

NEW STUDEBAKER PLANT IS OPENED

20,000 Celebrate Start of Mammoth Factories.

INVESTMENT \$20,000,000 500-Car Daily Capacity of Light Sixes Is Output Expected to Be Reached.

SOUTH BEND, Ind., July 3.—The \$20,000,000 plant of the Studebaker corporation, the newest and declared to be the most modern automobile factory in the world, was officially opened last week, with the city of South Bend observing the public holiday in honor of the event.

Starting with a parade of 7000 workers in the morning the celebration continued throughout the day and late into the evening. At the end of the line of march the employees and their families, numbering 30,000, gathered at a large amusement park chartered for the occasion, where they feasted and joined in more than a score of field day events.

Since these plants have been erected to produce the new Studebaker light six complete, with an eventual capacity of 500 cars a day, a brand-new light six direct from the factory headed the great parade, followed by the 100-piece Studebaker band, President A. R. Erskine and other officials of the company, friends and plant employees and leaders in political, financial, automotive, religious and industrial circles from all parts of the country.

The real festivities began upon reaching the large amusement park, where contests were held for employees, their wives and the "kids," with \$1500 worth of prizes for the winners. Special features were the award of a ton of hard coal to the largest family on the grounds, a wagon to the most efficient worker, and the heaviest man. Dancing and a seven-act circus and vaudeville show were added attractions.

Thousands of Hot Dogs.

Some idea of the food consumed by the 20,000 celebrants is contained in the following figures given out by H. Vance, in charge of the affair: 6,000 bags each of popcorn and peanuts, 36,000 rolls, 1250 loaves of bread, 40,000 doughnuts, 1000 cans of soft drinks, 800 pounds of coffee, 200 gallons of cream and 1500 pounds of sugar.

In the evening a dinner to the guests who attended was given in the main plant dining-room, with 500 present. President Erskine was guestmaster and Rev. John Cavanaugh of Holy Cross college of Brookland, D. C., the principal speaker.

The new plants represent the largest piece of automobile factory construction within the past 12 months. They are also noteworthy in the unusual speed that was shown in their erection. Ground was broken in March 19, 1919, and in only 18 months later, the plants are in full operation.

Experts who went through the new plants referred to them as models in construction from the standpoint of efficiency in motor car production and the ideal conditions provided for the workers.

2,000,000 Feet of Floor Space.

The buildings completed have a total floor space of 2,000,000 square feet. In their erection and equipment 2,728,297 pounds of reinforced and structural steel were used; 3,000,000 feet of lumber, 60,832 cubic yards of concrete, 131,881 square feet of glass, 650,000 bricks, 120,000 barrels of cement, 124 million feet of pipe, 100,000 feet of water mains, 3081 feet of tunnels for carrying steam, water and electrical lines, 100 miles of pipe and between the various buildings, 8,850 feet of surface railroad track and 1525 feet of depressed track for handling material.

The method of assembling cars in the final assembly building is the most advanced in the world. In connection with the remarkable conveyor system in operation, materials stored on the upper floors are dropped to each station along the assembly line, piece by piece, in the number required for each individual car. This system not only increases the speed with which cars may be assembled, but reduces the cost and confusion of moving stock to a minimum.

Another instance of the efficiency that obtains in the new plant is in the sub-assembly buildings, which have an interior bay open to the roof. This bay is covered with a glass skylight and is equipped with crane service and landing balconies on all floors for the quick and economic handling of materials. The bay also has a depressed unloading track with accommodations for ten freight cars.

Some idea of the huge proportions of the new plant may be had from the following dimensions of some of the larger buildings: Sub-assembly, 425x235 feet; stamping department, 425x235 feet; machine shop, 425x235 feet; and forge shop, 161x742 feet.

Quantity Production Shows.

The buildings are equipped with 12 freight elevators, four passenger elevators and 24 traveling cranes. A power house, with eight 300-horse power boilers, fired by mechanical stokers, furnishes heat to all the buildings through a double system of direct and indirect heating, and also supplies steam for the operation of forging hammers and other mechanical equipment.

