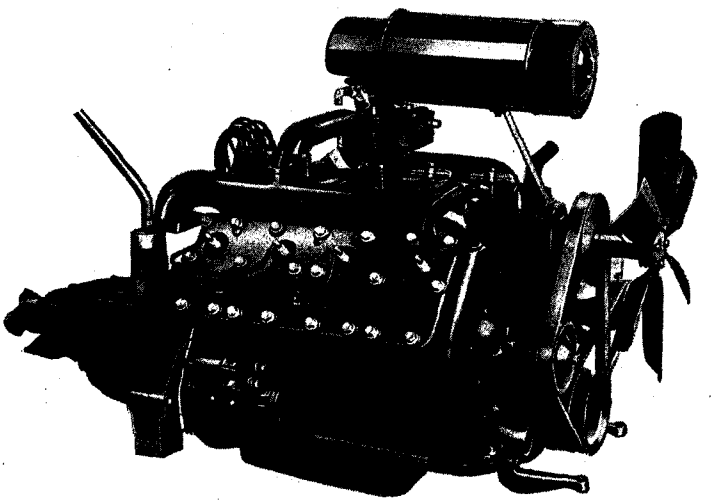
1936

CADILLAC PRELIMINARY SERVICE INFORMATION

Cadillac V-8, series 36-60, 36-70, 36-75

Cadillac V-12, series 36-80, 36-85



Service Department

CADILLAC MOTOR CAR COMPANY

DETROIT, MICHIGAN

Contents

The Cadillac-LaSalle line for 1936 comprises seven new series of cars:

Series 36-50	120″ w. b.	248 cu. in.	8 in-line
Series 36-60	121″ w. b.	322 cu. in.	V-8 engine
Series 36-70	131″ w. b.	346 cu. in.	V-8 engine
Series 36-75	138″ w. b.	346 cu. in.	V-8 engine
Series 36-80	131″ w. b.	368 cu. in.	V-12 engine
Series 36-85	138″ w. b.	368 cu. in.	V-12 engine
Series 36-90	154″ w. b.	452 cu. in.	V-12 engine

NOTE—The information on pages 5 to 27 applies only to Cadillac V-8 and V-12 models. For LaSalle and Cadillac V-16, see page 27.

Front Wheel Suspension

Camber—
- 36-60 ..... ¼ to 1°
- 36-70, 36-75, 36-80, 36-85 ..... 0 to ½°

Caster—
- 36-60 ..... 1½ to 2°
- 36-70, 36-75, 36-80, 36-85 ..... ¾ to 1¼°

Toe-in ..... 0 to $\frac{1}{16}$ in.

Tread (front)—
- 36-60 ..... 58 in.
- 36-70, 36-80 ..... 60½ in.
- 36-75, 36-85 ..... 62½ in.

The general arrangement of the front wheel suspension system on the new V-8 and V-12 Cadillac cars remains substantially the same as on the previous models, except for minor improvements.

The lower suspension arms are pivoted at their inner ends on solid shafts attached to the underside of the front frame cross member as shown in Fig. 1; yokes have been added to the outer end of the upper suspension arms; and the intermediate steering arm is supported by a wide double-row ball bearing at the rear side of the front frame cross member. The rubber bumpers have been removed from the inside of the helical springs and placed outside of the springs on the series 70, 75, 80 and 85 cars.

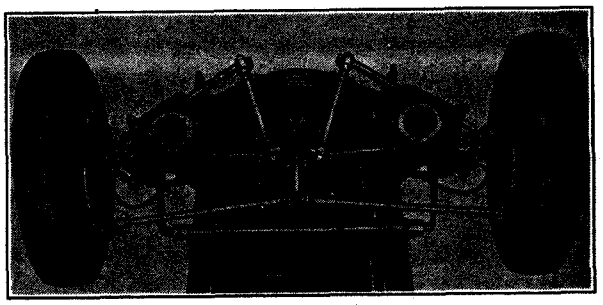


Fig. 1. View showing the installation of the lower suspension arms

On the series 60 cars the L-shaped intermediate steering arm has been superseded by a T-shaped arm. On the series 70, 75, 80 and 85 cars steering ease is increased by the addition of needle bearings at the top and bottom of the knuckle pins.

The service operations on the new front wheel suspension system are practically the same as on the former models, except the removal and installation of the intermediate steering arm on the series 60 and the lower suspension arms on both the V-8 and V-12 cars. These parts are serviced in much the same manner as the corresponding parts on the LaSalle 35-50.

Rear Axle

Type of Axle ..... Semi-floating

Tread (rear)—
- 36-60 ..... 59 in.
- 36-70, 36-80 ..... 60½ in.
- 36-75, 36-85 ..... 62½ in.

Oil Capacity ..... 5 pts. or lbs.

Gear Ratio (Standard 5-pass. Sedan)
- 36-60 ..... 4.10 to 1
- 36-70 ..... 4.55 to 1 / 4.33 to 1
- 36-75, 36-80, 36-85 ..... 4.60 to 1 / 4.33 to 1
- Commercial chassis ..... 4.55 to 1

The rear axle gear mount is of the cylindrical type shown in Fig. 2 and is carried on tapered roller bearings mounted at each end. One end of the gear mount is enlarged to facilitate removal and installation of the differential side gears and pinions. Permanently lubricated and sealed ball bearings are used at the rear wheels.

Rigidity and stiffness of the rear axle assembly are assured by the heavily ribbed differential carrier and the welded-on housing cover.

Two needle-bearing universal joints and a tubular propeller shaft are used on all series cars the same as on the corresponding past models. The universal joints are packed with lubricant at assembly and require no further attention except lubrication of the sliding connection between the front universal joint and the propeller shaft. The same grade of lubricant and the same mileage intervals should be observed in lubricating this connection as on the previous models.

The axle shafts used on 36-70 and 36-80 cars are one inch shorter than those used on 36-75 and 36-85, and therefore are not interchangeable. For ready identification the 36-75 and 85 axle shafts are daubed with red paint on the outer end.

The pinion and ring gear are properly adjusted at the factory and the adjustment should not be changed. If adjustments or replacement of the gears are necessary, the entire differential carrier assembly should be replaced and the old one returned to the factory Parts Division for exchange.

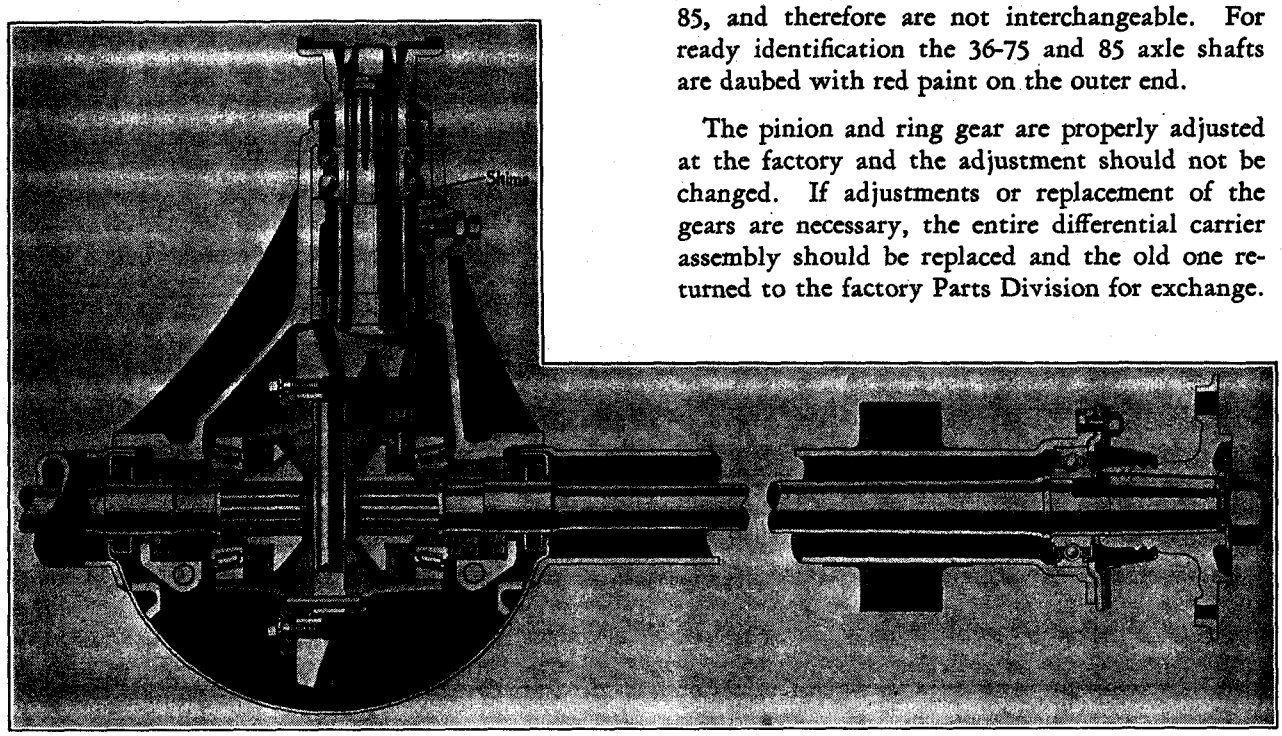


Fig. 2. Sectional view of series 60 rear axle assembly. Typical of series 70, 75, 80 and 85 rear axles

Body

The new Cadillac bodies are characterized by modern appearance and increased comfort. These outstanding advances in body design have been accomplished without loss of the Cadillac individuality.

Fisher bodies are used on series 60 cars, while all remaining models use Fleetwood bodies.

The steel "Turret Top" roof is a conspicious part of the new bodies. The all-steel windshield posts are welded to the steel roof and are integral with the instrument board and cowl panel which are welded to the dash and toe board risers. These risers are heavily reinforced triangular structures which are also welded to the windshield post reinforcements and the dash. Thus, the entire front structure becomes a single rigid unit heavily reinforced by welded braces.

Fleetwood front seat frames are fixed and tie the intermediate body pillars together. The entire width of seat cushion and back is adjustable as a unit within the seat frame. Series 60 front seats are separate from the body structure.

The new bodies have been given careful attention in sound proofing and heat insulation. A soft pad

¼ in. thick is cemented to the underside of the steel top to deaden noise. Special mats are placed in the door panels and back and quarter panels, to provide a dead air space between them and the metal to insulate the car against heat and cold and also prevent any sound vibration.

The cowl deck has a jute pad cemented to its under side, which extends down as far as the truss member. The body dash is insulated with a thick jute and Celotex pad and fibre board to keep out engine heat and noise. The front compartment floor boards are made in three pieces, the center of steel and the side pieces of wood. There is a jute pad over the wood sections and a felt under the metal.

The front fenders are new and are creased along their centerline. Stainless steel trim strips between the wheel and the radiator decorate the front edges. The design of the rear fenders remains unchanged. Wide ribbed bar bumpers with guards are standard equipment on all cars.

The front doors are hinged at the windshield pillar while the rear doors are hinged at the rear on all series cars.

Single bitted keys are used as introduced on the LaSalle 35-50. The right front door of sedans, the right door of coupes, both front and rear right doors of imperial and town cars have cylinder locks operated by the ignition key. Fenderwell tire locks, coupe tire compartment doors and rear tire locks of exposed carriers are also unlocked by this key. A second key opens the glove compartment door and rear deck or trunk lid.

The V-8 and V-12 touring sedan, touring imperial, town sedan and convertible sedan bodies have built in trunks. The trunk door has a single handle at the bottom center which operates bolts on each side. A trunk rack is available on the series 75 and 85 fenderwell 5- and 7-passenger plain back sedans, imperials and town cars.

In all sedan bodies with built-in trunks, the spare wheel and tire are carried in the bottom of the trunk except when fenderwells are used. Sedan bodies without built-in trunks carry an exposed wheel and tire at the rear.

The series 60 two passenger coupe has no rumble seat. The tire is carried in the body beneath the rear deck lid. A large luggage space is provided behind the seat while a small folding seat is also provided in this space. The series 60 convertible coupe has a rumble seat. One fenderwell on the side opposite the driver is standard equipment on these cars.

The series 70 and 80 stationary and convertible coupes have rumble seats. In each case the spare tire lays flat under the deck behind the rumble seat and is removed through a door at the extreme rear of the deck.

The I.C.V. ventilating system remains unchanged.

The garnish mouldings are retained in position in practically the same manner as on the previous models. The garnish moulding around the windshield, however, has a different shape due to the use of the "V"-type windshield.

Interior door locks are of the toggle type, the same as on the previous models. Tools are carried under the front seat of Fleetwood plain back sedan bodies and under the rear deck or in the trunk on all other Fleetwood and Fisher bodies.

The instrument panel is new and presents a neat and finished appearance. A striking effect is achieved by the instrument panel facing which is painted to harmonize with the trim and trimmed with narrow horizontal chrome strips. The entire instrument panel is a single die casting.

The large diameter speedometer and clock dials on the Cadillac cars are to the left and right of the center group consisting of cigar lighter, map lamp, choke button and hand throttle button, with the cigar lighter and map lamp at the top, and the ignition switch in the center. The ammeter, gasoline gauge, oil pressure gauge and thermogauge are rectangular and are combined into two rectangular panels, one above the other in front of the driver. The headlamp beam indicator is in the lower portion of the speedometer dial. All instruments have translucent faces and are illuminated from behind. The headlamp switch is at the left side of the board with starter button below it.

On the bottom flange of the panel to the left of the steering column is the instrument lamp switch and the instrument lamp rheostat. The windshield wiper valve is above the instrument panel in the center of the windshield Vee. The glove compartment door is at the right of the board. There are no offsets in the glove compartments of any models.

Body Types and Style Numbers

	Style No.	
Series 36-60 (121 in. Wheelbase)—Fisher Bodies		
2-Pass. Coupe	36-6077	No rumble. Spare tire under deck.
2-Pass. Convertible Coupe	36-6067	Rumble. R. H. Fenderwell.
5-Pass. Touring Sedan	36-6019	Trunk. Concealed spare tire.
Series 36-70 (131 in. Wheelbase)—Fleetwood Bodies		
2-Pass. Coupe	36-7057	Rumble. Spare tire under deck.
2-Pass. Convertible Coupe	36-7067	Rumble. Spare tire under deck.
5-Pass. Touring Sedan	36-7019	Trunk. Concealed spare tire.
5-Pass. Convertible Sedan	36-7029	Trunk. Concealed spare tire.
Series 36-75 (138 in. Wheelbase)—Fleetwood Bodies		
5-Pass. Sedan	36-7509	No trunk. Spare at rear exposed.
5-Pass. Touring Sedan	36-7519	Trunk. Concealed spare tire.
5-Pass. Formal Sedan	36-7509-F	No trunk. Spare at rear exposed. Opera seats, leather quarter.
5-Pass. Convertible Sedan	36-7529	Trunk. Concealed spare tire.
5-Pass. Town Sedan	36-7539	Trunk. Concealed spare tire. Blind quarter.
7-Pass. Sedan	36-7503	No trunk. Spare tire at rear, exposed.
7-Pass. Imperial	36-7513	No trunk. Spare tire at rear, exposed.
7-Pass. Touring Sedan	36-7523	Trunk. Concealed spare tire.
7-Pass. Imperial	36-7533	Trunk. Concealed spare tire.
7-Pass. Town Car	36-7543	No trunk. Spare tire at rear, exposed, leather quarter.
Series 36-80 (131 in. Wheelbase)—Fleetwood Bodies		
2-Pass. Coupe	36-8057	Rumble. Spare tire under deck.
2-Pass. Convertible Coupe	36-8067	Rumble. Spare tire under deck.
5-Pass. Touring Sedan	36-8019	Trunk. Concealed spare tire.
5-Pass. Convertible Sedan	36-8029	Trunk. Concealed spare tire.
Series 36-85 (138 in. Wheelbase)—Fleetwood Bodies		
5-Pass. Sedan	36-8509	No trunk. Spare tire at rear, exposed.
5-Pass. Formal Sedan	36-8509-F	No trunk. Spare tire at rear, opera seats.
5-Pass. Touring Sedan	36-8519	Trunk. Concealed spare tire.
5-Pass. Convertible Sedan	36-8529	Trunk. Concealed spare tire.
5-Pass. Town Sedan	36-8539	Trunk. Concealed spare tire, blind quarter.
7-Pass. Sedan	36-8503	No trunk. Spare tire at rear, exposed.
7-Pass. Imperial	36-8513	No trunk. Spare tire at rear, exposed.
7-Pass. Touring Sedan	36-8523	Trunk. Concealed spare tire.
7-Pass. Touring Imperial	36-8533	Trunk. Concealed spare tire.
7-Pass. Town Car	36-8543	No trunk. Spare tire at rear, exposed, leather quarter.

Brakes

Type of brakes.....Hydraulic

Brake Lining Size—
Length per shoe
36-60.....12 15/16 in.
36-70, 36-75, 36-80, 36-85.....15 in.
Width
36-60.....2 in.
36-70, 36-75, 36-80, 36-85.....2¼ in.
Thickness
36-60.....7/16 in.
36-70, 36-75, 36-80, 36-85.....¼ in.

Total Braking Area (All Wheels)—
36-60.....207 sq. in.
36-70, 36-75, 36-80, 36-85.....270 sq. in.

Brake Drum Inside Diameter—
36-60.....12 in.
36-70, 36-75, 36-80, 36-85.....14 in.

Front Wheel Cylinder Bore—
36-60.....1 1/16 in.
36-70, 36-75, 36-80, 36-85.....1¼ in.

Rear Wheel Cylinder Bore—
36-60.....15/16 in.
36-70, 36-75, 36-80, 36-85.....1 1/16 in.

Brake lining clearance......010 in.

Clearance between foot pedal and underside of toe board.....¼ to ⅜ in.

Hydraulic brakes are used on the new Cadillac V-8 and V-12. These brakes are of the duo-servo type, which are self-energizing in both forward and reverse directions. Primary and secondary shoes are used together with fixed wheel cylinders having double pistons. See Fig. 3. The front wheel and rear wheel cylinders are not interchangeable due to the difference in size.

Centrifuse drums and hard, long life linings are used. A molded lining is used on the primary shoes while a woven lining is employed on the secondary shoes.

The hand brakes are mechanically operated and act on the rear service brake shoes. The hand brake lever is under the instrument panel at the left side of the car.

The adjustments of the Cadillac hydraulic brakes are made in the same manner and to the same specifications as on the LaSalle 35-50. Piston clamp tool J-718 should be used to hold the pistons in place when the shoes are removed.

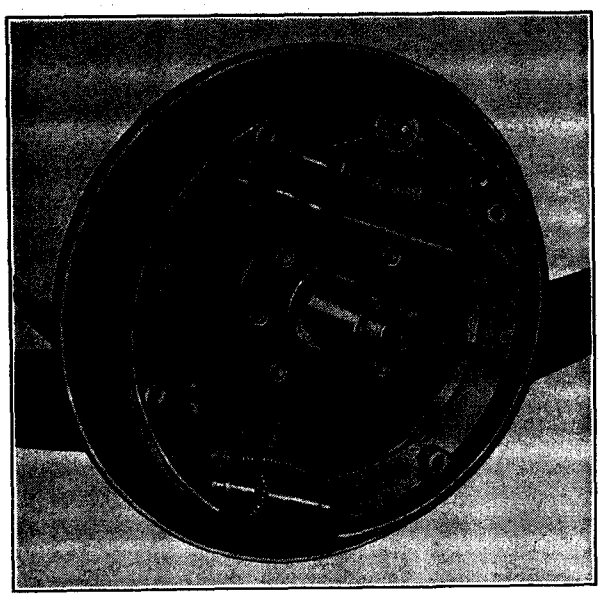


Fig. 3. Rear wheel brake. Typical of all series brakes

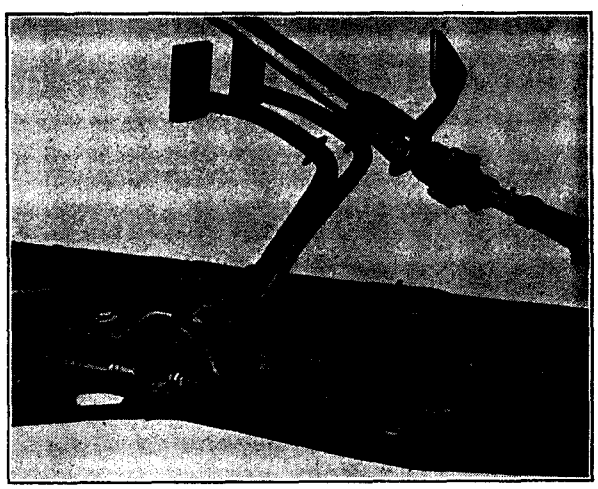


Fig. 4. View of V-8 Pedal Assembly showing installation of master brake cylinder and clutch connections

Clutch

Clutch type.....Single plate dry disc
Free travel of clutch pedal.....⅞ to 1⅛ in.
Clearance between foot pedal and underside of toe board.....⅜ to ⅝ in.
Clutch facing diameter, inside...6 in.
Clutch facing diameter, outside..11 in.
Clutch facing thickness.....0.137 in.
Total frictional area of facings..134 sq. in.
Number of pressure springs.....9

The clutch used on the Cadillac V-8 and V-12 cars is new. It is of the single plate, semi-centrifugal type shown in Fig. 5. The driven disc carries a waved metal ring to cushion the engagement.

Small centrifugal weights integral with the release levers are used to increase the spring pressure as the engine speed increases, giving low pedal pressures at low engine speeds and higher pedal pressure at high engine speeds.

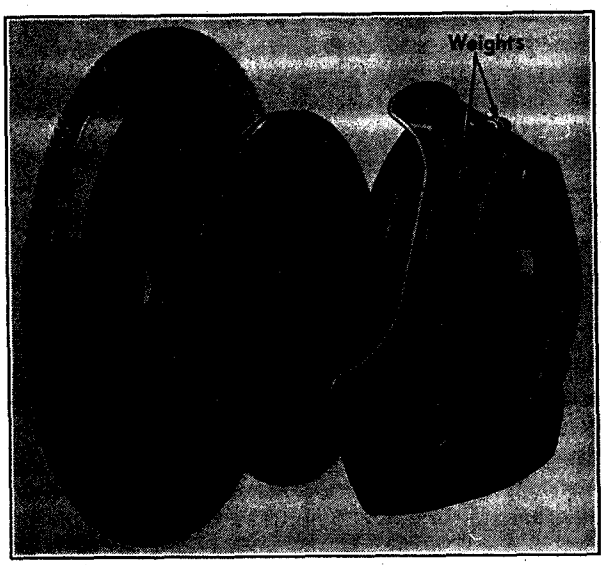


Fig. 5. Exploded view of series 80 and 85 clutch. V-8 clutches are provided with a spring dampener

The clutch release mechanism in the new Cadillacs is similar to that employed in the "D" series cars.

The clutch driven disc can be relined in service. Two facings are supplied—one plain and one with the cushion ring attached. These facings are supplied by the Parts Division in a kit that includes the necessary steel and brass rivets. Instructions on performing the riveting operation will be released shortly.

The driven disc should be installed with the waved ring under the facing on the side of the driven disc toward the transmission.

The driven discs used in the series 70, 75, 80 and 85 cars are of the same size but should not be interchanged. The disc employed on the series 70 and 75 has ten dampener springs, while the one used on the series 80 and 85 is not provided with a spring dampener. The driven disc for the series 60 clutch has a smaller hub and is equipped with eight dampener springs.

Cooling System

Water temperature control..Thermostat and Shutters
Water Pump Drive—
36-60, 36-70, 36-75.....Fan belt
36-80, 36-85.....Chain
Capacity of Cooling System—
36-60.....7½ gals.
Capacity of Cooling System—Cont'd.
36-70, 36-75.....7¼ gals.
36-80, 36-85.....4¾ gals.
Ratio of Fan R. P. M. to Engine R. P. M.—
36-60, 36-70, 36-75..... .95 to 1
36-80, 36-85..... .90 to 1

The cooling system has been greatly simplified. The radiators are of greater capacity and are equipped with thermostatically operated shutters as heretofore.

Full length water jackets are provided in the new V-8 engines.

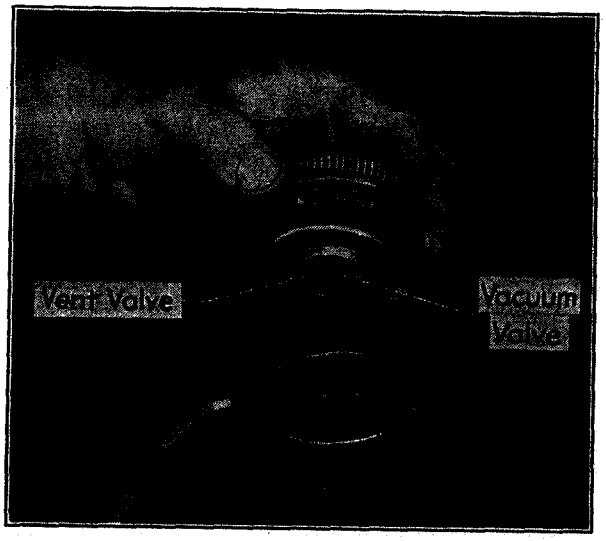


Fig. 6. When removing the radiator cap with the engine hot, first unscrew the cap only part way to vent the system out the overflow and avoid possible injury

A large increase of radiator heat dissipation is gained by an increase in the spacing of the water tubes and by an increase in the amount of copper surface exposed to the cooling air.

The radiators are designed for greater air flow, thus decreasing the temperature under the hood. They also flow water more freely. The danger of stoppage of the water passages has been reduced by making them wider and with smooth walls.

Loss of the cooling fluid has also been decreased on all Cadillac cars by the addition of a pressure-operated vent valve in the radiator filler cap. See Fig. 6. The fluid must pass through the valve in order to reach the overflow. A pressure of about 3 pounds is required to open this valve.

It is important when the engine is hot not to remove the radiator cap as there is danger of the operator getting seriously burned. When the engine is hot the cap should be unscrewed part way so as to vent the system out through the overflow. This condition can be ascertained by steam or water escaping around the cap with it part way off. When the engine is cold the radiator cap can be removed without danger in the regular way.

Efficient cooling and quieter operation is insured on the Cadillac V-8 cars by a smaller diameter fan which is operated at a slightly higher speed than on the previous models. The fan rotates on two permanently sealed ball bearings which do not require further lubrication during the life of the bearing. The series 60, 70 and 75 fans are of the same design and may be used interchangeably. A ring spacer is used between the fan hub and the blade on the series 60.

The cooling fluid in the V-8 cars is drawn from the bottom of the radiator as previously but is delivered directly from the pump impeller to the right cylinder group. Half of the fluid then passes upward to the right cylinder head, while the other half is forced through a cored passage leading across the center of the engine to the left cylinder group. The valve seats are cooled by directed water circulation.

The V-8 water pump is of the centrifugal type mounted on the front end of the right cylinder block and driven by the fan belt. It has automatically adjusted water pump packings of the chevron type. See Fig. 7. A spring keeps these packings compressed at all times. The fan belt is adjusted by raising or lowering the fan assembly.

The radiator grille fins for the new V-8 and V-12 cars are interchangeable except for the length. Only the longest fins will be supplied by the Factory Parts Department and these fins will have to be cut off and a hole drilled in the right hand side as required. It is important that the ends be

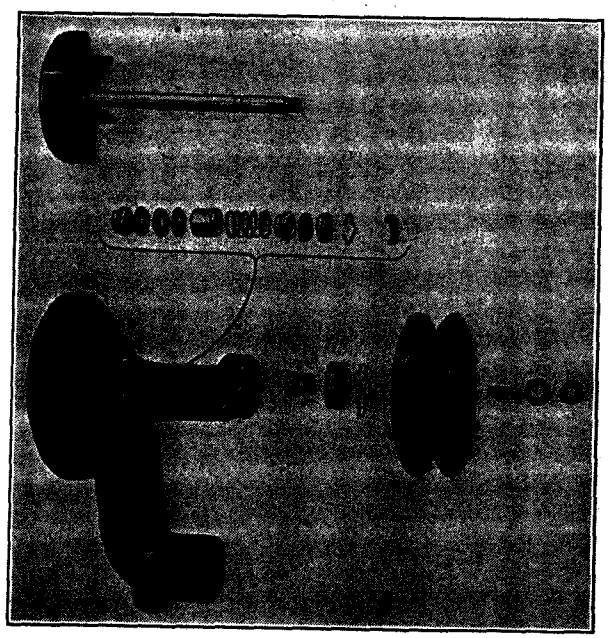


Fig. 7. Exploded view of V-8 water pump

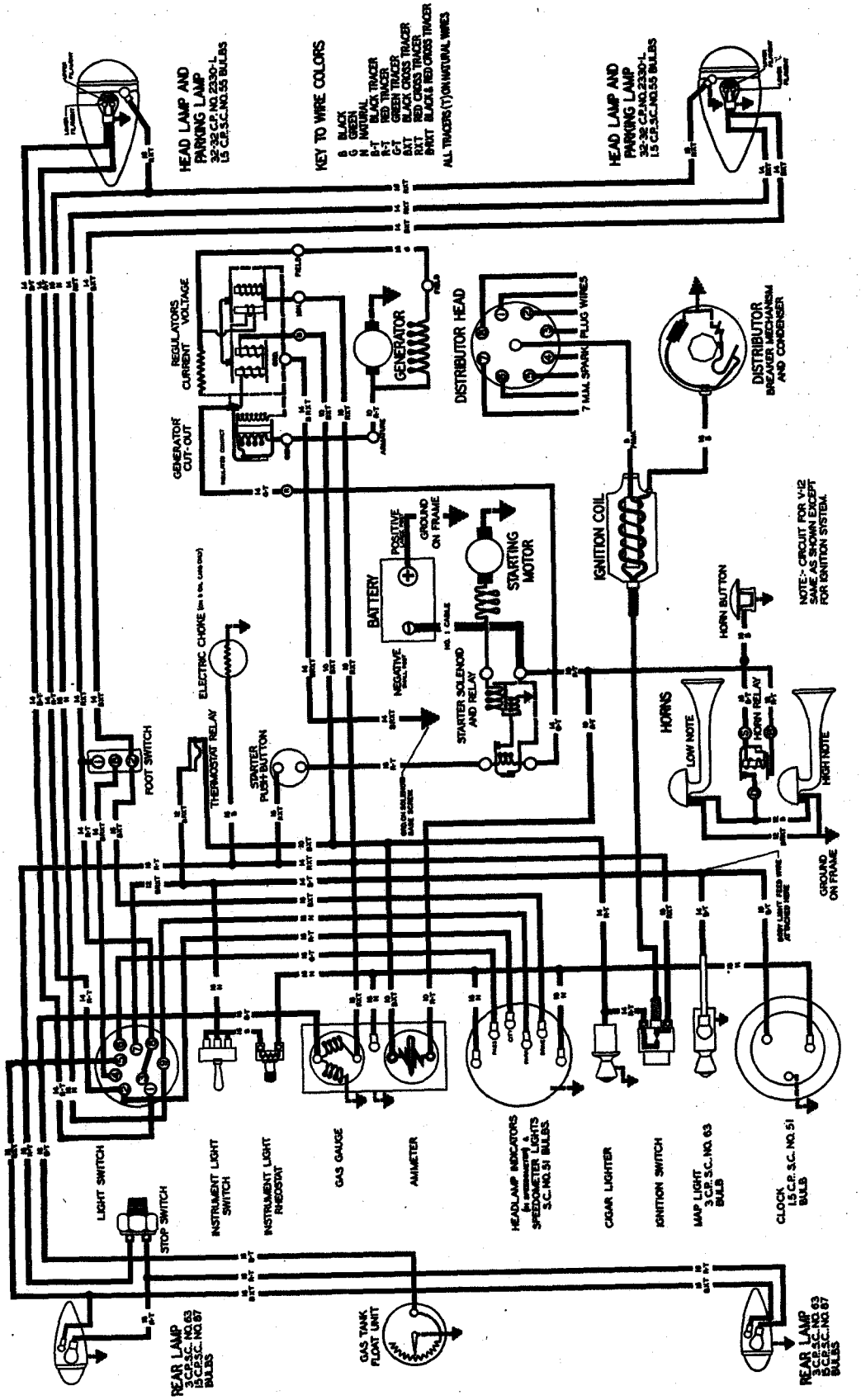


Fig. 8. Wiring diagram. Same on all cars including the V-16 and the LaSalle except for ignition system

painted after they are cut off and drilled to prevent rusting.

Service Operations

The removal and disassembly of the V-8 water pump is accomplished as follows:

To remove water pump, loosen fan belt adjustment and remove belt from water pump pulley. Remove hose from water pump. Remove 5 cap screws and take off pump. See Fig. 9.

Disassemble water pump as follows:

1. Remove belt pulley (nut, lock washer and Woodruff key). See Fig. 7.
2. Remove snap ring.
3. Push impeller rearwards and remove split washer which is just back of the front bearing.
4. Remove snap (lock) spring at front end of rear bushing.
5. Remove impeller and shaft.
6. Remove rear bushing assembly toward front, being careful not to lose any parts.
7. Remove front bearing (ball bearing packed in grease at assembly), pushing it out toward front (fairly tight fit).
8. Remove bushing from front bearing.

When reassembling the water pump, install pilot, tool No. J-831, on end of shaft and insert in pump body. Then install the bushings and packings on the shaft and slide them into position in the pump housing. Care should be taken to install the center bushing with the grooved side toward the rear packings. Also load the chevron packings with grease to insure initial lubrication.

When installing the belt pulley, make sure the Woodruff key is in place by looking through the key slot in the pulley.

When replacing the lower radiator hose on Cadillac V-8 cars, care should be taken to install the flat hose protector clamp directly under the fan belt. The purpose of this clamp is to prevent the belt damaging the hose in case of excessive whipping or looseness.

All other service operations are performed in the same manner as on the corresponding previous models.

Electrical System

Battery Capacity—
36-60 ..... 110 Ampere hours
36-70, 36-75 ..... 130 Ampere hours
36-80, 36-85 ..... 160 Ampere hours

Timer-Distributor Contact Point Gap—
36-60, 36-70, 36-75 ..... .012 to .018 in.
36-80, 36-85 ..... .018 to .024 in.

Current regulator ..... Voltage and current regulator

Spark Plugs—
Type
36-60, 36-70, 36-75 ..... K-9
36-80, 36-85 ..... G-6

Thread
36-60, 36-70, 36-75 ..... 14 M.M.
36-80, 36-85 ..... 18 M.M.

Gap ..... .025 to .027 in.

The Cadillac electrical system is new. The storage battery, however, in all series cars is essentially the same as in the "D" series cars except on the series 60 but it is now carried under the left side of the front seat on both the V-8 and V-12 models.

An air cooled "Peak Load" generator supplies current for the new Cadillacs. This generator is of the current-controlled voltage-regulated type. By this method of regulation of the generator output, the charging rate is automatically adjusted to meet the current consumption and also the state of charge of the storage battery. The generator has no manual adjustment for changing the charging rate.

If the generator does not charge properly, tests should be made to determine whether the generator or the regulator unit is at fault.

If no charge is indicated by the ammeter, the regulator unit should first be checked to make certain that the terminal marked "GRD" is properly grounded.

The next test is to ground the regulator terminal marked "F" while the engine is running at a speed equivalent to about 30 miles per hour. If the generator charges satisfactorily with this terminal grounded, the regulator unit should be properly adjusted. For detailed instructions on the current regulator, see Delco Bulletin No. IR-112C.

If no charge is indicated with the "F" terminal on the regulator grounded, remove the wire from the "GEN" terminal on the generator and strike it against the engine or frame of the car with the "F" terminal on the regulator still grounded. If no sparks occur, the regulator is probably at fault.

Two Delco-Remy horns are used and are mounted on a brace between the radiator tie rods. The horns are supported in rubber bushings.

The new ignition system on the V-8 engines is similar to that of the "D" series cars except for minor changes. The distributor is of the single arm type and is mounted between the two cylinder groups at the rear of the engine, and driven by the camshaft through a bronze idler gear. New 14 M.M. spark plugs are also used. The coil mounting remains unchanged. The ignition timing marks on the Cadillac V-8 are located on the crankshaft pulley.

Vacuum-controlled spark advance is used on the V-8 engines. This type of spark control has the advantage of better timing at idling and low speeds. One important precaution is necessary in connecting or disconnecting the vacuum line. A wrench must always be held on the nut on the vacuum advance housing when tightening the fitting in order to avoid straining the vacuum unit and causing it to leak.

No change has been made in the V-8 starting motor although it is mounted in a new location. The starter has single reduction gears, and is solenoid operated as formerly. The starting motor is mounted on the right-hand side of the crankcase in front of the bell housing.

The general arrangement of the chassis and instrument panel wiring on all series cars is similar to that on the corresponding "D" series cars. A few changes, however, have been made in the V-8 cars due to the relocation of the generator, starting motor and other electrical units.

The service operations are practically the same as on the corresponding "D" series cars.

Engine

Bore and Stroke—	
36-60	3⅜ x 4½ in.
36-70, 36-75	3½ x 4½ in.
36-80, 36-85	3⅜ x 4 in.
Compression Ratio—	
36-60, 36-70, 36-75	6.25 to 1
36-80, 36-85	6.0 to 1
Piston Displacement—	
36-60	322 cu. in.
36-70, 36-75	346 cu. in.
36-80, 36-85	368 cu. in.
Taxable Horsepower—	
36-60	36.45
36-70, 36-75	39.20
36-80, 36-85	46.9
Maximum Brake H. P. at R. P. M.—	
36-60	125 at 3400
36-70, 36-75	135 at 3400
36-80, 36-85	150 at 3600
Intake valve tappet clearance	Automatic
Exhaust valve tappet clearance	Automatic
Oil Capacity—	
36-60, 36-70, 36-75	7 qts.
36-80, 36-85	9 qts.
Valve Timing—	
Intake opens	T.D.C.
Intake closes—	
36-60, 36-70, 36-75	42° A.B.C.
36-80, 36-85	44° A.B.C.
Exhaust opens—	
36-60, 36-70, 36-75	52° B.B.C.
36-80, 36-85	39° B.B.C.
Exhaust closes—	
36-60, 36-70, 36-75	10° A.T.C.
36-80, 36-85	5° A.T.C.
Valve seat angle	45°
Valve seat diameter—	
Intake	1⅞"
Exhaust	1⅝"

V-8 Engines

The Cadillac V-8 engines are entirely new as illustrated in Fig. 9. There are two engines of the same design but differing in size. The series 60 engine has a 3⅜ in. bore, a 4½ in. stroke and a displacement of 322 cubic inches, while the series 70 and 75 engine has a bore of 3½ inches, a stroke of 4½ inches and a 346 cubic inch displacement.

The new engines depart from previous construction is many particulars. The cylinder blocks and crankcase are cast en bloc; the new crankshaft is more rigid and has six counterweights; and the connecting rods are of a new design. New type hydraulic valve silencers are used, which eliminate the necessity for tappet adjustment. The manifolding is new and a downdraft carburetor is

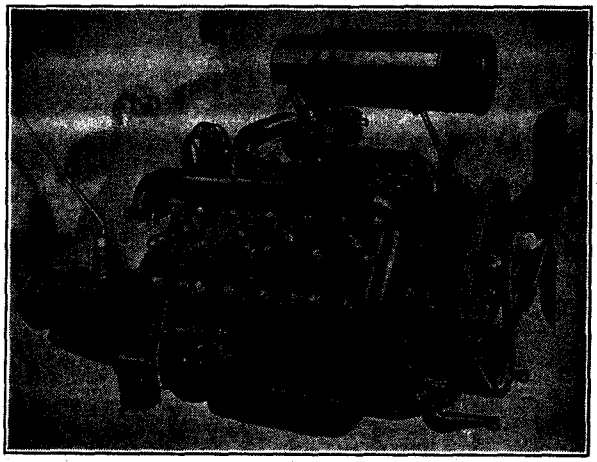


Fig. 9. Cadillac V-8 engine

employed. Both the engine ventilating system and the lubrication system have also been improved. One of the most important changes is the shorter stroke, which permits a higher engine speed, with slower piston travel. This results in less cylinder wear, oil consumption, and connecting rod bearing load.

Comparative engine and piston speeds are given in the following table for the series 10, 20 and 30, and the series 60, 70 and 75 engines:

	Series 10 and 20	30	Series 60	70	75
Engine Speed—R. P. M.....	3130	3270	2925	3090	3115
Piston Travel—Feet Per Mile...	2575	2690	2190	2315	2335

The new engines are rubber mounted in much the same manner as in the past model cars.

Cylinder Blocks and Crankcase

The cylinder blocks and crankcase are cast in one piece, which construction gives increased rigidity. The walls at the top of the cylinder group have been heavily reinforced to avoid distortion. Similarly the lower wall of the cylinder head is thicker than previously to reinforce the joint between the head and the cylinder group. The crankcase and cylinder group are rigidly tied together by a boss extending from the top wall of the center of each cylinder group to the crankcase.

Crankshaft

The new crankshaft has larger diameter bearings than previously. The shorter stroke and larger bearings permit the crankpins to overlap the main bearing journals.

To further reduce the stress in the crankshaft, the number of counterweights has been increased from four to six. Every crankshaft cheek now carries a counterweight. The second and fifth counterweights are piloted by dowels and fastened to the crankshaft by capscrews. The remaining counterweights are an integral part of the shaft. The main bearing caps are made of cast iron and are retained in place by capscrews instead of studs as formerly.

A smaller clutch pilot bearing is used on both the V-8 and V-12 flywheels than on previous models.

Connecting Rods and Pistons

The V-8 connecting rods (Fig. 10) are new. The connecting rods are shorter than on previous models and have the large ends split at an angle to permit their removal from the top of the cylinder bore. The rods are rifle drilled for lubrication of the piston pin as in the past. The bearings are of the steel backed babbit type.

The large ends of the connecting rods are drilled with small holes for cross lubrication of the cylinder bores. Oil discharge from the connecting rods in the left cylinder group lubricates the right cylinder bores while oil from the rods in the right cylinder group lubricates the left cylinder bores.

Fig. 10. V-8 connecting rod and piston assembly

Fig. 11. Section of V-8 engine showing valve mechanism and full length water jacket

Anodized aluminum alloy pistons are used on all models as in the past and are provided with two compression and two oil rings. The piston pins are of the floating type and are retained in the piston by snap rings. The bore of the piston pins used in the series 70 and 75 engine is tapered so as to give a thicker wall at the center than at the ends. The construction gives increased strength.

Valve Mechanism

The valve mechanism is new. The inlet valves are ¼ inch larger than the exhaust valves. Both valves have a 45° angle seat. The larger size inlet valves insure a full charge in each cylinder.

The valve lifters automatically provide silent operation. See Figs. 11, 12 and 13. They are fundamentally similar to those employed on the V-12 and V-16 engines but are modified in design to meet the requirements of the L-head engine. The automatic silencers keep all clearance out from between the tappets and the valve stems, preventing tappet noise, and permits the use of a cam contour that will give a rapid valve opening. They also eliminate the necessity for mechanical tappet adjustments. In fact no mechanical means is provided for adjusting the tappets on the new engines. The valve lifters are carried in groups of four by a housing which also serves as an oil reservoir for supplying oil to the tappets. Oil is supplied to this reservoir and to the tappets under pressure.

The construction of the hydraulic silencer is shown in Fig. 14. Oil enters the chamber within the outer cylinder as shown in Fig. 15 through a small hole. The pressure opens the ball check valve, permitting oil to pass into the space within the inner cylinder below the plunger. The spring lifts the plunger until it comes into contact with the valve stem. The plunger also lifts with the tappet inner and outer cylinders. All of the clearance between the cam and the valve is thus taken up. When the cam lifts the tappet against the resistance of the valve spring, the tappet plunger is prevented from sliding down within the tappet body by oil in the space below the plunger. This oil in attempting to escape closes the ball valve and is trapped, preventing relative motion between the inner and outer cylinders.

Mushroom type cam slides are used and the cam contour has been changed. The valve timing is also different from previous Cadillac engines.

The camshaft is driven by a silent chain as in the past. The new chain, however, is of the side guide type instead of the center guide type used previously. The shaft is solid and is lubricated by

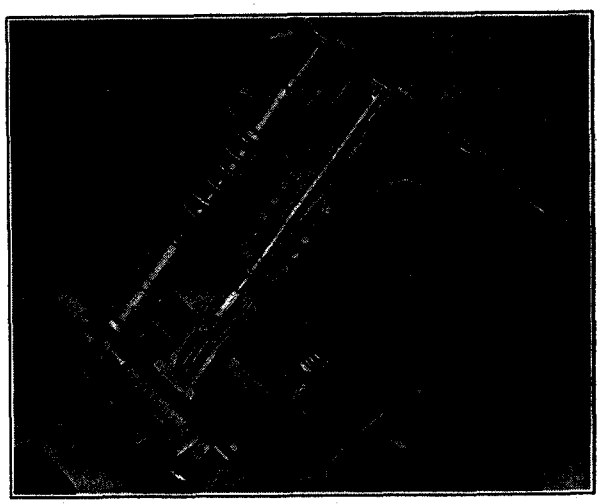


Fig. 12. V-8 valve mechanism

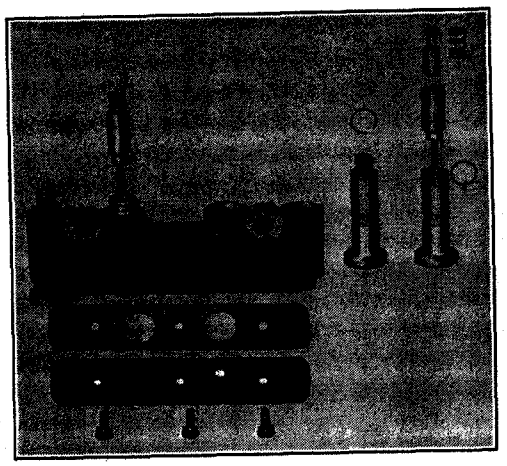


Fig. 13. Exploded view of V-8 valve tappet assembly

passages in the crankcase casting. Steel back babbit lined bearings are used to carry the camshaft.

The distributor and oil pump drive gear is integral with the camshaft and drives these units through a bronze idler gear as illustrated in Fig. 16.

Correcting Tappet Noise

No adjustment for tappet noise is provided. Noisy tappet action is invariably due to dirt in the mechanism. This condition can be corrected readily by careful cleaning of the silencer mechanism in gasoline, an operation which requires about the same period of time as required by the former valve tappet adjustment operation.

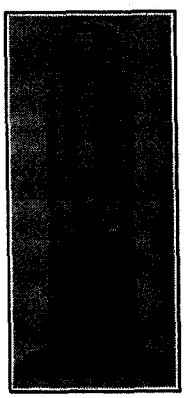


Fig. 14. Sectional view of V-8 valve tappet assembly

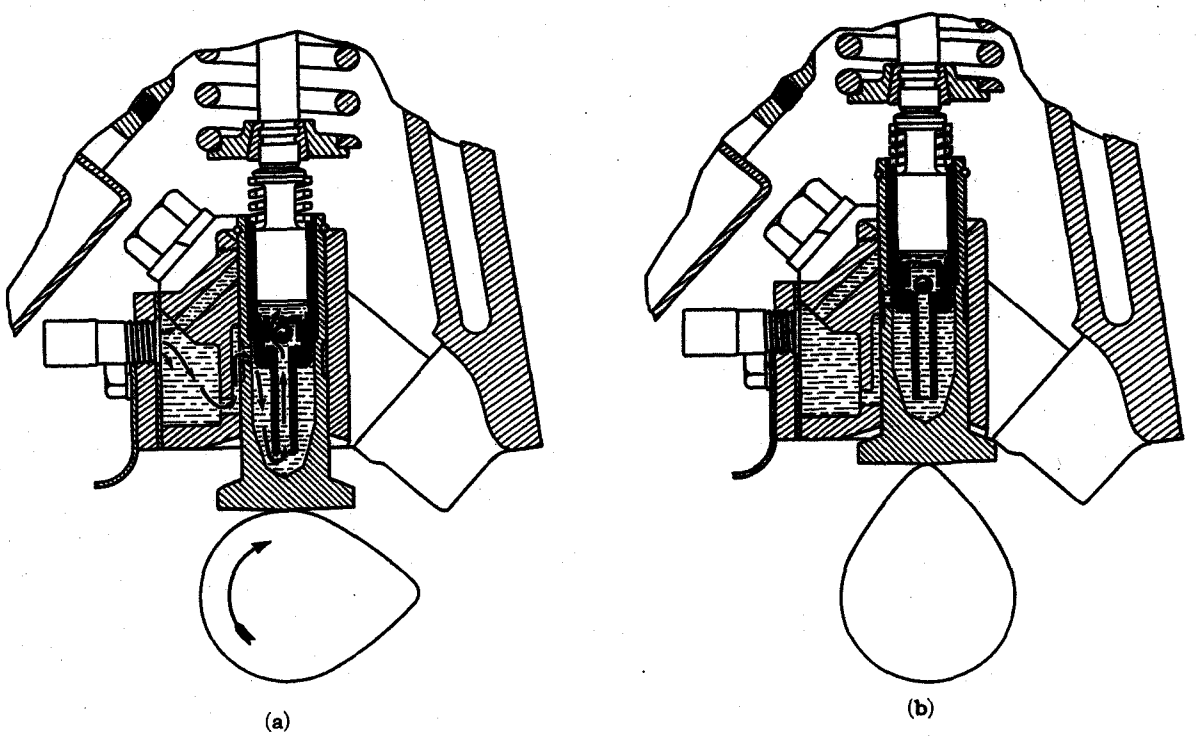


Fig. 15. When the valve is closed in the V-8 engine, oil is forced into the tappet assembly under pressure from the engine lubrication system as shown in (a). In view (b) the valve is open, showing how the oil is trapped under the tappet plunger by the ball check valve

The first step is to remove all valve tappets from the engine and disassemble the plungers and the inner and outer cylinders. Do not permit these parts to become confused, as the plungers are carefully fitted and cannot be interchanged. The plunger is held in the inner cylinder by the coil spring which fits in a counterbore in the inner cylinder, and can be removed by twisting the plunger slightly and pulling out.

Wash all parts carefully in gasoline and dry merely by draining and not by the use of an air hose, as dirt from the hose might cause the same condition. Do not use kerosene; use only gasoline that has been used for no other cleaning.

In reassembling the plungers into the inner cylinders, it may be necessary to release the ball check valve by blowing into the lower end and holding the cylinder upside down while slowly inserting the plunger. Be sure that the spring is brought down into the cylinder to engage the counter bore.

Before reinstalling the tappets, carefully wash the valve lifter housings and also clean out the oil supply pipes by disconnecting the outer ends and cranking the engine with the starter in order to send a small amount of oil through the pipes.

Reinstall the tappet assemblies immediately after cleaning in order to avoid any possibility of their gathering dust. After the tappets have been reinstalled, it may be necessary to run the engine for a period equivalent to several miles of driving before the oil works thoroughly into the mechanism and silent operation is achieved. Starting and stopping the engine at short intervals will aid in bringing about this condition more rapidly.

It is also important not to allow the oil level to become too high in the V-8 engine, as this would result in the connecting rods dipping and splashing and aeriating the oil. Air in the oil which reaches the valve silencers will, of course, result in noisy operation.

Manifolds

The new manifolds are shown in Fig. 17. A unique inlet manifold with individual intake ports is used. It is so arranged that no successively

Fig. 16. Distributor and oil pump drive. V-8 engines

firing cylinders are in the same manifold line or carburetor system. Distances from the carburetor to all cylinders are approximately the same.

A drain is provided in the manifold to prevent flooding. Any gasoline escaping from the drain is carried to the ground by a tube passing to the rear along the Vee and over the bell housing.

Exhaust heat is applied to the under side of the intake manifold by a passage cored in the manifold casting. Exhaust ports opening from the central exhaust valves of both cylinder groups connect with the passage in the intake manifold. Exhaust gases surge back and forth through the passage.

The exhaust manifolds are mounted on top of the cylinder groups in such a way that the exhaust ports make an upper sweep. There are three exhaust ports in each cylinder group; the end cylinders have individual ports, while the exhaust valves of the center cylinders in each cylinder group are grouped together since these cylinders supply exhaust heat to the intake manifold, and thus have two ports, one to the exhaust manifold and one to the heat passage of the intake manifold.

A cross over pipe at the rear of the engine, just forward of the last exhaust port, connects the left hand exhaust manifold with the right hand mani-

fold. All of the exhaust gases that pass out of the right hand manifold are conducted to the rear through the mufflers.

Two mufflers in series are used in the exhaust line of both the V-8 and V-12 cars.

Crankcase Ventilating System

The crankcase ventilating system introduced on the new V-8 engines is of the suction type. See Fig. 18.

The ventilating air enters the oil filler on the left side of the engine and passes through a copper mesh air filter. It then passes into the crankcase where it picks up water vapor and oil diluents and leaves the crankcase by way of two openings in the valve compartment covers. From one of these openings a pipe leads to the inlet manifold while another pipe from the second opening leads to the air silencer elbow above the carburetor. Thus all fumes are taken out through the engine and exhaust system avoiding any possibility of unpleasant fumes reaching the interior of the car body.

Two outlet pipes are used and discharged into the engine inlet system at points before and after the carburetor because this arrangement gives a high flow of ventilating air at low engine speeds and maintains a uniform flow through the speed range of the engine. At low speeds, the amount of manifold vacuum is high so that air flows through the ventilating system outlet pipe that leads to the manifold; at high speeds the manifold vacuum is low but the high velocity of the air rushing into the carburetor provides suction, the second ventilating outlet pipe providing the principal air flow under these conditions.

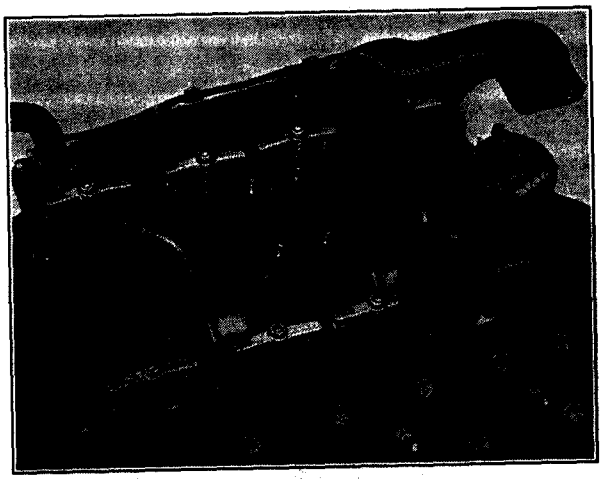


Fig. 17. Manifold system on V-8 engines

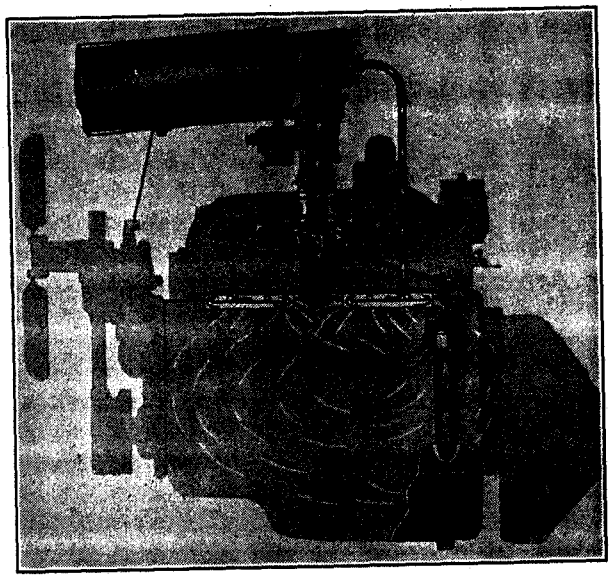


Fig. 18. Crankcase ventilating system. V-8 engines

Another advantage of this system is that the pressure inside the crankcase is kept below atmospheric by the manifold suction applied to it. This prevents oil leaks since air will tend to come in through any small opening instead of oil leaking out.

Lubricating System

The engine lubricating system has been simplified and made more positive. Provision has been made for the direct lubrication of all moving parts. Aside from four short pipes connected to the hydraulic lash adjuster mechanism, all inside piping of the engine has been eliminated. See Fig. 19.

Oil is taken into the new, large pump through a screened float intake as shown in Fig. 20. The float unit is shaped like an inverted cup, open at the bottom; it floats on the surface of the oil, thus drawing in clean surface oil at all times; sludge and dirt collect on the bottom of the oil pan where they can do no harm unless the oil level is permitted to get too low. As the oil level rises and falls, the float unit moves up and down with it.

The oil pump is at the rear of the engine and is bolted to a flat surface at the bottom of the crank-

case at the left hand side of the rear main bearing. The oil pressure regulator is built into the body of the pump. It is of the piston type; overflow from the regulator is by-passed back to the pump inlet.

From the pump oil passes through a hole in the crankcase casting to the oil header drilled longitudinally along the left side of the crankcase; from the header, drilled holes branch through the main bearing supporting webs of the crankcase to the three main bearings and to the three camshaft bearings. At the rear of the engine the camshaft bearing lead continues on upward after delivering oil to the camshaft bearing, and delivers oil under pressure to the two bearings supporting the vertical distributor and oil pump shafts, and to the bearing of the idler gear which is interposed between the camshaft driving gear and the two driver gears on the oil pump and distributor shafts. Oil also passes into this idler gear and out through holes between the gear teeth thus lubricating the gear contacts.

The oil passage to the front camshaft bearing likewise carries additional lubricant for the timing chain. The oil passage to the center camshaft bearing supplies oil through four short tubes (the only piping in the engine) to the four groups of hydraulic lash adjusters; overflow from these lubricates the cams and mushroom followers.

Oil passages are drilled in the crankshaft leading out from each end of the end main bearings to the adjacent crankpins and from the center main bearing to both adjacent pins. Part of this oil lubricates the connecting rod bearings, part flows up the rifle drilled connecting rods to the wrist pins and part is forced through small holes in the connecting rod big ends to cross lubricate the cylinder bores. That is, the right hand rods lubricate the left hand cylinder barrels while the left hand rods throw oil into the right hand barrels.

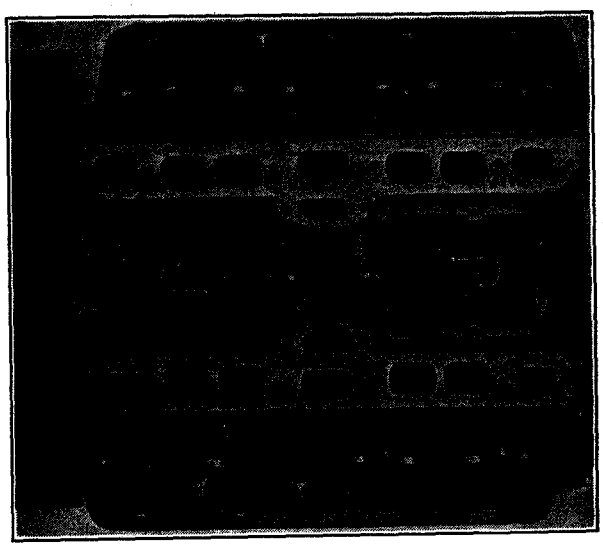


Fig. 19. Top view of V-8 engine showing oil pipes on valve tappet units

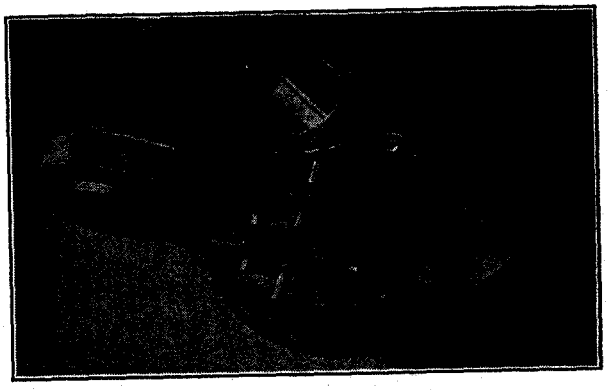


Fig. 20. Oil pump and screened float intake on V-8 engines

The plunger type of oil level indicator is used.

Service Information (V-8 Engines)

The cylinder head gasket for the series 60 engine is very similar in appearance to those used on the 70 and 75 engines. These gaskets, however, must not be used interchangeably. The gaskets marked with part No. 1412661 are to be used on series 60 engine while those marked with part No. 1412662 are for use on 70 and 75 engines.

The cylinder head water connection bolts for V-8 engines are longer than the other bolts. Extreme care must be exercised not to attempt to install these bolts in any other holes, as this would result in irreparable damage to the cylinder block casting.

Before installing new connecting rod bearings in the new engine, it is important to inspect the rod surfaces and smooth up all roughness to insure proper fitting of the bearing in the rod. Also when replacing lock washers on the connecting rod cap screws, it is important that only special lock washers, part No. 1415487, be used. New washers should always be used whenever the retaining screws are removed.

When installing connecting rod or main bearings, a wrench with a handle no longer than 12

inches should be used. Always use lip socket furnished with kit J-835 when installing connecting rod screws to avoid damage to the bearing caps.

The piston pins for the series 60 and for series 70 and 75 engines are of the same outside diameter but they must not be used interchangeably on these engines due to the difference in weight, length and inside diameter. The pins for the series 60 have a straight hole while those for the series 70 and 75 engines have a tapered hole. Neither should these pins be used interchangeably with those on the earlier model cars.

To remove or install the piston pins in the new engine, it is necessary to expand the piston by placing it in boiling water the same as in the past.

To remove the inlet and exhaust valves it is necessary first to remove the valve lifter assemblies. The valve spring keepers are then removed using valve lifter tool No. J-257-X. This tool may also be used for installing the keepers when reinstalling the valves. Tool No. J-827 should be used when installing the lifter assemblies in order to lift the valve and get the tappets in place under the valve stem. See Fig. 21.

The timing chain sprockets on the camshaft and crankshaft are a hand push fit. Tool No. J-836, should be used in the end of the camshaft when installing the timing chain sprockets. It is important not to attempt to force the sprockets on the shafts without using this tool, particularly the camshaft sprocket, as there is danger of the gear at the rear end of the shaft damaging the rear camshaft bearing.

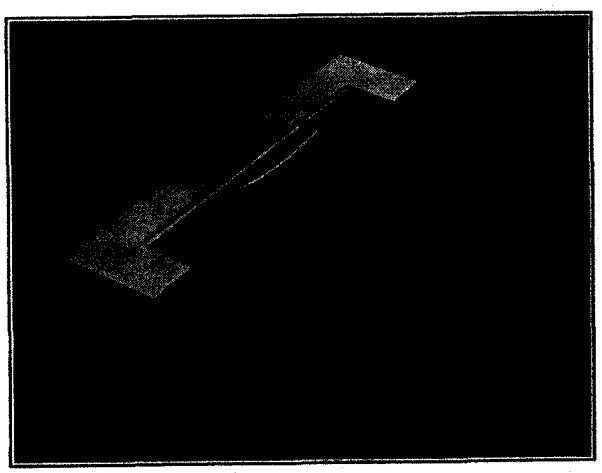


Fig. 21. Tool No. J-827 should be used when installing the valve lifter assemblies on V-8 engines

When replacing the camshaft bearings, the old bearings should be pressed out with tool part No. J-829.

Before installing the new bearings, they should be checked for out of roundness resulting from rough handling or damage in transit. Eccentric bearings should be straightened before they are installed in the engine. The outside of the new bearings should also be painted with white lead so that they will slip easily into place. Tool No. J-829 should also be used for installing the camshaft bearings. The front bearing should be installed first with the tool piloted at the rear and center bearing locations. The rear bearing should be installed next with the tool piloted at the front. The center bearing is then installed with the tool piloted both at the front and rear.

In order to remove and install the camshaft bearings, it is of course necessary to have the front timing chain cover and flywheel housing off the engine.

The idler gear which drives the distributor and oil pump is carried on a support fastened to the rear end of the crankcase. To remove this support, it is necessary first to remove the fly wheel bell housing, the left hand valve tappet assembly and the idler gear. The retaining screw is then removed from the top of the housing and the support pushed out toward the rear of the car.

When installing the idler gear support, it is important to use a new gasket and to force the locking screw down tight while tapping the pilot lightly with a hammer.

V-12 Engines

The series 80 and 85 engines supersede the 370-D and are continued with only minor changes.

The exhaust system is new. A cross over pipe is now used at the rear of the engine, to carry exhaust from the left manifold over the top of the engine to the right hand manifold which connects with the exhaust pipe leading to the mufflers. This construction permits the use of a single exhaust and muffler system.

Frame

Chassis Model Designation—
121 in. Wheelbase (322 cu. in. V-8 engine)—series 36-60
131 in. Wheelbase (346 cu. in. V-8 engine)—series 36-70
138 in. Wheelbase (346 cu. in. V-8 engine)—series 36-75
131 in. Wheelbase (368 cu. in. V-12 engine)—series 36-80
138 in. Wheelbase (368 cu. in. V-12 engine)—series 36-85

Chassis Model Designation—Cont'd
155¾ in. Wheelbase Commercial chassis with V-8 or V-12 engine.

First Engine Serial Number—
Series 36-60 6,010,001
Series 36-70, 36-75 3,110,001
Series 36-80, 36-85 4,110,001

The new frames have been redesigned to give increased rigidity, particularly at the front end. The series 60 frame, however, follows the general design of that of the "D" series Cadillac frames. The series 70 and 80 frames are identical with the series 75 and 85 frames, except for dimensions. See Fig. 22.

