 1902. In 1903 the present Ford Motor Company was organized. Mr. Ford owned 25½ per cent of the stock and held the position of Vice-President and Factory Manager. The company was capitalized for \$100,000, but no more than \$28,000 in cash was ever paid into the treasury of the Company.

Henry Ford soon realized that his own ideas and policies, which were very clearly defined, could not be carried out unless he should be in free control. Accordingly, in 1906 he purchased sufficient stock to bring his holdings up to 51%, and a short time later, at seven to one, procured 7½% more, making a total of 58½%. This arrangement continued until 1919 when Edsel Ford, who had succeeded his father as president, purchased the remaining 41½ per cent of the stock. The company was reorganized under the laws of Delaware for an authorized capitalization of \$100,000,000, and this is the present arrangement.

The first car manufactured by the Ford Motor Company was on the road in June and sold the early part of July, 1903. However, no sooner had "production" begun in the Ford plant, than Henry Ford began building racing cars, for in the early days of the industry practically every noteworthy automobile company entered its cars in the races.

The first Ford racer, piloted by Henry Ford himself, won race after race in all parts of the country. No entry list was considered complete until the Ford was in. With "999" Henry Ford first broke the mile-a-minute record on an ice track at Baltimore Bay in 1904. The remarkable feats of Ford cars probably did as much to make known the name of Ford as any other circumstance.

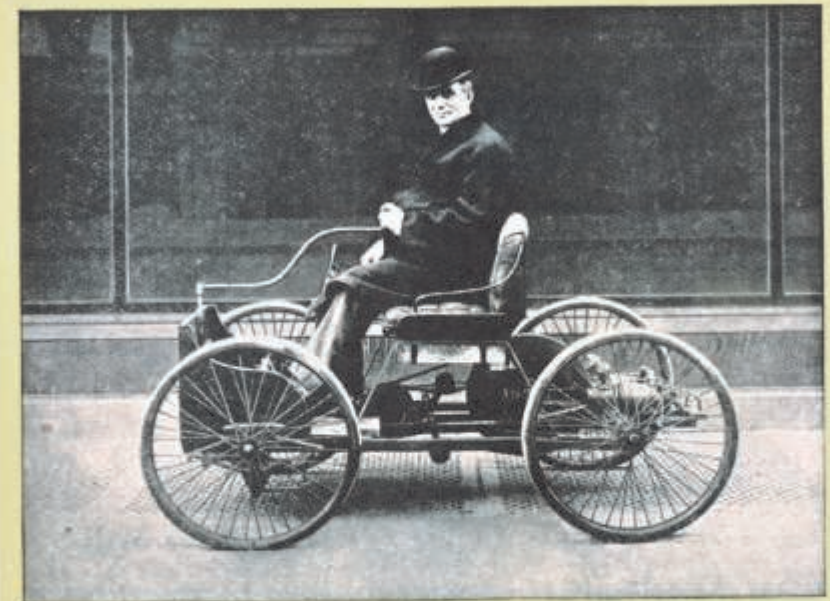
One incident, illustrative of the mechanical genius of Mr. Ford, took place in 1906. The men in the factory were making the final adjustment on a car he intended driving at the Ormond Beach races. At the time he was in New York, from where he intended to proceed direct to the Florida

track. About nine o'clock one night he called the Detroit factory to listen to the motor in the new racer. After listening two or three minutes he gave a few instructions and then ordered the car shipped. However, after one of his drivers narrowly escaped a serious accident, Mr. Ford decided to discontinue entering Ford cars in the races.

The growth of the Ford Motor Company has been progressive, continuous; and at all times impelled by the personality of its founder. The present plant site contains three hundred and five acres, of which one hundred and twenty-three are under roof; and 50,000 and more employes work in this huge factory.

Henry Ford has ever been a worker—a man whose self-imposed tasks occupy him until they reach completion. The Ford car, the Ford factory, the Fordson tractor, the Ford Blast Furnaces and Coke Ovens, in turn, resulted from his labor and vision. Even today his many interests do not wholly engage him to the exclusion of his own private workshop—really an elaboration of that begun many years before—where other ideas are donning the clothes of reality.

Is it any wonder then that this man who builds with his own hands; whose ambitions, sympathies, thought-processes and very life has been that of toiler and thinker combined, should manufacture a car for the masses, that he should entertain a deep regard for those men who work in his factories? Is it any wonder that his factory and his product reflect his personality?



Henry Ford enjoying the thrills of his first Gasoline Car. This car is still running





One of a battery of Five Giant Machines, each weighing 113,000 pounds, forging Front Axles

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## A City In Itself

The big Ford factory resembles a busy, bustling city with its numerous activities. It operates its own power, heating and lighting plant, fire department, telephone and telegraph exchanges, freight and express offices, laundry, laboratories and machine shops; and it maintains its own schools, hospital, safety and hygiene department, motion picture studio, park and athletic field, band and auditorium, educational and legal departments, home and rental exchange, grocery, drug and shoe stores, meat market, tailor shop, and it publishes its own newspaper.

### INTO THE FACTORY

"All ready for the trip through the factory," the guide announces from a corner of the lobby, and those who have come to see for themselves the factory, which has an output capacity in excess of 1,250,000 cars annually, accompany him out of the administration building. There is a trace of the cosmopolitan in these visiting parties for they include people not only from the United States and Canada, but from all over the world. Foreign government officials, industrial leaders, educators, men of affairs and sightseers come to observe the Ford way of doing things—and to marvel. As many as 43,800 have been entertained in a single month.

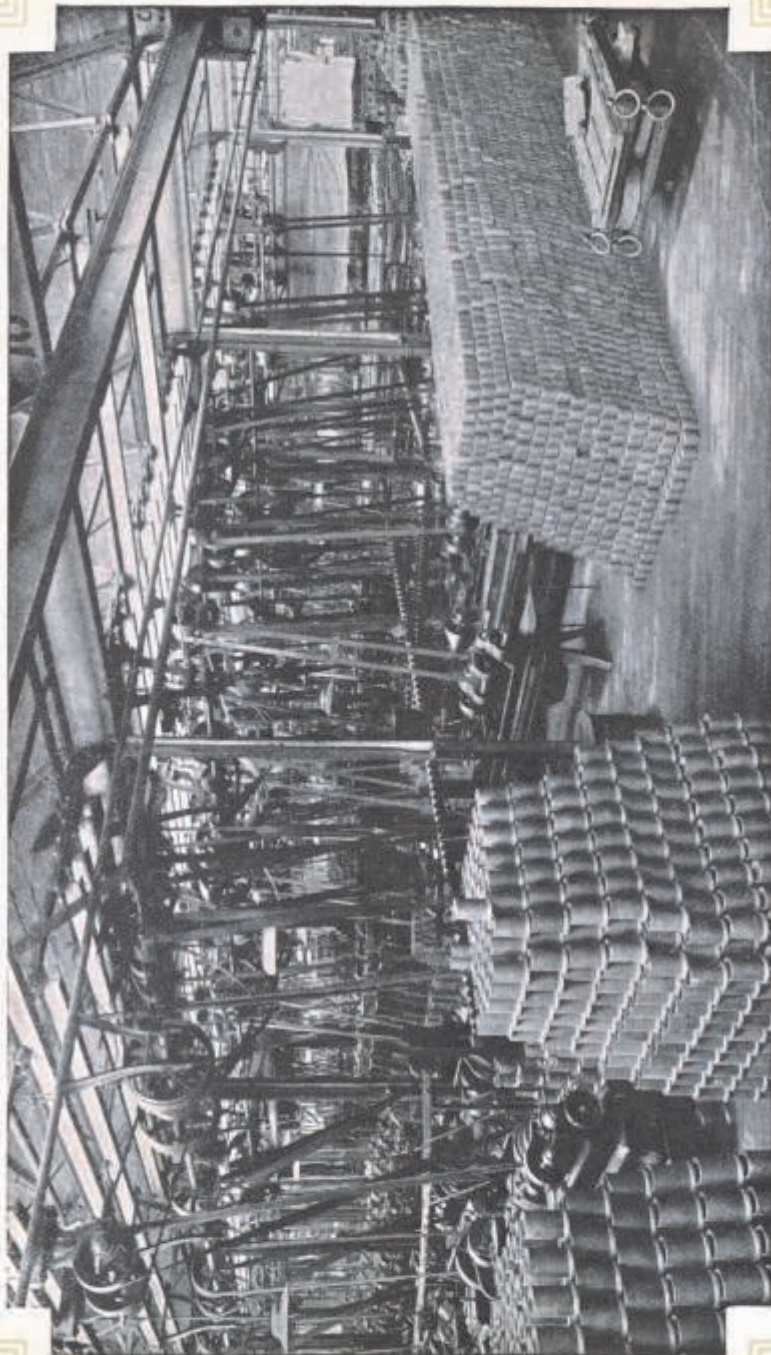
The visitors are conducted into the factory. It is like a vast city under roof, blocked off into departments with aisle-ways or streets between. The hum and song of machinery, and the music of "metal to metal"



Main Office Lobby—Visitors about to go through Factory

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A Section in the Piston Machining Department



Officials' Garage

greet the ears. Improved Ford trucks and locos pulling loaded trailers, run by. Men pass up and down on various errands. Overhead traveling cranes load and unload material or shift cumbersome machinery, while stock line conveyors carry assembled units or parts to departments where they are assembled into larger units or parts of the car.

On one side, pistons evolve from rough castings to finely machined parts. Through each of six or seven operations, they are machined by one man, rolled down a gravity chute to another who does his bit and again rolls them along. Across the aisle is the Tool Construction department, where more than 3,000 tool makers and machinists design new special machines and tools intended to increase production and lighten the work.

The visitor will notice the system for placing machines. Those of a particular class, or type, are not grouped as in many factories. It is Mr. Ford's idea to have each department contain the machinery required to complete each part it produces. To illustrate: A rough forging or casting starts in a department, at one point, passes through the required operations, and leaves the department a finished product, ready to be assembled into the car. Such a system necessitates grouping together many different machines, sometimes including brazing or heat-treat furnaces, generally found in separate buildings.

\* \* \* \*

The guide explains different points of interest. He tells the visitors that one building—the first entered—covers some 700,000 square feet of floor space, and contains approximately 11,000 machines, representing an expenditure of \$7,625,000; that these machines use 3,600 gallons of lubricating oil daily and that 12,000 gallons of cutting fluids are in constant circulation. For driving the machines, apart from those equipped with individual electric motors, about fifty miles of leather belting is used, giving part of the shop the appearance of a dense forest. However, individual electric motors have been installed on machines wherever possible, for this arrangement makes for greater safety and practicability.

\* \* \* \*

Even the most casual observer is certain to notice the plant's cleanliness. The service-maintenance department employs 665 men to keep the





Physical Infirmity no bar to employment in the Ford Factory at Regular Wages

floors swept and scrubbed and the windows washed (there are 32,000 windows washed each day), and in fact to keep the plant and machinery as sanitary as possible. All floors are scrubbed at least once a week with hot water and a solution of alkali, which removes the grease.

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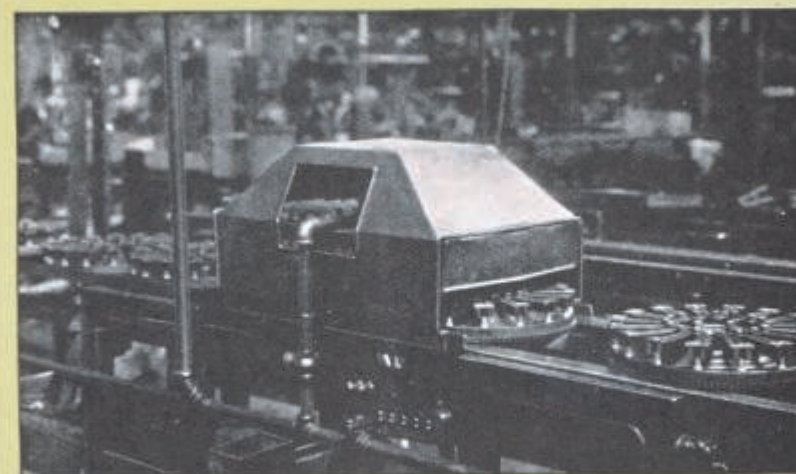
At one point the visitors come into view of long parallel lines of men receiving their pay from the paying clerk, and the guide explains that every day is pay day; that is, that the men are classified by departments, each department having its own pay day. The company's present payroll averages \$462,031 a day.

\* \* \* \*

Farther along is the employment office. Besides hiring men, this office serves as a clearing house for employees; and there every attempt is made to place men where they will be best satisfied and most useful to the company. Sometimes men who have failed in one department are given a chance at another job, for so long as they evidence a desire to "make good," everything possible is done to help them. Frequently employees return to the same work, but with a clearer conception of the other fellow's perspective and a new determination to make good. Of course, the employment department at all times co-ordinates its work with that of the medical department, which is concerned solely with the "physical man."

\* \* \* \*

The Ford Conveyor system—which is responsible for a great part in the success of Ford quantity production—is well exemplified in the rear axle assembly. On the fourth floor the drive shaft is finished; on the second, the differential is completely built; then both are transported by endless chain elevators to the third floor, where they are assembled to the rear axle and thus form the rear axle system. Thus the visitor sees the rough material grow to parts; parts to units and units to assembled systems. All material and unit assemblies move in one direction—toward the loading docks. And this is readily seen by visiting the department wherein Ford motors are assembled.



Giving the Magneto Assembly an Automatic Air Bath

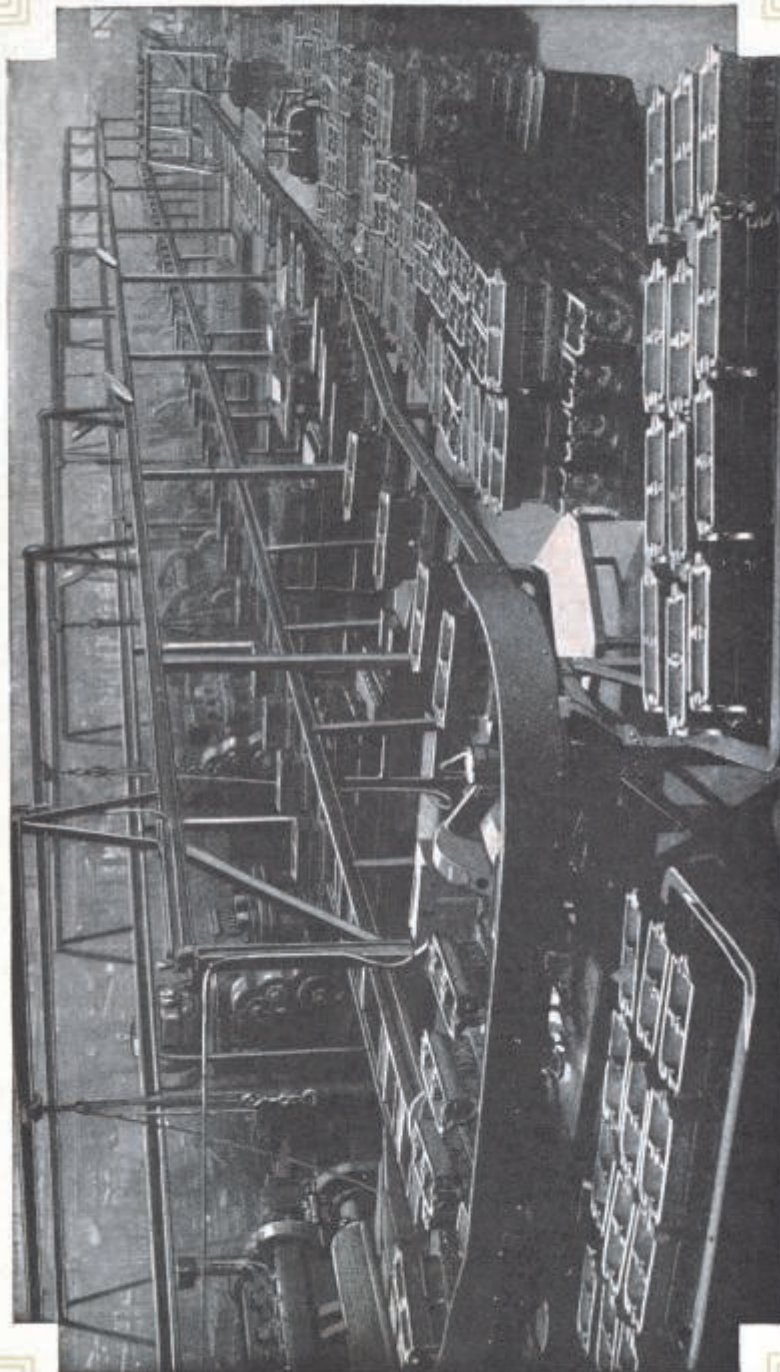
The cylinder block enters the motor assembly department on a conveyor. It is carried along at a rate of twelve feet a minute. First it runs through something that resembles a tunnel on a miniature railroad, but as it emerges dirtless and dripping clean water, it is apparent that it has been through a bath. Next it is pulled onto a table and into a special Ford machine which runs the babbitt into the bearings. Then it is inspected, other parts are attached, and the unit grows rapidly as it proceeds.