The new light six is produced in three body styles—the five-passenger touring car, the sedan and the landau roadster. Now that the new plant is officially opened Studebaker officials expect to get into quantity production shortly.

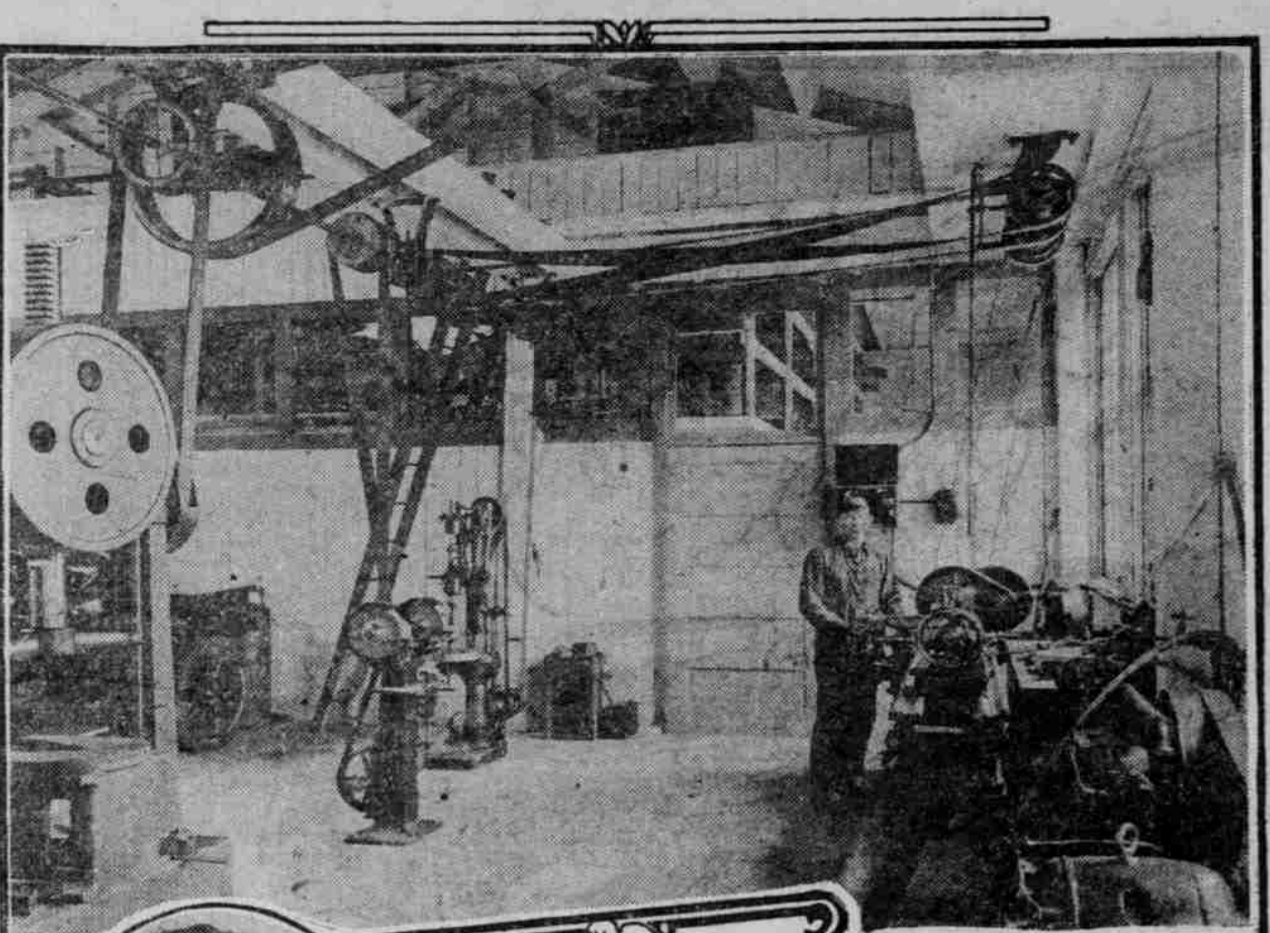
The other two Studebaker models, the special six and big six, will continue to be produced at the Detroit factories, with a scheduled output for this year of 50,000 cars. The combined floor space of all the Studebaker factories in South Bend, Detroit and Walkerville, Canada, is now 7,750,000 square feet and they represent an investment of \$30,000,000.

