



**BUILDING THE
1934 CHEVROLET
WITH BODY BY FISHER
AT THE FAIR**

including the first
public exhibit of
a motor car
assembled with

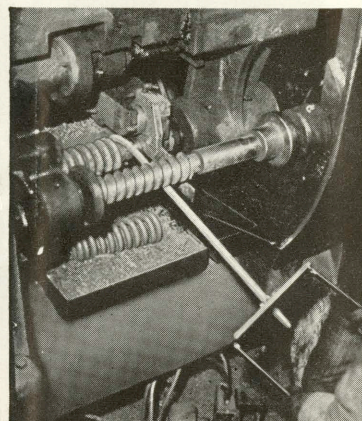
**FULLY-ENCLOSED
KNEE-ACTION WHEELS**

MANUFACTURING THE MOST SENSATIONAL

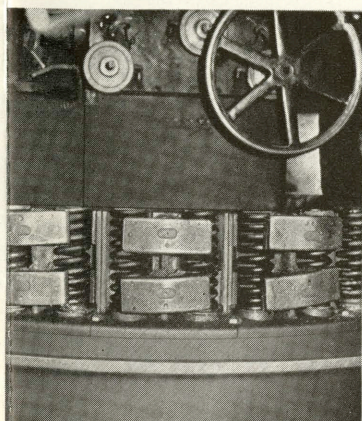
NEW FEATURE OFFERED ON 1934 MOTOR CARS

Fully Enclosed Knee Action Wheels

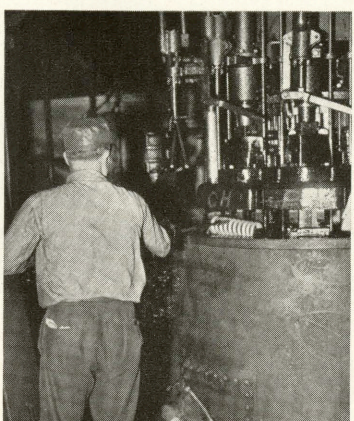
FOR ASSEMBLY WITH THE 1934 CHEVROLET CHASSIS



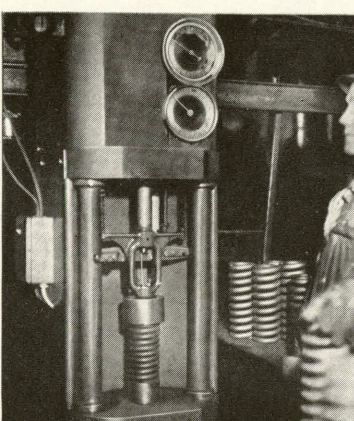
Forming Knee-Action coil spring. A red hot bar of spring steel wraps around the winding arbor, automatically guided to produce the required space between the coils. When the winding is completed, the coil spring drops into the tray below.



This revolving table is circular, and holds 16 coil springs. After one revolution of the table, one end of each spring has been ground smooth and square. The spring is then reversed to grind the other end.



Each coiled spring is heated in an oven to a temperature of 1600 degrees, then it is quenched in oil. The above photograph of the heat treatment shows a workman placing coils in the quenching machine, which holds the coil in correct shape during the operation.



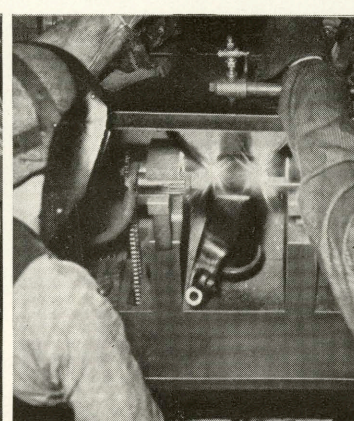
After heat treatment, the coil is compressed to its limit under a load of 3830 pounds, then released under pressure to a height of 8 inches. Large dial gauges enable the operator to check each spring for uniformity, rate and load.



A few seconds after this photograph was taken, the glowing mass of metal had been formed into two front wheel spindles for Knee-Action units, and a similar white-hot lump of steel was ready to be placed under the hammer.