After being completely assembled the motor is carried along to the block test room where it undergoes a thorough inspection while being



Heat-treating Crank Shafts





Conveyor System which carries Cylinder Blocks to Motor Assembly Department



A "Ford Car" that seldom gets outside the Plant

operated by electricity. It is run steadily for twelve minutes, carefully inspected by experts and finally O. K'd. The motors again are placed on a conveyor, carried through an automatic painting machine, which gives them a coat of black paint in ten seconds. Then they are loaded on trucks and carried to waiting freight cars, in which they are packed 100 in each car.

\* \* \*

The handling of freight traffic, both inbound, to keep the immense plant operating, and outbound, to maintain a consistent operation of the various assembly plants, presents an intricate, as well as an intensely interesting problem.

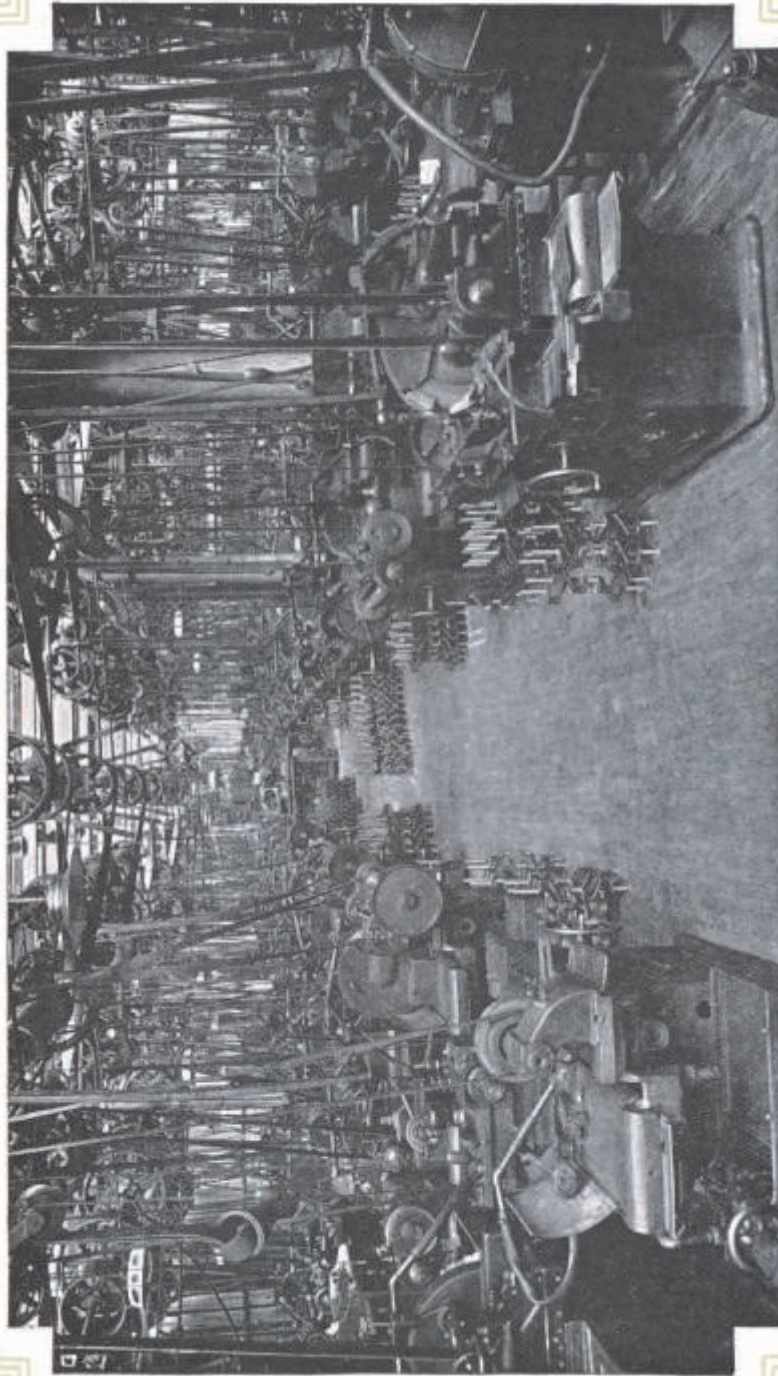
The company does comparatively little warehousing of stock. It has what might be termed a "milling in transit" system; that is, the raw materials are taken from the freight cars, checked, then to the machines, and finally from machines back to freight cars for loading and shipping to assembly plants and service stations. This necessitates the most careful planning and the most complete check of all material in transit.

Five locomotives work continuously in the yard placing cars at loading docks and removing them when loaded. It requires approximately one thousand yard operations every twelve hours to supply the factory with materials and to start the finished parts on their way. During last year nearly one hundred thousand freight cars were needed to handle Ford freight. All parts are scientifically loaded in order to secure maximum freight car capacity. And every mode of transportation is utilized, including railroads, express companies, parcel post and motor truck.

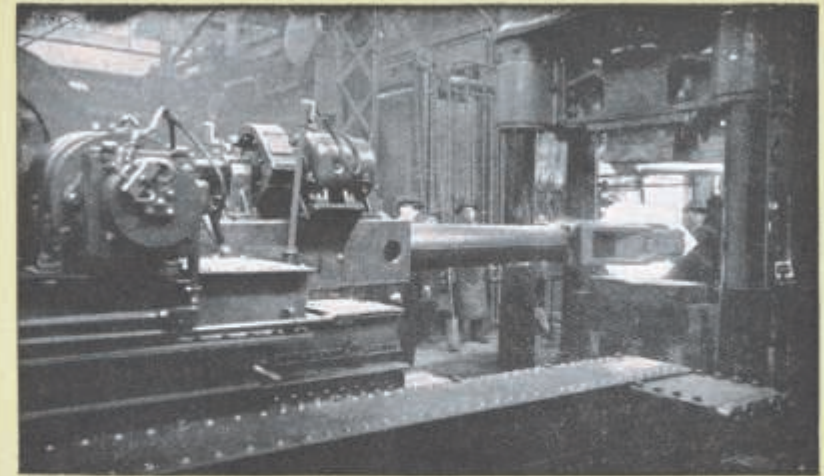
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Of course, the Ford Motor Company has its own fire department. It is centrally located, and consists of a fully equipped Ford fire truck, a sixty-gallon chemical extinguisher, pyrenes, and various other equipment, including 31,600 feet of hose. Two thousand three-gallon chemical extinguishers, and one hundred forty-gallon chemical tanks mounted on wheels are placed about the factory. Ninety experienced fire fighters





One Aisle in the Crankshaft Grinding Department



Forging a 2500-pound White Hot Steel Billet in 1000-ton Hydraulic Press

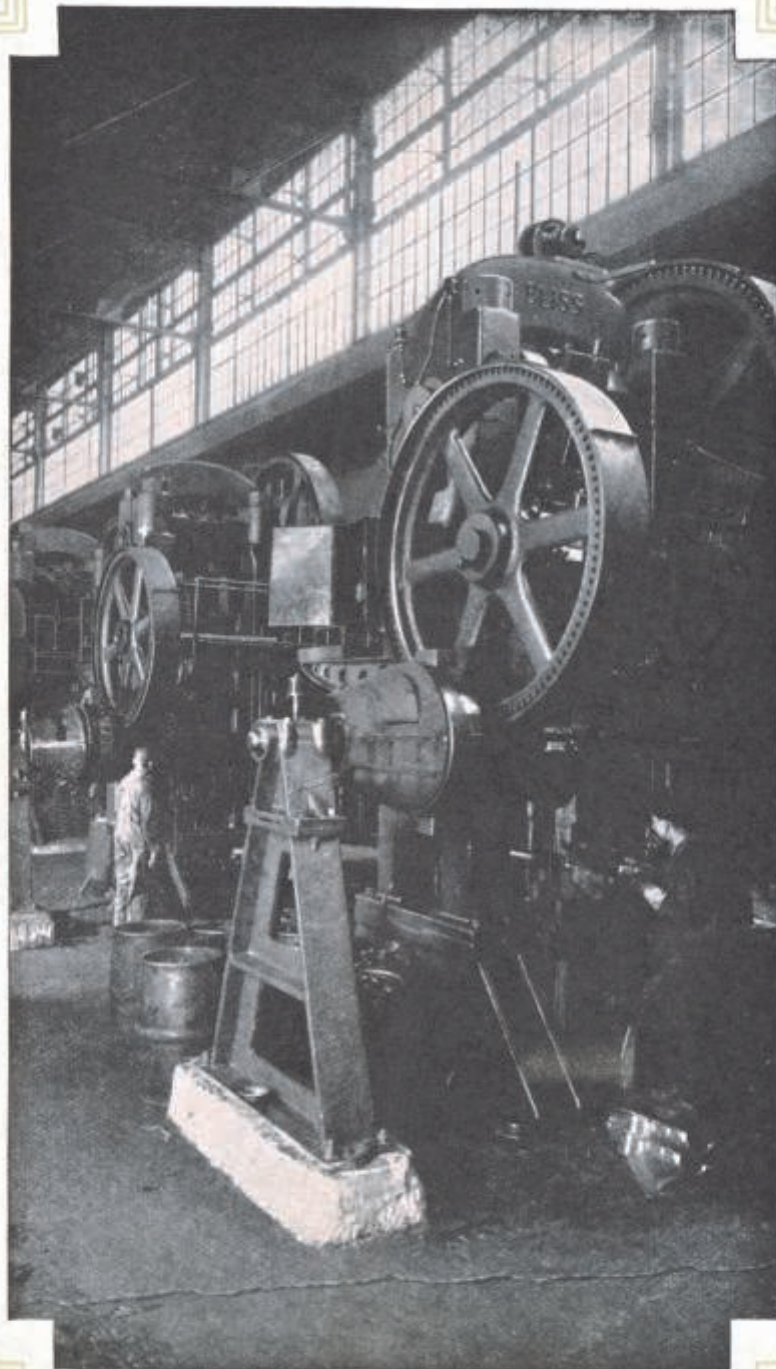
are employed in this department, thirty for each of the three eight-hour shifts. Another force of 200 men is ready for duty at an instant's notice. Each squad of ten men has a captain and a lieutenant. Surrounding the plant are fifty water hydrants equipped to handle two or three lines of hose, while inside the plant are nine hose houses fully equipped.

When a general fire alarm comes in, the call bells are rung automatically. The call is sent instantly to the pen registers in the Superintendent's office, Factory Service Office, Fire Department Headquarters and the Chief Engineer's Office. The exact minute, hour, day, month and year as well as the box from which the call comes is automatically

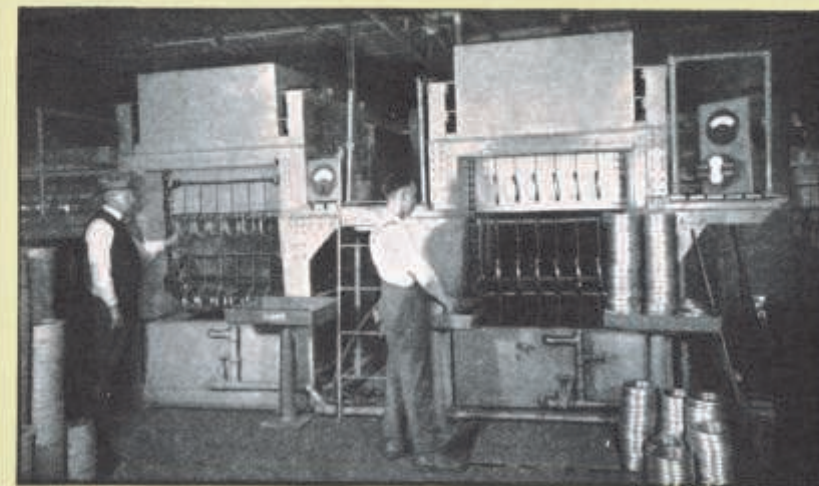


Lunch Time





Some of the big Machines that form the Crankcases Page eighteen



Plating Department. 32,000,000 Ford Parts are plated monthly

recorded on the tape. Three hundred call stations are placed about the factory at points 200 feet apart.

The Ford fire alarm system is said to be more effective and up-to-date than any other in the country, even including those of New York and Chicago.

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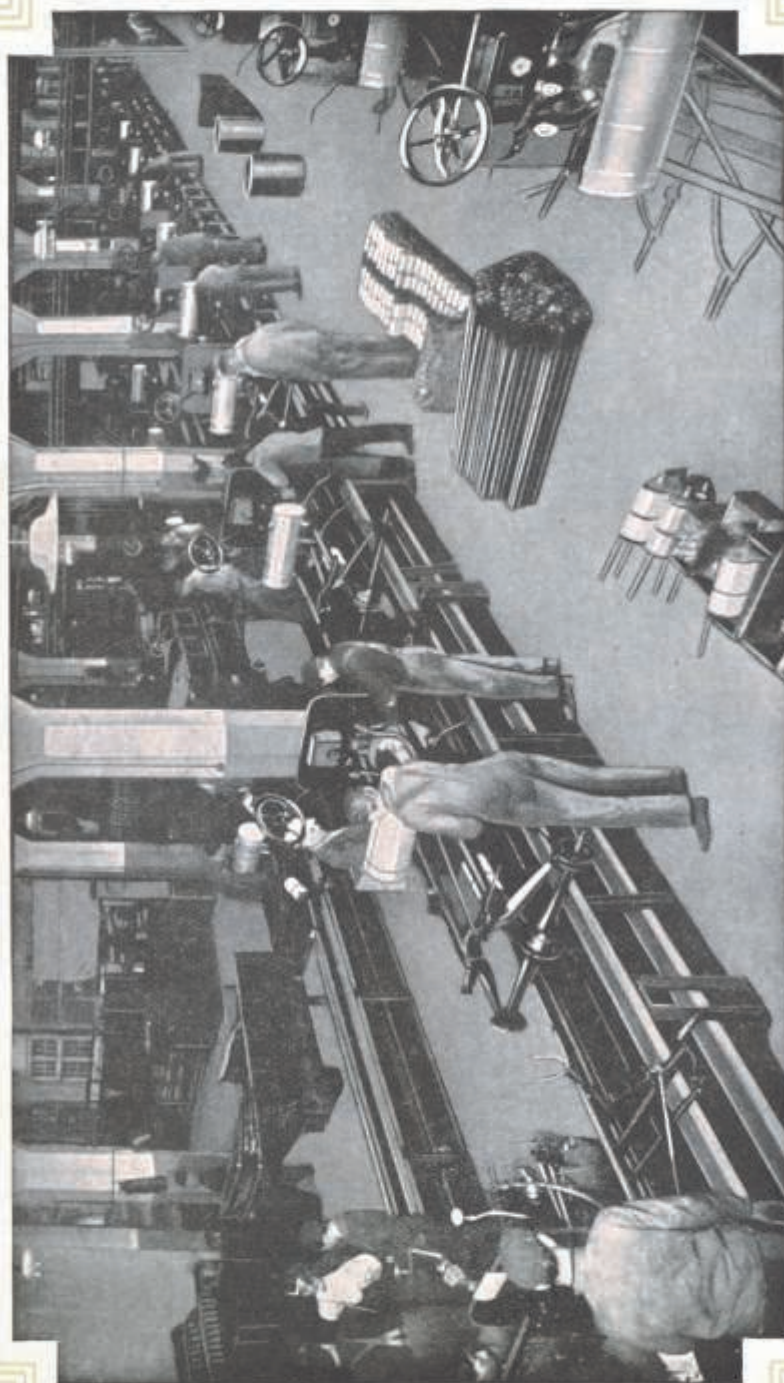
Next the visitors are taken to the "final assembly line" where cars are completely assembled on a moving conveyor. First, a rear axle unit and a frame unit are combined and started in motion. As it moves down the room, each man adds one part to the growing car, or completes one operation, so that when the car reaches the end of the line it is ready to run on its own power.

In following the final assembly line from the point where the chain conveyor engages the frame and axles, the visitor is impressed with the dispatch with which every movement is executed. The gasoline tank, containing one gallon of gasoline, is installed. Next, a number of small units are added, such as the hand brake lever, gasoline feed pipe, and fender irons, until the point is reached at which the motor is placed in the frame.

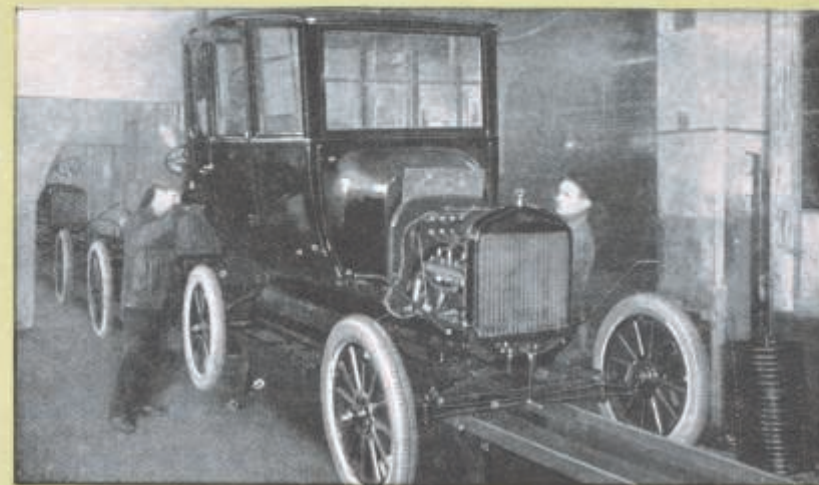
Ordinarily, setting a motor in a frame is a long operation, but in the Ford assembly the motor is elevated by a hoist, and lowered into place while the chassis is moving. The dash unit is assembled to the car. It includes the dash, steering gear, coil, horn, and all wiring ready to be attached to the motor, so that its installation is rapid. Farther along, exhaust pipe, muffler and side pans for the motor are fastened in place, and the wheels are brought into the assembly. Then the chassis moves to the point where the radiator is installed.