PLUMBER TAKES HIS TOOLS

This One Carries 'Em With Him in His Dodge Car.

A Chattanooga plumber has effectively served notice on the public that the standing joke about plumbers charging \$1 and more an hour "to go back after their tools" does not apply to him. He carries his complete plumbing shop with him to every job in a Dodge business car. The interior of the panel body is so arranged that there is a place for every tool and every part. There are no return trips and no delays. The owner, James H. Lipp, is aware of the advantage he enjoys with this equipment and uses it in his advertising. The car is painted purple, tinted in emerald and lettered in gold leaf.

NEW WALLINGFORD BUILDING THOROUGHLY MODERN AUTOMOTIVE PLANT.



GOODRICH LOSES WARFORD

NORTHWEST AD CHIEF TENDERS HIS RESIGNATION.

L. E. Warford Made Name for Himself During Long Service With Goodrich Company.

A surprise in automobile circles came yesterday when announcement was made by W. D. Albright, district manager for the B. F. Goodrich Rubber company, with headquarters in Seattle, of the discontinuance of advertising and publicity activities at the Akron factory. Several of the men in the different coast branches accepted positions at the factory and in wide and favorable acquaintanceship and furthering civic and good roads movements. He has not as yet announced definite plans for his future, but believes there is work for him to do in the west, where his interests center. His study and efforts in behalf of good roads and his ability in organizing and directing state and community campaigns have been big factors in the success of Goodrich in this territory and in good roads development.

In California, as in Oregon and Washington, Warford has made a record along these lines. One of the first big tasks he performed was organization and publicity work in connection with the first big bond issue for good roads in California, which resulted in \$20,000,000 for the state highway commission of that state. His work attracted the attention of exposition officials and he was commended to serve as secretary to the chief of transportation exhibits at the Panama-Pacific international exposition. It was his important assignment to take care of automobile, steamship, railroad and other transportation executives who attended the world's exposition. He was highly successful and received one of the few gold medals presented to employees for meritorious services performed.

From this work the Lincoln Highway association secured him as field secretary for the western division of the national body. In organizing and enlisting community support and backing for this highway he was largely responsible for its completion west of Salt Lake City and particularly across the desert of "bad" sections of Utah and Nevada.

On the completion of this work he went with the Goodrich organization in California and was brought to the northwest by Mr. Albright. One of his first efforts was to aid in launching the Pacific Northwest Tourist association, having for its purpose exploitation of the scenic attractions and resources of the United International Pacific northwest country.

THIS PLANT IS COMPLETE

NEW WALLINGFORD BUILDING ONE OF BEST ON COAST.

Many Distinctive Features Such as Shadowless Sales Room and Modern Repair Shop.

The W. H. Wallingford company, distributor for Liberty and Briscoe cars, recently removed into a new building at Fifteenth and Washington streets, recently occupied by W. H. Wallingford company, Liberty and Briscoe distributor, one of best-equipped plants in Pacific northwest. It has many features taken from the most up-to-date eastern automobile buildings. The pictures show: 1—Motor-driven lathes and drill presses in the well-equipped shop. 2—W. H. Wallingford, president of the company. 3—Another view of the big shop, with workmen at individual work benches. 4—The "shadowless" showroom, so called because its indirect lighting system has eliminated all shadows.

STEWART STATION HAS MOVED

Larger Quarters Obtained at Corner of Broadway and Flanders.