Increased rigidity of the new frame is due to a number of changes, among which may be mentioned the new box section front cross member, straight sidebars passing through the front cross member and wider box section sidebar reinforcement between the X-member and the front cross member, and the more rigid connection between X-member and sidebar web.

Fig. 22. Front end of series 70, 75, 80 and 85 frames

The front cross member is reinforced by a plate riveted across the bottom, making a closed box. The spring pads instead of being within the sidebar as formerly are now outside and are formed by an extension of the front cross member.

The X-members now extend all the way to the center and are welded together at this point, only the upper portions of their webs being cut away to permit passage of the propeller shaft. Reinforcing plates at top and bottom further reinforce the central junction.

Because of the shorter wheel base of the series 60, some of the larger frame changes have not been made on these cars. The frame sidebars are still formed outwardly at the front cross member so as to enclose the coil front springs. The extra deep X-members, however, impart the same degree of rigidity as on the larger frames. The front cross member is reinforced by a plate closure at the bottom.

The commercial chassis with 155¾ in. wheelbase is available with either the larger V-8 or the V-12 engines. The longer wheelbase is obtained by lengthening the 138 in. wheelbase frame 17¾ inches and using a longer propeller shaft extension.

Gasoline System

Carburetor—
Type
36-60, 36-70, 36-75.....Down Draft—Dual
36-80, 36-85.....Expanding Vane Up-Draft
Size
36-60, 36-70, 36-75.....1¼ in.
36-80, 36-85.....1½ in.

Choke Type
36-60, 36-70, 36-75.....Triple Range (Electric and Manual)
36-80, 36-85.....Semi-Automatic
Gasoline Tank Capacity
36-60.....21 gals.
36-70, 36-75, 36-80, 36-85....25 gals.
Feed.....A.C. Fuel Pump

The Cadillac V-8 gasoline system is new. The carburetor is of the air-bleed, down-draft type similar in design to the LaSalle carburetor. The triple range choke introduced on the LaSalle is also used on the new V-8 Cadillacs. The gasoline system on the V-12 remains unchanged except the air cleaner.

The intake manifolding on the V-8 engine is so arranged as to permit equal distribution of fuel to all cylinders. The left side of the carburetor supplies fuel to the two center cylinders in the left cylinder block and the two end cylinders in the right cylinder block. The right side of the carburetor supplies fuel to the remaining cylinders in both blocks.

The combination gasoline and vacuum pump is mounted on the front engine cover where it is kept cool by the cooling fan. The pump is driven by a removable eccentric keyed to the front end of the camshaft. A new diaphragm operating linkage is silent under all operating conditions.

The air cleaner has been improved on all models. It is of larger capacity and is easily cleaned. The filtering unit is removable for cleaning without removing the silencer body.

All other service work on the new V-8 gasoline system, including the adjustment of the carburetor and the choke control, are the same as for the series 35-50 LaSalle.

Lighting System

The new lighting system on the V-8 cars is essentially the same as that on the earlier cars. The headlamps are mounted on the radiator casing on all models. The headlamp beam indicators in the eight cylinder cars are incorporated in the face of the speedometer. Both the V-8 and V-12 parking lamps are inside of the headlamps. The tail lamps remain unchanged except that only one reflex button is carried in each lamp base on the V-8 cars.

The instrument board lamps are dimmed by a rheostat which, with the instrument lamp switch, is placed under the instrument board to the left of the steering wheel.

All service work including the aiming of the headlamps is the same as on "D" series cars.

Lubrication

Lubrication of the new cars is the same as that of the corresponding previous models and the same mileage intervals should be observed.

Lubrication fittings of the same type as used on the 35-50 LaSalle are provided on the new cars at the various points requiring pressure lubricant.

The lubricants required are as follows:

	Lubricant		*Quantity*
Chassis	G-10	.....	.....
Engine*	S.A.E. 30—Summer S.A.E. 20-W or 10-W	36-60 36-70, 36-75 36-80, 36-85	7 qts. 9 qts.
Transmission	A-200—Summer A-110—Winter	36-60	2½ pts. or lbs.
		36-70, 36-75, 36-80, 36-85	4½ pts. or lbs.
Rear Axle	A-200—Summer A-110—Winter	36-60, 36-70, 36-75, 36-80, 36-85	5 pts. or lbs.
Steering Gear	S-200	.....	.....
Water Pump	G-13	.....	.....
Wheel Bearings	G-12	.....	.....

*For high-speed driving use heavy duty oils.

Springs and Shock Absorbers

The general design of the springs and shock absorbers remains unchanged in the various models.

The front ends of the rear springs are mounted in rubber and the rear shackles on the series 70, 75, 80 and 85 have rubber bushings at the top and a threaded metal bushing at the bottom, the same as in the "D" series cars. The series 60 have threaded metal bushings at both the upper and lower shackle bolts. The removal and installation of the rear springs is accomplished in the same manner as on the previous Cadillac models.

To remove the rear spring shackles on the 60 cars, however, it is necessary first to remove the gasoline tank.

The rear springs have metal covers and are packed in graphite grease. They may be lubricated externally by installing a special fitting as on the "D" series cars.

The series 60 shock absorbers are of the double acting type with center discharge similar to those used on the 35-50 LaSalle. On the series 70, 75, 80 and 85, the shock absorbers are of the double acting hydraulic type with end to end discharge, as used on "D" Cadillacs. The front shock absorbers have been simplified by the use of two control valves instead of three, the orifices being combined with the relief valves. The rear shock absorbers on these cars have inertia control and are also equipped with a control permitting manual adjustment of the shock absorber action to suit varying tastes and conditions of service. The ride control on the V-8 and V-12 cars has been discontinued.

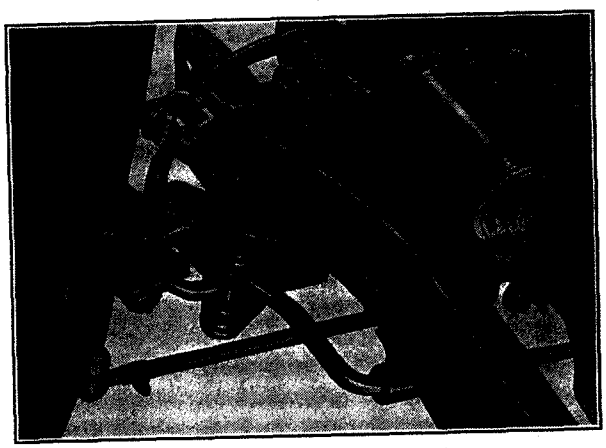


Fig. 23. The front ride stabilizer is bracketed to the underside of its frame. The ends are attached to the lower suspension arms

A ride stabilizer has been added to the front of the V-8 and V-12 cars as shown in Fig. 23. The front stabilizer shaft is bracketed to the frame sidebar and extends across the chassis below the frame and engine. Operating levers formed on the shaft ends extend forwardly and are linked to the spring cups on the lower suspension arms. The stabilizer at the front is very effective in resisting roll and steadying the car when rounding curves and winding roads.

All service work on the springs, shock absorbers and the stabilizer remain practically unchanged, except the adjustment of the rear shock absorbers in the series 70, 75, 80 and 85 cars, and is performed in the same manner as on the previous models. The adjustment of the rear shock absorber is made by pushing up on the locking cap and turning the operating shaft with a screw driver as illustrated in Fig. 24, to give the desired ride. There are three positions of this shaft—soft (S), medium (M), and firm (F). It is important that both rear shock absorbers be adjusted to the same position of control. No adjustment is provided on front shock absorbers.

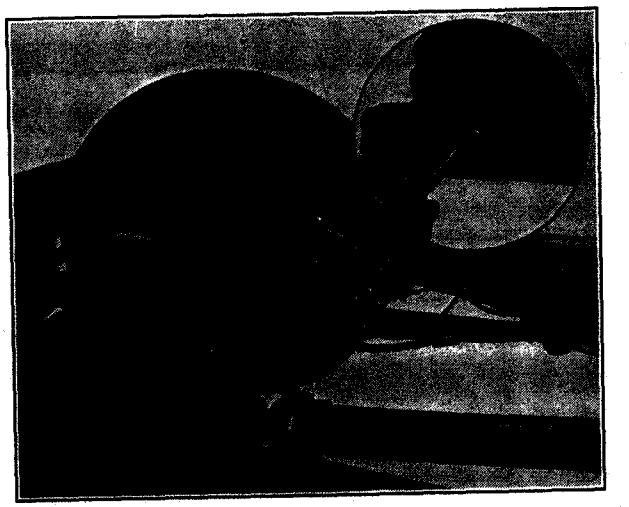


Fig. 24. The rear shock absorbers are equipped with "clicker" control permitting manual adjustment to give the desired ride

Steering Gear

Steering gear type.....Worm and double roller

Steering Ratios—

	Steering Gear	Overall Ratio
36-60	18.75 to 1	22.5 to 1
36-70, 36-75, 36-80, 36-85	24.00 to 1	25.2 to 1

Car Turning Radius (at tire wall)—

	Right	Left
36-60	19½ ft.	20 ft.
36-70, 36-80	23 ft.	22½ ft.
36-75, 36-85	24 ft.	23½ ft.

Center point steering is retained in the new models. The V-8 and V-12 steering gears are new, but are similar to those used in the "D" series cars. Both the steering worm and the sector are carried on roller bearings. A double roller mounted on a double-row ball bearing is also used as in the past.

The series 60 steering gear is of the same type as used on the series 10 and 20 cars. On the series 70, 75, 80 and 85 cars, the steering gear is new and is mounted on top of the frame sidebar. In these cars two universal joints are installed in the steering shaft between the steering gear and steering column on the dash as shown in Fig. 25. The purpose of these joints is to eliminate vibration normally transmitted from the frame to the body through the steering shaft and to reduce steering wheel whip by their insulating action. The reduced tendency toward wheel whip permits a reduction of steering friction by the addition of needle bearings at the tops and bottoms of the kingpins.

The steering wheel design is new. It remains a rubber covered three spoked, thin rimmed type, but its appearance has been improved by the elimination of the throttle and light controls and by changing the spoke shape to a streamlined section. A flexible three spoke steering wheel is available at extra cost.

Service Information

The steering gear adjustments are made in the same manner as in the earlier model cars and the same adjustment specifications should be adhered to in adjusting the new steering system. When making the eccentric adjustment, the flange clamp

bolts should be loosened to provide easy adjustment and to prevent damaging the eccentric screw.

The adjusting nut at the bottom of the steering column on the series 70, 75, 80 and 85 cars should be turned in tight against the bearing. When installing the universal joints in the steering gears of these cars, the yokes on the male and female shafts should be kept in line as shown in Fig. 25.

To remove the steering gear arm from the series 70, 75, 80 and 85 steering gears, less time will be required to remove the steering gear unit from the car and then remove the arm than to attempt to remove the steering gear arm with the steering gear in position on the frame. To do this, first remove the splash pan around the steering gear and then disconnect the steering connecting rod from the Pitman arm and the lower universal joint from the steering gear worm shaft. Next, loosen the steering gear from the frame and remove it from the car by sliding it out under the fender.

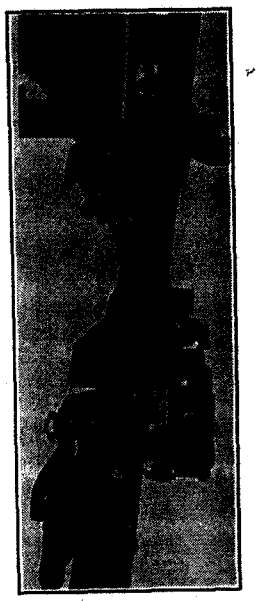


Fig. 25. View of steering gear mounting on series 70, 75, 80 and 85 cars

Transmission

Gear Ratio—	36-60	36-70, 36-75, 36-85
High or direct drive	1 to 1	1 to 1
Second speed	1.53 to 1	1.47 to 1
Low speed	2.37 to 1	2.40 to 1
Reverse	2.53 to 1	2.49 to 1
Oil capacity	2½ pts. or lbs.	4½ pts. or lbs.

The transmission for the series 70, 75, 80 and 85 cars is of the same construction as the one used on the previous model Cadillac cars, except for minor changes to suit the new clutch on the V-8 and V-12, the forward mounting of the starting motor on the V-8 engine and the use of roller bearings on the countershaft in the V-8 transmission. The series 60 cars have a smaller transmission employing the same type of inertia synchronizer as used in the LaSalle 35-50 transmission.

The transmission extension, which shortens the propeller shaft length and increases the frame stiffness by requiring less space for the propeller shaft, is continued in the new Cadillac cars. The propeller shaft and universal joints are of the same type as used in the "D" series cars. The universal joints on the new cars are packed with lubricant at assembly and require no further attention except lubrication of the sliding connection between the front universal joint and the propeller shaft. The same grade of lubricant and the same mileage intervals should be observed in lubricating this connection as in the previous models.

The series 70 and 75 transmission case is not interchangeable with the 80 and 85 case, nor are either of these cases interchangeable with those used on previous models. The transmission case for the series 60 cars is of the same construction as used on the LaSalle cars.

The series 70 and 75 gear set is similar to that used in the "D" series transmission except for the use of roller bearings on the countershaft and a smaller bearing on the clutch connection. The service gear sets for these models are interchangeable on "B," "C" and "D" models by using some adapting parts as listed in the parts book. The series 80 and 85 gear sets remain practically the same as in the "D" series cars.

The service operations on the new cars remain essentially the same as on the previous models.

Wheels, Rims and Tires

Rims—
Type.....Drop center

Width—
36-60.....4.50 in.
36-70, 36-75, 36-80, 36-85....5.00 in.

Diameter.....16 in.

Tire Size—
36-60.....7.00 x 16 in.
36-70, 36-75, 36-80, 36-85....7.50 x 16 in.

Tire Pressure—
36-60.....26 lbs. min. (cold)
36-70.....28 lbs. min. (cold)
36-75, 36-80, 36-85.....32 lbs. min. (cold)

Disc wheels are standard equipment on the new cars. Ribbed wheel covers are available at extra cost.

Spare wheels and tires are carried in a fenderwell on series 60 two-passenger convertible coupes, and on a visible carrier at the rear of the car on five and seven passenger regular sedans, and seven passenger Imperial and Town cars. All other cars have the spare wheels and tires concealed in the rear deck.

The rear wheel bearings are of the self-lubricating type. That is, they are packed with lubricant and permanently sealed at assembly. Since this lubricant is intended to last for the life of the bearings, no provision is made on the car for lubricating them. Neither should any attempt be made to remove these bearings for lubricating purposes.

LaSalle 36-50

First serial number.....2,210,001

Wheelbase.....120 in.

The new LaSalle remains substantially the same as the previous model, both in construction and appearance. A few changes, however, have been made that will be of interest to service men. The more important of these changes are listed below.

The rubber bumpers in the FRONT WHEEL SUSPENSION have been removed from the inside of the helical springs and placed outside of the springs, the same as on the Cadillac Series 60 cars.

Several appearance features of the LaSalle are new. Among the most noticeable changes are the new radiator grille, new hood ports, new instrument panel and instruments and new interior hardware. The front doors are also hinged at the front the same as on the Cadillac.

The new LaSalle body styles are as follows:

Series 36-50 (120 in. Wheelbase)—Fisher Bodies

	Style No.	
2-Pass. Coupe	36-5077	No rumble. Spare tire under deck.
2-4 Pass. Convertible Coupe	36-5067	Rumble. R. H. Fenderwell.
5-Pass. Two Door Touring Sedan	36-5011	Trunk. Concealed spare tire.
5-Pass. Four-Door Touring Sedan	36-5019	Trunk. Concealed spare tire.

Minor changes have been made in the BRAKE system. The piping and pedal assembly are slightly different from previously due to frame changes and relocation of the master cylinder. The hand brake lever has also been moved to a new position under the instrument panel, the same as on the Cadillac models.

The new Water Pump has a larger shaft than previously, which prevents the interchangeability of parts on the earlier model. The complete pump,

however, may be used interchangeably on the series 35-50.

Minor changes have been made in the ELECTRICAL SYSTEM. Principal among these is the ignition distributor which is now of the vacuum spark advance type, as on the new Cadillac V-8 cars.

Changes in the new LaSalle ENGINE include a new clutch housing, new engine supports, new connecting rods with relocated oil spit holes and a new fuel pump.

Minor changes have also been made in the oil pump, the exhaust system which now uses two mufflers, the timing chain cover and the carburetor connections.

The FRAME is new, although it follows the general design of the previous LaSalle frames. The construction of the LaSalle frame is similar to that used in the series 60 Cadillac.

Minor changes have been made in the new CARBURETOR because of slight changes in the throttle control and the use of vacuum controlled distributor.

Threaded metal bushings are now used at both the upper and lower ends of the SPRING SHACKLES at the rear ends of the rear springs.

Cadillac 36-90

First serial number.....5,110,001

Wheelbase.....154 in.

The V-16 BODIES remains substantially the same as on the previous model except for the new turret top. The new body models are as follows:

Series 36-90 (154 in. Wheelbase)—Fleetwood Bodies
7-Pass. Sedan.....5875-S
7-Pass. Imperial.....5875
Also Special Bodies

The "Peak Load" GENERATOR is now employed on the new V-16 cars. The same service operations will apply to the electrical system on the series 90 cars as on the remaining Cadillac models.

List of Special Service Tools

Tool No.	*Description*	*Model*	*Price*
Axle, Rear			
J-838	Rear Axle Shaft and Bearing Puller	36-60, 70, 75	$ 4.50
J-670-A	Rear Axle & Pinion Shaft Nut Wrench Set	36-50, 60, 70, 75, 80 & 85	8.20
	Handle		$2.15
	Extension		1.50
	$1\frac{3}{16}$ Socket		.80
	$1\frac{1}{4}$ Socket		.90
	$1\frac{5}{8}$ Socket		1.20
	$1\frac{13}{16}$ Socket		1.55
Body			
J-839	Instrument Panel Finishing Strip Staking Tool	36-50, 60, 70, 75, 80 & 85	1.75
B-189	Windshield Assembly Vise	36-60, 70, 75, 80 & 85	3.25
Clutch			
J-832	Clutch Aligning Arbor	36-50 & 60	2.50
J-833	Clutch Aligning Arbor	36-70, 75, 80 & 85	1.95
J-685	Clutch Finger Adjusting Gauge	36-60, 70, 75, 80, & 85	2.25
Cooling System			
J-830	Water Pump Bushing Remover, Replacer and Burnisher	36-50	2.90
J-831	Pilot Thimble for Assembling Water Pump Impeller Shaft	36-60, 70 & 75	.75
Engine			
J-788	Accessory Drive Idler Gear Support Bracket Set Screw Wrench	36-60, 70 & 75	.20
J-829	Camshaft Bearing Remover, Replacer and Aligning Tool	36-60, 70 & 75	10.50
J-836	Camshaft Sprocket Installing Pilot	36-60, 70 & 75	1.95
J-822	Crankshaft Dowel Removing Tool	36-60	3.15
HM-937	Piston Inserter	36-60, 70 & 75	1.75
J-834	Rear Main Bearing Cap Puller	36-60, 70 & 75	2.00
J-257-X	Valve Lifter Assembly for Removing and Replacing Split Locks	36-60, 70 & 75	14.75
	Friction head		7.25
	Body		2.25
	Foot		5.25
J-827	Valve Lifter Bracket Installing Tool	36-60, 70 & 75	1.25
J-826	Valve Stem Guide Inserter and Depth Collar	36-60, 70 & 75	2.10
J-842	Special Socket ($\frac{17}{32}$") for Valve Reservoir Oil Line Connection	36-60, 70 & 75	.55
J-835	Wrench Set for Slotted Connecting Rod Bolts, Main Bearing Cap Bolts & Spark Plugs	36-60, 70 & 75	4.55
	Straight Handle		1.10
	T-Handle		1.20
	Deep Socket for Spark Plugs & Main Bearing Caps		.70
	Special Lip Socket		.95

List of Special Service Tools—Cont'd

Tool No.	*Description*	*Model*	*Price*
Gasoline System			
J-841	Special Wrench Set for Removing Carburetor Drain and Breather Pipe	36-60, 70 & 75	1.15
	Crowfoot Socket	.60	
	Offset Handle	.65	
Steering			
J-732	Eccentric Sleeve & Sector Shaft Lock Nut Wrench	36-50 & 60	1.70
J-837	Steering Gear Up-and-Down Adjusting Wrench	36-50 & 60	2.50
J-840	Steering Column Lower Bearing Adjusting Sleeve Wrench	36-60, 75	.50
Wheels			
J-513	Front Wheel Outer Bearing Race Driver	36-50	1.40
J-514	Front Wheel Inner Bearing Race Driver	36-50	1.60
J-824	Rear Wheel Hub Puller with Heavy Duty Handle	36-50, 60	6.65
J-825	Rear Wheel Hub Puller with Heavy Duty Handle	36-70 & 75	7.40
J-823	Heavy Handle with Screw Only for Wheel Pullers	36-50, 60, 70 & 75	3.25
J-824-B	Body and Nut Only for Wheel Puller	36-50 & 60	3.40
J-825-B	Body and Nut Only for Wheel Puller	36-70 & 75	4.15
	Note: That J-823 with J-824-B and J-825-B can be used in place of J-824 and J-825 at a smaller cost.		

COLOR COMBINATIONS

Lacquers are not carried in stock. The factory will secure and ship as quickly as possible any standard colors not available locally, but cannot guarantee the color to be an exact match of that on the car, as all colors may change slightly due to climatic conditions and exposure to the weather.

Series 35-50

x Comb. Code No.	BODY AND SHEET METAL Color Name	Color No.	Mfgr.	WHEELS Color Name	Matching Color No.
75	Black	2462048	Dupont	Black Vincennes Red Ski Green	 20527 020308
76	Admiral Blue	24650534	Dupont	Admiral Blue	24650534
77	Richmond Maroon	24451793	Dupont	Romany Red	20525
78	Meadow Grass Green	24650745	Dupont	Kildare Green—Dark	24650723
79	Shirley Green	24650662	Dupont	Scarab Green	24650537
80	Canyon Gray	24651788	Dupont	Indiana Gray	20157
81	Purvis Gray	24650989	Dupont	Como Blue	24650876
82	Canton Blue	24650661	Dupont	Marquis Blue	943219
83	Diana Cream	24651466	Dupont	Diana Cream	24651466
84	Samerkand Gray	2446224	Dupont	Ski Green Vincennes Red	020308 20527
85	Army Blue	24650469	Dupont	Eton Blue	24650634
86	Regal Maroon	24450721	Dupont	Romany Red Dulux	20525

Series 36-50

87	Black	2462048	Dupont	Black Vincennes Red Gretna Green	 20527 24650784
88	Corinthian Maroon	2446789	Dupont	Cartaret Red	24550852
89	Ridge Green	24651956	Dupont	Gretna Green	24650784
90	Phantom Metallic	20251576	Dupont	Phantom Metallic	20251576
91	Nahkoda Blue	24650679	Dupont	Nahkoda Blue	24650679
92	Rain Green	2464931	Dupont	Rain Green	2464931
93	Carlisle Beige Light	2466828	Dupont	Moon Mist	24650988
94	Dusty Grey	24651073	Dupont	Dusty Grey	24651073
95	Colonial Cream	24650974	Dupont	Colonial Cream	24650794
96	Admiral Blue	24650534	Dupont	Admiral Blue	24650534
97	Antelope Metallic	20251574	Dupont	Antelope Metallic	20251574
98	Vineyard Green Metallic	20252209	Dupont	Vineyard Green Metallic	20252209

Series 36-60

1	Black	2462048	Dupont	Black Vincennes Red Gretna Green	 20527 24650784
2	Regent Maroon	24450721	Dupont	Cartaret Red	24450852
3	Dartmouth Green	24650467	Dupont	Scarab Green	24650537
4	Cannon Smoke	2463337	Dupont	Vincennes Red	20527
5	Tunis Blue	24651995	Dupont	Tunis Blue	24651995
6	Scarab Green	24650537	Dupont	Scarab Green	24650537
7	Arno Blue	2466548	Dupont	Arno Blue	2466548
8	Pomerang Brown	24651997	Dupont	Arno Blue	2466548
9	Classic Blue	2465673	Dupont	Classic Blue	2465673
10	Harlequin Metallic	20251964	Dupont	Harlequin Metallic	20251964
11	Clipper Blue Metallic	20251629	Dupont	Clipper Blue Metallic	20251629

Series 36-70, 75, 80, 85

30	Black	20488	R & M	Black Vincennes Red Gretna Green	 20527 24650784
31	Classic Blue	22290	R & M	Classic Blue	22290
32	Marshall Maroon	20693	R & M	Cartaret Red	24450852
33	Thessalon Green	23367	R & M	Scarab Green	24650537
34	Cannon Smoke	21151	R & M	Vincennes Red	20527
35	Tunis Blue	20230	R & M	Tunis Blue	20230
36	Klamath Green	23468	R & M	Scarab Green	24550537
37	Clio Brown—Dark	28878	R & M	Lamar Tan	28937
38	Pomerang Brown	28941	R & M	Arno Blue	2466548
39	Lochinvar Gray Iridescent	P.S.103	R & M	Vincennes Red	20527

x Code Comb. No. will be found on Body Plate on dash.

UPHOLSTERY CHART NO. 2

Series 35-50, 36-50, 60, 70, 75, 80, 85, 90

Upholstery used on Cushions and Back Rests only - except where bodies are trimmed the same throughout.

Code No.	Description	Trim No.	Part No.	Side Wall Material Trim No.	Side Wall Material Part No.	Headlining Material Trim No.	Headlining Material Part No.
9	Black Leather	1T1336	4066943	1T1336	4066943		
10	Tan Leather	2T1336	4066968	2T1336	4066968		
11	Blue-Gray Leather	4T1336	4066948	4T1336	4066948		
12	Green Leather	5T1336	4068668	5T1336	4068668		
13	Brown Bedford	13T136 or W4725	4065033	15T136	4065039	17T136	4065043
14	Brown Plain Cloth	14T136 or W4726	4065034	15T136	4065039	17T136	4065043
16	Brown Basket Weave	16T136 or W4727	4065035	16T136	4065035	17T136	4065043
17	Taupe Plush	37T136	4066988	37T136	4066988	38T136	4066989
18	Gray Bedford	18T136 or W4729	4065036	19T136	4065040	21T136	4065044
19	Brown Bedford	19T134 or W4556	4046366	15T136	4065039	4T134	4045764
20	Gray Basket Weave	20T136 or W4731	4065037	20T136	4065037	21T136	4065044
21	Brown Figured Cloth	21T135 or W4645	4059488	21T135	4059488	22T135	4059489
22	Light Tan Bedford	22T136 or W4733	4065038	23T136	4065042	24T136	4065045
23	Gray Figured Cloth	23T135 or W4657	4059497	23T135	4059497	24T135	4059498
24	Gray Bedford	20T134 or W4557	4046367	7T134	4045787	24T135	4059498
25	Tan Bedford	37T134 or W4572	4046368	38T134	4045789	39T134	4045792
50	Tan Broadcloth	63T134 or W4594	4046384	63T134	4046384	34T135	4063421
51	Gray Broadcloth	65T134 or W4585	4046386	65T134	4046386	35T135	4063422
52	Tan Bedford	69T134 or W4611	4049301	63T134	4046384	34T135	4063421
53	Gray Bedford	70T134 or W4612	~~4049512~~ 4068679	65T134	4046386	35T135	4063422
70	Black Leather	6T1336	4068669	6T1336	4068669		
71	Tan Leather	7T1336	4068670	7T1336	4068670		
72	Tan Bedford	72T136	4068687	73T136	4068688	74T136	4068689
73	Tan Broadcloth	73T136	4068688	73T136	4068688	74T136	4068689
74	Black Leather	1T1336	4066943	1T1336	4066943		
75	Gray Bedford	75T136	4068690	76T136	4068691	77T136	4068692
76	Gray Broadcloth	76T136	4068691	76T136	4068691	77T136	4068692
77	Taupe Plush	37T136	4066988	37T136	4066988	38T136	4066989
78	Bluish Tan Broadcloth	78T136	4068693	78T136	4068693	79T136	4068694
	Brown Pattern Cloth	1T136 or W4717	4068675	1T136	4068675	4T136	4068678
	Brown Bedford	2T136 or W4718	4068676	3T136	4068677	4T136	4068678
	Brown Plain Cloth	3T136 or W4719	~~4068677~~	3T136	4068677	4T136	4068678
	Gray Pattern Cloth	5T136 or W4720	4068679	5T136	4068679	8T136	4068682
	Gray Bedford	6T136 or W4721	4068680	7T136	4068681	8T136	4068682
	Gray Plain Cloth	7T136 or W4722	4068681	7T136	4068681	8T136	4068682
	Tan Plain Cloth	9T136 or W4723	4068683	9T136	4068683	10T136	4068684
	Blue-Gray Figured Cloth	11T136 or W4724	4068685	11T136	4068685	12T136	4068686
	Black Leather	13T1336 or E0.814	4068671	13T1336	4068671		
	Tan Leather	14T1336 or E0.815	4068672	14T1336	4068672		
	Gray Leather	15T1336 or E0.817	4068673	15T1336	4068673		
	Green Leather	16T1336 or E0.816	4068674	16T1336	4068674		
	Brown Bedford	40T134 or W4540	4046376	41T134	4046377	41T134	4046377
	Gray Figured Cloth	46T134 or W4537	4046382	46T134	4046382	12T136	4068686

4049272

UPHOLSTERY CHART NO. 2 (Continued)

Series 35-50, 36-50, 60, 70, 75, 80, 85, 90

Upholstery used on Cushions and Back Rests only - except where bodies are trimmed the same throughout.

Code No.	Description	Trim No.	Part No.	Side Wall Material Trim No.	Side Wall Material Part No.	Headlining Material Trim No.	Headlining Material Part No.
	Gray Vogue Cloth	49T134 or W4307	4026545	7T136	4068681	7T136	4068681
	Gray Plain Cloth	51T134 or W4310	4026548	51T134	4026548	52T134	4049261
	Brown Vogue Cloth	55T134 or W4305	4026543	3T136	4068677	3T136	4068677
	Brown Plain Cloth	57T134 or W4308	4026546	57T134	4026546	58T134	4049272
	Tan Plain Cloth	61T134 or W4571	4049275	61T134	4049275	62T134	4049276
	Gray Plush	63T136	4071089	63T136	4071089	21T136	4065044
	Gray Plush	63T136	4071089	63T136	4071089	8T136	4068682

Exclusive Cadillac Accessories

Master Radio	$89.50
Standard Radio	54.50
Radio Antenna	4.75
Electric Clock (La Salle)	14.50
Sun Visor (La Salle Right Hand)	3.50
Wheel Discs (Chrome)	4.00
Wheel Trim Rings (each)	1.50
Flexible Steering Wheel	16.00
License Frames (pair)	7.00
Ash Trays (each)	1.90
Metal Tire Covers (each) La Salle, and Cadillac, Series 60	17.50
Metal Tire Covers (each) Cadillac, Series 70, 75, 80, 85 and 90	20.00
Moto-pack	5.85
Luggage—Tan Duck or Black Duckoid finish—Wardrolette	47.50
Ladies' Aviatrix	35.00
Gentlemen's Aviator	35.00
Luggage Compartment Rug (5 Wheel)	4.75
Luggage Compartment Rug (6 Wheel)	6.25
Hot Water Heater	18.50
Hot Air Heater (Dual Register) for Cadillac Fleetwood lines only	50.00
Visor Mirror	1.85
Fleetwood Robe (made of identical upholstery cloth)	45.00
Double Alpaca Robe	20.00
Alpaca and Plush Robe	20.00
Tire Chains La Salle and Cadillac Series 60	8.00
Tire Chains Cadillac Series 70, 75, 80, 85 and 90	8.50

All prices include installation

Radio Kit

Aerial

CADILLAC

LA SALLE

PRICE LIST

for

1936

October 11, 1935

All Prices F. O. B. Detroit
Subject to change without notice

CADILLAC MOTOR CAR COMPANY
Detroit, Michigan, U. S. A.

1936

V-8 Cadillac, Series 70 30%

BODY BY FLEETWOOD—131″ Wheelbase

7067	2-*Pass.* Convertible Coupe	64.50	$2695.00	1886.50
7029	5-*Pass.* Convertible Sedan	66.00	2745.00	1921.50
7057	2-*Pass.* Coupe	62.50	2595.00	1816.50
7019	5-*Pass.* Touring Sedan	59.50	2445.00	1711.50
	131″ *W. B.* Chassis	45.50	1750.00	1225.00

Basic Equipment Group "X"

Ornament
Extra Tire and Tube

GROUP PRICE $42.50 29.75

Additional charge for 6 wheels and fenderwells .. $85.00 59.50

7.50-16 Royal or Firestone 4-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $4.55 per tire 3.00

V-8 Cadillac, Series 75 30%

BODY BY FLEETWOOD—138″ Wheelbase

7529	5-*Pass.* Convertible Sedan	80.00	$3395.00	2376.50
7509	5-*Pass.* Sedan Without Trunk	64.50	2645.00	1851.50
7519	5-*Pass.* Touring Sedan	64.50	2645.00	1851.50
7509E	5-*Pass.* Formal Sedan with Trunk	80.00	3395.00	2376.50
7539	5-*Pass.* Town Sedan	75.00	3145.00	2201.50
7503	7-*Pass.* Sedan Without Trunk	67.50	2795.00	1956.50
7523	7-*Pass.* Touring Sedan	67.50	2795.00	1956.50
7513	7-*Pass.* Imperial Without Trunk	72.00	2995.00	2096.50
7533	7-*Pass.* Touring Imperial	72.00	2995.00	2096.50
7543	7-*Pass.* Town Car	102.50	4445.00	3111.50
	138″ *W. B.* Chassis	41.50	1850.00	1295.00
	156″ *W. B.* Commercial Chassis	52.50	2100.00	1470.00

Basic Equipment Group "X"

Ornament
Extra Tire and Tube

GROUP PRICE $45.00 31.50

Additional charge for 6 wheels and fenderwells .. $90.00 63.00

7.50-16 Royal or Firestone 6-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $5.50 per tire 3.50

Accessory Groups

Group "A" — 5 Wheel
- 5 Wheel Discs
- Flexible Wheel
- License Frames

GROUP PRICE .. $42.00 25.00

Group "B"
- 5 Wheel Discs
- Flexible Wheel
- License Frames
- Master Radio

GROUP PRICE $130.00 77.00

Group "C" — 6 Wheel
- 6 Wheel Discs
- Flexible Wheel
- License Frames
- Metal Tire Covers

GROUP PRICE .. $86.00 45.00

Group "D"
- 6 Wheel Discs
- Flexible Wheel
- License Frames
- Metal Tire Covers
- Master Radio

GROUP PRICE $175.00 99.00

— 1936 —

V-12 Cadillac, Series 80 30%

BODY BY FLEETWOOD—131″ Wheelbase

8067	2-*Pass.* Convertible Coupe	80.00	$3395.00	2376.50
8029	5-*Pass.* Convertible Sedan	81.50	3445.00	2411.50
8057	2-*Pass.* Coupe	78.00	3295.00	2306.50
8019	5-*Pass.* Touring Sedan	75.00	3145.00	2201.50
	131″ *W. B.* Chassis	61.00	2450.00	1715.00

Basic Equipment Group "X"

Ornament
Extra Tire and Tube

GROUP PRICE $45.00 31.50

Additional charge for 6 wheels and fenderwells .. $90.00 63.00

7.50-16 Royal or Firestone 6-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $5.50 per tire 3.50

V-12 Cadillac, Series 85 30%

BODY BY FLEETWOOD—138″ Wheelbase

8529	5-Pass. Convertible Sedan	85.00	$4095.00	2866.50
8509	5-Pass. Sedan Without Trunk	79.00	3345.00	2341.50
8519	5-Pass. Touring Sedan	79.00	3345.00	2341.50
8509E	5-Pass. Formal Sedan With Trunk	95.00	4095.00	2866.50
8539	5-Pass. Town Sedan	89.50	3845.00	2691.50
8503	7-Pass. Sedan Without Trunk	82.50	3495.00	2446.50
8523	7-Pass. Touring Sedan	82.50	3495.00	2446.50
8513	7-Pass. Imperial Without Trunk	86.50	3695.00	2586.50
8533	7-Pass. Touring Imperial	86.50	3695.00	2586.50
8543	7-Pass. Town Car	117.00	5145.00	3601.50
	138″ *W. B.* Chassis	63.00	2550.00	1785.00
	156″ *W. B.* Commercial Chassis	68.00	2800.00	1961.00

Basic Equipment Group "X"

Ornament
Extra Tire and Tube

GROUP PRICE $45.00 31.50

Additional charge for 6 wheels and fenderwells .. $90.00 63.00

7.50-16 Royal or Firestone 6-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $5.50 per tire 3.50

Accessory Groups

Group "A" — 5 Wheel
- 5 Wheel Discs
- Flexible Wheel
- License Frames

GROUP PRICE .. $42.00 23.00

Group "B"
- 5 Wheel Discs
- Flexible Wheel
- License Frames
- Master Radio

GROUP PRICE $130.00 77.00

Group "C" — 6 Wheel
- 6 Wheel Discs
- Flexible Wheel
- License Frames
- Metal Tire Covers

GROUP PRICE .. $86.00 45.00

Group "D"
- 6 Wheel Discs
- Flexible Wheel
- License Frames
- Metal Tire Covers
- Master Radio

GROUP PRICE $175.00 99.00

*10.00 per Wheel for color.

La Salle, Series 36-50 27%

BODY BY FISHER—120″ Wheelbase

5067	2-*Pass.* Convertible Coupe	$1255.00	916.15
5077	2-*Pass.* Coupe	1175.00	857.75
5011	5-*Pass.* Touring Coupe	1185.00	865.05
5019	5-*Pass.* Touring Sedan	1225.00	894.25
	120″ *W. B.* Chassis	900.00	657.00

Basic Equipment Group "X"

Ornament
Extra Tire and Tube
Bumpers and Guards

GROUP PRICE.....$50.00 36.50

Additional charge for 6 wheels and fenderwells
$65.00 47.45

Except Convertible Coupe which is..... 45.00 32.85

7.00-16 Royal or Firestone 4-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $3.60 per tire 2.50

1 fenderwell 23.00 - 16.79

Accessory Groups

Group "A" 5 Wheel
Clock
R. H. Sun Visor
Wheel Trim Rings

GROUP PRICE..$25.00 18.50

Group "B"
Clock
R. H. Sun Visor
Wheel Trim Rings
Flexible Wheel
License Frames

GROUP PRICE..$48.00 25.00

Group "C" 6 Wheel
Clock
R. H. Sun Visor
Wheel Trim Rings
Metal Tire Covers

GROUP PRICE..$60.00 30.00

Group "D"
Clock
R. H. Sun Visor
Wheel Trim Rings
Metal Tire Covers
Flexible Wheel
License Frames

GROUP PRICE..$83.00 45.00

Color Options

	Comb. No.
★Black	87
Corinthian Maroon	88
Ridge Green	89
†Phantom Metallic	90
Nakhoda Blue	91
Rain Green	92
Carlisle Beige Lt.	93
†Dusty Gray	94
†Colonial Cream	95

★*Vincennes Red or Gretna Green Wheels optional upon request.*

†*Special combination at additional charge.....$10.00*

Upholstery Options

Closed Bodies			
Tan Highland Twist Cord	72	T	136
Tan Heather Mixture	73	T	136
Gray Highland Twist Cord	75	T	136
Gray Heather Mixture	76	T	136
Plain Broadcloth	78	T	136
Convertible Bodies			
Black Leather	1	T	1336
Tan Leather	7	T	1336
Tan Highland Twist Cord	72	T	136
Gray Highland Twist Cord	75	T	136

V-8 Cadillac, Series 60 28%

BODY BY FISHER—121″ Wheelbase

6067	2-*Pass.* Convertible Coupe	$1725.00	1242.00
6077	2-*Pass.* Coupe	1645.00	1184.40
6019	5-*Pass.* Touring Sedan	1695.00	1220.40
	121″ *W. B.* Chassis	1300.00	936.00

Basic Group Equipment "X"

Ornament
Extra tire and tube

GROUP PRICE.....$35.00 25.20

Additional charge for 6 wheels and fenderwells
$65.00 46.80

Except Convertible Coupe which is..... 45.00 32.40

7.00-16 Royal or Firestone 4-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $3.60 per tire 2.50

1 fenderwell 23.00 - 16.56

Accessory Groups

Group "A" 5 Wheel
5 Wheel Discs
Flexible Wheel
License Frames

GROUP PRICE..$42.00 25.00

Group "C" 6 Wheel
6 Wheel Discs
Flexible Wheel
License Frames
Metal Tire Covers

GROUP PRICE..$80.00 42.00

Color Options

	Comb. No.
★Black	1
Regent Maroon	2
Dartmouth Green	3
Cannon Smoke	4
Tunis Blue	5
Scarab Green	6
Arno Blue	7
Pomerang Brown	8

★*Vincennes Red or Gretna Green wheels optional upon request.*

Upholstery Options

For Closed Bodies			
Brown Bedford Cord	13	T	136
Brown Plain Cloth	14	T	136
Brown Basketweave	16	T	136
Gray Bedford Cord	18	T	136
Gray Basketweave	20	T	136
Tan Bedford Cord	22	T	136
For Convertible Bodies			
Black Leather	1	T	1336
Tan Leather	2	T	1336
Gray Leather	4	T	1336
Green Leather	5	T	1336
Brown Bedford Cord	13	T	136
Gray Bedford Cord	18	T	136

Extra charge for right hand fenderwell on 2-Pass. Coupe, Touring Coupe or Touring Sedan on either La Salle or Cadillac, Series 60.....$23.00

16.56

V-16 Cadillac, Series 90

BODY BY FLEETWOOD—154″ Wheelbase

7-Pass. Sedan	168.00	7550.00	5285.00
7-Pass. Limousine	172.00	7750.00	5425.00
154″ W. B. Chassis	138.00	6250.00	

Prices for other body types furnished upon request.

7.50-17 Royal or Firestone 6-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires $6.35 per tire

List price of Cadillac V-16, Series 90 includes either 5 wheels or 6 wheels and fenderwells. Also ornament in gold or silver finish, Cadillac Master Radio and Flexible steering wheel.

V-8 Commercial Cars, Series 75

BODY BY FLEETWOOD—138″ Wheelbase

7-Pass. Com'l Sedan Without Trunk	2695.00	1886.50
7-Pass. Commercial Touring Sedan	2695.00	1886.50
7-Pass. Com'l Imp. Without Trunk	2865.00	2005.50
7-Pass. Com'l Touring Imperial	2865.00	2005.50

Basic Equipment Group "X"

Ornament
Extra Tire and Tube

GROUP PRICE.....$45.00

Additional charge for 6 wheels and fenderwells..$90.00

7.50-16 Royal or Firestone 6-ply black sidewall tires are standard equipment

Additional charge for white sidewall tires..$5.50 per tire

Commercial Car Upholstery Options

Brown Bedford Cord	13 T	136
Brown Plain Cloth	14 T	136
Brown Basketweave	16 T	136
Gray Bedford Cord	18 T	136
Gray Basketweave	20 T	136
Tan Bedford Cord	22 T	136

Trunk Rack

Folding trunk rack for Commercial Cars without built-in trunks and Series 75, 85 Sedan and Imperial body types without built-in trunks.....$50.00

Fleetwood Color Options

	Comb. No.
★Black	30
Classic Blue	31
Marshall Maroon	32
Thessalon Green	33
Cannon Smoke	34
Tunis Blue	35
Klamath Green	36
Clio Brown, Dk.	37
Pomerang Brown	38

★*Vincennes Red or Gretna Green wheels optional upon request.*

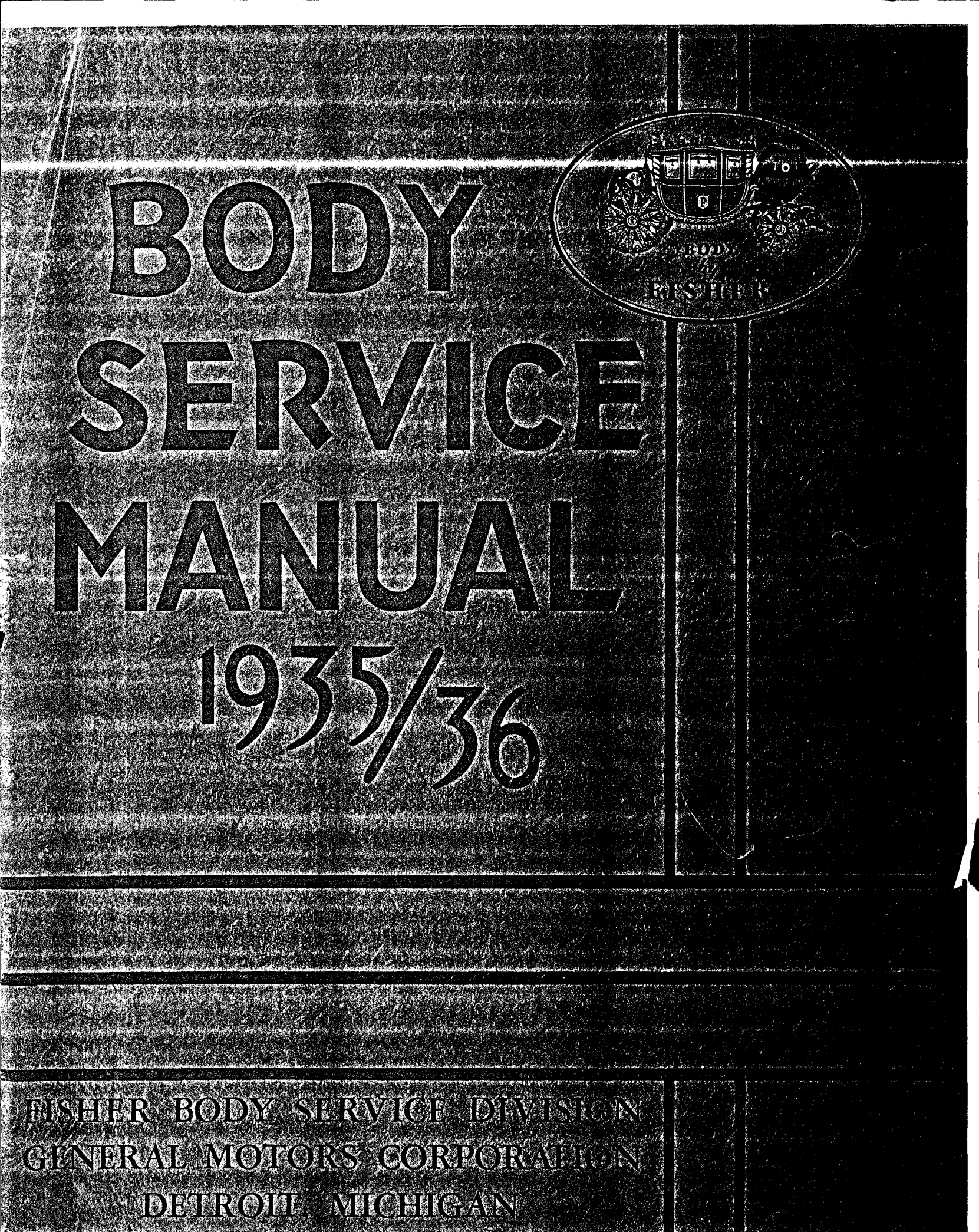
Fleetwood Upholstery Options

Closed Bodies

Brown Pattern Cloth	Wiese 4717
Brown Bedford Cord	Wiese 4718
Brown Plain Cloth	Wiese 4719
Gray Pattern Cloth	Wiese 4720
Gray Bedford Cord	Wiese 4721
Gray Plain Cloth	Wiese 4722
Tan Plain Cloth	Wiese 4723
Blue Gray Figure Cloth	Wiese 4724

Convertible Bodies

Black Leather	E. O. 814
Tan Leather	E. O. 815
Green Leather	E. O. 816
Gray Leather	E. O. 817
Brown Bedford Cord	Wiese 4718
Gray Bedford Cord	Wiese 4721



BODY SERVICE MANUAL 1935/36

FISHER BODY SERVICE DIVISION
GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

FISHER BODY SERVICE MANUAL

1935-36 CONSTRUCTION

FOREWORD

The 1934 Fisher Body Service Manual covered details of Construction and Service on 1934 and 1935 Models of the Fabric Roof Type Bodies.

When the Fisher Turret Top Type Bodies were brought out there were so many structural changes, radically different from former Models, that it was found necessary to publish this 1935-1936 Manual to cover information on the Turret Top Body Construction and its Service.

The Illustrations and Descriptions apply to LaSalle, Oldsmobile and Pontiac. Generally they will apply to Chevrolet also. Where Chevrolet is constructed differently it will be indicated.

This 1935-1936 Manual presents, in illustrations and detail description, parts and sections of the Body, in such a way that the Repair Man may form his own opinion as to how such parts function, and how to have access to them for Service.

The main part of the Manual covers 1935 Turret Top Construction and Service, and a Supplement in the back of the Manual describes the structural changes in 1936 Models and such service information as is necessary for their maintenance to which the 1935 Section does not apply.

FISHER BODY SERVICE DIVISION
GENERAL MOTORS CORPORATION
DETROIT, MICHIGAN

Fisher Body Service Manual

1935 and 1936

1935 TURRET TOP BODY CONSTRUCTION

In the 1935 Turret Top Body Construction there are many departures from the former methods of Body Building. Instead of building a Wood Skeleton Framework complete, then applying the Panel Metal Stampings over it and attaching them with nails and screws as in former Models the building of the 1935 Turret Top Body is started in directly the opposite manner.

The Panel Metal Stampings and Metal Braces are fitted together in a Body Jig and welded into one Solid Shell after which the Wood, Upholstery, and Glass Parts are built into this Metal Shell forming a Body.

Such Wood Parts as are used, are for the purpose, mainly of forming Foundations for attaching Upholstery parts, to form Frames for Glass Openings, and to act as Sound Deadeners.

All 1935 Fisher Turret Top Bodies are similarly constructed, the principal differences being in the designing of the Body which necessitates different shapes and sizes of Panels and locations of the Welding Lines. These will be fully covered under the description of the various Units of the Body on Page 7 and subsequent pages.

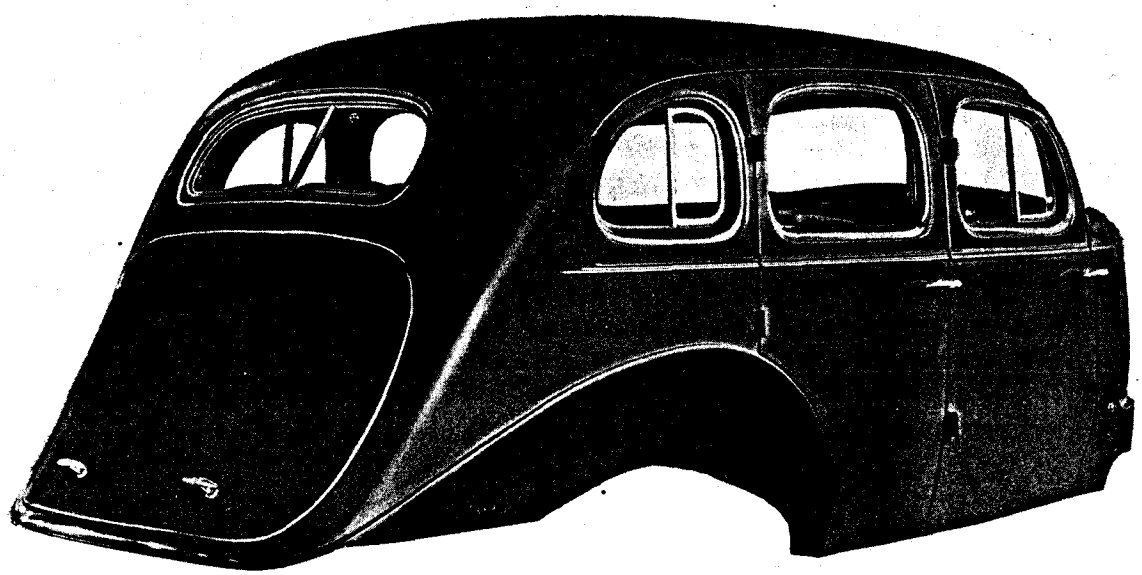


Illustration No. 1
1935 Regular Sedan.

SEDAN

The Luggage Compartment in the Regular Sedan Body Style is built-in with a Shelf for luggage and with a Compartment beneath the Shelf for the Spare Tire. The Lid is supplied with a Locking Handle and adjustable Hinges. (On the earlier 1935 Bodies there were two Locks and two Handles used.) The Lid is sealed against entrance of moisture by having a molded rubber Weatherstrip cemented to and extending entirely around the underside edge of the Lid.

The Body Styles on which this Type of Construction is used are:

35-2009	Pontiac 8 Regular Sedan
35-2109	Pontiac 6 Regular Sedan
35-2109A	Pontiac 6 Regular Sedan
35-3609	Oldsmobile 6 Regular Sedan
35-3809	Oldsmobile 8 Regular Sedan
35-5009	La Salle 8 Regular Sedan

SEDAN TOURING

The Touring Sedan is constructed exactly as the Regular Sedan except for parts that form the Rear Luggage Compartment.

The Designing of this Style Body is such that a Trunk effect is built into the rear of the Body to give more space for Luggage than was possible with the Rear Compartment Construction in the Regular Sedans.

The Rear Quarter Panels are extended to form the sides to which the Roof Panel and Rear End Panel are welded forming a Trunk Opening that is later fitted with a Trunk Lid.

The Construction of the Front End Assembly is, with very few exceptions the same on all Sedans, Coaches, and Closed Coupes.

The Trunk Lid is provided with a molded rubber Weatherstrip and has exposed Hinges. The Trunk Locking Device is similar to the one used on the Regular Sedan.

The Body Styles on which this type of Trunk Construction is used are:

35-2019	Pontiac 8 Touring Sedan
35-2119	Pontiac 6 Touring Sedan
35-2119A	Pontiac 6 Touring Sedan
35-3619	Oldsmobile 6 Touring Sedan
35-3819	Oldsmobile 8 Touring Sedan
35-5019	La Salle 8 Touring Sedan
35-1019	Chevrolet Master Touring Sedan

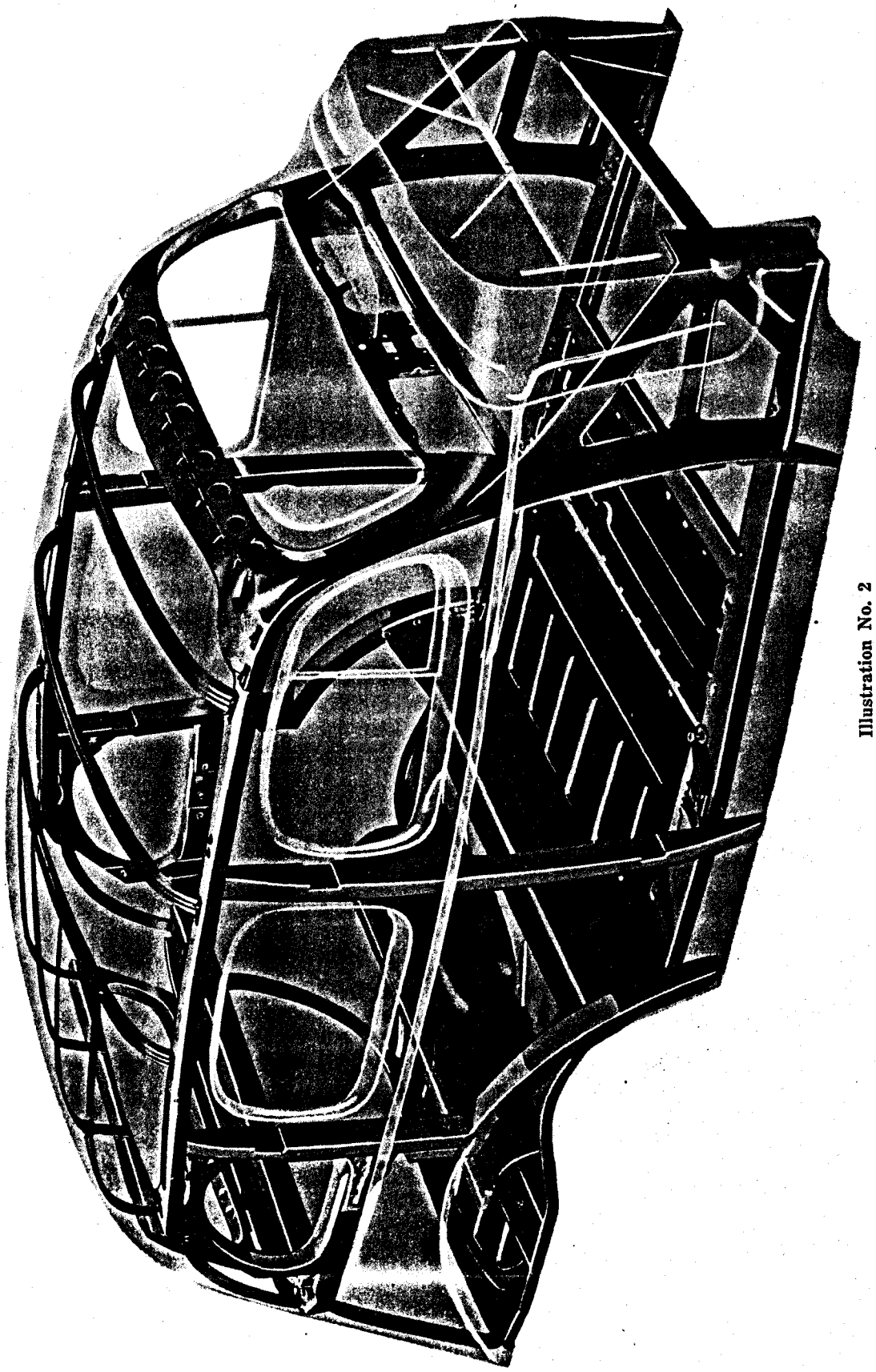


Illustration No. 2
Phantom View of Regular Sedan.

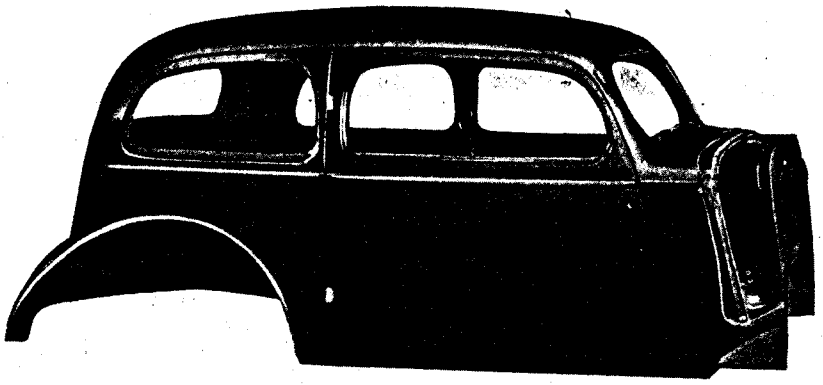


Illustration No. 3
Chevrolet Coach.

COACH

The Coach and Touring Coach Body Shells are alike in every way except the Rear Luggage Compartment.

The Touring Coach is designed with a built-in Trunk instead of a Rear Luggage Compartment.

These features on the Coaches are similar to those on the Sedans.

The Coach Front End Assemblies are identical with Sedans and Closed Coupes. On the Six Cylinder Cars, the Body has a Bucket Type Seat for driver and passenger, while on the Eight Cylinder Car, a divided back full Front Seat is standard.

The main differences of construction between the Coach and Sedan are in the Rear Quarter Section. The Coach has a wider (adjustable) Rear Quarter Window with one wide Door instead of two narrower Doors as in the Sedan. The fact that the Coach Rear Quarter Window is adjustable, means that there must be a water drain provided as is illustrated on Page 47. NOTE—This Drain is not provided on Body Styles with Rear Quarter Window Ventilator Assemblies.

COACH

35-2001	Pontiac 8 Regular Coach
35-2101	Pontiac 6 Regular Coach
35-2101A	Pontiac 6 Standard Coach
35-3601	Oldsmobile 6 Coach
35-3801	Oldsmobile 8 Coach

COACH TOURING

35-1011	Chevrolet Master Touring Coach
35-2011	Pontiac 8 Master Touring Coach
35-2111	Pontiac 6 Master Touring Coach
35-2111A	Pontiac 6 Standard Touring Coach
35-3611	Oldsmobile 6 Touring Coach
35-3811	Oldsmobile 8 Touring Coach
35-5011	La Salle Coach

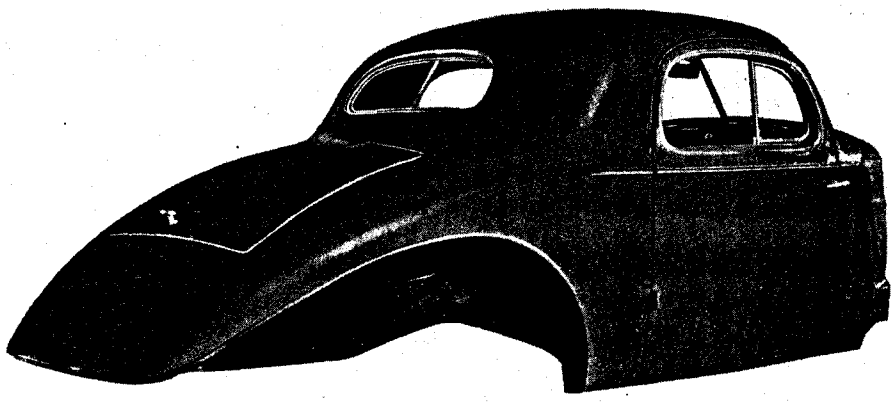


Illustration No. 4
Coupe.

COUPE

The Two Passenger Business Coupe is constructed with the same Front End as is used in the Sedans and Coaches. The Deck Opening at the rear is provided with a gutter and drain pipe, while the Rear Deck itself is designed to form a large luggage Compartment. The Deck Lid is weatherproofed with a molded rubber gasket attached to the under side of the Lid and is hinged with concealed type Hinges to the Deck Upper Bar. The Lock and Locking Handle actuate the Lock Bolt to the Striker Plate which is attached to the Deck Lower Bar. An additional space for spare tires and luggage is directly back of the Seat.

The Body Panels are all welded together into a unit and nailed around the Deck Lid Opening Frame which is formed by: Two Wood Deck Side Rails, and the Deck Upper and Deck Lower Bars. The Drain Gutter in the Deck Opening is nailed to these Rails and Bars. The Rear Quarter Panel is nailed to the Body Hinge Pillar at the Door Opening.

35-2007	Pontiac 8 Business Coupe
35-2107	Pontiac 6 Business Coupe
35-2107A	Pontiac 6 Standard Business Coupe
35-3607	Oldsmobile 6 Business Coupe
35-3807	Oldsmobile 8 Business Coupe
35-1207	Chevrolet 6 Standard Business Coupe
35-1207A	Chevrolet 6 Standard Business Coupe

COUPE (SPORT)

The Two Passenger Sport Coupe is similar to the Business Coupe except that the Deck Lid is hinged at the lower edge to brackets supported by the Floor instead of at the Deck Upper Bar as in the Business Coupe. *(See Illustration No. 116.)*

The Deck Lid is upholstered to form a Back Rest and a Rumble Seat Cushion is installed on the Seat Risers on the Floor. The Rear Quarter Panels cover the side of the Body from the Door Opening to the Rear End Panel.

The Deck Lid of this Style Body is similar in shape and size to the Business Coupe Lid.

The Body Panels are similar in both Styles and are constructed and attached in a similar fashion.

SPORT COUPE SOLID QUARTERS (RUMBLE)

35-2057 Pontiac 8 Sport Coupe
35-2157 Pontiac 6 Sport Coupe
35-3657 Oldsmobile 6 Sport Coupe
35-3857 Oldsmobile 8 Sport Coupe
35-5077 La Salle Sport Coupe
35-1057 Chevrolet Master Sport Coupe
35-1257A Chevrolet Standard Sport Coupe

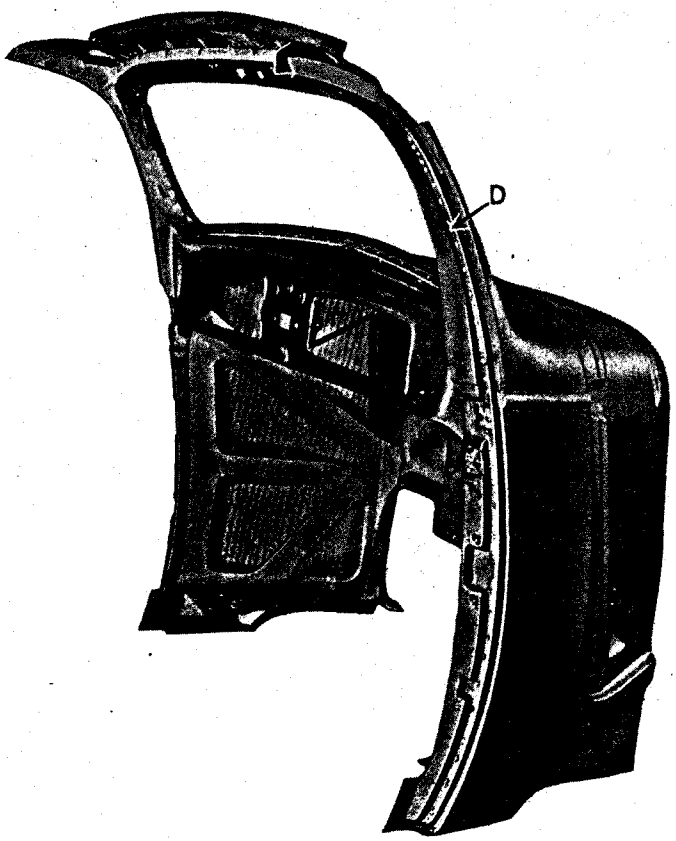


Illustration No. 5
Front End Assembly.