At the end of the assembly line the rear wheels drop into a set of revolving grooved wheels, sunk into the concrete floor, and driven by an overhead motor. Two ends are accomplished by this operation. First, when the wheels revolve with the grooved wheels, the motion is transmitted to the differential, through the drive shaft to the motor, limbering





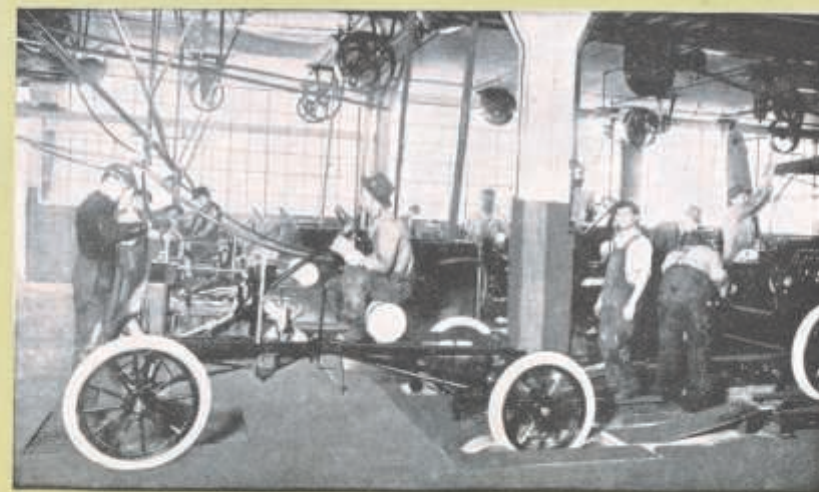
Along the line of the Final Assembly



Lowering Body on Chassis

up all these parts. Secondly, while the parts are being limbered up, the switch is turned on and the motor started.

The bodies installed on the factory-assembled cars are built upon a moving conveyor in the final assembly department. As the completed chassis reaches the end of the assembly line the body is swung into position by a chain hoist moving on an overhead track, the top installed and a complete new Ford car has been built. And it may be said that the conveyor system of car assembling has been installed in all the Ford assembling plants and branch factories in North and South America, Europe and Australia.

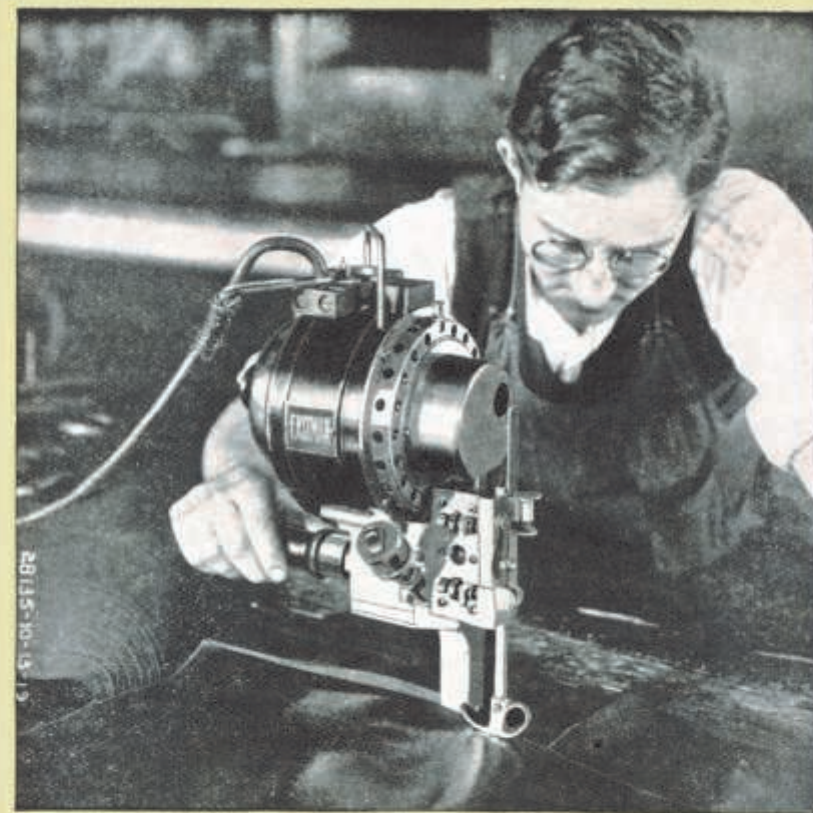


Mechanical Starter at the end of Final Assembly





A Glimpse within the Top-Making Department, Showing men at Sewing Machines and Traveling Conveyor



Cutting half a hundred Ford Tops at a time

From the final assembly the visitors are taken to the cutting and sewing departments where Ford tops are made. Top material is laid, layer on layer from fifty to two hundred and ten thicknesses (depending upon the kind of material), on long tables. Steel patterns, according to a pre-arranged plan, which reduces waste to a minimum, are placed on the goods, and outlined. Then the cutting machine cuts the pile of goods as though it were only one piece of cloth.

Next, the pieces are sewed on high-speed machines, ranging from 1,600 to 3,000 stitches a minute. Of course, each operator sews only his particular seam and passes the piece on to a belt conveyor. Another operator catches it up, sews on another part, and thus it continues until the entire top has been sewed. It then enters the top department, is assembled onto the frame, packed and loaded for shipment to the branches.

Seat-backs and cushions are built on conveyor lines moving approximately 24 feet a minute. At the beginning of the lines the coverings are placed upside down on the conveyor. Padding, covering, cording, and buttoning is all performed enroute. The cushions and seats leave the assembly lines at the rate of fifteen a minute, and are slid down chutes from the fourth floor to a place opposite the car in which they are loaded for shipping.





Along the Main Craneway, 885 feet long, 100 feet wide. From \$10,000,000 to \$15,000,000 of Materials in Stock here every day



One of the 6000 H. P. Engines, showing Starting Devices

The main crane-way, devoted exclusively to the storage of parts in a rough, or semi-finished condition, contains over 67,000 square feet of floor space. Overhead are two 5-ton electric cranes, so arranged that they can unload material from railway cars and deposit it in a position either to be picked up by the chassis trucks or placed in bins or barrels for storage. All material is stored nearest to the department where it is to be used.

The next department visited, after descending to the main floor and crossing into another building, is the crankcase department. The crankcase is made from sheet steel in six operations on seven presses weighing approximately 50 tons each and exerting a downward pressure of 900 tons.

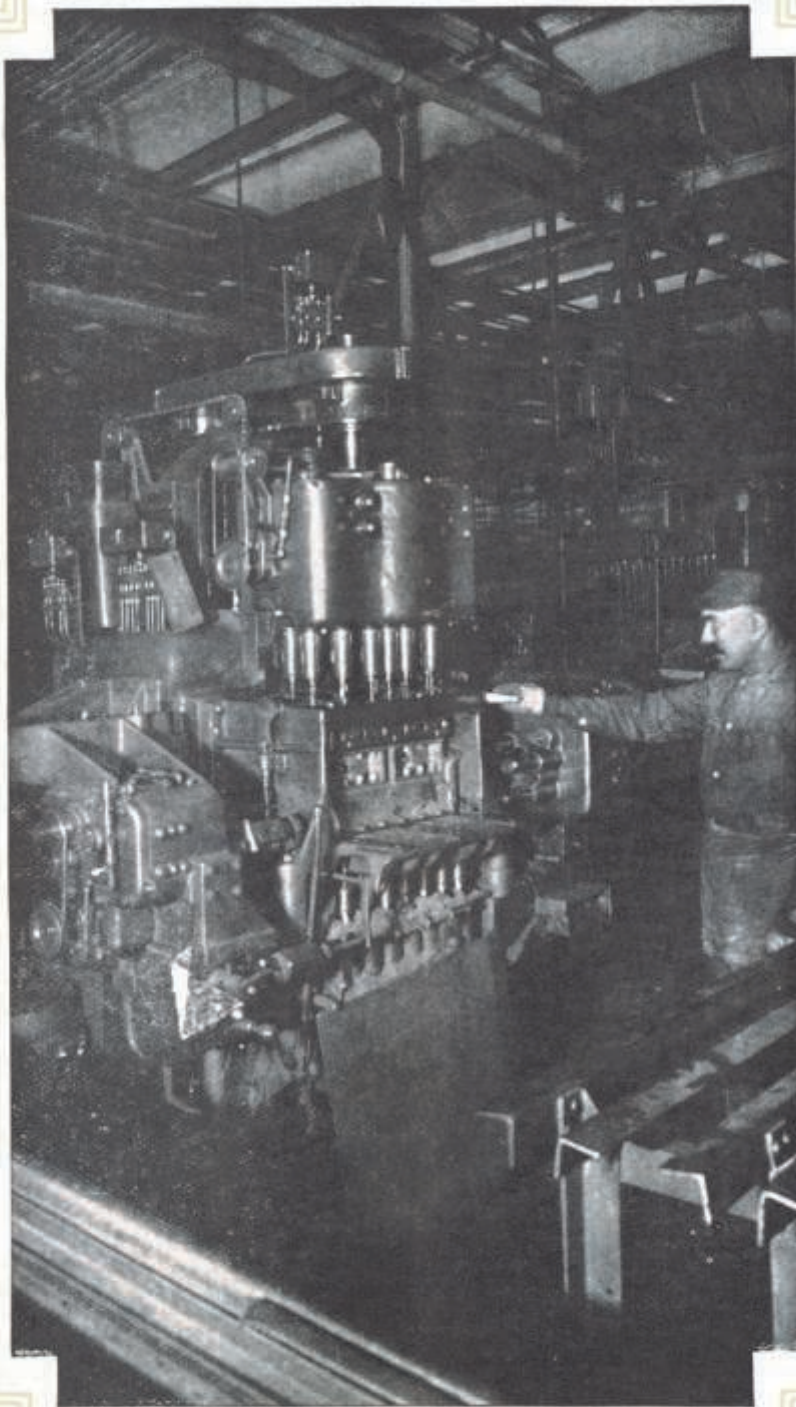
The visitors very easily follow the making of a crank case. One man feeds the sheet of steel into number one machine; another man takes the cut piece from the other side of the machine and places it in number two machine, which roughly forms the crankcase; the operator on the opposite side takes the part and hangs it on a continuous conveyor which carries it through a heat-treat where it is annealed and returns it for the remaining operations which are handled in like manner. At the lower end of the department the completed parts are hung on conveyors which carry them to the motor assembly. It is noteworthy that 4,000 crank cases are manufactured daily with a force of but twenty-two men.

\* \* \* \*

The last department to which the guide conducts the visitors is the Ford Power Plant, one of the largest in the world. It furnishes the factory with electric power, with light, hot and cold water, steam for the steam hammers, gas for heat-treating Ford parts, compressed air for special operations, with heat in winter and cool washed air in summer, and with sufficient refrigeration to cool the drinking water and to cool the oil used in heat-treating.

The power plant has equipment sufficient to furnish a modern city of 500,000 inhabitants with water, gas, electricity, and ice, and produces heat enough to supply the entire business district and all of the public buildings.





One of the Machines that drills Forty-Seven Holes from four ways at one time

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Nine combination gas-steam engines housed in this building, develop 54,000 combined horsepower. The engines were designed by Ford engineers, working under the instructions of Henry Ford, and were the first gas-steam engines to be put to practical use. Another engine, using steam only, develops 2,000 h. p. while the pumping engines increase the total horsepower of the plant to 60,000, making it probably the largest direct current power house in the world.

Six pumps—each of 3,000,000 gallons per day capacity—furnish the water supply to the entire factory, and two pumps—each of 25,000,000 gallons per day capacity—recirculate this water to large spray ponds on the roof where the water is cooled and used again and again. The waste heat from the gas and steam engines is used in heating the entire factory, keeping it at the desirable temperature and also supplying the hot water to all the different factory processes and lavatories.

A refrigeration system of 650 tons capacity is maintained to cool the quenching oil used in the heat-treating processes. This oil is kept at the necessary temperature by recirculating 3,000,000 gallons each day through the refrigeration plant, thus using the oil over and over in the same work. The drinking water is run through special filters and coolers.

The high efficiency of the gas-steam engines in combination with the factory heating system keeps down the total coal consumption to thirty tons per hour, and besides furnishing the steam for engines and factory, produces 45,100,000 cubic feet of gas daily, which is used in the gas-engines and factory furnaces.

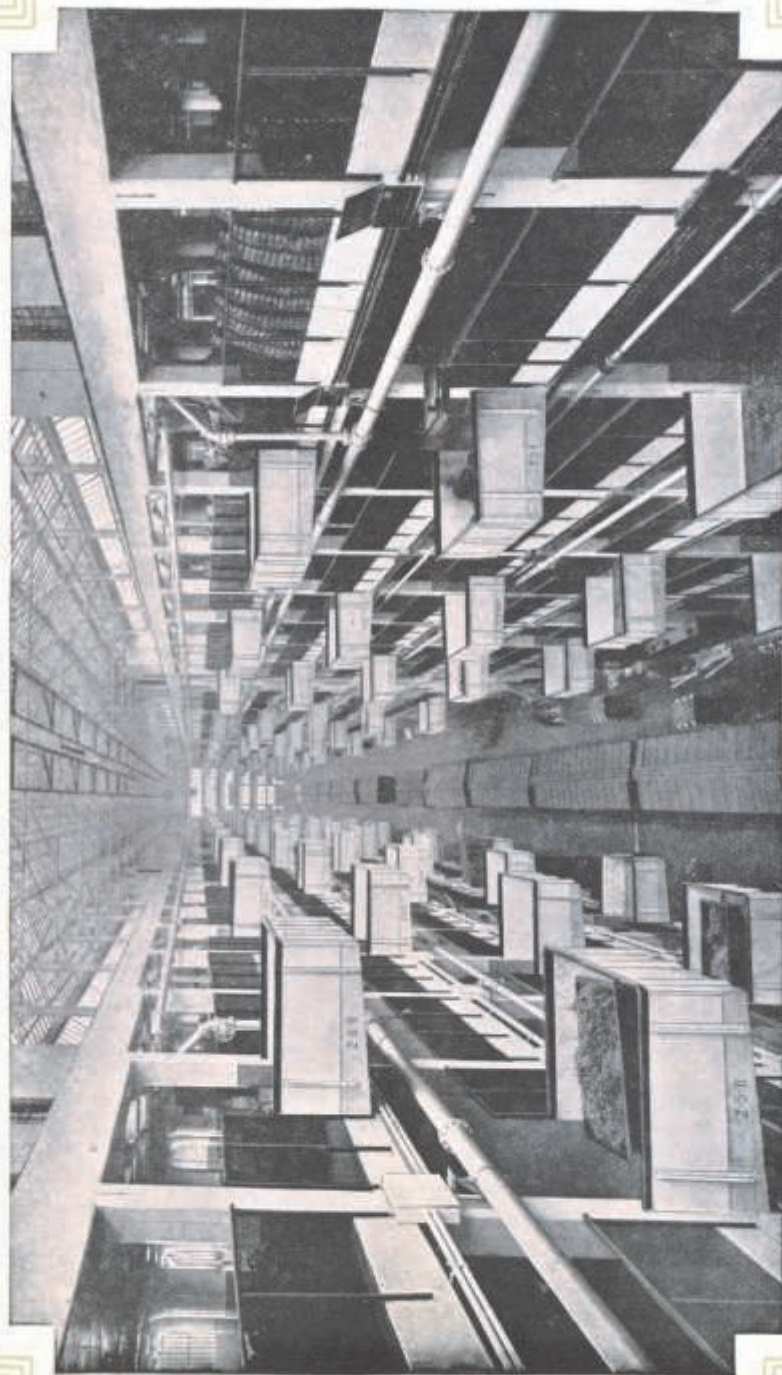
None of the coal for the power house, from the time it arrives in the coal cars until, as ashes, it is carried away in small dummy cars, is ever handled by hand. Upon its arrival it is dumped into bins or hoppers underneath the tracks. Then it is carried by belt conveyors to the crusher; and after being crushed to size is caught up by scoops on an elevator which takes it to the ninth floor of the power house and dumps it into the bunkers. From the bunkers, located just over the boilers, the coal is automatically weighed and distributed into the mechanical stokers.