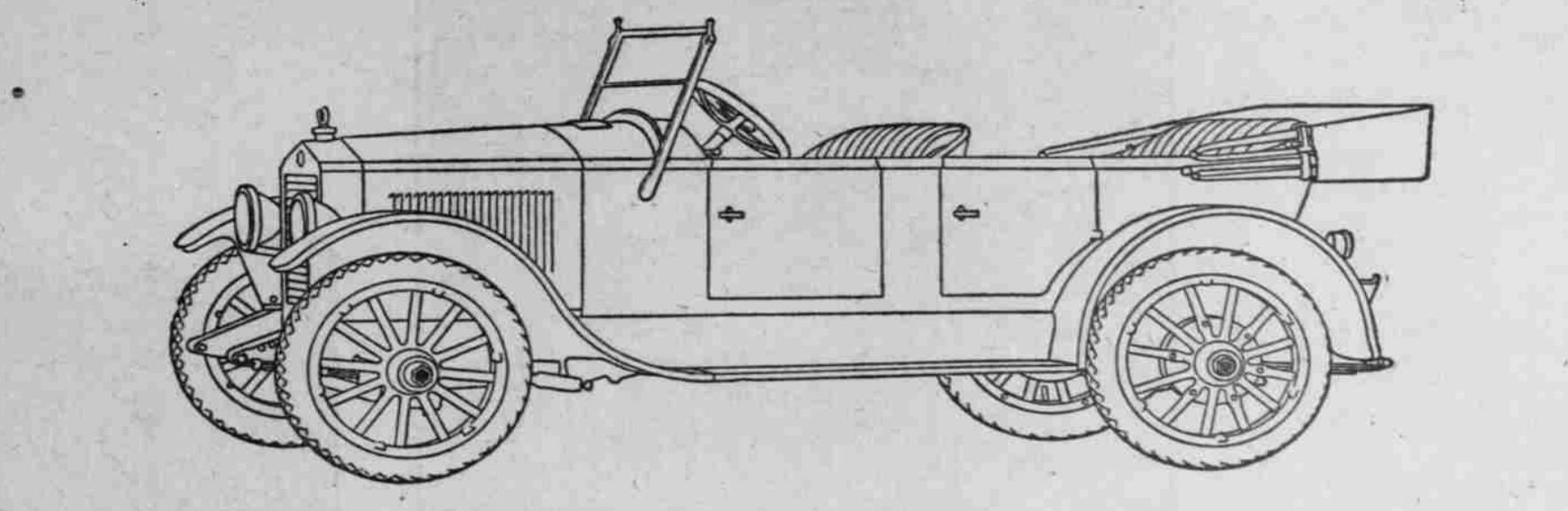
Removal of the Stewart Products service station from its former location at 333 Ankeny street to much larger quarters in the new brick building at Broadway and Flanders streets was accomplished last week. The service station has a lease for five years on the new quarters.

Thomas Hart is manager of the station. In its new location it has the advantage of a drive-in service for customers, who include all owners of automobiles equipped with Stewart speedometers and other accessories.

TRAVELING MAN MAKES HIS ROUNDS BY COLE EIGHT



C. L. Smith of Seattle makes a vacation of his business. The picture shows Mr. Smith, his wife and niece, who accompany him in the car on his selling trips through Oregon, Washington, Idaho and Montana. He carries his sample cases in a rack attached to the running board.



Essex Reveals True Economy Not Limited to But One Advantage

The question of motor car economy is not limited to gasoline mileage.

It includes oil, tires and particularly repair costs.

The Essex consumes no more gasoline than other cars of similar capacity. And it is a common remark of all owners that it requires hardly any oil.

As for its tire economy, many reports are so remarkable that we repeat them only with the explanation that they are exceptional rather than average. One owner has a record of 29,600 miles on one set of tires that appear good for several thousand more miles of use.

The repair requirements are so slight that it has given Essex a distinctive position among all cars.

C. L. Boss Automobile Co.

Distributors
615-17 Washington Street

REGRINDING AND REBORING

Here Is the Distinction Between the Two Processes.

We are frequently asked the question as to the distinction between regrinding and reboring cylinders, and how one is to know which process should be used in the event it becomes necessary to true-up worn cylinders, says Motor Life.

Engines that have been in service for a considerable time are apt to develop the worn cylinder disease, which manifests itself in loss of power. The reason is that the cylinders, due to the side thrust of the pistons, get slightly more wear in the fore-and-aft direction. This results in a slightly elliptical shape, which is the more pronounced the older the engine and hence the gases have a chance to leak past the worn sections.

If the wear is only a few thousandths of an inch, the bore of the cylinder can be trued up merely by grinding, but if the cylinder is badly out of round, it is sometimes necessary to rebore it before the grinding is done. The point is that grinding cannot be expected to make a very deep cut or correct a badly misshapen cylinder.

