

NOTES ON RELEATHERING

by Chris Feiereisen

This is not intended to be a comprehensive treatment of the subject, but merely some general directions. This should aid in following through with the process the first time. After that, each person will tend to develop his own techniques. Other suggestions and additions should be sent in by the readers.

What Must Be Releathered

There is no hard and fast rule as to just how long a particular type of leather will last because conditions effecting its useful life (humidity, temperature, use, etc.), vary greatly. Most brown (pneumatic) leather I have seen in theatre organs is still good while most membrane and rubber cloth must be replaced. Then too, internal pneumatics (inside chests) may be OK while those exposed may have deteriorated.

As a general rule, poke several pneumatics hard with the end of the index finger. If the leather tears, it should be replaced in that part of the organ.

Rubber cloth becomes stiff and develops small holes as it ages. If the pneumatic or tremulant cloth seems unduly stiff or has holes in it, the item should be recovered.

Regulators should be cleaned and used "as is" until the leather starts to crack and leak. When this happens, do not attempt to releather the regulators yourself, but have an experienced organ man or organ supply company expert releather them for you. Watch him and learn.

What Leather Should Be Used

The general rule here is to use the same type of leather that was used originally. A sample of the original leather can be sent to Durst or Organ Supply Corp. of Erie, Pa., and they will match it for you. The Durst Co., now has a silicon leather substitute which they claim will double the lives of newly recovered pneumatics and pouches.

There are exceptions to this rule. Controversy rages as to what to use when releathering Wurlitzers. Although most Wurlitzers had membrane ("zephyr skin") originally, it has a shorter life expectancy than the lightweight pneumatic leather which Wurlitzer used on later organs. It is said that membrane, being more airtight and more pliable than leather, allows the action to respond faster, although other factors such as primary valve adjustment may be equally important. So, while some will use leather for both primaries

and motor pneumatics, others will recover the primaries in membrane and the motor pneumatics in leather. Those who don't mind releathering more often and insist on the ultimate in speed will again use membrane throughout.

Because more expensive leather usually outlasts rubber cloth, those who don't want to releather so often will replace rubber cloth on tremulents and percussion power pneumatics with a suitable grade of leather.

How to Releather

Remove the pneumatics, numbering the gasket side as you do. If the pneumatic is glued in, the gasket will probably tear as the pneumatic is pryed off. If the pneumatics are kept in order, the torn edges of each gasket will match and it will be possible to glue them back in again later, using glue liberally. There are some who will insist on sanding off the old gaskets entirely and making new ones, although this is not necessary. The pneumatics should be kept in the same order also because sometimes they are graduated in size and sometimes those screwed in don't have the screws in the identical spots throughout. Before square primaries are removed, the threaded valve stems must be removed from them with a pin vise. External (e.g., percussion) motor pneumatics will probably have strips of wood tacked or nailed around them to keep the covering from blowing off. These strips should be removed and kept in order so they will go back the same way.

With one of the pneumatics held fully open, measure the height. Remove old leather without damaging the hinge, if any. Some will prefer to replace the hinge portion, too. This decision should depend on the condition of the hinge material. Should old leather tend to clog the sander, either use coarser sandpaper or pull most of the old material off by hand before using the machine. Old leather can sometimes be removed from cloth hinges with a wire brush.

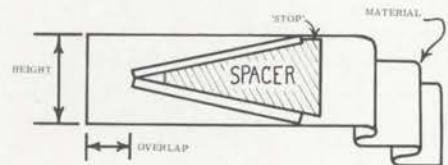
Make a wedge or block that will hold the pneumatic fully open. A wedge should have a stop of some sort so that it doesn't slip in too far. A block-type spacer should have a "stop", a part that does not go all the way into the pneumatic. That way you will not accidentally leave one inside.

Cut the new covering material into strips as wide as the height of the original pneumatic. In most cases, the time saved by this method far offsets the small waste of material. This should be done in all cases except, perhaps, on tremulents where waste might be reduced by using uncut skins.

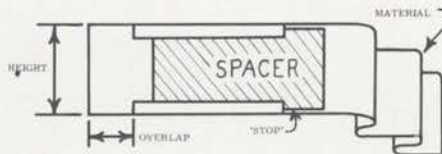
Use hot chip glue in an electric glue pot or double boiler because it adheres as soon as the leather touches it, making work go faster. I understand that there are liquid hide glues that have the same property, but I am not familiar with them. White glue can be used, but it makes the work go much more slowly. If you are going to replace the hinges, do so at this point.

Easy as 1-2-3!... 4?... 5-6-7?... 8-9...

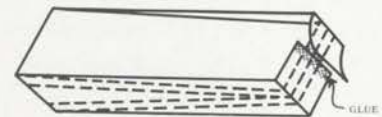
A. THE HEIGHT of the fully-extended pneumatic determines the width of the new material.



B. WOODEN SPACER holds pneumatic frame wide open. Allow new material to overlap frame by about one-half length of hinge.



C. ON SQUARE PNEUMATIC, allow new material to overlap extended frame by about one-half length of "seam" side.



D. RELEATHERED PNEUMATIC. Overlap seal is always on hinge side. Don't forget to remove spacer before getting to this point.

