

Schaff Piano Supply Company Presents:

Finishing the Cast Iron Plate

Basic Step-by-Step Procedures

Belly Work



By Chuck Behm

Finishing the Cast Iron Plate



-Rationale-

In the restoration of either a grand or an upright, a badly marred finish on the cast iron plate will detract from the appearance of such work as a newly refurbished soundboard, or a new set of pins and strings. Painting the plate while the strings and pins are out of the piano is a job that makes sense. It can be done either with the plate in the piano, or (in the case of a job where the pinblock is being replaced or the soundboard is being worked on) with the plate out of the piano. High quality spray cans of gold finish intended for this type of work are available from Schaff and make the job easy to tackle.

Certain steps, if followed, will make this a job in which the efforts of even the beginner will look very acceptable and will be a vast improvement over the worn appearance of the original finish.

Belly Work / Finishing the Cast Iron Plate

- Procedures-



Careful preparation is the key to success:

To do a professional looking job of painting the cast iron plate, the piano must be torn down to a certain degree. Case parts which would be in the way of the spraying process should obviously be removed and stored out of the way.

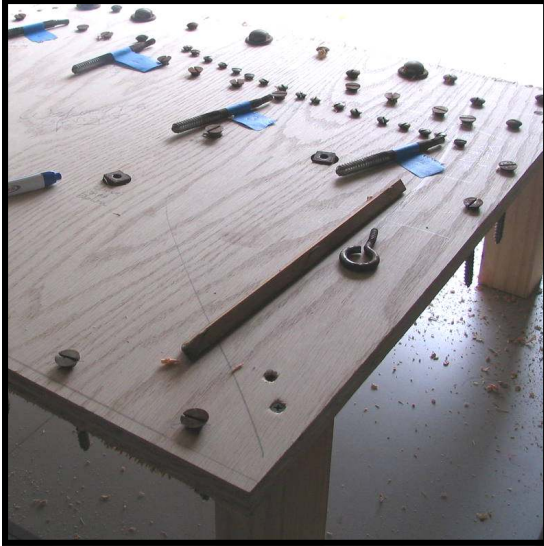
Obviously, the pins and strings must be removed. See articles available from Schaff (*Removing Bass Strings for Duplication* and *Removing and Miking Treble Strings*) for information on these procedures.

With the strings and pins out the way, the plate is nearly ready to work on. Although the plate screws may be left in place, it would be a wise step to remove them for polishing at this point. Also consider removing the pressure bar (as shown in the photo above) for polishing.

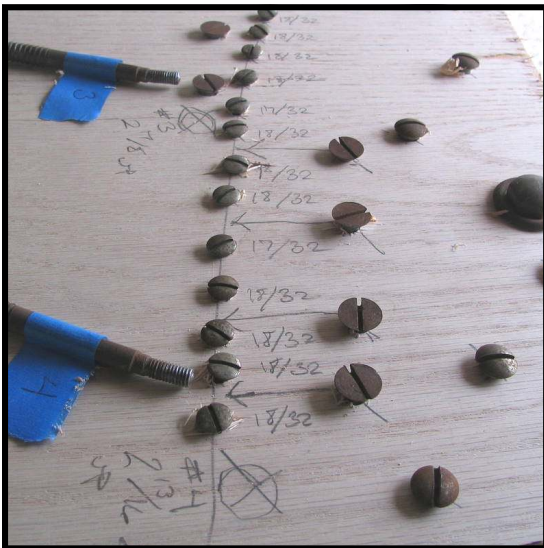
Several words of caution are necessary about these procedures. First of all, if you are removing the plate screws, but not the plate from the piano, leave a large screw in place on either side of the top of the plate for positioning. Once the other screws have been returned after the plate has been painted and the screws have been polished, those positioning screws may be removed and polished as well.

Following are the step-by-step procedures to successfully complete this job.

Belly Work / Finishing the Cast Iron Plate



Step 1: If the plate screws are removed, whether or not the plate is going to be taken out of the piano, they must be stored in such away that they all go back into the exact spot from which they came. You'll notice a variety of lengths and widths to the screws as you remove them. Construct a holder, such as the one shown in the photo to the left, to store each screw according to its exact position.



Step 2: If the pressure bar is removed for polishing, measure and record the height of each screw to use in the later reinstallation process. Also, if the action bolts are removed, attach a tag to later identify their order, and measure and record their height from the surface of the plate as well.

