The following article, a follow-up to the series by Eric Haartz on Top Materials, is reprinted from a contemporary Fisher Body Service Bulletin.

#### THE REMOVAL AND REPLACEMENT OF ROOF COVERINGS

No part of an automobile body is subjected to more wear or hard usage from the elements than roof coverings. Therefore, they must be selected from materials that will withstand the strains of road shock and weave, of wind and rain, as well as the expansion and contraction caused by quick changes in temperature. Moreover, with ordinary care these materials must remain waterproof over a satisfactory period.

The roof coverings used on Fisher bodies are of two different types: the coated, known as imitation leather, and the uncoated, called Burbank or Khaki material.

The uncoated type of roof covering is used chiefly on landaulets, cabriolets, sport sedans, roadsters, and touring cars.

## COATED FABRIC

The coated fabric for Fisher body roof coverings is made up of two layers of cloth which are cemented together into one piece by means of a rubberized solution. The outside surface of this fabric is coated with a composition which is rolled and grained with a glazed finish. This treatment renders the texture unusually tough, elastic, and durable and of even greater tensile strength than leather. It is water-repellent and will not absorb the moisture, even at the edges of the fabric.

Coated fabrics used for roof coverings are furnished only in black for bodies of present production, although colored fabrics may be procured from service stock for older models.

Other colors or color tones are obtained by applying Duco of the desired shade. These roof coverings may be obtained in varying widths. In the standard sedans of present production, the average width of the roof covering is approximately 46 inches.

This bulletin deals with the removal, replacement, and care of coated fabric roof coverings for standard sedans of current production which have side roof rail cover panels and roof crown mouldings.

## REMOVAL AND INSTALLATION OF ROOF COVERINGS

#### Removal

The first step is to remove the front roof crown moulding and then remove the adjoining side. sections, working towards the rear. This operation is usually accomplished by prying off the moulding with a body spoon or chisel that is slightly turned up at the end. (See Fig. 1.) In this operation care should be taken to avoid damaging the side roof cover panel. Next, remove the tacks from the edges of the roof covering and inspect the exposed edge of the steel roof panels for tightness, insulation, protruding nails, etc. Remove all tacks.

Scrape off surplus cement and clean off



Fig. 1 - body spoon or body chisel

thoroughly. Now that the roof covering is removed, see that the padding over the roof slats is smooth and in good condition.

As a part of additional service one should now drive the car, if possible, for a short distance to locate any roof noises, squeaks, or rattles. After the roof covering has been removed, annoyances

such as these can be very easily eliminated at a slight extra cost to the owner.

At the edges of the roof panels, where the covering was attached, it will be noted that oblong-shaped slots have been punched lengthwise through the panels at regular intervals in order that the tacks which hold the roof covering and the nails in the crown moulding may be easily driven into the wood roof rail. Therefore, as a preliminary step to installation, it is advisable to mark the center of each of these slots with a piece of chalk (see A in Fig. 2) as a guide for tacking and nailing later.



Fig. 2 - Application of Repstick sealing compound over slots in roof panel before installing cover.

The next step is to apply Repstick sealing compound across the front and along the side and rear edges of the roof. This compound is applied either with a Repstick gun (see B in Fig. 2) or an ordinary oil can with the spout enlarged to allow the compound to flow freely.

#### Installation

After the roof has been thus prepared, cut a new piece of roof material of the proper width and about 3 inches longer than the one removed. Then carefully lay it in place over the roof, allowing 1-1/2 inches of surplus material at both ends. Stay tack the new roof covering at the center of the front roof rail (see A in Fig. 3) and at the upper back panel (see B in Fig. 3) with six or seven tacks about 1/2 inch apart, using 2-1/2 oz. trimmer's tacks. Next stretch and stay tack one of the rear corners (see C in Fig.



Fig 3 - Trimmer in the act of diagonally stretching and stay tacking right front corner of roof covering.

3) and its diagonal opposite front corner (see D in Fig. 3). In a similar manner, stretch and tack the other two corners. Now finish tacking the roof covering completely across at the rear.

Then stay tack the sides for their full length at intervals of about 10 inches to facilitate the later stretching and tacking. After this is accomplished, complete tacking across the front roof rail and then finish tacking the sides, lifting the covering as the work proceeds to locate the slots in the panels. Drive a tack at each end of every slot.

For shipping convenience, roof crown mouldings are furnished from service in four sections, front, back, and the two sides that extend around the curve at the rear, instead of the three sections that are used in production.

To install the roof crown moulding, first nail the front section of the moulding to place through its holes with 1-1/4 inch No. 14 moulding nails, starting at the center and working toward the sides until the roof drip moulding is reached. Now saw off the surplus ends of the moulding with a hack saw so that its edges will fit evenly with the top edge of the roof drip moulding. Then drive all nails with a nail set, but not too deep or it may show a "ripple" effect after the tacking is finished. Now swage the cap over the heads of the nails with a wooden mallet, using for this purpose a U-grooved moulding.

Next, either one of the side sections of the moulding is installed, starting at the rear curve of the roof, working toward the front. Make sure that the moulding covers all tack heads. Use the center marking at the slots in the panels as a guide for driving the nails through the moulding. After each side is finished, saw off enough moulding at the front end to form a perfect fit at the edge of the front roof crown moulding. Then measure and cut the back crown moulding section to make an even juncture with the curved ends of the sides and nail it to place. Now swage the caps of these sections in. the manner described previously.



