

AUTO PLANT IS LIKE BIG RIVER

Efficient Layout Promotes Economy of Manufacture, is Claim.

DETROIT, Sept. 21.—Just as a great river flows by many tributary streams as it flows smoothly to its destination, so is the final assembly line of the modern, efficient, an economically operated automobile plant of today fed by many tributary streams of materials and parts that are assembled into the completed car," according to F. C. Sawyer, operating manager of the Plymouth Motor corporation at Detroit.

"Seventy-five per cent of the problem of manufacturing a low price automobile of quality is in the movement of the materials through the plant and the layout of the plant itself," he says.

"The timing of the flow of these parts through the plant and the manner in which the plant as a whole functions and directs all effort toward the feeding of materials to the assembly line is the problem that must be solved before an automobile plant can operate with the utmost of efficiency.

"The plant of the Plymouth Motor corporation at Detroit, being one of the newest in the industry is consequently one of the most modern," Mr. Sawyer continued. "It is one of the largest single-story structures in the country—a half-mile long and averaging four hundred feet in width. Along one side of the plant are two final assembly lines each a quarter of a mile in length.

"At the beginning of these assembly lines, which move at the rate of about 15 feet a minute, the frame of the car is first lifted into place. Then as the line moves along, the running board brackets, the springs, the front axle, the gas line piping, the gasoline tank, the rear axle, the propeller shaft, the engine, the exhaust, and the muffler are put into place.

"As the chassis continues, the transmission and brake levers are attached. Next comes the steering post and the wheels with the tires already in place. Fenders and radiators are then attached and the body is lowered from an overhead crane. With the attaching of the lights and the hood in their proper places the car is then ready to be driven from the line and to be subjected to final inspection.

"At the opposite side of the plant from the final assembly lines, the raw materials and the semi-finished products are brought into the plant by means of trucks and trains. As the materials are unloaded, they are placed on conveyors which carry them to the various machines in the plant where they are machined and finished and placed on other conveyors or lines where they are carried to the final assembly line. Proper timing of the speed of these conveyor lines is necessary in order to have the parts reach the assembly line at the right time. Hundreds of these conveyor lines, which are as tributary streams to a river, are in operation along the entire length of the assembly lines. Each one must carry its stream of parts to the final assembly line in a smooth, even flow. In all, there are many miles of conveyors at the Plymouth plant.

"Real efficiency and economy of manufacturing depends upon the working of the entire plant as a single unit—working with one purpose in mind, to furnish a continuous, even flow of materials and parts to the final assembly line so that that line may be kept constantly moving and completed cars may be kept coming off at regular intervals of a few seconds."

PEDESTRIAN IS PROTECTED BY TRAFFIC PLAN

NEW YORK (AP)—Pedestrian rights, long neglected in traffic planning, will be honored in newly proposed city highways.

Specialized highways, some patterned for the motorist to insure adequate speed limits and some planned especially for the pedestrian's protection, are advocated by the regional plan of New York and environs.

Following a survey of the best means of developing and protecting residential neighborhoods, the organization serving the states of New York, New Jersey, and Connecticut proposes increased specialization of highways and a reformulation of traffic ideals and standards.

It proposes express highways, wide arterials fitted for high speed traffic, which would cut residential areas into small islands. In these spots would be a maze of streets for low-speed traffic, lanes so fashioned that speed would be impossible and safety to the pedestrian the primary factor.

"By some sociologists the automobile has been regarded as a destroyer of neighborhood life," the organization reported. "Now, curiously enough, it is setting up a process in city planning which seems likely to produce exactly the opposite effect."

BLUE CONTINUES FAVORITE COLOR

Well Dressed Motor Car Wearing Popular Shade During Autumn.

DETROIT (AP)—Blue, with the dual personality of energizing or tranquilizing, depending upon the emotion of the beholder, continues to be the favorite color of the well dressed automobile with the coming of fall.

Brown-beige, green, black, gray and maroon, according to a lacquer manufacturer follow as favorites. The brighter blues, such as top-gallant, cerise and seafoam blue, are the strong favorites, said the statement, which added that all lines except the lighter tints carry an association of darkness and this, coupled with the demand for darker shades for fall, adds to the prestige of blue.

Brown and beige, which carry an atmosphere of newness because of their comparatively recent introduction in the automobile industry, continue to be popular. Brown definitely outlines the contours of the automobile and suggests rugged stability and worth.