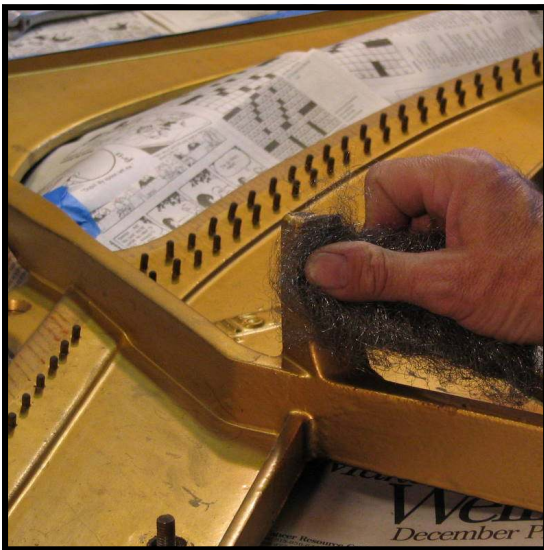


Step 3: If the plate is going to remain in the piano, cover the soundboard and bridges with newspapers, or plastic sheeting. Make sure to cover the exposed areas of the inside of the case as well.

Belly Work / Finishing the Cast Iron Plate



Step 4: For plates with minimal damage to the finish, lightly sand the entire surface with 400 grit sandpaper to remove oxidation and residue. Make sure to sand off the fibers of any understring felt which was glued to the plate, after having taken digital pictures to record the positioning of this felt for later reference.



Step 5: For areas which are hard to use sandpaper on, use [medium coarse steel wool](#) (Cat. No. 412-2) to clean off any oxidation.



Step 6: In areas where the old finish is badly marred, sand out roughness with a coarser sandpaper, such as 150 grit, then progress to lighter grits for a smoother finish.

Belly Work / Finishing the Cast Iron Plate



Step 7: Visually inspect the entire surface of the plate to make sure every area has been attended to. In the photos, the lower portions of the plate only were to be repainted, in that the area around the webbing had writing in pencil which the owner wished to have preserved.



Step 8: Once all sanding and scrubbing with steel wool has been accomplished, vacuum off all dust and residue. It's also a good idea to clean surfaces with a tack cloth, such as the [Dust Wizard \(Cat. No. 1309\)](#).



Step 9: The pin holes may be protected from paint by the placement of a [rubber button \(Cat. No. 356B\)](#) in each hole. These are just large enough prevent the bushings from being coated as well. After the job is complete, save these buttons in a container for later use.

Belly Work / Finishing the Cast Iron Plate



Step 10: If you have decided to use a product from a can, consider [Quik Spray](#) (Cat. No. ?), by Sheffield products. Make sure to shake the can well, and test the color on a piece of scrap metal before applying to the plate of your piano.



Step 11: Apply the paint following the contours of the plate with even, side-to-side strokes from a distance of approximately 6 inches. Move the can slowly enough to apply an adequate layer but not so slow as to cause running.

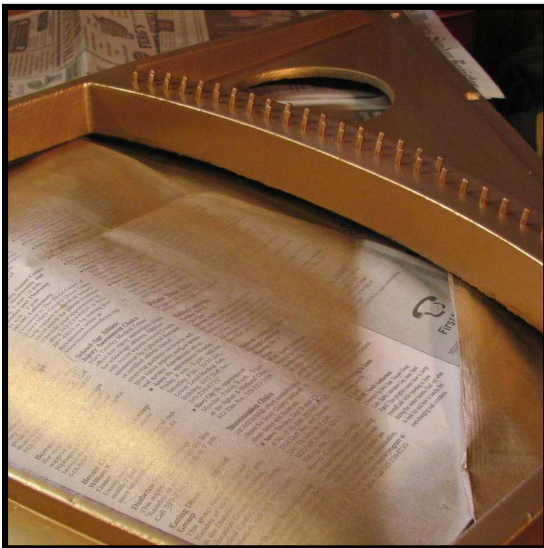


Step 12: If an area of the plate is to be left untreated, as was done in the case of this piano, gradually feather off between a full coat of paint, and no paint.

Belly Work / Finishing the Cast Iron Plate



Step 13: Make sure all areas of the plate receive several even coats. In areas where damage was sanded out down to the undercoat, as in the case of this strut, apply extra coats.