BODY FRONT END ASSEMBLY

The Body Front End Assembly for the 1935 Fisher Turret Top Bodies is that section of the Body forward of the Front Doors and reaches from the Roof to the Sills as shown in Illustration No. 5. It is composed of several Steel Stampings and formed Steel Braces which are welded and riveted together to form a single unit known as the Body Front End Assembly.

To describe the construction of this unit, it is necessary to divide these component parts into two main groups:

1. Front End Frame Parts.
2. Front End Outer Panels. (Cowl and Dash.)

FRONT END FRAME

The Frame of the Front End Assembly is composed of five major parts:

Front End Frame Upper.
Front End Frame Side Brace, Right and Left.
Front End Frame Leg, Right and Left.

The Front End Frame Upper *(See Illustration No. 6)* is a steel stamping that has the following characteristics:

It forms the Windshield Opening.

It forms the base to which the Windshield Garnish Molding is screwed.

It forms the Instrument Panel.

It forms the Facings of the upper portions of both Front Pillars.

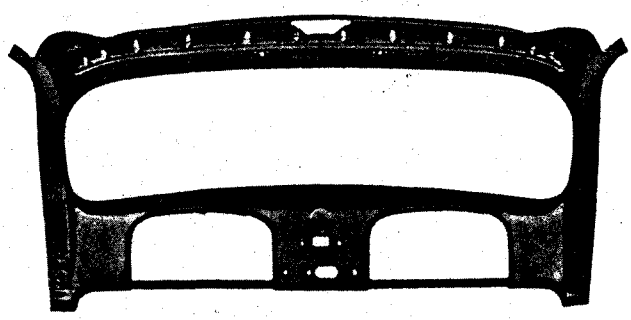


Illustration No. 6
Front End Frame Upper.

It forms the Windshield Header Panel.

It forms the anchorage for the Headlining Tacking Strip at the front.

It is the base to which the Cowl Panel, Roof Panel and other parts are welded.

In short, this Front End Frame Upper is an important part for it serves many purposes in the upper portion of the Body Front End Assembly. It is torch welded to the Metal Roof Side Rails *(See Illustration No. 10 at A)* and welded likewise to the Front End Frame Leg in *Illustration No. 9 at A.*

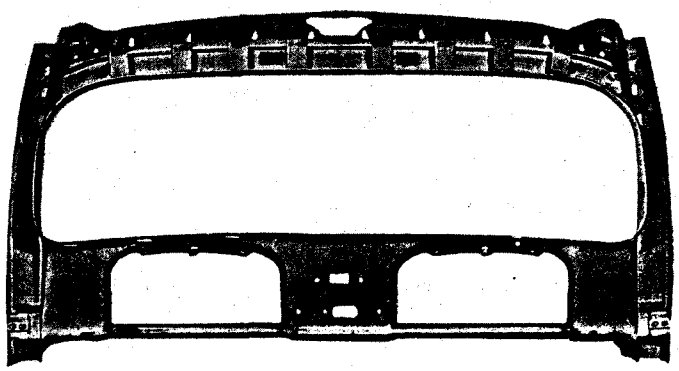


Illustration No. 7
Reverse View of Front End Frame Upper.

The Front End Frame Side Brace, *(See Illustration No. 8)* is a triangular steel stamping designed to brace the Front Body Pillar to the Dash and Sill. It is electrically spot welded to the Front End Frame Upper (Instrument Panel) to the Front End Frame Leg and to the Dash. It is bolted and screwed to the Main Side Sill. *(See Illustration No. 9 at C.)* The Toe Board Brace is also spot welded to it and to the Dash.

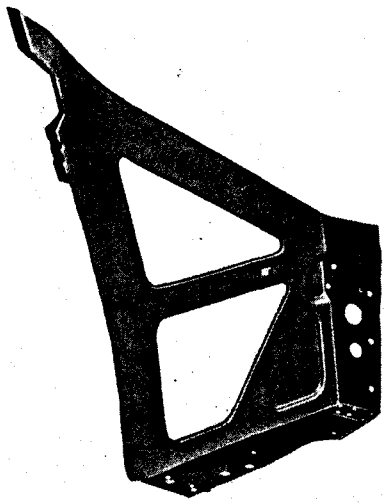


Illustration No. 8
Front End Frame Side Brace.

The Front End Frame Leg is a steel stamping that reaches from the Front End Frame Upper *(See Illustration No. 9 at A)* to the sill at "B". This stamping forms the lower half of the Front Body Pillar Facing to which the Front End Side Brace and the Cowl Side Panel is spot welded, forming the lower portion of the Front Body Pillar.

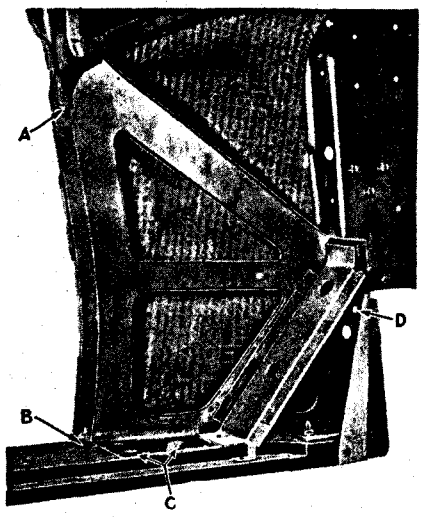


Illustration No. 9
Front End Frame Side Brace Assembled.

FRONT END OUTER SHELL

The Front End Outer Shell is composed of four major Panels:

Cowl Upper Panel.
Cowl Side Panel, Right.
Cowl Side Panel, Left.
Dash Panel.

The Cowl Upper Panel is a steel stamping that covers the upper portions of the two Front Body Pillars and the top of the Cowl section. It is welded to the Roof Panel *(See Illustration No. 11 at E)* with a torch weld; to the Cowl Side Panels at "B" with an electric butt weld; to the Dash at "C" with an electric spot weld, and to the Front End Frame Upper *(See Illustration No. 5 at D)* by spot welding. The top of the Cowl Upper Panel is stamped out to receive the Cowl Ventilator Assembly. *(See Illustration No. 11 at A.)*

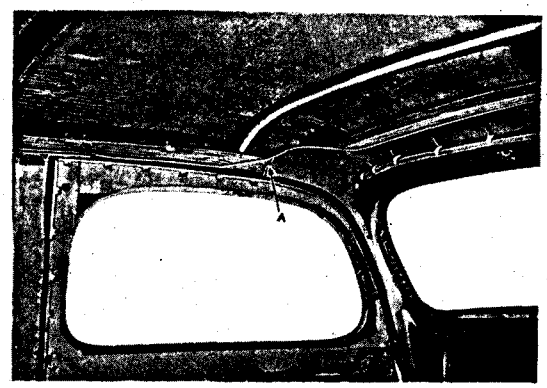


Illustration No. 10
Roof Front Corner.

The Cowl Side Panel is a Steel stamping that covers the side of the Cowl from the Main Side Sill to the belt line.

This Panel is electrically butt welded to the Cowl Upper Panel on a line above the Belt Molding. *(See Illustration No. 11 at B.)*

It is spot welded to the Front End Leg along the Front Body Pillar and also spot welded to the Dash Panel. Its attachment to the Main Side Sill is through the Dash and Front End Frame parts to which it is spot welded.

Lugs or anchor nuts are attached to the lower front of the Cowl Side Panel. These lugs are tapped to receive the Front Fender Bolts. *(See Illustration No. 11 at D.)*

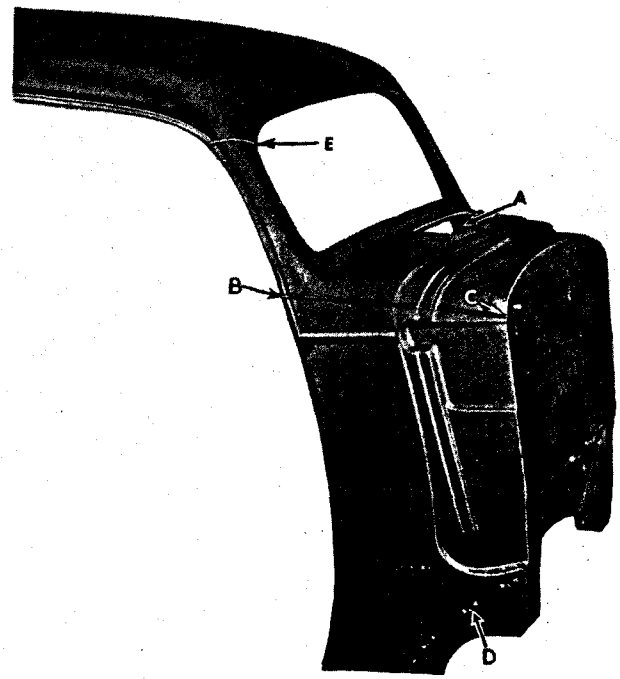


Illustration No. 11
Cowl Side Panel.

The Dash Panel is a steel stamping spot welded to the Cowl Upper Panel and the Cowl Side Panels similar to the Former Style Bodies. *(See Illustration No. 12.)* At the lower ends of the Dash, *(See Illustration No. 13 at A)*, a Dash to Sill Brace is riveted through the Dash and through the Dash to Chassis Frame Brace. The same rivets anchor both of these Braces to the Dash. These Braces form an anchorage for attaching the Body Main Side Sill to the Chassis Frame.

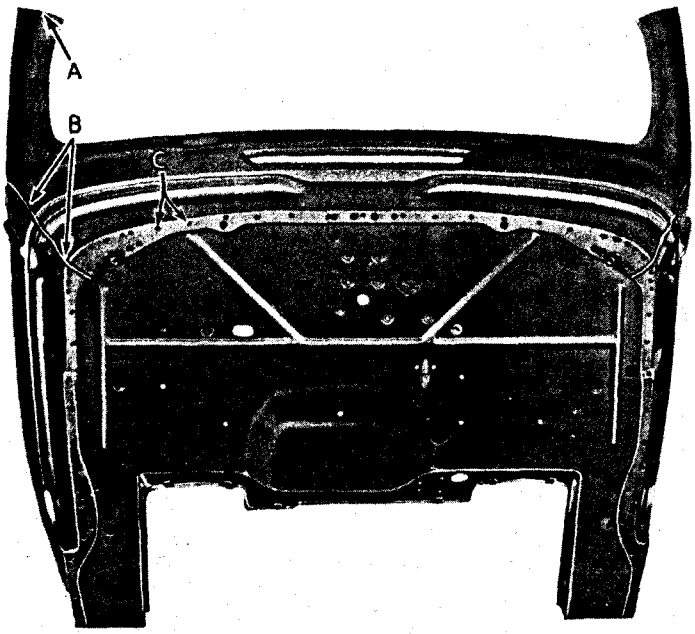


Illustration No. 12
1935 Dash Panel.

The Dash to Chassis Brace, *(See Illustration No. 13 at A)*, is used on some Style Bodies, while a differently formed Brace is required for other Style Bodies, all serve a similar purpose, being riveted to the Dash and Dash to Sill Brace in approximately the same manner.

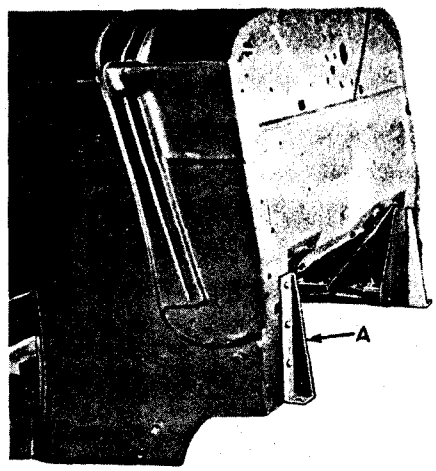


Illustration No. 13
Dash to Chassis Frame Brace.

COWL VENTILATOR LID

To adjust the spacing around the Lid, loosen the adjusting screws in the Hinge Plate. Close the cover and while one man is holding it down in correct position, another workman may tighten the adjusting screws. Holes are elongated to allow for adjustment. Tension of the Lid to the Rubber Gasket is obtained by means of the Adjustable Control Arm. *(See Illustration No. 14.)*

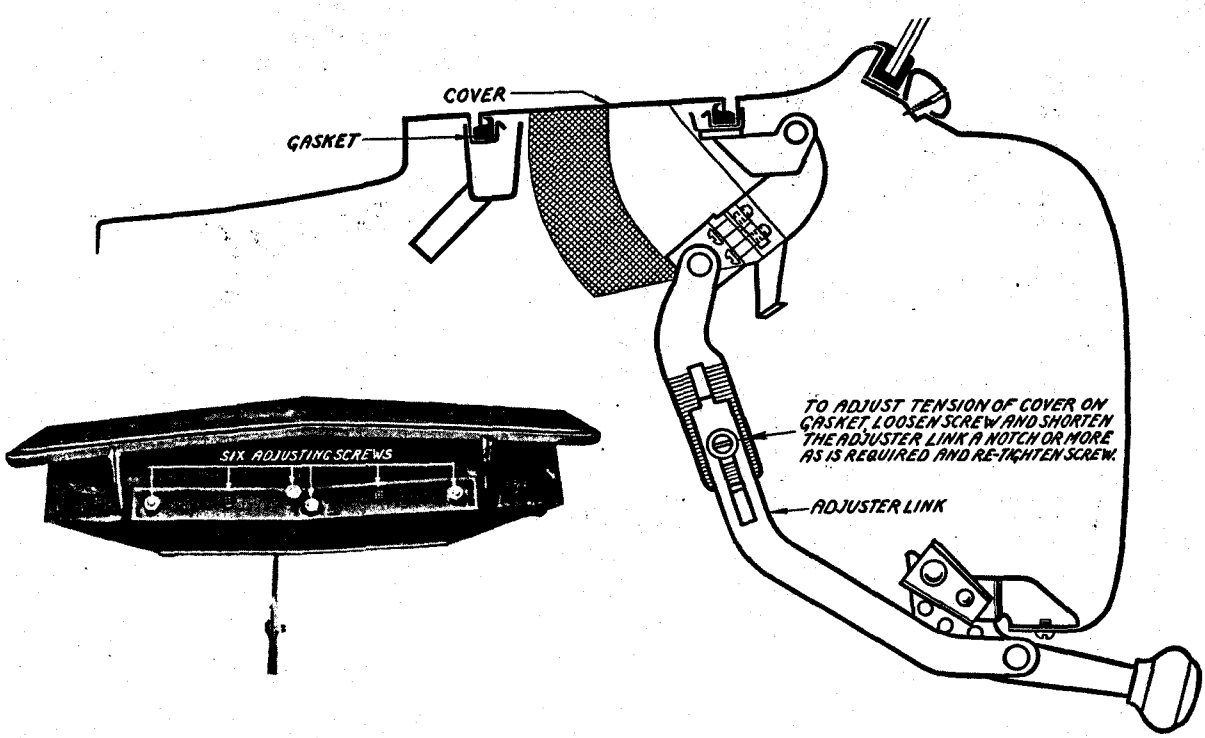


Illustration No. 14
Cowl Ventilator.

TURRET TOP ROOF CONSTRUCTION

The Roof Structure of a Fisher Turret Top Body is composed of one Roof Panel, two Roof Side Rails (metal) Right and Left, two Roof Side Rail Fillers (wood) Right and Left, three Metal Roof Bows, (Sedan and Coach) Headlining Rear Supports, (Four of which are spot welded at their front end to the No. 3 Roof Bow), A Dome Lamp Block and the Sound Silencer Felt.

The Roof Panel is a single steel stamping that covers the entire Roof from the Windshield Opening at the front, to the Trunk, Deck or Compartment Opening at the rear; and from the top of the Door Openings on the right side, across to the top of the Door Openings on the left side. It is made of one sheet of cold drawn steel of sufficient gauge and crown for strength. The Drip Moldings are pressed into this Roof Panel as is also the Rear Window Opening. The strength of the Roof Panel is due not so much to the gauge of the steel as to the hardness of the metal and the crowning of its shape.

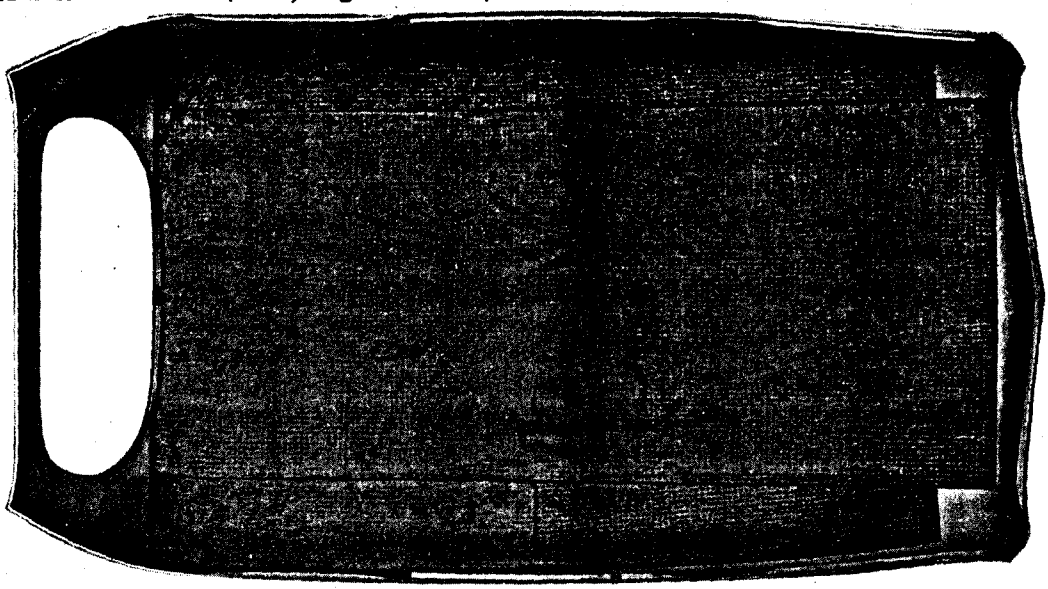


Illustration No. 15
Turret Roof (Inside View).

The Roof Panel is ELECTRICALLY SPOT WELDED to the other Body Panels as follows:

To the Front End Frame Upper at the top of the Windshield Opening.

To the Roof Side Rails over the top of the Doors and Rear Quarter Window Openings.

To the Rear Quarter Panels from the rear end of the Drip Molding to the Rear Body Hinge Pillar.

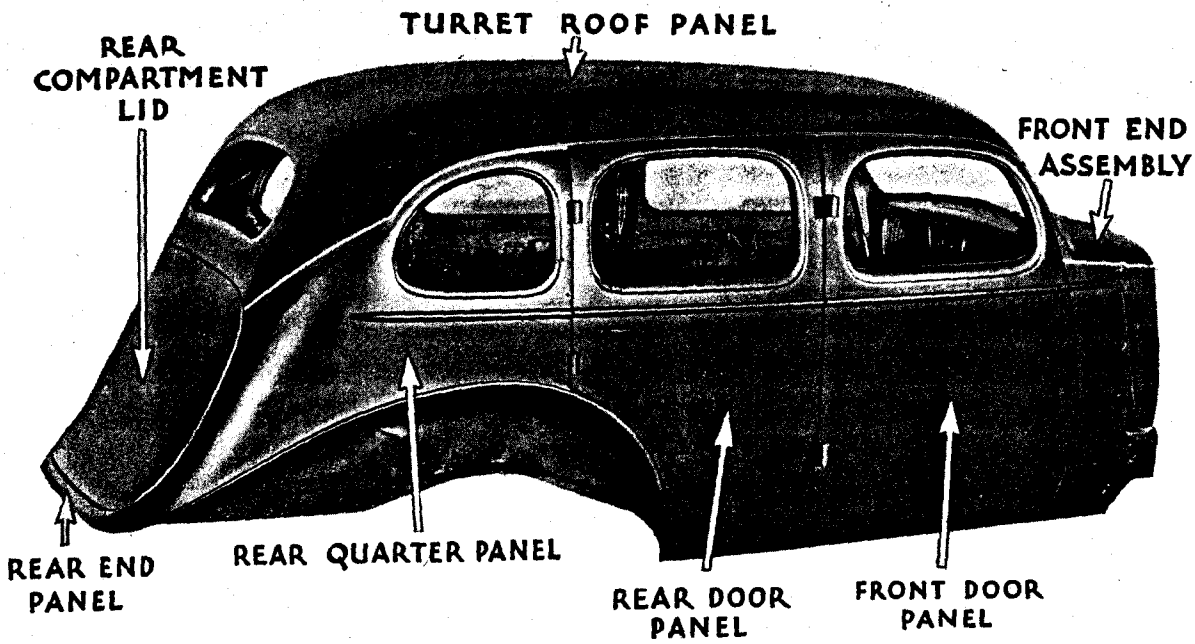


Illustration No. 16
Regular Sedan Showing Welding Lines and Panel Names.

To the Gutter at the top of the Trunk or Rear Compartment Opening.

The Spot Welding used at the Drip Molding and Rear Quarter Panel joint is shown in Illustration No. 22 at "A". This weld is made as close to the breakover as possible and is a continuous spot weld with the spots over-lapping each other.

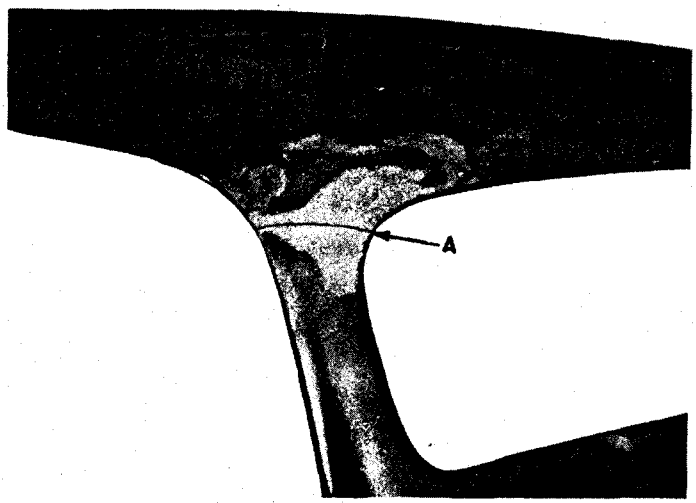


Illustration No. 17
Weld (Turret Roof to Upper Cowl Panel).

The Roof Panel is TORCH WELDED at the following points:

To the Upper Cowl Panel at the top of the Front Body Pillars. *(See Illustration No. 17 at A.)*

To the Rear Quarter Panels from the end of the Drip Molding to the Trunk or Rear Compartment Opening. *(See Illustration No. 19.)*

To the Top of the Center Body Pillar Cover.

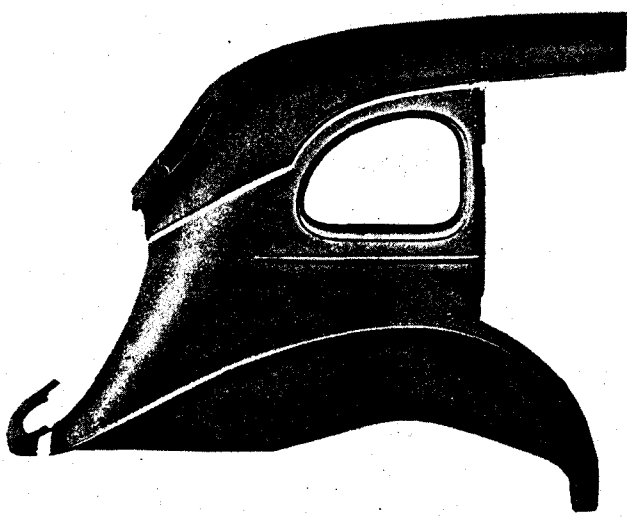


Illustration No. 18
Junction of Turret Roof and Quarter Panel.

ROOF SIDE RAILS

The Roof Side Rails are steel stampings extending from the Front End Frame Upper to which they are torch welded, *(See Illustration No. 10 at A)* back to the Rear Body Hinge Pillar Top Brace to which they are bolted. They are spot welded along their entire length to the flange on the Roof Panel at the lower edge of the Drip Molding. The Roof Side Rails also act as Metal Facings above the Door Openings.

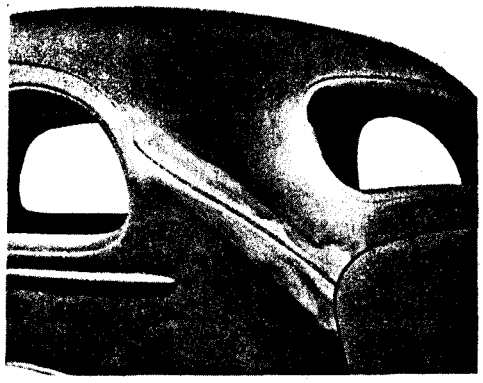


Illustration No. 19
Rear Roof Weld (Regular Sedan).

The Roof Side Rail Fillers are hard wood Parts that extend the full length of the Roof Side Rails. The Steel Roof Bows and the Top Brace on the Rear Body Hinge Pillar and Center Pillar are bolted to the Roof Side Rail and its Filler. *(See Illustrations No. 2 and 97.)*

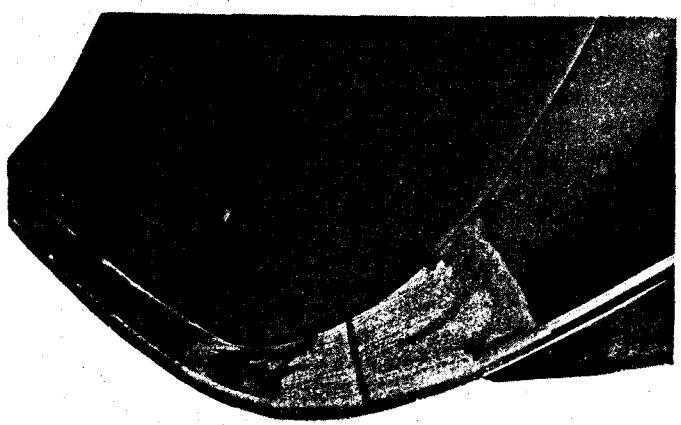


Illustration No. 20
Lower Rear Corner Weld (Regular Sedan).

The Roof Bows are steel stampings anchored at each end with two bolts through the Roof Side Rail and Filler Assembly. The Bows are designed to re-enforce the Roof Panel as well as support the Headlining *(See Illustration No. 25.)* In the top face of each Roof Bow two Rubber Fillers are inserted to prevent chafing on the Roof Panel Sound Silencer Felt which is cemented to the Roof Panel.

The Sound Silencer Felt is a composition matting that is cemented to the inside of all major Body Panels with Compound F.S. 1044. Whenever this Felt is removed for repair operations to a Panel, new Felt should be installed to cover the bared metal. The purpose of it is to Deaden Sound as well as to act as a Heat Insulation.

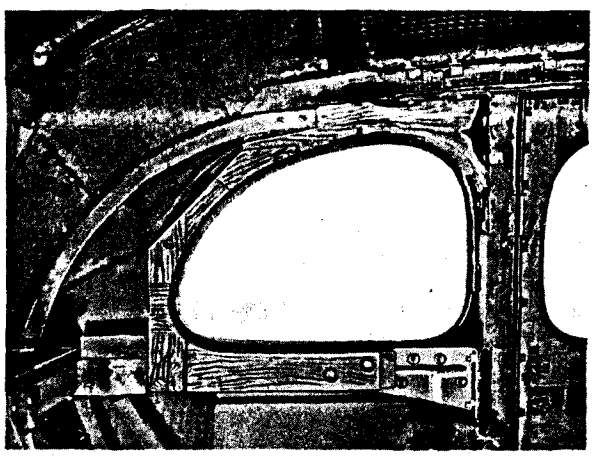


Illustration No. 21
Upper Rear Quarter (Interior View).

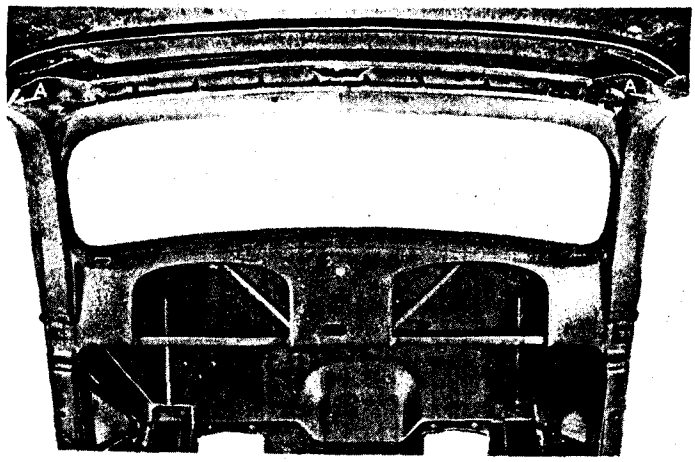


Illustration No. 24
Interior Front Section of Roof.

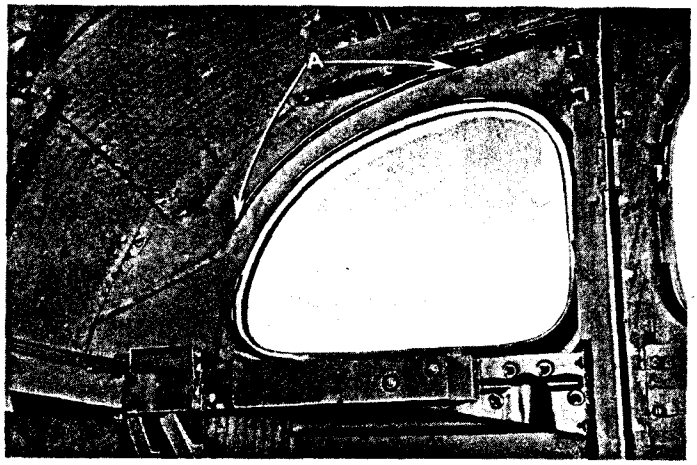


Illustration No. 22
Upper Rear Quarter (Interior View) Less Wood.

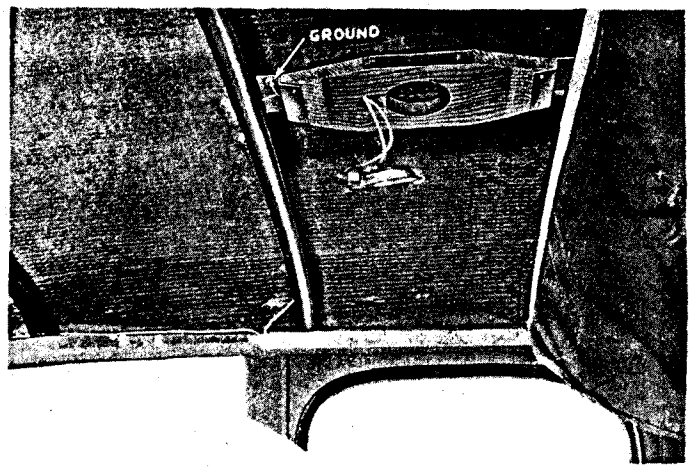


Illustration No. 25
Dome Lamp Block and Dome Lamp Wiring.

DOME LAMP WIRING

The Hot Wire for the Dome Lamp follows back along the Right Side of the Roof Panel and down the Body Center Pillar to the Switch and then up again to No. 2 Roof Bow and along this Roof Bow to the Dome Lamp; from the Dome Lamp it runs to a screw in the Dome Lamp Block Support Bracket to which it is attached forming the Ground through the metal Bows. *(See Illustration No. 25.)*

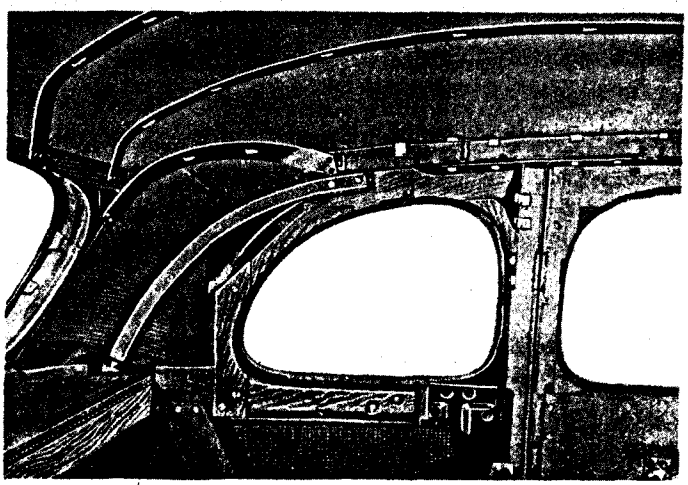


Illustration No. 23
Rear Roof Interior Showing Position of Headlining Rear Supports.

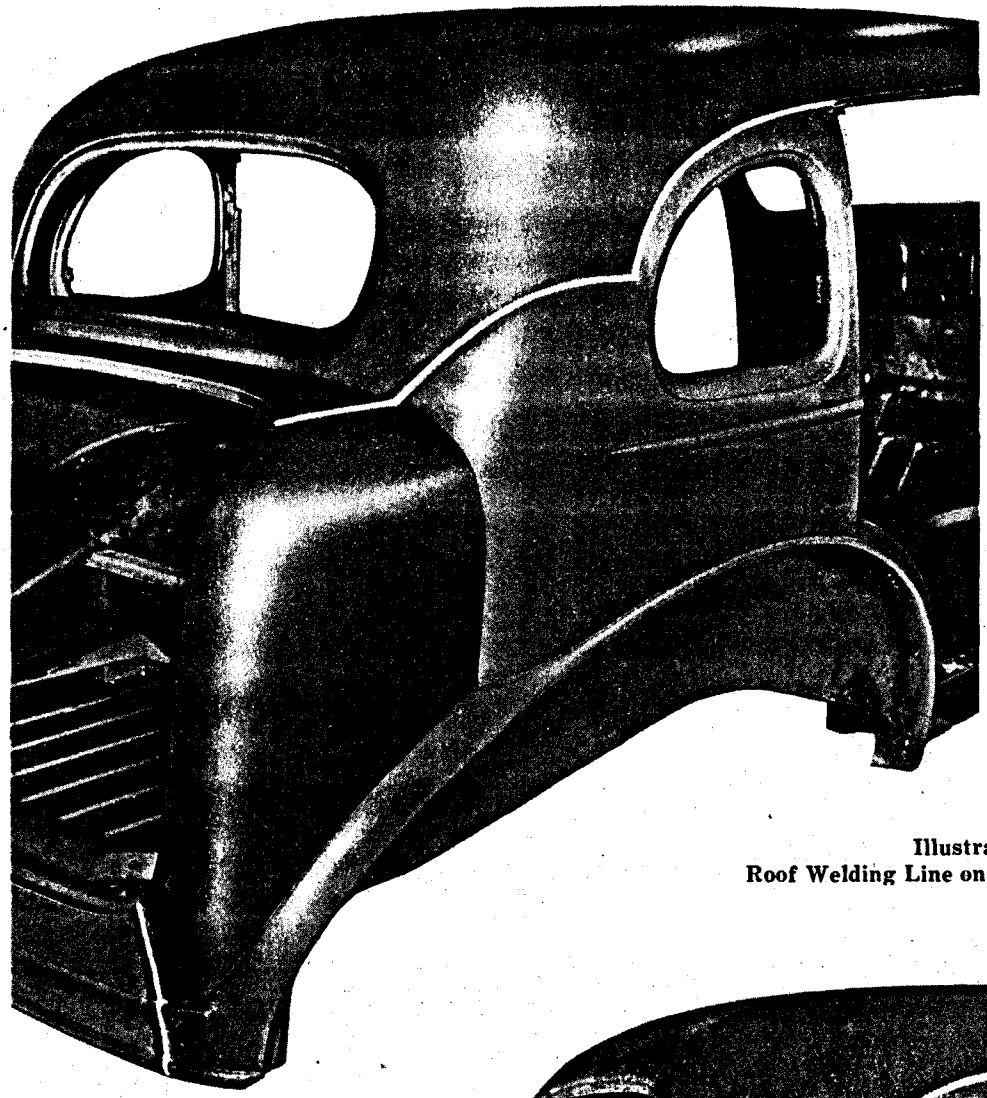


Illustration No. 26
Roof Welding Line on a Chevrolet Touring Sedan.

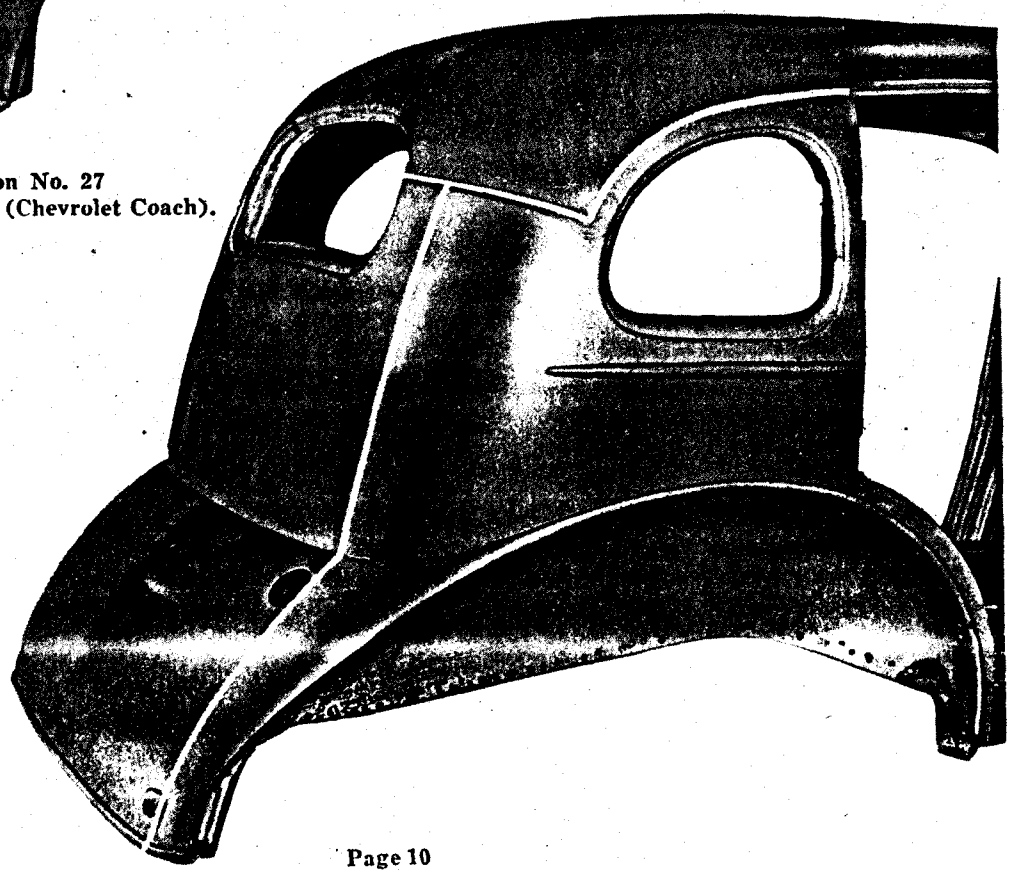


Illustration No. 27
Roof Welding Line (Chevrolet Coach).

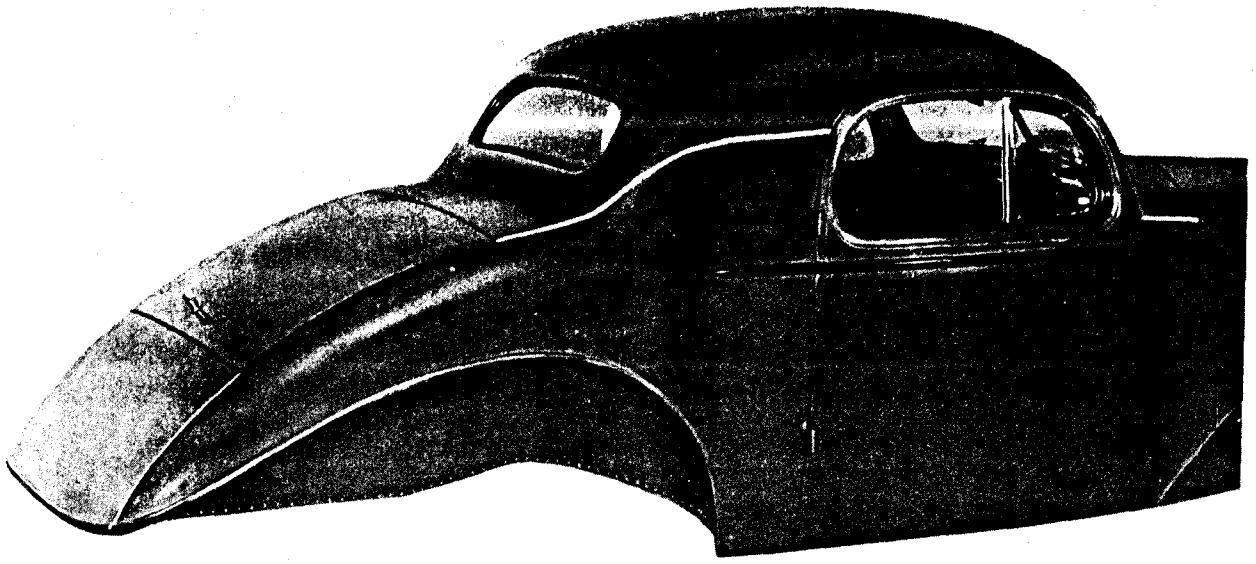


Illustration No. 28
Welding Line of a Business Coupe (Pontiac, Oldsmobile, La Salle).

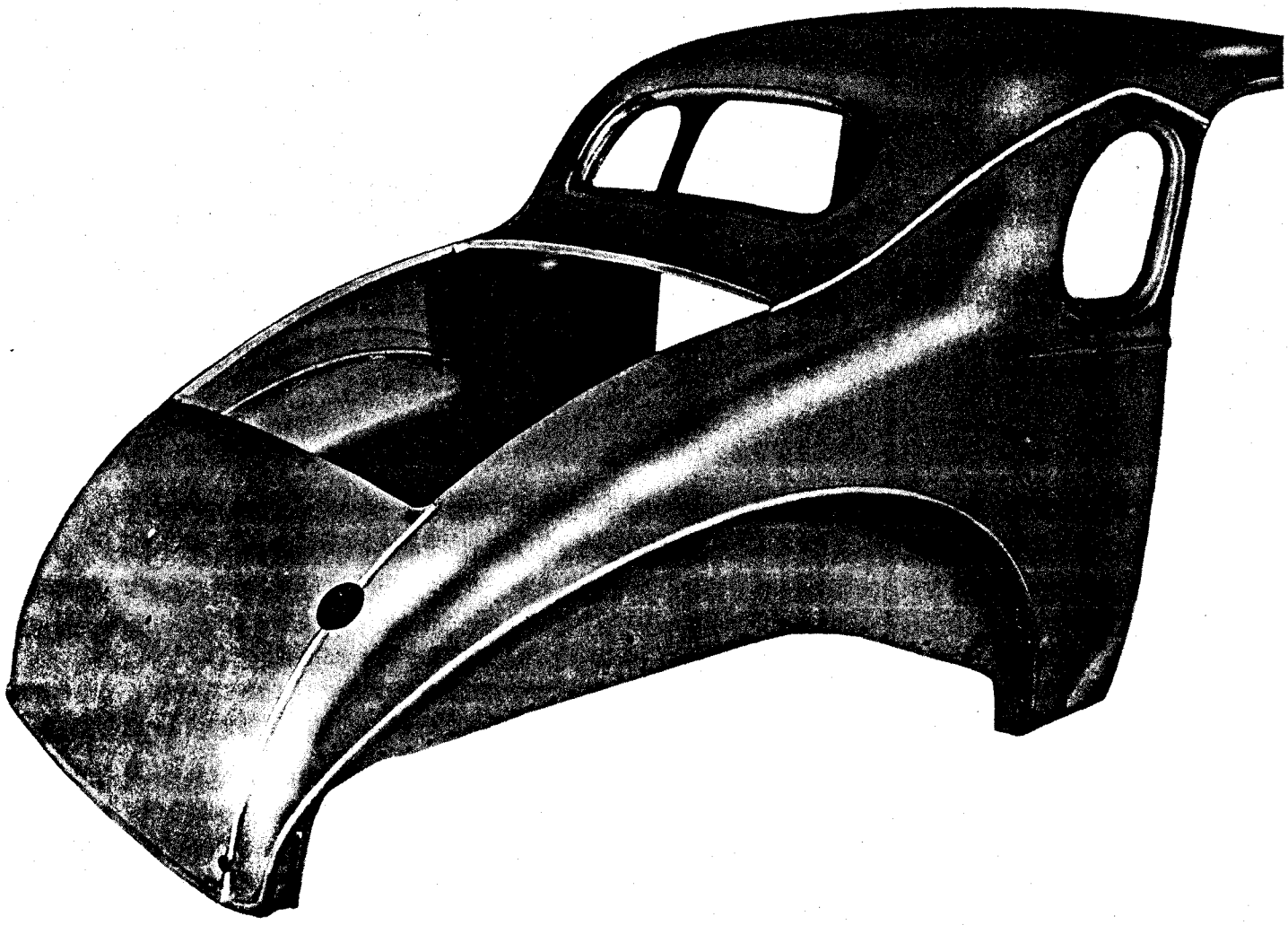


Illustration No. 29
Welding Lines of a Chevrolet Coupe.

FLOOR CONSTRUCTION
(La Salle, Oldsmobile, Pontiac)

The Floor Construction of the 1935 Fisher Turret Top Bodies as built for assembly on the Pontiac, Oldsmobile and La Salle cars, is different in many respects from the Floor Construction of Bodies that were built for former Models of these cars.

This forms the frame of the front section of the Floor Assembly. To this the Cowl and Dash Panel of the Front End Assembly, the Pillars, Rocker Panels and Floor Pans are attached. The Floor Pans are screwed to the Cross Sills and Main Sills and are set in compound to seal the body against entrance of dust, water, and air. They are insulated with matting and compound for deadening sound. Matting provides heat insulation.

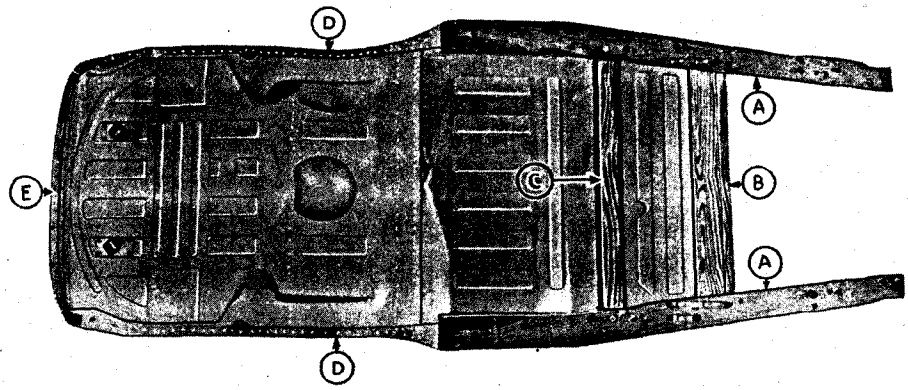


Illustration No. 30
Under View of Floor Construction.

Prior to 1935, Fisher Bodies were produced with Wood Roof Bows, Wood Floor Boards, etc. This year, however, with the advent of the 1935 Turret Top, not only more metal and less wood is used in the Upper Body Structure, but also in the Under Body Framing as well. Refer to Illustration No. 30 (Under-Body View.)

The rear section of the Floor Assembly is composed of six main parts:

Kickup Sill, Right and Left. See D.
Rear Floor Pan. See G.
Rear Seat Pan. See H.
Spare Tire Retainer. See J.
Rear End Sill. See E.

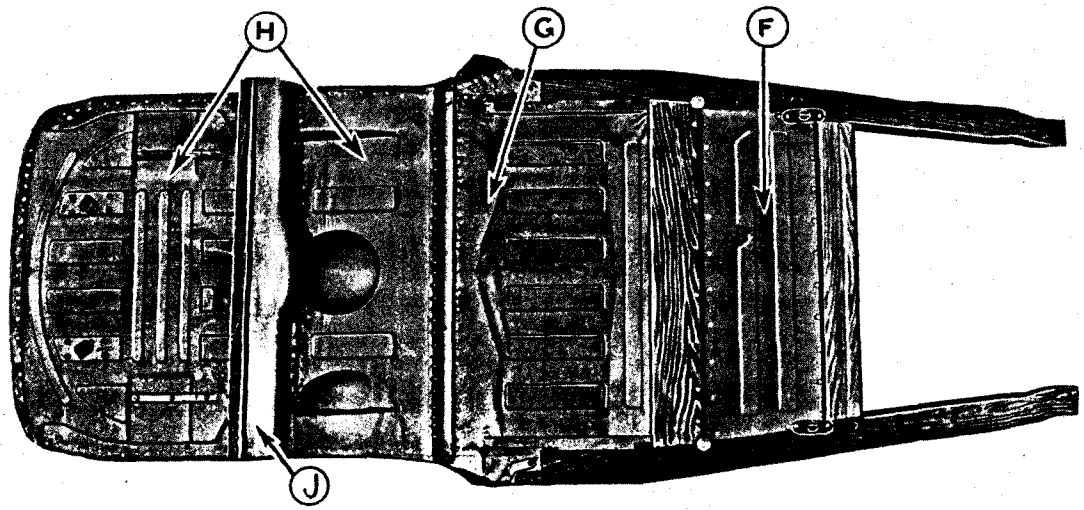


Illustration No. 31
Upper View of Floor Construction.

The Main Sills and the Cross Sills are the only wood members in this Floor Sub-Assembly. The rear section of the Floor is made up entirely of steel stampings.

The Right and Left Main Sills "A" are joined together by the Wood Cross Sills "B" and "C" by mortise and tenon joints set in compound and held with wood screws.

These steel stampings are all spotwelded together into one unit. This rear section is then attached to the front section of the Floor Assembly with screws and bolts; it is also reinforced by being spotwelded to the outer panels and Pillar Braces.

The Steel Kickup and Rear End Sill are used as a Foundation to which the Body Outer Panels are spotwelded when the

Floor Assembly is formed into the Body Shell. The Rear Body Hinge Pillar has a metal brace screwed to it at the bottom. This Pillar to Sill Brace is attached with bolts and screws to the Body Main Sills but is spotwelded to the Kickup Sill and Floor Pans. *(See Illustration No. 32 at A.)*. This is an important Brace binding many parts together and it therefore

All Floor Pans are impressed with corrugations that serve to brace and stiffen the Pans.

These impressed sections are later filled with Sound Silencing Board or Matting which is cemented to the Floor Pans in these impressions.

Compound and soft rubber Fillers are used to seal the joints

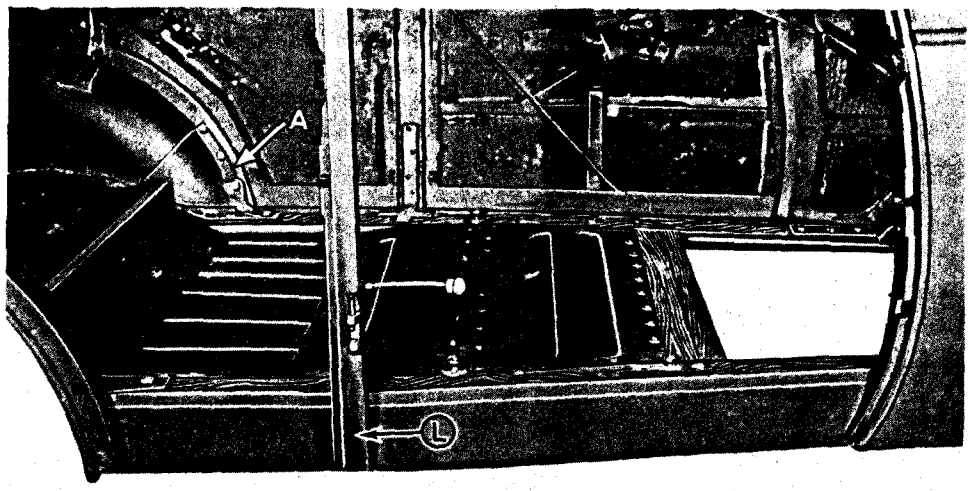


Illustration No. 32
Center View of Floor Pan and Sill Construction.

should be kept rigidly tight and solid at all times.

The Body Center Pillar is attached at the Floor by means of a steel brace screwed to the Pillar and to the Body Main Sill. The Pillar extends down below the Sill and has a bolt located under the Pillar Cover *(See Illustration No. 32 at L)* that projects through the Sill Cover Panel and has a metal plate

where the Body Panels, Floor Pans and Body Sills are attached together. This is to prevent dust and air leaks. Either F.S. 1040 or 1039 compound may be used for sealing or cementing these Body Parts.

In most 1935 Body Styles the Rear Floor Carpet is cemented and fastened to the Floor and Sills which further helps to

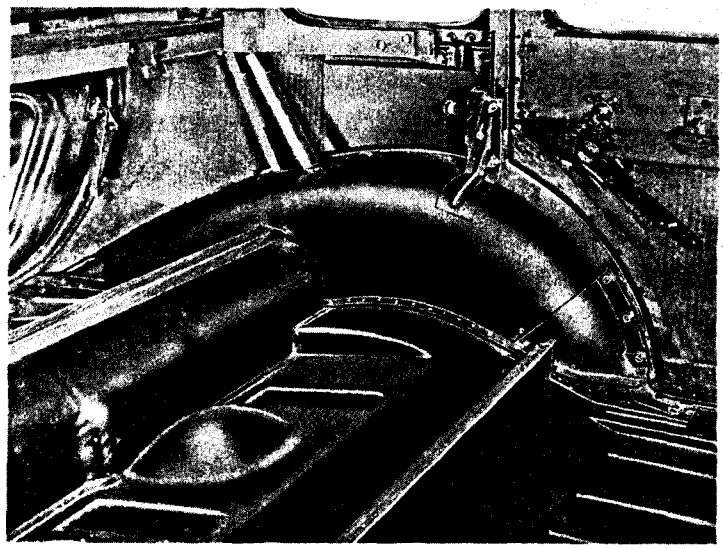


Illustration No. 33
Close Up of Rear Seat Pan and Seat Riser.

and nut that binds the parts together, acting as a stiffener or bracer for the Panel.

At the Front Body Pillar the Main Sill joins the Front End Frame Assembly by having the Front End Frame Side Brace (which is part of the Front Body Pillar) bolted and screwed to the Main Sill. *(See Illustration No. 9 at C.)*

sound-silence as well as dust-seal the Floor joints. These fastenings will have to be loosened to roll back the edges of the Carpet if the Body Bolts are to be adjusted for Body Alignment. They should be re-fastened down again when work is completed.

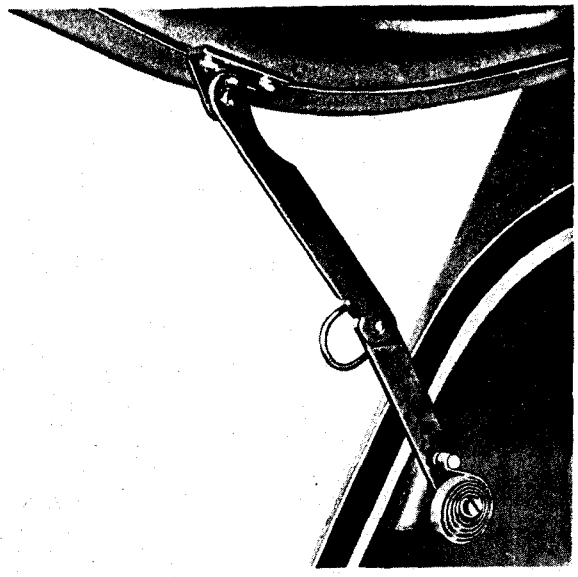


Illustration No. 34
Early Type Rear Compartment Trunk Lid Support.

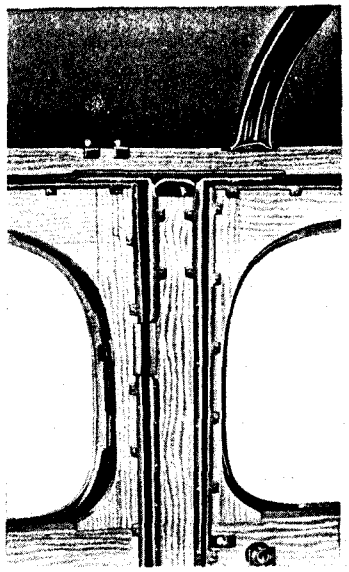


Illustration No. 37
Center Body Pillar to Roof Rail Brace.

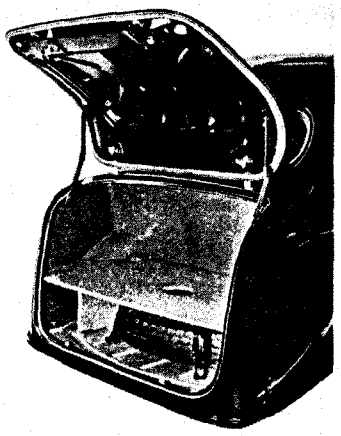


Illustration No. 35
Trunk Opening, Showing Floor Construction, Luggage Shelf, and Spare Tire Retainer.

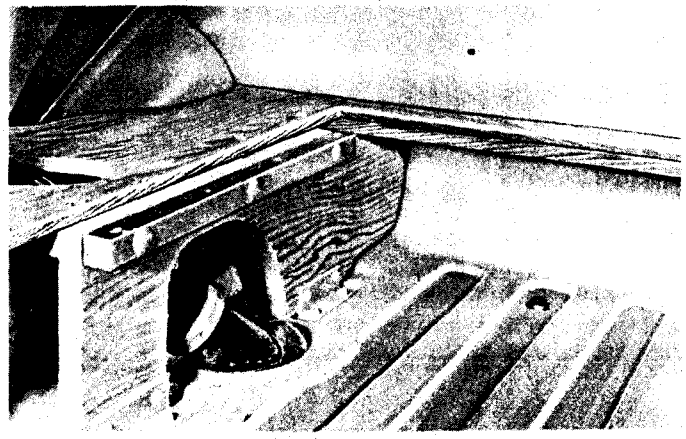


Illustration No. 38
Trunk Floor Pan Construction, (Chevrolet) Showing Luggage Shelf Board Disassembled.

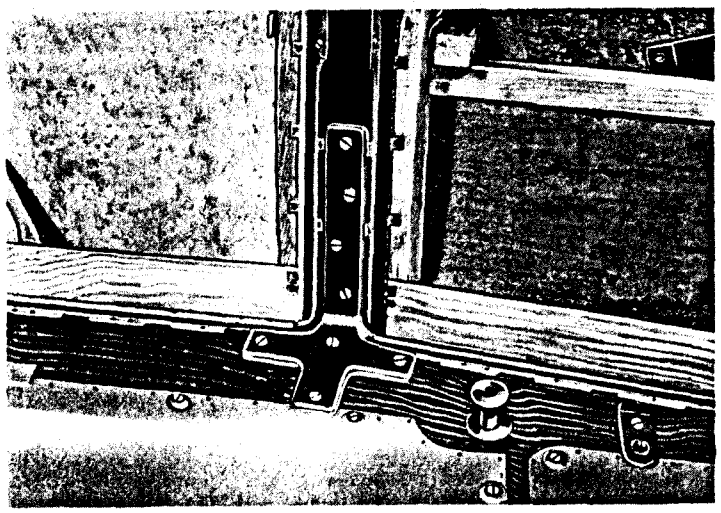


Illustration No. 36
Close Up of Center Body Pillar Brace and Sill.

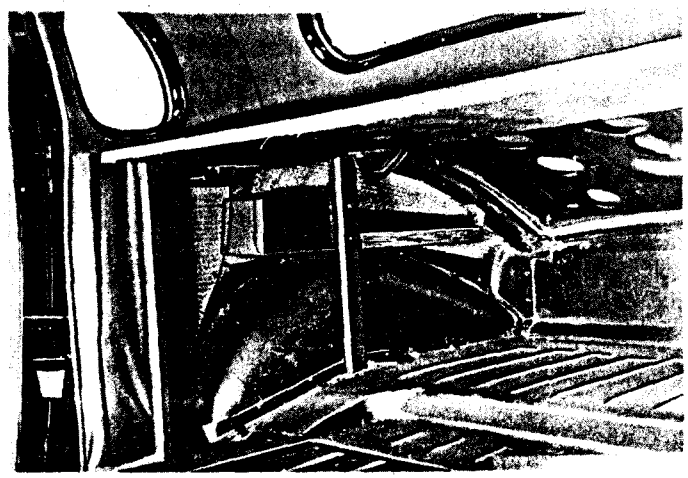


Illustration No. 39
Coupe Rear Floor Pan Construction.

BACK WINDOW FRAME AND GUTTER ASSEMBLY

The Back Window Frame and Gutter Assembly consists of the Back Window Frame, the Parcel Shelf Board, and the Rear Compartment Gutter and Hinges. The Back Window Frame acts as a Stiffener and Sound Deadener for the Back Window Opening in the Turret Roof Panel and is held in position by nailing to the Window Opening Flanges of this Panel. The Back Window Frame, at its Lower Bar is attached to the Rear Compartment Lid Hinge Brackets with bolts *(See Illustration No. 40 at A)*, while the Upper Bar of this frame acts as an anchorage for the Headlining Rear Metal Supports which are held in place with screws. *(See Illustration No. 28.)*

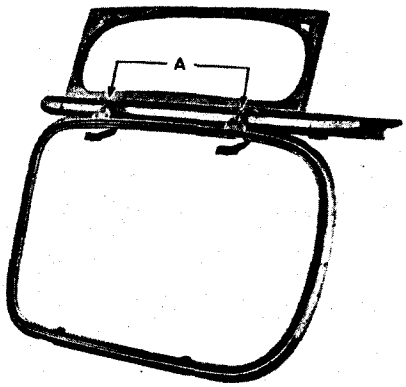


Illustration No. 40
Back Window Frame Assembly Showing Compartment Gutter and Compartment Lid Hinges.

The Parcel Shelf Board is bolted at each end to the top side of the Rear Quarter Belt Bar.

In some style Bodies the front edge of this Board is equipped with Metal Hangers on which the Rear Seat Back Cushion is suspended. In all later Style Bodies the Hangers were not used. Three wood screws coming through from the Rear Compartment hold the Seat Back Cushion Frame to the Parcel Shelf Board.

The Brackets of the Rear Compartment Lid Hinges are bolted to the under side of this Board.

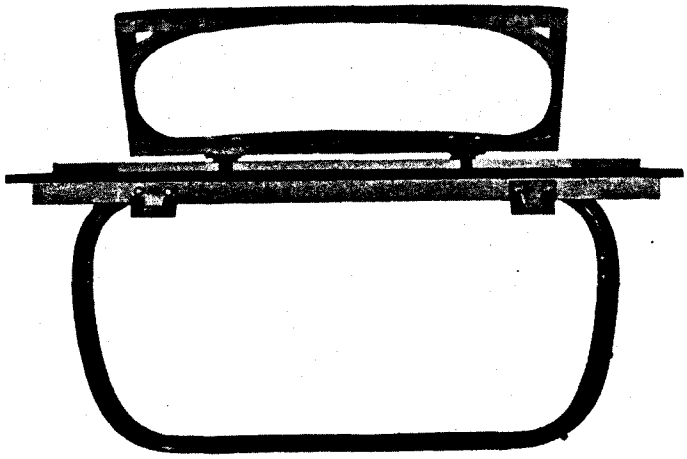


Illustration No. 41
Reverse View of Back Window Frame Assembly Showing Rear Seat Back Hangers.

The Rear Compartment Gutter shown in Illustrations No. 40 and 41 is a heavy steel stamping shaped so as to form the framing of the opening for the Rear Compartment. It is spotwelded to the Body Panels at the top, bottom and sides of the Rear Compartment Opening. The Compartment Lid Hinges are riveted to this Gutter Assembly and partly support both the Parcel Shelf Board and the Back Window Frame. The extreme rear edge of the Turret Roof Panel is flanged into the groove of this Gutter Assembly and is held securely by Spot Welding. The Lock Strikers are welded to this Gutter at the bottom.

The Back Construction has had a decided change in 1935 Styles.