Fig 4 - Installation of roof covering completed across front of roof and left side moulding nailed but not swaged.

Finally, trim off, close-to the outside of the moulding with a sharp knife, all surplus covering material and apply roof drip moulding cement to the inner edges of the moulding. Cement is not applied on the outside edges.

## INSPECTION OF ROOF COVERING AND MOULDING

Whenever a car is brought in for service or replacement of any kind, inspect the roof covering and the crown and drip mouldings, Examine the roof carefully for checks, cracks or holes in the fabric, remembering that even a small leak may not only ruin the covering itself but may also allow water to seep through and rust the panels, rot the wood, and damage the upholstery in the body. Also inspect the crown mouldings for looseness, improper sealing, or faulty installation. See that the cement around the edges of roof covering and mouldings is not cracked. In many cases small openings may be remedied by applying roof drip moulding cement at the juncture of the roof moulding and covering.

Thus far there is no method of permanently repairing a crack or hole in the roof covering and the only way to insure a satisfactory result is to install a new roof covering.

## CARE OF COATED FABRIC ROOF COVERINGS

Important factors to be considered in the care and cleaning of coated fabrics are the chemical actions of oils, greases, or other solvents on the composition of the fabric. For this reason, water only is recommended for cleaning coated fabrics as the oil, grease, solvents, etc. contained in soap, cleaning compounds, or dressings may have a deteriorating effect on the fabric and its rubberizing compounds.

# THE ONE-PIECE ROOF CROWN AND DRIP MOULDINGS

In replacements, it is not advisable to try to reinstall either a roof crown or a drip moulding that has been removed. In fact, considering the low cost of the one-piece mouldings and the more satisfactory results obtained, it is much more economical to install new mouldings.

The one-piece roof crown moulding is an assembly of base and cap stamped in an integral unit instead of two separate pieces as were formerly used. The illustration shows nails in the base exposed with the cap open at A in Fig. 5 and with cap closed at B in Fig. 5. The roof drip moulding has the base, cap, and drip channel in one piece. Fig. 5 shows the nails in the base exposed and cap open at C and the cap sealed over the nails at D. The method of swaging the cap over the nails in the base in onepiece moulding not only makes a better seal for the moulding but also simplifies the installation.

#### TRIM BINDINGS

Nos. 1 and 2 in Fig. 6 show the Randall Moulding, which is an assembly of upholstery cloth or manufactured lace and metal nailing strip and a half-round rattan or rubber core. The Randall Moulding with the rattan core is used to cover the tacks and raw edges of the upholstery cloth along the top edge of the front seat assembly. The Randall Moulding with the rubber core is used to finish the roof covering on open bodies around the front bow and the rear roof bow where the roof cover material and the back curtain join.



Fig 5 - Top: Roof crown moulding with cap open at A and swaged down at B. Bottom: Roof drip moulding with cap open at C and swaged at D.

NO.3 in Fig. 6. Randall Moulding Lace is a strip of upholstery in which a design is worked with a selvage edge on both sides. It is used only to obtain contrast with the other trim.

No. 4 in Fig. 6. Wire-on-Moulding is composed of a strip of imitation leather fabric and a half-oval filler with a wire woven crosswise in such a manner that when the skirt of the moulding is tacked to place the half-oval portion may then be pressed over the tacks, hiding them and making a sealed joint. It is used to finish off the joint of the outside back and back curtain assembly and in some cases has been used as a binding around the edges of the door trim pad assembly and at the edge of the rear body hinge pillar.

No.5 in Fig. 6. Windlace is made up by sewing a piece of upholstery cloth or leather or imitation leather around a 5/16 inch rubber tubing in such a way as to leave a skirt for tacking purposes.

It is used along the edges of the center body pillar, the rear door hinge pillar, and the front edge of the front door, and in some cases along the bottom edge of the doors. Its purpose is to close up the openings between the doors and the body pillars and prevent the entrance of wind and water.

No. 6 in Fig. 6. Seaming Lace Corded is made up in the same manner as the windlace except that the upholstery cloth or lace is sewed around a 1/8 inch fibre core. It is used in various places, depending on the type of body to be trimmed. It may be used where the side wall trim and the headlining join or where plain upholstery cloth and cloth with a design join. On later models it is sewed at the edges of the door trim pad for decorative purposes and also to supplement the windlace. In some cases it is used where two upholstery assemblies join together.

No. 7 in Fig. 6. 'Hidem' Binding is usually made up of imitation leather with two folds toward the center that may be folded back while the tacks are being driven into place. Then the fold automatically closes over and hides the tack heads. This binding is used to cover the joint on some of the outside quarter and back curtain assemblies.

No. 8 in Fig. 6. 7/8 inch Imitation Leather Trim Binding is used for binding the edges of the rear quarter sides and the edges of the back curtains on the imitation folding top bodies.

No.9 in Fig. 6. Gimp Binding, 5/8 inch wide, is used to cover the raw edges of the upholstery on the underside of seat cushions where it has been tacked.

No. 10 in Fig. 6. Carpet Binding is used to bind the edges of carpets and is always cut on the bias to avoid bunching at corners.



Fig 6 - Group of various bindings used im trim finsih.