Step 14: Visually inspect all surfaces of the plate, especially the sides of the struts and the corners where the various surfaces meet, for complete coverage. Although you are done spraying the plate, **do not** throw away the can quite yet. It may be necessary for touch ups as the restoration process continues.

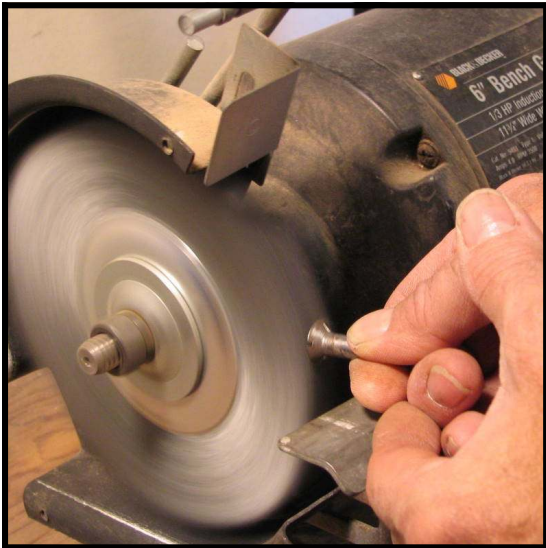


Step 15: Remove the newspapers or plastic sheeting covering the soundboard and bridges.

Belly Work / Finishing the Cast Iron Plate

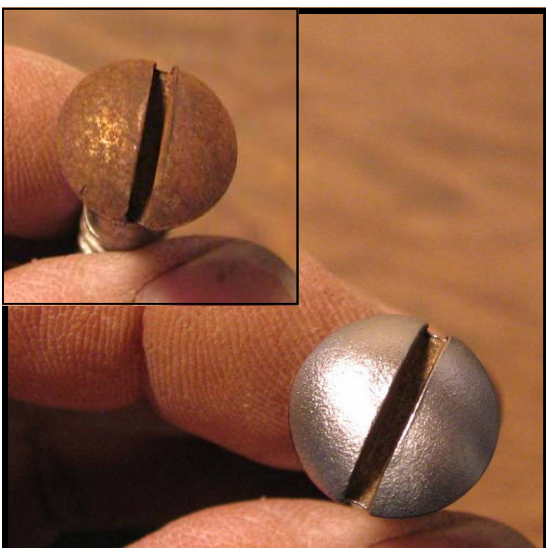


Step 16: If there is a transitional area from new finish to old finish, complete the feathering process by lightly going over the juncture between old and new with [super fine steel wool](#) (Cat. No. 412 -4/0).



Step 17: At this time, wire brush the heads each of the plate screws before reinsertion.

Caution!! Be sure to wear safety goggles for this step!



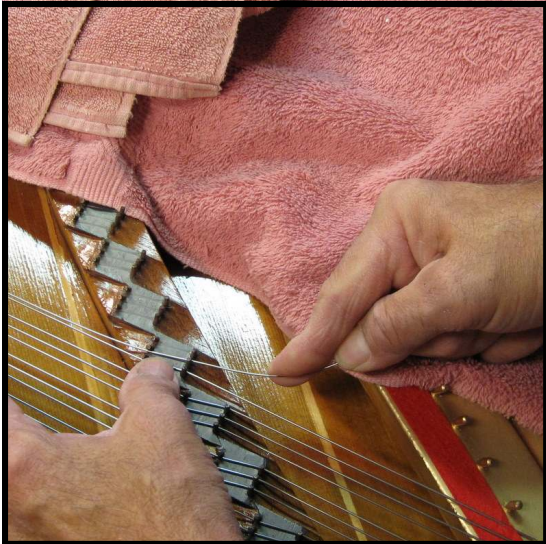
Step 18: Inspect each screw head to make sure all trace of rust and corrosion has been removed before replacing in the plate.

Belly Work / Finishing the Cast Iron Plate



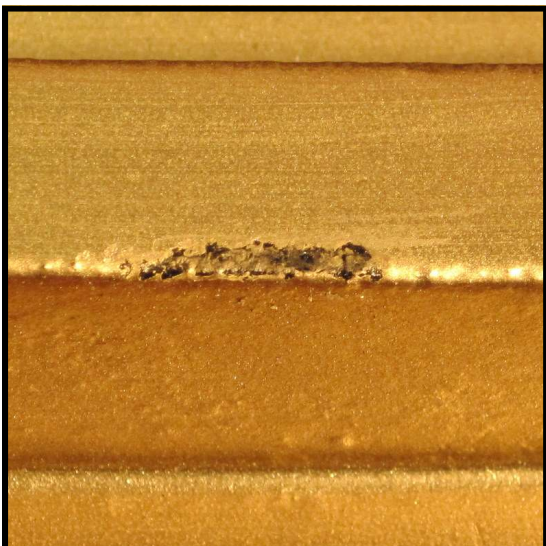
Step 19: Finish reinstalling all plate screws and move on to the next step of your restoration job. Stand back for a moment, however, to admire the work you've done thus far in bringing your project piano back to life.