Such colors as thorne brown, rich loam, dried brown, Lachawanna brown, Hucuenet brown and zircon brown are named as among the popular shades for fall, and combinations of these shades are finish.

Green, which was the leading production color in the spring of 1928, has dropped to third place among the favorites, due probably, the statement pointed out, to the difficulty of employing it artistically.

Black and gray were said to be more firmly established this fall than at any time for many months. Some automobile manufacturers were reported experimenting with bold colors of blue-black and green-black.

Turning Out Of "Sand Pies" Is Very Interesting

In Studebaker's 11 1/2 acre foundry at South Bend, Indiana, one of the largest grey iron foundries in the world, scores of skilled workmen may be seen daily making "sand pies" or cores for the 600 or more castings which go into the Studebaker engine, according to M. J. Goss, Studebaker-Erskine dealer here.

"The sight never fails to arouse unusual interest among the hundreds of visitors who make the trip through Studebaker plants. The operation of turning out these cores looks about as easy as the mud pie making of childhood days, yet the job is one which requires a high degree of skill and accuracy.

"Most casting calls for a sand 'core' and sand 'mould'. The 'core' and 'mould' may be likened to the core and skin of an apple, the 'core' representing the hollow portions of the finished casting, the 'mould' the outer husk or covering.

"Several types of sand are used in their making. An especially fine grade free from clay for the 'core,' a coarser, darker clay bond quality for the 'mould.' Huge quantities of this sand are stored in giant bins with a capacity of 325 carloads, the sand being routed to the various 'core' and 'mould' tables through wide funnels. Core sand is mixed with an oil and resin compound to give it the necessary consistency for baking. Mould sand is mixed with water and clay and does not have to be baked. The 'core' maker fills a core box with the sand, firmly presses it down with his hands, then inverts the box and removes it.

"The result is a perfect reproduction of the inside surfaces of the die, conforming accurately to every ridge, convolution or corrugation. In the case of very large 'cores,' a machine, appropriately called a 'sand sifter,' is used to force the sand into the die. The 'cores' are then baked in ovens under high temperature to a brick-like hardness.

"Moulds are made in the same fashion except that they are built up in two parts—top and bottom—but are not baked. As in the 'core,' the sand is forced into the two halves of the die under pressure, the baked 'cores' inserted in their respective positions and the two halves of the 'mould' placed together. A hollow space then exists between the 'mould' and the 'core,' into which the metal is poured. When the metal has cooled and set, both 'mould' and 'core' are removed, leaving the casting ready for machining. While it is possible to reclaim the sand used in cores and moulds, Studebaker finds it inadvisable. The close proximity of the Lake Michigan dunes to South Bend gives Studebaker an ample supply of fine, clean sand at exceedingly low cost. Studebaker's foundry has a daily capacity of 600 tons of castings."

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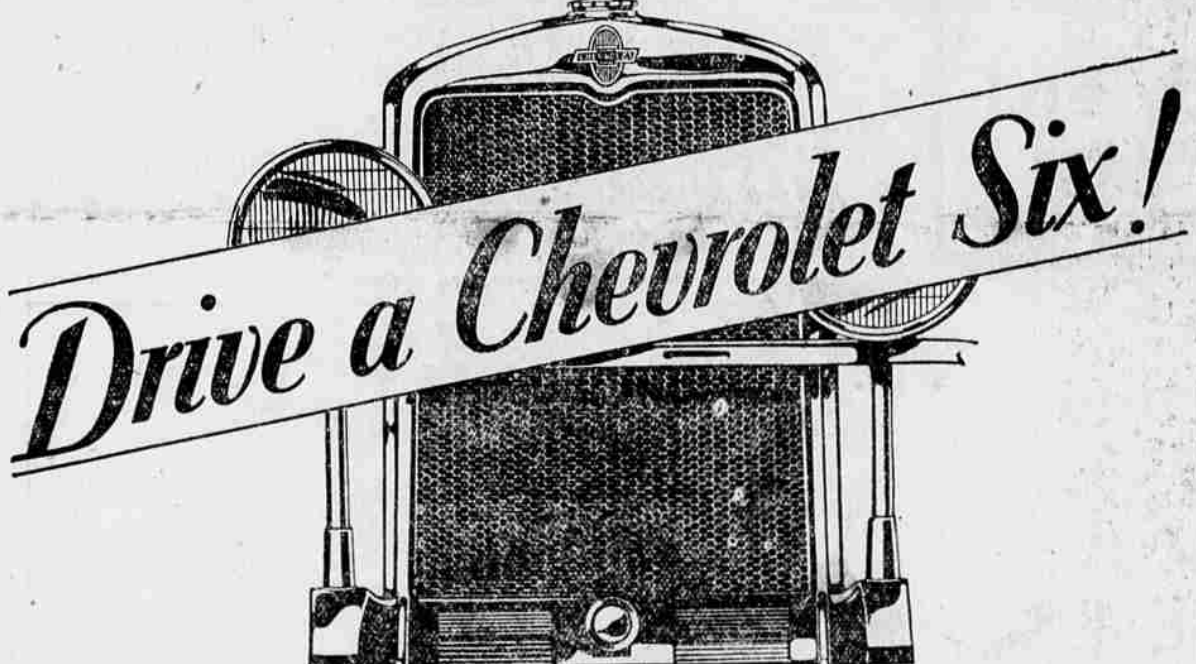
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HUDSON, ESSEX SHIPMENTS AT HIGH FIGURE