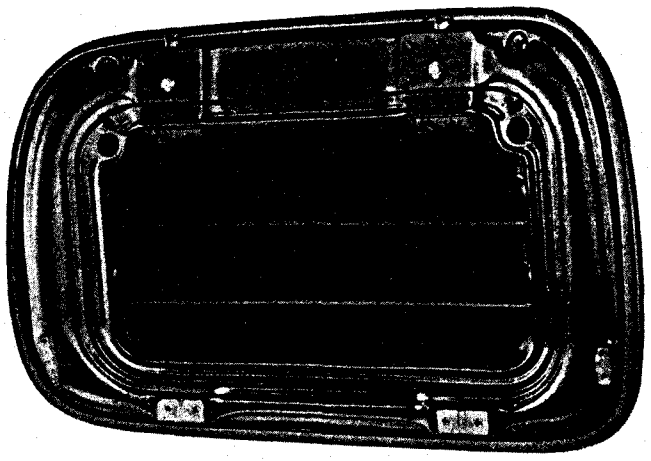


Illustration No. 42
Inside View of Rear Compartment Lid Early Style.

On the Pontiac, Olds and La Salle Bodies the Roof Panel covers the surface down to the Rear Compartment and Trunk Openings, thus eliminating the Back Panel that had been used on the conventional type Body. (The Chevrolet Coach and Sedan—Regular Styles have a Back Panel that extends from the Rear Window Opening down to the Rear End Floor Assembly.) *(See Illustration No. 27.)*

The Trunk Lid and Rear Compartment Lid are constructed of Outer and Inner Panels, both of which are spotwelded together all around the edge forming one unit. A metal Retainer is spotwelded to this assembly around the edge into which the Rubber Weatherstrip is cemented.

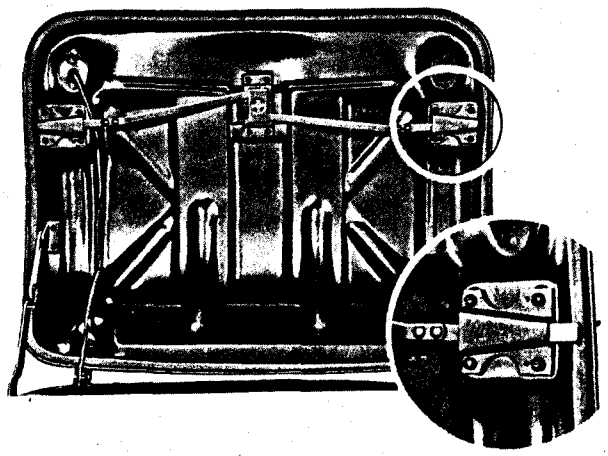


Illustration No. 43
Trunk Lid Showing Eccentric Gate Lock, (1935 Styles).

There were two types of Compartment Lids used in 1935, the early one with two Locks and Locking Handles and the later type with only one Locking Handle. The later type single Lock actuates two Lock Bolts by remote control. The bolts engage under the Gutter at both sides of the Gutter Opening.

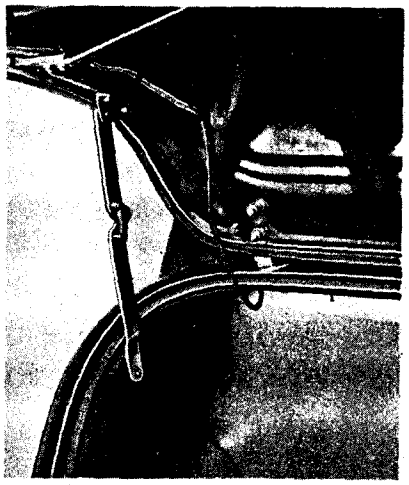


Illustration No. 44
Late Type Rear Compartment or Trunk Lid Support.

The eccentric Gate Lock on the Trunk and Compartment Lid shown in Illustration No. 43 is a manually controlled Lock. Service men and car owners are cautioned not to slam the Lid shut when the Lock Bolt (shown in the same Illustration) is in an extended position.

If this were to be done repeatedly the Drain Gutter on the Trunk or Compartment will be bent out of shape and the Lock Bolt itself may be rendered inoperative.

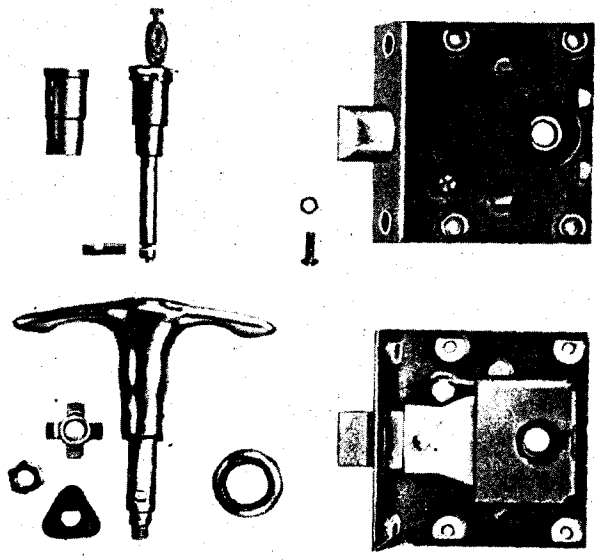


Illustration No. 45
Component Parts of the Rear Compartment Lid Lock.

COUPE DECK

The Steel Shell of the Coupe Deck is composed of the two Rear Quarter Side Panels, the Rear End Panel and the rear portion of the Roof Panel which are all welded together into one unit. *(See Illustration No. 28.)*

The framework of the Deck Opening is formed by the Deck Side Rails and the Upper and Lower Deck Bars. These units are joined at right angles and are set (in compound) with screws, bolts and metal braces.

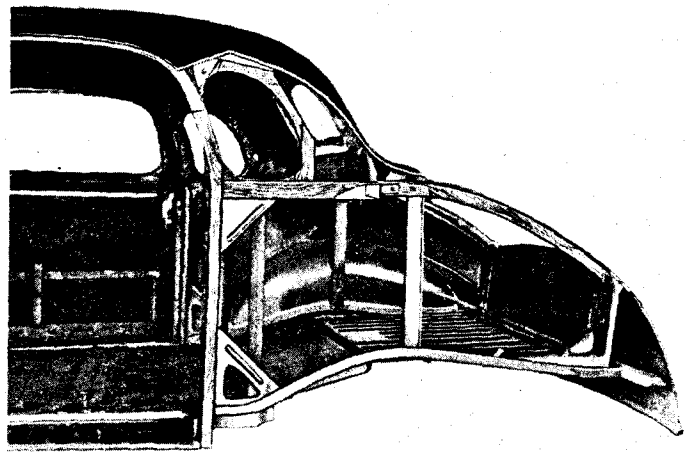


Illustration No. 46
Coupe Deck Framework.

The Lid of the Business Coupe has concealed Hinges anchored with bolts to the Deck Upper Bar.

A single Lock and Locking Handle are used on each of these Types.

The "Water Drain Gutter and Drain Pipe Assembly" is nailed to the wood framework surrounding the Deck Lid Opening.

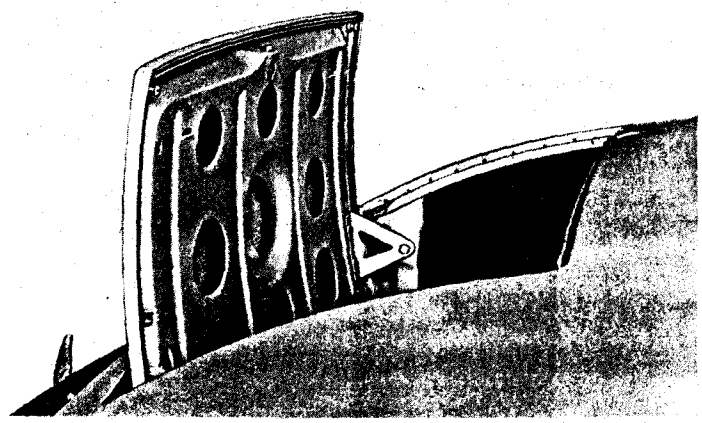


Illustration No. 47
Sport Coupe Deck Lid.

The Lid of the Sport Coupe (Rumble) is pivoted with bolts through the Hinge Plates that are attached with screws to the ends of the Deck Lid and to the *Deck Side Rail to Sill Braces*, which are anchored at the top to the Deck Side Rail and at the bottom to the Floor.

By removing the two Pivot Bolts, (Right and Left) the Lid may be removed by simply lifting out. These Pivot Bolts may also be used to adjust the Deck Lid as the cage nuts in the Side Rail to Sill Brace are adjustable.

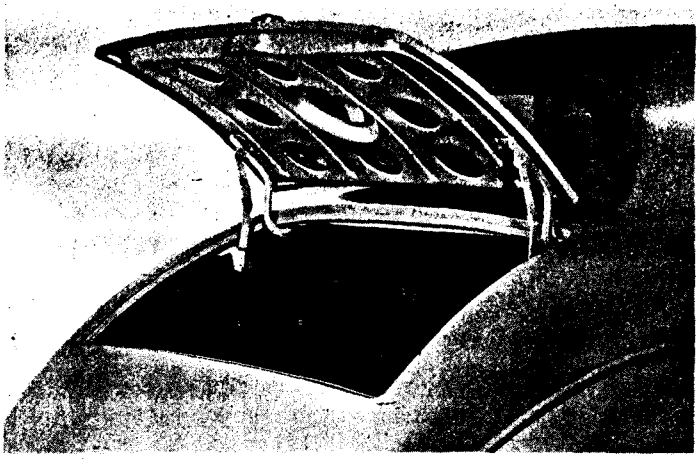


Illustration No. 48
Business Coupe Deck Lid.

REAR QUARTER PANEL

The Rear Quarter Panel covers one side of the Rear Quarter of the Body. It is stamped out of one piece of steel and serves the following purposes: It forms:

The Rear Quarter Window Opening.
The Housing of Rear Wheel.
The Anchorage for Rear Fender.
The Right or Left Side of Luggage or Trunk Compartment.

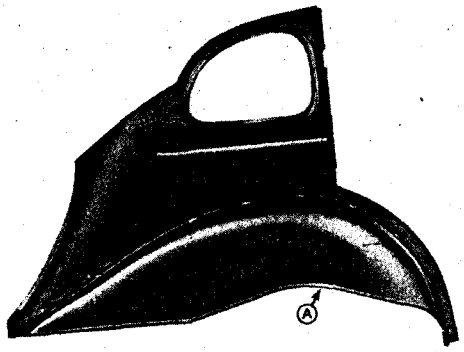


Illustration No. 49
Interior View of Rear Quarter Panel, Showing Flange at "A" For Welding to Steel Kickup and Rear End Sill.

The Rear Quarter Panel is spotwelded to the Roof Panel from the Door Opening to the rear end of Roof Drip Molding and a Torch Weld is used from the rear end of this Drip Molding to the Rear Compartment or Trunk Opening upper corner. Another Torch Weld is used at the Lower corners of the Opening, joining the Rear Quarter Panel and the Rear End Panel.

At the Floor the Rear Quarter Panel is spotwelded to the Kickup Sill from the Door opening to the Rear End Sill. On the Sedans and Coaches it is also spotwelded to the Rear Compartment or Trunk Gutter. It is nailed to the Body Hinge Pillar and around the Rear Quarter Window Frame.

DOORS

With but few exceptions, the Doors are constructed similarly in 1934, 1935 and 1936 Bodies. One exception is that on the 1935 Turret Top Styles, the Front Doors are hinged to the Center Pillar instead of the Body Front Pillars.

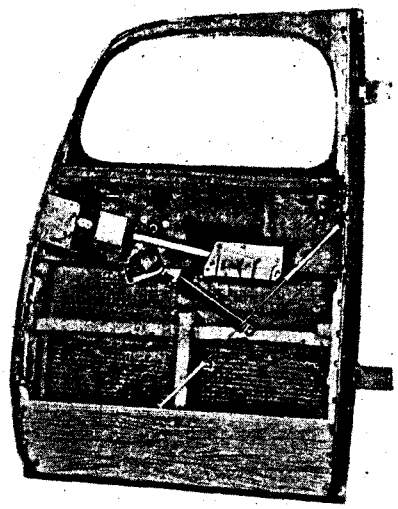
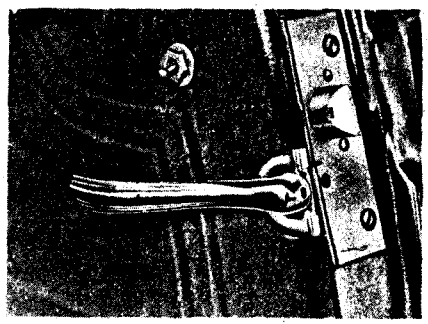


Illustration No. 50
Inside View of a Sedan Front Door.

The Door Weatherstrips of 1936 and the later type 1935 Bodies are attached to the Door Flange by being inserted into the Door Weatherstrip Metal Retainer which has been spotwelded to the Door Flange. The early type 1935 Bodies had these Weatherstrips cemented with F.S. 1039 either to the rabbeted edge of the Door Opening or on the Door Flange.

Either type is equally effective if properly applied. Part No. 4064663. *(See Illustration No. 55.)*



Later Type 1935
Handle.

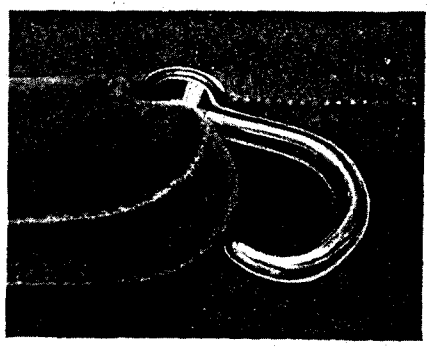


Illustration No. 51
Early Type 1935 Remote Control Handle.

On the early 1935 Bodies, a Remote Control Inside Door Handle was used that fitted into the Door Arm Assembly.

This was changed later and the Door Inside Handle was attached to the inside end of the Door Outside Handle Assembly which eliminated the Remote Control Link.

The Door Inside Locking Device is a Toggle type. The Toggle Bar is held in place by means of the Escutcheon Plate which is threaded into the Door Lock Plate.

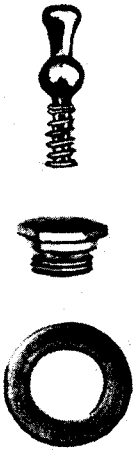


Illustration No. 52
Door Inside Locking Device Parts.

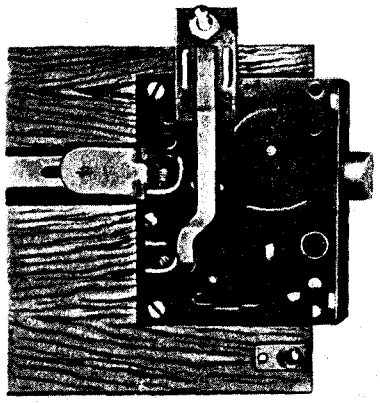


Illustration No. 53
Door Inside Locking Device Assembled.

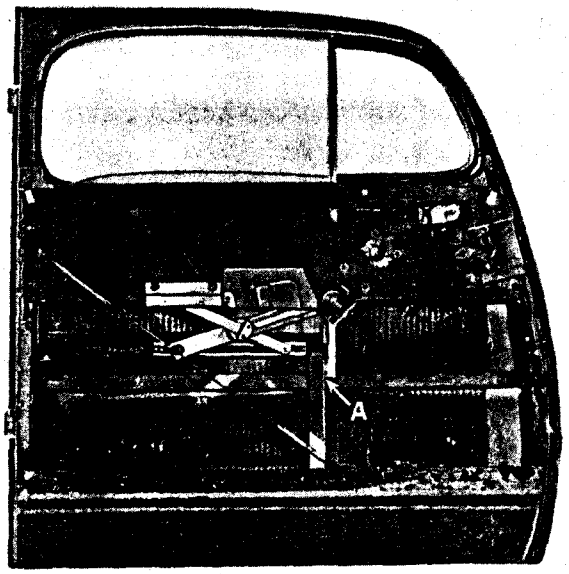


Illustration No. 54
Inside View of Door Regulator Board, Hardware Attached.

Door Frame Parts are not serviced. If a Door is damaged beyond repair of parts, a new "Door in the Prime" should be ordered.

Door Trim Parts, Hardware Parts, Glass and Regulator Board are serviced.

It has been found that the cost of repairing a badly damaged Door will more than equal the cost of a New Door. 'A New Door in the Prime" will be in true and proper alignment which cannot always be said of a repaired Door.

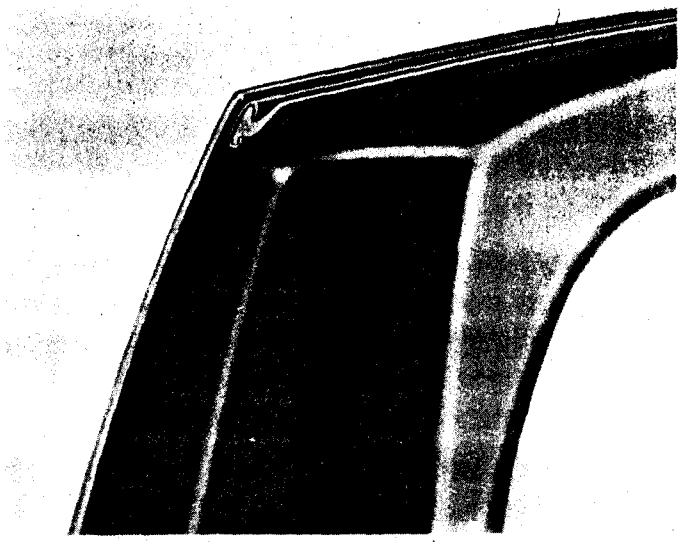


Illustration No. 55
Door Rubber Weatherstrip and Retainer.

DOOR VENTILATOR ASSEMBLY

The Independently Controlled Ventilation (I.C.V.) used on all Fisher Body Styles operates by forming a ventilation outward or inward as desired.

A Ventilator turned open a few inches will drain air out of the Body without causing a noticeable draft.

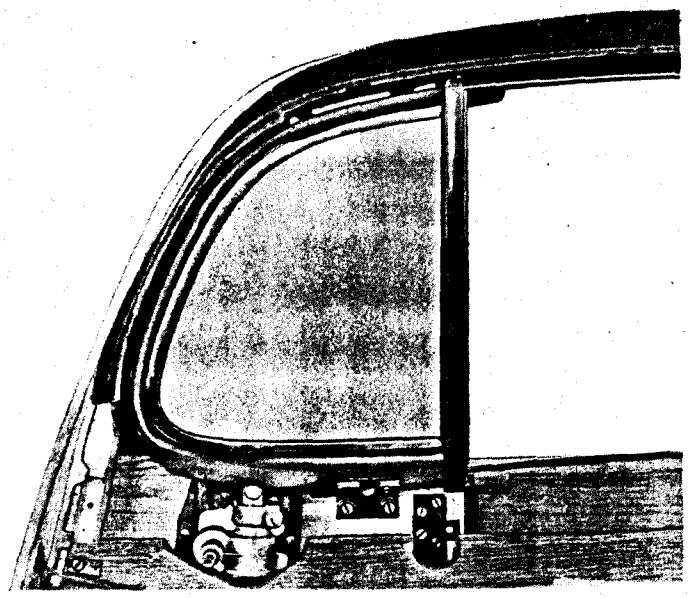


Illustration No. 56
Front Door Ventilator (Inside View).

This Ventilator is controlled by a turn of the Handle and may be turned to supply any desired amount of Ventilation.

The Regulator is composed of a Worm Gear Assembly enclosed and sealed in a casing that is lubricated for indefinite use. Parts, such as Glass, Glass Channel, Weatherstrip and Regulator are serviced.

The Glass Channel Frame is pinioned at the top and bottom. The bottom Bearing is supplied with a tension device to take up any wear or looseness. *(See Illustration No. 58 at B.)*

This assembly is pinioned into a Retainer Frame and its Channel Rubber Weatherstrip that form-fits the Glass Channel tightly to prevent water leaks.

The Retainer is attached with screws to the Door Lock Pillar, Door Header and Door Belt Bar.

All 1935 Ventilator Glasses are Laminated Safety Plate.

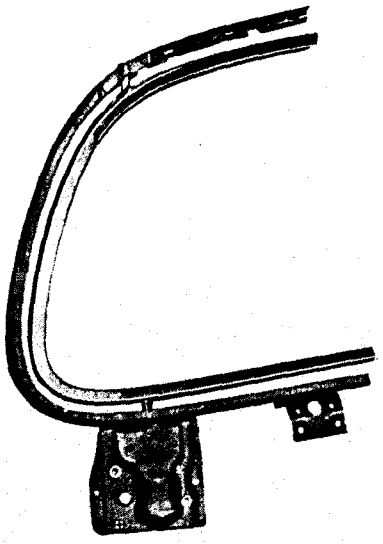


Illustration No. 57
Front Door Ventilator (Outside View).

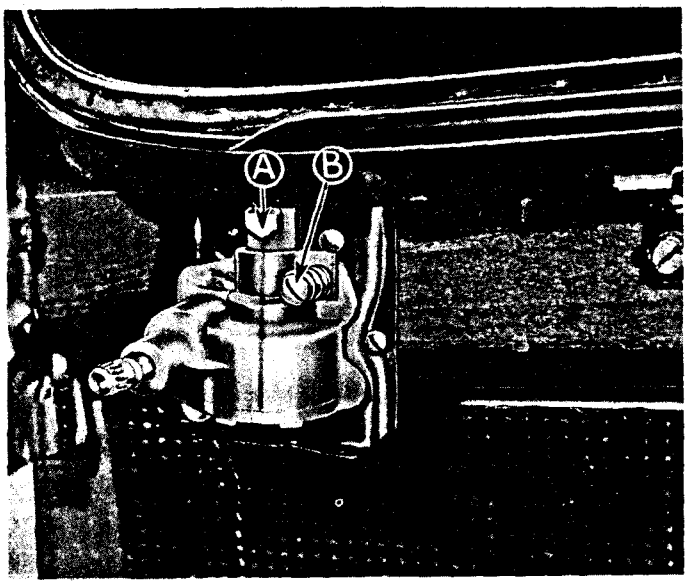


Illustration No. 58
Front Door Ventilator Regulator Mechanism.

DOOR OUTSIDE HANDLE

The Door Outside Handle is composed of a Diecast Handle cast to a steel shaft.

It is designed as a safety device against breaking and entering the car.

If the Handle is turned by force to break the Lock, the Handle will shear off a key in the shaft which allows the Handle to turn without damage to the Lock itself. This prevents entering the car and a possible theft of car contents.

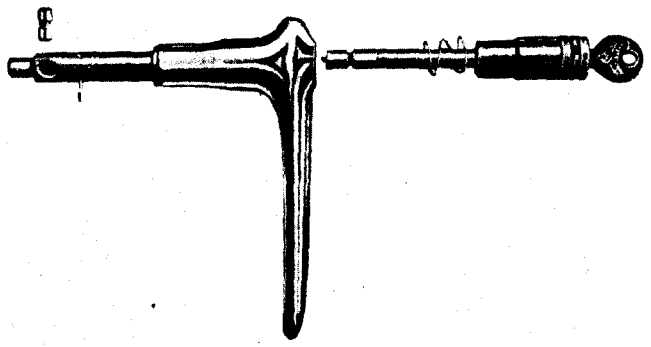


Illustration No. 59
Door Outside Locking Handle Assembly.

DOOR LOCK

The Door Lock is a unit made up of necessary working parts assembled into a two plate riveted case. Parts are not serviced.

The Lock Case has a Felt Oil Reservoir providing for lubrication of the Lock Bolt. *(See Illustration 61 at A.)*

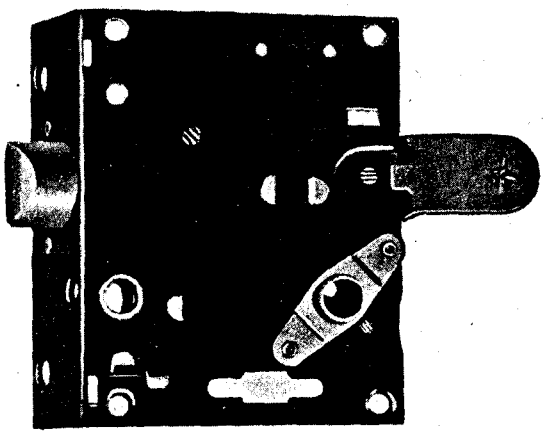


Illustration No. 60.
Outside View of Door Lock.

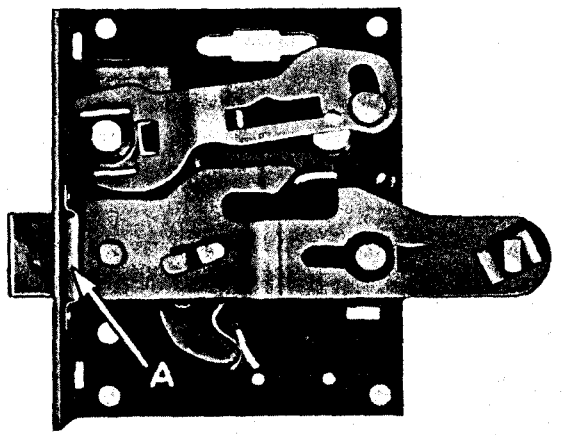


Illustration No. 61
Inside View of Door Lock.

DOOR HINGES

The Door Hinge is composed of two halves, (Male and Female), Pin and Bronze Bushings. The Female half is installed on the Body Pillar and its two lips are drilled for a drive fit for the Hinge Pin.

The Male half is installed on the Door and its single lip drilled large to admit a Bronze Bushing on the upper and lower side which are pressed in place then reamed to a slight clearance for the Hinge Pin. *(See Illustration No. 62.)*

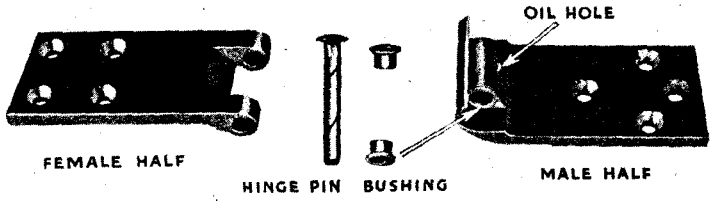


Illustration No. 62
Door Hinge Assembly.

HINGE PIN

The Hinge Pin is hardened and copper plated. It is also spiral grooved for oil. The proper place to oil a Hinge is through the Oil Hole provided in the Male Half. A Pressure Type Oil Can should be used when forcing oil in the Hinge Oil Hole. *(See Illustration No. 67.)*

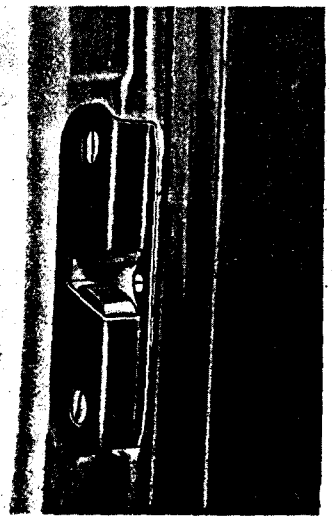


Illustration No. 63
Door Dovetail Bumper Assembly.

THE DOOR DOVETAIL BUMPER

The Door Dovetail Bumper Assembly is a unit the parts of which are not serviced separately.

It is composed of two Shoes, each of which is backed up with two rubber encased coiled springs. These are housed in a metal case which is clinched to a Cover Plate.

When the Door is closed the Wedgeplate is forced between the two Shoes and the springs are compressed. The Wedgeplate should enter between the Shoes centrally.

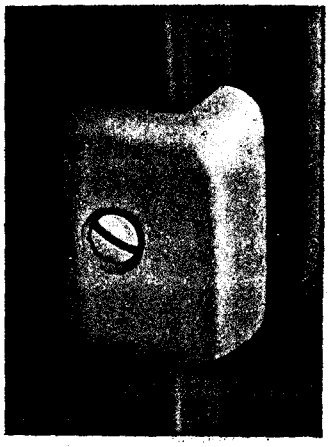


Illustration No. 64
Front Door Rubber Bumper Upper.

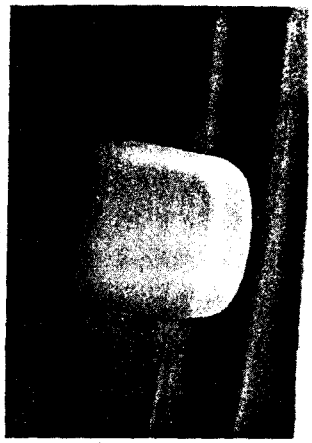


Illustration No. 65
Rear Door Rubber Bumper 1935.

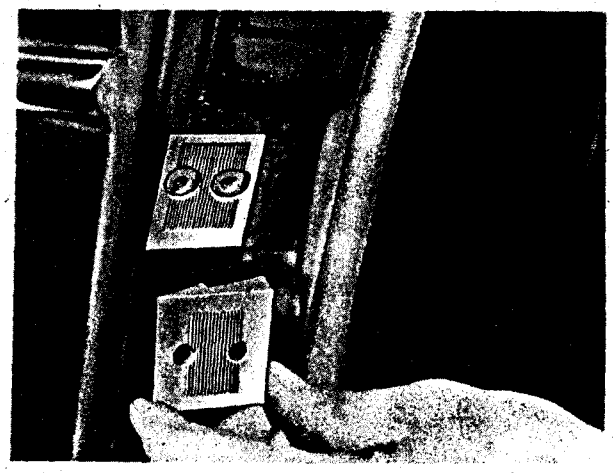


Illustration No. 66
Adjustable Striker Plate (Front Pillar) 1935.

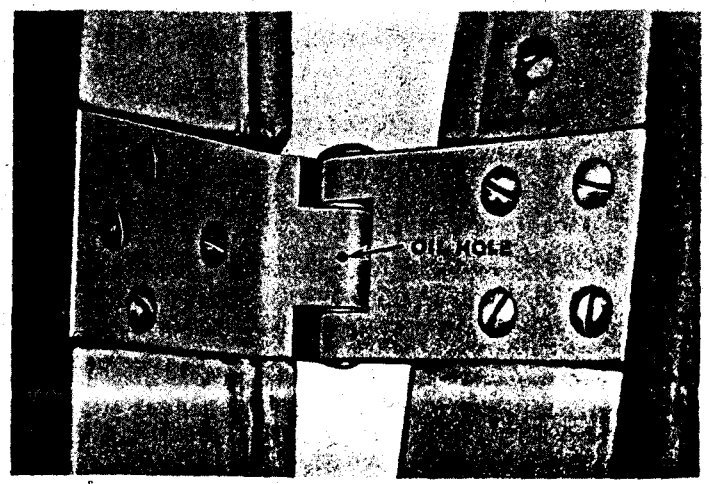


Illustration No. 67
View Showing Oil Hole in Hinge Assembly.

1935 REMOVAL AND REPLACEMENT

DOOR OUTSIDE LOCKING HANDLE

The Door Outside Handle, (Right) has a Locking Cylinder and Key. The Handle is a hollow shell into which the Cylinder and detachable Shaft is housed.

To remove the Cylinder, simply drive out the Pin, *(See Illustration No. 68)* and pull out the Cylinder with the Key.

The Cylinder is removed from its Shaft Assembly by sliding the Sleeve from the Cylinder down on the Shaft and disconnecting the Shaft from the Cylinder.

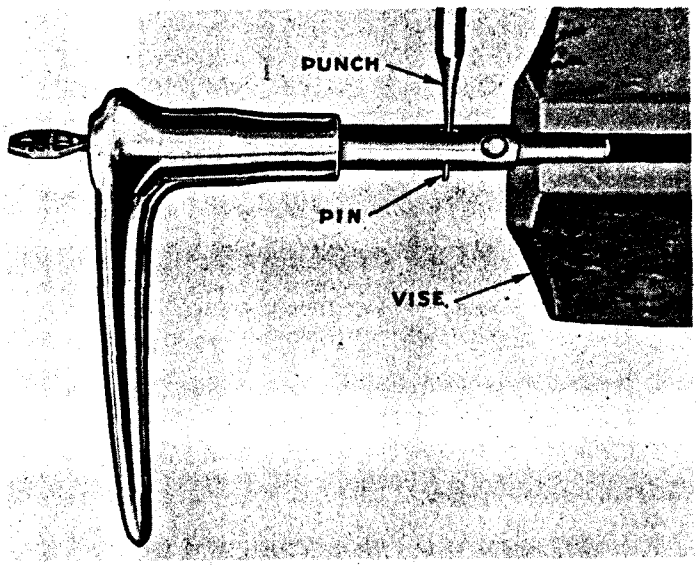


Illustration No. 68
Outside Door Handle Lock Cylinder Removal.

After reassembling the Cylinder to the Handle again, make sure the Retaining Pin is inserted and swaged to secure it to place.

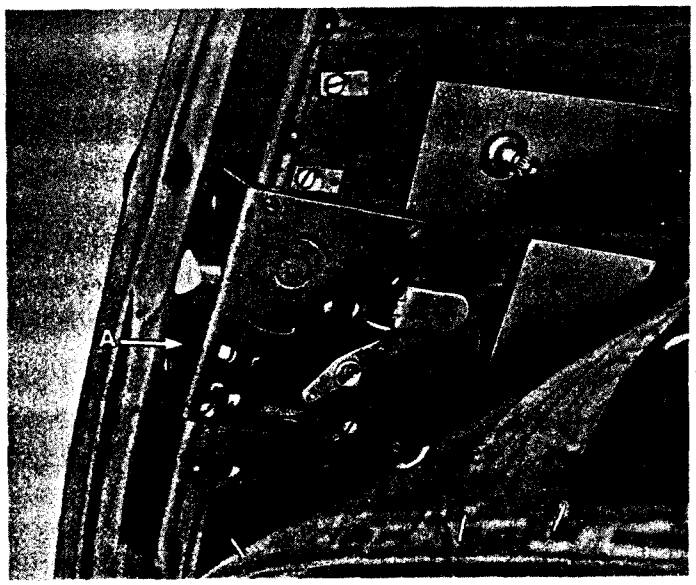


Illustration No. 69
Location of Outside Door Handle Retaining Screw.

To remove the Door Outside Handle, remove with a small screw driver the Retainer Screw to be seen through a hole in the face of the Door Lock. This screw when taken out will release the Handle to be pulled out of the Door.

Note: On the larger Bodies a Finishing Plate must be removed to expose this Retaining Screw. Illustration No. 59 shows the various parts of the Door Outside Locking Handle Assembly.

On the later type 1935 Bodies the Front Door Inside Pull to Handle was applied on the inside of the Door Outside Handle and retained by a small screw through the Inside Handle.

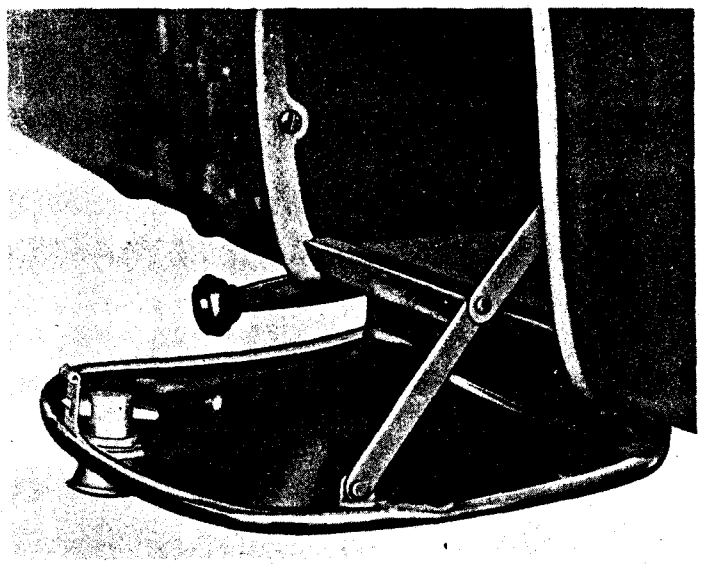


Illustration No. 70
1935 Glove Compartment Lid.

GLOVE COMPARTMENT

The Glove Compartment Box may be removed by taking out two screws at the top, one screw on each side and three at the bottom around the inside of the Glove Compartment Box opening. The Lid is removed by taking out one screw through the Support Bracket and the two screws in each of the Hinges.

Illustration No. 71
1935 Glove Compartment Lock Cylinder Removal.

GLOVE COMPARTMENT LOCKING DEVICE

The Lock and Knob Assembly used on the 1935 Lids *(See Illustration No. 71)* consists of a:

Knob
Lock Bolt and Tension Spring
Lock Cylinder and Key
Retainer Nut and Washer
Striker Plate
Friction Catch (On Instrument Panel).

1. To unlock—turn Key to left.

2. To remove Lock Cylinder—while Key is in unlocked position compress slender end of Lock Bolt against the Spring as shown in Illustration No. 71, turn Key to left and remove Cylinder with Key. The Lock Bolt and Spring may now be removed together.

3. To remove Knob—perform operation No. 1 and No. 2 and then remove Nut and Striker and remove Knob.

4. To replace Cylinder and Key—Insert Lock Bolt and Spring Assembly as in Illustration No. 71 and insert Key and Cylinder Assembly. Push in on the Key and turn to the right, to allow the Lock Bolt to snap into place.

The Lid is held in closed position by means of the Lock Striker snapping past the Friction Catch.

The Friction Catch Spring is attached to the metal flange above the Lid Opening with two rivets.

Two Rubber Bumpers on either side of the Friction Catch are for the purpose of exerting tension on Lid to eliminate chatter at the Lock.

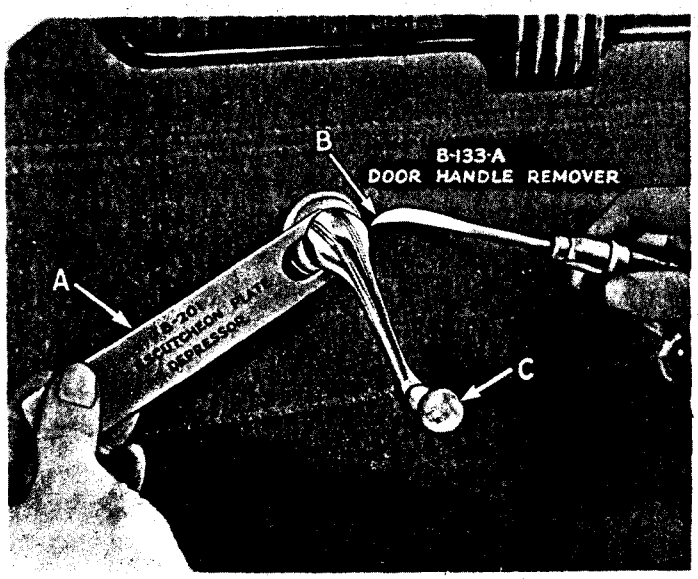


Illustration No. 72
Method of Removing Door Inside Handle.

DOOR INSIDE HANDLE

To remove Handle:

1. Insert tool between the Handle and Escutcheon Plate as in Illustration No. 72. Rotate tool until it is beneath Knob C.
2. Insert tip of Tool No. B-133 under one end of Retainer Spring and push out Spring.
3. Remove the Handle.

To install:

1. Replate the Escutcheon Plate.
2. Insert the Handle over the Spring Installing Tool and snap the Spring to position in Handle Slot. *(See Illustration No. 73.)*
3. Remove tool from Handle and place Handle on Regulator Shaft in the correct position and strike it a sharp light blow with a Rubber Mallet.

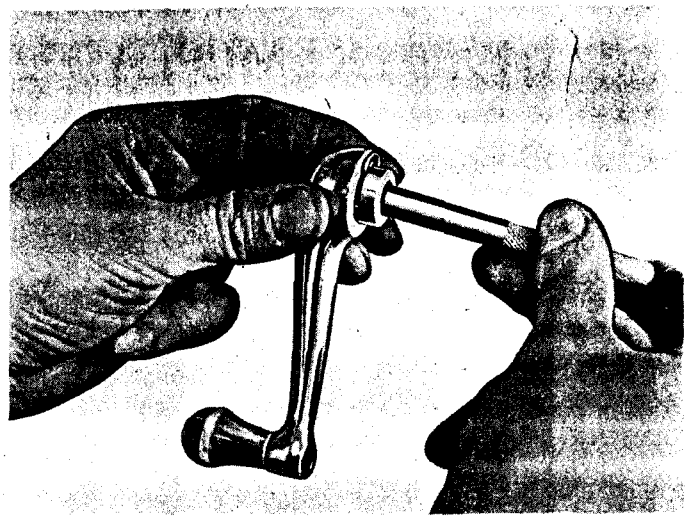


Illustration No. 73
Installing Door Inside Handle.

DOOR HINGE

To Remove the Door Hinge Assembly:

1. Remove Hinge Screws and Bolts.
2. Close the Door and remove Hinge.

To Remove a half Hinge:

1. Remove Hinge Pin.
2. Remove all Screws and Bolts in the Hinge half.
3. Separate and remove the Hinge half.

Tool No. B-170 Hinge Pin Remover should be used where Hinge Pin is difficult to remove. Ordinarily a Drift Punch and Hammer will suffice.

TO REMOVE DOOR CHECK LINK

Front Door:

1. Loosen the Front Door Trim Pad from the bottom to a point just above the Check Link.
2. Screw off the nut from threaded end of Link.
3. To remove Link from Center Pillar screw out the barrel nut from rear face of Pillar.

Rear Door:

1. Loosen Rear Quarter Trim Pad.
2. Screw off nut from Link.
3. To remove Link from Door loosen Door Trim Pad at bottom and unscrew the Link from the "T" nut in Door Pillar.

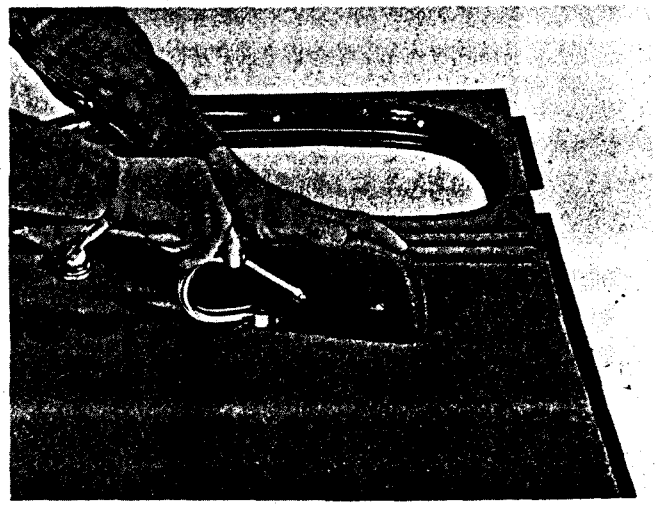


Illustration No. 74
Door Arm Rest Removal.

DOOR ARM REST

To Remove:

1. Remove two long Screws from underside of Arm Rest.
2. Lift Arm Rest from Bracket.

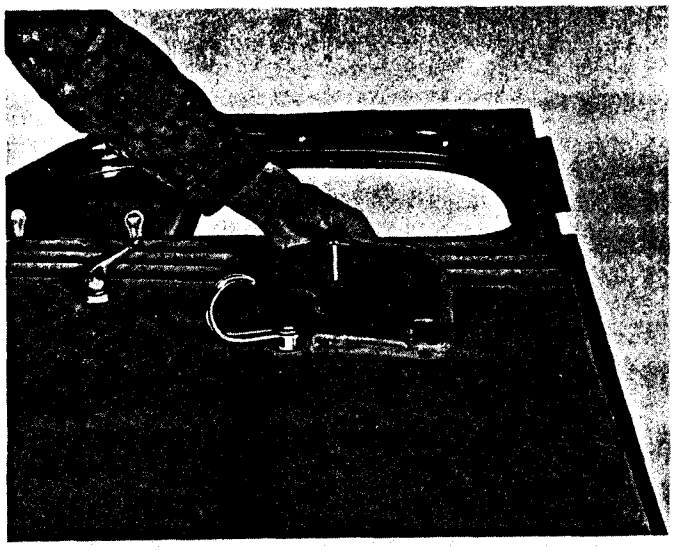


Illustration No. 75
Door Arm Rest Removal.

TO REMOVE FRONT DOOR GLASS

1. Remove Window Garnish Molding.
2. Remove Upper Glass Run Channel *(See Illustration No. 76 at A).*
3. Remove (2) Screws from Center Division Channel at Door Header.
4. Remove Door Ventilator Handle and Door Safety Locking Rod Handle.

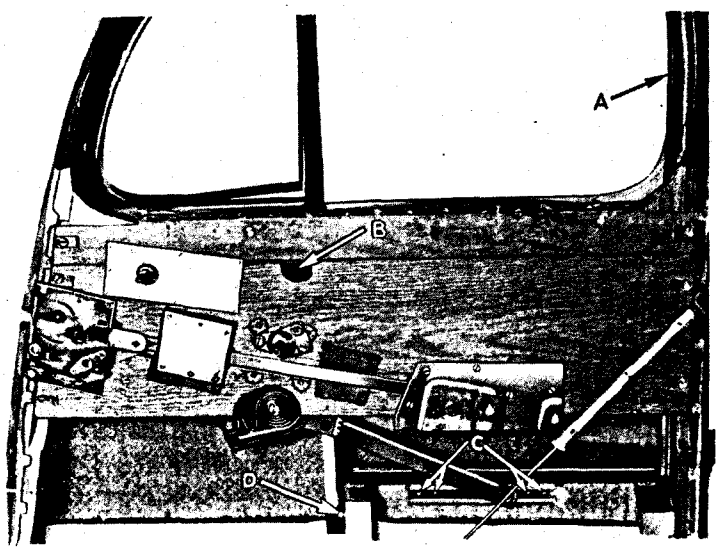
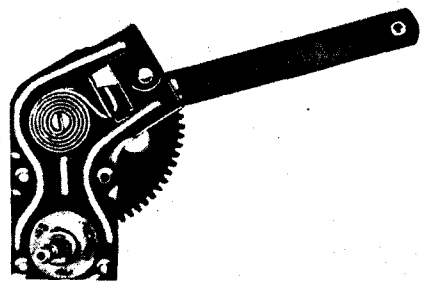


Illustration No. 76
Front Door Glass Removal.

5. Loosen the Door Trim Pad at Window Opening and remove the top section of the Regulator Board.
6. Remove (3) screws from Center Division Channel at "B."
7. Loosen the Lower Half of Door Trim Pad and remove (2) screws at lower end of Center Division Channel at "D."
8. Remove the two screws at each end of the Glass Sash Channel at "C."
9. Remove Glass from Window Opening.

TO REMOVE REAR DOOR GLASS

1. Remove the Garnish Molding.
2. Remove the Glass Run Channel Upper.
3. Remove the two Wood Corner Blocks.
4. Raise Glass, disconnect it from the Regulator Arm and remove from Door.



Front Door Window
Regulator (Sedan).

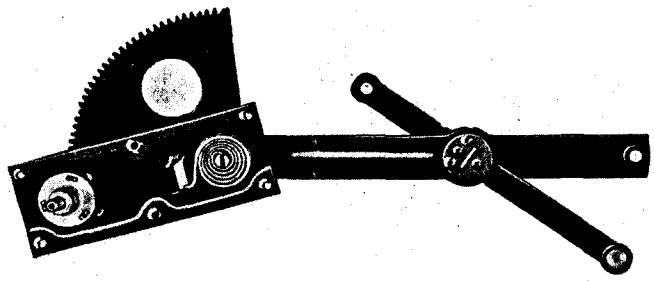


Illustration No. 77
Front Door Window
Regulator (Coach).

DOOR WINDOW REGULATOR

To Remove:

1. Remove Garnish Molding and Arm Rest.
2. Remove all Door Handles and the Safety Locking Rod Handle.
3. Loosen Door Trim Pad and remove it from Door.
4. Remove Sash Channel Cam Screws (2 screws in each end).
5. Remove Regulator Board.
6. Remove Regulator.

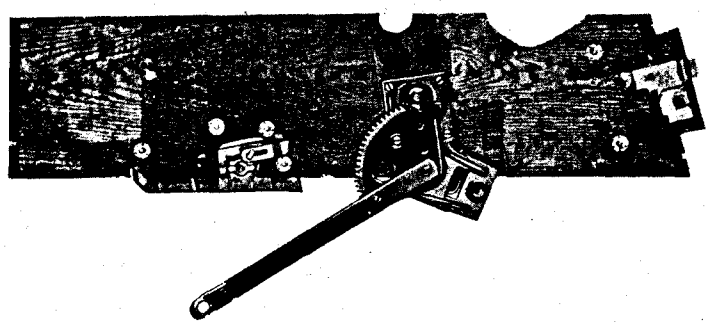


Illustration No. 78
Front Door Window Regulator Board and Mechanism.

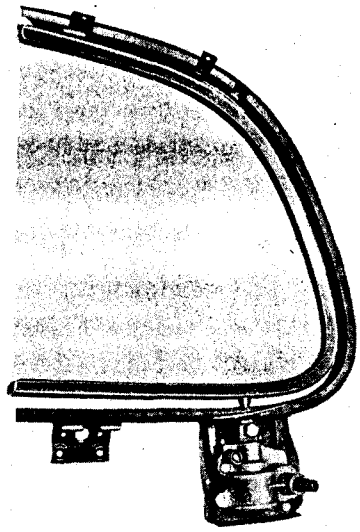


Illustration No. 79
Front Door Ventilator Assembly.

DOOR VENTILATOR ASSEMBLY

To Remove:

1. Remove Door Garnish Molding.
2. Remove Ventilator Regulator Handle.
3. Loosen Door Trim Pad at top.
4. Remove top section of Regulator Board.
5. Remove ten screws from Retainer and Regulator Base.
6. Remove the entire Assembly.

DOOR VENTILATOR REGULATOR

A new Door Ventilator Regulator may be replaced on the Assembly by removing the entire Assembly from the Door and cutting the two white metal lugs and two rivets in the Regulator Back Plate then by removing the "Hex" screw, remove the old Regulator.

Rivet the New Regulator to place and install in Door.

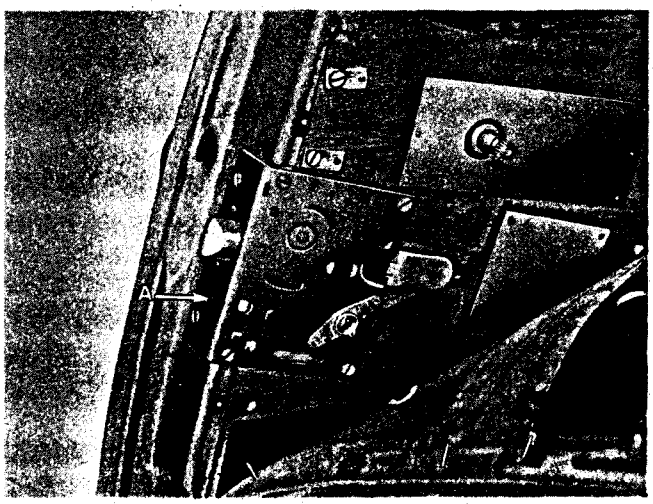


Illustration No. 80
Door Lock Removal.

FRONT DOOR LOCK

To Remove:

1. Remove the Garnish Molding.
2. Remove Inside Safety Lock Rod Handle. (Unscrew the Escutcheon Nut)
3. Remove the Door Outside Handle.
4. Remove the screws in Lock Face.
5. Loosen the Door Trim Pad near the Lock and remove the screws in the Lock Casing.
6. Remove Lock by disengaging it from the Remote Control Link.

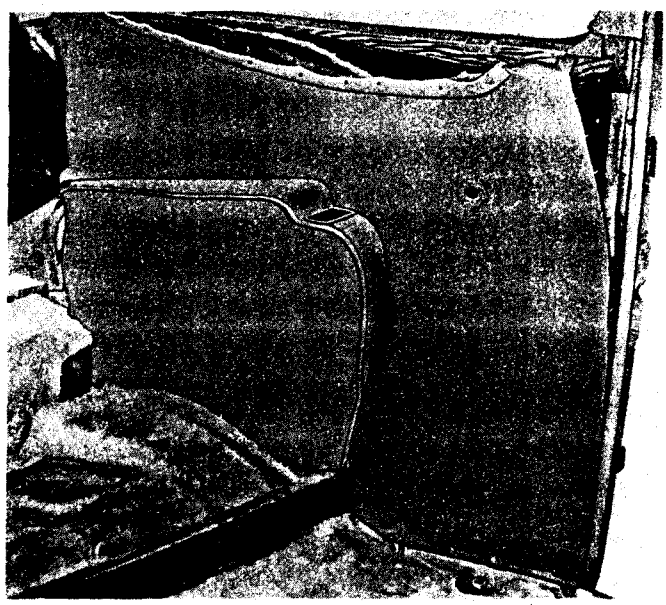


Illustration No. 81
Rear Quarter Window Regulator Board Removal.

REAR QUARTER REGULATOR BOARD

To Remove:

1. Remove Rear Seat Cushion.
2. Remove Rear Seat Back.
3. Remove Quarter Window Garnish Molding.
4. Remove Regulator Handle.
5. Draw the tacks on Trim Pad and its foundation Board along the Window Opening and down far enough to clear the Regulator Board.
6. Remove Regulator Board. (A Wood Screw going up from the outside under the Fender Anchors the Arm Rest to the Wheelhousing in some Style Bodies. Remove this screw.)

REAR QUARTER VENTILATOR ASSEMBLY (SEDAN)

To Remove:

1. Remove the Garnish Molding.
2. Remove the Regulator Handle.
3. Release the Lower Quarter Trim along Window Opening.
4. Remove Screws holding the Ventilator Assembly to the Window Framing.
5. Loosen the Assembly and Remove towards inside of car.

BACK WINDOW GLASS

To Remove:

1. Remove Garnish Molding.
2. Loosen Glass in Channel and remove Glass. On some Styles it is necessary to remove the Curtain.

REAR SEAT BACK

To Remove:

1. Remove Rear Seat Cushion.
2. Remove two screws at the Floor that hold the Seat Back Frame.
3. Through Rear Compartment or Trunk Opening, remove tacks holding the cardboard Baffle to the Rear Seat Back Frame, then remove three screws entering the top of Rear Seat Back.
4. Lift out the Seat Back.

ADJUSTABLE FRONT SEATS

To Remove:

1. Remove Front Seat Cushion on Models where not permanently set.
2. Remove bolts anchoring Seat Mechanism and Stop to Floor. *(See Illustration No. 82 at A.)*
3. Move Seat forward to disengage guides on underside of Seat Frame from those anchored to the Floor.

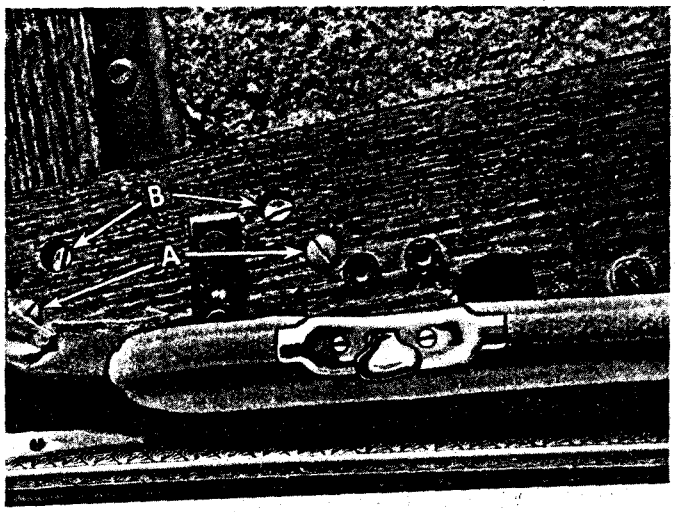


Illustration No. 82
Adjustable Front Seat Removal.

WINDSHIELD

Windshield Garnish Molding Removal

To remove a Windshield Garnish Molding:

1. Tape the Instrument Panel along the Garnish Molding.
2. Remove the Rear View Mirror.
3. Remove the twenty Molding Screws and Washers.

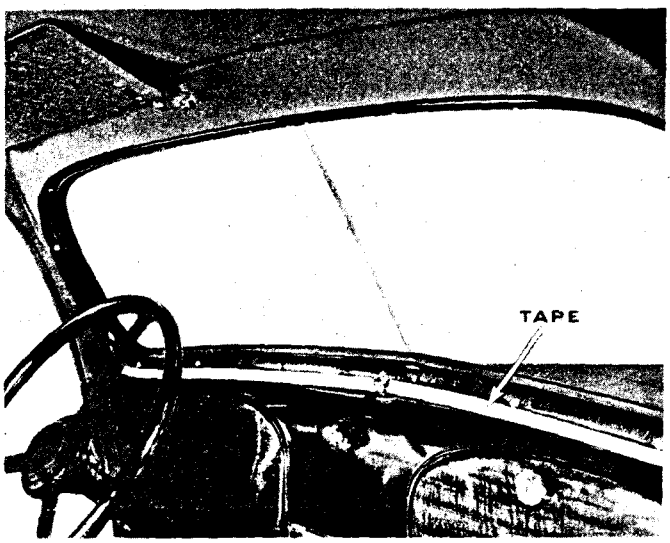


Illustration No. 83
Windshield Opening Taped for Glass Removal.

4. With a flat tool pry out the Garnish Molding at the top joint far enough to separate the joint.
5. Pry down on one end and pull its upper corner free from opening.
6. Bend and pull the Molding free from lower corner.
7. Free the other side of Molding likewise.

To Replace Molding:

1. Insert one lower corner.
2. Bend and press the upper corner to place.
3. Care for the other side likewise.
4. Engage the free ends at joint and press in at the joint.
5. Install screws, washers, and Rear View Mirror.

NOTE—The two short Garnish Molding Screws should be in the lower center two holes.

WINDSHIELD WIPER HOUSING CAP GASKET

The Windshield Wiper Housing Cap Screws hold the Housing in position. This means that if the screws are entirely removed for any reason the Housing drops out of position and may necessitate the removal of the Glove Compartment Housing in order to replace the Wiper Housing. These screws should be only loosened to remove the Gasket or replace it. If this Gasket does not fit correctly a water leak may occur. If the Cap is not packed with grease, water may be forced through the Wiper Drive Shaft Bearing causing a water leak. These water leaks may be mistaken for Windshield water leaks.

WINDSHIELD GLASS REMOVAL AND REPLACEMENT (ONE SIDE)

In the replacement of a cracked Windshield Glass, it is imperative that the cause of the Glass breakage (other than by accident) should be determined and corrected. Body men in various parts of the country have made a practice of placing a new Glass in the Windshield Opening without taking this fact into consideration and as a result the car comes back into the shop with the Windshield cracked in approximately the same place, the owner is aggravated, and the time, labor and material used in Glass replacement is lost.

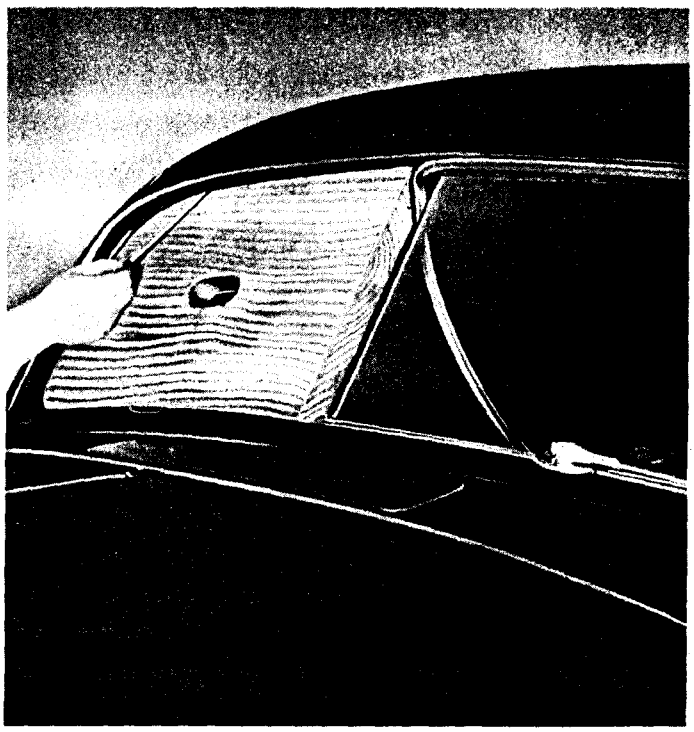


Illustration No. 84
Checking Windshield Opening.

The reason some Windshield Glasses crack is that somewhere around the Windshield Opening an obstruction or high spot is binding on the Glass. This strain becomes emphasized by wind pressure, extremes of temperature, or the motion of the car. The following information on the procedure of replacing a cracked Windshield Glass will be found helpful.

1. On the inside of the Body, apply Painter's Masking Tape along the top edge of the Instrument Panel adjacent to

the Windshield Garnish Molding to prevent marring the finish.

2. Remove Garnish Molding Screws and Rear View Mirror Bracket, also loosen screws in Windshield Wiper Housing Cap to release the Rubber Gasket.
3. Pry the Molding down at the joint and pull away far enough to separate the ends, then remove the Molding, one side at a time.
4. Remove the Center Division Channel and Weatherstrips.
5. Loosen Glass from Rubber Channel and remove Glass leaving Channel cemented to place.
6. Loosen Rubber Channel from Windshield Opening and clean off all old compound.

IMPORTANT—After cleaning out all the old sealing compound from the Glass Opening, examine the Opening at the point where the Glass cracked and remove, or correct any obstruction, that may be found. Place the new Glass in position and see that it does not tilt, or rock, but lies on a flat plane against the outer flange of the Windshield Opening. Or, better still, use a hardwood Template made to the shape of the Glass as shown in Illustration No 84.

whatever it may be, of the Windshield Glass cracking should be removed before a new Glass is installed.

7. Apply new compound No. F.S. 1039 to the Windshield Opening.
8. Starting at the bottom of the Center Division, insert the new Glass into the Windshield Rubber Weatherstrip and work the Rubber on to the bottom of the Glass. Follow this procedure around the Glass, finishing up at the top Center Division of the Rubber Weatherstrip. Push Glass and rubber Weatherstrip into the Windshield Opening. See that the Channel Outer Lip is pulled out over the Reveal all the way around the Glass. By placing a stout cord cemented with a few drops of F.S. 1039 Compound under the lip on the Rubber Channel with the two ends of the cord loose at the Center Division and then wetting the Rubber Channel with soap water the assembly can be easily slipped into place. By holding the Glass in position and pulling on one end of the cord carefully the lip of the Windshield Rubber Channel can be brought out over the edge of the Windshield Opening Reveal.
9. Re-install Windshield Garnish Molding by starting at the bottom and lower corners of the Molding and following up the side, pressing firmly to position. Finish installing the Garnish Molding at the top center by engaging the ends of the Molding together and press it into position. If one end of the Molding overlaps the other end, insert a scratch awl or prick punch in the end screw hole and pry the ends apart until they snap into place.
10. Set all Garnish Molding Screws, but do not tighten.
11. On the outside of the Windshield Opening, work or straighten out the lip of the Windshield Rubber Weatherstrip, so that it lies in correct position and then set the Garnish Molding Screws evenly to place.

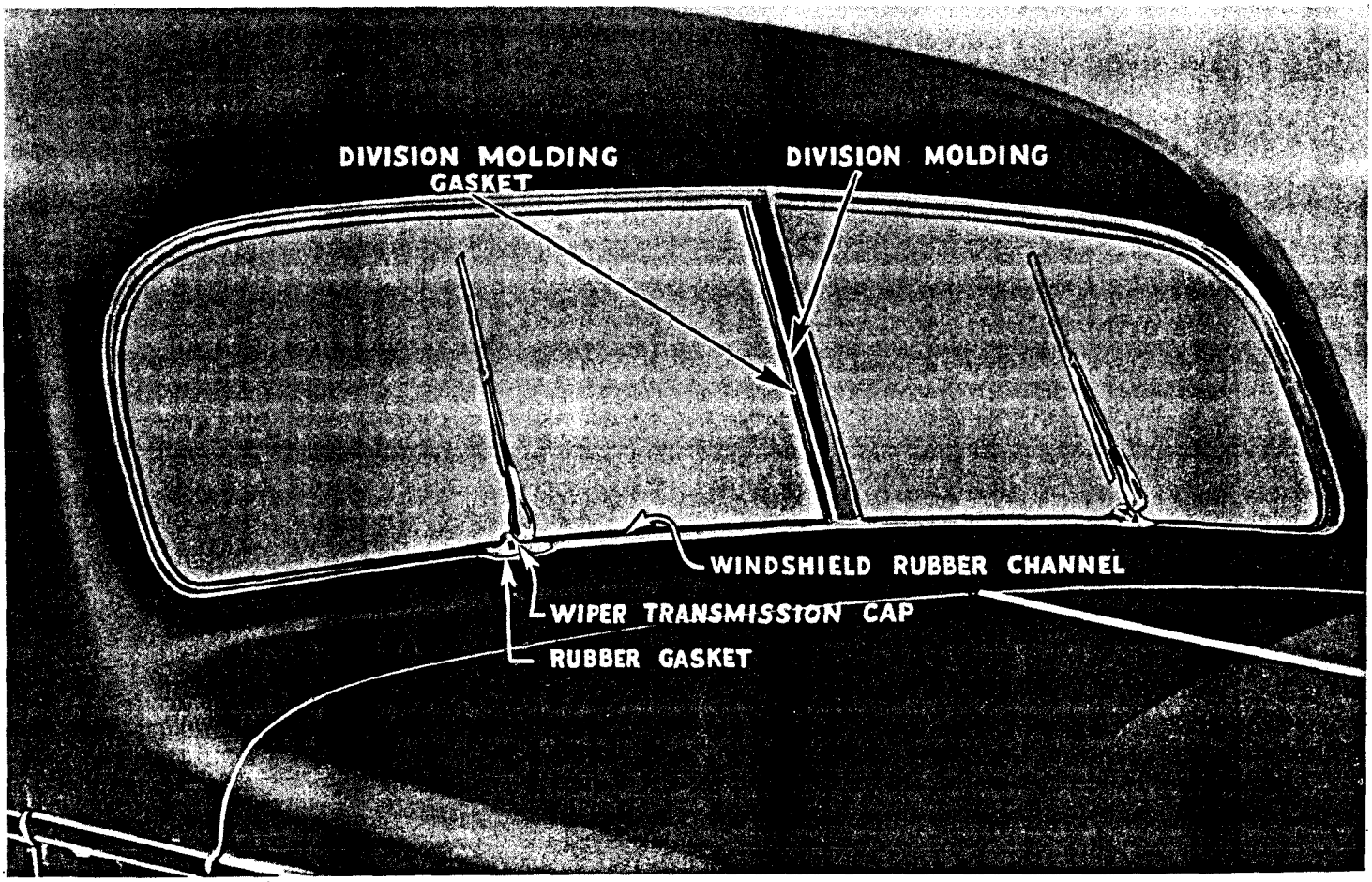


Illustration No. 85
1935-1936 Windshield Assembly.