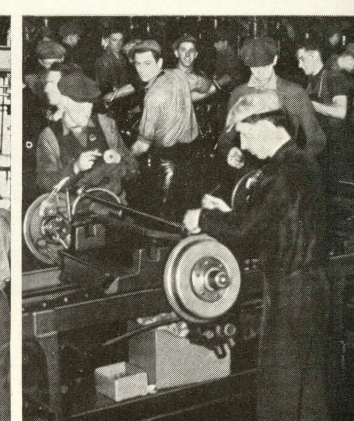
A billet of glowing hot steel, nearly shapeless, is placed under the steam hammer, and with a few blows between the dies the desired shape is formed. The Chevrolet forge shop is the largest in the world, in the number of hammers and in output tonnage.



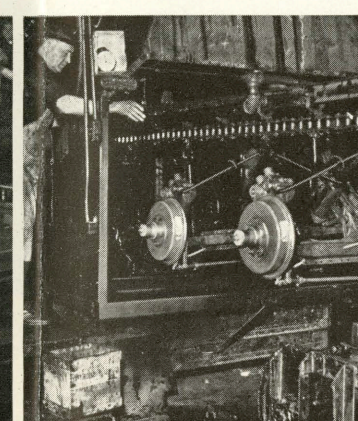
Chevrolet Knee-Action is fully enclosed in a strong, weather-tight housing for protection against water, stones and ice. The housing is welded by special machines into single one-piece units—far stronger than driving conditions ever require.



All parts required for assembling Knee-Action units—springs, housings, covers, support arms—arrive at their proper places along the line on overhead conveyors. Skilled workmen rapidly complete finished units.



Complete front-end assemblies, including the front cross member of the chassis, Knee-Action units, brakes and steering connections, are assembled on conveyor lines for shipment to Chevrolet plants, where the chassis is completed.



Complete front-end units are taken from the end of the conveyor assembly line and travel through a tunnel, suspended from an overhead conveyor. In this tunnel, a lacquer finish is sprayed on the metal.

CHEVROLET has invested over \$4,000,000 in developing and manufacturing fully-enclosed Knee-Action wheels so that owners of low-priced cars may enjoy a greater riding comfort than previous types of front springs could provide. Limited space does not permit a complete exhibit of the manufacturing

processes for fully-enclosed Knee-Action wheels at "A Century of Progress" Exposition, but many of the final operations are included in the Chevrolet assembly line. Thousands of visitors will witness, for the first time, how the most sensational feature of 1934 is assembled with the Chevrolet chassis.

First operations on the Fisher Body assembly line—joining individual parts into combinations called "sub assemblies," including rear body frames, front frames and roof assemblies. The hardwood framework which imparts tremendous strength to Fisher bodies is made of specially selected hardwoods, resilient and sound absorbing.

Body framework assembly. Hardwood parts, clamped in place on "set up bucks," are joined together by screws and bolts. Forged steel braces reinforce points of extra stress. This sturdy framework, within Fisher steel bodies, provides greater strength and safety. Note the strong bow-and-slat roof—an exclusive Fisher feature.

Welding steel panels together. The side and back steel panels are placed in this 14-ton fusion welder, then the current is switched on. A mighty roar . . . a shower of sparks . . . and the three panels are one! Another fusion welder nearby joins other major parts to this assembly, after which the welded seams are ground to remove surplus metal.

Installing doors. The doors have already been assembled with hinges and window regulators. All edges overlap the door frame to prevent drafts and leakage. Note the large size and strong construction of the doors as Fisher craftsmen mount them in place. Chevrolet-Fisher doors are much stronger and more substantial than the doors of other low-priced cars.

