

Diamond Marimbas Tools and Parts

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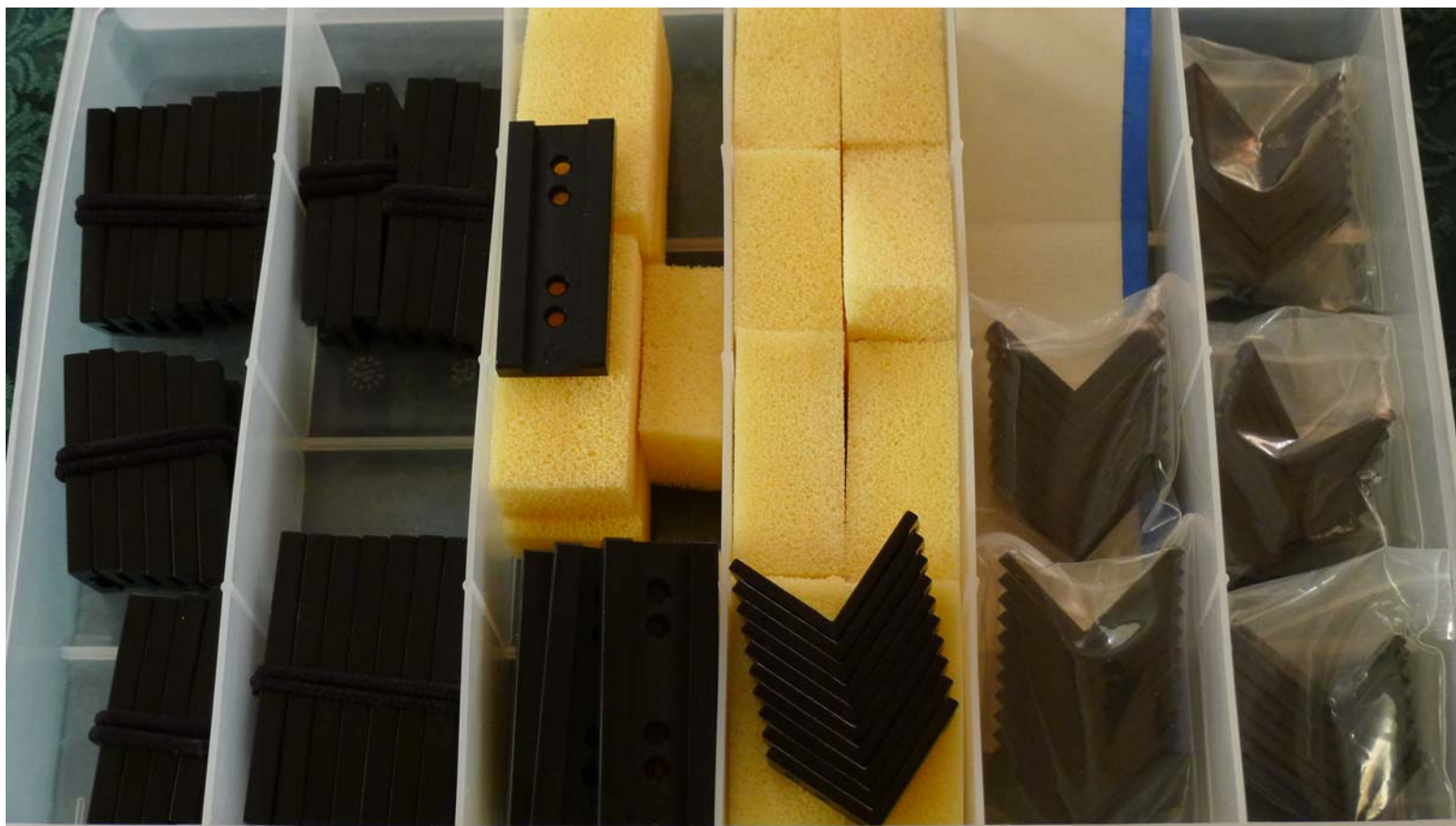
Diamond Marimbas (1) Diamond Marimba I (a)

Delrin blocks.

HR-23 foam supports (2010).

Black anodized aluminum bar brackets.

Double-stick tape pieces with blue tape handles for easy removal.



Diamond Marimbas (2)

Diamond Marimba I (b)

Schaff Piano Supply red understringing felt — Part #302R — for lining hose clamps and resonator channels of DM I and II.

Two light maple rings used to identify acrylic poles of DM I.

Brass plated steel hose clamp brackets.

Various stainless steel tapping and machine screws used throughout construction of terrace and base.

$\frac{3}{8}$ -16 button head cap screws and black satin washers for fastening aluminum rail to terrace.

Custom cut and drilled stainless steel hose clamps.

Steel pop rivets and backup plates used to fasten brass plated (DM I) and solid brass (DM II) brackets to hose clamps.



Diamond Marimbas (3)

Diamond Marimba II

Delrin blocks.

Two Honduras rosewood rings used to identify acrylic poles of DM II.

HR-23 foam supports (2010).

Anodized aluminum bar brackets.