Brush the glue evenly on the edges of one side of the pneumatic (with the spacer inside). Place the covering material (fuzzy side to the inside) on the glue-coated wood leaving a strip about one-half the length onto the wood without stretching it. Do not get glue on the covering material where it is not touching the wood. When the glue dries, it can be sharp enough to cut the material. Now remove the spacer (the newly-glued material will prevent the pneumatic from opening too far). Brush glue onto the next two slides and smooth the material on. With a scissors, cut the strip of material so there is enough to lap the material on the hinge side about $\frac{1}{4}$ " to $\frac{1}{2}$ ". Apply glue to the hinge. Press the first flap down. Apply glue to the edge of that flap and press the other flap of material onto it. When the glue has set (wait an hour or more if possible), trim off excess material with a scissors. The pneumatic can then be replaced in the organ.

In the case of pouches, tear one apart carefully and note the way the discs, spring, and/or valve are fastened to the leather. Reclaim any of these parts that you can, and order or make those that you can't. Sand all old leather off the wood and blow out dust from the channels. Cut leather into discs if that's the way it was originally. Glue the discs, spring, and/or valve to the leather as it was originally. If there was a spring under the pouch, don't forget to get it in now. Brush glue onto the wood and pat the leather onto it, leaving plenty of material in the center, as it was before, and make certain the edges are sealed.

POSTSCRIPT:

Organ leather often lasts 30 years or more. That fact could lead an avid theatre organ hunter to his instrument. During the '30's a fairly inexpensive way for a church to obtain an organ was to beg, buy or borrow an instrument no longer needed by a theatre. And we may be ever grateful to the churches which gave theatre organs safe refuge, because most of them are as good as the day they were installed—except for the leather. Because a theatre organ is not an ideal church organ and because commercial releathering is expensive, many churches faced with decaying leather decide to buy a whole new organ. That makes the theatre organ available. Therefore, those who seek a theatre organ would do well to keep in close contact with churches which are currently equipped with theatre organs. That long sought 8-ranker with the horseshoe console (which was never really comfortable in church) may become available any day!

Ex-WLW Wurlitzer . . .

WEHMEIER ORGAN NOW SPORTS PIANO-ORGAN PLAYER

This is a follow-up on the article, "WLW Wurlitzer Finds a Home," which appeared in the Winter 1965 THEATRE ORGAN.



RON WEHMEIER shown lifting armature of a magnet used in the player piano.

—Photo: Jack Doll, Jr.

A BOMBARDE TECHNICAL TIDBIT

"Gold leafing" a console is a job most organ refinishers would rather not perform, although the results are eye-catching. Now very similar results can be obtained with greater ease by using a new, non-tarnishing gold enamel called "Permagild." Its application has none of the headaches commonly associated with putting on gold leaf. In fact, Permagild may be brushed, rolled or sprayed on any clean surface. It dries "dust free" in one hour. The color is a coarse, pale gold and the manufacturer (W. H. Kemp Co., Ltd., 515 Homestead Avenue, Mount Vernon, N. Y.) classes it as an "exterior paint," a claim which is strengthened by the fact that the dome of the Indiana State Capitol building in Indianapolis is painted with Permagild. It is claimed that it will not discolor or tarnish from the effects of daylight, corrosive atmosphere (*i.e.*, "smog") or heat. However, those using it on display pipes or consoles may want to top the Permagild coat with clear varnish to shield the color from dirt absorption. Permagild is distributed in some areas by Sherwin-Williams stores. Price is between \$5 and \$6 a quart. Write to the manufacturer for a data sheet. —Buck Price, Miami

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A player piano was converted to play from the console at pitches of 16', 8', 4' on the Solo and 16', 8' on both the Accompaniment and Pedal. The piano, being outside the swell box, is equipped with two stages of electro-pneumatic expression, which controls the distance the hammer travels. Reiser 601, 90-ohm direct electric action magnets were used to activate the piano primary pouches. The same design was used to activate the sustain pedal, only a unit of 40 ohms, this being stronger.

Another addition has been a Moller Reproducing Organ Player, acquired from a Moller representative in Baltimore, Maryland, while Wehmeier was working for him. The Moller player has a tracker bar with two sets or rows of holes, one for the Solo and the other for the Accompaniment. The pedal is derived from the bottom twelve notes of either row. There are five stages of expression, also automatic crescendo. The unit has its own switches and relay which are now wired to the Wurlitzer relay. A pneumatic suction pump is directly under the player in the basement, creating 20" of water suction.

A unique factor is that Wehmeier has converted the player so that it plays player Piano rolls in addition to the organ rolls. Obtaining excellent results was no easy matter. Two months of intensive experimentation were required before a practical method was conceived. Wehmeier took the 88-note tracker bar from the player piano and mounted it parallel to the Moller bar, then built a relay using Duo-Art primary valves from a reproducing grand.

Player piano rolls in general are registered too high for organ, so this was doubled back on the top octave, thus the notes are transposed one octave lower. A home-made relay is wired to the Wurlitzer as follows: 1 to 31 Accompaniment and 20 to 61 on the Solo. This arrangement was resolved as sounding the best.

In the final analysis, it is possible to play the Moller reproducing rolls through the organ or piano or both simultaneously. The same holds true with standard player piano rolls. The conversion between the two types of rolls is done by shifting the suction from one relay to the other. This unit can be seen at the lower left of the player.

The original wood top was ruined by water. A glass one now installed adds to the interest of the player, since the working components can be seen.

—by Ronald Wehmeier