Ford Men "line-up" for Street Cars

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One of the Craneways in one of the 900-foot Buildings, showing Walled-in Loading Platforms

## A HISTORY IN FIGURES

**T**HE FORD MOTOR COMPANY'S fiscal year dates from August 1st to July 31st. Each year's production figures since 1903, when the company was organized, tells its own story:

In 1903-4 there were made and sold .....	1,708 Ford cars
In 1904-5, the Company built and sold .....	1,695 Ford cars
In 1905-6, the production and sales were .....	1,599 Ford cars
In 1906-7, the total cars made and sold were .....	8,423 Ford cars
In 1907-8, production and sales were .....	6,398 Ford cars
In 1908-9, the production and sales went up to .....	10,607 Ford cars
In 1909-10, production jumped to a total of .....	18,664 Ford cars
In 1910-11, there were made and sold .....	34,528 Ford cars
In 1911-12, the production more than doubled with .....	78,440 Ford cars
In 1912-13, a new mark was reached with .....	168,220 Ford cars
In 1913-14, an even greater triumph achieved by .....	248,307 Ford cars
In 1914-15, all previous efforts were beaten with .....	308,213 Ford cars
In 1915-16, the volume of production was .....	533,921 Ford cars
In 1916-17, the record was again raised to .....	785,432 Ford cars
In 1917-18, the war interfered and production fell to .....	706,584 Ford cars*
In 1918-19, war work cut production to about .....	533,706 Ford cars*
In 1919-20, the production was .....	996,660 Ford cars
(and 79,013 Fordson Tractors)	
For 1920-21, the estimated production is .....	1,250,000 Ford cars
(and 200,000 Fordson Tractors)	

*\*Production during 1917 and 1918 was materially affected by war demands. Many thousands of Ford cars were made for army service—staff cars, ambulances, trucks. The Company also produced volumes of other war materials. Upon the signing of the armistice the United States Government gave us a citation as being a 100% war work organization.*

## WHAT A "MILLION AND A QUARTER CAR PRODUCTION" MEANS

While the following figures of material required to produce 1,250,000 cars are by no means complete, yet they show the immense quantities of a few of the necessary materials purchased:

- Over 634,375 tons of steel are required for the cars.
- 81,875,000 square feet of rubber cloth material for tops.
- 5,000,000 each of wheels and tires.
- 3,750,000 lamps.
- 7,287,500 square feet of plate glass for windshields.
- 172,500,000 feet of copper tubing for the radiators.
- 17,950,000 pounds of steel for Ford magnetos.
- 43,000 miles of wiring used in magnetos.
- 12,400,000 square feet of galvanized metal for gasoline tanks.
- 66,725,000 square feet of sheet metal for guards and fenders.
- 38,750,000 feet of tubular rods.
- 10,000,000 gallons of fuel oil for heat-treating.
- 250,000 tons of coal for gas, power and heat.





The Ford Service School. A Class in Mechanical Drawing

## THE FORD SCHOOLS

WHEN, one day in May, 1914, twenty foreigners, representative of half a dozen different races, met after work with a teacher in a small factory office to study the English language, the Ford Motor Company was experimenting with a new force in business. Few large corporations had even considered the beneficial results sure to come from such a course. True, it was hardly a business proposition—at least had seldom been thought of as such. Yet, that Ford officials did appreciate its potentialities is a matter of fact. It will, said they, make the man a more valuable worker; it will broaden his daily intercourse with his fellow men; and it will prepare him for a more substantial citizenship.

Since no common language existed for the class, the dramatic method was adopted. The teacher recited a sentence, suiting action to his words. As soon as the class grasped the meaning, the sentence was repeated in concert a sufficient number of times to promote proper pronunciation. The first sentences were short, merely a combination of two or three words. But the men were delighted and earnest because they were learning to speak the English language and becoming as other Americans.

News of the new movement spread almost over night; by seeming magic the handful of students became a few hundred. A call was issued for more teachers. Foremen, superintendents, clerks and even workmen volunteered; the men were divided into classes of twenty-five or thirty each; new quarters were procured; and the Ford English School had become an institution. And another precept had been set for the industrial world. That, briefly, tells the story of the Ford Motor Company's initial endeavor in educating its workmen. Workmen and company alike acclaimed it a success. Enthusiasm ran high.

Next in line came "The Apprentice School," which offered Ford men an opportunity to learn toolmaking. A short time later the "Henry Ford Trade School" was established by Mr. Ford personally. It extends to many boys, who otherwise would be denied it, a chance to continue their academic education while learning a trade.



Class Room, Henry Ford Trade School



The "Ford Service School" was the last to be organized. Its curriculum provides for a five weeks' course to familiarize repairmen with the Ford mechanism and the best methods for making repairs or adjustment on Ford cars and Fordson tractors.

Besides the four schools enumerated above, special courses arranged to fill definite needs have been added from time to time. These courses deal with such subjects, or particular phases of such subjects, as chemistry, metalography, electricity, foundry practice, and foremanship—depending upon what the company's requirements may be.

Although each of the Ford Schools or courses had its individual beginning, separate from the others, yet today they have been brought together under a Superintendent of Ford Schools. One thousand students attend classes daily; and a staff of seventy-five teachers and instructors is maintained. The Ford School contains beside the assembly and class rooms, an auditorium, library, and the offices of the "Ford Motor Band."

Ford students attend classes only on their own time; because of their alternating work on three shifts, they sometimes attend before work and sometimes after.

Much of the student's work in the factory is co-ordinated with his study. He is placed under experienced instructors and wherever possible his lessons learned are used in actual work. Theory and practice proceed together; for the students, be they men or boys, work on actual parts of Ford machinery on Ford cars, and receive pay accordingly.

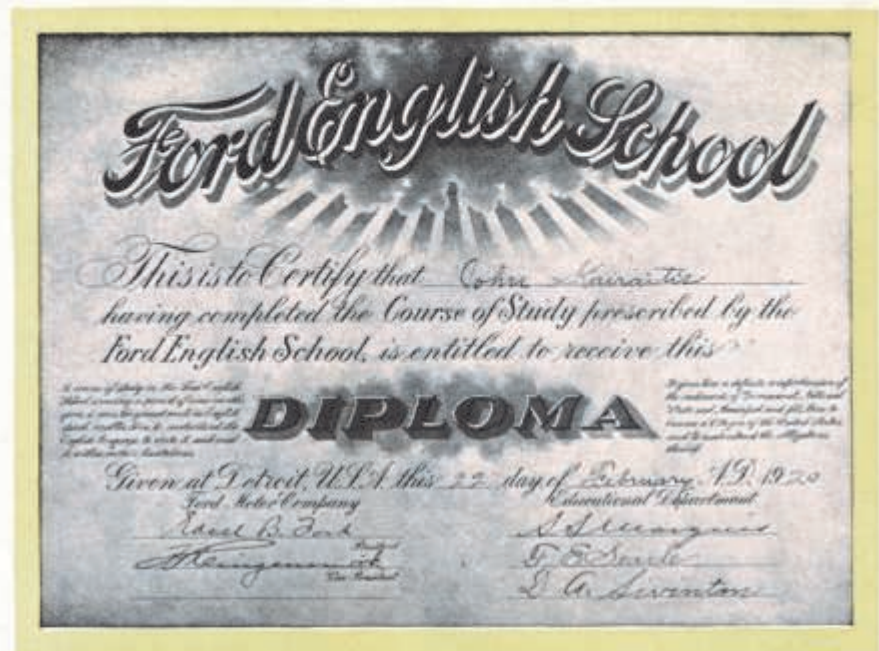
Diplomas are awarded all Ford School graduates.

### THE ENGLISH SCHOOL

In July, 1915, one hundred and fifteen Ford men graduated from the English School. The melting pot was beginning to simmer. By the following spring, the enrollment had reached three thousand. Since then 16,000 Ford men have been graduated from the English School. It now occupies a section in the new school; and its work and methods have



Learning American Customs, Government, and Language



All Graduates Receive Diplomas

broadened, and changed to accommodate changing conditions and progress.

The need for the dramatic method has passed and the men are now taught by the oral and written method. To accustom the men to read, script sentences are placed on the blackboard and the men drilled in reading them. Seventy-two lessons have been prepared. Incorporated in them are sentences dealing with everyday life in the home and factory, safety hints, first aid cautions, proper care of the body and teeth, matters of State and National Government, and instructions for obtaining citizenship papers. This course covers a period of thirty-six weeks, with two, one and one-half hour classes each week. Graduates are able to read, write, and speak simple English.

The Detroit Naturalization Court accepts the Ford diplomas in lieu of an examination when application is made for second citizenship papers.

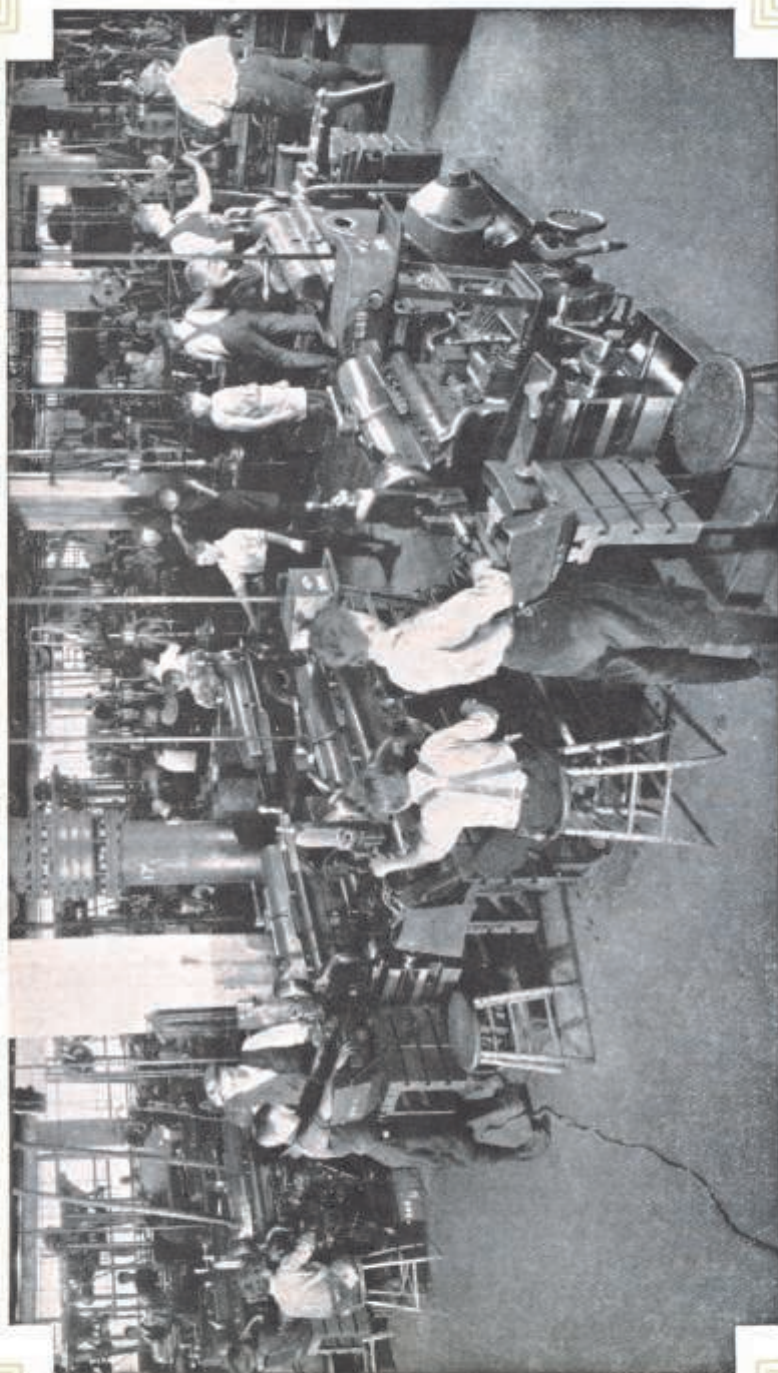
Automatically upon graduation, the English School alumni become members of the American Club. At weekly meetings they practice speaking, reading, and debating, and discuss parts of history, civil government, and national problems of current interest. Occasionally lecturers are invited to address the club. Sometimes the meetings are devoted wholly to social entertainments, when the worker's family comes with him for "a good time."

### THE APPRENTICE SCHOOL

Seven hundred apprentices at present are enrolled in "The Apprentice School," learning toolmaking; 200 have graduated to become journeymen toolmakers at increased wages.

The apprentices work in the shop under skilled instructors, who drill them successively in the use of different machines in order to develop





Boys of the Apprentice School working on Special Machines in School Shop

them into proficient and all-round toolmakers. They attend two classes in the school each week; one in mathematics and one in mechanical drawing.

The lessons in mathematics are arranged progressively and consist largely of shop problems involving a knowledge of parts of algebra, geometry, and trigonometry. Mechanical drawing is conducted in classes but the instruction is largely individual, and the student is permitted to progress as fast as he chooses. While these classes are maintained primarily for the apprentices, they are open to anyone in the Ford organization who desires to learn. Advanced classes for foremen are also conducted in the above subjects.

The course is scheduled to cover a period of three years in the classroom and four in the shop; but many students, most of them in fact, by dint of their enthusiasm and close application, graduate in but little more than three years.

### THE HENRY FORD TRADE SCHOOL

Henry Ford loves boys—particularly young boys, and that offers sufficient reason for the existence of "The Henry Ford Trade School." It presented an opportunity for him to help a few boys help themselves. And to him, that has always been the best way to help anyone.

The school opened in October, 1916, with six boys and one instructor. It has developed into an institution with fifteen instructors, over three hundred boys and a long waiting list. As a school, it is regularly incorporated under the Michigan laws, and extends to a limited number an opportunity to continue their academic education while learning a trade.

The moment a boy is enrolled he is awarded a scholarship amounting to four hundred and some dollars annually. For convenience this is reduced to an hourly rate and paid twice each month. A boy thus becomes at once self-supporting while attending school. His scholarship is increased from time to time, depending upon his progress and effort, until he reaches the maximum of nine hundred dollars per year. He receives pay for all holidays and vacations.

A board of five directs the policy of the school. One department undertakes the personal work, investigates all applications for admission, enrolls the boys, keeps in touch with their homes and advises them in many ways. When occasion requires, they find suitable homes for those boys thrown entirely on their own resources.

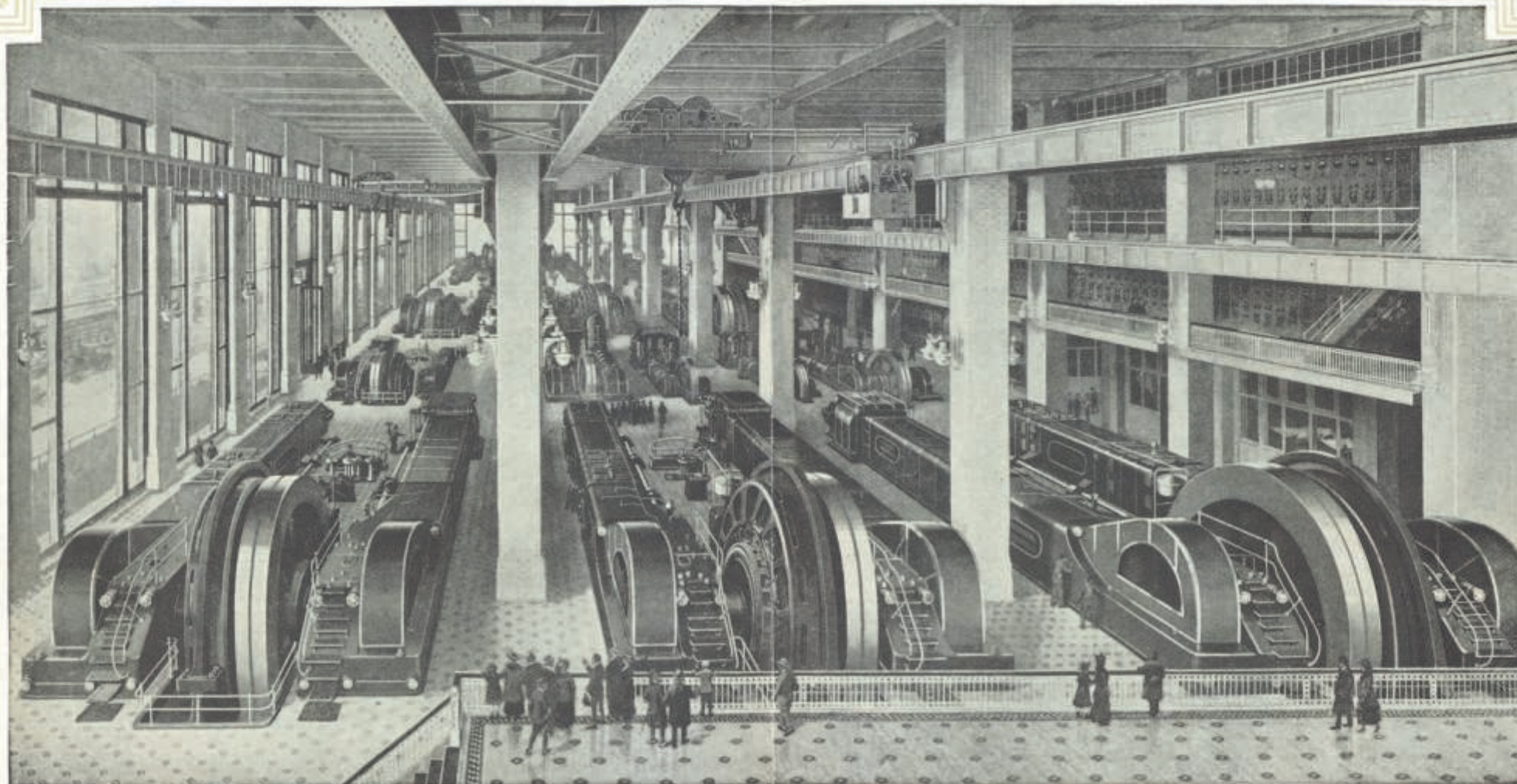
To develop a habit of thrift one dollar is added to each pay envelope. This dollar must be deposited in a savings bank by the boy himself, and kept there. Each month the bank books are collected for inspection. So long as the balance shows that the full amount has been saved the thrift fund is continued. With this incentive, many boys add materially to their savings from the scholarship payments.