Double-stick tape pieces with blue tape handles for easy removal.

$\frac{3}{8}$ -16 button head cap screws and black satin washers for fastening aluminum rail to terrace.

Solid brass hose clamp brackets.

Experimental bare aluminum bar brackets.



Diamond Marimbas (4)

Diamond Marimba I & II

Four syringes with Dow-Corning Molykote O-ring Grease — Part #55. Inject small amount into bar holes in case Scünci cords make rattling noise: very rare occurrence.

Four wood blocks for polishing aluminum brackets on wet/dry paper with WD-40.

Needle-nose pliers for making Scünci cord knots and mounting bars.

In small red box: bar mounting tools and parts.

Small bag with MSC stainless steel stop pins: $\frac{1}{16}$ in. \times $\frac{5}{8}$ in. — Part #67599647.

Crochet hook for pulling cord loops through bracket holes; scribe for opening knots; wood stick for seating stop pins.

Wood wedge for seating stop pins and punchings; two steel pins for adjusting and tightening bracket knots.

Small bag with monofilament slings.

Small bag with Schaff Piano Supply hitch pin punchings — Part #330H.

On small red box lid:

One custom machined furniture foot leveler for fastening longest acrylic poles of DM I and II to base.

3 flange nuts for fastening all other acrylic poles of DM I and II to base.

Scünci hair bands — Part #16775-Q (OOP) — cut open, and each with a stainless steel stop pin and two punchings.

Gorilla Crystal Clear Tape. Cut pieces with parchment paper backing; for covering/protecting yellow labels on bars.

Large bag with Schaff Piano Supply hitch pin punchings — Part #330H.

Green hand tool: $\frac{5}{16}$ in. universal socket for hose clamp worm screws.



Diamond Marimbas (5)

Diamond Marimba I & II

38 full packs of 18 Scünci hair bands — Part #16775-Q — with *soft braided* sheaths. Out Of Production (OOP). I mounted all the bars of Diamond Marimba I (2019) and Diamond Marimba II (2010) with these bands.

One marimba requires: $54 \text{ bars} \times 2 \text{ pcs} = 108 \text{ pcs}$. $6 \text{ packs} \times 18 \text{ pcs} = 108 \text{ pcs}$.

With very few exceptions, the *soft braided* sheaths make no noise or rattling sounds inside the bar holes.

Once cut at the seams, the extremely elastic silicone cores of these bands are impossible to tear or break with the hands.

44 loose bands — Part #16775-Q — some cut, some brown, some stretched.

30 more bands with stainless steel stop pins in Diamond Marimbas (4) box.

As of — September 2019 — Grand Total = 758 pcs. of Scünci #16775-Q bands.



Diamond Marimbas (6)

Diamond Marimba I & II

Currently in production (2019), 3 packs of 70 Scünci hair bands — Part #39317-A — with *harder coiled* sheaths. Have not tested these bands. Harder sheaths may be noisier inside the bar holes.

3 packs of 27 Scünci hair bands — Part #39322-A — with identical *harder coiled* sheaths.

Dozens of loose Scünci hair bands with identical *harder coiled* sheaths.



HR-23 Foam

Diamond Marimbas and Bass Marimba

In one small box: 25 in. × 6 in. × 14 in.

HR-23 Foam bought in 2000:

On Diamond Marimba I, 2019

On Diamond Marimba II, 2009

On Bass Marimba, 2002

In two large boxes: 33 in. × 6 in. × 17 in.

HR-23 Foam bought in 2019, which is moderately more resilient than the HR-23 Foam bought in 2000.