This Template must lie flush, or on a flat plane, against the outer flange of the Windshield Opening. Use a Feeler Gauge, as shown in the same illustration, to determine if the Opening is in correct alignment. It may be necessary to peen the Windshield flange to make it conform squarely with the Template, the weld at the upper corner of the Windshield Opening may be protruding too far, or the Windshield Wiper Housing Cap *(See Illustration No. 150 at A)* may have been tightened in such a manner that it binds on the Windshield Glass. The cut out on the top of the Cowl, for the Windshield Wiper Mechanism *(See Illustration No. 149 at A)* may also be exerting too much tension against the Glass. The cause,

12. Replace the Windshield Center Division Channel and Weatherstrip, applying Compound F.S. 1039 to the outer Weatherstrip only. In tightening the screws of this Channel, start at the center screw first, then the top and bottom. Tighten to a snug fit only.
13. Seal under the outer lip of the Windshield Rubber Weatherstrip around the entire Windshield Opening. Also, under the Windshield Wiper Housing Cap Gasket, use Compound F.S. 1040 in gun B.-182.
14. Remove masking tape and clean up Glass.

NOTE—In an early description of Windshield Glass replacement given out by the Fisher Body Service Division, the complete Windshield Glass removal was advocated when only one Glass was cracked. We have found, however, that with proper care it is only necessary to remove the Glass that is damaged.

HEADLINING REMOVAL (EARLY TYPE)

To Remove:

1. Remove Rear Seat Cushion.
2. Release Trim Board on the back of Rear Seat Back Assembly and the three wood screws that are screwed into top of Seat Back. Remove the two machine screws retaining the Rear Seat Back at bottom.

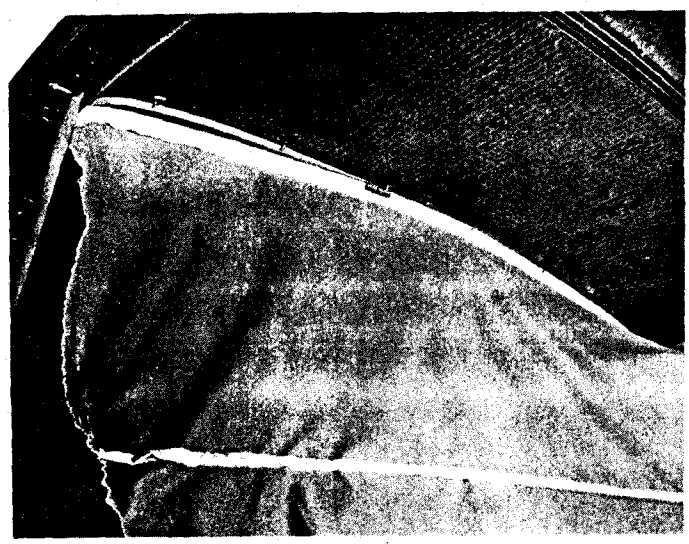


Illustration No. 86
Method of Attaching Headlining to Roof Bows.

3. Remove Trim Assembly from top of Rear Seat Package Shelf Board.
4. Release entire upper edge of Rear Quarter Upper Trim Assembly.
5. Remove Rear Window Garnish Molding, Dome Lamp Assembly and Rear Window Curtain Brackets.
6. Remove tacks from Headlining at Rear Quarter and across the back at Shelf Board and Rear Window Opening.
7. Remove Sun Visors and Visor Brackets. Release top edge of Over Windshield Trim Strip and remove tacks from Headlining.

   NOTE—In many shops the workmen remove the Garnish Moldings from the Windshield and Rear Quarter Windows in order to remove the tacks in the Foundation Board rather than simply loosen the Trim Assemblies above the Moldings. This requires more time but a beginner can be sure of a neater appearing Trim job when finished if the moldings are removed. Remove three Windshield Garnish Molding screws at upper outside corners and release lower front corner of Headlining over Front Door at Retaining Plate and remove the four screws retaining it at the front end.

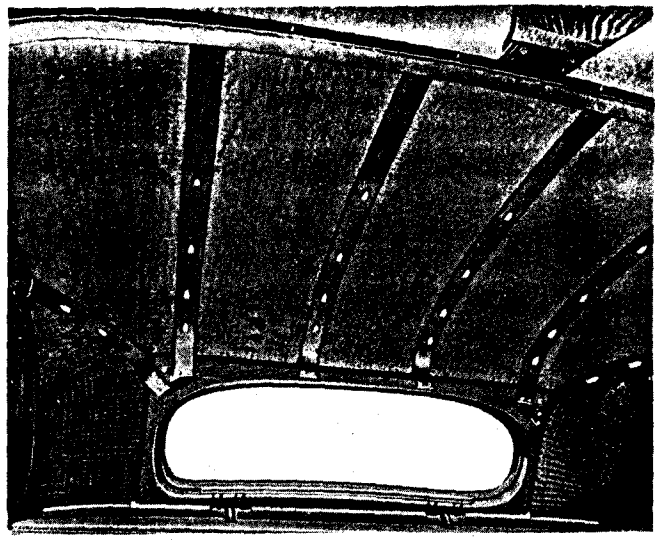


Illustration No. 87
Headlining Rear Supports.

8. Continue releasing Headlining from its retaining Plate along Roof Rails. The Headlining Installing Tool should be used to avoid damaging Retaining Plate.
9. Disengage Headlining Listing Wires from Retainer Hooks on Roof Bows and Supports.

INSTALLATION OF HEADLINING

1. Fold Headlining at center lengthwise and mark the center with chalk.
2. Match center line of Headlining to the center line of Roof and engage Headlining Rear Listing Wire to the proper Headlining Support Hooks, continue to the front and attach all Wires to their respective Hooks.

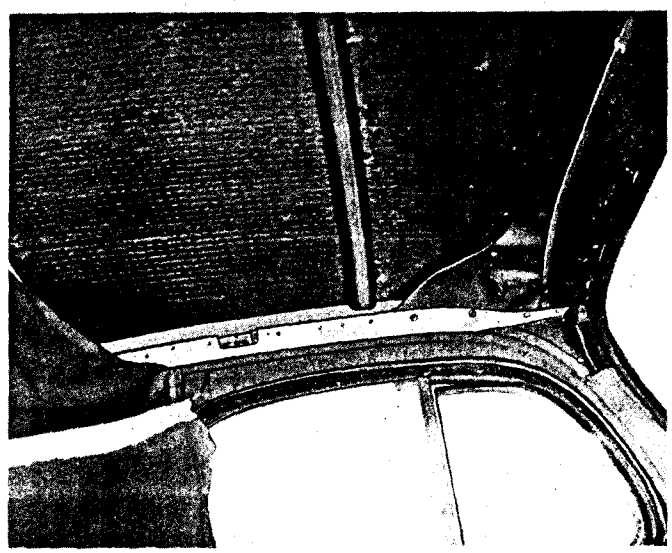


Illustration No. 88
Headlining Metal Retainers.

CAUTION—In attaching Wires to these Hooks, be sure to smooth the Listing so as to take the stretch of the Headlining to insure proper tightness.

3. Tack front end of Headlining to the tacking strip above the Windshield.
4. Apply paste to the back of the Over Windshield Trim Strip and refasten to place with brads drawing Trim over the head of the brad.
5. Tuft the Headlining under the lower edge of the Headlining Retainer Plates above the Doors and tack Headlining to the Rear Window Frame.

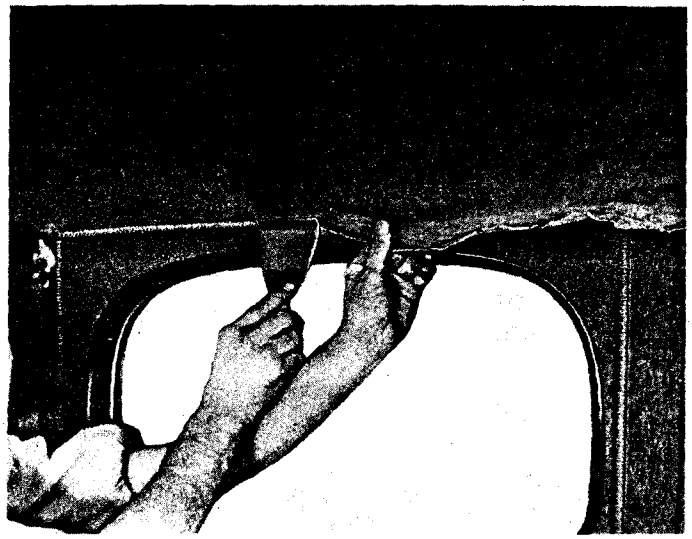


Illustration No. 89
Headlining Installation Tool.

6. Tack the Headlining to the Rear Seat Parcel Shelf Board and over Rear Quarter Windows and at the Rear Quarter Upper Trim Strip.
7. Reinstall Rear Quarter Upper Trim Pad with brads and draw the Trim over brad heads.
8. Tack and cut out Headlining at Dome Lamp Block, and install Dome Lamp Assembly.
9. Tack the Rear Seat Parcel Shelf Board Trim in place.
10. Install Rear Window Garnish Molding and Rear Window Curtain.
11. Install the Rear Seat Back Assembly. Rear Seat Cushion and retack the cardboard to the rear of Seat Back Assembly.

NOTE—For a description of Headlining removal and replacement on later 1935 Body Styles. *(See Index.)*

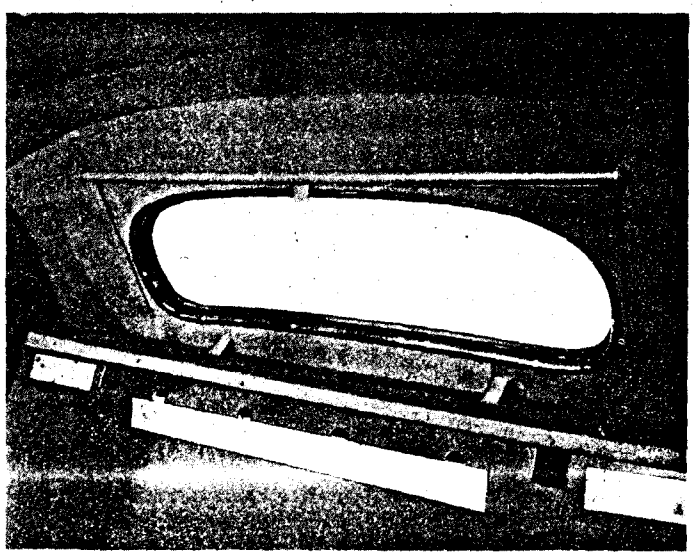


Illustration No. 90
Parcel Shelf Board Trim.

LOWER REAR QUARTER TRIM REMOVAL

The Rear Quarter Arm Rest is a part of the Rear Quarter Lower Trim Assembly. This Assembly including the Arm Rest is made up of a waterproof Foundation Board formed to fit the contour of the Wheel Housing *(See Illustration No. 91 at A.)* over which the Foundation Wadding and Trim Material are assembled. To remove the Rear Quarter Lower Trim Assembly proceed as follows:

1. Remove the Rear Seat Cushion and Cushion Back:

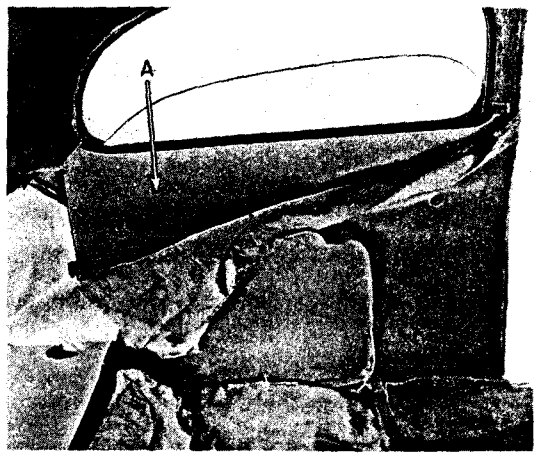


Illustration No. 91
Lower Quarter Trim Partially Removed.

2. Remove Rear Quarter Window Garnish Molding.
3. Remove Rear Quarter Window Regulator or Ventilator Handle.
4. On the outside of the car, remove the screw from under the Wheelhousing holding Arm Rest in place. *(See Illustration No. 92 at B.)*
5. Turn back the Floor Carpet and remove tacks from Tacking Strip holding Trim Assembly to Sill and Rear Body Hinge Pillar.
6. Remove tacks from Trim Stick holding Trim Assembly at the Rear.

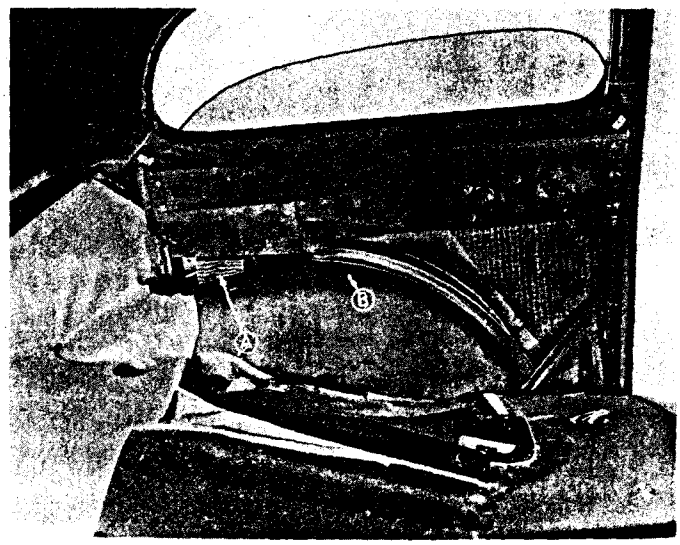


Illustration No. 92.
Lower Quarter Trim Removal.

7. Remove tacks holding Trim Assembly to the top edge of the Rear Quarter Regulator Board. After this operation, turn down the Trim Material and remove the tacks holding the Cardboard Foundation of the Assembly to the Regulator Board. *(See Illustration No. 91 at A.)*
8. Carefully pry loose the Trim and Cardboard Foundation from the Rear Body Hinge Pillar.

UPPER REAR QUARTER TRIM REMOVAL

The Upper Rear Quarter Trim is assembled to the Cardboard Foundation before it is installed in the Body. This complete Assembly is removed as follows:

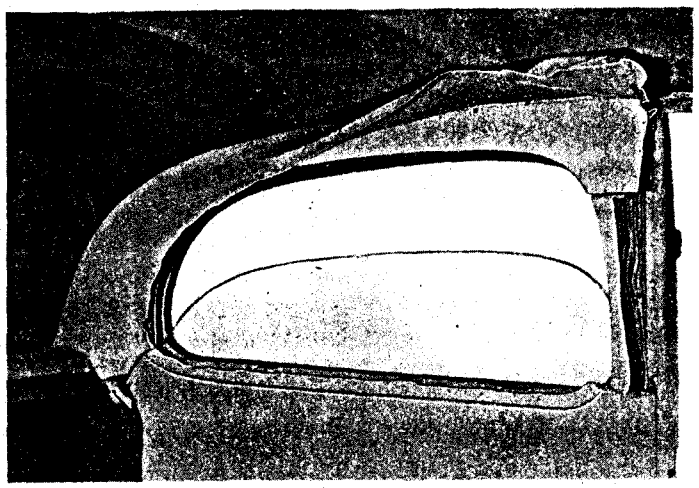


Illustration No. 93
Upper Quarter Trim Removal.

1. Remove the Rear Seat Cushion and Cushion Back.
2. Remove the Rear Quarter Window Garnish Molding.
3. Loosen and turn back the Trim on top of the Parcel Shelf Board at corner.
4. Untack the Trim around the upper and rear part of the Quarter Window Opening, also from the top of the Parcel Shelf Board at the corners.
5. Remove tacks holding the Cardboard Foundation of this Assembly to the Rear Body Hinge Pillar, Side Roof Rail Filler, Rear Quarter Pillar and upper Rear Quarter Trim Stick.

DOOR TRIM PAD REMOVAL

In order to adjust or repair Door Mechanical Hardware Parts, it may be necessary to remove the Trim Pad from the Door. In some cases, the upper or lower part of this Assembly may be loosened sufficiently to make the needed adjustment, while in cases of damage to the Trim Pad itself, complete removal may be necessary. To completely remove a Door Trim Pad proceed as follows:

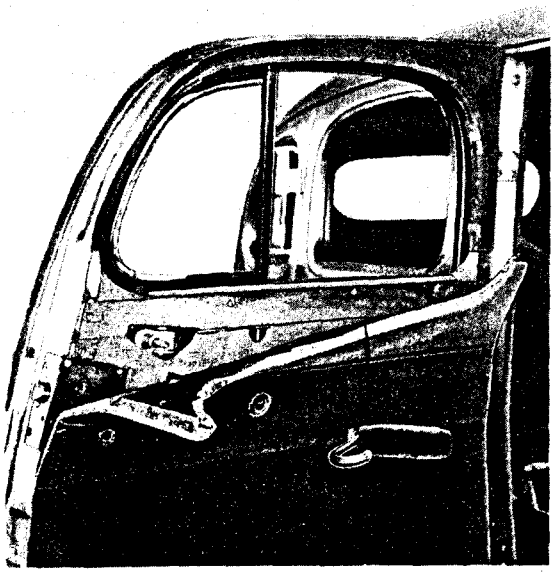


Illustration No. 94
Door Trim Pad Removal.

1. Remove the Door Window Garnish Molding.
2. Remove the Door Arm Rest.
3. Remove the Regulator and Remote Control Handles.
4. Remove the Inside Safety Lock Rod Handle.
5. Untack the Trim Pad from the top edges of the Regulator Board.
6. Turn down the cloth of the Trim Pad and remove the tacks holding the Cardboard Foundation of this Assembly to the Regulator Board.
7. Starting in the vicinity of the Door Lock, insert a screwdriver between the Trim Pad and the Door Lock Pillar and pry the Pad loose.
8. Follow this procedure and pry the Pad loose from the Door Hinge Pillar.
9. Finish this operation by detaching the Pad from the Door Bottom Board in a similar manner.

SUN VISOR INSTALLATION

The Sun Visor on the left side above the Windshield is standard on most style Bodies. On some, the right side Sun Visor is also standard equipment.

On those cars having only the left side installation, if the right side one is to be added, care should be used not to tear the Headlining when placing the Bracket in position.

The Headlining has to be stretched tightly for appearance sake and the added tension of the Bracket may tear it loose at the edges. By gently smoothing it toward the Roof Side Rail, enough slack may be gained to suffice.

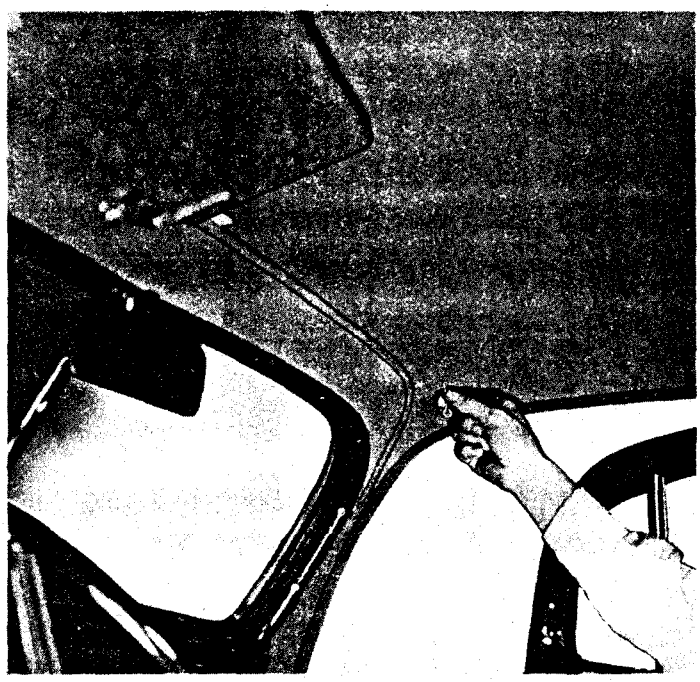


Illustration No. 95
Sun Visor Installation.

NOTE—If Headlining is stretched too tight at this point it may be a good policy to loosen it at this corner to prevent tearing.

As shown in Illustration No. 95 locate the threaded holes and install the Visor Bracket and Screws. The locations for the Socket and Escutcheon, above the Windshield and above the Door Opening may easily be found after the Visor Pivot Bracket is screwed into place. By cutting a hole through the Trim and Foundation Cardboard at these locations the Escutcheons may be pressed into the openings provided.

REAR QUARTER WINDOW GLASS REMOVAL (SEDAN)

1. Remove Garnish Molding.
2. Release the Trim where tacked around Opening.
3. Remove the Screws holding the Window Metal Retainer at the top, bottom and back.
4. Loosen the outside lip on Rubber Channel and remove Assembly from inside.

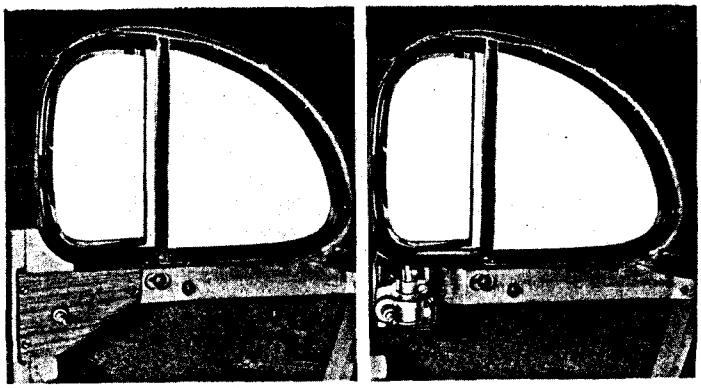


Illustration No. 96
Sedan Rear Quarter Window Glass Removal.

REAR QUARTER WINDOW GLASS (COACH)

To Remove:
1. Remove Garnish Molding.
2. Remove Rear Seat Cushion and Cushion Back. (Pontiac, Oldsmobile, LaSalle).
3. Loosen Lower Quarter Trim Pad and its Foundation from the Opening.
4. Remove the upper section of Regulator Board.
5. Remove Glass Run Channel Upper.
6. Remove the two screws in each end of Glass Sash Channel
7. Remove Glass.

DOOR (FRONT)

To Remove:
1. Remove Slotted Sleeve Nut from rear side of Center Pillar to release the Door Check Link.
2. Remove the Door Hinge Pins. (Tight Hinge Pins are easily removed with Hinge Pin Removing Tool No. B-170.
3. Remove Door.

DOOR (REAR)

To Remove:
1. Loosen the Trim Pad on Door and remove the Nut and Rubber from Link.
2. Remove the Hinge Pins.
3. Remove the Door.

ROOF BOW (FRONT BOW)

To Remove:
1. Remove Headlining back beyond the Bow.
2. Remove two bolts at each end of Bow.
3. Slide Bow at one end and remove it.

ROOF BOW (SECOND BOW)

To Remove:
1. Remove Headlining back beyond the Bow.
2. Loosen Bow from Dome Lamp Board.
3. Remove Dome Lamp Wiring from Bow.
4. Remove 2 Bolts from each end of Bow and remove it.

ROOF BOW (REAR BOW)

Headlining Rear Supports

To Remove:
1. Remove Headlining back to Rear Window.
2. Loosen Dome Lamp Board.
3. Loosen Headlining Rear Supports from Back Window Frame.
4. Remove bolts at each end of Bow.
5. Remove the Bow with Headlining Supports.

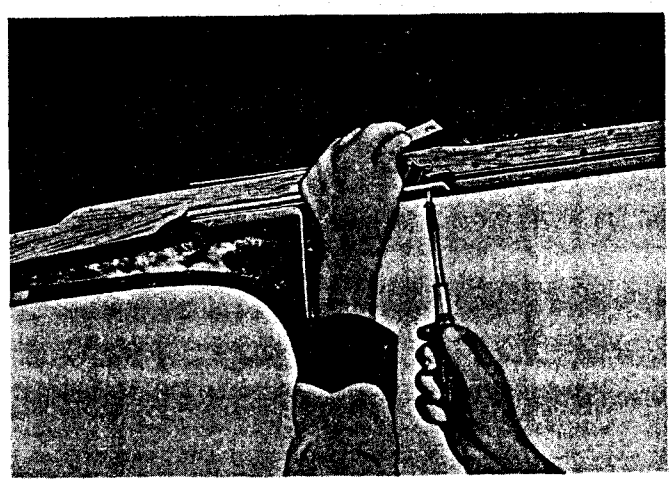


Illustration No. 97
Side Roof Rail Filler Removal.

ROOF SIDE RAIL FILLER

To Remove:
1. On a Coach, remove the Rear Quarter Window Frame. On a Sedan, remove the Rear Quarter Window and Window Frame.
2. Release the Headlining along the Roof Rail and back eighteen inches on the Roof Bows.
3. Remove all bolts through Roof Rail Filler.
4. Remove Filler.

Illustration No. 98
Removing Side Roof Rail Fillers.

ROOF PANEL INSULATION FELT REMOVAL

1. Remove the Upholstery necessary to expose the Felt.
2. The Felt may be removed by scrapers or by the flat heated tip of an electric Soldering Copper. It is seldom removed in condition to be used again. New Felt must be installed to cover space.

FISHER TURRET TOP ROOF PANEL REMOVAL

Sometimes a body man is faced with the necessity of either REPAIRING or REPLACING a Turret Top Roof Panel. The decision must be made by him and his decision is to be governed by the conditions existing. It depends upon how badly the Roof Panel is damaged, whether the parts are available, competence of workmen, time available, and the cost.

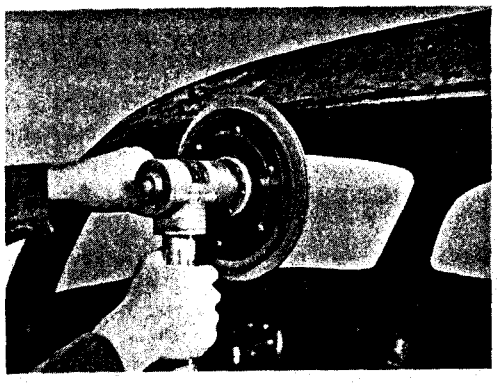


Illustration No. 99
Cutting Turret Roof Along Drip.

A good body Metal Bumping Man can straighten out and REPAIR almost any damaged Panel, and again a good body Metal Welder and Finisher may be able to make a REPLACEMENT at less cost and time. The cost to REPAIR may exceed the cost of REPLACEMENT. We'll say he decides to REPLACE the Roof Panel. In preparation for this operation it will be necessary first, to remove the Headlining and all Trim adjacent to it. Remove the Doors, Windshield, Rear Quarter and Back Window Glasses. Remove Roof Bows, Side Roof Rail Fillers, and Rear Quarter Window Frames.

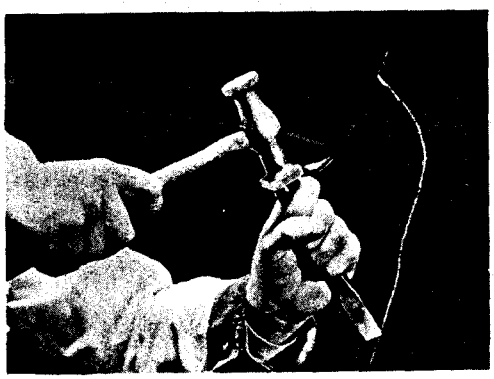


Illustration No. 100
Method of Cutting Roof Panel at Rear Quarter.

To remove a Turret Top Roof Panel, cut along Roof Drip Molding with a Grinding Wheel or Disc.

REMOVAL OF THE ROOF PANEL

Starting at the front of the Roof Drip Molding at its outer edge, with a flexible shaft and Grinding Disc, cut through the metal along its edge from the front of the Molding to its rear point. *(See Illustration No. 99.)* Then, by using the edge of the Grinding Wheel, cut through the Panel metal ½" above the welding line from the rear end of the Drip Molding to the Rear Window (Chevrolet) or to the Rear Compartment or Trunk Opening on the larger Cars. Cut above both Front Pillar welds in the same manner. The Roof Panel spot welds can be cut with a sharp thin Cold Chisel and heavy Hammer at the following locations:

Top Flange of the Windshield Opening.
Door Opening Flanges at the top of the Front Pillar.
Top flange of the Rear Compartment or Trunk Opening.

Remove nails from the flange in the Rear Window frame. Use a hack saw or chisel to separate any parts still holding and lift off the Roof Panel. Now with a sharp thin Cold Chisel and Hammer separate the spot welds that hold the remaining portion of the Roof Panel to the Roof Side Rails

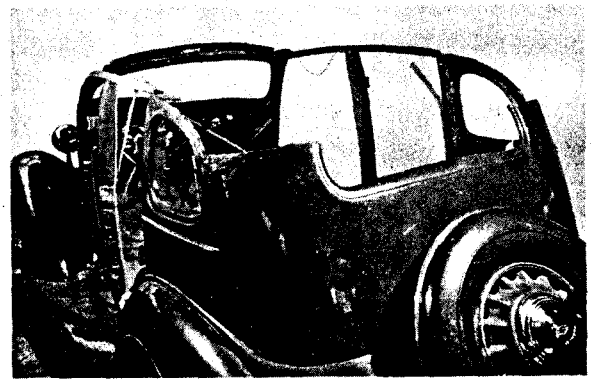


Illustration No. 101
Chevrolet Sedan with Turret Roof Removed.

and Rear Quarter Panels and clean away all traces of rough spots at spot welds with a Grinding Wheel. If any Panel edge be bent or otherwise out of line, it should be trued up with a Dolly Block and Hammer or Mallet. This is done in order to have a smooth surface on which to fit the new Roof Panel. If the new Roof Panel does not have the Sound Silencer Felt already cemented to it the Felt should be cemented to place before the Roof Bows are installed.

1935 SERVICE FEATURES

DOOR ALIGNMENT

The ten different drawings illustrated under Door Alignment Instructions represent ten different conditions of Door mis-alignment commonly met with in body shop work. Each is a problem to be solved before its correction is attempted. The main drawing (No. 102) shows a Body in perfect Door alignment and is to be the gauge of perfection with which the ten mis-aligned Doors are to be compared. The two drawings of Hinges (Nos. 103 and 104) show the two methods of inserting spacers between the Hinge Plate and the Body Hinge Pillar. Drawing No. 103, labeled correction No. 1, shows the spacer inserted inside to draw the Door closer to the Hinge Pillar and therefore farther away from the Lock Pillar. Correction No. 2 (shown in Drawing No. 104) shows the spacer inserted outside to push the Door farther away from the Hinge Pillar and therefore closer to the Body Lock Pillar at the front.

The two drawings, corrections No. 1 and 2, should be studied until you are familiar with their purpose, then by glancing at each of the ten different mis-aligned Door Conditions, its Correction will be easily understood.

DOOR ALIGNMENT INSTRUCTIONS

To align the Doors of a Body correctly, where one or all the Doors are fitting badly, the body workman should *start by checking the vertical spacing* at the Hinge side of the Rear Door. To do this, proceed as follows:

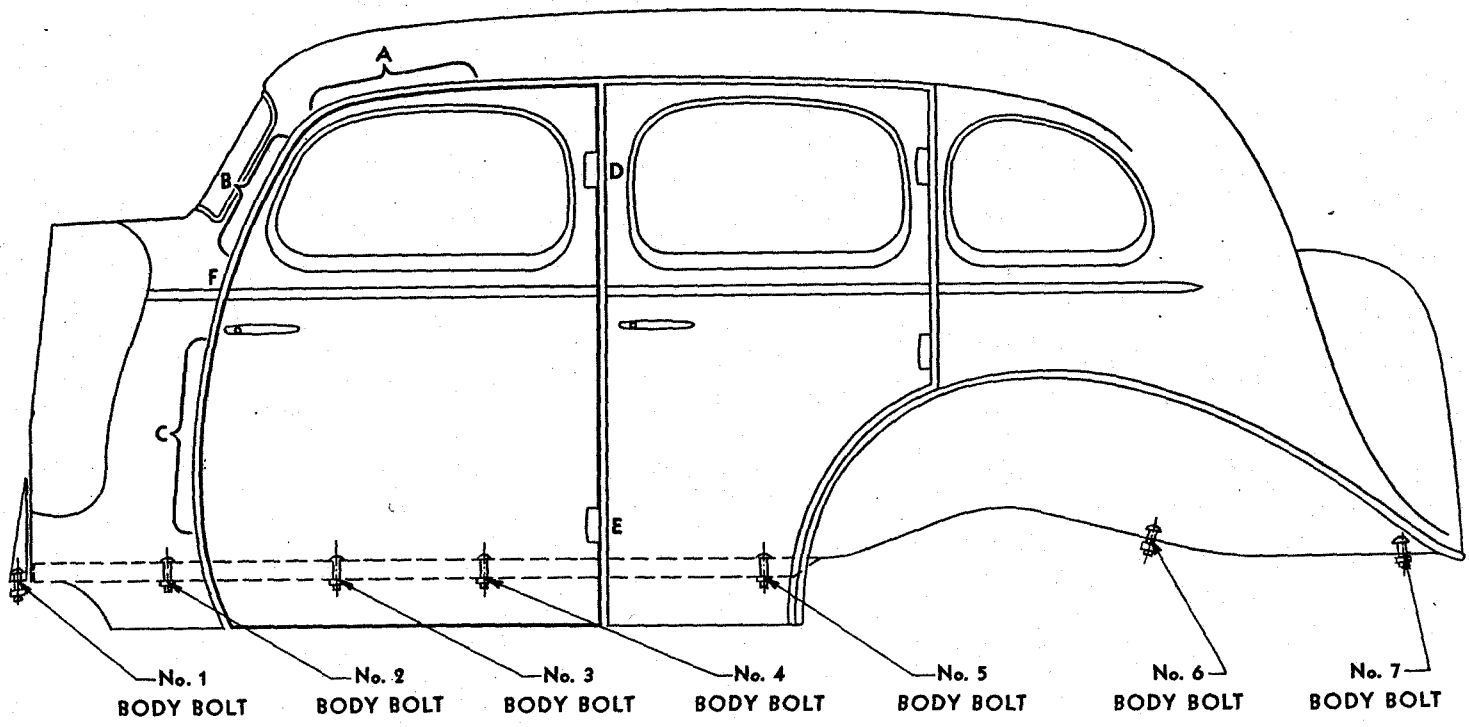
1. Remove the Door Wedge Plate.
2. Remove the Door Side Rubber Bumpers.
3. Make sure all Hinge Screws are tight.
4. Close Door and check Vertical Spacing, making sure it is equal from top to bottom. If necessary, the spacing should be equalized by inserting a spacer between the Hinge half and the Body Hinge Pillar and tighten screws securely.

Correction No. 1 shows where to install a spacer to move the Door back so as to make the spacing at the Hinge side of the Rear Door narrower and therefore wider at the Lock side.

Correction No. 2 shows where to install the spacer to move the Door ahead so as to make the spacing at the Hinge side of the Rear Door wider and therefore narrower at he Lock side.

NOTE—These spacers may be made of hard, waterproof cardboard, or better still, cut from sheet lead ⅛" thick which may be hammered to any desired thickness. The spacer should be ⅜" wide and as long as the Hinge is wide. After the above operations have been done if the Rear Door is then low at the Belt Molding and at the Roof, the Door must be raised by adding additional shims at Body Bolt (No. 5) nearest the Hinge Pillar.

If the Rear Door is too high at the Belt Molding and too close to the Roof, the Door must be lowered by taking a shim out at No. 5 Body Bolt to lower the Door.



NORMAL DOOR ALIGNMENT
Illustration No. 102

Next, install the Door Wedge Plate and the Door Side Bumpers.

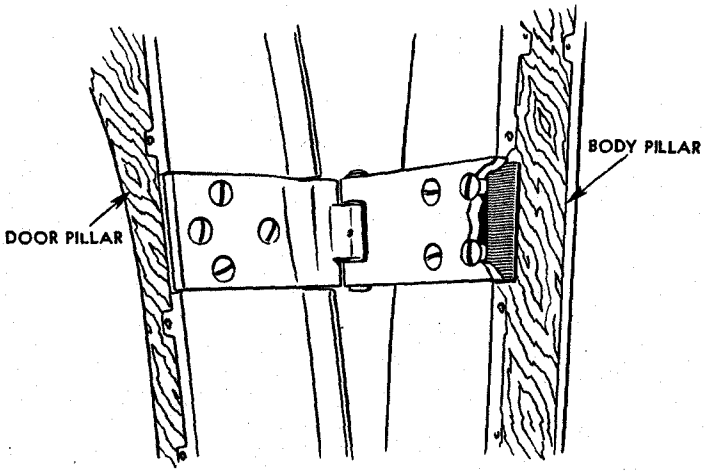
After, the Rear Doors are in good fitting, adjust the Front Doors in the same manner, remembering that all Belt Moldings must be reasonably in line to make a good fitting Door.

The directions for Door alignment given above, if followed carefully, will align any ordinary set of Doors. It must be remembered that checking for alignment should start at the Rear Door, always.

IMPORTANT

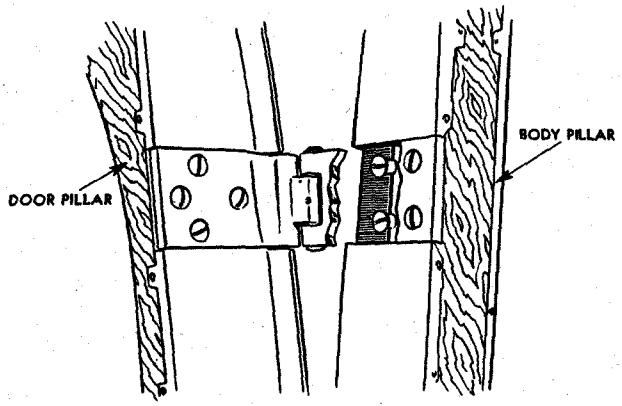
Except for an accident, a Door will remain in shape almost indefinitely. When a Door fits the Door Opening badly it is either improperly hinged to the Body Hinge Pillar which will show at the vertical spacing on the Hinge Side of Door or the Door Opening is out of true by improper shimming at the Body Bolts.

If the lower edge of the Front Door projects away from the Body at the Lock side it may easily be corrected by a turn or two on the adjusting nut on the Door Stiffener Rod which goes diagonally across the Door from the Belt at the Hinge side down to the Door Bottom Board at the Lock side. (This nut is to be found on the underneath edge of the Door Frame).



CORRECTION NO. 1
SPACER INSIDE ON BODY PILLAR
Illustration No. 103

Correction No. 1 shows where to install a spacer in order to draw the Door closer to the Hinge Pillar, so as to make the spacing narrower at the Hinge side of the Door and therefore wider at the Lock side.



CORRECTION NO. 2
SPACER OUTSIDE ON BODY PILLAR
Illustration No. 104

Correction No. 2 shows where to install a spacer in order to push the Door further away from the Hinge Pillar, so as to make the spacing wider at the Hinge side of the Door and therefore narrower at the Lock side.

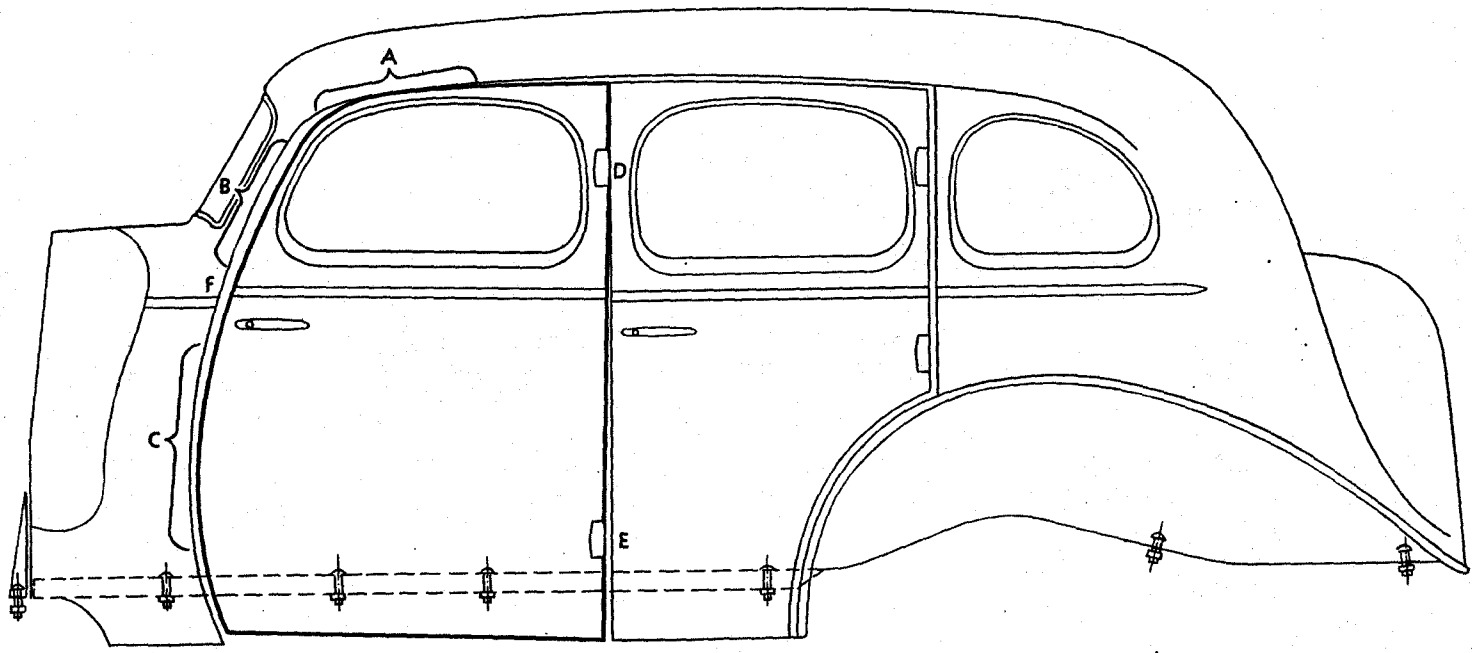


Illustration No. 105
CONDITION: Too CLOSE at A and D. Too WIDE at B. Too HIGH at F.
REMEDY: Use CORRECTION NO. 2 at D.

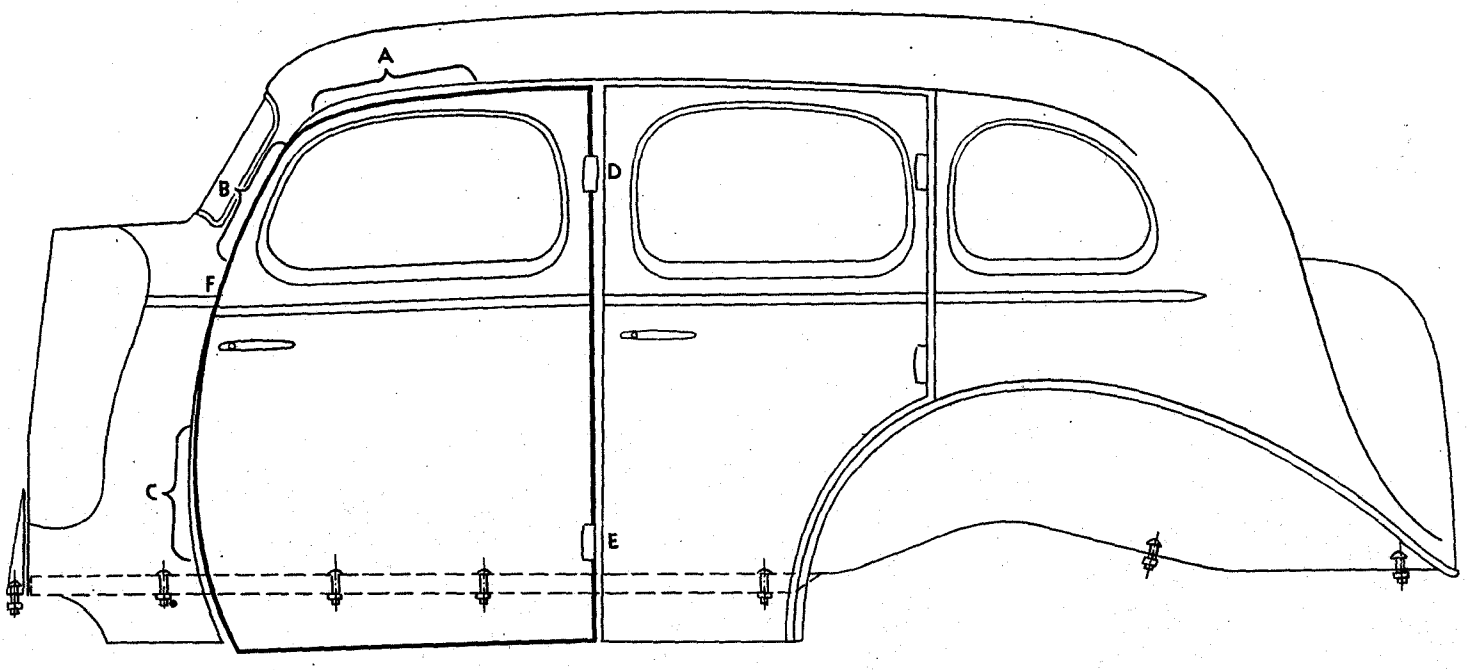


Illustration No. 106
CONDITION: Too CLOSE at B. Too WIDE at A and D. Too LOW at F.
REMEDY: Use CORRECTION NO. 1 at D.

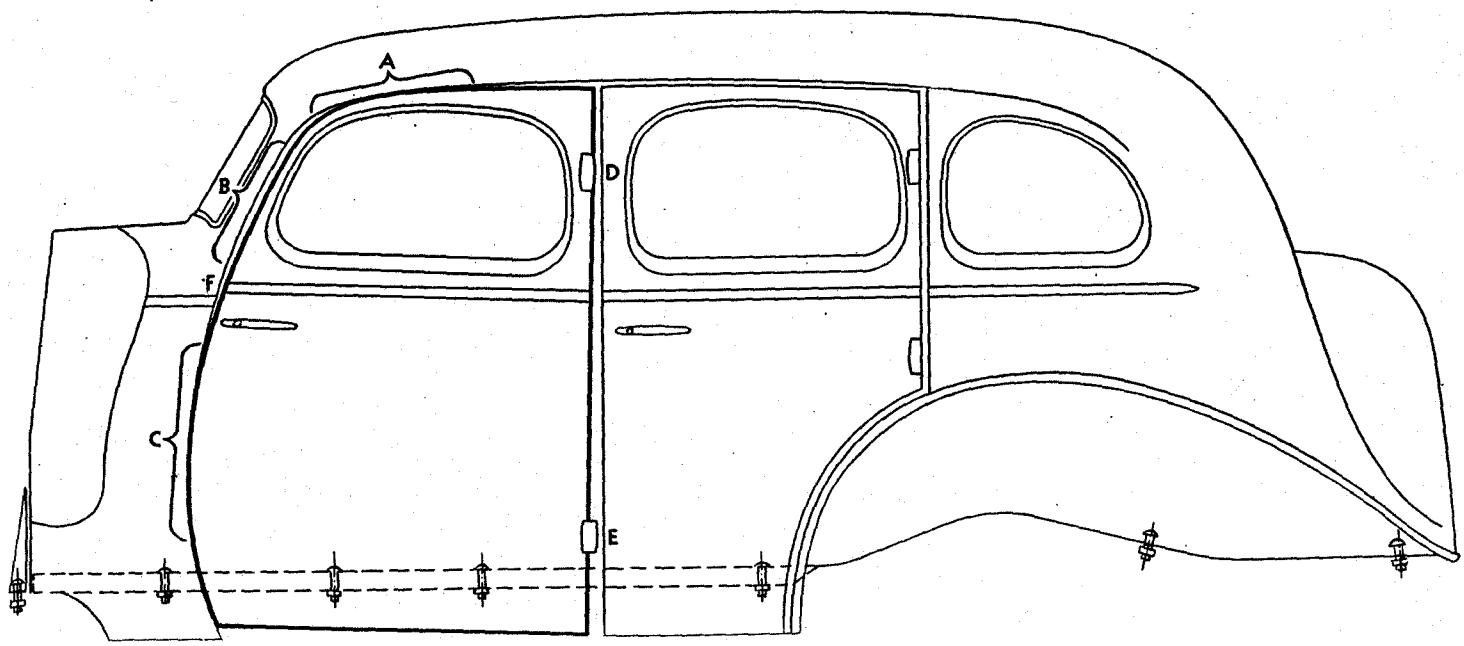


Illustration No. 107
CONDITION: Too CLOSE at A and C. Too WIDE at E. Too HIGH at F.
REMEDY: Use CORRECTION NO. 1 at E.

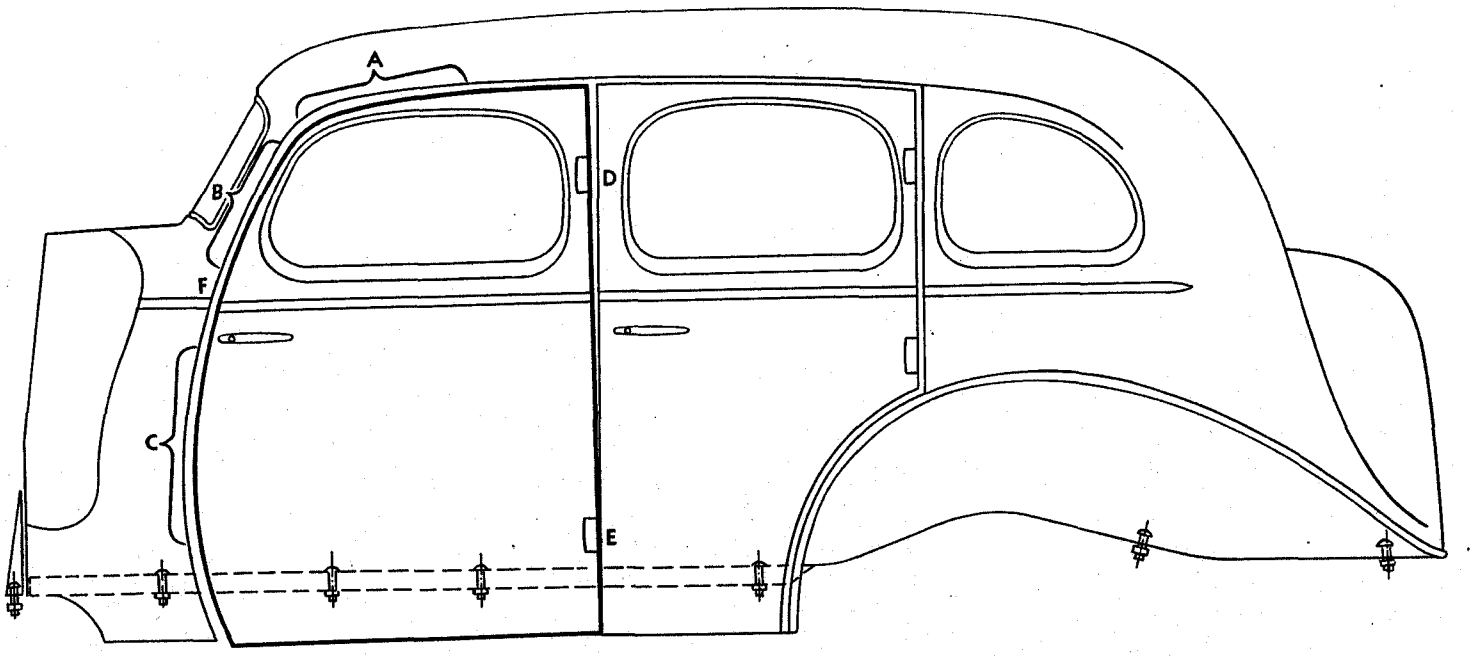


Illustration No. 108

CONDITION: Too CLOSE at E. Too WIDE at A and C. Too LOW at F.

REMEDY: Use CORRECTION NO. 2 at E.

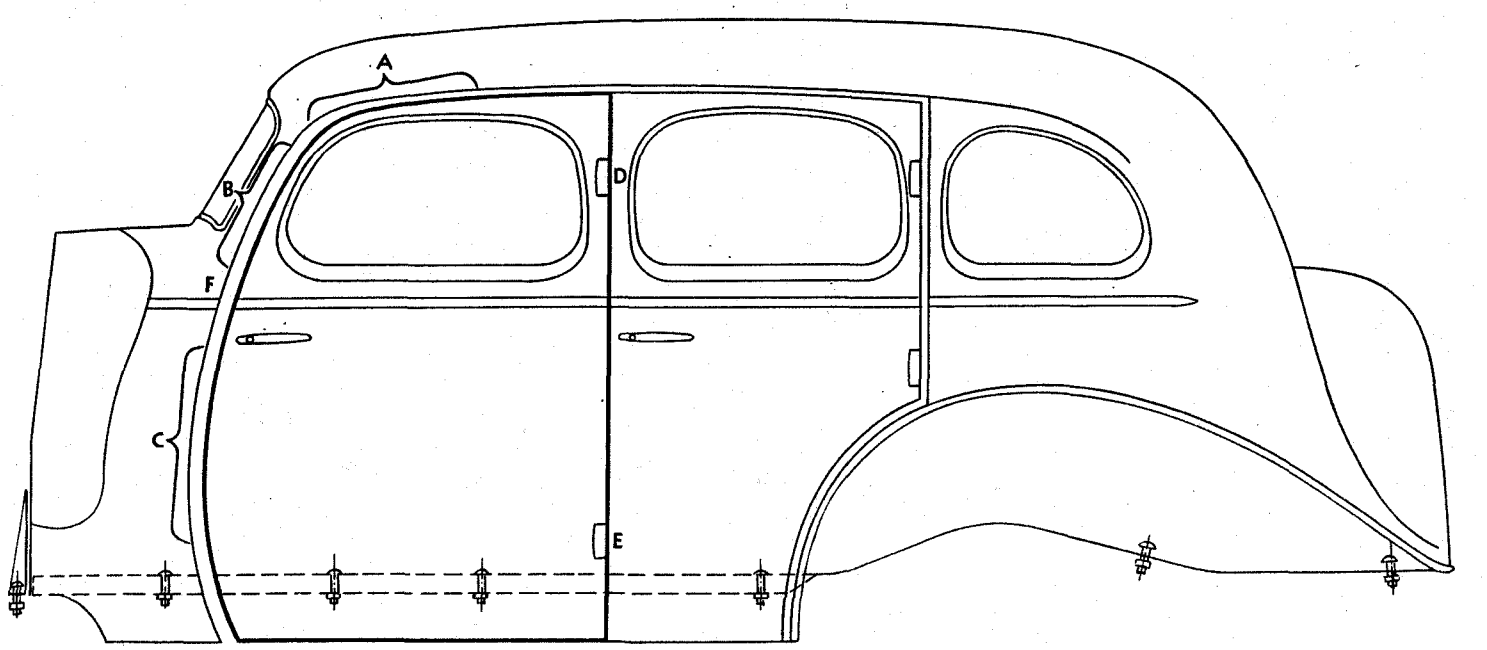


Illustration No. 109

CONDITION: Too CLOSE at D and E. Too WIDE at B and C.

REMEDY: Use CORRECTION NO. 2 at E and D.

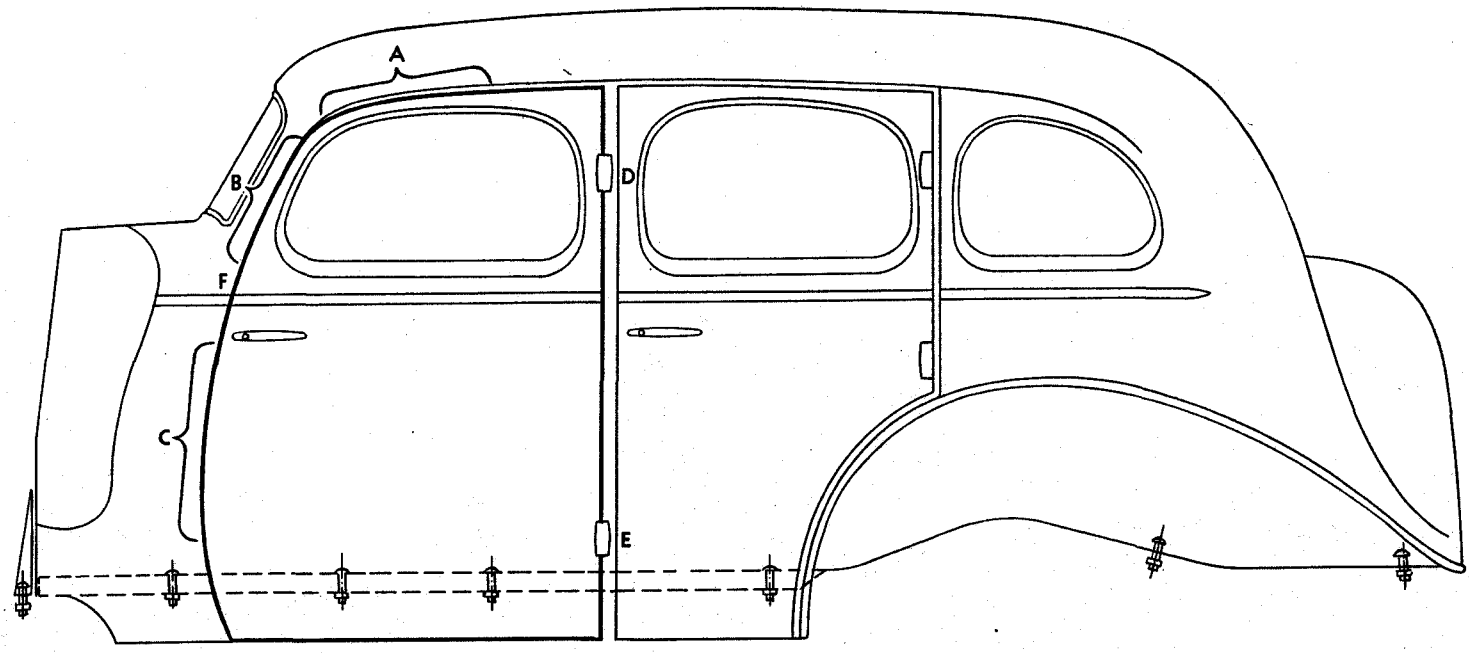


Illustration No. 110
CONDITION: Too CLOSE at B and C. Too WIDE at D and E.
REMEDY: Use CORRECTION NO. 1 at E and D.

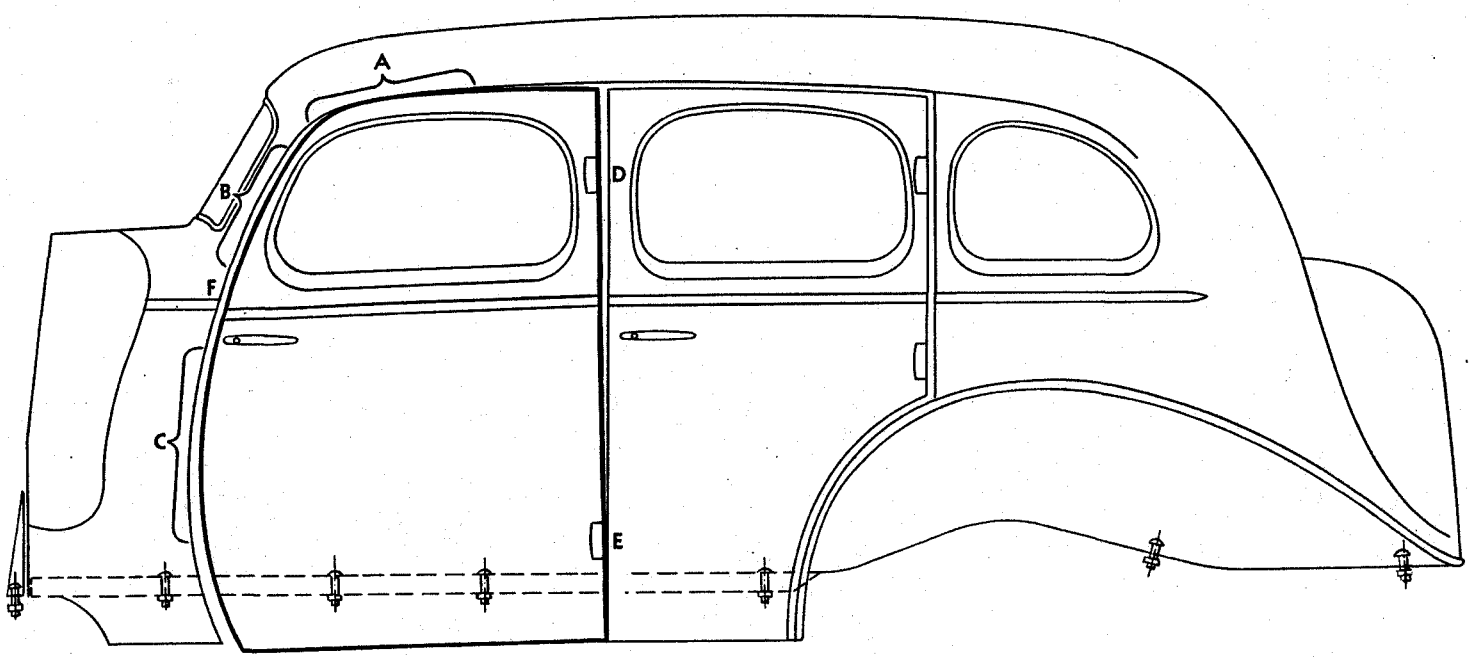


Illustration No. 111
CONDITION: Too CLOSE at A and E. Too WIDE at C. Too LOW at F.
REMEDY: Calk up on Drip Molding at A and use CORRECTION NO. 2 at E.

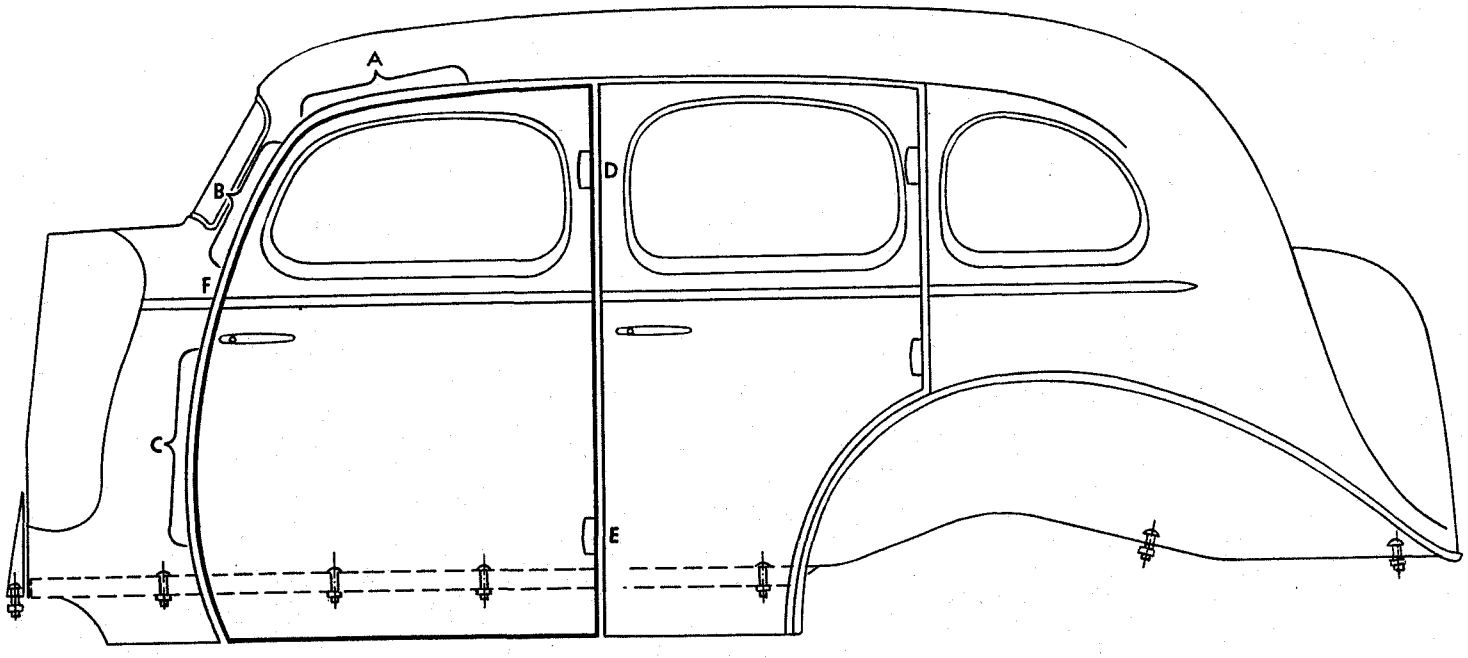


Illustration No. 112

CONDITION: Too WIDE at A only.