The entrant receives a thorough physical and dental examination, if necessary, his teeth are repaired, and he is given the proper medical attention. He is assigned to a class according to the work he has completed in a public school. The classes are divided into three groups, one of which is in the class room and two in the school shop. Each week the groups shift; the boy who has spent the week in class enters the shop for two weeks, and one of the shop groups returns to academic work.

From the moment the boy enters he is engaged in useful work. While the tasks are graduated to his ability nothing is given him merely for

Continued on page 39





### LOOKING FROM THE BALCONY DOWN THE 400 FEET OF THE FRONT GROUND FLOOR OF THE BIG POWER HOUSE

Note beautiful tiled floors. Walls and columns faced with white enamel brick, and all other surfaces painted white. Three 50-ton cranes, with parallel runways extending full length of building. The huge engines are composite gas-steam type (the only ones of the kind in use), and are rated 6,000 h. p. each. (A brief description of one will answer for all): the gas side has tandem cylinders, 42x72 in., and the steam side tandem compound cylinders, 36x68 and 72 in. Between the two engines are mounted a 100-ton flywheel and a 4,000 k. w. 250-volt direct current generator, the latter being of unusual size owing to a speed of 80 r. p. m. The approximate weight of this dual gas-steam engine is 1,500,000 pounds—the steam engine weighing 700,000 and the gas one 600,000 and the generator and flywheel 200,000 pounds

each. The bed on the steam side weighs 150,000 and on the gas side 140,000 pounds. The crankshaft is 25 ft. 2 in. long and 31 in. in diameter at the bearings and 34 in. for the flywheel, weighing 72,000 pounds; the crank disc weighs 28,000 pounds and the connecting rod, with boxes, 10,000 pounds. The gas engine piston rods weigh 14,000 and each piston 8,500 pounds, while the steam engine piston rods weigh 10,300 pounds and the main cross head, on either engine, complete with shoes, pin and box, 6,000 pounds. Over all the engine measures 32 ft. in width with length of 72 ft., occupying a floor space of 2,304 square ft. The generator extends 14 ft. 5 in. above the floor and 11 ft. underneath. There are nine of these gas-steam engines—and, in addition, one smaller steam engine and four great pumps.





Every State in the Union is represented in this Class of Ford Repairmen and Mechanics



The School Library

*Continued from page 35*

practice. Everything he makes or works on is used unless he spoils it, and he is kept at each task until he has mastered it. Expert mechanics, selected also for their teaching ability, train and guide the boys with such success that those who have completed the course are capable of taking places in any tool room; graduates of the school are in demand in the various tool rooms of the Ford Motor Company.

The class work covered is equivalent to that of the eighth grade. Beyond that the work is based on shop and toolmaking problems. Emphasis is placed on mathematics and mechanical drawing. The factory of the Ford Motor Company is used as a laboratory and groups of boys are frequently taken to various parts of the plant for observation and instruction. Machines and operations of especial interest are studied in detail.

Work completed in the Trade School compares very favorably with that done in the regular tool rooms, both for quality and time required. Very little material is spoiled by students. Experiment has shown that the principles involved are economically sound, for the value of the work done pays for the expense, making the school practically self-supporting.

### THE SERVICE SCHOOL

At the expiration of its first year, the Ford Service School, organized January 1, 1918, had graduated one thousand mechanics who came from Ford dealers in various parts of the country to acquire a thorough knowledge of the Ford car and Fordson tractor. This school is maintained principally to aid in the establishment of a uniform standard service to Ford owners in every part of the United States, and eventually in every country where Ford cars and tractors are sold.

Those to take the course are selected by Ford dealers who are notified by branch managers how many men can be accommodated, and when.

Upon their arrival and enrollment in the school, the service men's names are placed on the Ford Motor Company's payroll. Their work is





Summer and Winter in the big Ford Athletic Park adjoining Ford Factory

Page forty



The Famous Ford Band of 60 Pieces

confined to those departments which build and repair the motor, differential, wiring system—in fact the whole mechanical car. In each department an instructor explains and directs the work. During the day small groups are called into the classroom for a lecture and discussion of the particular work upon which they are engaged.

The course concludes with an examination which must be satisfactorily passed before the student graduates, and returns to the dealer's garage from which he came.

Each day five men return and five others enter the school.

### FORD ATHLETIC PARK

Adjoining the Ford School is Ford Athletic Park, a twenty-acre plot which was presented to Ford employees by Mr. Henry Ford.

It is divided into two football fields, two baseball diamonds, sixteen tennis courts, a children's playground and a rest park. The latter is overshadowed by trees and surrounds a raised bandstand where weekly concerts are given during the summer months.

With the approach of winter, the greater part of the park is formed into an ice-skating pond.

### THE FORD MOTOR BAND

A sixty-piece concert band composed entirely of men working in the Ford shops was organized in 1911; and today numbers amongst its members men of many different nationalities, some of whom have played in prominent musical organizations both in Europe and this country. The divisions and selections of the eighteen different instruments give to the band a very harmonious instrumentation.

Besides the weekly concerts given during the summer in Ford Athletic Park, a series of complimentary musical entertainments of classical and semi-classical numbers are held each winter in Detroit's largest audi-

Page forty-one



torium. Although the band principally benefits Ford workers, it frequently participates in local and national activities, and has given concerts in a number of cities in the United States and Canada.

In its library of music are included all the standard overtures, selections and suites; all operatic, symphonic and characteristic numbers, waltzes and grand marches.

## CHEMICAL LABORATORY

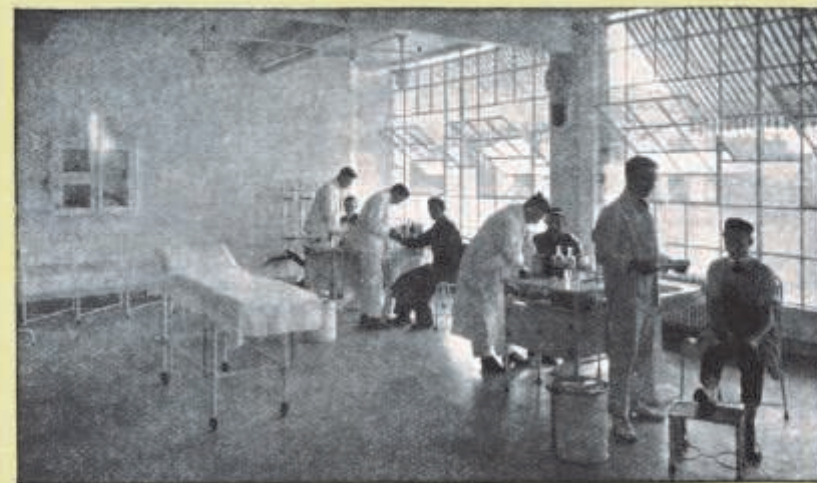
**H**ENRY FORD'S search for the best steel for his car, coupled with a preconception that that steel must have strength and durability, without unnecessary weight, early led him to experiment with certain alloys. He learned that those alloys, when added to molten steel and then properly heat-treated, produced the result desired. But that result was only general in character, for by differing the ingredients or changing the heat-treating, an altered steel would follow. This phase of gradation is more readily understood when it is remembered that all working parts of car or engine are not subjected to similar wear. Parts bearing continuous surface-wear should be hard and flint-like; parts sustaining vibration or resilience require a softer or more springy metal; and so every part should meet its own particular requirements. To apply this to the case in hand, a special formula must be prepared for each individual unit of the car.

Henry Ford detailed a man to create those formulas. Again the Ford Motor Company was blazing a trail that other motor car manufacturers would follow later. In 1906 a small department was formed to continue this experimental work, and as early as 1908, when the present type of four-cylindered car was adopted, Ford special steel had been developed to the point where it played no small part in that car's construction, and thus laid the foundation for a greater success to come.

Today the chemical and research laboratory, for such is the department's present name, is one of the largest and most complete of its kind



A Corner in the Chemical Laboratory



Dressing Room, Factory Hospital

in the world. A staff of 100 chemists and metallurgists carry on the work. Modern equipment and up-to-date testing devices and elaborate machinery have been developed and installed. A technical library contains the best available treatises and information on steel.

The scope of its activities has broadened. Co-operating with the purchasing department, the laboratory now supplies specifications for everything that goes into the Ford car, be it top material or pneumatic tires. A corps of steel testers, under the direct supervision of the chemical laboratory, are stationed at rolling mills, forging plants, sheet mills and steel plants, where they analyze every shipment of steel before it leaves for the Ford factory.

And experimenting goes on apace.

## THE MEDICAL DEPARTMENT

**A** BOTTLE of liquid soap, a few bandages, a pair of scissors, a small wooden box fastened in a corner of the factory, and a first aid man—who also acted as timekeeper—constituted the first Ford Medical Department. Today it is a twenty-room institution, including a modern operating room, a six-bed ward and annex, a laboratory, an X-ray department, a two-chair dental office, a pharmacy and dispensary, large waiting and examining rooms—all done in white. More than one hundred physicians and first aid men comprise the present staff. This includes a surgeon-in-chief, operating surgeon, roentgenologist, specialist in tuberculosis, eye and ear specialist, nose and throat specialist, specialist in skin and other diseases, two dentists, a bacteriologist, two pharmacists, an anesthetist and ninety-six first aid men and clerks.

It is the most modern institution of its kind in the world. Difficulty arises with an attempt to describe the scope of its activities. It has passed far beyond the confines of a first aid department. Its policies are flexible; each special case demands special consideration, so only a





A Study in Occupational Therapy

general outline of the work is possible. In fine, it places the new man at work for which he is physically adapted; and after that, is always at his service.

No applicant for work is rejected because of his physical condition, unless he is suffering from a disease which would endanger the health of fellow workmen. In fact, men are examined after being hired—not before. In order to proceed more intelligently, the medical department compiled a card index of "jobs." Each card represents a different kind of work; and there are 7,882 cards in the file. As an indirect result, suit-



The Dentists' Office



Testing a Worker's Eyes

able work has been found for 9,563 sub-normal men. Of this number ten are totally blind, 207 blind in one eye, 37 deaf and dumb, 234 have only one foot or leg, and the others are physically handicapped so that most lines of work are not open to them. Yet these men are contented: they do a day's work and receive a day's pay for it.

Employees who become ill at work are examined and treated, and then, depending upon the nature or seriousness of their ailment, advised to return to work or go home. The department seldom treats men at home; but always extends assistance in diagnosing cases or advising employees. One physician maintains an office where Ford men can consult him in confidence regarding specific blood or venereal diseases. A dental department located in the hospital treats acute cases, and, in an advisory capacity, is at the service of all employees.

Stations at convenient locations easily accessible from any part of the plant, administer first aid. Even the most trivial mishap—a cut finger, a particle in the eye—is treated to prevent infection. Foremen and workmen have been educated to appreciate the necessity and the worth of precaution. Of course, only the simpler cases are handled in the first aid stations, surgical cases being treated in the Factory Hospital.

A clinical laboratory is prepared to make analyses for determining the existence of different diseases, such as tuberculosis, cancer, ulcers of the stomach, and the like, and conducts blood tests.

A large cottage directly under the Medical department's supervision was built especially to house tubercular employees. Suitable work is furnished them; so they lead useful lives, and either overcome their disease or hold it in check.

Through the plant paper, Ford men and women constantly are being educated in matters of hygiene and sanitation; they are admonished to care for themselves properly. Timely articles inform them of the best ways of combating and insuring themselves against epidemics.



## "FORD EDUCATIONAL WEEKLY"

**W**HILE Ford camera men throughout the country are snapping pictures of nature-scenics, trips through principal cities, or manufacturing processes, still others, laboratory experts, are carrying similar films over the round of developing, printing, reviewing, revising, packing and shipping. From this effectively organized picture-producing plant, one hundred fifty some odd thousand feet of film weekly starts its long journey through the theatres of America, Mexico, Brazil, Chile, Argentine, South Africa, Spain, France, Russia, Scandinavia, Japan, China, Alaska. Everything needed to convert raw film into finished pictures by the hands of expert motion picture men may be found in this novel and interesting department.

The Ford Educational Weekly, as indicated by its name, seeks to entertain and at the same time to be instructive or informative.

Many of the Ford Motor Company's activities have been filmed. Now for the first time these are being shown in foreign countries. "How Ford Cars Are Made" presents the Ford car in process of manufacture. Other pictures portray methods employed in safeguarding and educating Ford workers to the ways of safety first. In this field, the Ford Motor Company leads the way, and consequently its work is watched with keen interest. Another film offers the Ford idea of teaching foreign born workmen the English language, civil government, history and other academic subjects. For School and University work, a series of educational films, known as the "Ford Educational Library," has been prepared. It presents studies in minerology, geology, agriculture, livestock raising and processes of manufacturing, and is greatly in demand by educational institutions throughout the country.

Because of their nature Ford films are not confined to theatres alone but constantly are requested by churches, national associations, public schools, and colleges; and many penal institutions claim to have found in them a solution to their problem of entertaining and instructing the inmates.

Each week ten million people see "The Ford Educational Weekly." It is shown in seven thousand—nearly half—the moving picture theatres in the United States; and has gained for the Ford Motor Company the distinction of having the largest circulation of motion pictures in the world.

Housed in the film department and hardly less interesting is the "still" picture division. Its equipment equals that of the commercial photographer and news-picture service combined. Lantern slides and photographs—many of them enlargements—including all those used in Ford literature, come from there. A photographic record of the Ford Motor Company's industrial and educational activities now contains 30,000 pictures.

## FEEDING THE FIFTY-FIVE THOUSAND

**T**HE problem of "3 shifts of 8 hours each" worked into every twenty-four, might lead one to wonder when Ford men eat. But eat they surely do. There are three lunch periods; from 10:30 a. m. to 12:15 noon; from 6:30 p. m. to 8:15 p. m.; and from 2 a. m. to 4:15 a. m. While the time taken for lunch varies in different departments, yet in none is it less than fifteen minutes. So, because of short lunch-hours, it is neces-



Left to right: Art room—where titles are composed and illustrated. Machines that print 30,000 feet of film a day. Developing room—note the conveyer which carries the film to the drying room. Photographing and assembling titles. Drying room—where each of five drying drums daily prepares 6,000 feet of film for "first screening."



sary to serve the men in a minimum of time. Three minutes, the company decided, is sufficient, and arrangements were made accordingly.

Lunch carts, hot soup wagons, hot sandwich vendors, with their moving loads of eatables, wend their way from department to department, arriving always on schedule to handle the "rush" and be on their way again within four or five minutes. The lunch carts carry box lunches, fresh fruits, pie, extra sandwiches, pint bottles of hot coffee and milk. The soup is served in papier mache cups from specially built fireless cookers on wheels, and it comes piping hot to the worker. Sandwiches are kept warm in the same way.

A hundred-odd lunch carts handle the bulk of the lunches, and it is possible for each to serve as many as two hundred in the allotted three minutes. It is all a proposition of schedule and efficiency. There is no haphazard hurrying and scurrying about—no uncertainty. The stage "is set" at the proper time; the bell rings, the men fall in line, and then in a twinkling they have their lunches and are eating.

The food is under the attention of the Ford Motor Company's Service and Medical departments, and thus the proper service and dietary standard is maintained. To prepare the lunches the following equipment is required: two modern bakeshops, eight soup kettles, each of 120-gallon capacity, and nine coffee urns of 190-gallon capacity. Two hundred men and women prepare the lunches.

These figures of foodstuff served daily tell their own story:

8,000	box lunches (sandwiches, pie, fruit, cookie)
20,000	bottles of coffee
20,000	bottles of milk
12,000	cuts of pie
8,000	cuts of cake
5,000	pieces of fruit
10,000	hot frankfort sandwiches
2,000	paper bowls of soup.



Ready to enter the Factory with the Lunch



Ford Men seeing a Safety Film

## SAFETY AND FACTORY HYGIENE

FORD Safety Engineers continually strive to make the Ford Plant just as safe a place to work in as possible. Their results are gained from two lines of attack. By the installation of guards and mechanical devices on machines, and by educating the men to the ways of Safety and Hygiene. Every man in the Ford plant is interested in the safety work. Some of the most effective safety measures now in use have come as suggestions from the workmen. Safety suggestion blanks are always handy in all factory departments.