Belly Work



Final Suggestions:

Step 20: As you work on restringing and repinning the piano, be sure to cover areas of the plate adjacent to the actual work area with towels. Get in the habit of placing tools, tuning pins, spools of wire, etc. on the toweled area, not on the plate itself.



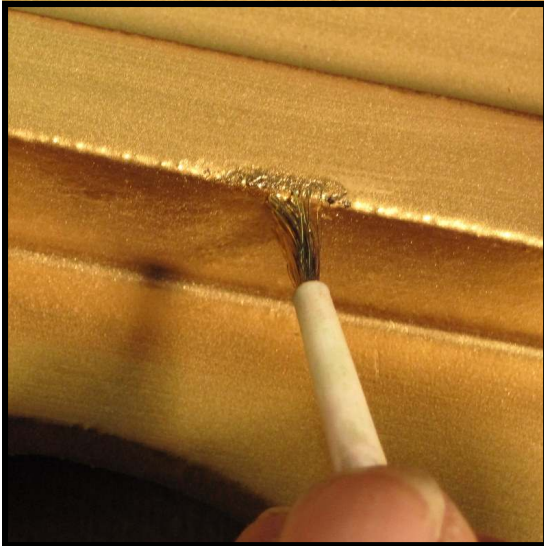
Step 21: Inevitably, as you work with tools in the processes that are involved with restringing the piano, an occasional chip in the new paint will occur:(

After the necessary wailing and gnashing of teeth, take stock of the situation to repair the damage that has been done. Flake off any loose particles and lightly sand the affected area with 400 or 500 grit sandpaper.

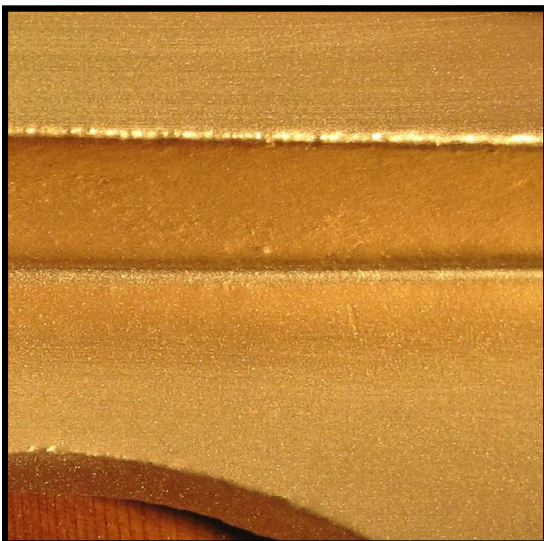
Belly Work / Finishing the Cast Iron Plate



Step 22: On a piece of cardstock or a bit of scrap wood, spray a small amount of paint from the original can used.



Step 23: With a small artist brush, fill in the affected area. Don't expect the repair to look perfect after the first coat. Rather, apply several coats, using a pinch of your 4/0 steel wool to lightly buff the affected area only in between coats.



Step 24: Voila! After 3 coats of finish applied judiciously, the damage to the plate caused by a careless movement of a tool during the restringing process blends in so that the repair is nearly invisible.

Belly Work / Finishing the Cast Iron Plate



Another project showing off its newly repainted plate.

Supplies:

For your convenience, the tools necessary to complete this repair are listed with corresponding catalogue number.

Medium coarse steel wool..... Cat. No. 412-2
Super fine steel wool.....Cat. No. 412-4/0
Dust Wizard..... Cat. No. 1309
Rubber buttons (250 recommended)..... Cat. No. 356B
Quik Spray..... Cat. No. ?

Important note: Ordering information is given
for the use of Schaff account holders only.

To order, call Schaff Piano Supply at 1-800-747-4266

Belly Work / Finishing the Cast Iron Plate

Notes on Procedures