



AUTOMOBILE NEWS



SYSTEM IN AUTO FACTORIES PAYS

Saves Time and Labor in Building Cars for Present Day Demand

By Israel Klein (Science Editor, NEA Service)

From the beginning, quantity production takes hold of the automobile industry.

Practically every automobile plant today, no matter how costly or how fine the product, has its chain and roller conveyors, improved machinery that replaces gangs of men and systematized methods that save time and labor. Quality, however, is not sacrificed. In fact it is assured through countless machine methods and greater precision instruments. Every step in the progress of manufacture is checked up and tested, after which an entire assembly is tried out and checked again.

To insure this quality, however, one step in the manufacturing process has to be so precise as to forego the advantages of quantity

production. That is in the design of parts and the making of patterns.

Design covers every single part of the machine, down to the last nut and bolt. For this purpose the automobile shop has a large room where a score or more of mechanical engineers constantly work on plans and the improvement of their design.

"Drop Forgings" First

With blue prints of approval plans made, those requiring forging of parts, such as the crankshafts, the camshafts, connecting rods and axles, go down to the forge shop. Here these parts are pounded out of bars of red-hot steel—the kind that's strong, tough and not brittle—by an electric drop hammer. Only the rough shape is attained, for machines later mill these parts down to the proper measurements.

Other plans go to the pattern-making department for the casting operations on crankcases, engine blocks and other parts.

Wood patterns aren't used in modern foundry practice, for they wouldn't last long under the stress of quantity production and constant use. So molds are made from them and aluminum patterns are cast. These may be used in an end, or until a change is made in

THE MARINES MARCHING IN SHANGHAI



This striking picture, just received from China, shows American marines parading down the Bund at Shanghai with Old Glory and the regimental colors flying. Additional detachments of marines are now en route to Shanghai to augment the force there, charged with the responsibility of protecting American lives and property in China.

the design.

In the foundry modern efficiency and systematic methods begin. But the very first step consists of a highly important test on which depends the success of the casting operations. That is a check on the sands used in the molds.

Each batch is tested to see whether it has the proper amount of binder to keep it firm and whether it will still permit the escape of the gases that form when the molten metal is poured into the mold. If these gases can't escape freely, blisters and holes form in the castings and render the parts useless.

Large overhead electric conveyors carry the sand to hoppers over the spots where the molds are poured. The pattern is set on a permanent base, a wooden box is placed around it and the sand is

dropped in.

Holes are gouged out for pouring the metal, the mold is tamped down or packed in by an electric vibrator or pounding machine. It is smoothed off at the top, turned over and the pattern is lifted off. That leaves a smooth, clean mold, half of the crankcase or other part to be cast. The other half is molded in the same way. The two are put face to face, to form an entire mold, and they are ready for casting.

Rows of Castings

Once done, the molds are lined up in a double row between which a crane travels. A large bucket of molten metal from the cupola is conducted down the line, stopping for a moment at each mold and pouring a quantity of the metal into it. One man does the work, sitting in a hanging cage that precedes the metal and controlling the entire operation by electricity.

The metal is allowed to set and cool. Then the molds are taken up and sand shaken out. That sand, having undergone a chemical change under the heat of the casting, is sent through a cleansing and retreating process that makes it fit for further use.

The castings are cleaned of the sand that sticks to them. Extraneous metal is knocked or cut off, while other sections are built up by electric welding, so that the entire part may roughly fit the dimensions of the original pattern.

Small brass parts are cast in a separate foundry, in a smaller way. Here, in the more modern plants, electric cupolas or furnaces heat the metal.

In the case of the engine block, the better plants set this part out under the weather for as long as a year to season it thoroughly. Thus this part which has to withstand

the strain of great heat and intense cold in one winter day goes through a warping and shrinking process under all conditions of weather.

By the end of the year, it is considered seasoned and its cylinders can be bored and ground down to size without fear of their changing under ordinary conditions of weather.

Claims New Dances Develop Odd Gaits

PARIS (AP)—French devotees of the Charleston and the Black Bottom develop a peculiar manner of walking, according to a Paris critic.