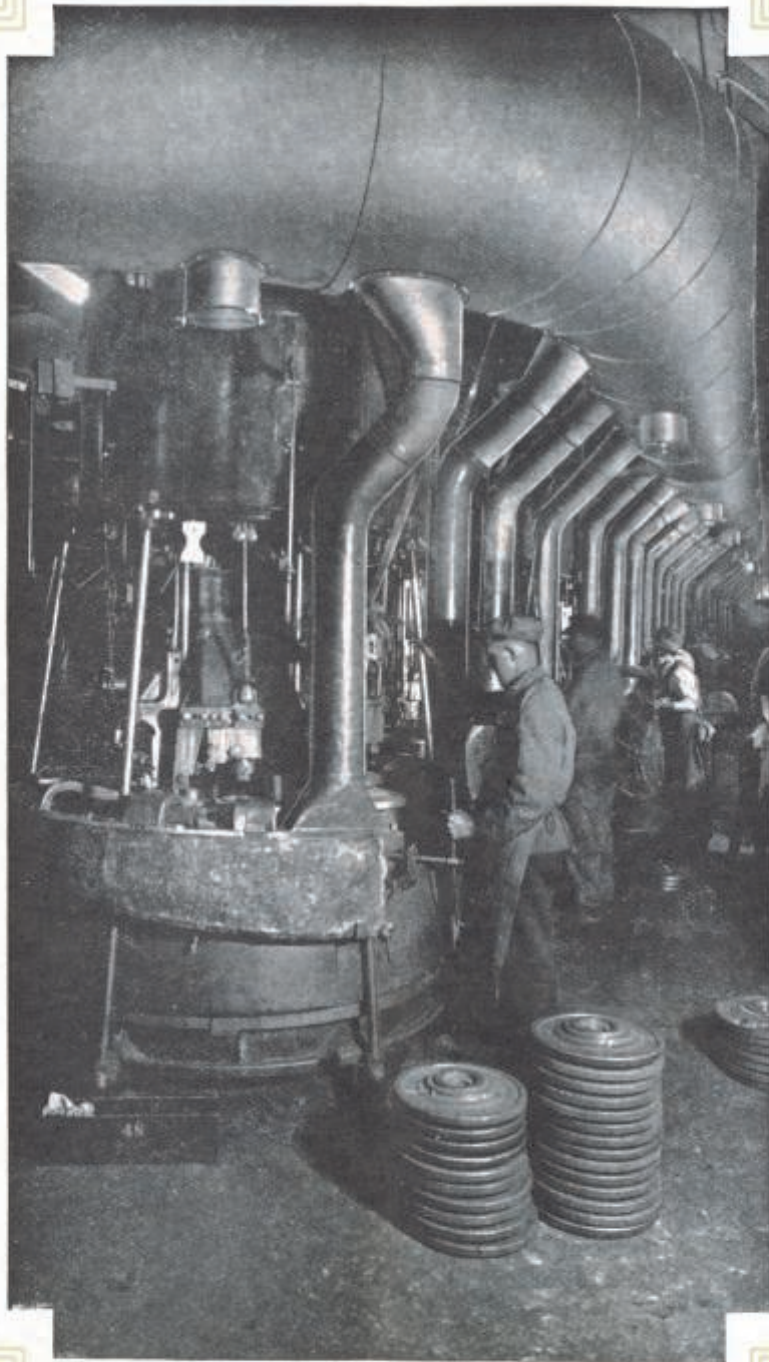
Then too, Safety Inspectors continually search out the "unsafe" in the old, and examine every new device or piece of machinery before it is installed in the plant. An inspection of the plant reveals a safeguard wherever a positive safeguard can be devised. So thoroughly has this work been done that many guards designed by Ford engineers have become regular equipment on many standard factory machines.

Newly hired men are placed under the supervision of foremen who instruct them how to perform their work in a safe manner.

Bulletin board displays, a monthly safety publication, and daily motion picture shows, are constant factors, which tend to make the men "think" safety. These pictures, taken in the Ford shops, show the various methods of guarding machines, point out the sources of "careless" accidents and indicate the best way to prevent them.

The health or hygienic division interests itself mainly with actual working conditions and has made them as nearly ideal as possible. The entire interior of the factory is painted white and kept scrupulously clean. Washed air at just the right temperature for comfort and efficient work is forced into every part of the factory, while drinking water, filtered and properly cooled, is available at well-cleaned fountains. A bacteriologist, in the safety laboratory, tests air, water, oils, cutting solutions and any and all working conditions insofar as they may affect the worker's health.





Suction Pipes carry away the dust from Machining Operations Page fifty

Men at machines, making babbitt bushings from molten metal, or working in front of brazing furnaces or hot fires, are furnished fresh air through individual pipes.

Some 200 dust-collecting systems operate in departments where dust is caused by the machining of parts. Suction pipes are placed over the machines, and dust and small particles of steel which might become injurious to the men, are drawn up and out of harm's way.

During the year just ended there occurred, out of a total of 55,000 workmen, only one fatality in the Ford factory. Effective campaigning for safety surely had no small part in so remarkable a record. Had all the other industrial institutions in the United States maintained the same percentage for the year, only 760 workmen would have been killed, instead of the 22,000 that did meet death in shops and factories.

Manufacturers and Safety men from almost every foreign manufacturing country have come to visit the Ford Company and its Safety Department. A division of the Safety Department is maintained especially to answer questions and be of service to other manufacturers and the public generally.

### THE FORD STORES

**T**HE Ford Stores have barely passed the experimental stage, yet so decided has been their success and so great a service have they rendered Ford men and women, that by the time this booklet is in your hands they will undoubtedly have reached the proportions of a modern department store.

In the different stores the stock already consists of a line of staple groceries, smoked and fresh meats, fish and poultry, medicinal supplies, work clothes, ready-made and custom-tailored suits and overcoats, work and dress shoes for men, women and children.

Carload quantities of foodstuffs are often obtained at great savings, and then special sales are held. At the first meat sale held in the Ford Factory more than 35,000 pounds of pork were disposed of in one day. Many workers bought whole pigs or halves at a saving of about fifteen per cent of the market price. Special sales of beef, chickens, bacon, ham, apples and other foodstuffs are handled in like manner. In season, carloads of fresh ocean fish come by express from the Atlantic coast and from forty to eighty thousand pounds are disposed of at each sale.

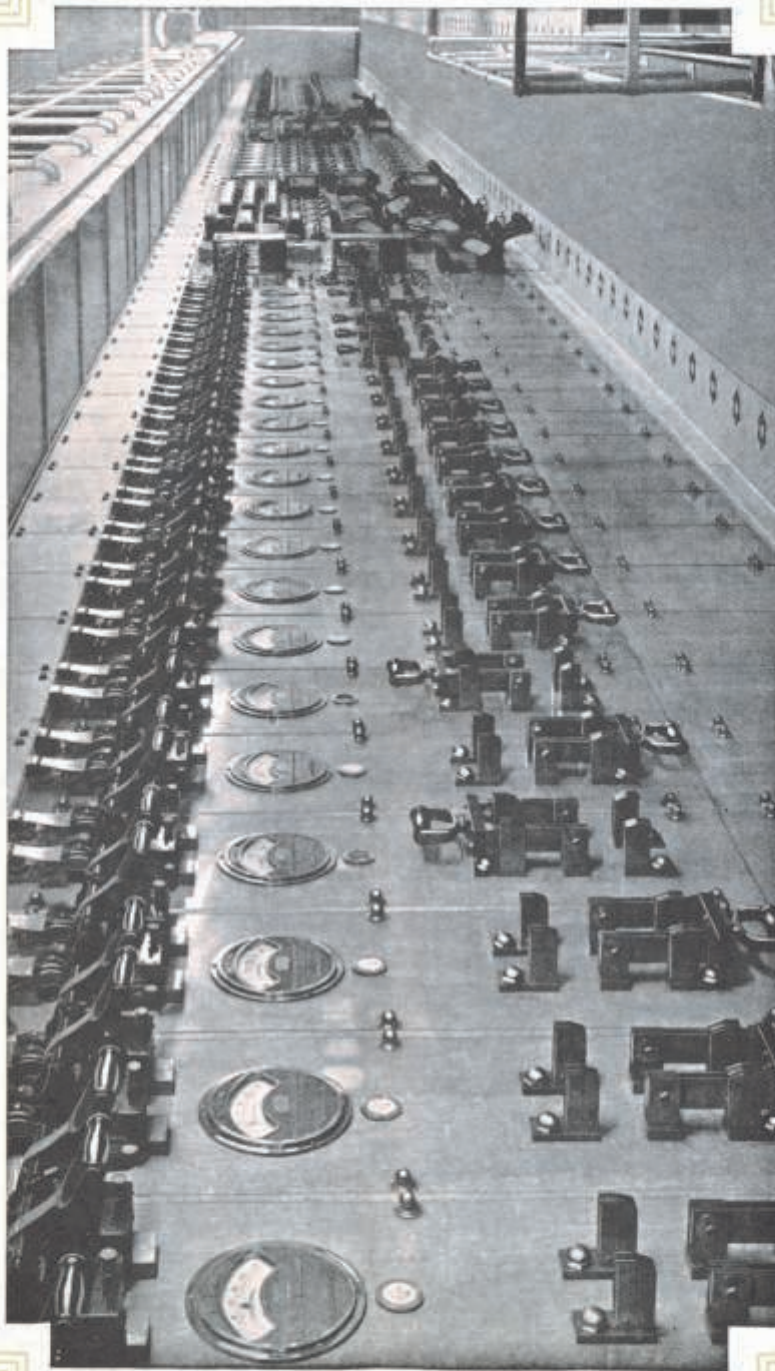
The cash-and-carry plan prevails. Customers enter one door, pass along the counter, choose their articles, pay for them and leave through another door. While the saving varies, it averages easily from eight to twenty per cent. Everything is sold at cost, only the actual expense of handling the goods being added to the buying price. That a standard of foodstuffs may be maintained, the buyers co-operate with the Medical Laboratory.

The clothes shop furnishes from one to two hundred suits or overcoats a day to Ford workmen.

Under the direct supervision of the main plant stores are three groups of branch stores, one operating at the Fordson Tractor Plant, Dearborn, one at the Ford Blast Furnaces, River Rouge, and one at Henry Ford Hospital. Thus this service extends to some 75,000 Ford workers.

It is the desire of Henry Ford and the Ford Company to furnish its men and women workers with all the necessary commodities of life at cost.





The Power House Equipment includes the largest Direct Current Control Board in the world.

## THE HUMAN SIDE OF THE FORD INDUSTRIES

THE conditions under which Ford men work and the confidence and loyalty that mark the relationship of the men with the Company have attracted world-wide attention and discussion. The Company is often asked what it has done to bring about this condition. It believes that confidence and loyalty in the men can come only after the Company has shown its confidence and loyalty toward the men. It has tried to work out methods suitable to its own needs but believes at all times that the spirit of its work is more important than the methods. It does not profess to have solved the problems of others and it does not claim to have found a perfect answer to its own. Whatever it has been able to accomplish in the way of better working relations and better opportunities for men rests upon two things that Henry Ford stands for—faith in human nature and justice.

Henry Ford put Ten Million Dollars back of his faith in the Thirteen Thousand men working for him on January 12, 1914. He set aside that sum to be added to their wages under the Profit Sharing Plan. He showed his faith in men by giving profits without any requirement of production or efficiency. He gave a share of profits to men before they earned it, and gave it without asking them to earn it. He gave so that the rank and file shared in largest measure. He gave it with the unheard-of requirement of clean and constructive living.

He did more than give money. "You can't do anything with just money," says Mr. Ford. "Along with money, you must give something of yourself." So Mr. Ford followed the giving of profits with his other ideas of justice. He made the interests of the men who worked with him in his factory his interests. He shortened the day's work from nine hours to eight. He established right working conditions. He took away the power of arbitrary discharge. He created a department through which he should be able to maintain a human and personal relationship with each of his growing thousands of men, and guarantee justice.

Six years later his Thirteen Thousand men had grown to Eighty Thousand; his annual output of cars had gone from a Quarter of a Million to a Million; he had distributed over One Hundred Million Dollars in profits, and had acquired, with his son, complete ownership and control of the Company.

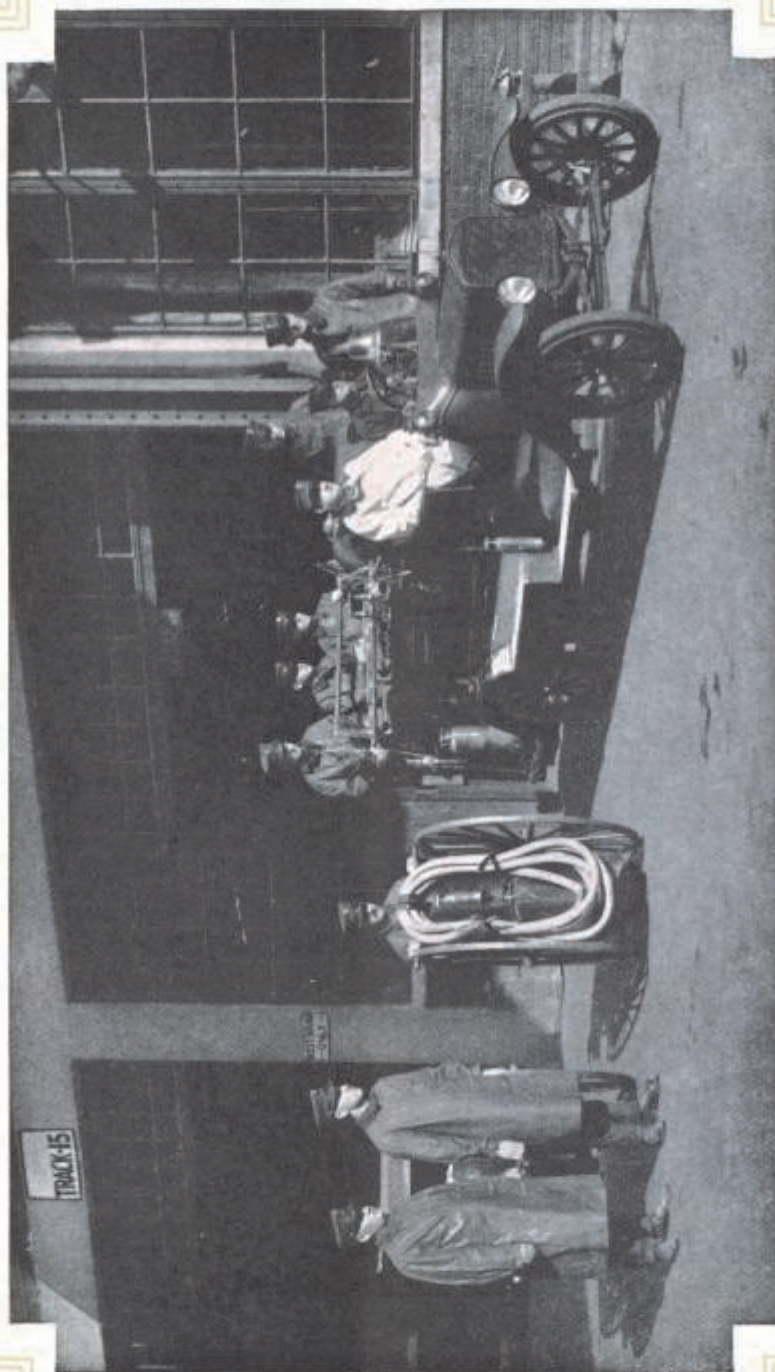
His belief in his men stood the test of these six years, and on January 1, 1920, announcement was made of the extension of the old Profit Sharing Plan of 1914 by the addition of the Bonus and the Investment Plan, which put Eight Million Dollars in their hands as a reward for their service during the preceding year and opened to them the opportunity of sharing further in the earnings of the Company through the investment of their future earnings.

The spirit of co-operation which lies back of the purposes of the Company is expressed in the opening paragraph of their announcement to the men in the following words:

### THE FORD POLICY

"Within the last year Mr. Henry Ford and his son, Mr. Edsel Ford, have acquired full and complete ownership and control of this Company. This end has been sought with the purpose in mind of so shaping the policy of





A squad of Ford Fire-Fighters

the Company that the men in its employ may participate, to a greater extent than ever before in its prosperity. It is believed that simple economic justice demands that a greater portion of the earnings should go in part to the employees and in part toward enlarging the industry. This policy carried out will mean that more men will be given the opportunity to work with the Company and to participate in its benefits, and that those employees who remain with the Company will share increasingly in its earnings."

Fifty-five Thousand of the Eighty Thousand men in the Ford industries are employed in the Highland Park Plant. Of the remainder, Ten thousand are at the River Rouge Plant (comprising the blast furnaces and the body department), Five thousand at the Tractor Plant, and Ten thousand at the various branches throughout the United States. All Ford policies apply to all Ford men throughout the industry.

"What proportion of your men are foreigners?" This is one of the first questions asked about Ford men. As a matter of fact, the proportion of foreigners in the Ford Factory is less than in the average factory. Not more than one-half are foreigners. But these men are treated as Ford men and not as foreigners. There is no separate work carried on for them except the classes of the Ford English School. All Ford policies are designed for the benefit of all Ford men and not for any distinct or separate groups.

Fifty-eight different nationalities were to be found among the Forty Thousand men in the Highland Park Plant three years ago. With the present enrollment, it is probable that even a larger number of the nations of the earth and most of the great religions are represented in the Ford family. But no distinction is recognized that denies the same justice and the same opportunity to every man of whatever land and faith.

The visitor who has made a trip through the factory often asks to see what the Company is doing for its men. They have already seen the greatest thing. They have seen men working under conditions which provide an opportunity to earn a sufficient and independent living. Mr. Ford believes that work is the one thing that can be given to men. He is endeavoring in all Ford industries to provide work under conditions which will enable every man to become self-reliant and independent. The average man may work for years in the Ford factories without need of having anything further done for him. He is doing things for himself through the work which has been provided. Believing that men who are overworked, underpaid, sacrificed to bad shop conditions, uncertain of their job, and shut off from personal contact or appeal to their employer are not getting a fair chance, Mr. Ford undertook to reverse these conditions, to provide a fair day's work, just pay, good working conditions, security of work, and a chance for every man to secure individual and personal consideration. This is the Ford idea of welfare.

The labor turn-over tells what men think of any factory. The 50,448 men who left the year before the Profit Sharing Plan would have been a scant 2,000 two years later when the new conditions were fully established. War conditions and war work run through the period, and may be traced in the changes of turn-over. The Bureau of Labor reported a labor turn-over in other Detroit factories during 1918 reaching 600 per cent.