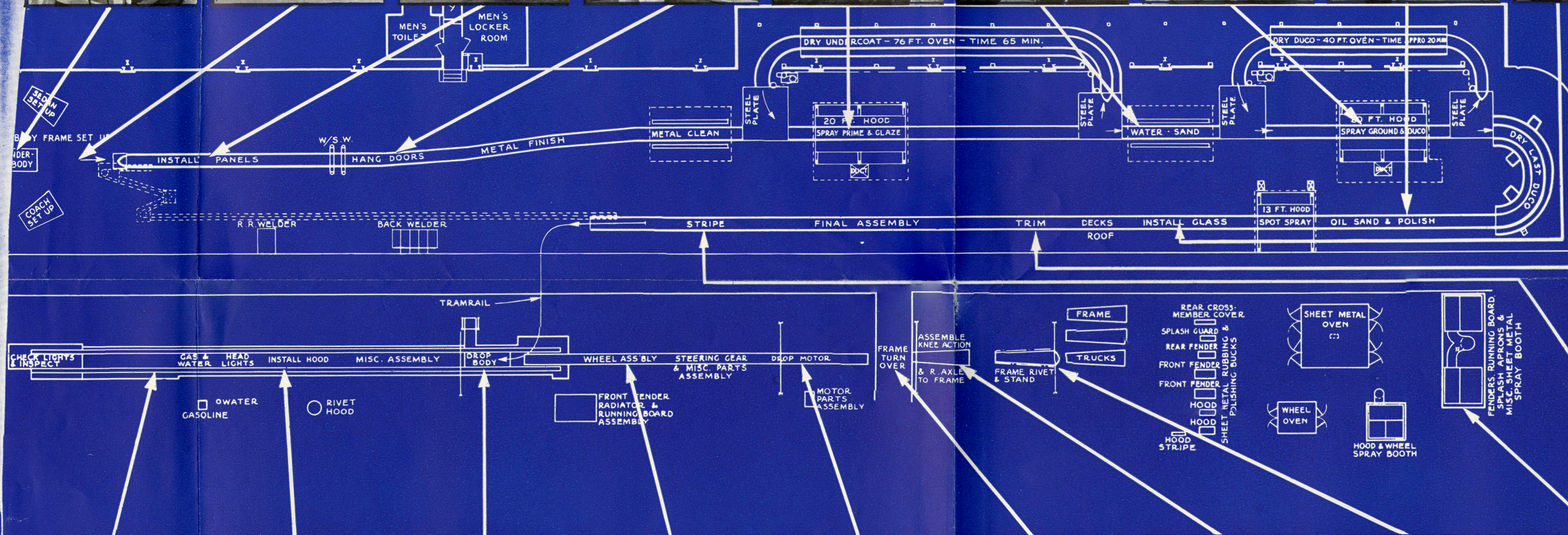
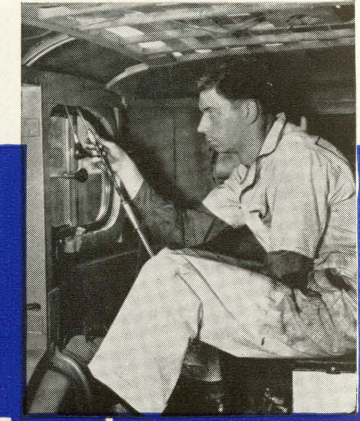
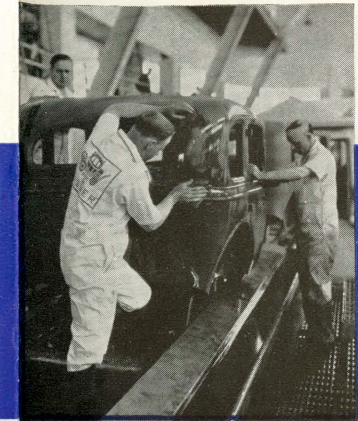
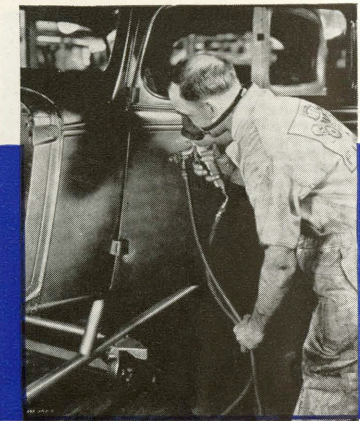
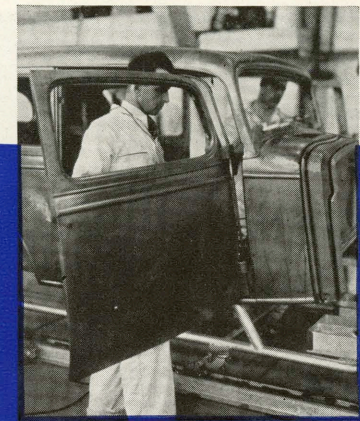
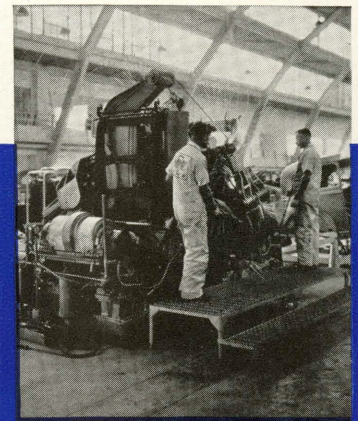
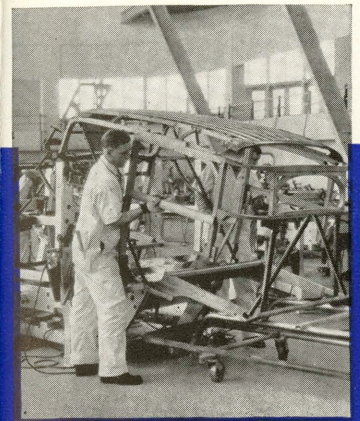
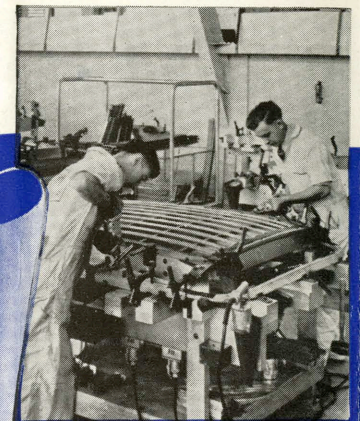
Washing the body, applying "prime" and "glaze" coats. Diluted acid solution in the long parallel troughs removes all traces of grease, so the finish will adhere. In a glass-topped booth, sprayers apply the "priming coat" of paint. After baking in an oven, the body returns to the same glass booth for a "glaze" coat and another baking.