DETROIT, Mich., Sept. 21.—Shipments of Hudson and Essex cars up to September 1st of this year are announced as 287,341 as against 239,919 in the same period of 1928, a gain of 16.2 per cent. This is the best eight months' record Hudson ever has known, totaling less than 15,000 Hudson and Essex cars to equal shipping record of 282,294 for the entire year of 1928.

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In order to appreciate the value of the new Chevrolet, it is necessary to remember what a really fine Six it is. Its design represents more than four years' development and testing. Materials are carefully selected from the finest available sources of supply. Highly skilled workmen perform every manufacturing operation. And inspection is rigorous and continuous, from raw material to finished product. The result is quality so high that you can confidently look forward to thousands upon thousands of care-free, dependable miles!

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A SIX IN THE PRICE RANGE OF THE FOUR

MERIT ALONE EXPLAINS ITS SUCCESS

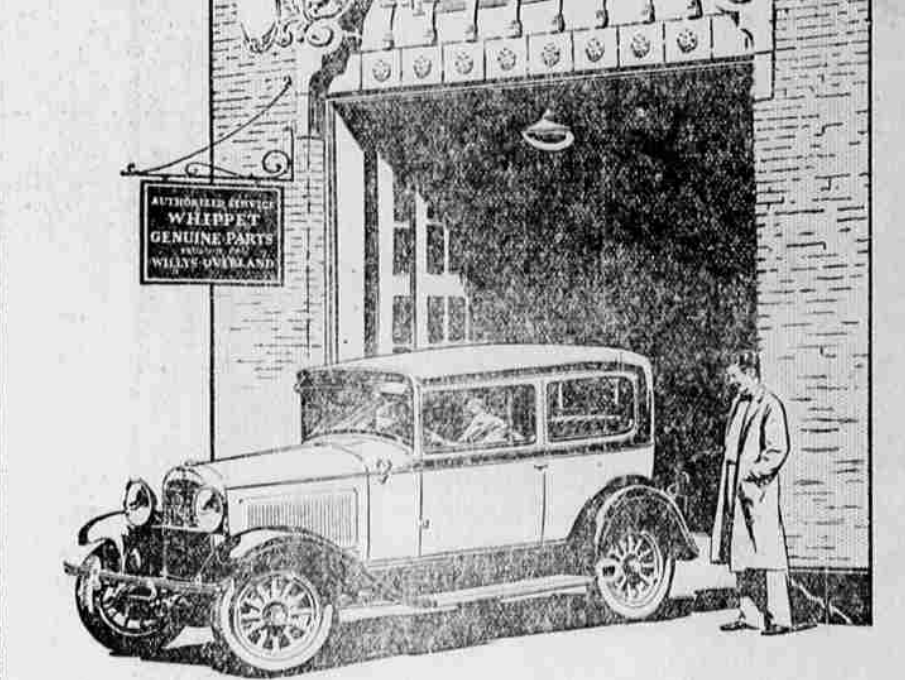
There can be only one explanation of De Soto's record-breaking first year, and its continued progress toward new sales peaks. It is the result of a spontaneous and widespread public conviction that no equal for De Soto Six quality, performance and value exists today in the field of low-priced sixes. Each month, thousands of new De Soto Six owners are adding their voices to the great chorus of approval that has swept this car to unprecedented success. Nothing is more certain than that your first ride in a De Soto Six will make you want to become a De Soto owner.

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