The feature of the Ford Plan which received the widest attention in 1914 was the Profit Sharing, by which men were to receive a minimum of \$5.00 in wages and profits for an eight-hour day. This minimum was





Representatives of the Sixty Different Nationalities working in the Ford Factory

raised to \$6.00 on January 1, 1919. In both the amount of profits and in the absence of any production requirement as a condition for receiving them, Mr. Ford disclosed the faith in human nature and the desire to do justice that prompted his action.

The Plan under which profits were distributed did not fall under the common definition of profit sharing. Over against the hourly wage rate was set a corresponding hourly profit rate which was added to the wage rate, conditioned only upon meeting the announced qualifications of clean and constructive living. The Profits rates in 1914 ran from 28½ cents an hour on the 34-cent wage to 7½ cents an hour for the 80-cent wage. The largest amount of profits was distributed to the man receiving the lowest wage. On May 24, 1919, this hourly profit rate was changed to 15 cents an hour for all rates of wages. The minimum wage rate at that time was 60 cents an hour. Three-fourths of the employees at this time are receiving more than the minimum of \$6.00 per day.

The Ford Plan was designed to distribute profits in such a way as to bring the greatest possible benefit to the man and to his home, and to safe-guard them so far as possible from working injury through improper use. What this plan actually did for the average Ford man in the first five years is revealed in the following table. These figures are the result of a careful investigation of one hundred five-year employees selected at random. They show the long stride taken by the men in that time toward the ideal of self-reliance and independence:

	January 12, 1914	January 12, 1919
Average amount deposited in savings accounts and invested in homes and lots.....	\$207.06	\$2,171.41
Amounts in banks.....	75.20	750.13
Value of homes owned.....	35.33	647.09
Value of lots owned.....	5.07	128.15
Paid on homes on contract.....	83.86	495.58
Paid on lots on contract.....	7.60	150.46
Value of homes on contract.....	247.70	1,394.70
Value of lots on contract.....	31.23	335.75
Amount of life insurance.....	186.53	857.03
Number of employees upon which this statement is based....	13,251	100 5-year men

The administration of the Profit Sharing Plan has been in the hands of the Educational Department. The name describes the purpose and method of the department to improve living conditions, encourage thrift and to develop men by education. It is the department of personal relations, and is concerned with everything that affects the well-being of Ford men and their just treatment.

No feature of the Profit Sharing Plan attracted more attention and comment than the provision for visitation of the homes and the personal interviews with the men. The Department of Education carries on this part of the work by means of a group of men called Advisors. This work requires men of integrity and personality who are in close sympathy with the ideals of the work. The number of advisors varies with the needs of the work. At the present time there is, roughly, one advisor to each thousand men employed as against one to five hundred men in the early days, when more frequent calls were made.

A personal record is maintained, embodying such information regarding the man and his family and home as will enable the Educational Department to know the man as an individual, and to deal with him in relation to his home and his environment. The whole system is designed with a view to knowing and dealing personally with each man. A





The Company endeavors to keep Foreign-Born Employees in proportion to the foreign population of Detroit

knowledge of the facts usually indicates the just and proper treatment. If the facts are not available, an advisor is sent to get them. With these records a Ford man is no longer an unknown number. He takes his place as an individual member of the organization, with a home and a family, with a position in the community and purposes and ambitions which the Company recognizes.

The average man does not need to be shown how to build homes, to save money, or to improve living conditions. What he needs is a job where he can do these things for himself. The first group of two hundred men who went out to visit the homes in 1914, the forerunners of the present body of advisors, found a very different set of conditions in many homes from those existing today. Only sixty per cent of the working force at that time could be approved at once as profit sharers. It was the duty of the Educational Department, which was called the Sociological Department in those days, to educate the remaining forty per cent, showing them what was necessary to become profit sharers, and giving needed encouragement and assistance. The purpose has been from the first to make it possible for every Ford man to receive and to continue to receive profits. During the last year there has not been more than one man in four thousand not receiving profits.

Profits withheld from the men were not returned to the Company, but were placed in a Special Fund and used for worthy objects recommended by the Educational Department and approved by a special committee.

The standard and teaching of thrift is set forth in the following announcement:

"THRIFT has played an important part in the Profit-Sharing Plan since the beginning. It is expected that employees without dependents will save or invest practically all the profits received by them. It is believed that the minimum wage paid by the Company is equal to all the ordinary financial needs of a single man or woman, and that no hardship would be experienced if all profits were to be banked or invested. Thrift is an index to character. It indicates self-control, self-respect, and some plan and purpose in life looking toward the future. Young men and women who live up to, or beyond their means, are revealing traits of character which prevent their being given places of responsibility, and which, therefore, render them undesirable in any industrial organization. Thrift has been a condition of profit-sharing in the past, and will continue to be made a condition of bonus-sharing in the future.

"It is recognized that greater financial responsibilities rest on men and women who are supporting families. Nothing unfair or unreasonable in the way of saving will be expected of any employee. The health and comfort of a man's family should be his first consideration, and no man should deny his family the necessities, and even some of the luxuries of life, in order to save for the future. But few are so situated that they cannot save something, and every employee having others dependent upon him is urged, in simple justice to them and to himself, to put aside something for the future. The Company hopes to bring into its employ and to retain men and women who, sharing in its prosperity, will co-operate with it in the attainment of its ideals, and it believes that one of the very best evidences of co-operation is to be found in the constructive expenditure or investment of the profit and bonus received in addition to the wage."

The Bonus and Investment Plan, which became effective January 1, 1920, has supplanted the Profit Sharing Plan, and enables men to participate in the prosperity of the Company in two ways. The Bonus Plan gives needed recognition to skill, as determined by the wage rate, and to length





GREEK

JAPANESE

COLOMBIAN

GERMAN



ITALIAN



HUNGARIAN



RUSSIAN



ARMENIAN



POLISH



AMERICAN



ENGLISH



CANADIAN



SCOTTISH



IRISH



WELSH



SCOTCH



HELVETIAN



SWISS



PORTUGUESE



SPANISH

of service. All men who had been in the service of the Company longer than three months were eligible. Length of service was reckoned from the year 1914, when the Profit Sharing Plan began. The rate of pay in effect December 31, 1919, served as the basis for the 1919 Bonus.

The Company announced its intention "to continue the annual distribution of bonuses if, in the judgment of the Directors of the Company, the earnings permit." The scale under which bonuses for the year 1919 were distributed is given below. Employees on salaries in excess of those given in the scale also received bonuses based on their income and length of continuous service:

Hired Prior to	\$6.00	6.40	6.80	7.20	7.60	8.00	8.40	8.80	9.20	9.60	10.00	10.40	10.80
Oct. 1, 1919	\$ 50	\$ 60	\$ 70	\$ 80	\$ 90	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 160	\$ 170
Oct. 1, 1918	70	80	90	100	110	120	130	140	150	160	170	180	190
Oct. 1, 1917	90	100	110	120	130	140	150	160	170	180	190	200	210
Oct. 1, 1916	110	120	130	140	150	160	170	180	190	200	210	220	230
Oct. 1, 1915	130	140	150	160	170	180	190	200	210	220	230	240	250
Oct. 1, 1914	150	160	170	180	190	200	210	220	230	240	250	260	270

The Investment Plan extends to men the opportunity of participating further in the prosperity of the Company through the investment of a portion of their income. Ford Investment Certificates, in denominations of \$100, \$500 and \$1,000, non-negotiable and non-assignable, may be bought and held only by those in the actual and active service of the Company. These Certificates bear a guaranteed interest of six per cent per annum, and in addition to this, further payments will be made semi-annually, if the earnings of the Company permit, at a rate fixed by the Directors of the Company. An amount not exceeding one-third of each pay may be deposited by any employee within three days from the receipt of the pay, and the entire bonus may be deposited within five days after it has been received. Deposits made toward the purchase of Certificates will also bear interest at the rate of three per cent, compounded semi-annually.

A valuable feature of these Investment Certificates is the provision that Certificates standing in the name of an employee, deceased, may continue at the discretion of the Directors of the Company to draw interest and payment for the benefit of his dependents.

Mr. Ford's idea of a personal relationship and just dealing with his men is further shown in his doing away with the arbitrary discharge of men. Mr. Ford has an idea that he would rather make something of a man than discharge him. It is only for exceptional reasons, and after full consideration that a man can be discharged. The average employer or superintendent shakes his head doubtfully over this and says it would not work in his factory. Foremen may send men whom they are unable to use to the Employment Office, but must state, in detail, their reasons for doing so. The Employment Office adjusts the differences, if possible, or assigns men to other work. This recognition of the importance of the job and the injustice of depriving a man of his job has as much to do as any other single thing in reducing labor turn-over and putting a new basis under co-operation. It is built on the belief that men are square and will do what is right in spite of mistakes and occasional failures. The Ford man does not work under the shadow of the fear that any day, through no fault of his own, he may be sent home to his wife and children with the news that he has no job.





In the Body Plant at River Rouge—One-third mile of Sedan Bodies in each line

The employment policy reflects that same underlying belief in men. Visitors constantly ask, "How do you select your men?" There is no method of selection. Mr. Ford believes in taking his share of the kind of people that are in the community. He thinks that men who need work and are willing to work should be given a chance to work. He does not select the best, but takes them as they come, to make them equal to the best. He puts to work any number of men who would not be able to get a job anywhere else. There are over two thousand physically handicapped men at work. There are blind men. There are old men doing light work. There are boys under eighteen years of age, not on production, receiving men's wages and men's profits, because they are carrying a man's burden at home. An able-bodied man could do these jobs just as well, but no better.

There are about eight hundred women now at work in the factory. The Company is not adding to this number except when it is able to put to work the wife of an employee who has been left through the death or permanent disability of her husband with dependents to support.

There is a great deal of talk about criminals and ex-convicts in the Ford Factory. It is sometimes charged that these men are favored above others. Men have posed as criminals to get jobs. In the first days of profit sharing the Company sometimes did a good deal for some men to give them a fresh start. It was found after a while that the only men who ever got past the start were those who were willing to take an ordinary man's chance and do something for themselves. In general, these men are about the same as other men.

The opportunity for advancement is open to every employee. The policy of promotion from within gives him a chance to work up through the ranks. Men are not brought from the outside to take the responsible positions. The superintendent of the factory was one of five men who worked in the first shop with Mr. Ford. The head of the laboratory was Mr. Ford's first employee.

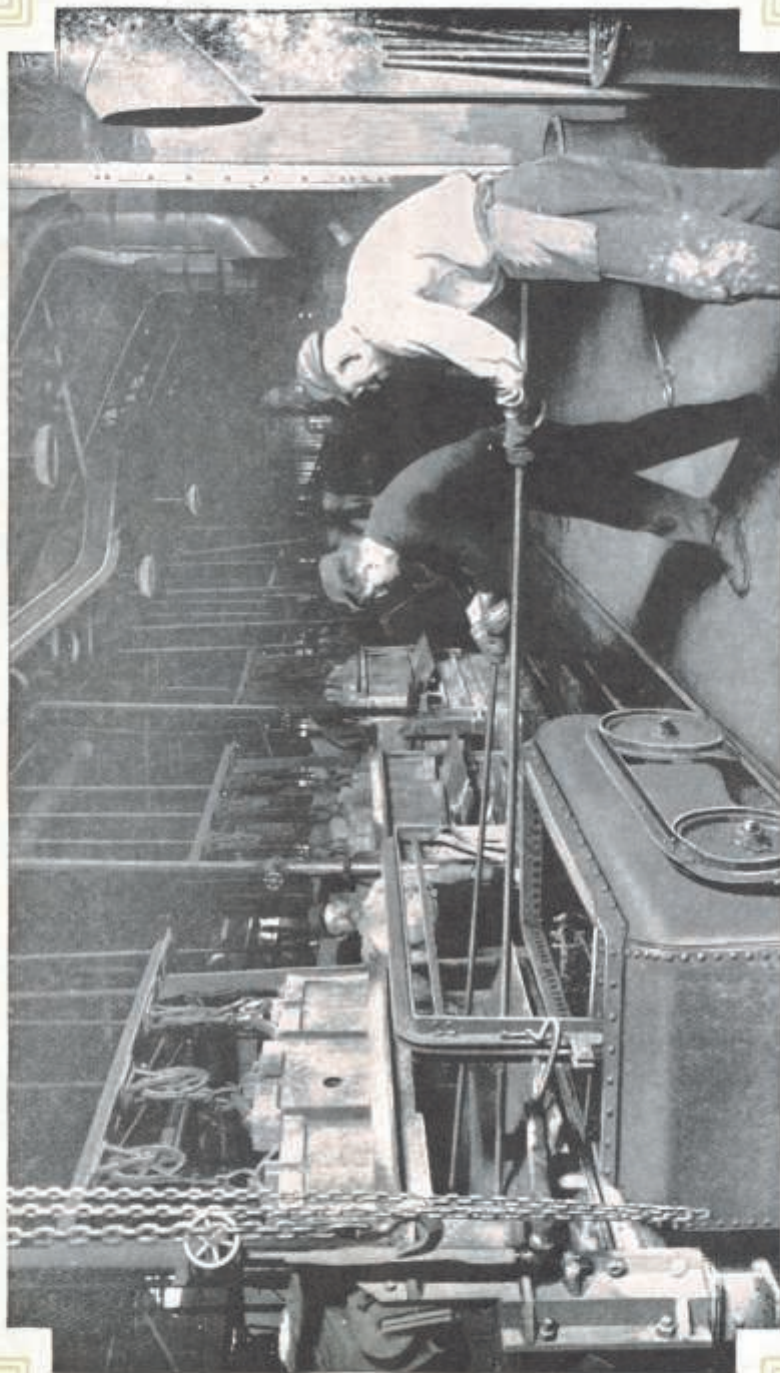
The Ford man has rights and privileges as well as opportunities. When his name goes on the pay roll he becomes a member of the organization. He is entitled to the same consideration that is shown to every employee. He may not suffer injustice without the right of appeal and full hearing of his case.

There are over four hundred men in the seven departments that have to do with the handling of men, either in shop matters or in their outside interests. While these departments are independent of each other, they are of necessity in close co-operation, each doing its part in carrying out a single purpose. As expressed by a recent visitor, "The Labor Department is not a department; it is a lot of independent activities started wherever anything was not going right."

Five of these departments have to do with the men on the job, beginning with the Employment Office and its present force of twenty-six men. In addition to hiring and placing men, this office acts as a clearing house between departments, transferring and adjusting men and interviewing men leaving the employ of the Company. Most of the normal handling and adjustments of labor is done through this office.

After the Employment Office, men come into contact with the Medical Department through the physical examination. Men are not rejected for ordinary physical disabilities, but only for affections of a contagious or infectious nature. Besides the new men to be examined, there are





Steel forgings are quenched in oil to temper them

from three to five hundred men a day who come to the department, having first secured a pass from their foremen, for a physical examination to determine the nature of the work which their condition requires or enables them to do. Men returning from illness, disabled by age or other conditions, are examined and placed on work which will do them no injury and permit their full recovery.

Because of illness arising while at work or for injuries received in the shop, nearly three thousand men a day come to the Medical Department. The department does not treat men at home, except to give required attention to men suffering from injuries received in the shop. One hundred men come every day to the Dental Clinic, where two dentists are busy with emergency work, giving relief in acute cases, or diagnosis and advice as to the cost and kind of treatment required. The staff of the Medical Department, including first-aid stations, numbers one hundred sixteen men.

The work of the Safety Department with its force of sixteen men, which is described elsewhere, touches directly and constantly every Ford man, leaving nothing undone that will add in any way to the safety and health and comfort of the men. Cleanliness is also a notable feature of the Ford shop which impresses visitors. The Company thinks it well worth while to keep a force of seven hundred men cleaning, painting, polishing, so that the shop will be a good place to work, besides another staff of men to see that it is sanitary and hygienic.

A branch of the superintendent's office, with a superintendent of foremen and a force of thirty-one men, deals directly with all matters arising out of the contact of the foremen with the men. Rate adjustments and all matters having to do with shop conditions and personnel, every kind of request or complaint, except those arising from physical reasons and falling to the Medical Department, are referred to this office.

The average foreman is in a position to make the necessary adjustments. In most cases he does so without any necessity of referring to these other departments. "Have you been to your foreman?" is the first response to almost every question. But if a man should not get proper consideration from his foreman, or thinks he did not, there is a place to go and a chance to state his case. If he does not know where to go, or if he fails to secure what he considers the proper hearing or remedy, he may take his case up directly with the Educational Department. As the personal representative of Henry Ford and of the Company, the department is expected to see that all men are treated in accordance with the purpose and ideals of the Company. It is the business of this department to give every man a chance to state his case and to see that no injustice goes unremedied. Its method is the simple one of getting direct personal knowledge of the facts. The square deal follows whenever the facts are made known.

The Ford Motor Company is not only trying to develop men on the job, through the policy of promotion from within, but is steadily increasing the opportunities offered through its courses of instruction and training offered in the Department of Factory Education. The Henry Ford Trade School for boys and the Tool Makers and Apprentice courses and classes in Drawing, Mathematics and Mechanics are described elsewhere. These are helping hundreds of Ford men to develop into places of leadership and responsibility. There are twenty-five men employed in this work, and over three thousand men taking advantage of the opportunities at the present time.