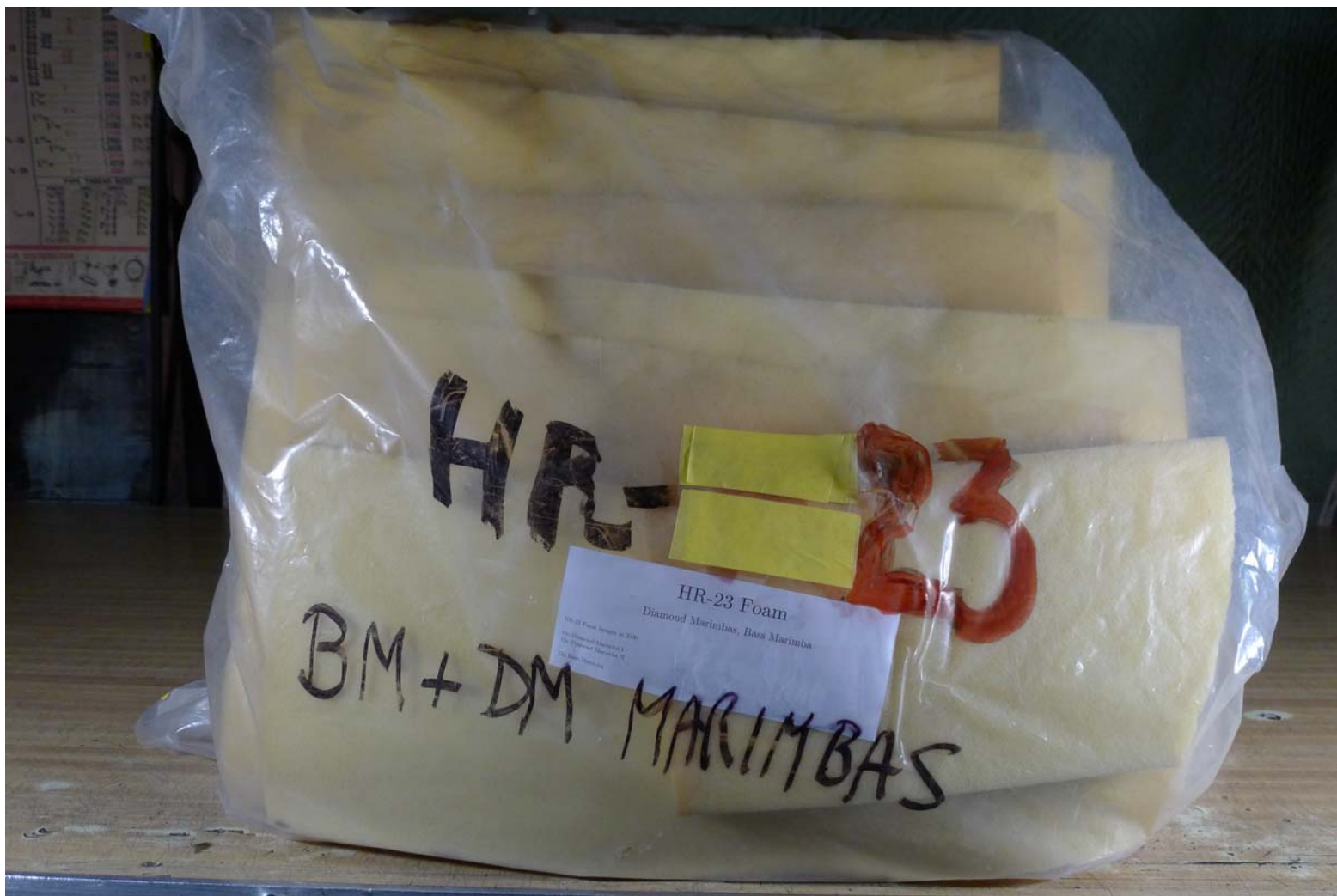
In one large bag: 28 in. × 24 in. × 12 in.

HR-23 Foam bought in 2000:

On Diamond Marimba I, 2019

On Diamond Marimba II, 2009

On Bass Marimba, 2002



Felts

Chrysalises, Diamond Marimbas, Bass Marimba, String Winder

Brown felt from the American Piano Supply Co; they are no longer in business. I was unable to find this material anywhere. American Piano described it as, "Steinway Style Stringing Cloth, #33894NS — Brown." This is a highly durable felt that I used to cover the mallet shelves on the Bass Marimba, and the brake blocks of both Chrysalises.

From left to right, all Schaff Piano Supply Co. products.

3 in. wide red understringing felt used to line the hose clamps that hold the $\frac{1}{4}$ -wavelength resonators on the Diamond Marimbas and the Bass Marimba. I also used this felt as cushion material on the cavity resonator brackets of the Bass Marimba, and on the ball bearing plates of the String Winder. This is also an excellent material for hand polishing wood, metal, and/or Delrin parts found on most instruments. Schaff #302R

$1\frac{1}{8}$ in. wide red understringing felt for heavy Bass Marimba mallets. Schaff #2335

$1\frac{1}{2}$ in. wide — thick — green backrail cloth for heavy Bass Marimba mallets: Schaff #322A

1 in. wide red pressure bar felt for heavy Bass Marimba mallets. Schaff #950

$1\frac{1}{2}$ in. wide — medium thick — green backrail cloth for Bass Marimba mallets and resonator plugs. Schaff #322B

2 in. wide red Steinway style stringing cloth for extra long custom music stand shelves. Schaff #2331R



Pernambuco Bars

Diamond Marimba I

The six highest original pernambuco bars ($\frac{9}{8}$, $\frac{11}{10}$, $\frac{13}{12}$, $\frac{11}{8}$, $\frac{13}{10}$, $\frac{13}{8}$) from Diamond Marimba I, built in 1978. Because these bars are rather short and narrow, I replaced them with six longer and wider Honduras rosewood bars when I rebuilt Diamond Marimba I in 2019. This rebuild included all new parts and materials except the 48 lower original bars. High-density and quarter-sawn pernambuco suitable for making marimba bars is now virtually extinct. I was unable to find such stock. So, I had no choice but to replace the six highest bars with Honduras rosewood. The extinction of pernambuco is what prompted me to rebuild this instrument.

Three *uncut* pernambuco bars and a Mathcad worksheet that solves for the mass density (ρ) in mica/in³ and Young's modulus (E) in psi. Because these uncut bars are medium long and wide, I decided *not* to use them for making short bars in case longer and wider bars may someday need to be replaced.

Also in this container, small pernambuco pieces suitable for making repairs, etc.