Under powerful floodlights in the glass booth, workmen inspect the dried "glaze" coat, and smooth it down with wet sandpaper. More priming paint is applied to spots that have rubbed thin, and also to points where wear is heaviest. A thorough-going inspection follows to make sure that the "undercoat touch-up" is complete.

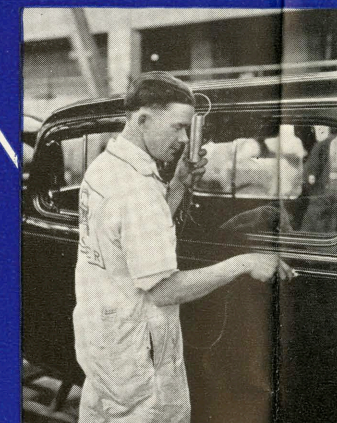
In the next glass booth, spray guns apply Duco color. Three different coats are applied. The first two coats are dried in an oven under the spectators' balcony. The third and final Duco coat is dried in a "U" shaped oven at the end of the line. The careful application and liberal use of Duco assure Chevrolet owners a long-lasting finish on their cars.

Oil sanding with fine sandpaper dipped in oil, and machine polishing are important reasons for the high quality of Fisher Body lacquer finishes. Every inch of the body is rubbed with oiled sandpaper, then polished by pads of fleecy wool on portable electric polishers. The polishing compound is virtually identical with finger nail polish.