REMEDY: Add Solder on the Door Flange or Lower the Drip Molding at A. (See ILLUSTRATION NO. 195.)

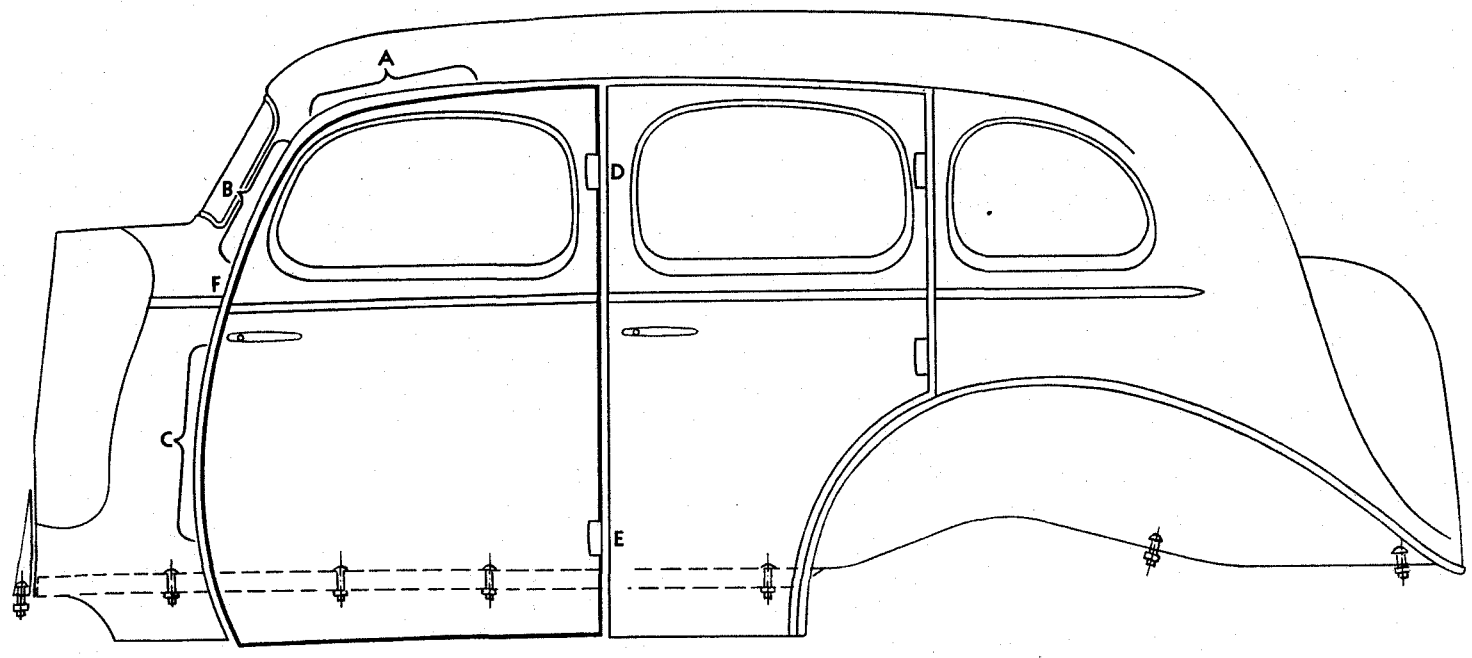


Illustration No. 113

CONDITION: Too WIDE at A. Too LOW at F.

REMEDY: Add shimming at No. 4 Body Bolt. If this makes the Rear Door low, place a thin shim at No. 5 Body Bolt.

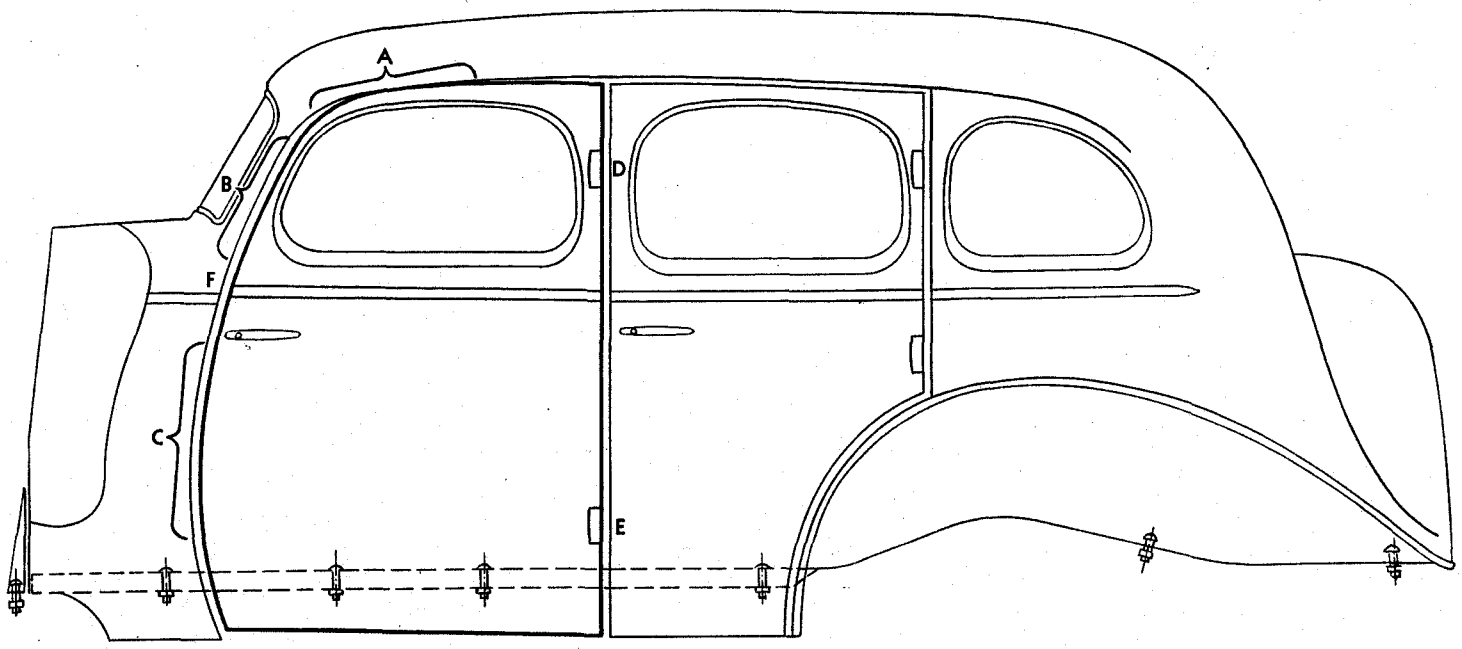


Illustration No. 114
CONDITION: Too CLOSE at A. Too HIGH at F.
REMEDY: Add shimming at Nos. 1 and 2 Body Bolts or Remove part of shim at No. 4 Body Bolt.

TO ADJUST SPACING AROUND A BUSINESS COUPE DECK LID OR REAR COMPARTMENT LID

To adjust a Rear Compartment Lid or a Business Coupe Lid:

1. Loosen the Hinge screws on the Lid. (Have workman get in the car with a lamp and tools.)
2. Close Lid and adjust the spacing around the Lid by inserting Wood Wedges where needed.
3. Tighten the Hinge screws from inside.

NOTE—On Trunk Lids it may require filing out the screw holes.

On Sport Coupe Lids: To adjust the Lid *sidewise*, bend the right and left Hinge Arm Plates enough to shift the Lid. To adjust the Lid *back* or *ahead*, *up* or *down*, loosen the bolt at the pinion joint and move the Lid in direction desired, then tighten the bolt securely.

All Coupe Lids have Adjustable Rubber Bumpers to maintain the height of Lid Level as well as proper pressure at the Lock Bolt and Striker Plates.

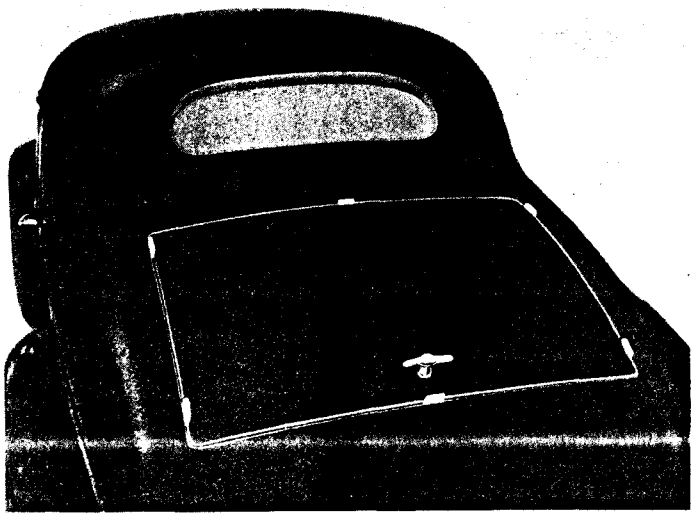


Illustration No. 115
Coupe Deck Lid Spacing.

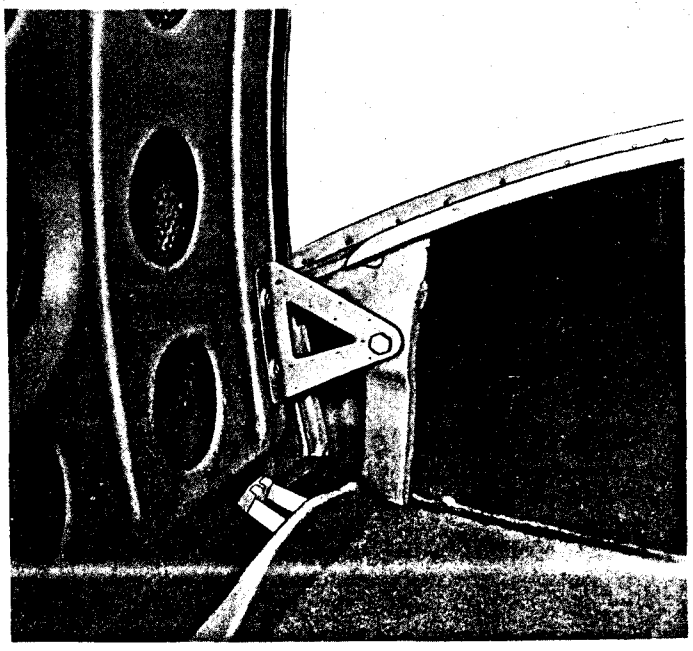


Illustration No. 116
Sport Coupe Deck Lid Hinge Arm.

FRONT DOOR VENTILATOR GLASS FIT

A Door Ventilator Glass sometimes will not close because the Door at the Hinge side at top front corner is sprung out from the Body. The Glass will close at top but not at bottom. By bringing the Door in to the Body where sprung, will automatically correct the fit of the Ventilator Glass. *(See Illustration No. 179.)*

The Ventilator Regulator *(See Illustration No. 117)* has two adjusting screws:

"B" may be adjusted to exert more or less friction on the Shaft to cause the Ventilator to operate loose or stiff.

"A" may be tightened in case the Ventilator Shaft is loose in the slot and causes the Glass Frame Assembly to flutter.

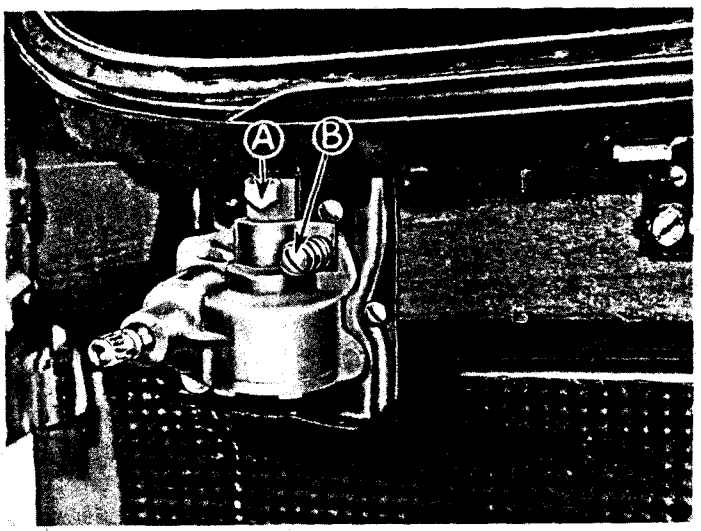


Illustration No. 117
Door Ventilator Regulator.

DOOR VENTILATOR

1. Handle comes off: Replace the Handle Retaining Spring in the slot as in Illustration No. 73 and install Handle properly.
2. Drive Shaft too tight to turn: Release tension at screw *(See Illustration No. 117 at B.)*
3. Handle turns but Glass does not operate: Either Handle is not entirely on Shaft or Shaft is broken.

If Shaft is broken the Assembly should be removed and replaced with a new part or assembly.

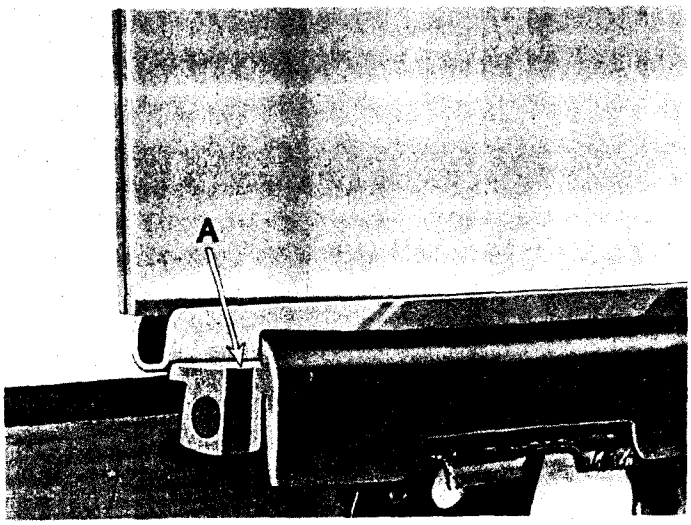


Illustration No. 118
Ventilator Glass Channel Pulled Away From Glass.

FRONT DOOR VENTILATOR GLASS AND CHANNEL ASSEMBLY

1. Glass Channel dragging on Weatherstrip. *(See Illustration No. 118 at A.)*

This is usually caused by the end of the Channel pulling away from Glass.

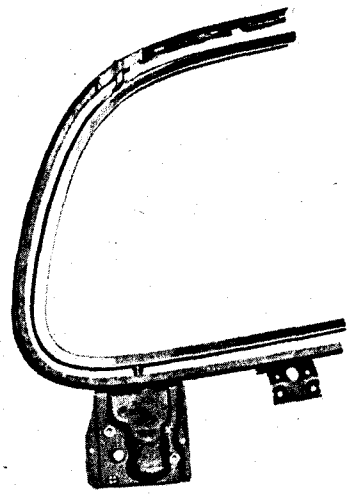


Illustration No. 119
Door Ventilator Outside View.

Remedy: Insert a thin strip of Glass Filler Part No. 4046323 between Glass and Channel and press the Channel on Glass with the Ventilator Glass replacing tool B-180 or other suitable clamp.

If Channel drags on Weatherstrip at bottom but is not pulled loose from Glass, loosen Bolt *(See Illustration No. 117 at A)*, pry the Glass Channel up 1/16" and tighten the bolt again.

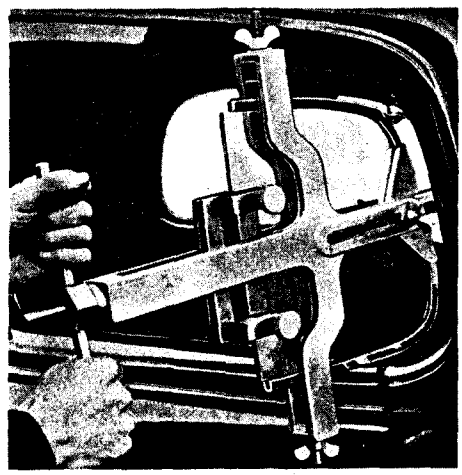


Illustration No. 120
Tool For Removing and Installing Ventilator Glass.

NOTE—Make sure the Weatherstrip is down tight in its Retainer, otherwise it may cause the Glass Channel to drag.

2. Glass and Channel Assembly loose (flutters).

Either the bolt needs tightening or the Shaft (riveted to the Glass Channel) is loose or broken from the Channel. To tighten the rivets or replace the Glass Channel Assembly, the whole Ventilator unit should be removed from the Door. After the unit is removed from the Door, remove the bolt at A, Illustration No. 117, and by spreading the frame gently the Glass Channel Assembly may be separated from it for replacement.

FRONT SEAT ADJUSTING

The Front Seat Regulator is adjusted by means of two screws shown in Illustration No. 121 at B, through holes in the wood frame of Seat these screws are made accessible. Turn them to the right, with a screwdriver to tighten them, turn to the left to loosen.

Correct adjustment is where all unnecessary play is taken up but still does not bind or hinder movement of Seat.

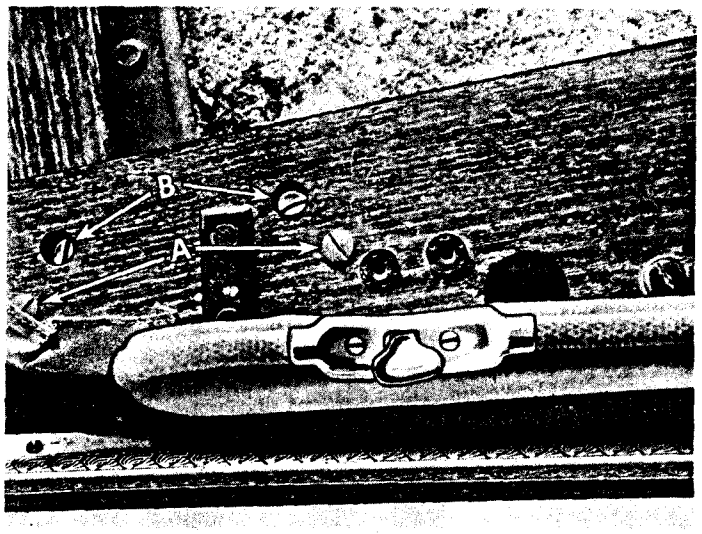


Illustration No. 121
Adjustable Front Seat Mechanism.

Under each rear corner of the Seat Frame a Spring Track slides over a mushroom shaped Seat Support which is anchored to the Sill.

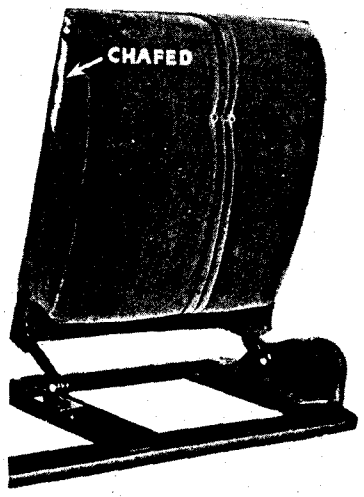


Illustration No. 122
Divided Front Seat Chafing at Top.

FRONT SEAT BACK DIVIDED TYPE (Folding)

The two halves of the Divided Type Front Seat Back used on some Coaches have a tendency in some cases to chafe or rub together at the top of their center division. *(See Illustration No. 122.)*

To prevent the Seat Backs from chafing, the later series have Sliding Plates pressed in the Floor to hold the Seat Center Support higher and therefore tend to spread the Seat Backs apart at the top.

The earlier series may be equipped at a small cost with Sliding Plates to answer the same purpose by ordering Package Part Number 544348 which includes Plate, Screws and Instructions.

The Instructions follow:

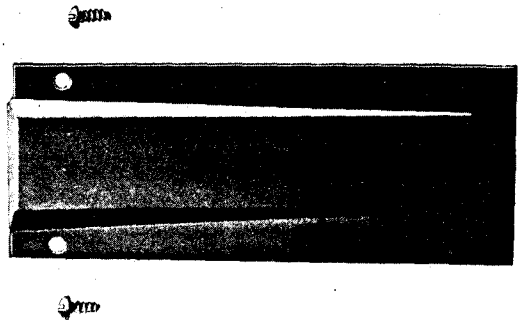


Illustration No. 123
Slide Plate

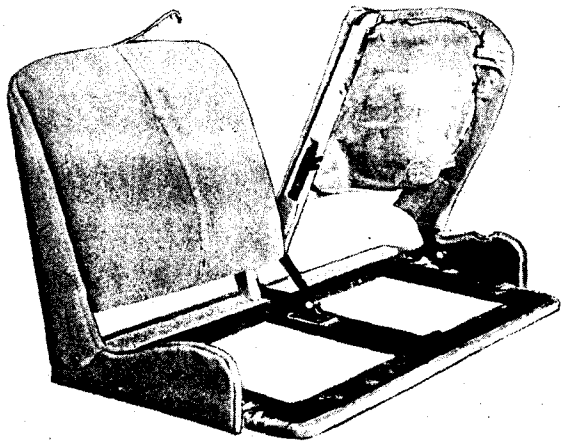


Illustration No. 124
Divided Front Seat Back Repair.

INSTALLATION OF 544348 SLIDE PLATE

(To be used on early type Two Door Sedans equipped with Divided Seats)

1. Slide Seat to full forward position.
2. Fold Floor Carpet back and insert tapered end of Slide Plate between Seat Center Support and Floor Pan, then draw the Plate back until it fits in the cut out of the Floor Carpet.
3. Using the holes in the Slide Plate for a guide, drill or prick punch small holes in the Floor Pan and insert sheet metal screws furnished in this package.

Replace Carpet and inspect operation of the Seat to see that it moves freely.

FRONT SEAT DIVIDED BACK REPAIR

Where the Front Seat Divided type Backs are chafing together and the Slide Plate has been installed but its installation does not separate the Backs sufficiently, the Randall Molding may be set lower into the wood frame in order to give more clearance between Backs.

The necessary operations follow:

1. Loosen Randall Molding by prying off.
2. Loosen Upholstery where tacked to expose the wood frame as at A in No. 24.
3. Cut away the wood ¼" deep at top tapering off to nothing about 8" down.
4. Re-install Upholstery and Molding.

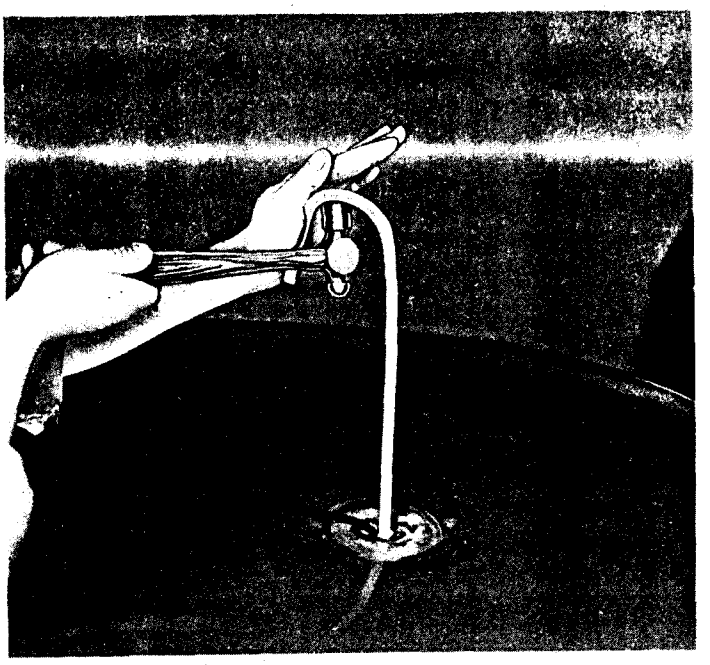


Illustration No. 125
Roof Panel Dent Removal.

ROOF PANEL DENT REMOVAL

A small dent in the Roof or other Body Panel usually may be brought out without removing the Headlining or other Trim Parts.

Scrape the center of the spot down to the metal and tin the spot with half-and-half solder.

Solder one end of a bar of solder to the tinned spot and bend the bar as in Illustration No. 125. Bump up on this Hooked Bend to pull the dent out. If the dent is a long one, attaching the solder bar at different locations and repeating this operation will raise the depression. After it is raised it may be leveled by filing surplus solder off and using a body spoon to hammer against to bring it down in spots. Do not use a torch on the panel as excessive heat of torch may buckle the Roof Panel badly and is a fire hazard unless the Upholstery is removed.

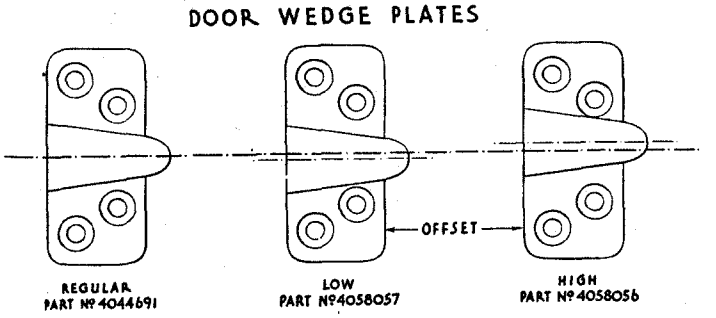


Illustration No. 126

OFFSET WEDGE PLATES

Body men may run across a condition where the Door is in correct alignment and yet the Door Wedge Plate does not enter the Dovetail Bumper Assembly centrally. To overcome this condition, Offset Wedge Plates are made available for Service. These Wedge Plates are made so that the wedge part of the Plate is offset 1/16" off center, and are serviced under Part numbers 4058056 and 4058057, Right High and Right Low respectively. A Right Side High Plate, by simply reversing it, may be used as a Left Side Low Plate. *(See Illustration No. 126.)*

A Wedge Plate should not be hammered or bent off center as this not only ruins the Wedge Plate, but bends the Plate in such a manner that it sets up a cutting action which will eventually damage the Shoes in the Dovetail Bumper assembly.

SERVICE ON WEDGE PLATES

In making adjustments on Doors, the operator before starting to make a correction, should find out what condition is causing the Door trouble. A few minutes' study of a certain Door condition and the cause of it, may sometimes save a lot of unnecessary work. For instance, some hard closing Doors may be traced directly to the Wedge Plate on the Door.

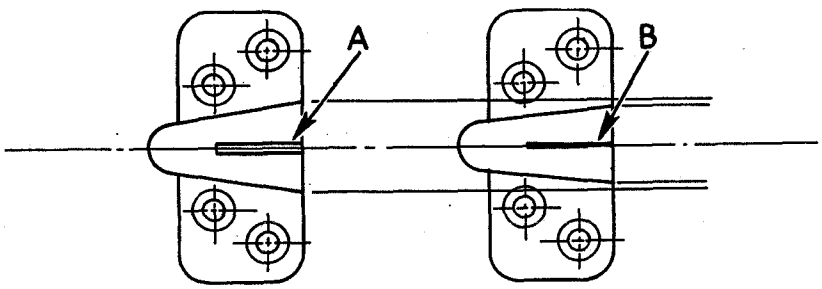


Illustration No. 127

The Wedge Plate may jam or wedge in between the Shoes of the Dovetail Assembly too tightly making it necessary to slam the Door with undue force to close it. A condition of this kind may be taken care of by removing the Wedge Plate from the Door and with a Hack Saw blade cut a slot in the wedge part of the Plate approximately ¾" long. *(See Illustration No. 127 at A.)* After cutting the slot, the Wedge Plate can be compressed about 1/16" as shown at B in the same illustration, allowing for easier closing of the Door.

There are also cases where the Door may be in correct alignment and yet the front face of the Wedge Plate shown at A in Illustration No. 128 binds on the inner part of the Dovetail Assembly at B, making the Door hard to open and close, besides causing a Door Noise at this point. Some Body men in order to remedy this have been in the habit of grinding the front face of the wedge on the Wedge Plate in order to get clearance and in so doing have materially weakened the Wedge Plate. For a correction of this kind remove the Wedge Plate and with a flat sharp chisel cut away enough stock in the Pillar so that the Wedge Plate can be countersunk approximately ⅛" into the Pillar thus providing sufficient clearance at the inner part of the Dovetail Assembly and allowing for an easier closing Door.

In a Door that fits too close to the center Body Pillar, the Door Lock Bolt may project through far enough to strike on the Metal Pillar Cover and cause a chafing noise.

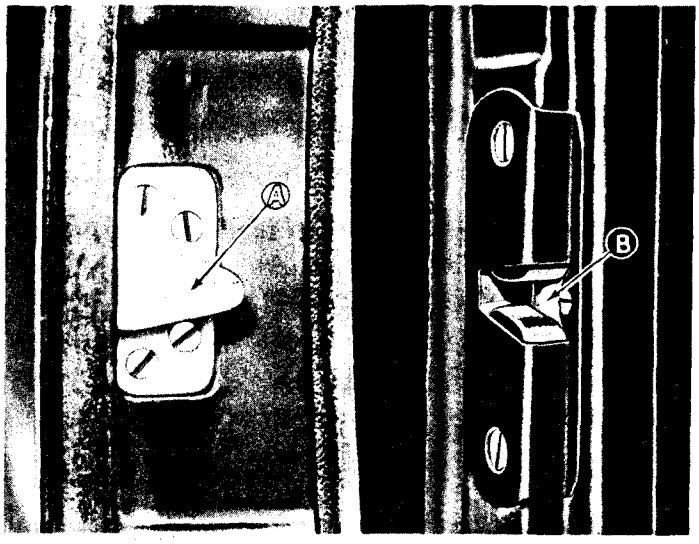


Illustration No. 128
Door Wedge Plate and Dovetail Assembly.

To correct this the Door Hinge halves should be either compressed closer together or the Hinge shimmed to move the Door farther away from the Body Lock Pillar. The condition may also be remedied if the depression at the Striker Plate is calked deeper.

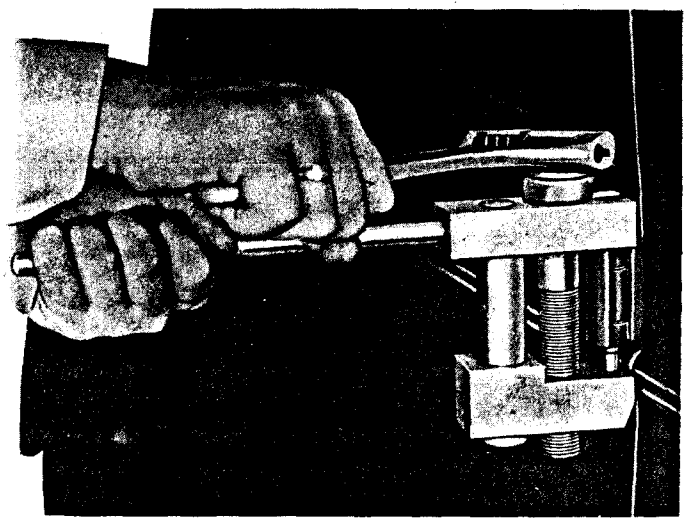


Illustration No. 129
B-170 Hinge Pin Remover.

DOOR HINGE

The Door Hinge consists of two halves, male and female. In the male half are pressed two Bronze Bushings that form bearings which turn on the Hinge Pin. The Hinge Pin has two spiral grooves for conducting the lubricant that is to be injected in an oil hole in the inside center of the male half with a pressure oil gun. See Lubrication, page 70.

The Hinge Pin is knurled just below the head in order to grip the Pin solid in the upper hole of the female half of the Hinge that is bolted to the Body Pillar. The Hinge Bushings are removed with Tool B-128 and installed with Tool B-129. A Reamer, B-130, is used to ream them to a close fit.

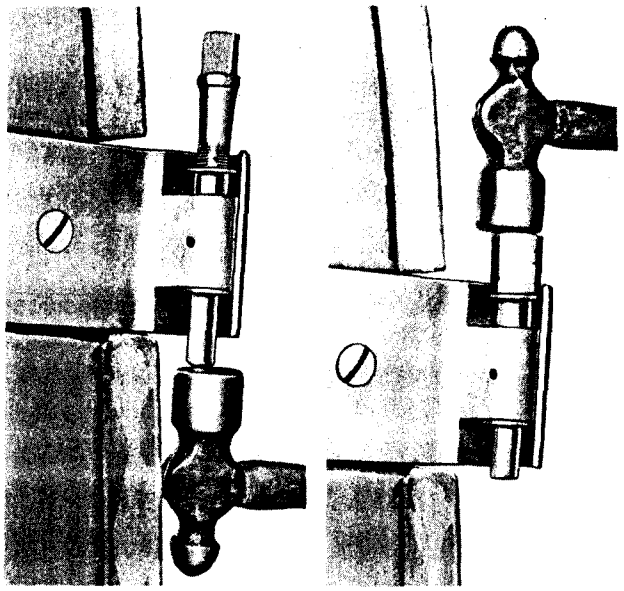


Illustration No. 130

DOOR SIDE RUBBER BUMPER

Door Side Rubber Bumpers serve the purpose of pushing or pressing the Lock side of Door *out* from the Body.

The Striker Plate holds the Door *in* to the Body. The Bumpers and Strikers should always function in this manner.

If there is too little pressure the Door will rattle at the Striker Plate. If too great, it will cause the Door to be hard to close and create too much cutting action at the Bolt and Striker.

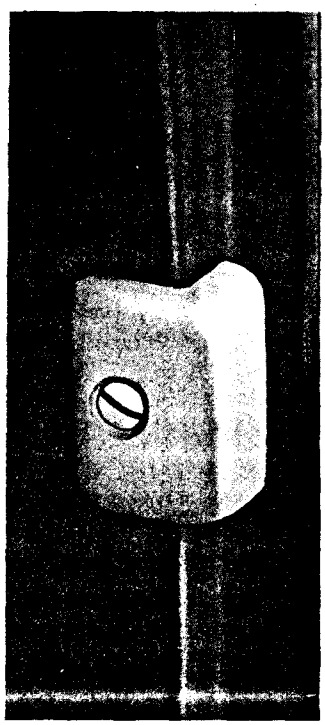


Illustration No. 131
Close-up of 1935 Front Door Side Rubber Bumper Upper

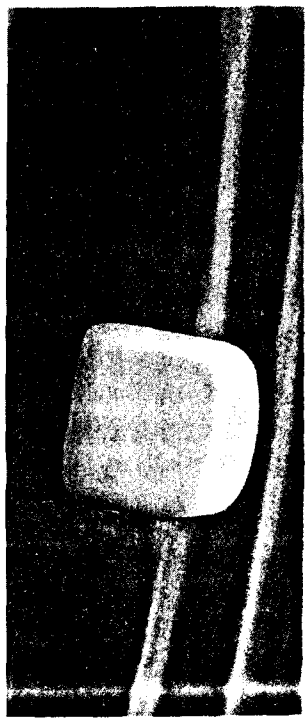


Illustration No. 132
1935 Door Side Rubber Bumper Lower Front Door and Rear Door

WEATHERSTRIPS

Door Rubber Weatherstrips must be in good condition to function properly.

Loose, torn, or damaged rubber strips should be replaced if necessary with new strips.

Weatherstrips Part No. 4064663 (57¾" long) should be used on 1936 Doors. This rubber is inserted into the Metal Retainer as shown in Illustration No. 133. The same type rubber may be also used on 1935 Bodies by cementing to the Door Flange with compound F. S. 1039. Apply cement to the base of the rubber and also to the Door Flange. Allow to dry thoroughly (about one hour) before installing the rubber.

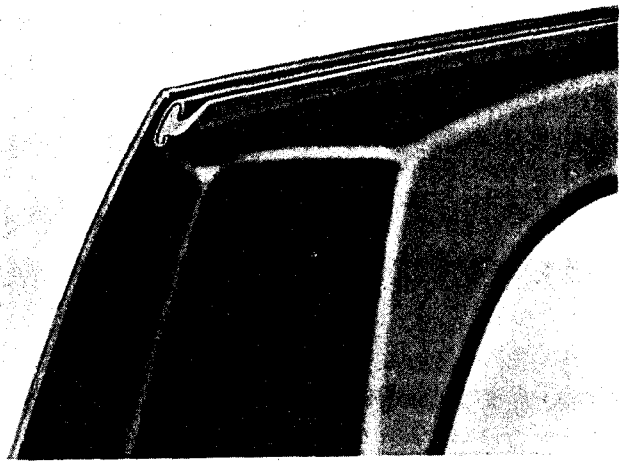


Illustration No. 133
Door Upper Weatherstrip.

NOISE AT THE DOOR UPPER WEATHERSTRIP

A snapping or ticking noise at the location of the Door Header usually may be corrected by rubbing the Door Upper Weatherstrip with graphite or in some cases removing the Weatherstrip from its Retainer and graphiting its base in the Retainer.

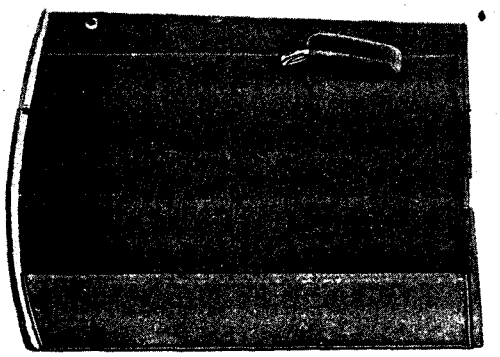


Illustration No. 134
Front Door Bottom Carpet Assembly.

DUST LEAKS BELOW DOORS

The Windhose on the Sill Plate is designed to project out far enough to contact the Carpet on the bottom of the Door to keep out dust from that source. The Door should fit correctly to allow the Windhose to contact snugly all the way across the bottom of the Door.

A shim of cardboard placed under the upper edge of the Door Carpet helps to make a tighter fit against the Windhose. If Windhose is broken or worn, it should be replaced with new.

WINDHOSE

Windhose is also used to seal the space at top and sides of Doors. If they do not touch the Door they do not stop air entrance. If they set too close to the Door they will bind and cause hard closing Doors. Sometimes tight fitting Windhose may be softened by gently bending or pressing them back with the hand. In others it may be necessary to remove and reset them to proper pressure when Door is closed.

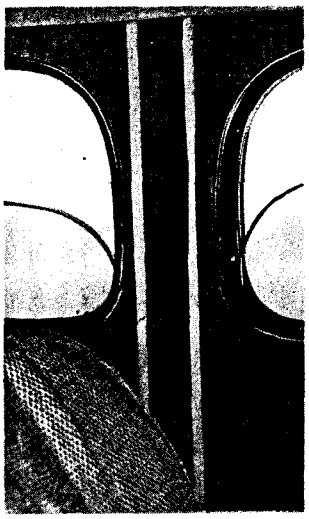


Illustration No. 135
Windhose on Center Body Pillar, pinched.

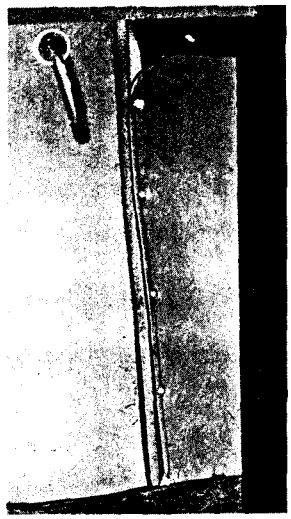


Illustration No. 136
Windhose on Front Body Hinge Pillar, too loose.

Should the Windhose at the Door curl away from the opening, therefore not making close contact with the Door, it may be corrected by inserting a strip of celluloid behind the Windhose to stiffen or bolster it with more tension.

DOOR CHECK NOISE

A Door Check Link that is twisted or strained out of alignment may make a Door Noise.

Re-alignment will correct it.

Adjust the Link with a hammer or wrench to proper alignment to relieve strain.

The Rubber Bumper that screws on the threaded end of the Check Link may be strained over far enough to rub on the metal Panel. Straighten to alignment and blow dry Graphite into the Link Opening in the Door to stop a rubbing squeak.

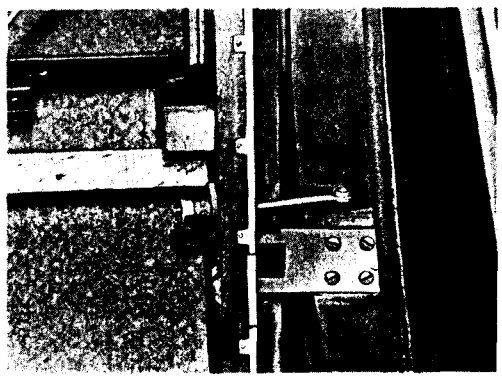


Illustration No. 137
1935 Door Check Link.

DOOR TRIM PAD TRIM CUT AT EDGE

The Door Trim Pad should set flush with edge of the Door. If it projects over the edge of the Door frame it may chafe on the Door Rubber Bumpers, or on the Door Opening Facing and cut or wear through the upholstering of Trim Pad.

When this occurs, the Door should be checked for alignment and corrected if necessary, then the Trim Pad may be removed and the Trim Cover loosened from the nails. The Nailing Strip may be removed from the Foundation and ¼" cut off the Foundation edge. Clinch the Nailing Strip back on the Foundation and stretch the Trim Cover over the nails again.

Many times the cut or torn Trim may be whip stitched allowing it to be stretched over the nails and not show after the Pad has again been installed. If this cannot be done a new Trim Pad may be necessary.

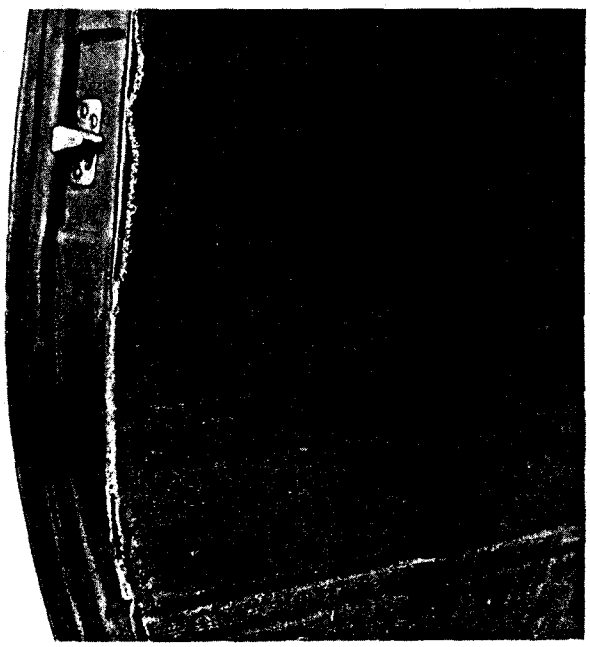


Illustration No. 138
Door Trim Pad Cut at Edges.

DOOR NOISES

Door Noises May Be Listed as Follows:

1. Door Lock Bolt and Striker Plate.
   - A—Dry: Needs Lubricating.
   - B—Loose: Needs tightening or resetting of screws.
   - C—Worn: Needs new Striker.
   - D—Crooked fit: Reset Striker Plate.
   - E—Lock Bolt Grounding: Door should be moved back, away from Pillar. See door alignment.
2. Door Wedge Plate grounding on Dovetail Case. *(See Illustration No. 128.)*
3. Door Flange Grounding on Body Facings. (Adjust the Side Rubber Bumpers.)
4. Door Hinge Screws Loose (tighten screws.)
5. Door Hinge Pins worn. *(See Index.)*
6. Door Rubber Weatherstrip chafing on Facing. *(See Index.)*
7. Door Ventilator Glass Flutter. *(See Index.)*

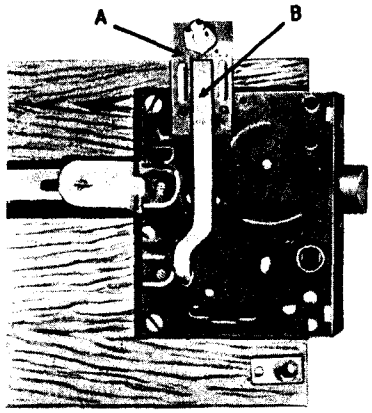


Illustration No. 139
Door Inside Safety Lock.

DOOR INSIDE SAFETY LOCK

The Inside Safety Locking Rod Handle sometimes may work hard or stick. This is caused by the sliding bar *(See Illustration No. 139 at B)* binding against the wood Regulator Board. To correct this:

1. Remove Garnish Molding.
2. Remove the Toggle Escutcheon.
3. Release the Trim to expose the Lock.
4. Pry the metal plate A out and insert spacer between edge of it and Regulator Board which will free up the tension on the sliding bar.

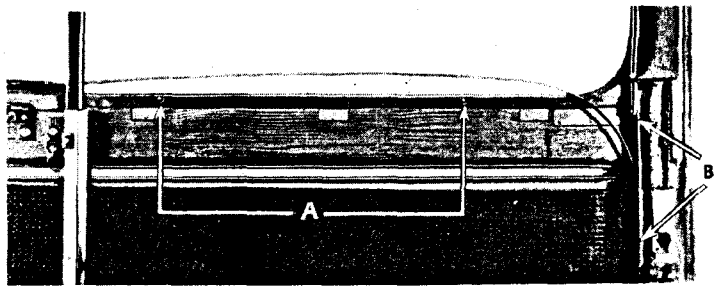


Illustration No. 140
Button Rubber Bumpers at Window Opening.

DOOR GLASS BREAKAGE

A Door Glass sometimes becomes chipped at the top due to the following causes:

1. Glass vibrates against Door Metal Flange at Window Opening when Glass is down.
2. Glass vibrates against Garnish Molding when Glass is down.

Some styles of the later production bodies have Button Rubber Bumpers inserted into the Garnish Molding and in the Window Opening to act as a bumper for the Glass.

If needed on earlier production bodies, bumpers may be easily installed by cementing small pads of rubber to the Window Opening Flange and to the Window Garnish Molding. *(See Illustration No. 140 at A.)*

Tighten up on the Glass by inserting thin strips of waterproof cardboard back of the Glass Run Channels. *(See Illustration No. 140 at B)* or remove the screws *(See Illustration No. 54 at A)* and cut away the wood block to set the bracket ⅛" deeper. This will take up the surplus end movement of the glass also.

LUBRICATING PARTS OF BODY

Door Lock

The Door Locks are lubricated when installed at the factory and usually need no attention for the first two years except at the Lock Bolt Oil Reservoir Felt which should be dampened with machine oil every two months or so. Many customers object to oil being used on the Lock Bolt as it does rub off on clothing. To correct this objection Door Ease may be applied to the Lock Bolt or Striker Plate instead of the oil. Both should not be used at the same time.

When a Lock works hard and needs oiling, it should be removed from the Door, washed in gasoline, dried, then oiled at working parts. If time does not permit this, simply spray it through the Lock Bolt with Penetrating Dripless oil by means of an Atomizer.

NOTE—Use dry powdered Graphite to lubricate Door Locking Handles and other Lock Cylinders, Convertible Coupe Window Glass Run Channels, Door Check Link Rubber Buffers, and all Black Rubber Body Parts where chafing occurs.

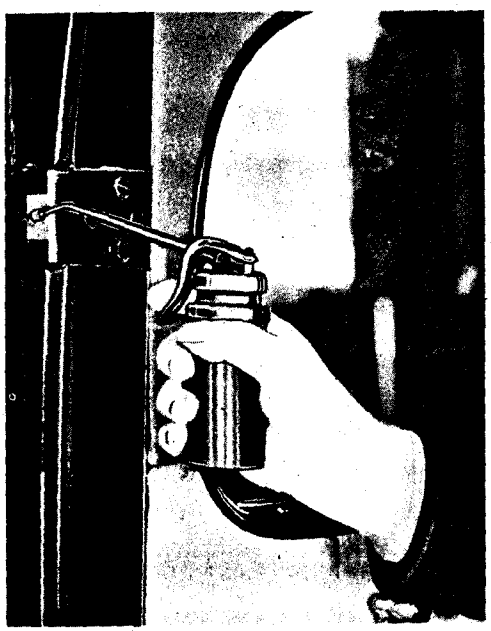


Illustration No. 141
Hinge Lubrication—Showing Plewes Oiler in Hinge Hole.

Door Handle Cylinder

To Lubricate a Door Handle Lock Cylinder or any other Lock Cylinder such as a Deck Lid, Trunk Lid or Glove Box Lid, clean it thoroughly with gasoline or carbon tetrachloride, blow out and dry, then lubricate with Dry Powdered Graphite and nothing else.

NOTE—Hinckley Myers Co. and Kent Moore Organization sell a Lock Cleaning and Lubricating Kit that has cleaning fluid and Powdered Graphite, with a small cleaning Gun and a Graphite Gun for their application.

It also has three key extractors to remove broken keys from Lock Cylinders. (See Lubrication.)

The Door Hinges should be oiled with a good grade of machine oil such as Penetrating Dripless Oil, by forcing it in the oil hole on the inside of Hinge with a pressure oil gun or oil can. Do not oil a Hinge by applying oil to outside or on the Head of the Hinge Pin. Open Door to find oil hole.

Door Window Regulators

The Door Window Regulator moving parts should be lubricated one or two times a year by raising the Door Trim Pad from the bottom and oiling and greasing them.

Door Check Link

Use oil at the pivot joint and dry graphite on the Rubber Bumper.

Hood Lacings

Clean excess oil or grease off the Lacing with gasoline and apply Door Ease Grease Stick by rubbing it on the surface.

Door Wedge Plate and Dovetail Bumper Assembly

An application of Door Ease Grease Stick is the cleanest and most efficient method of lubricating these parts. Clean off all old grease before applying Grease Stick. Give the parts a light coating only, as a heavy coating is wasteful and collects grime that may rub off on clothing.

Hood Catches

The Hood Catch Bearings should be oiled. Grease Stick should be used at the Plate.

Hood Hinges

Hood Hinges require penetrating oil two or three times a year. The Dripless Oil handled by Hinckley Myers Co. is ideal for this. It penetrates very quickly and the solvent evaporates leaving a film of heavy oil that lubricates but does not run.

WATER LEAKS

Trunk

Water leaks may occur in the Trunk at the Hinges, Gutter, and sometimes at the Handle Ferrule.

The Hinge is attached to the Lid and Body Panel by screws that screw into threaded lugs molded in the Hinge. The lugs are inserted through holes in the Panel. These holes should be sealed by soft washers (rubber or lead) or by waterproof compound applied on the lugs before tightening the Hinge to place. This water leak may either drip on the luggage or collect in between the two Panels of the Lid and run out when Lid is raised.

Where the Handle Ferrule or an Emblem goes through the Trunk Lid a water leak may occur and the way to correct it is to remove or loosen them and seal with either a rubber washer or an application of F. S. 1039 compound.

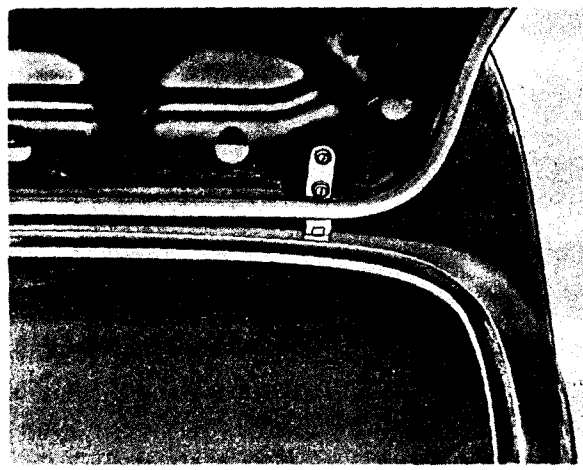


Illustration No. 142
Trunk Gutter.

Where the water leaks in at the Gutter, it usually occurs at the top corners of the Lid.

The correction for this is to chalk the gutter and close the lid. The Chalk will show on the Rubber Weatherstrip on the Lid where the Gutter touches. Where it does not show, the Gutter should be raised with a wood mallet or hammer until it does show.

It is a good idea to check around the Gutter to see that the Quarter or Back Panel is flanged down tightly to the Gutter on Coupe Style Bodies. Any loose Flanges should be sealed with compound or closed down to place with a hammer.

See also water leak at Deck Lid.

COUPE DECK LID AND REAR COMPARTMENT LID

The Coupe Deck Lid is shielded against water leaks by having a Rubber Weatherstrip cemented to the under edge of the Lid. This Weatherstrip when the Lid is closed, fits down tightly on the rim of the Drain Gutter around the Deck Opening preventing water from entering. If the Weatherstrip does not contact evenly around the edges of the Gutter it should be made to do so by raising the Gutter with a hammer at the low points. Chalking the rim of the Gutter and then closing the Lid will show if the Weatherstrip is contacting properly.

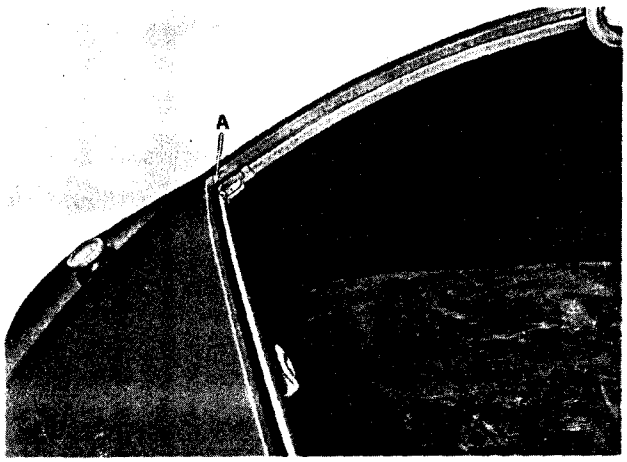


Illustration No. 143
Coupe Deck Gutter and Drain Hole.

When a water leak is noticed in the Deck Compartment the Gutter also should be examined for a hole. A spot weld burned through or a screw or nail hole may have been overlooked. These may easily be sealed with Liquid Solder or Compound F. S. (1039). See that the Gutter Drain Pipes at the lower ends of Gutter are not plugged. *(See Illustration No. 143 at A.)*

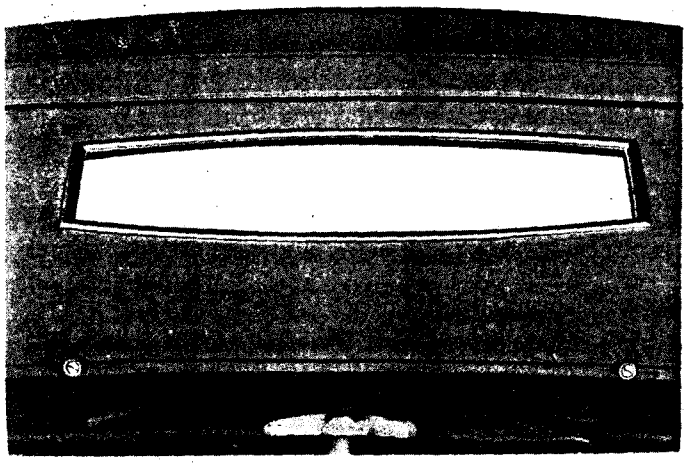


Illustration No. 144
Convertible Style Back Window.

BACK WINDOW (CONVERTIBLE STYLE)

A water leak at the Convertible Coupe or Phaeton Rear Curtain Window may come in around the Glass or from the joint of Top Cover and Curtain at the Rear Roof Bow.

If it is at the Glass, the Glass should be removed from the frame and either resealed with F. S. 796 Compound or a wider Glass installed if necessary as the Window Frame may have become spread away from the Glass requiring a wider Glass.

If the leak comes in at the joint of the Top Cover and Curtain, remove the Molding and seal the joint with F.S. 796 Compound then install the Molding while Compound is soft.

If water is wicking up on the Rear Quarter Lining at the Belt Line it may be corrected as follows:

1. Remove the Finishing Molding.
2. Whisk broom clean the Back Curtain.
3. With a clean paint brush or cloth apply clear Protection Waterproofing to the entire Back Curtain and especially along the tacked edges.
4. Re-install the Finishing Molding.
5. Let dry thoroughly before wetting.

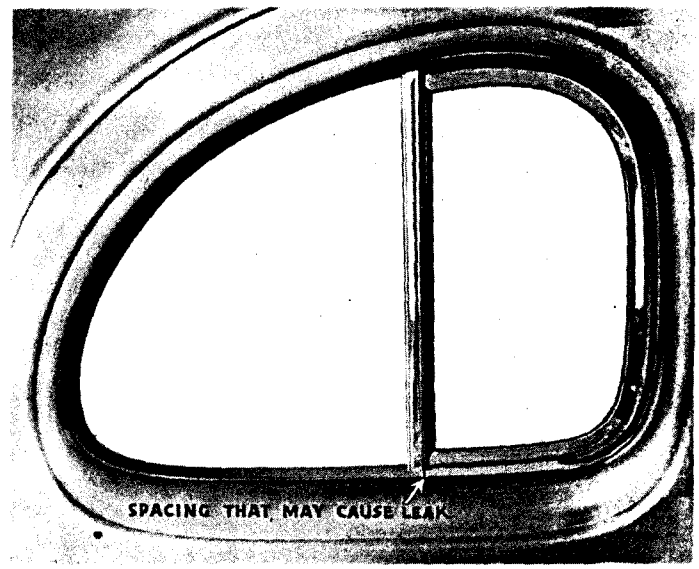


Illustration No. 145
Water Leak at Rear Quarter Window.

BACK WINDOW SEDAN

The Back Window Glass is set in a Rubber Channel similar to the Windshield and needs to be sealed also with F.S. 1039 Compound. In case of a water leak at the Back Window it usually requires only a sealing at the Channel Outer Lip with the B-182 Sealing Gun using F.S. 1040 or 1039 thinned down to the consistency of cream. (Use high test gasoline for thinning.)

REAR QUARTER WINDOW (SEDAN)

Water Leaks at a Sedan Rear Quarter Window may come through the joint at the junction of the two Rubber Channels that surround the Glasses. *(See Illustration No. 145.)*

It may enter at the Ventilator Shaft where it inserts through the Rubber Channel or at the Rubber Channel Outer Lip.

An application of F.S. 1040 Compound under the Outer Lip of the Channels, also at the junction of the Channels and at the Ventilator Shaft should stop entrance of water.

COACH REAR QUARTER WINDOW WATER LEAK

Cause: Water overflows at the Drain Pan under the Coach Rear Quarter Window, wetting the lower Quarter Trim, Floor Carpet and Padding.

On some of the early 1935 Coach Bodies, (Turret Top Styles), if the drain for the Rear Quarter Window at the base of the Body Hinge Pillar becomes clogged, it causes the

water to overflow. On most complaints of this kind, if the Drain Hole mentioned is cleaned out, the trouble will be corrected.

However, in some cases, the water may run down behind the Drain Pan instead of running into the Pan, or the water may splash against the Trim Pad and run down to the Floor, soaking the Trim and the Carpet. In the last two cases, the following corrective work may be necessary:

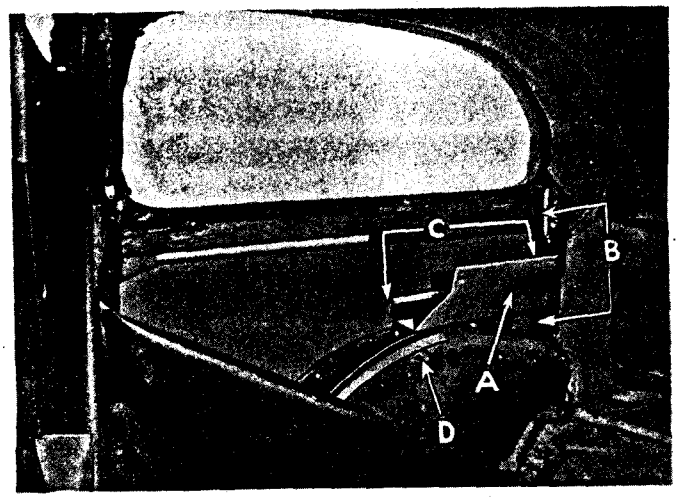


Illustration No. 146
Rear Quarter Window Drain Before Baffle Is Installed.

NOTE—This applies only to early Coaches not having the hollow lip Sash Weatherstrip.

1. Remove Rear Seat Cushion and Cushion Back.
2. Remove Rear Quarter Window Garnish Molding.
3. Run the Glass down and remove the upper Glass Run Channel.
4. Remove the Window Regulator Handle and the Rear Quarter Lower Trim Pad. NOTE—The Rear Quarter Arm Rest is a part of the Lower Quarter Trim and is held in place by a Wood Screw which is accessible from the outside under the Wheelhousing.
   (See Illustration No. 146 at D.)
5. Remove upper and lower Regulator Boards and Quarter Window Glass.

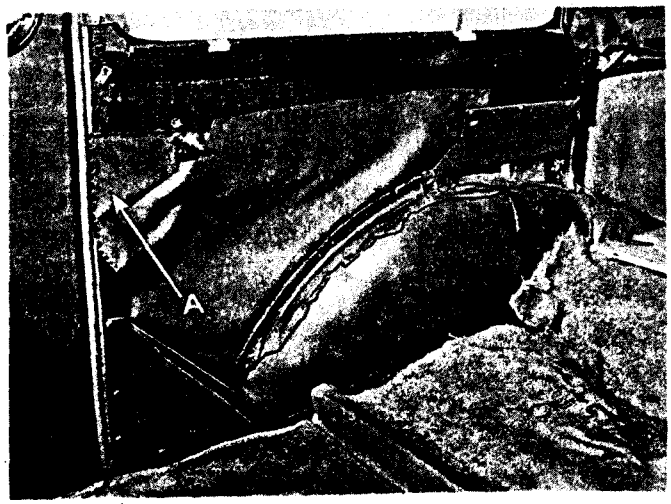


Illustration No. 147
Rear Quarter Window Drain After Baffle Is Installed.

6. Remove oblong metal Drain Pan on top of the Wheelhousing at the base of the Rear Quarter Pillar. *(See Illustration No. 146 at A.)* Also, remove Lower Glass Run Channels and their Retainers from the Rear Quarter Pillar and the Rear Body Hinge Pillar.
7. Seal between the Rear Quarter Pillar and the Rear Quarter Panel with a combination of cotton waste and F.S. 1039 Compound *(See Illustration No. 146 at B.)*
8. Re-install the Drain Pan above the Wheelhousing making sure sufficient sealing compound is used where it contacts the Rear Quarter Pillar and the Quarter Panel. *(See Illustration No. 146 at C.)* In brief, make sure that all the water that might enter at the Window will find its way into the Pan. Re-install the Rear Quarter Lower Glass Channels and their Retainers to their original locations.
9. Cut a piece of roof covering material to be used as a Rain Baffle and place it in position as shown in Illustration No. 147 (glazed side toward Body Panel), tacking it first to the Rear Body Hinge Pillar, *(See Illustration No. 147 at A)* and tuck the lower left hand skirt of the material behind the Rear Body Hinge Pillar-To-Sill Brace, down to the Sill. The balance of the skirt is then trimmed and cemented to the inside edge of the rubber Drain Gutter and the Drain Pan. (Use F.S. 1039 Cement.)
10. Install the Window Glass and Regulator Boards. Tack the Rain Baffle to the lower Regulator Board *(See Illustration No. 147.)*
11. Re-assemble the Quarter Trim and Arm Rest, Upper Glass Run Channel, Garnish Molding, Cushion and Seat Back Assemblies.

NOTE—This information is to be used only on exceptional cases where other methods have failed. Time for this work is usually about three hours for one side.

COWL VENTILATOR

To adjust the spacing around the Cowl Ventilator Lid, loosen the adjusting screws in the Hinge Plate. Close the Lid and insert wood wedges in the spacing around the Lid to equalize and hold it in position.

Tighten the adjusting screws.

The holes are elongated to allow for adjustment. Tension of the Lid to the rubber Gasket is obtained by means of the Adjustable Control Arm. *(See Illustration No. 14.)*

COMPOUNDS

There are so few necessary Compounds needed for service on Bodies that there is no excuse for a Dealer not having a limited quantity of all of them on hand at all times.

F.S. 1039 is used to cement or seal all rubber Weatherstrips, rubber Moldings, wood joints and metal Panel joints where dust or water leaks may occur.

F.S. 1040 is a similar cement to F.S. 1039 except that it is thinner in consistency so that it may be used in the Sealing Gun B-182 for sealing the outer lips on the Windshield, Back Window and Rear Quarter Window Rubber Channels. (High Test Gasoline may be used to thin either 1039.or 1040 to the proper creamy consistency for this purpose.)

F.S. 1044 is a heavy paste used to cement the Insulation Felt and other silencing pads to the Metal Panels, Roof and Floor.

F.S. 796 is a thick yellow waterproof paste used to cement heavy upholstery such as Carpet and Boarded Trim to the Door, to the Rear Quarters and above the Windshield and Doors.