The Ford Telephone Exchange, averaging 30,000 calls daily

The English School has given training in American ideals with its instruction in the English language. Not the least valuable part of this work is the personal association of the voluntary teachers. Advanced classes are provided for all who desire this instruction.

The advice and assistance of the Legal Department are extended to employees through the Factory Legal Department. Advice is given freely in all matters involving legal questions, real estate, insurance, investments, or the settlement of disputes. Over two hundred men a day come to this department. One of the most valuable features of the service is in the assistance and protection of men in the purchase of homes and lots. Men are always urged to consult this department before buying, to have the property examined and appraised, and all papers and contracts approved before any money is paid. The Department renders assistance also in filling out and securing naturalization papers, and has helped over five thousand men to citizenship.

What the Profit Sharing Plan has actually done in the way of constructive living, in building homes and creating wealth, and the chief uses to which profits have been put, are shown in the figures given below:

COMPARATIVE FINANCIAL STATEMENT OF EMPLOYEES, SHOWING THE RESULTS OF THREE YEARS OF PROFIT-SHARING, FROM JANUARY 12, 1914, TO JANUARY 12, 1917

	Jan. 12, 1914	Jan. 12, 1915	Jan. 12, 1916	Jan. 12, 1917
Number of Employees.....	13,251	14,255	29,314	40,903
Amount in Banks.....	\$ 996,418	\$3,046,301	\$5,968,936	\$9,137,619
Amount of Life Insurance.....	2,471,663	6,493,709	14,822,962	23,408,186
Value of Homes Owned.....	468,230	933,524	2,892,667	4,157,659
Value of Lots Owned.....	67,160	94,136	614,790	1,022,081
Value of Homes on Contract.....	3,282,331	8,867,159	21,787,493	40,861,318
Value of Lots on Contract.....	413,854	999,327	2,800,940	6,038,583
Amount Paid on Homes on Contract...	1,111,258	3,237,864	7,844,614	13,990,346
Amount Paid on Lots on Contract....	100,757	276,722	775,453	1,640,665
Amount of Rent Paid Monthly.....	58,576	114,464	217,881	376,866

	January 12, 1914	January 12, 1915	January 12, 1916	January 12, 1917	January 12, 1919
Average Amounts Deposited in Savings Accounts and Invested in Homes and Lots per individual.....	\$207.06	\$532.34	\$617.33	\$732.18	\$2,171.41
Average Amount in Banks per Individual.....	75.20	213.70	203.62	223.39	750.13
Average Value of Homes Owned, per Individual.....	35.33	65.49	98.68	101.65	647.09
Average Value of Lots Owned, per Individual.....	5.07	6.60	20.97	24.99	128.15
Average Value of Homes on Contract, per Individual.....	247.70	622.04	743.25	998.98	1,394.70
Average Amount Paid on Homes on Contract, per Individual.....	83.86	227.14	267.61	342.04	495.58
Average Value of Lots on Contract, per Individual.....	31.23	70.10	95.55	147.63	335.75
Average Amount Paid on Lots on Contract, per Individual.....	7.60	19.41	26.45	40.11	150.46
Average Amount of Life Insurance, per Individual.....	186.53	455.54	505.66	572.28	857.03
Monthly Average of Rent and Board, per Individual.....	18.67	18.58	18.65	20.97	26.55
Number of Employees upon whom this statement is based (See above paragraph).....	13,251	14,225	29,314	40,903	100



# THE FORD MAN

Volume 4

Ford Factory, Highland Park, January 17, 1920

Number 2

## All Bonuses To Be Paid By 28th

### COKE SOLD AT ROUGE

Ford Men Buy 500 Tons From Rouge Over

On December 1st was begun the sale of coke produced at the Ford works at River Rouge to employees, there being 1,000 tons sold to date. The coke was sold at a price of \$1.00 per ton, and the employees were to receive it in full payment of their coke bill. The coke was sold in 500 ton lots, and the employees were to receive it in full payment of their coke bill. The coke was sold in 500 ton lots, and the employees were to receive it in full payment of their coke bill.

### A BIG TIME

Our Sixth Annual Profit-Sharing Banquet

The Monday night, January 12th, the Sixth Annual Profit-Sharing Banquet of the Ford Motor Company was held in the ball room and banquet hall of the Hotel Statler.

There were about 100 present as guests of the Ford Motor Company. The Ford Motor Company has been the best of all these things. The Ford Motor Company has been the best of all these things. The Ford Motor Company has been the best of all these things.

Of the amount paid to the Ford Motor Company, the Ford Motor Company has been the best of all these things. The Ford Motor Company has been the best of all these things. The Ford Motor Company has been the best of all these things.

### BEWARE OF SWINDLERS

Confidence Men and Pickpockets After Bonus

The Company's announcement of the bonus to be distributed among its employees has apparently resulted in some very bad reports for swindlers and pickpockets. The Company's announcement of the bonus to be distributed among its employees has apparently resulted in some very bad reports for swindlers and pickpockets.

No one is to be deceived by the company in its life insurance, real estate, or investments of any kind. No one is to be deceived by the company in its life insurance, real estate, or investments of any kind.

In order to detect impostors and to avoid being victimized by them, we would advise, in the event you desire an advance of money when you call at your home, that you will take to show his identification card, on which his photograph is attached. He will gladly do this and you will then know beyond a doubt that he is representing the Ford Motor Company.

### Investment Certificate Applications Are Ready

FIRST OF BONUSES PAID THE 15TH

Under present plans, the bonuses, with a very few exceptions, will all have been paid by January 28th. The first will be included with the pay envelope, January 15th, and from then on until they have all been paid, the rest on the different dates will receive their bonus according to the date of their pay day. The following shows dates on which the payments of the different bonus letters will receive their bonus.

### Tailors Busy Men

Ford Tailor Shop Sells Clothing at Cost

The Ford Tailor Shop opened for business Jan. 2, just east of the Employment Department, with a rush of a large number of customers. The only thing that prevented some Ford men from ordering suits was the fact that the shop was not open on the day of the bonus.

The shop is open every day, and the Ford men are busy every day. The shop is open every day, and the Ford men are busy every day. The shop is open every day, and the Ford men are busy every day.

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### HOUSES AND FLATS NEEDED

When the Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements. The Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements.

The Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements. The Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements.

The Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements. The Department of Housing is set on foot, it will be a big demand for houses, flats, and tenements.

This marked improvement in the material condition of the large majority of Ford men through the usual opportunities of the job is one of the great achievements of the Ford Plan.

But it is the unusual things that the Ford Motor Company has done to restore to a useful place in industry men who could neither get nor hold a job under ordinary industrial conditions that furnish most striking evidence of a new conception of the human and personal relationship in industry.

Most men need only an opportunity. This the job offers to all Ford men. But men overtaken by illness and misfortune, burdened with worry and anxiety, submerged by debt and discouragement need something more than a job. The Company not only set an ideal before such men, but undertook to help them reach it. Through pay envelope and personal contact it gave the encouragement and opportunity that set men on their feet. It got them into better surroundings. It set men to paying off old debts and getting square with the world. It restored hope.

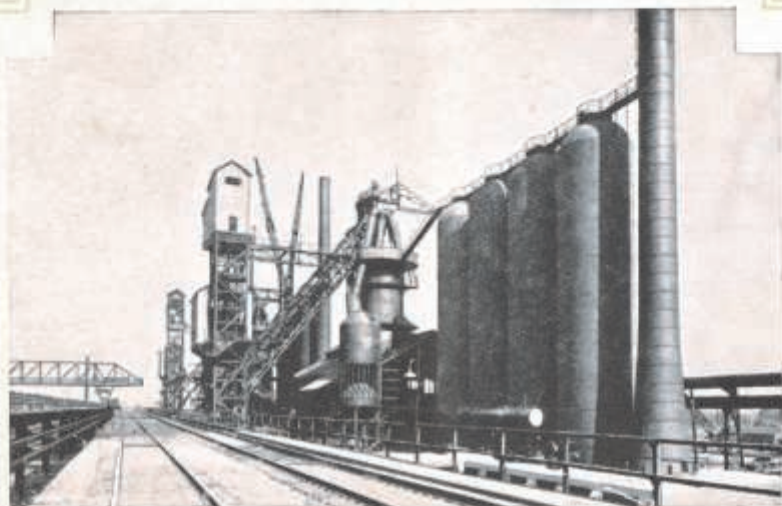
It is in this work that is to be found one of the finest achievements as well as the best indication of the spirit that has guided the work. The roll of men who have been made strong by the encouragement and assistance of their fellowmen, is one that is steadily increasing. Throughout the Ford organization are men who would have been "through" but for the patient, personal effort on the part of some foreman, advisor, fellow worker, or executive, who has carried out Mr. Ford's spirit and ideal. Mr. Ford believes that the spirit of the management will communicate itself to the whole organization.

It is in the countless activities arising out of a friendly and confidential relationship, and in the personal attention to those who need help in sickness and distress, that the human side is most clearly seen. "Just a word to let you know that I am in trouble and wish you would come here and help me." This is a sample of the daily call for help. No matter what the difficulty, the Ford man knows that he can come with it to the offices of the Department of Education. Or, if he cannot come, a message will bring a representative of the Company to his side. In most cases, it is not financial assistance that is needed. When a Ford man finds himself in a position where he does not know what to do, he usually comes to the Company. Its advice and personal counsel, its experience and influence and facilities are ready to be placed at the service of any Ford man or his family. It helps men meet their problems with their own resources, wherever possible.

There are men who through illness or misfortune come to the end of their resources and must either appeal to public aid or receive help from the Company. The Company, through this Department, goes to these men, studies their needs and does what each individual case requires. In countless daily services, the finding of a home for motherless children, the arranging of a burial for men who come to the end alone, which do not involve the expenditure of money, but do call for time and patience and sympathy, the secret of the Ford spirit is revealed.

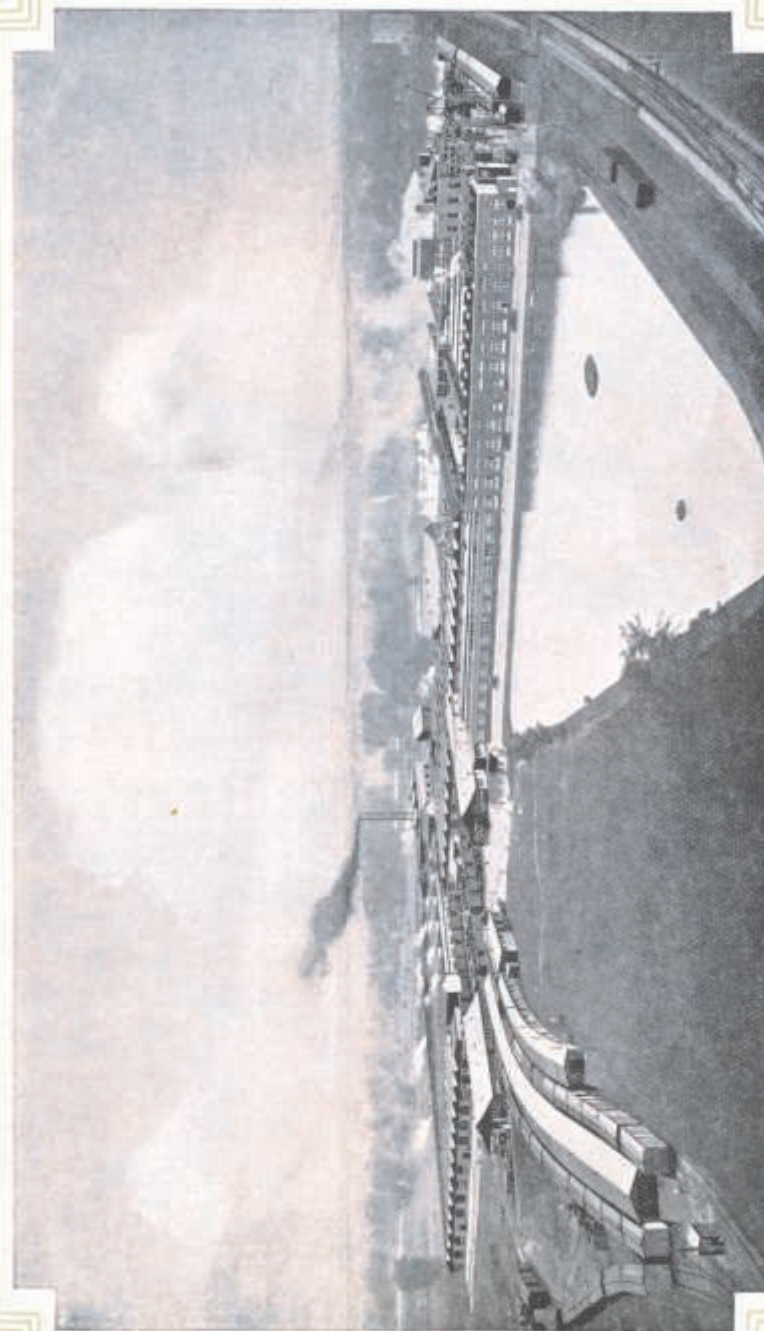
Here, in reduced form, is a front page of our little factory newspaper, "The Ford Man," issued the 3rd and 17th of each month. It is the medium through which suggestion, complaint, criticism and compliment are expressed by members of the Ford Industrial Family. It is the channel through which pass instructions, commendation and encouragement from executives to factory forces. We are trying to make it the voice of the Ford Factory Family. Nearly 100,000 copies each month.





Views of Ford Blast Furnaces and Coke Ovens at  
River Rouge, Michigan

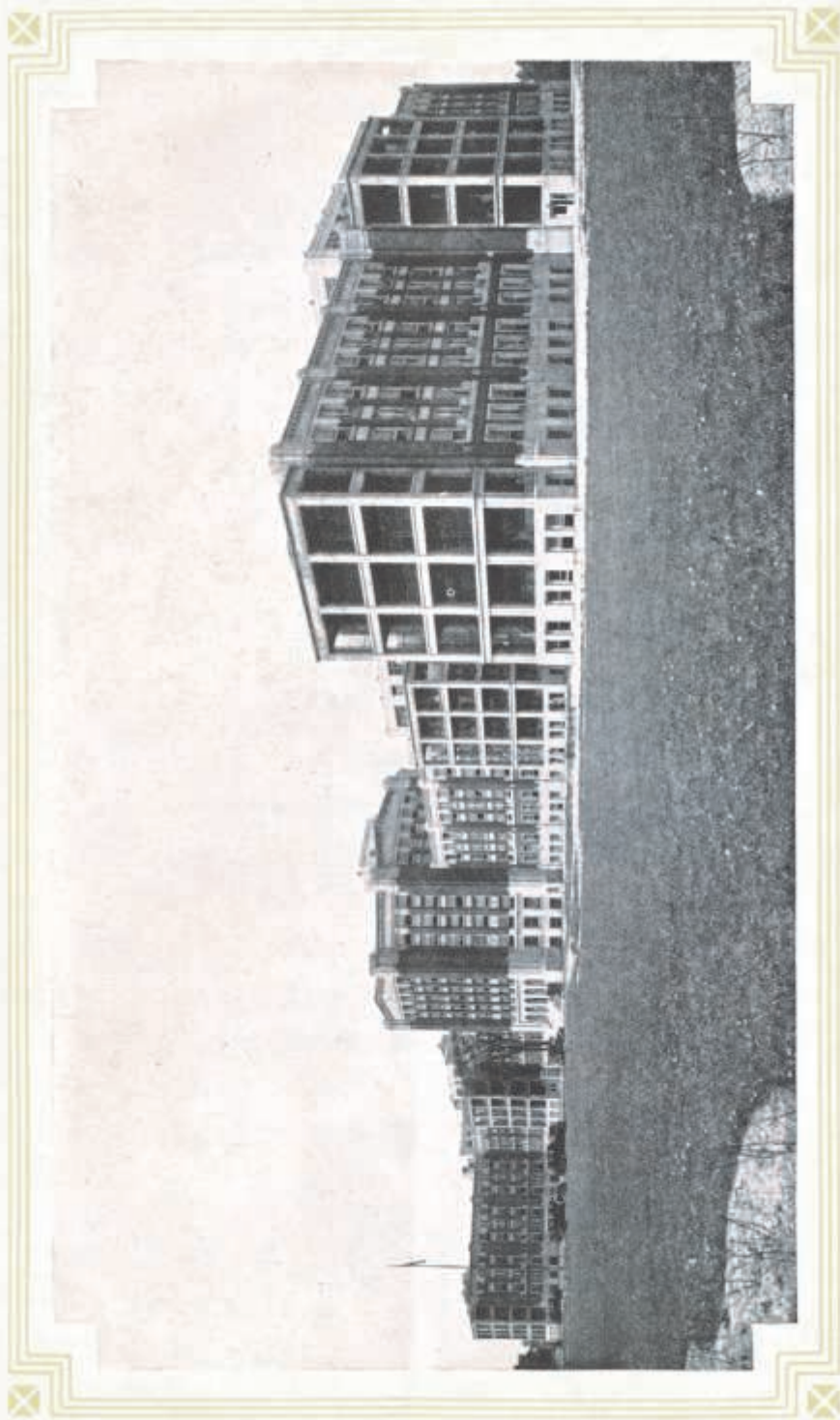
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Fordson Tractor Plant of Ford Motor Company at Dearborn, Michigan

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The Henry Ford Hospital, 430 Rooms, West Grand Boulevard, Detroit, Built and Maintained by Henry Ford