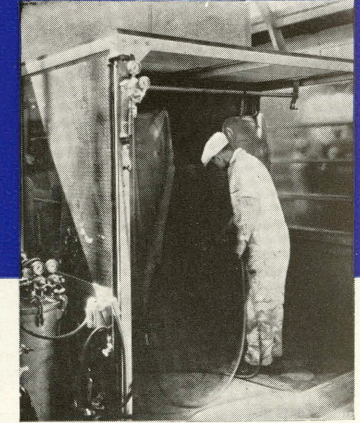
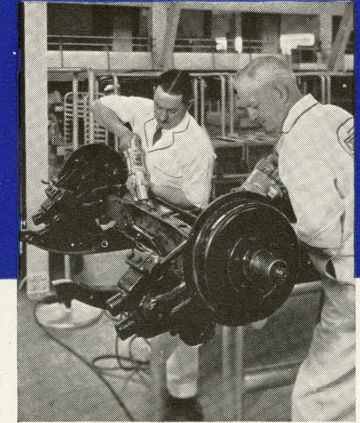
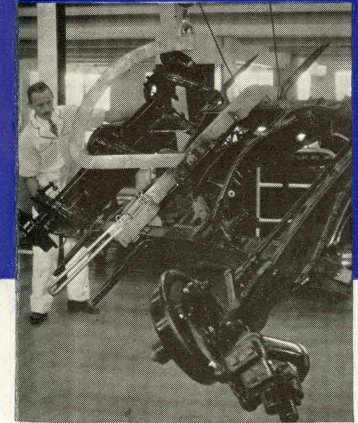
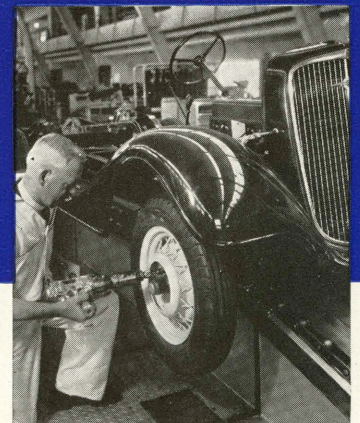
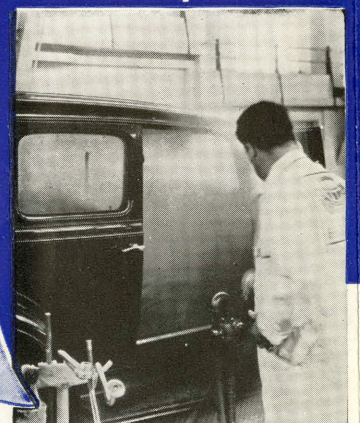
Windshields, window glass and Fisher No Draft Ventilators, kept in racks alongside the assembly line, are installed by hand. Roofing operations are completed by Fisher craftsmen on platforms, who install built-in radio aerials, sound-proofing roof pads, roof fabric, and the weatherproof edgings which hold the fabric in place.



Fisher craftsmen now install the headlining, inside door panels, interior trim and garnish mouldings. Craftsmen alongside the assembly line make the seat cushions and backs, covering them with rich, long-wearing Bedford cord or mohair upholstery.



Final body operations. All surfaces are buffed with dry fleece. Then glass is washed. Next, the striping along moulding, done with a striping pencil and special apparatus designed and built by Fisher engineers. Now the body swings over to the Chevrolet assembly line.



Water for the radiator, fuel for the gasoline tank—then a spray of steam to raise the nap on the upholstery to bring out its sheen. Now a workman starts the engine for the first time. Final inspectors search carefully to see that every operation has been performed perfectly—up to Chevrolet's high standards for dependable service!

Dozens of finishing operations in rapid-fire order. The radiator, already assembled, is mounted in place. Hinges and hood catches are installed. Electric wiring is hooked up. Various engine controls are connected. Toeboards, bumpers, hub caps and headlamps are added one by one, and another Chevrolet car is nearly complete.

A dramatic and spectacular operation—mounting the Fisher Body on the Chevrolet chassis. A hoist picks up the body on the Fisher line, swings it through the air to the Chevrolet line, and gently lowers it on the chassis. Workmen guide the body into proper position, and within a few minutes the body is securely bolted in place.

Familiar operations—mounting the tires on the wheels and then putting the wheels on the car. Running boards, with the front and rear fenders, are assembled at the side, then added to the chassis. Meanwhile, workmen on the end of the Fisher Body line are installing the instrument panel, electric wiring, lights and switches.

The big 80-horsepower overhead-valve engine, with its 80-mile-an-hour performance, has already been prepared for installation by adding the famous Syncro-Mesh transmission. A swinging hoist gradually lowers the engine in place on its cushion-balanced mounting, and the workmen rock the motor to insert the drive shaft for its proper connection.

Turning the frame right side up. Preliminary work having been completed, the frame is turned over for later operations such as mounting the engine and body. From this point, the chassis proceeds on an endless chain conveyor, and a completed Chevrolet car takes form before your eyes with almost miraculous rapidity.