F.S. 731 is a white rubber Trimmer's Cement used to paint the backs of all upholstery parts when building up a Boarded Trim Assembly such as a Door Trim Pad or Over Windshield Trim Strip.

This makes only Five Compounds needed in a Body Shop where complete Repair is done in Servicing a Turret Top Body. They may be ordered from Hinckley-Myers Co. or Kent Moore Organization.

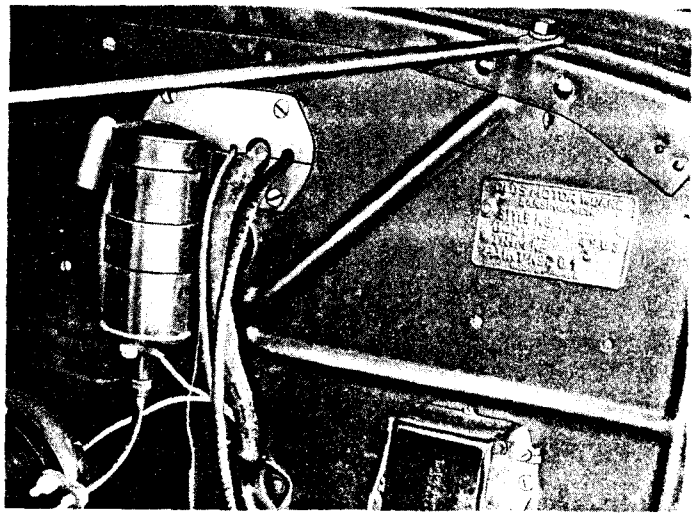


Illustration No. 148
Wiring Through Dash.

DASH

The Dash is punched with many holes through which Wires, Cables, etc., run. The extra space around the Wire is usually rubber grommeted to exclude water which is splashed against it by the Fan. Water leaks on the Floor Pans under the Cowl sometimes may be traced to a missing Grommet or a drip off the Cables. Compound F.S. 1039 may be used to close the small openings at the holes where these Cables enter.

WINDSHIELD SEALING

There are *three* sealing operations to be noted when making a Windshield installation:

1. Windshield Rubber Channel surrounding both glasses (right and left). This is sealed with Compound F.S. No. 1039 which is brushed on the Windshield Flange before the Windshield Glass and Rubber Channel are installed. The Garnish Molding with its twenty screws holds it in position firmly. *(See insert, Illustration No. 149 at A.)*
2. Windshield Center Division Channels and Gaskets. This sealing is done by setting with proper pressure the four screws that hold the outer and inner Center Division Channels together against their Gaskets.
3. Windshield Rubber Channel Outer Lip that projects out over the Windshield Opening Reveal. This is sealed with Compound F.S. 1040 with the aid of a Sealing Gun B-182. The nozzle is inserted beneath the rubber lip and Compound is pressed into the space between the lip and the metal Panel, as at "B". This applies to the Back Window and Sedan Quarter Windows as well.

If these three locations are properly sealed the Windshield cannot leak.

Many times a loose Windshield Wiper Housing Gasket may cause a leak that might be called a Windshield leak.

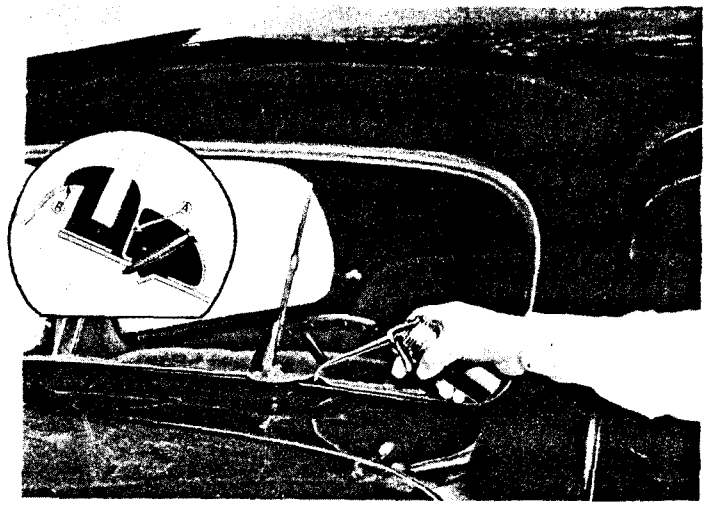


Illustration No. 149
Windshield Sealing.

WINDSHIELD WIPER HOUSING CAP OR GASKET

A Water leak may sometimes be found at the Gasket of the Windshield Wiper Housing Cap.

The Cap may not fit down tightly or the Gasket may have been squeezed out of place.

Loosen the Cap Screws and adjust the Gasket and see that the Cap fits tightly.

The Drive Shaft in the Cap may not be packed with grease thus allowing water to be sucked through at the Shaft. This water may run down the Instrument Panel and drip off on the Floor or it may enter the Instruments and fill the space back of their cover glasses.

Remove the Cap and repack it with grease and see that the Cap and Gasket is properly fitted before the screws are tightened.

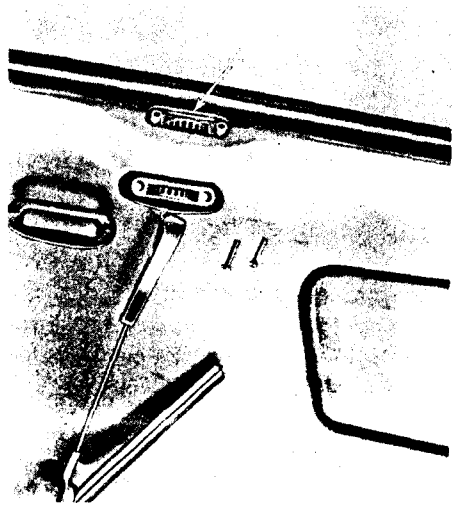


Illustration No. 150
Exploded View of Windshield Wiper and Parts.

WINDSHIELD (GLASS BREAKAGE)

When a Windshield Glass "strain breaks" the cause of this breakage should be removed before another Glass is installed.

The Windshield Opening Flanges against which the Glass Assembly sets should be as near a perfect plane as possible.

One of the Garnish Molding Screws may have been set too taut which would strain the Windshield Glass at an uneven place in the Opening Frame causing a break in the Glass.

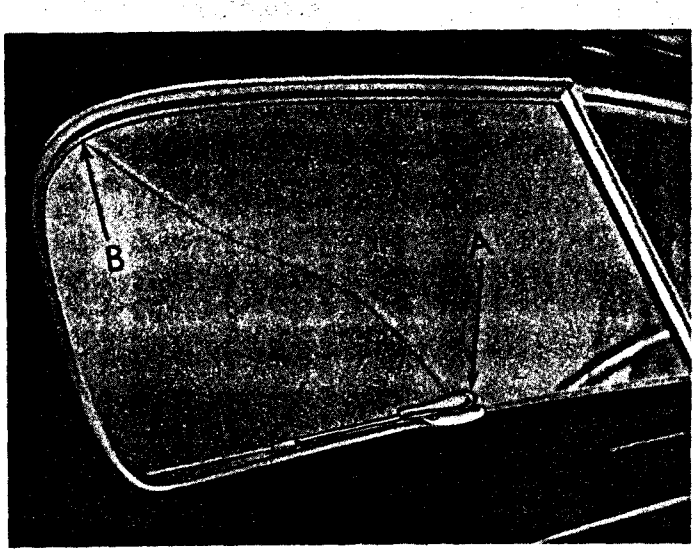


Illustration No. 151
Strain Break, Windshield Glass.

In checking the Opening for unevenness a Template or the Windshield Glass itself should be used with a Feeler Gauge to check for raised or hollow places *(See Illustration No. 152.)*

These uneven places should be leveled to a plane by calking. *(See Illustration No. 153.)*

NOTE — All old Compound should be cleaned off the Flanges with a solvent (Kerosene) or scraped off, before trying the Template and Feeler.

All screws in the Windshield Garnish Molding should be evenly tensioned.

Illustration No. 152
Checking Windshield Opening Using Glass as Template.

WINDSHIELD GLASS REMOVAL

One of the Windshield Glasses may be removed without disturbing the other Glass if care is taken to loosen it and the Rubber Channel without damage. If the Channel is damaged, both Glasses must be removed to replace the Channel.

The 1935 Windshield glass is $\frac{1}{32}$" larger vertically than 1936 Glass, therefore they are not interchangeable.

The Windshield Wiper Housing and Gasket must be removed before Windshield Rubber Channel is removed. *(See Illustration No. 151 at A.)*

CHECKING WINDSHIELD OPENING

The Windshield Opening Checking Template shown in Illustration No. 151 is to be used with .010" Feeler Gauge to determine any high or low spots on the Windshield Opening Frame, that may have caused the Glass to break. These locations should be marked with crayon.

Remove the Template.

Any high spots found should be calked back to a plane surface. *(See Illustration No. 153.)*

This Template may be made up of laminated hardwood as illustrated, and may be used on the following cars:

1936 Olds, Pontiac, Buick, Buick 40 and 60, La Salle and Cadillac 60.

1935 Olds, Pontiac and La Salle.

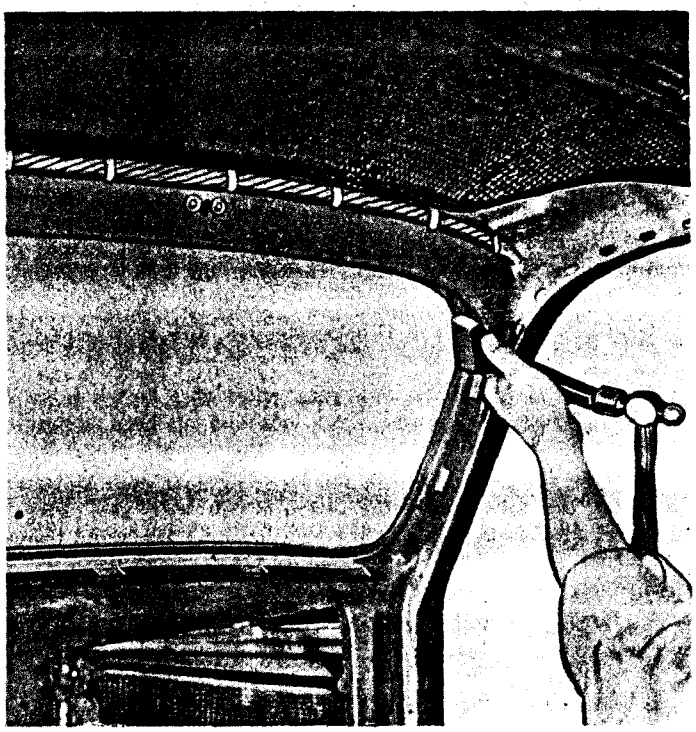


Illustration No. 153
Calking Windshield Opening Flange.

WINDSHIELD OPENING LEVELING

A Windshield Opening Frame that shows an uneven surface against which the Glass Assembly is to set, is leveled by using a calking tool and hammer as illustrated above.

Place the calking tool on the bulge and tap it with a hammer. Then try the Template and Feeler Gauge again and repeat these operations until the Template fits all the way around the opening and does not tilt or rock.

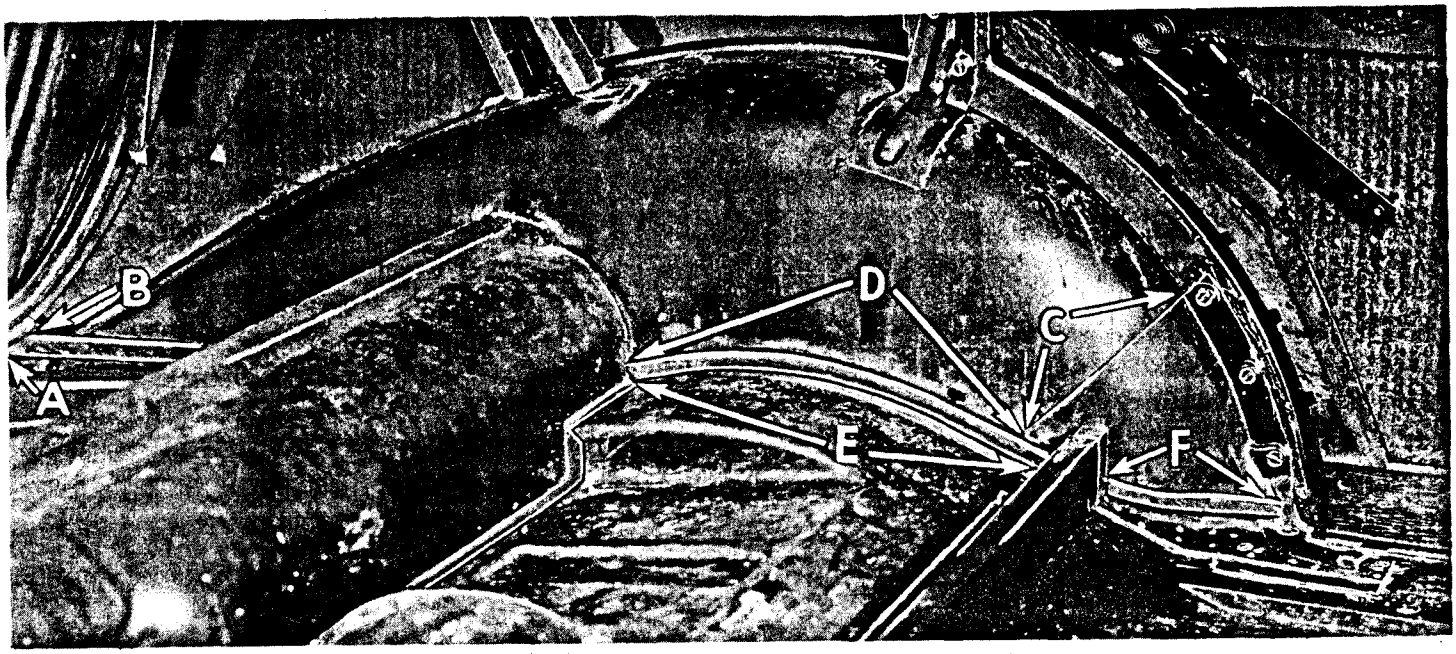


Illustration No. 154
Showing Where to Inspect for Possible Dust Leaks.

DUST LEAKS

Dust that may accumulate within the body of a car when traveling along a dusty highway, may be thrown or churned up by the wheels and under carriage of the car itself. The movement along the road of streamlined cars has a tendency to cause an indraft or suction of air into the body. This suction takes place at any small unsealed opening or crevice; which in the case of dust leaks occurs particularly along the sides of the Floor Pans, Wheelhousing and bottom of Door Openings. If the air enters at any small opening as mentioned, dust will enter, also. Most of the indraft of air at the points described can be counteracted to a great extent by opening the Cowl Ventilator. However, on dust complaints, the Floor construction should be thoroughly inspected.

The lettered points in Illustration No. 154 show where to examine the Floor Construction for entrance of dust.

On some style Bodies, dust may enter at a bolt hole or at a point where a Grommet has loosened or been removed. Sealing at these points may correct the trouble.

For the sealing of the Sedan Floor against dust leaks we suggest the following information which will, also, give a general idea as to the possible location on other style bodies as well.

1. Remove Rear Seat Cushion, Rear Seat Back, Trunk Luggage Shelf (or Compartment Shelf), Spare Tire, etc.
2. Loosen the Trim, Carpets and other Floor coverings along the sides of the Floor from the Rear Body Hinge Pillars to and across the Rear End Panel.
3. Examine for and seal all possible air entrances between the Floor Pans and the Body Sills as well as all unnecessary openings around the Wheelhousing.

In Illustration No. 154, points A, B, and C may be sealed or calked with cotton batting and Compound F.S. 1039, while at D, E and F it is only necessary, in many cases, to use the Compound.

NOTE—The water drain holes at the bottom of the Rear Body Hinge Pillars, and at the Sills on Coaches must be left open, or if dust is entering at these points coarse hair dipped in oil may be stuffed lightly into the drain holes.

The Rear Floor Construction on Coupes, Trunk and Rear Compartment Style Bodies should receive special attention. For instance, in Illustration No. 155, the rubber Grommet

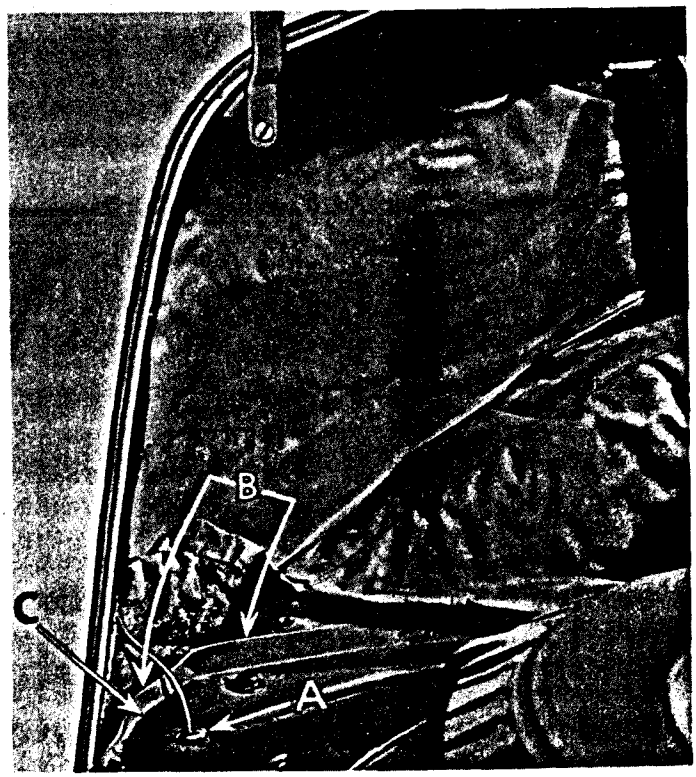


Illustration No. 155
Wheelhousing and Trunk Rear Corner.

shown at "A" may not cover the wiring outlet sufficiently. This can be sealed with Compound F.S. 1039. In the same Illustration, if dust enters at points "B," these particular openings should be calked with a combination of cotton batting and F.S. 1039. At "C," where the metal Floor Pan is spotwelded

to the Rear End Sill, it may also be necessary to seal with Compound. Before a sealing operation is attempted all accumulated dust in crevices around the Floor Construction should be blown out with an air hose in order that the sealing compound may have a better adhesion. Such sealers as glue, shellac or putty, etc., are not recommended for sealing purposes. Elastic compound sealers such as F.S. 1039 are best for this purpose.

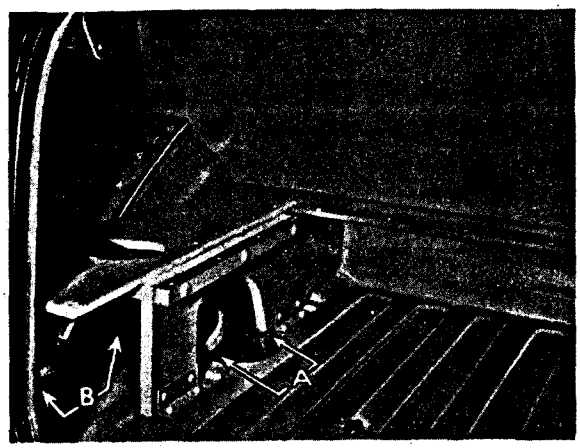


Illustration No. 156
Rear Floor Pan and Gas Tank Filler Pipe.
(Chevrolet)

On some style bodies, such as a Chevrolet Two Door Sedan, a possible dust leak may occur where the Gas Tank Filler Pipe goes through the Rear Floor Pan. It will be noticed in Illustration No. 156 at "A" that the Filler Pipe is insulated from the Floor Pan by a sponge rubber gasket which, in some cases, may have slipped out of position allowing entrance of air and dust. This point should be thoroughly inspected and sealed, also sections of the Floor Pan construction at "B" as shown in the same Illustration.

UPHOLSTERY

Upholstery Cloth, commonly spoken of as "Trim" may be divided generally into two main groups.

1. Flat Cloth: Broadcloth, Worsted, Whipcord, Tweeds, Cheviots.
2. Pile Fabrics: Mohair, Plush, Velvets and Velours.

In the first group, the Warp is interwoven with the "Filler" which constitutes the finish and entire surface of the cloth. In use, the wear is on this entire exposed surface and for the same reason, the entire surface is subjected to discoloration from grime and dirt.

In the second group, the Pile or Nap Fabrics have the Pile interwoven with the Filler into the Warp with the vertical Pick of Nap projecting up beyond the Filler surface and therefore the wear is on the ends of these Picks rather than on the Filler. Likewise the grime and dirt is usually deposited on the Nap. Most Pile fabrics used in Body Trimming are coated on the back with a layer of latex (rubber) to aid in preventing the Pile from pushing through the body of the cloth. When cleaning this type of Trim, care must be used not to saturate the base of the fabric with a solvent, such as Gasoline, Carbon Tetrachloride etc., or this rubber backing may be dissolved and the fabric damaged.

Solvent cleaners of this nature should be used sparingly by simply dampening the cleaning cotton and applying it with as little saturation and rubbing action as possible.

There is another Cleaning Agent of a different type that is very good in instances where grease, grime, and dust are to be removed from an entire Trim part such as Seat Cushions or Door Trim Pads. This material is a liquid and is to be used by whisking a small quantity of it to a complete foam, then applying the foam alone to the fabric with a sponge. With gentle rubbing over the entire Pad the ammonia and soap in the liquid do a very satisfactory job. It takes longer to dry than a cleaning solvent, but it has been found to be better for certain kinds of cleaning problems.

CHROMIUM PLATE CLEANING

Chromium Plate should be kept clean and free from salt or soot as well as other road grime.

The surface should be wiped with a damp cloth or, if necessary, use kerosene to clean off rust discoloration and road oil or tar.

Chromium does not require a polish as does nickel, German silver and other softer plates which usually require an abrasive to create a brightness.

FINISH

Duco is a quick drying spraying Lacquer with which nearly all of G. M. Car Bodies are surfaced.

When we speak of the "finish," we mean the smoothness or lustre of the Lacquer surface.

After Lacquer is sprayed, no matter how many times the surface has been gone over (coats), it is rough, dull and pebbly and has to be sanded or rubbed smooth which creates a lustre surface.

Once the pebbly surface is rubbed smooth it need not be rubbed again for this purpose. It does require cleaning, however, and as often as appearance demands.

Many owners and dealers believe in "——izing" their cars. Many of these "——izing" waxes are good and may add to the life of a polished Duco finish. This finish does not usually last very long, therefore it has to be "re——ized" several times a year. In order to "——ize" them, the surface is rubbed again and again with grits and abrasives to clean them prior to their re-waxing operations. In these "Abrasive Rubbings" lies a great deal of trouble.

The Lacquer is eventually rubbed or ground off to such a point that there is very little or no Lacquer left, especially on the high spots, Moldings, Crowns, Edges, etc.

For this reason alone the use of waxes and "——izings" has never been fully recommended by Corporations responsible for the durability of the finish.

It is not the waxing operations as much as the repeated preparatory rubbing operations that leave the surface bare and discolored in spots and cause the owner to be dissatisfied or to complain about his car's appearance.

Wax wears off faster in some portions of the body than in others. If all portions of the surface could be kept equally well covered, the Finish could probably be preserved for some time. But unfortunately this does not happen. Some parts are wax covered and others are not, therefore, there is a difference in wearing which results in discolorations. If harsh abrasives are used, the Lacquer will not survive many cleanings.

DuPont's or McAleer's Polish, or their equal, does create a brilliant temporary polish and lustre.

If a Wax Finish is desired, it should be applied over a thoroughly cleaned surface and if required, use only a mild cleaner, free from harsh abrasives. After this cleaning operation, if the Lacquer shows thin or rubbed through, it should be lacquered or spotted in before any wax is applied.

Damaged portions of Lacquer may be spotted in, in many cases, if the proper Under Coats, Color and Operations are used.

If wax had been used on the Lacquer, this must be *entirely* removed from the *entire surface* to be re-spotted. Use half Thinner and half high-test gasoline to clean wax off for spot-spraying. Feather edge the spot with a wide bevel down to the Prime Coat or bare metal.

Apply Primer and let dry thoroughly. Apply Surfacer if necessary, and let dry. Sand to feather edge.

Apply Under Coats. Let dry and then sand it.

Apply finish coats. Let dry and use Rubbing Compound to reduce the eggshell finish to a lustre.

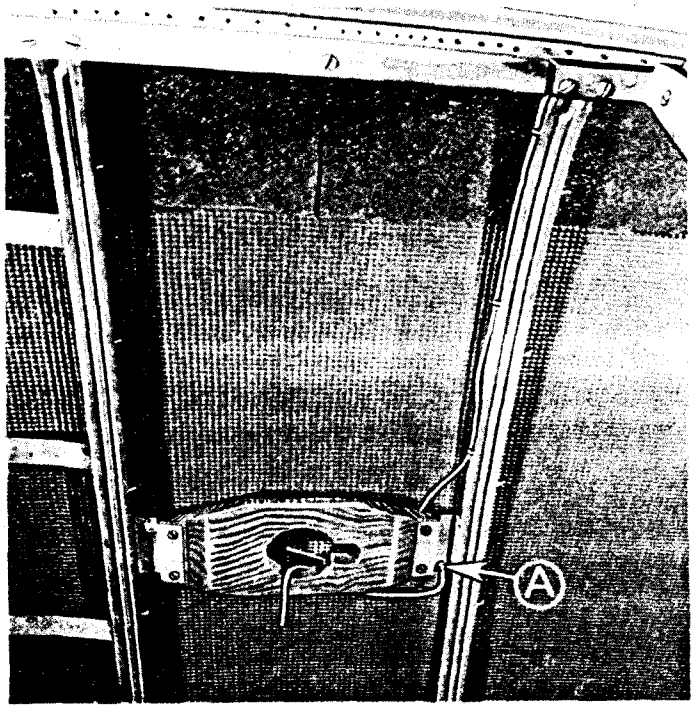


Illustration No. 157
Dome Lamp Wiring.

DOME LAMP AND WIRING GROUND

The Dome Lamp Block is held between the second and third Roof Bows with machine screw to metal Supports which are spotwelded to the Roof Rear Bow.

The screws have Sleeve Nuts on the upper side of the Lamp Block.

The Wiring Ground Wire is fastened with a screw at "A" to the Metal Supports, grounding through the metal Bow to the Roof Side Rail. The Wire to the Switch follows the Roof Bow over to the right Side Roof Rail and down the Pillar to the Switch. The Dome Lamp Case is attached to the Block with wood screws that may be seen by turning the Lamp Cover to one side and removing.

MEMORANDUM

1936
FISHER TURRET TOP BODY CONSTRUCTION

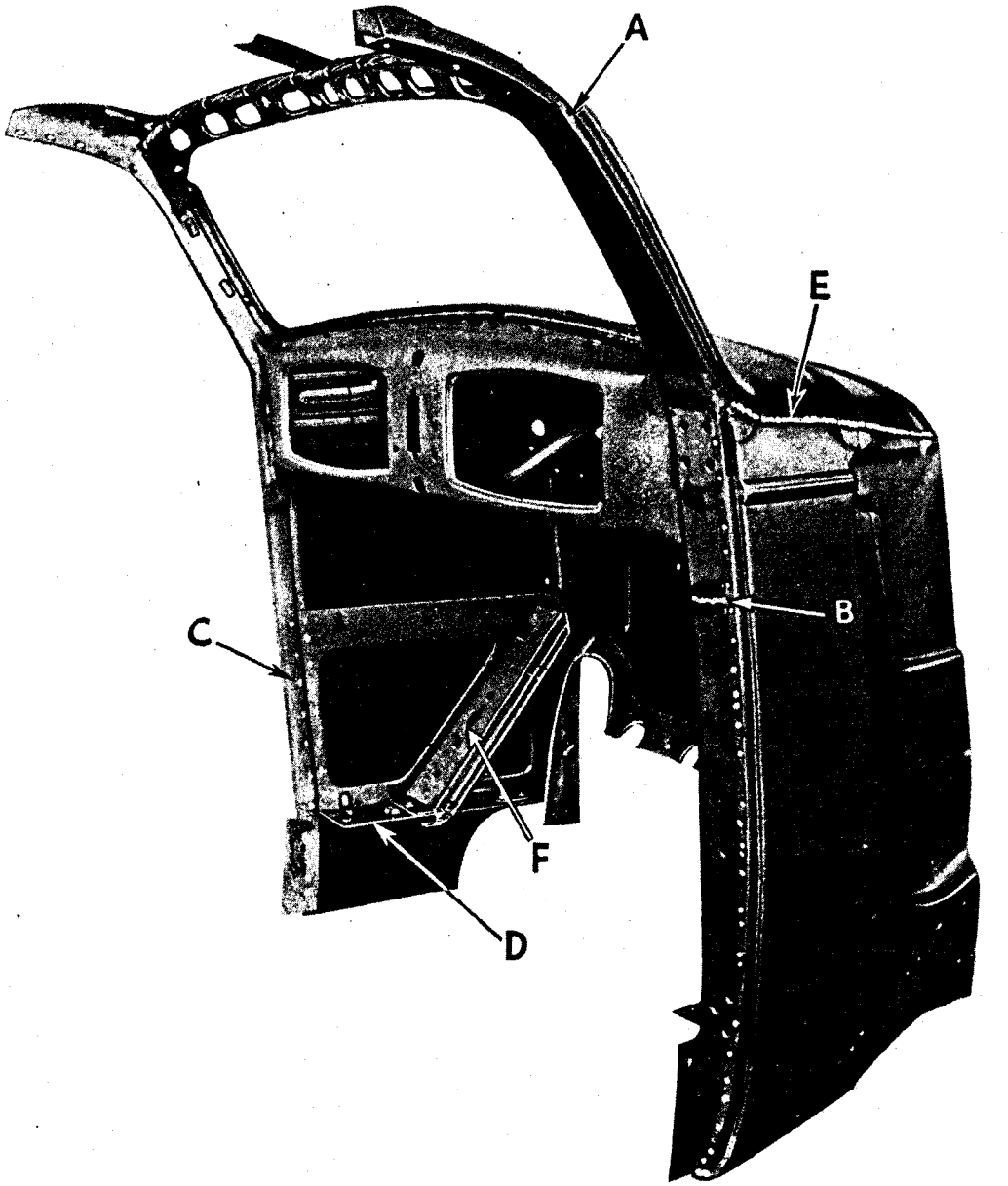


Illustration No. 158

1936 BODY FRONT END ASSEMBLY

1936
FISHER TURRET TOP BODY CONSTRUCTION

In describing the 1936 Body Front End Assembly it is to be noted that this assembly is divided into two principal parts. First: The Front End Frame which is composed of various steel units welded together to form a framework or foundation for the metal outer panels and, Secondly: The Front End Outer Shell or Cowl Panels which are assembled and welded to this framework to form a complete unit familiarly known as the Cowl and Dash Assembly. *(See Illustration No. 158.)*

FRONT END FRAME

The Front End Frame is made up of seven main parts which may be described as follows:

Front End Frame Upper: This forms the entire Windshield Opening and includes the Windshield Header, Front Roof Corner Braces, Instrument Panel, and the upper part of the Front Body Hinge Pillars. The Front End Frame Upper is torch welded to the metal Side Roof Rail shown at "A" in Illustration No. 159 and is likewise welded to the Front End Frame Leg. *(See Illustration No. 158 at B.)*

Front End Frame Leg. Right and Left: This forms the lower section of the Front Body Hinge Pillar and Pillar Facing. It is torch welded to the Front End Frame Upper at "B" and also spotwelded to the Front End Side Brace *(See Illustration No. 158 at C.)*

Front End Side Brace. Right and Left: This is an angular steel stamping used as a reinforcement for the lower side section of the Cowl. It is electrically spotwelded to the Lower Leg of the Front Body Hinge Pillar and to the Dash. The bottom part of this Brace is flanged to the top side of the Main Side Sill to which it is bolted and screwed. *(See Illustration No. 158 at D.)* The Toe Board Brace (F in the same Illustration) is also an integral part of the Front End Side Brace.

Front End Frame to Dash Panel Brace. Right and Left: This is a new reinforcement used on 1936 Cowl and Dash Assemblies. This Brace is spotwelded to the Front Body Hinge Pillar in the vicinity of the upper Hinge, strengthening the Pillar at this point, and is also spotwelded to the upper part of the Dash Panel at a point where the Radiator Tie Rods are anchored. On some style bodies the center part of this Brace on the left side of the Cowl is equipped with anchor nuts for the attachment of the Emergency Brake Lever. *(See Illustration No. 160 at A.)*

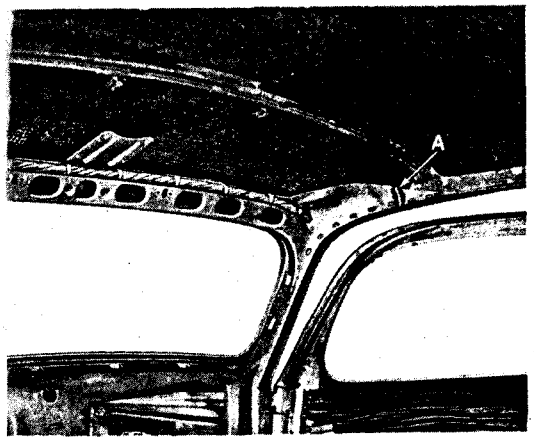


Illustration No. 159
Interior View of Upper Front Corner of 1936 Body Front End Assembly.

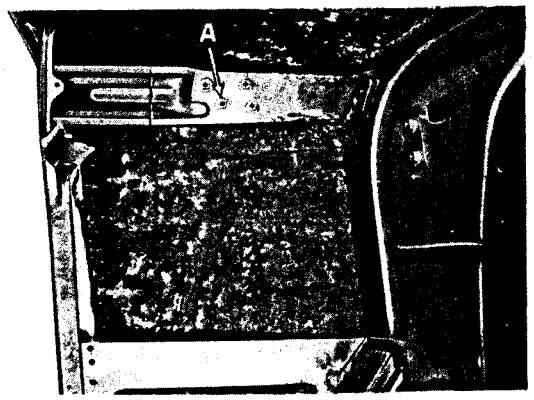


Illustration No. 160
Front End Frame to Dash Panel Brace.

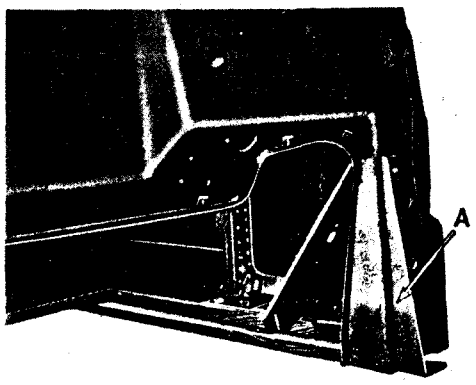


Illustration No. 161
Dash to Chassis Frame Brace.

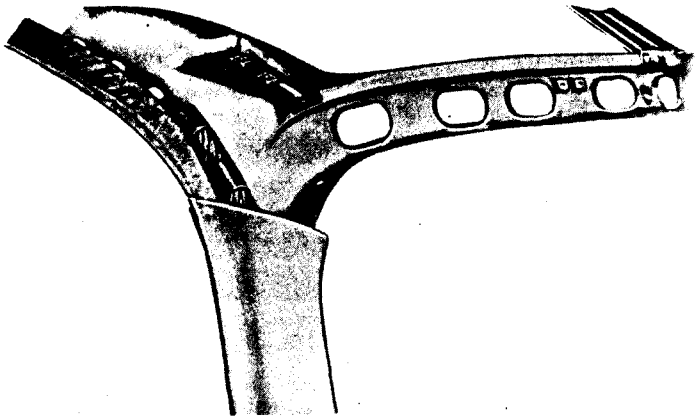


Illustration No. 162
Cut Away View of Front End Frame Upper.

FRONT END OUTER SHELL

The 1936 Front End Outer Shell is made up of four major Panels as follows:

Cowl Upper Panel: This is a steel stamping that embraces the top of the Cowl and also the upper section of both Front Body Hinge Pillars. It is torch welded to the Turret Roof Panel *(See Illustration No. 158 at A)* and is flanged around the sides and lower part of the Windshield Opening where it is spotwelded to the Frame of the Cowl Assembly. It is joined to the Cowl Side Panels by an electric butt weld and is flanged and spotwelded to the upper edge of the Dash. The top center of the Cowl Upper Panel is cut out to receive the Cowl Ventilator Drain Gutter and the Cowl Ventilator Hinge Arm both of which are spotwelded to the under side of this panel around the opening. The Cowl Ventilator Lid and its adjustment is similar to 1935 construction. (A description of this Lid is given on Page No. 6.)

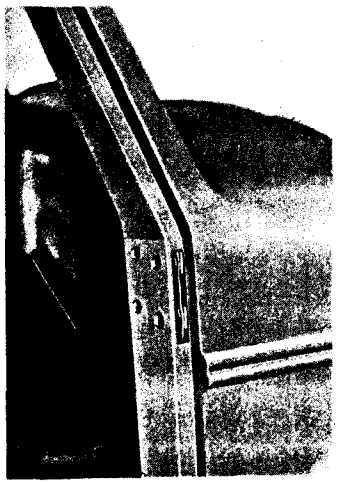


Illustration No. 163
Upper Hinge "Cut Out" in Front Body Hinge Pillar Showing Location of Cage Nuts for Holding Hinge Screws.

Cowl Side Panel. Right and Left: The Cowl Side Panel forms the side section of the Front End Outer Shell. It is indented and pressed to form moldings and offsets which conform with the general design of the body itself. This Panel is electrically butt welded to the Cowl Upper Panel at a point slightly above the Belt Molding, the weld extending from the Door Opening to the Dash. *(See Illustration No. 158 at E.)* At the Front Body Hinge Pillar this Panel is offset slightly and then flanged around the Pillar where it is spotwelded to place. The Cowl Side Panel is likewise flanged over the front side of the Dash Panel where it is also spotwelded.

Dash Panel: The Dash Panel is made of sheet steel, stamped and pressed with offsets to give rigidity across the front of the Cowl Assembly. The Dash is perforated at various places for the insertion of wiring and other equipment while the inside of the Panel is insulated with heavy jute matting called "Dash Insulator Assembly" which acts as a heat resistor and sound deadener. The Dash Panel is electrically spotwelded to the flanges of the Cowl Upper Panel and the Cowl Side Panels.

Two Braces are located at each lower corner of the Dash, one on the outside of the Panel called a Dash to Chassis Frame Brace, *(See Illustration No. 161 at A)*, and the other on the inside of the Panel called a Dash to Sill Brace. The same rivets through both Braces securely anchor them to the Dash.

The shape of the Dash to Chassis Frame Braces of different make cars varies, due to the difference in the manner of attachment to the car frame or motor support.

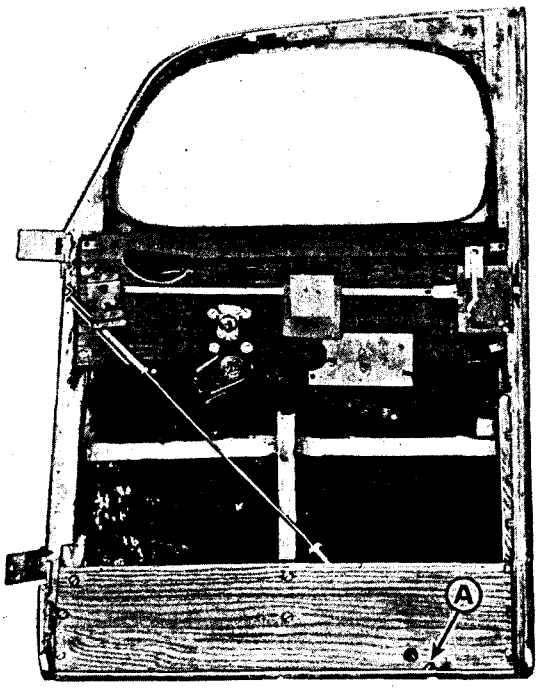


Illustration No. 164
1936 Composite Front Door Showing Door Stiffener Rod and Interior Hardware Parts.

FRONT DOORS

1936 Front Doors are hinged to the Front Body Hinge Pillar. The Cowl and the Pillar at this section of the Body are held to a more vertical line to allow for a more uniform suspension of the Door. The Front Pillar at the location of the Hinges is reinforced and anchor nuts are used in conjunction with bolts to securely anchor the Hinges to this Pillar.

The 1936 composite Front Door is similar to that of the 1935 Door, except that the Hinges, Locks, Wedge Plate, Door Check, and Stiffener Rod are located on the opposite Pillar of the Door. The Door operates similarly although the Lock and Hinge sides are reversed. *(See Illustration No. 164.)*

ALL METAL DOORS

1936 CHEVROLET STANDARD BODIES ONLY

CHEVROLET METAL DOORS (1936)

On some Standard 1936 Chevrolet Bodies, All Metal Doors are being used. In the following paragraphs a description of this Door is given together with Illustrations showing its inner construction. Although this metal Door, minus Hardware, Trim and Glass, is serviced as a unit, there are however two principal parts in the construction as follows:

2. Door Inner Panel

This stamping comprises the inner framework of the Door and includes such portions formerly known as the Door Hinge Pillar, Door Lock Pillar, Door Bottom Bar, and Regulator Board. The part of this panel that is used as the Regulator Board is perforated and pressed with offsets for the accommodation of the Door Mechanical Hardware, and is also insulated across its center with Sound Silencer Felt.

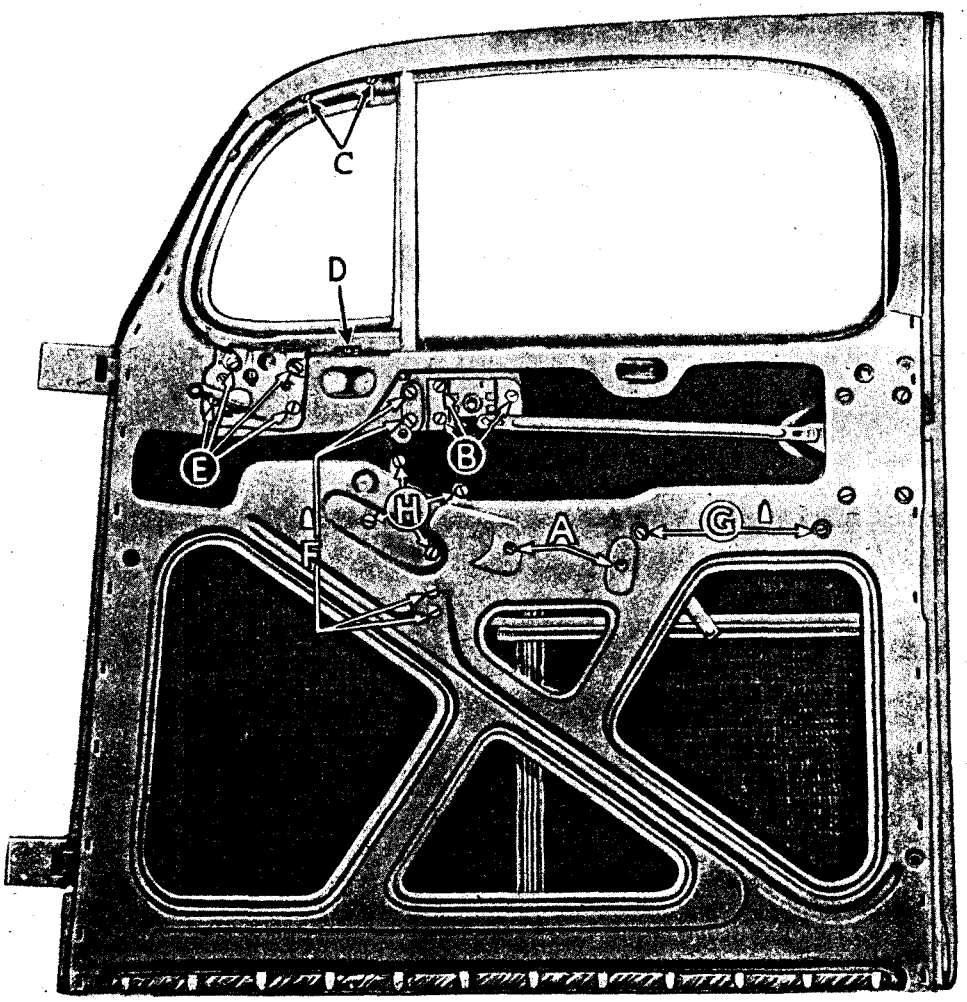


Illustration No. 165
Inside View of Chevrolet All Metal Door.

1. Door Outer Panel

This is a one-piece steel stamping comprising the Outside Panel of the Door. The inner surface of this panel is insulated with Sound Silencer Felt and is reinforced at its center by a vertical metal strainer or stiffener which is spotwelded to the bottom and also to the belt of the panel, directly below the Window Opening.

In the Assembly of the Door Outer and Door Inner Panel, the edges of the Outer Panel are formed over and spotwelded to the flanges of the Inner Panel. At various points in the Window Opening additional metal reinforcements are used to bridge the Panels together at this point. To this Door unit the Door Mechanical Hardware Parts including the Door Trim Pad, Ventilator Assembly and Door Glass are added. (See the description of these parts on pages 57, 58 and 59.)

DOOR TRIM PAD REMOVAL
ALL METAL DOORS

1. Remove the Door Window Garnish Molding.
2. Remove Remote Control Handle, Regulator Handles, Inside Locking Device, and Door Arm Rest.
3. With a screwdriver carefully pry the Trim Pad loose from the Door Lock Pillar and Door Hinge Pillar. Complete this operation by prying the Pad loose along bottom edge.
4. Lift the Trim Pad up to disengage it from the two hooks on the Inner Panel and remove.

NOTE—Along "B" in Illustration No. 166 the Door Trim Pad is not attached to the top edge of the Inner Panel but is held in place by the lower flange of the Door Window Garnish Molding.

DOOR TRIM PAD REPLACEMENT

1. Engage the slots in the Foundation of the Trim Pad over the hooks on the Inner Panel. *(See Illustration No. 166 at C.)*
2. Align the Trim Pad and with a wood Mallet drive the barbed nails on the Trim Pad into the slots on the Door Lock Pillar and Door Hinge Pillar. Complete this operation by fastening the bottom edge of the Trim Pad to the nailing strip at the bottom of the Door. *(See Illustration No. 166 at D.)*
3. Install Regulator Handles, Remote Control Handle, and Inside Locking Device.
4. Install Door Arm Rest and Window Garnish Molding.

NOTE—In the event a nail breaks away from the Binding Strip on the Door Trim Pad, the nail can be replaced by simply turning back the trim material on the Door Trim Pad where the nail is broken off, and inserting a Replacement Tab. This Replacement tab has a nail welded to it and is serviced under part No. 4073068. (See drawings of this part.)

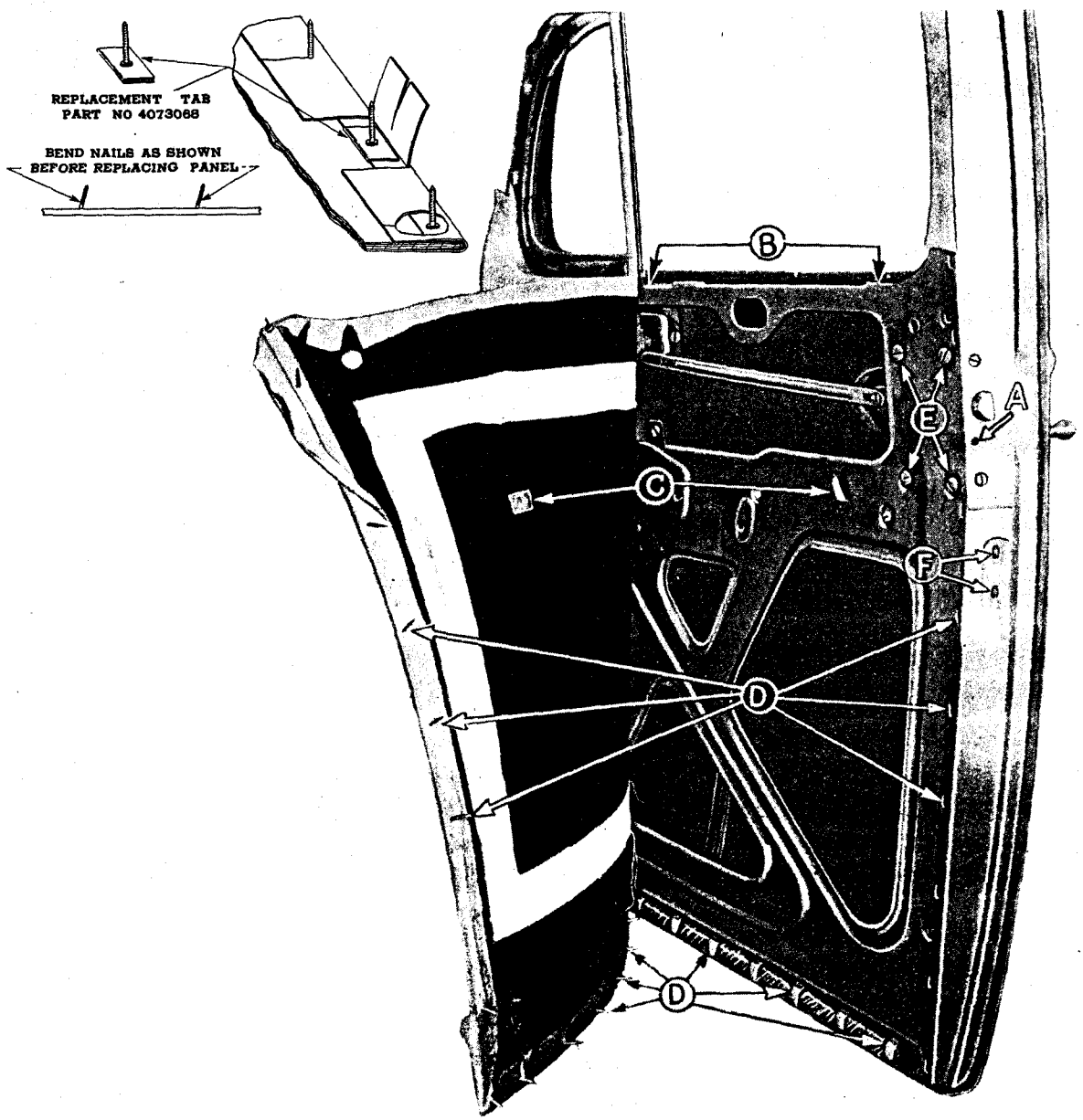


Illustration No. 166
All Metal Door Trim Pad Removal.

OUTSIDE DOOR HANDLE REMOVAL

The Outside Door Handle is removed by turning the Door Handle sufficiently to locate and remove the Door Handle Retaining Screw, which is accessible through a small hole in the front face of the Door Lock directly below the Lock Bolt. *(See Illustration No. 166 at A.)*

DOOR WINDOW GARNISH MOLDING REMOVAL

The Door Window Garnish Molding is removed by taking out the self-tapping screws holding this Molding in position in the Window Opening. Two types of metal screws are used. The Garnish Molding is held to the upper part of the Door Lock Pillar by self-tapping machine screws, while in the balance of the Molding, self-tapping wood screws are used.

DOOR REMOTE CONTROL OR REGULATOR HANDLE REMOVAL

Both of these Handles are fitted to splined spindles on their mechanisms and are held in position by a Door Inside Handle Retaining Spring. To remove, press the Ferrule surrounding the shank of the Handle in towards the Door Pad and remove the Door Inside Handle Retaining Spring which is visible through a cut out slot in the shank of the Handle. (See Illustration No. 72.)

DOOR ARM REST REMOVAL

The Door Arm Rest is removed as follows: On the under side of the Arm Rest remove two screws holding the Door Arm Rest Finishing Plate. When this plate is lowered out of position it exposes the heads of two machine screws which go through the Arm Rest and Door Trim Pad at an angle and into anchor nuts in the Door Inner Panel. *(See Illustration No. 165 at A.)* By taking out these screws, the Arm Rest is readily removed.

NOTE—Bodies that have an Arm Rest on the left Door only, are fitted with anchor nuts on the right Door also, so that an Arm Rest may be installed without removing the Trim Pad. These anchor nuts may be located by pressing on the Trim Pad with the fingers. The holes in the Trim Pad Foundation are already punched out.

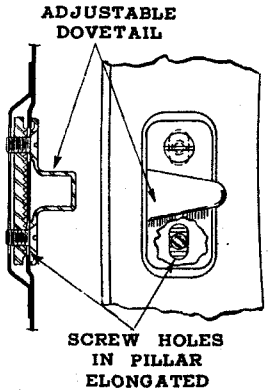


Illustration No. 167

DOOR WEDGE PLATE

Another adjustment of note on the Metal Door is the Wedge Plate on the Lock Pillar. The holes in the Lock Pillar for the Wedge Plate are elongated and in conjunction with movable anchor nuts the Wedge Plate may be adjusted up or down to enter the Dovetail Assembly on the Body Pillar centrally. *(See Illustration No. 166 at F.)*

DOOR HINGES

The Door Hinges where attached to the Metal Door Pillar, may be adjusted in or out to bring the Door closer or further away from the Body. This is taken care of by horizontally elongated holes in the Hinge Pillar. Each Door Hinge is held to the Door Pillar by three stud bolts. The Hinges are inserted through cut outs in the Door Outer Panel. Hexagon head Hinge Bolts go through the Hinge Pillar and are threaded into the Hinges securely, anchoring them to place.

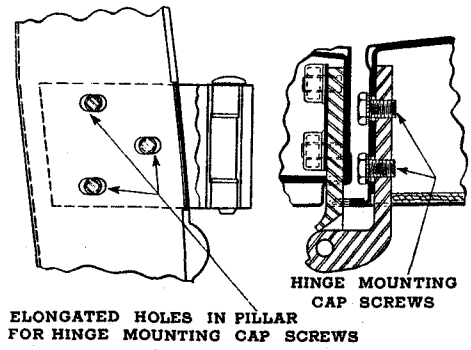


Illustration No. 168

DOOR VENTILATOR ASSEMBLY REMOVAL

1. Remove Garnish Molding.
2. Loosen the Trim Pad in the vicinity of the Door Ventilator Regulator mechanism.
3. Remove two screws holding top of Ventilator Assembly to Window Opening. *(See Illustration No. 165 at C.)*
4. Remove one bolt and nut holding Ventilator Assembly to the top edge of Door Inner Panel. *(See Illustration No. 165 at D.)*
5. Remove four machine screws holding Ventilator Regulator Mechanism to Door Inner Panel. *(See Illustration No. 165 at E.)*
6. Open Ventilator Glass slightly and pry top of Assembly in.
7. Close Glass and remove Ventilator Assembly.

DOOR WINDOW GLASS REMOVAL

1. Remove Door Trim Pad.
2. In the Window Opening take out screws holding Upper Glass Run Channel and remove channel.
3. Remove Center Division Channel by taking out two screws at top of Channel in the Window Opening and also the screws holding this Channel to the Door Inner Panel. *(See Illustration No. 165 at F.)*
4. With Glass down, remove four screws holding the Cam to the Channel on the bottom of the Glass.
5. Remove Glass through the Door Window Opening.

DOOR WINDOW REGULATOR ASSEMBLY REMOVAL

1. Remove Door Trim Pad.
2. Remove screws holding Regulator Cam to Door Glass Lower Sash Channel.
3. Remove two screws from Regulator Guide on Door Inner Panel. *(See Illustration No. 165 at G.)*
4. Remove four screws holding Regulator Assembly to Door Inner Panel. *(See Illustration No. 165 at H.)*
5. Push the Regulator Assembly in so as to clear the spindle of this mechanism from the Inner Panel and slide the arm from the Regulator Guide.
6. Remove Regulator Assembly from the bottom part of Door.

DOOR LOCK ASSEMBLY REMOVAL

1. Remove Door Trim Pad.
2. Remove Outside Door Handle.
3. Remove six machine screws holding the Door Lock Assembly to the Door Inner Panel. Two of these screws are through the Pillar Facing of the Door. *(See Illustration No. 166 at E.)*

NOTE—In removing the Door Lock it is also necessary to remove the Remote Control Mechanism in order to disconnect the Remote Control Connecting Link from the Lock.

4. After screws are taken out, the Lock may be released and removed from the lower part of the Door.

REMOTE CONTROL ASSEMBLY REMOVAL

The Remote Control Mechanism is removed by taking out the three machine screws *(See Illustration No. 165 at B.)* The screw holes in this mechanism are slotted to allow for adjustment of the Remote Control Connecting Link.

1936
HEADLINING REMOVAL AND REPLACEMENT

1936 AND LATE TYPE 1935 HEADLINING REMOVAL

The Removal and replacement of the Headlining in a Turret Top Fisher Body is an operation that a great many Body Men seek to avoid, fearing perhaps they may either damage or tear the Trim in its removal or make an unsightly job in replacing it. This so-called "fear" is based mostly on the lack of knowledge in knowing where to start and how to finish an operation of this kind. Knowing how to remove and replace a Headlining wholly or in part, is most essential in any body shop where many times it is necessary to get to the Roof structure

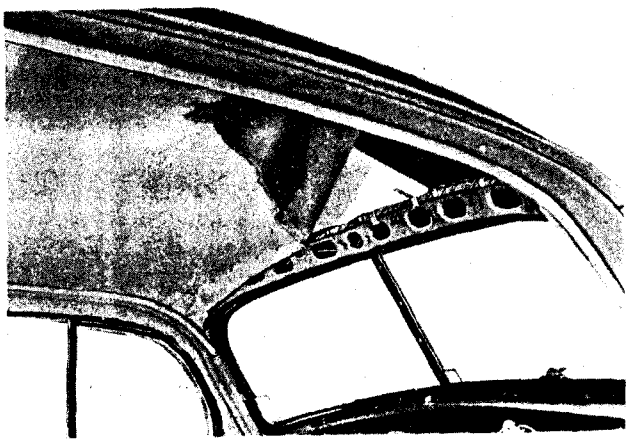


Illustration No. 169
View Showing How Headlining is Attached Above Windshield.

for service purposes. Once a Body Man removes or replaces a Headlining he acquires a certain confidence in himself towards doing Trim Work and eventually with a little practice becomes proficient in all kinds of Trim work.

Clean Hands and Proper Tools are essential, a medium size Screwdriver and a Tack Hammer are the Trim Tools most frequently used. The following is the procedure for removing a 1936 Sedan Headlining:

1. Remove the Rear Seat Cushion.
2. Remove the Rear Seat Back, by taking out the screws at the lower corners of the Seat Back where attached to the Floor Seat Riser. Remove the three screws holding the Rear Seat Back to the Parcel Shelf Board. (Through the Trunk or Compartment Opening at the rear.)

   In removing the Seat Back, care should be taken not to tear the cardboard Baffle which is tacked to the rear of the Seat Back and to the Seat Riser on the Floor of the car. These tacks should be removed.
3. Remove Windshield Garnish Molding and Rear Vision Mirror. NOTE—The Instrument Panel should be taped to protect it when removing the Garnish Molding. Many expert workmen (trimmers) can loosen or remove a Headlining without removing the Windshield Garnish Molding or the Two Rear Quarter Window Moldings.

   They may save a few minutes time in doing this, but it is dangerous for the average workman who has not had much practice at this line of work to do it this way.

   Once the Foundation Trim Cardboard is bent badly, or broken it is difficult to make a good looking finished job. Therefore we recommend the longer method.
4. Remove Sun Visors and Brackets.
5. Remove Dome Lamp Lens and Case and untack Headlining around this opening.

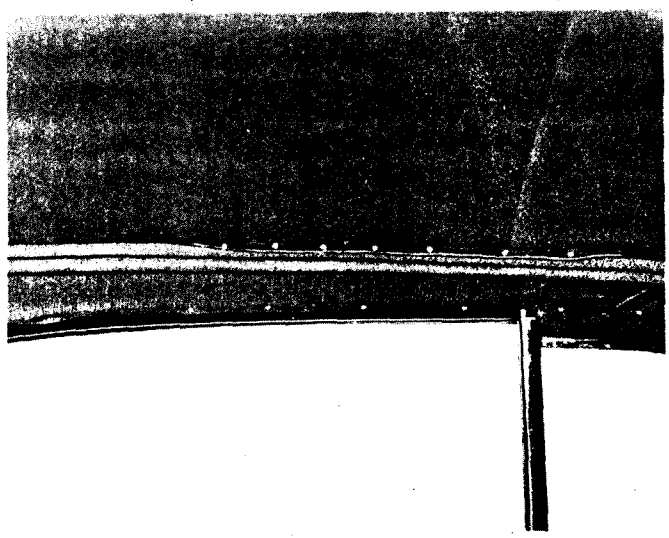


Illustration No. 170
Wire-on Molding Bent Down Showing Headlining Tacked to Side Roof Rail Filler.

6. Remove Rear Quarter Window Garnish Molding.
7. Remove Back Window Curtain and Brackets.
8. Remove Back Window Garnish Molding.
9. Remove Parcel Shelf Board Trim and untack Headlining from the Parcel Shelf Board and around Back Window Opening.
10. Remove Over Windshield Trim Strip by first loosening the skirt of the Trim where cemented to the Windshield Opening, then by turning this fabric upward remove tacks holding the Foundation to the Tacking Strip above the Windshield.
11. Remove the Upper Rear Quarter Trim by first untacking the skirt of this assembly around the upper part of the Window Opening and then by removing the tacks from the cardboard Foundation.
12. Untack the Headlining from the Trim Strip across the top of the Windshield. (At this point it is advisable to mark the center of the Headlining and the center of the tacking strip in order to better locate the approximate center when replacing the Headlining. This idea should be carried out at the center of each Roof Bow and Headlining Listing as the work proceeds.

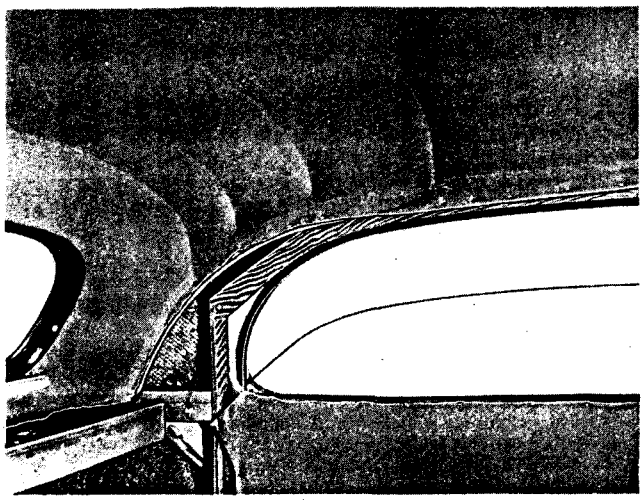


Illustration No. 171
How Headlining is Attached to the Side Roof Rail Filler and Upper Rear Quarter Trim Stick.

13. With the fingers turn down the Wire-on Molding along the Side Roof Rail Filler and untack the Headlining. At the first Roof Bow, a white muslin hem or "listing" as it is called, will be found sewed across the reverse side of the Headlining. This wire Listing is attached to the front side of each Roof Bow by protruding metal hooks.
14. Unhook the Listing from each Roof Bow and follow this procedure to the rear of the body, removing Headlining from Roof Bows, and Headlining Rear Supports.

    NOTE—The Hooks on the Headlining Rear Supports should be opened carefully with a Screwdriver.

    Never remove Trim such as a Headlining, by prying the tacks loose from the front face of the Trim. Body Men removing Trim in this manner have little or no control over the Screwdriver in the event it slips thereby tearing or ruining the Headlining. In removing Trim of this nature use a proper edged Screwdriver and a Tack Hammer. Insert the Screwdriver under the Trim and under the head of the tack. Tap the Screwdriver with a Hammer sufficient to loosen the tack and remove it.

HEADLINING REPLACEMENT

1. Starting at the Rear Center Headlining Supports, directly above the Rear Window, attach the Listing Wire and the center of the Headlining to the hooks on these Supports. Work towards the sides of the body attaching Headlining to the other Supports and bending the retaining hooks securely to place with a light tap of the hammer.

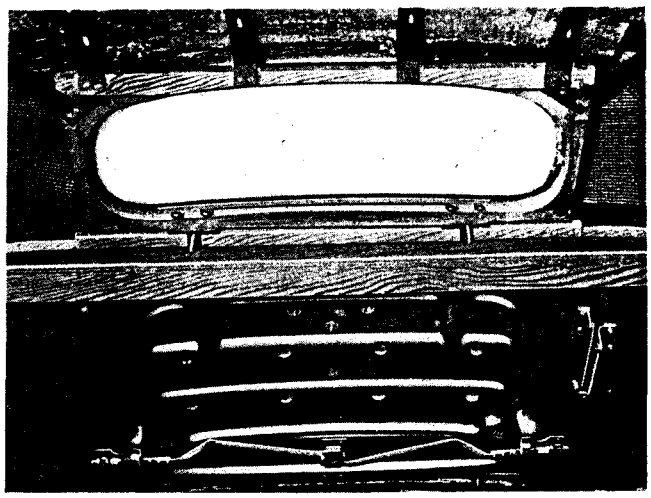


Illustration No. 172
Roof Construction Showing Headlining Rear Supports.