Charlestoners, he said, develop what he describes as "knee-knees" while the habitual Black Bottomers attain an unconscious double shuffle of the ball of the foot.

The "Charleston" walk, says the critic, has become a recognized feature of the promenade along the great Parisian boulevards. Strangely enough, he adds, the Americans don't seem to have attained it. He thinks that is because the prevalence of sport in America provides in itself a very graceful carriage that defies the influence of exotic dance steps.

In a barber shop and beauty parlor for dogs in London, England, the charges for haircut and shampoos vary according to the size of the animal. The charge for the average dog is \$2.50 and for a St. Bernard, \$5.00.

In some circles on English society the snuff-box is again becoming popular.

Pedestrians Are Still In Danger

Pedestrians made up 73 per cent of the persons killed during January in automobile accidents throughout the country, reports the National Safety Council.

Twenty-three per cent of those were under 15 years old, 34 per

cent were 55 and over, and 43 per cent were between these ages. Only 12 per cent of the 1430 motor vehicle fatalities during January were due to collisions.

A battery is well charged when the hydrometer shows a specific gravity of the solution between 1.250 and 1.300. It is practically dead when the hydrometer shows a reading of 1.150 or lower.

Minor princes and chiefs of India are wearing squeaky shoes to impress their barefooted subjects. Squeaky shoes with squeaks (the louder the squeak the higher the price) are made by several English firms.

The side saddle is again becoming popular among the women riders of London.

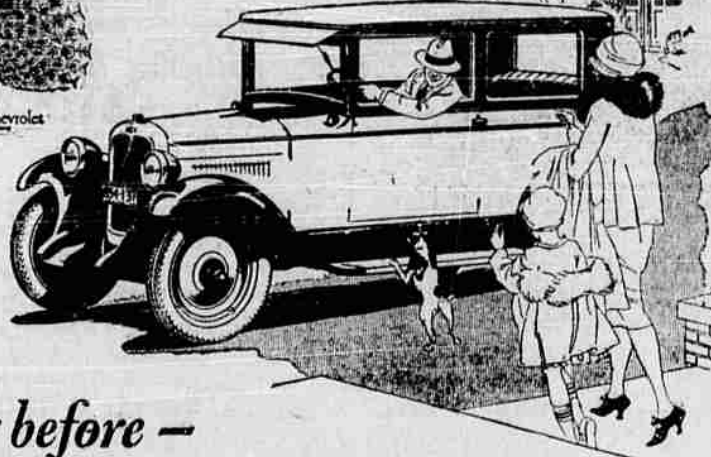
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THE "OTHER MOTHER" AT COURT



The "other mother" of the Snyder-Gray tragedy is pictured strikingly here (left). She is Mrs. Josephine Brown, shown with her daughter, Ruth Snyder, defendant in the Long Island City murder trial. Like Mrs. Charles H. Gray, mother of Henry Judd Gray, Mrs. Brown attends the trial daily.

Feature VALUES in Tires!

More fares for the taxicab

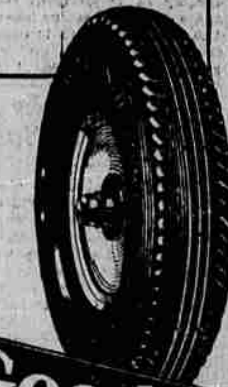
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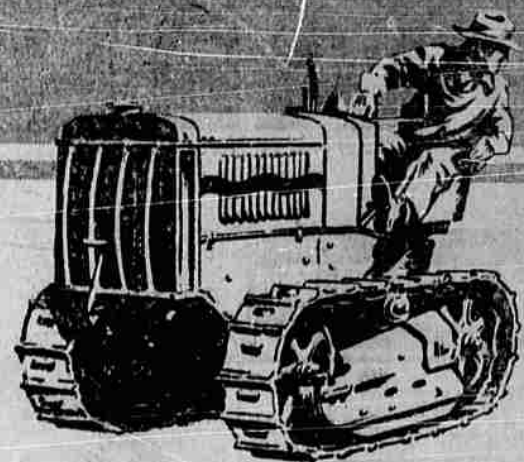
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