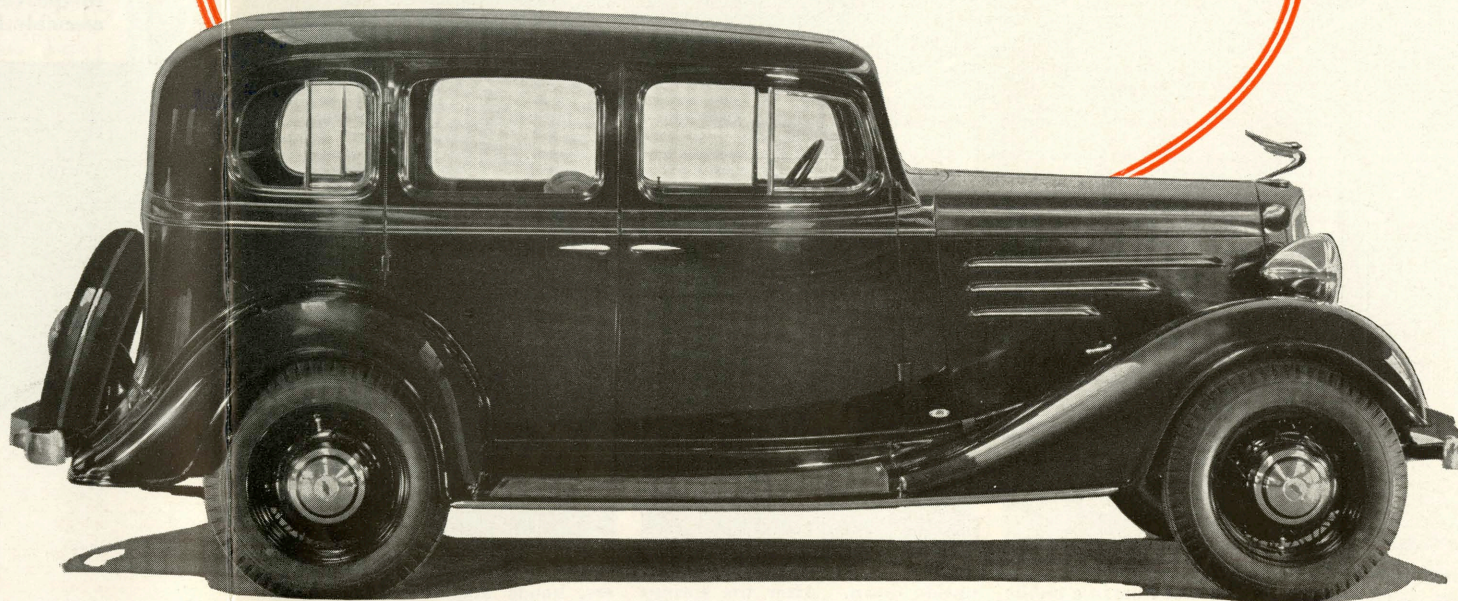
The Knee-Action assembly—shown for the first time in a public exhibit. The 1934 Chevrolet "front axle" is in reality a strong, immovable part of the frame. The big, fully-enclosed Knee-Action units are installed on the ends of the axle—assuring the Chevrolet owner of a far more comfortable ride, shock-proof steering, and a safer ride as well.

Much of the chassis is assembled upside down. After the springs and other parts are in place, the rear axle swings into place on an overhead hoist. Chevrolet workmen rapidly fasten the axle to the rear springs and tighten up the bolts which hold it in place. The new Y-K frame for 1934 is 15 times stronger than conventional types.

First Chevrolet operation. Fenders, hoods and other parts are rubbed smooth with sandpaper, then taken to a glass booth. Four coats of Duco are applied with spray guns, and the parts are hung on racks to dry. In another glass booth, Duco is applied to the radiator shell and other parts, the wheels being coated with Dulux enamel.



**BUILDING
FISHER BODIES
for the 1934 Chevrolet
AT "A CENTURY OF PROGRESS" EXPOSITION**



Literally millions of people have owned cars with "Body by Fisher." The emblem which always identifies Fisher bodies is recognized as the mark of better coachcraft wherever motor cars are found. Motorists know, by long experience, that Fisher bodies are unequalled for comfortable, healthful riding, as well as for safety. Fisher No Draft Ventilation, insulation against weather and sound, overlap-

ping doors, stronger and safer construction, finer materials and workmanship, inside and out—such features are only a few of the advantages found only in Bodies by Fisher. After you witness a complete Fisher body built before your own eyes . . . after you have seen the painstaking craftsmanship used in every Fisher manufacturing operation . . . you will demand a Fisher body on your next car.

CHEVROLET FOR 1934 IS THE LOW-PRICED CAR WITH "BODIES BY FISHER"