2. Follow this procedure towards the front of the car attaching Headlining to each Roof Bow making sure the opening in the Headlining for the Dome Lamp is in its proper location.
3. Starting at the center and working toward each corner, tack the Headlining to the Tacking Strip directly above the Windshield. Make sure the openings in the Headlining for the Sun Visor Brackets are properly located.

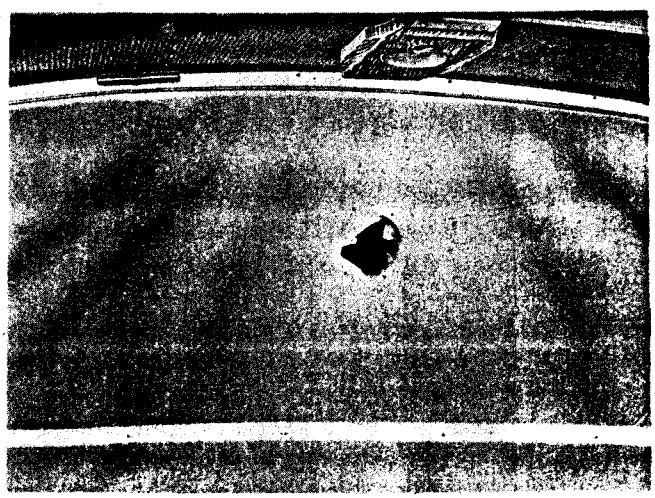


Illustration No. 173
Installation of Headlining to Metal Roof Bows.

4. Tack the Headlinig to the Rear Window Opening, starting at the top center and finishing at the bottom.
5. Tack the Headlining to the top of the Parcel Shelf Board and finish up at the upper rear corners, stretching the Headlining only sufficiently to take out any fullness in the material.

6. Now tack the Headlining to the Side Roof Rail Filler so that it will not show a draw or fullness along its entire length. Bend the Wire-on Molding back in place.
7. Install Upper Rear Quarter Trim and Over Windshield Trim Strip. Install all Hardware Parts, Garnish Moldings and Back Window Curtain and Brackets.

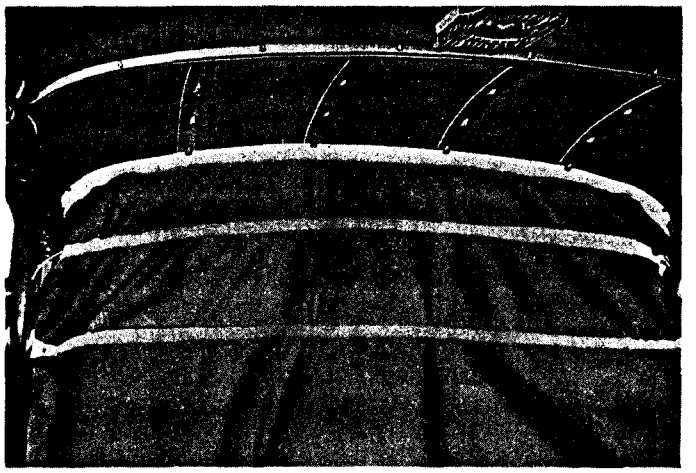


Illustration No. 174
Headlining Attached to Rear Supports.

NOTE—When installing the Windshield Garnish Molding, the two lower center screws are shorter than the other eighteen screws so as not to interfere with the Windshield Wiper Mechanism. Also note: The paper wrapped piano wires running through the Headlining Listings are of different lengths. If removed for any reason see that each one is replaced in its proper Listing.

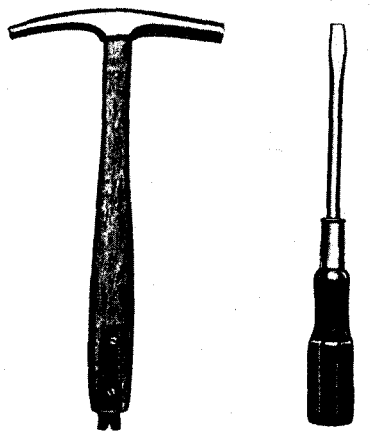


Illustration No. 175
Tools Necessary for the Removal and Replacement of Trim.

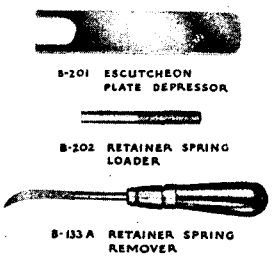


Illustration No. 176
Tools for Inside Door Handle Removal.

MEMORANDUM

1936
SERVICE FEATURES

DOORS

There is perhaps no other part of a Body structure subject to more actual use than are the Doors of an automobile body. When one considers the number of times the Doors are opened and closed, sometimes with force, the weight of the Doors themselves on the Hinges and Dovetail Assemblies; the continual use of Door Handles and Regulator Handles with the operation of Windows up and down, it is only reasonable to suppose that Doors and their mechanical parts certainly need maintenance from time to time. This is particularly true of the Front Doors.

Barring an accident, a Door will remain in shape almost indefinitely. When a Door fits the Door Opening poorly, it is either improperly hinged to the Body Hinge Pillar, which will show at the vertical spacing on the hinge side of the Door, or the Door Opening is out of true, usually by reason of improper shimming of the Body on the Chassis.

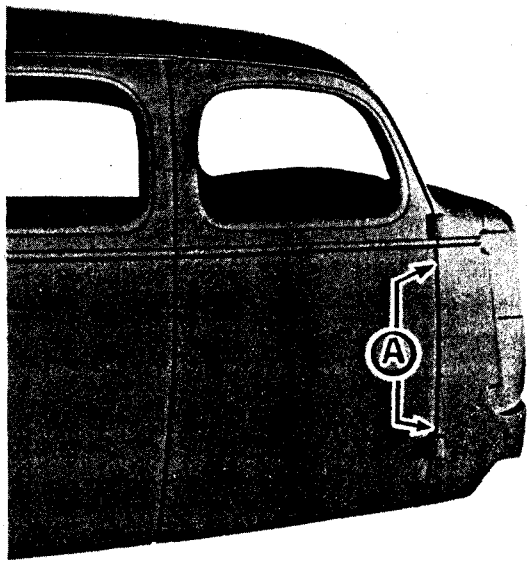


Illustration No. 177
Front Door Vertical Spacing.

CHECKING A 1936 FRONT DOOR

In order to get a proper check on the fit of a Front Door, it is necessary to remove the Wedge Plate from the Door and also the Door Side Rubber Bumpers. This allows the Door to act free on the Hinges.

1. Check the Vertical Spacing at the Hinge side of the Door.
2. Check the Lock Side of the Door for Belt Molding Alignment.
3. Check for a Sprung Door. Door Flanges should be flush with the Body Panels except at the Roof Drip Molding.

Any one of the above three conditions may be the cause or the effect of a badly fitted Door and under separate Headings each of these conditions will be further explained with the necessary correction given.

1. VERTICAL SPACING

(Wedge Plate and Door Side Rubber Bumpers are removed.)

1. Check the Vertical Spacing at the Hinge side. *(See Illustration No. 177 at A.)*

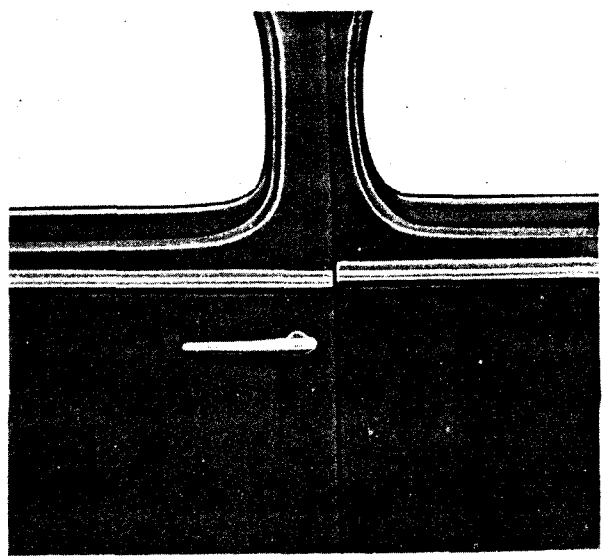


Illustration No. 178
Belt Molding Alignment.

On some Bodies this spacing width may be $\frac{3}{32}$ inch and on others ¼ inch, but it should be nearly equal from top to bottom.

Unequal spacing indicates either loose screws or a bent Hinge.

Loose Hinge Screws should be tightened securely. A bent Hinge should be removed and straightened, as follows:

1. Remove Hinge Pin and Hinge Screws from bent half.
2. Separate at joint and remove the Hinge half.
3. Place in Bench Vise up to the bend.
4. Straighten with hardwood block and heavy hammer.

2. BELT ALIGNMENT

(Wedge Plate and Rubber Bumpers are out.)

Vertical Spacing is equally spaced. Rear Door (if a Sedan is used) is in alignment.

2. The Door Belt Molding must line up with the Belt Molding on the Body Panels. If it does not, the Door is spoken of as too high or too low.

To correct, adjust the shim at the Body Bolt nearest the Body Pillar where the Door is hung. (No. 2 Body Bolt.)

Loosen No. 1, No. 2, No. 3 Body Bolts and adjust the shim thickness at No. 2 Body Bolt and probably at No. 1. If Door is low increase thickness of Shim. If Door is High decrease thickness of Shim, then adjust all Bolts to proper tightness.

3. FRONT DOOR SPRUNG OUT AT TOP

3. Condition.

Upper Front Corner of the Front Door juts out beyond the Body Pillar and Roof Drip Molding. The weather is scooped into the Door Flange. The Windhose stands away from the Door.

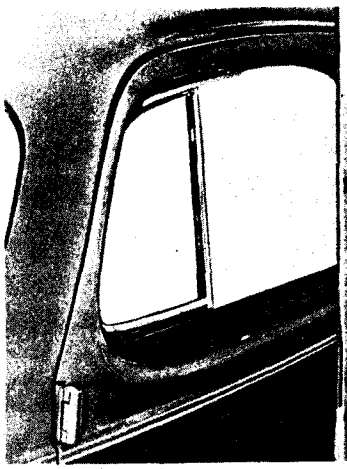


Illustration No. 179
Front Door Sprung Out at Upper Corner.

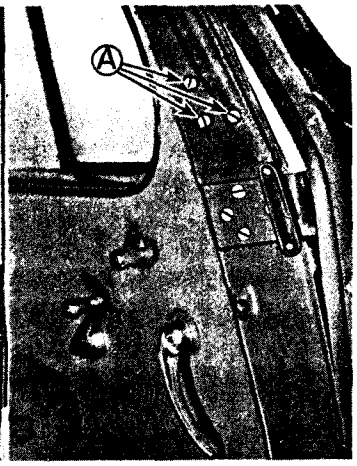


Illustration No. 180
Location of Screws on Door Hinge Pillar.

To correct:

1. Open Door and loosen three screws at "A".
2. Open Door Ventilator.
3. Insert a padded board (4 feet long) between the top of the Door and the Body Front Pillar and pry the Door Pillar in about ¼ inch at the same time securely tighten the three screws. *(See Illustration No. 181.)* This may also cause the Door Ventilator Glass to close more evenly against the Door Division Channel.

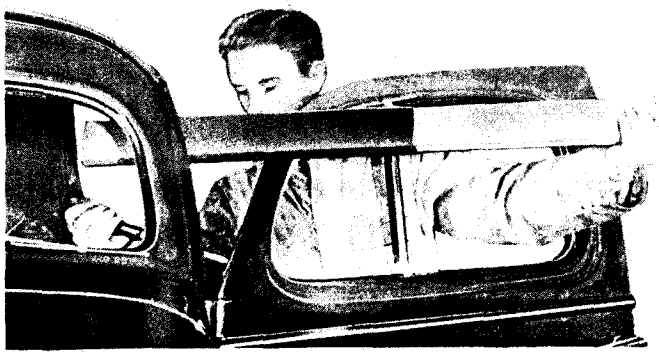


Illustration No. 181
Position of Padded Board for Prying Door.

FRONT DOOR SPRUNG OUT AT BOTTOM

Condition:

The Lower Rear Corner of Front Door stands out away from the Body when the Door is closed. *(See Illustration No. 182 at A.)*

To correct:

Turn the Door Stiffener Rod Nut clockwise to tighten the Rod and pull the Door in at that point. *(See Illustration No. 164 at A.)* If the Door is sprung in at this point it may indicate the Stiffener Rod is drawn too tightly.

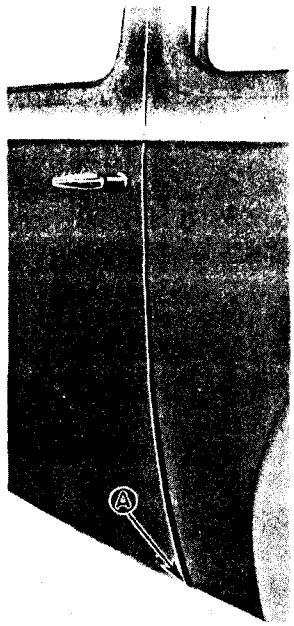


Illustration No. 182
Front Door Sprung Out at Lower Corner.

REAR DOOR
(Sprung Out at Bottom)

The bottom of a Rear Door may become sprung out away from the Body and allow weather and dust to enter. This may be corrected as follows:

1. Remove Door Trim Pad.
2. Make up and install a 2-inch Strap Iron Strainer as shown in Illustration 181.
3. Set screws at one end of Strap.
4. Block the Door open at the Lock and strain it in at the bottom. While pressure is on, set the screws at the other end, slanting the screws so as to draw the Strap tightly.
5. Replace Trim Pad.

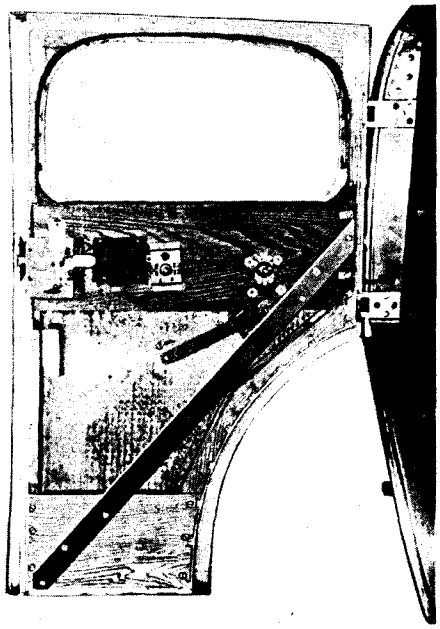


Illustration No. 183
Method of Attaching Strainer to Rear Door.

DOOR TRIM CARPET WATER SOAKED

All the water that enters at the Door Window Opening normally flows out at the Water Drain Holes in the bottom of the Door. However, there are some cases of where water follows down the Door Pillars or comes in through the Door Lock along the inside of the Door Trim Pad Lining and finally soaks the Door Trim Carpet at the bottom of the Door.

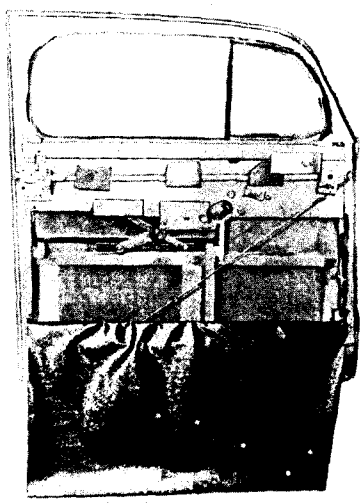


Illustration No. 184
Door Rain Baffle Partly Installed.

To correct this install a Rain Baffle in the Door under the Trim Pad as follows:

1. Remove the Door Trim Pad.
2. Remove the cardboard trim Pad Lining.
3. Clean out all Water Drain Holes.

NOTE—If the Drain Holes are clogged the Door may fill up and cause the Door Trim Pad to become water soaked. This should be examined first and if necessary, corrected. In cases of this kind the installation of the Rain Baffle may not be required.

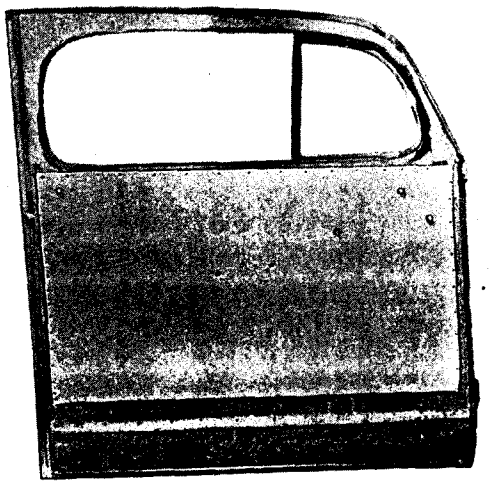


Illustration No. 185
Door Rain Baffle Installed.

4. Cut a piece of glazed fabric the size of the Door Trim Pad but one inch less in width. Tack the lower edge of this fabric to the upper edge of the Door Bottom Board as in Illustration No. 184 (glazed side towards the Door). Tack the top edge of this material to the Regulator Board as in Illustration No. 183, and finally tack both sides of this material to the Door Pillars making sure the edges of it do not show when the Trim Pad is again installed.
5. Reinstall the Door Trim Pad, Handles, and Garnish Molding.

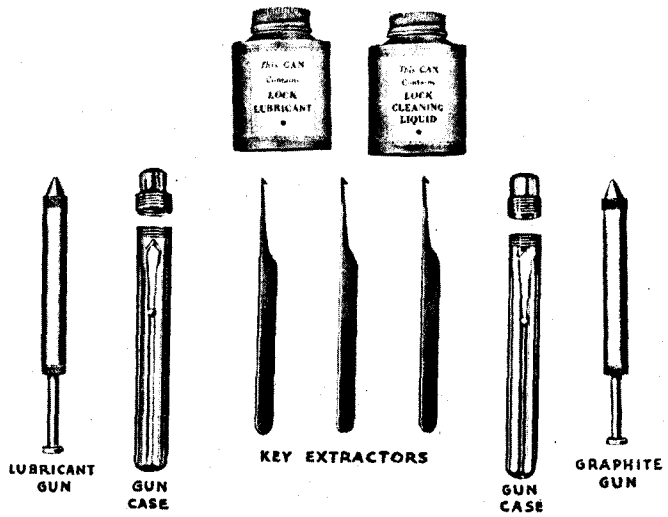


Illustration No. 186
Kit No. KMO-166 Used for Cleaning Lock Cylinders.

LOCKING HANDLE CYLINDER LUBRICATION

Door Locking Handle Cylinders require cleaning and lubrication occasionally but they should never be oiled.

Oil will collect dust and grime that eventually will clog and make it inoperative.

To clean a Lock Cylinder, spray it inside with cleaning solvent to cut and dissolve the grease and oil. Work the key in it to see that it is in working order, then after the solvent has evaporated, spray with powdered Graphite to Lubricate.

The Lock Cleaning and Lubricating Kit No. KMO-166 is an ideal outfit for this purpose, and makes the job a short one.

FRONT DOOR (LEFT SIDE) LOCKING HANDLE

The Locking Handle on 1936 Bodies (Right and Left Front Doors) are interchangeable.

But when installing one on the Left Front Door the hole for the Handle Shaft, through the wood, must be reamed out larger. A $\frac{1}{2}$ inch Drill will do.

ROOF AND BODY PANEL INSULATION FELT

Early 1936 Turret Top Bodies are insulated with a Black Felt. If this material has to be removed for any reason it should be replaced with the Brown Felt Part No. 601778 and cemented to place with F.S. 1044.

In very cold winter weather any loose Insulation Felt may cause a ticking noise as it touches and pulls away from the cement.

The Brown Felt adheres more firmly than the Black Felt and is less liable to create a noise.

Felt and Cement are obtained from Hinckley Myers Co., Jackson, Michigan.

NOISE AT FRONT END OF ROOF RAIL FILLER

A noise occurring at the front end of the Roof Rail Filler and Roof Rail may be corrected by:

1. Release Headlining at Roof Rail Filler.
2. Loosen screws and Bolts through facing of Roof Side Rail.
3. Wedge up the Roof Rail Filler and
4. Apply 1039 compound between Filler and Roof Rail.
5. Remove the Wedge then tighten Bolts and Screws.
6. Replace the Headlining where loosened.

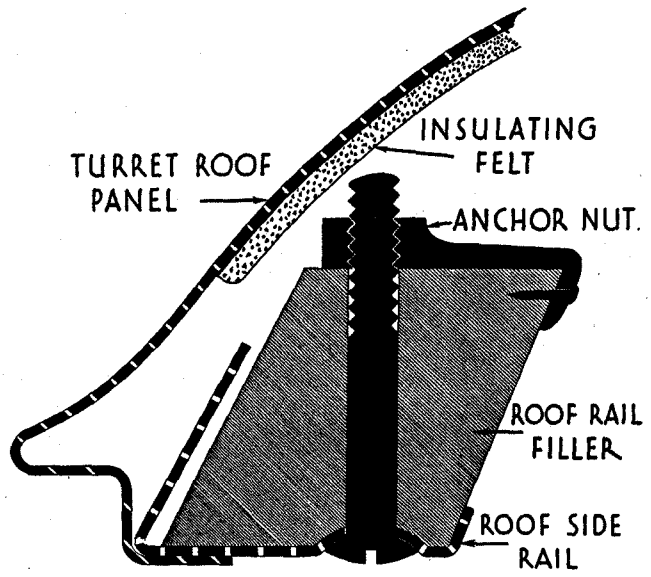


Illustration No. 187
Cross Section View of Side Roof Rail and Filler.

NOISE AT ROOF RAIL BOLTS AND NUTS

A noise along the Roof Side Rail may be caused by:

1. *Bolt* projecting through too far touching Roof Panel.
2. Anchor *Nut* touching Panel.
3. A Loose Nut, screw or nail wedged between metal parts.

Remedy:

1. Release Headlining along location of noise and examine for cause.

   A long Bolt should be removed and cut off.

   A contacting Nut should be turned to clear the Panel.

   Any Free Objects should be removed.

NOISE IN FRONT PILLAR

The Front-End Frame Upper (Inside frame of Front Pillar) has a flange that extends along the outer edge of the Pillar from the Roof to the Cowl Belt Line. This metal flange may project out far enough to contact the Cowl Metal Panel. *(See Illustration No. 188 at B.)* Feeling a snap noise at this point with the hand will indicate contact.

To remedy this at "B":

Remove Cowl Trim Pad.

Insert long slender metal Spoon as at "C" in cut. Pry the flange metal away from Panel.

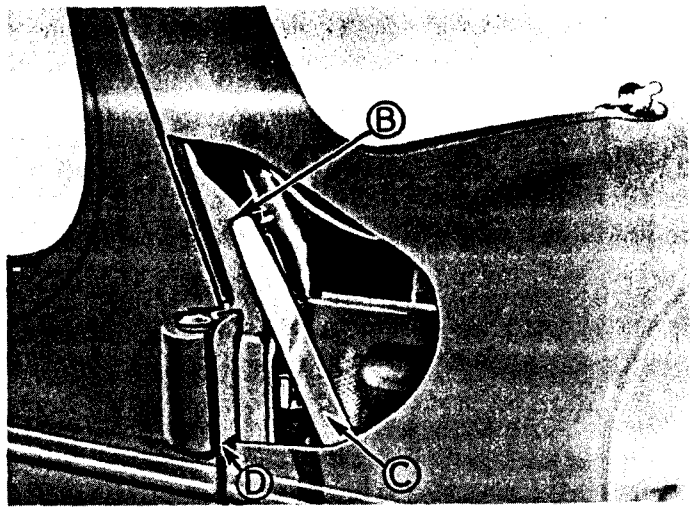


Illustration No. 188
Noise at the Belt Section of the Cowl.

Care should be exercised not to ding the Outer Panel.

NOTE—A noise at this location at "D" may be caused by a Hinge Half chafing the Cowl metal.

Remedy—Remove Hinge Half and file clearance at the Hinge cutout in the Panel, coat Hinge Half with compound F.S. 1039 and reinstall. This will also seal against water leaks.

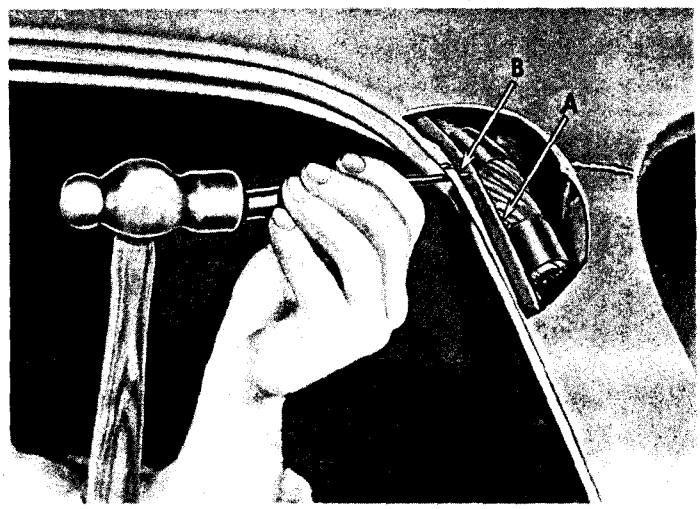


Illustration No. 189
Noise at Upper Front Pillar Section.

Illustration No. 189 shows a cut-away section of the Front Body Pillar located at the Torch Weld. This weld is sometimes sunk deep enough to touch on the inner flange of the Front End Framework, which causes a noise that is very difficult to locate.

"A" shows the flange of the Inner Framework.

"B" shows where weld may contact flange.

If there is a noise at this location try the following correction: Drill ⅛ inch hole in the Pillar Facing as illustration shows. Insert a nail set or slender drift punch in the hole till it touches the flange as at "B". A tap or two with a hammer may relieve the contact.

SERVICING SEAT CUSHIONS

Cushions on Older Models and often on New Cars require re-padding or re-tieing to satisfy some customer's requirements.

One of the easiest and quickest methods of tieing the Springs and Padding to the Frame is by "Hog Rings".

Tool No. B-20A and a supply of rings are assets to any trim shop.

Loose Spring Coils, Frame Wires and Padding are easily clamped to place much quicker and stronger than by sewing.

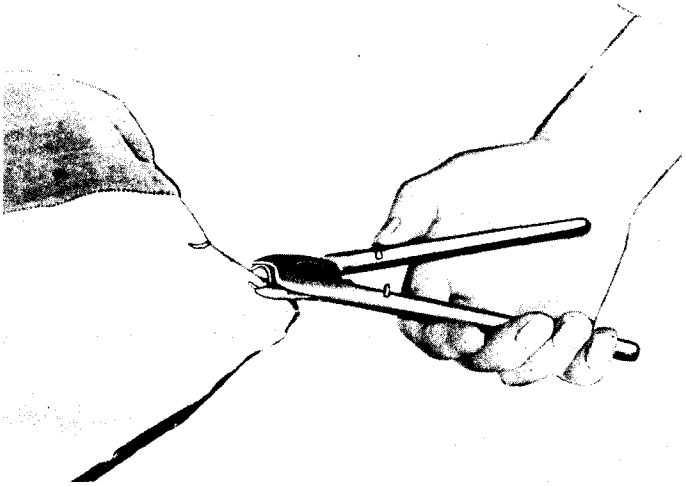


Illustration No. 190
Hog Ring Pliers Used on Cushion Trim.

FRONT SEAT (DIVIDED TYPE) SLIDING PLATE INSTALLATION TO PREVENT SEAT BACKS FROM CHAFING

In 1935 and early 1936 Two Door Sedans with the Divided Front Seats, if the Backs are too close together they may be separated by installing a "Sliding Plate" under the Center Support on the Seat Frame. (Package Part No. 544348.)

Install it as follows:

Slide the Seat to full forward position.

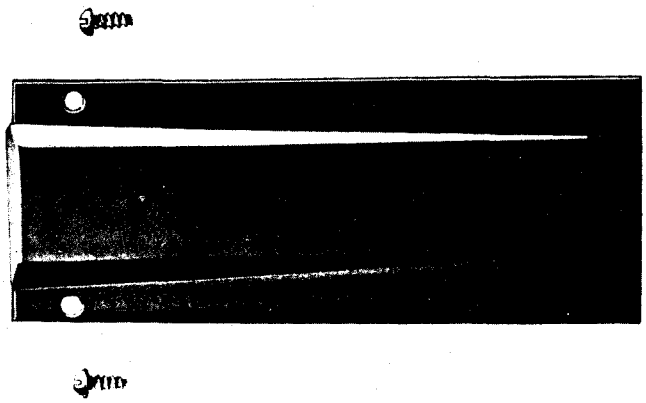


Illustration No. 191
Slide Plate Used on Divided Front Seats.

Folding the Carpet back and insert tapered end of Slide Plate between the Seat Center Support and Floor Pan, then draw the Plate back until it fits in the cutout of the Floor Carpet.

Using the holes in the Slide Plate for a guide drill or prick punch small holes in the Floor Pan and insert Sheet Metal Screws furnished in the package.

Replace Carpet and inspect operation of the Seat to make sure it works freely.

TRUNK WATER LEAKS

The Trunk Lid Panel is drilled at several places to accommodate the Hinge Lugs, Handle Ferrule and Emblem screws.

Sometimes these are not sealed against water entrance. An examination, or water test may reveal a water leak at one of them. Sealing with F.S. 1039 or rubber washers is the correction.

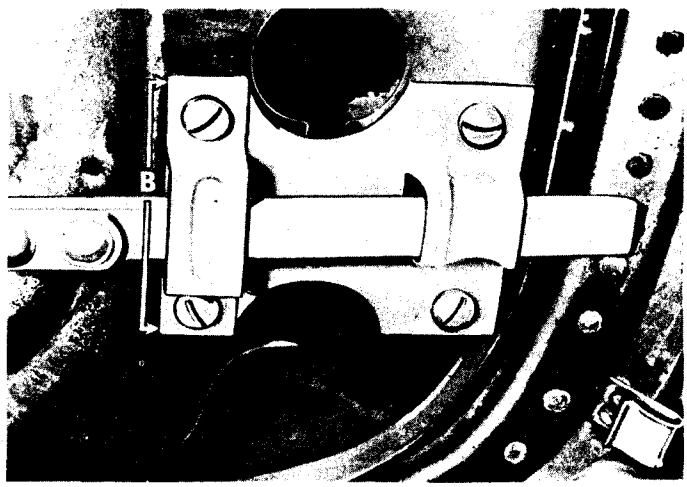


Illustration No. 192
Close-up of Trunk Lid Lock Bolt.

NOISE AT TRUNK LID LOCK BOLT

A noise at the Trunk Lid Lock Bolt at the Gutter may be caused by:

1. Lack of Lubrication.
2. Looseness at Lock Bolt.

Corrections:

1. Chafing of the Lock Bolt on the Gutter may be corrected by adding a Lubricant such as "Door Ease" or "Graphite Grease."
2. Looseness may be caused by loose Lock Screws. Tighten screws. Lack of tension may require a shim placed under the Lock Plate. *(See Illustration No. 192 at B.)*

TRUNK LID LOCK RUBBER BUMPER

The late type Trunk Lid Lock has a rubber bumper attached to each Lock Bolt.

The purpose of this rubber bumper is to keep the Lid from shifting from side to side and becoming noisy.

This late type Lock only is serviced.

To install this Lock to an early type Lid, the Lid must be re-operated as follows:

1. Remove the old Lock.
2. Cut away the small portion of sheet metal on the Lid Inner Panel. *(See Illustration No. 193 at A.)*
3. Install the new Lock Assembly.

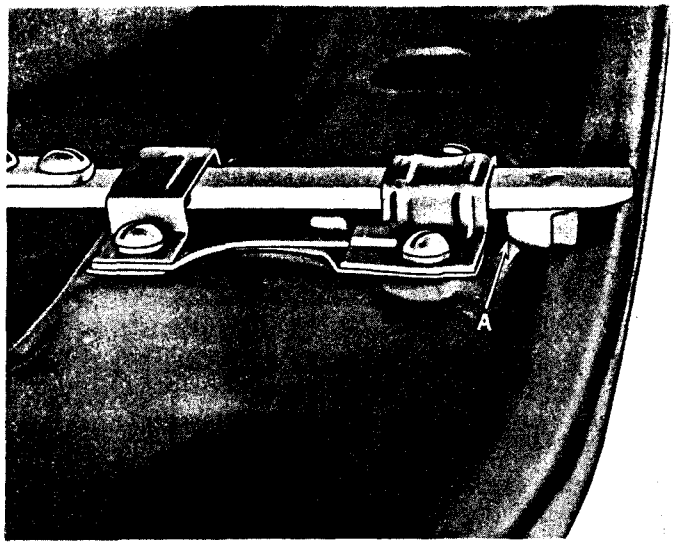


Illustration No. 193
Rubber Bumper on Trunk Lid Lock.

PHILLIP'S HEAD SCREW

In some later 1936 Bodies the Garnish Molding Screws are of the Phillip's Head type.

A Special Screwdriver is made for these screws. *(See Illustration No. 194.)*

An ordinary screwdriver bit of small size may be used where no tension is required.

When these screws are used no washer is required with them as is used with the standard screw.

For the Part Number of the three sizes of the Phillip's Head Screw used on the Moldings *see Index.*

Part No. 4060747 and 4073158 are oversized and are to be used only when the threads on the regular screws are stripped.

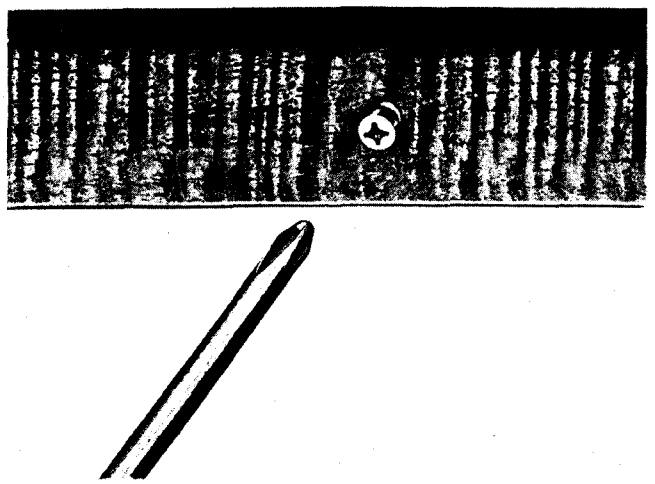


Illustration No. 194
Phillip's Head Screw and Screw Driver.

ARCHED DOORWAY

After a Body straightening operation, it may sometimes leave the doorway arched out of true. This is quite noticeable after the Door is hung. While the spacing at the Hinge side and Lock side are correct and the Door Dovetail Wedge Plate enters centrally, yet there is an uneven wide spacing above the Door.

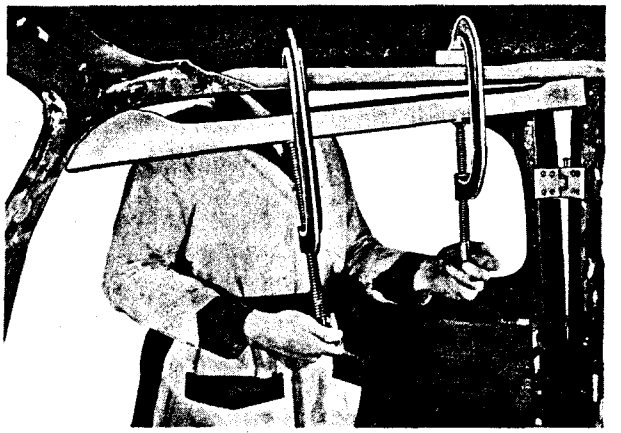


Illustration No. 195
Door Opening Straightening Operation.

Two Clamps and a Wooden Bar as shown in Illustration No. 195 may be used to bring down the Roof Side Rail to fit at the top of the Door.

By tightening the clamps the Side Roof Rail Assembly is forced down sufficiently to correct the difference.

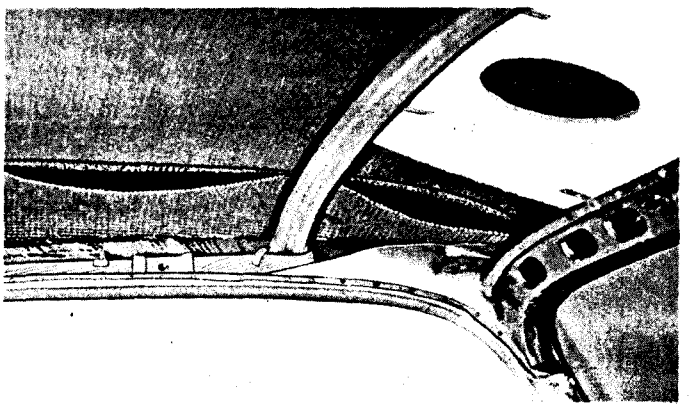


Illustration No. 196
Roof Panel Insulating Felt Loose.

ROOF PANEL INSULATING FELT

In the 1936 Turret Top Bodies there were two kinds of Insulation Felt used.

1st: Black, heavily impregnated Felt.

2nd: Brown Impregnated Soft Felt.

If for any reason the Black 1st type Felt becomes loose it may cause a "snap" noise in extremely cold weather. This is caused by the loose pieces alternatingly touching and pulling loose from the cement on the Panel. *(See Illustration No. 196.)*

If this becomes offensive and must be corrected, the old Felt should be removed and reinsulated with the softer Brown Felt 601778 with Compound F.S.-1044.

It is necessary to remove the Headlining back as far as the Back Window Frame for its installation.

HOW TO FOLD CONVERTIBLE COUPE TOPS (1936)

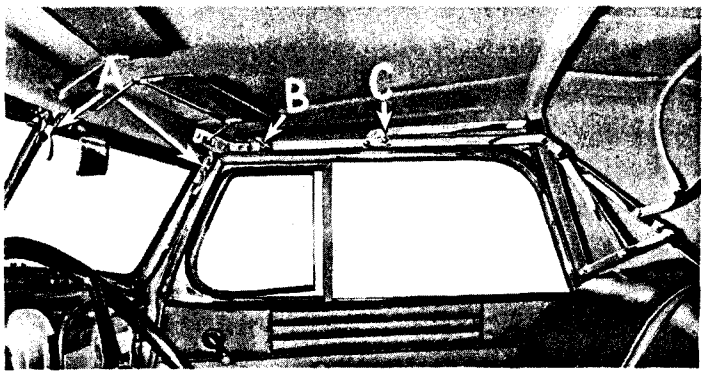


Illustration No. 197

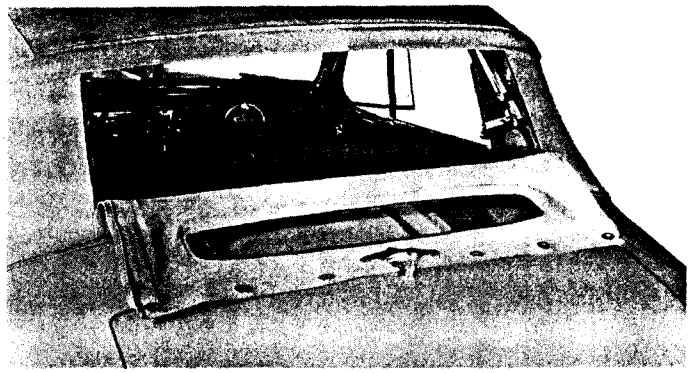


Illustration No. 198

Illustration No. 199

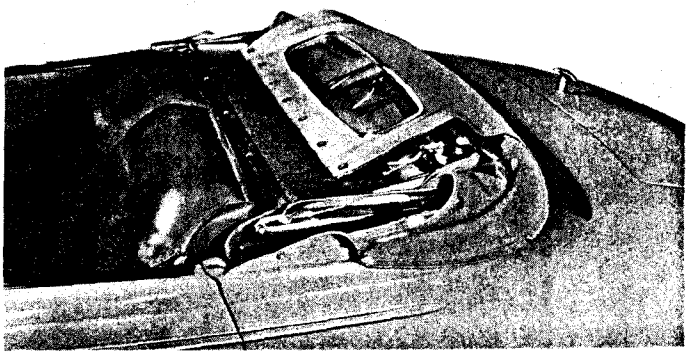


Illustration No. 200

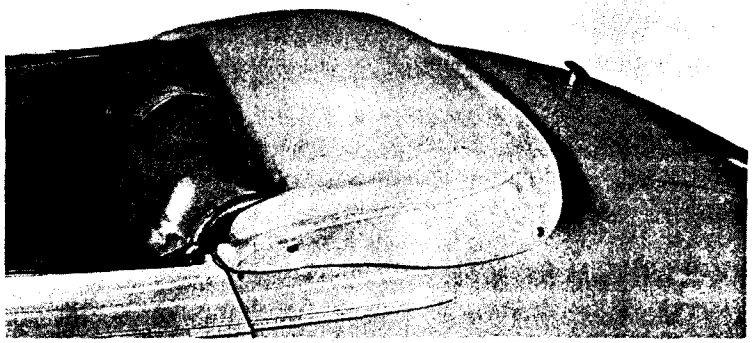


Illustration No. 201

1. Loosen Snap Fasteners on Side Roof Rails, and on Rear Quarter.
2. Release Zipper Fasteners on Back Curtain and lay Curtain out on Deck. (See Illustration No. 198.)
3. Release Toggle Fasteners over Windshield at center and sides. (See Illustration No. 197 at A.)
4. Release Wing Nut (See Illustration No. 197 at B) and remove Side Roof Rails.
5. Break joints in Slat Irons (See Illustration No. 197 at C) and push Top back as shown in Illustration No. 199. See that Top Covering and Pads are clear of Top Irons (See Illustration No. 199 at A).
6. Fold Top down into Compartment and fold Back Curtain over Bows. (See Illustration No. 200.)
7. Fasten Top Hold Down Straps and install Dust Boot (See Illustration No. 201).

GLOVE COMPARTMENT LOCKING DEVICE
1936 BODY STYLES

The Knob on the Door of the Glove Compartment on 1936 body styles has incorporated in it a Latch for holding the Door closed, also a Locking Cylinder. A description of this Lock and its operation is given below.

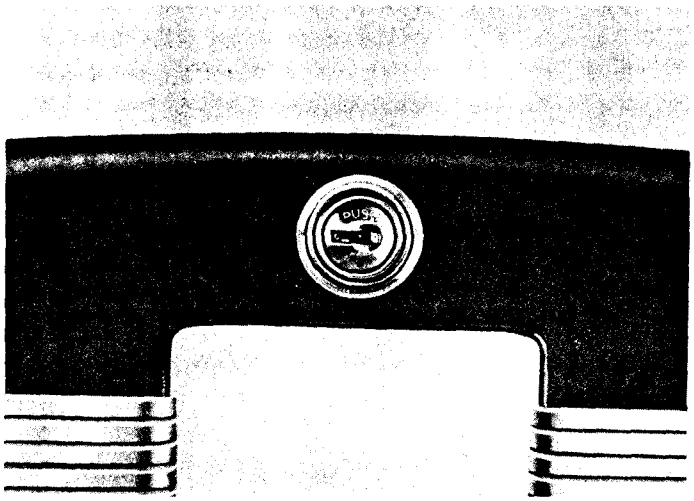


Illustration No. 202
Glove Compartment Door Knob.

To Unlock the Door: Insert the key and turn to the right.

To Open the Door: Grasp the Knob between the first and second fingers and press in on the Knob center, this disengages the Latch from the Latch Striker allowing the Door to open.

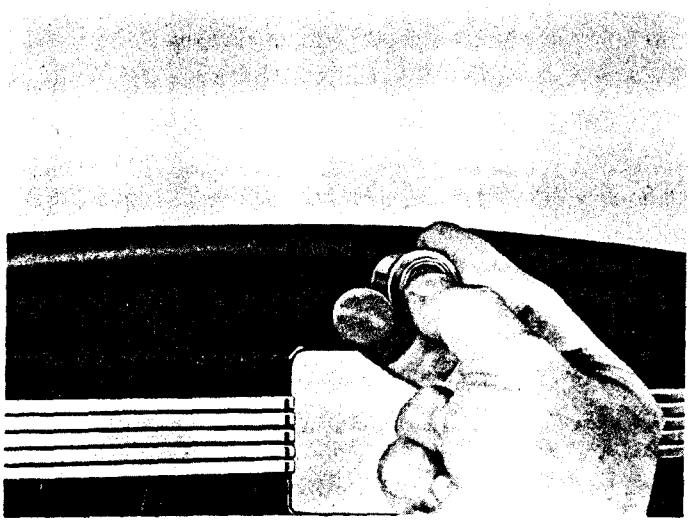


Illustration No. 203
Method of Opening Door.

To Remove the Lock Cylinder From the Knob: Compress the Latch *(See Illustration No. 204 at A)* against the spring and turn key to the right as far as it will go, lift out Cylinder with key. To replace the Lock Cylinder simply reverse this operation.

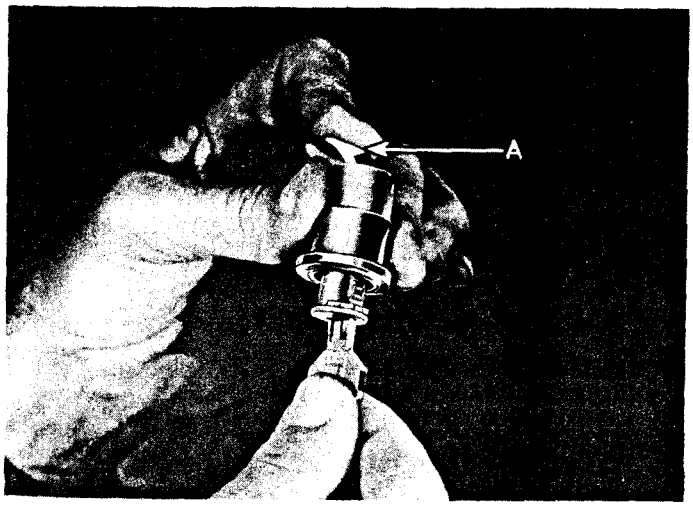


Illustration No. 204
Method of Removing Locking Cylinder.

To Remove the Knob From the Door: Open the Door, remove the screw, lock washer and retainer.

Illustration No. 205 shows the principal parts that make up the Glove Compartment Locking Device, consisting of the Locking Cylinder, the combined Locking Knob and Latch, the Locking Knob Retainer, screw and washer, and the Lock Striker.

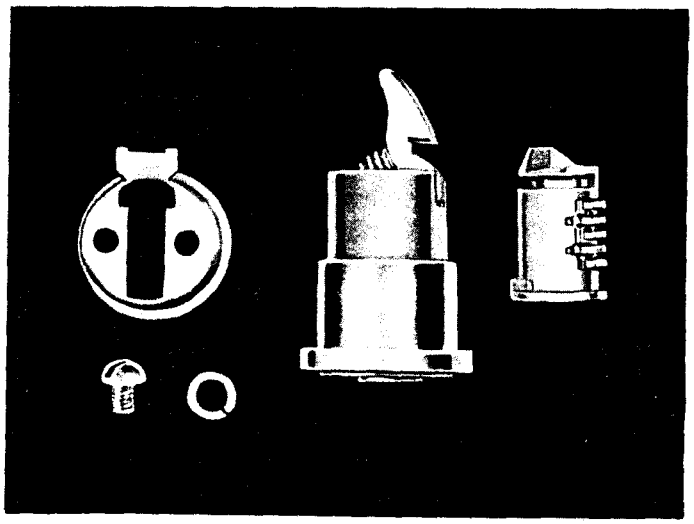


Illustration No. 205
Component Parts of Glove Compartment
Locking Device.

LUBRICATION

1. OIL, DRIPLESS PENETRATING OIL. This oil is thinned down with a solvent that easily penetrates tight places and cuts the grease or oil allowing it to enter.

The solvent soon evaporates and leaves a film of heavy oil that will not run under ordinary heat and will not drip on other parts. This qualifies this oil for many uses around the Body. Hinckley Myers carries it in several size containers; such as B-198-2 Pint size cans and B-198-3 Quart size cans.

This lubrication should be used on the following parts and locations:

Door Hinges.
Door Locks.
Door Check.
Door Window Regulator Bearings.
Trunk Hinges.
Trunk Lock.
Trunk Supports.
Deck Lid Hinges.
Deck Lid Lock.
Deck Lid Support.
Hood Hinges.
Hood Catch Bearings.
Cowl Ventilator.

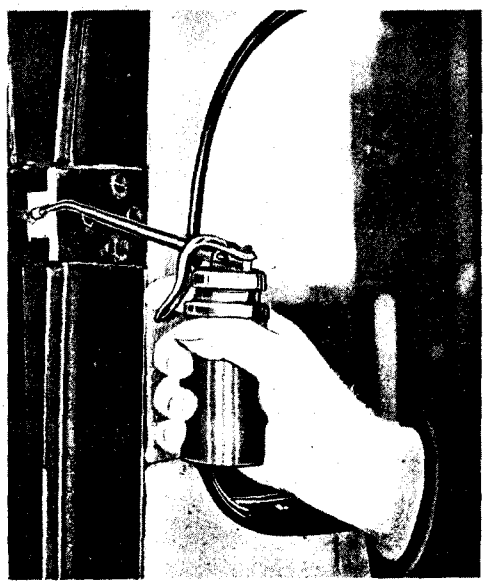


Illustration No. 206
Door Hinge Lubrication.

2. DOOR EASE GREASE STICK is a heavy non-staining lubricant that leaves a film to lubricate but does not rub off or stain clothing. Only a small amount is needed which answers the purpose better than a large quantity.

This lubrication should be used on the following parts and locations:

Door Lock Striker Plate.
Door Lock Bolt.
Door Dovetail Bumper Wedgeplate.
Trunk Lock Bolt.
Deck Lid Lock Bolt.
Deck Lid Lock Striker Plate.
Hood Lacings.
Hood Catch.

3. GRAPHITE in "Microfyne" powdered form penetrates into crevices by blowing it in, with the gun. Graphite lubricates where slow moving flat surfaces occur and where oil or grease might collect dust and gum the surface.

This lubrication should be used on the following parts and locations:

Door Rubber Bumpers.
Door Weatherstrips.
Convertible Coupe Window Glass Runs.
Door Locking Handle Cylinders.
All Rubber Weatherstrips.

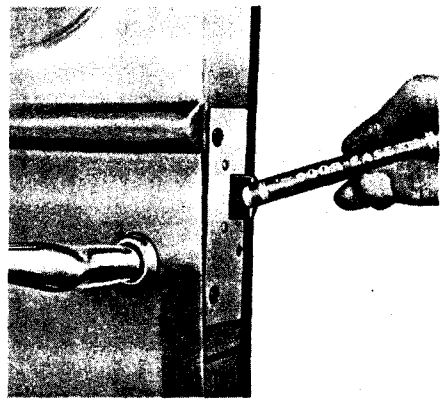


Illustration No. 207
Door Lock
Bolt Lubrication.

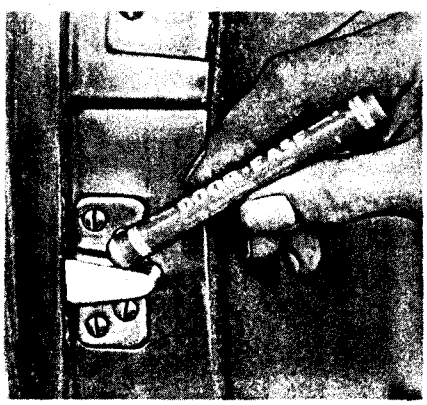


Illustration No. 208
Door Wedge
Plate Lubrication.

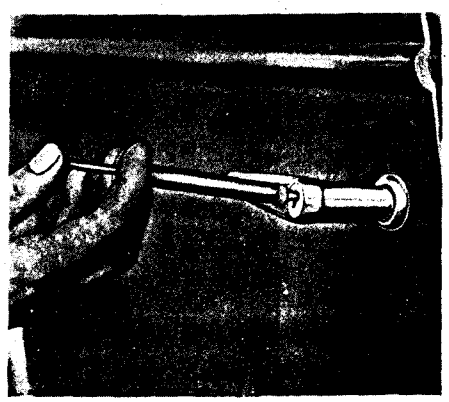


Illustration No. 209
Door Locking
Handle Graphite
Lubrication.

SOFT CUP GREASE (WATERPROOF)

This lubrication should be used on the following parts and locations:

Windshield Wiper Housing Cap.
Door Window Cam Channels.
Adjustable Front Seat Gear.

GENERAL INSTRUCTIONS FOR THE REMOVAL OF STAINS FROM AUTOMOBILE TRIM

1. Use clean cloths at all times and be sure a clean portion of the cloth is used throughout any operation.

2. A Neutral (Non-alkaline) soap similar to Lux, Ivory or Palmolive is recommended in cases calling for soap suds.

3. The use of Hot Water is to be avoided in removing Stains, except where absolutely necessary. If it must be used, extreme care should be exercised and it should be wiped off immediately, before it has a chance to run.

4. Do not use any gasoline as a cleaning solvent which is colored or which contains tetraethyl lead.

5. Do not use Bleaches or Reducing Agents such as the following, inasmuch as their use tends to weaken the fabric and change or bleach the color of the goods:

Chloride of lime.

Javelle Water.

Hydrogen peroxide.

Sodium hydrosulphite.

Potassium permanganate.

Chlorine or Chlorine water.

Sulphurous acid (sulphur dioxide).

Sodium thiosulphate (Photographers' hypo).

6. Carbon tetrachloride cleaning solvents and chloroform are non-inflammable. Most other types of cleaning solvents are inflammable and care must be exercised in handling them.

Chloroform should be used carefully and in small quantities so that vapors are not inhaled.

Do not breathe the fumes of cleaning solvents since they are usually poisonous in large quantities.

The steaming of velvet upholstery will raise the pile and restore the original beauty and lustre in cases where the pile has become slightly flattened after long, hard use.

INSTRUCTIONS FOR REMOVAL OF SPECIFIC TYPES OF STAINS

BLOOD

Blood—Rub the Stain with a clean cloth wet with cold water until no more of it will come out. Care must be taken so that clean portions of cloth are being used for rubbing the Stain.

This treatment should remove all of the Spot. If not, then pour a little household ammonia water on the Stain and after a lapse of about one minute continue to rub the Spot with a clean wet cloth. Nothing further can be done to remove the Stain, thereby making its removal practically impossible.

CANDY

Candy—Candy Stains other than candy containing chocolate can be removed by rubbing with a cloth wet with very hot water. If it is not then completely removed, sponging the spot (after drying) with a cloth wet with carbon tetrachloride will usually clear up the Stain.

Candy Stains resulting from cream and fruit-filled chocolates can be removed better by rubbing with a cloth soaked in lukewarm soap suds, together with scraping while wet, with a dull knife. This treatment is subsequently followed with a rinsing by rubbing the spot with a cloth wet with cold water.

Stains resulting from chocolate or milk chocolate can be removed better by rubbing the Stain with a cloth wet with lukewarm water. After the spot is dry it should be sponged with a cloth wet with carbon tetrachloride or chloroform.

CHEWING GUM

Chewing Gum—Moisten the Gum with carbon tetrachloride and work the Gum off the fabric with a dull knife while still moist.

FRUITS—LIQUOR AND WINE

Fruits—Liquor and Wine—Fruit Stains of practically all kinds can be removed by treatment with very hot water. Wet the Stain well by pouring a little hot water (boiling if possible) directly on the spot. Scrape all excess pulp, if any, off the fabric with a dull knife. Then rub vigorously with a cloth wet with very hot water. If this treatment does not suffice, sponging after drying with a clean rag wet with carbon tetrachloride is the only further treatment recommended.

Soap and water is not recommended, as it will more than likely set the Stain and thereby cause a permanent discoloration of greater magnitude than the original Stain. Drying the cloth by means of heat (such as by the use of an iron) is also not recommended for the same reason.

GREASE AND OIL STAINS

Grease and Oil Stains—If an excessive amount of Grease has been spilled on the material, as much as possible should be removed by scraping with a dull knife or spatula before any further treatment is attempted.

Grease and Oil Stains may be removed by sponging and rubbing with a clean cloth wet with any one of several solvents, such as carbon tetrachloride, chloroform, benzene, ether, or motor gasoline (free from tetraethyl lead). In general, carbon tetrachloride is the best Grease remover. To lessen the possibility of grease rings, start well outside the spot and rub toward it with a circular motion. Care should be taken to use a clean portion of cloth to rub the Stain. Several cloths may be necessary.

To alleviate the possibility of ring formation and to confine the Grease or Oil to as small an area as possible, the following procedure may also be advantageous: Pour a small amount of the solvent directly on the spot and immediately press a white blotter very firmly on the spot. Repeat this procedure, using clean sections of blotting paper until the blotting paper no longer absorbs any Grease.

If, after repeated treatments with the solvent a dirty stain remains, due to particles of dirt contained in the Grease, the following treatment will probably be of advantage: Rub the spot with a clean rag saturated with lukewarm suds. Rinse off the soap by sponging with a clean cloth wet with cold water.

ICE CREAM

Ice Cream—The same procedure is recommended for the removal of Ice Cream Stains as that used in removing fruit Stains.

If the Stain is persistent, rubbing the spot with a cloth wet with warm soap suds may be used to some advantage after the initial treatment with hot water. This soap treatment will of course be followed by a rinsing by rubbing with a clean cloth wet with cold water. After drying, a sponging with carbon tetrachloride will clear up the last traces of the Stain, by removing fatty or oily matter.

LIPSTICK

Lipstick—The compositions of various brands of Lipsticks vary; therefore, some Lipstick Stains may be removed more easily than others.

Pour a little chloroform or carbon tetrachloride on the Stain and immediately press a blotter firmly on the spot. Repeat this procedure using new sections of blotting paper until the blotter no longer shows Stain.

WATER SPOTS

Water Spots on Upholstery Parts can be removed as follows: Sponge the entire panel showing the Stain with clean cloth wet with cold water. Sponge the spot with a rag wet with chloroform or carbon tetrachloride or other good solvent cleaner.

BATTERY ACIDS

Battery Acids when spilled on Upholstery Parts may be neutralized with Baking Soda solution or Household Ammonia in water if applied immediately but these spots are usually not found until the acid is dried on the part and by that time the cloth has been damaged beyond repair.

Battery Acid eats the Fiber out of the cloth very quickly and any cloth used in Automobile Bodies will be damaged before a neutralizer can be applied.

SPECIAL INSTRUCTIONS FOR THE CARE OF MOHAIR AUTOMOBILE TRIM

DUST

Dust and Dirt particles that fall on the surface of Mohair sift down between the thousands of pile fibres, and are not ground into the material. They are easily removed with a whisk-broom, carpet beater, or vacuum cleaner. For general cleaning and dusting, the Seats should be removed. In so doing, dirt along the sides and rear of the Seats falls to the bottom and can easily be wiped off. If beaten, the Cushion should be held upside down so that all the dust will fall away from it. Blows should be lightly administered. If a whisk-broom or vacuum cleaner is used, it is not absolutely necessary to remove the Seats, but it is preferable.

SPOTS

Grease Spots can be readily cleaned from Mohair because they are broken up by the tips of the pile. In removing Spots, apply a small quantity of good cleaning fluid to a clean cloth, start well outside the area of the Grease Spot and work towards it. Repeating this several times, using a clean part of the cloth each time, you will remove the spot without leaving a circle of Grease and Dirt along the edge. Allow to dry thoroughly; then brush with a Whisk-broom. See detailed instructions under Specific Types of Stains.

WASHING WITH SOAP AND WATER

Mohair can be washed safely with Soap and Water. Use luke-warm water and a neutral soap. The suds should be good and frothy, not watery. They should be applied in moderate quantities with a damp cloth, sponge, or soft brush. Rub with the pile not against it. Soap suds should be removed with a clean damp cloth or sponge, then wipe the surface several times with a dry cloth. While the material is still damp, brush it lightly with a whisk-broom or brush of medium stiffness. Brush with the pile. Permit air to circulate freely over the wet upholstery. When dry, again brush with the pile.

BODY SERVICE SMALL PARTS LIST

Fisher Body Service Part Number	Description
4059932	Windshield Garnish Molding Screw 1½"—8.
4059932	Back Window Garnish Molding Screw 1½"—8.
4058830	Windshield Garnish Molding Screw 1⅛"—8.
4060747	Windshield Garnish Molding Screw 1½"—9.
4062333	Windshield Garnish Molding Screw Washer.
142325	Windshield Division Molding Screw.
143307	Windshield Division Molding Screw Washer.
143326	Door Lock Striker to Pillar Screw.
4065094	Windshield Wiper Transmission Gasket.
137429	Sun Visor Bracket Screw (1935-1936).
4024646	Body Name Plate Retainer Screw.
4061630	Front Body Pillar Trim Support Screw.
4058858	Glove Compartment Lid Support Screw.
4059822	Glove Compartment Rubber Bumper.
107076	Windshield Wiper Transmission Cap Screw (1935).
107077	Windshield Wiper Transmission Cap Screw (1936).
4033542	Door Handle Retaining Screw (1936).
4034846	Door Window Lower Sash Cam Screw.
114602	Door Window Lower Sash Cam Screw Washer.
4064826	Front Door Hinge Screws (1936).
141407	Front Door Window Garnish Molding Screw (Self Tapping).
4063396	Door Arm Rest Screws (1935-1936).
4037956	Door Arm Rest Retainer to Frame Screw.
4260037	Door Inside Handle Retaining Spring.
4053369	Door Side Bumper (Small).
4058998	Door Side Bumper (Large).
4063520	Button Type Front Door Hinge Pillar Bumper.
4049528	Button Type Front Door Hinge Pillar Bumper Screw.
4049528	Hinge Spacing Weatherstrip Screw.
4049528	Parker-Kalon Screws ¼".
4025352	Window Anti-Rattler Bumper.
4023559	Door Hinge Pin (1935-1936).
4014898	Door Hinge Bushing (1935-1936).
4058056	Door Wedge Plate Offset (Right Side High).
4058057	Door Wedge Plate Offset (Right Side Low).
4064392	Parker-Kalon Screws ⅜".
601778	Roof Insulating Felt (1935-1936).
4066648	Door Opening Lower Weatherstrip.
4064663	Front Door Upper Weatherstrip.
4066759	Hinge Spacing Weatherstrip.
4060703	Shroud Top Ventilator Gasket.
4058826	Windshield Rubber Channel.
363253	Windshield Division Molding Filler (Inner).
4058832	Windshield Division Molding Filler (Outer).
4073128	Windshield Garnish Molding Screw Phillips Head 1½"—8.
4073129	Windshield Garnish Molding Screw Phillips Head 1⅛"—8.
4073158	Windshield Garnish Molding Screw Phillips Head 1½"—9.
4048681	Front Door Garnish Molding Machine Screw.

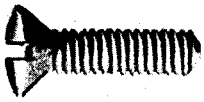
Windshield Garnish Molding Screw.

Garnish Molding Screw Washer Part No. 4062333

Windshield Garnish Molding Screw Phillip's Head Type.

Parker-Kalon Screw ¼".

Part No. 141407 Front Door Window Molding Screw. (Self Tapping.)



Part No. 137429 Sun Visor Bracket Screw (1935-36).

Part No. 142325 Windshield Division Molding Screw.

Part No. 143307 Windshield Division Molding Screw Washer.

Part No. 4064826 Front Door Hinge Screws (1936).

Part No. 4033542 Door Handle Retaining Screw (1936).

Part No. 4034846 Door Window Lower Sash Cam Screw.

Part No. 114602 Door Window Lower Sash Cam Screw Washer.

Part No. 4061630 Front Body Pillar Trim Support Screw.

Windshield, Back Window and Quarter Window Garnish Molding Screw.

This screw is furnished in the following sizes:

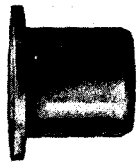
Part No. 405932—1½" long No. 8.
Part No. 4058830—1⅛" long No. 8.
Part No. 4060747—1½" long No. 9.

Windshield, Back Window and Quarter Window Garnish Molding Screw, Phillips Head Type.

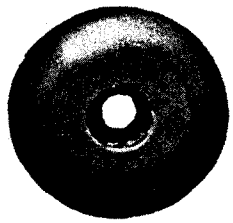
This screw is furnished in three sizes same as standard above and is used on some Oldsmobile Bodies (1936) only. Part No. 4073128—4073129—4073158 respectively. No Washer is required.

Part No. 4049528 Parker-Kalon Screw ¼".

Also used as a Hinge Spacing Weatherstrip Screw and a Button Type Front Door Hinge Pillar Bumper Screw under the same Service Number.



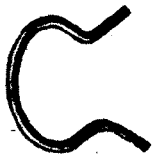
Part No. 4014898 Door Hinge Bushing (1935-1936).



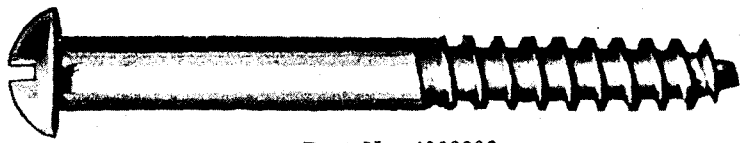
Part No. 4063520 Button Type Front Door Hinge Pillar Bumper.

Part No. 4059822 Glove Compartment Rubber Bumper (1935).

Part No. 4025352 Window Anti-Rattler Bumper.



Part No. 4260037 Door Inside Handle Retaining Spring.



Part No. 4063396 Door Arm Rest Screw (1935-36).

Part No. 143326 Door Lock Striker to Pillar Screw (1935).

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