Where a deep cut is needed the surplus metal should be removed by the boring process, after which a very accurate surface can be secured with the grinder. From the foregoing it will be obvious that to secure accurate results and to bring dimensions to very close limits grinding is necessary, for boring will not admit of such accuracy. It should further be clear that grinding will produce a much smoother surface than boring alone.

TEMPLAR SETS RECORD

NEW YORK-CHICAGO TIME CUT BY BAKER.

Wray Jubilant Over Performance Which Clips Hours From Existing Standard.

A Templar car driven by Cannonball Baker, famous automobile road driver, has set a new record from New York to Chicago, according to word received last week by W. W. Wray of the Wray Motor Car company, Templar distributors here.

Mr. Wray received this telegram:

Now Is the Time to Paint Your Automobile

PHONE OR CALL FOR ESTIMATE

Robinson-Smith Co.

Sixth at Madison.
Main 1100.

from the Templar factory

"Templar has set another record. Driven by Cannonball Baker, it has just lowered the time from New York to Chicago. His elapsed time was 28 hours 50 minutes, lowering the record by 6 hours 10 minutes. The run was a grueling one and extremely hard on the driver, with 230 miles of it through rain, 200 miles through fog and 110 miles of detours. Total mileage was 922, an average of 35.9 miles per hour.

"Baker says the run was the worst he has ever driven and the car the finest."

BIG IRON PLANT IS LEASED

General Motors Acquires Another Large Industry.

WAUKESHA, Wis., July 3.—C. A. Haertel, president of the Waukesha Malleable Iron company, announced today that the plant had been leased to the General Motors company. The plant is valued at \$1,500,000.

Leaving Washington about June 14 for Los Angeles, over the Bankhead National highway, traveling through the southern states, another motor convoy is to be dispatched by the Motor Transport corps. The trip will end about September 17, and an average of 44.5 miles a day is planned to be covered on the 3860-mile journey.

MACK PERFORMANCE COUNTS

Features You Get Exclusively in Mack Trucks

Braking System on AC Models

Efficient brakes are a positive essential for the safe operation of a motor truck. MACK truck designers have provided the AC models, the heavy-burden bearers of the MACK line, with the best braking system that is known.

There are two sets of brakes—one on the jackshafts and the other on the wheels. One set retards propulsion at the seat of the power and the other at the point of application. Both sets are easily adjustable by hand.

The jackshaft brakes are of the external locomotive type, the shoes being rigid steel castings deeply finned for air cooling.

The brake drums are affixed to the wheels by a bolt through each spoke. This saves strain on the wheel by applying the strain close to the periphery and causes the drum to act as reinforcement of the wheel.

The brakes are equalized and the pull rods so laid out that the axle movement has practically no effect on brake action. Setting of the brakes by working of the rods on rough roads is made impossible.

Next: The Mack Truck Frame

MACK-INTERNATIONAL Motor Truck Corporation

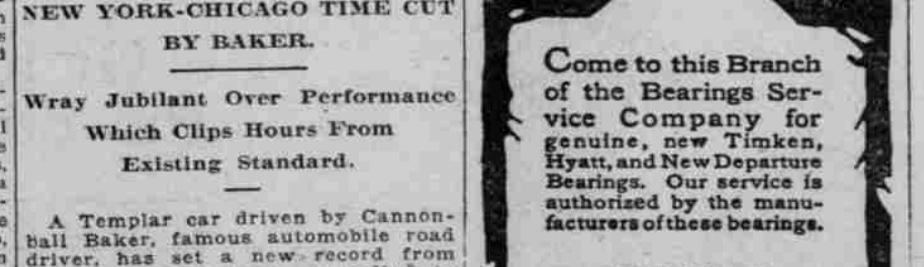
Tenth and Davis Streets
Broadway 691



BEARINGS SERVICE COMPANY

Come to this Branch of the Bearings Service Company for genuine, new Timken, Hyatt, and New Departure Bearings. Our service is authorized by the manufacturers of these bearings.

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Sixth at Madison.
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