Schaff Piano Supply Company Presents:

# Removing and Miking Treble Strings for Replacement Basic Stepby-Step Procedures



By Chuck Behm

# **Removing Treble Strings**



#### -Rationale-

String replacement in an upright piano makes sense when the piano is valuable from either a commercial or sentimental standpoint, and when the treble strings have become brittle (as evidenced by numerous tied or missing strings), and the bass strings have become 'tubby' or lifeless in tone.

Removing the treble strings is a straightforward process that is much simplified by carrying through with each step for the entire set of strings before the next step is begun. Accurately miking the strings as they are removed is essential for a correct restringing job.

By removing the tuning pins as well once the strings are removed, the piano is prepared for either a restringing, repinning job, or a more extensive pinblock replacement job, followed by restringing and repinning.

Following are the step-by-step procedures used in removing and miking the treble strings from an upright piano.

## Belly Work / Removing Treble Strings



**Step 1:** Use a tuning lever, such as a nylon extension lever (Cat. No. 16), to turn all the strings, both bass and treble, back approximately 3/4 of a turn to release all tension, and to loosen the coils to the point where the beckets may be easily removed.

Hint: Placing the piano on its back by use of a shop repair truck (Cat. No. 1901) makes this a much easier job to tackle.



**Step 2:** With the tension off of the strings, remove the beckets from the pins, using a grand action screwdriver (Cat. No. 193). Use the end of the screwdriver to pry the becket out of each pin by using the top of the tuning pins as a fulcrum. Once the end of each becket is free of the pin, turn the wire slightly to the side to bend the becket under so that it doesn't catch in the hole.



**Step 3:** Continue until the beckets have been removed from all the pins.

#### Belly Work / Removing Treble Strings



**Step 4:** Use a stringing hook (Cat. No. 135S) to pull the coil off of each pin. Hook each string at the bend for the becket and pull the wire off the pin with a single jerk upward.



**Step 5:** Cut all the treble wires high up on the speaking length, using either a pair of **Starrett wire cutters (Cat. No. 225A)** or a similar tool. When cutting the wires, hold the end leading to the hitch pin to avoid having the wire shoot downward.



**Step 6:** Before removing the strings from the hitch pins at the bottom of the piano, photograph the pattern used for the stringing braid in between bridge and the hitch pins. File the photograph on your computer for use in duplicating the pattern when the piano is restrung.

#### Belly Work / Removing Treble Strings



**Step 7:** Remove the stringing braid by starting at the lower end and pulling it loose one section at a time. Use your small screwdriver again to assist in removing the braid.



**Step 8:** Pull the first set of steel strings loose from the hitch pin. Mike the string, using a Starrett micrometer, (Cat. No. 3338 or Cat. No. 4044[digital]). Calculate the wire size and write down on a note card or tablet. If a singleton (a steel string ending in a loop) is not involved, a minimum of three pairs of strings, constituting two notes (unless there happens to be just two strings to the note) will be of the same size. There is therefore no need to remike the strings until three pairs of strings have been removed. Record the number of **notes** per wire size.



**Step 9:** Grasp three pairs of strings, remove from the hitch pins and bridge pins, and pull loose from the piano.

Caution: Wear eye protection during this step to safeguard your eyes from sharp ends of wire!

# Belly Work

# Cunningham Upright

## Belly Work / Removing Treble Strings



**Go green!** Carefully bend the small bundle of wire several times and place in a recycling container for scrap metal. Placing used wire haphazardly in a ordinary trash container is not only environmentally unwise, but potentially dangerous for the unsuspecting person collecting the trash.



**Step 10:** Take note of any singletons in the scale. Photograph the type of loop used for later reference. When a singleton is involved, that size of wire will be used for an odd number of notes.



**Step 11:** Pull the cut ends of the wires free from under the pressure bar. Use the stringing hook to grasp the coil, pull the wire through, and collect one batch at a time in your left hand. Again, recycle these wires ends by putting in the recycling bin or barrel.

# Belly Work

# **Cunningham Upright**





Step 12: Use a power drill (a plug-in model with plenty of torque and a speed control is best) with a power tuning pin socket (Cat. No. 63) to back the pins out.

Belly Work / Removing Treble Strings

Caution: Take your time and back the pins out slowly enough that you are not building up the heat of the pin to scorching temperatures. If the pin is too hot to hold in your hand when it comes out of the hole, you're rushing things. Slow the drill down!

**Step 12 - optional method.** For building arm strength and just for the sake of doing things the old fashion way, consider using a hand brace (Cat. No. 287) along with a tuning pin socket for brace (Cat. No. 25) to back the pins out. If you can back the pins out by hand fast enough to heat them up to scorching temperature, calm down.- life's not a race.



Step 13: Remove all the pins. While working on a chore such as this, I enjoy thinking about the wonderful variety of the restoration business, and how thankful I am that I don't work in a factory or setting where every day I would be doing the same thing (such as removing pins) over and over again. Each and every day in the piano restoration shop there are fresh challenges to overcome and new jobs to do. The restoration business never gets to be old hat. It's truly a great career.

## Belly Work / Removing Treble Strings



Go green once again!! Tuning pins should never be thrown out in the trash. Toss them in a barrel for recycling, and when it's full, haul them down to the scrap metal place to turn them into a bit of cash. Just do it before the barrel is too heavy to move!



**Step 14:** Put the completed stringing schedule in a safe place with the label of the piano being worked on. It's not a good feeling to discover, halfway through a restringing job, that you're using the wrong schedule.



**Step 15:** As soon as possible, now that the pins are out of the pinblock, tackle the repinning and restringing job. If it is summer and hot and humid in the shop, consider closing the windows and running an air conditioner and dehumidifier until the job is complete. Excess humidity will cause the wood of the pinblock to swell, so that if you ream for the new pins, more wood will be removed, with the end result of a looser fit when the piano dries out in the winter.

# Tools:

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

Nylon extension lever	Cat. No. 16
Shop repair truck	Cat. No. 1901
Grand action screwdriver	Cat. No. 193
Stringing hook	Cat. No. 135S
Starrett wire cutters	Cat. No. 225A
Starrett micrometer	Cat. No. 3338
Starrett digital micrometer (optional)	Cat. No. 4044
Power tuning pin socket	Cat. No. 63
Hand brace	Cat. No. 287
Tuning pin socket for brace	Cat. No. 25

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

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

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# Notes on Procedures