

Diamond Marimbas Tools & Parts (1)

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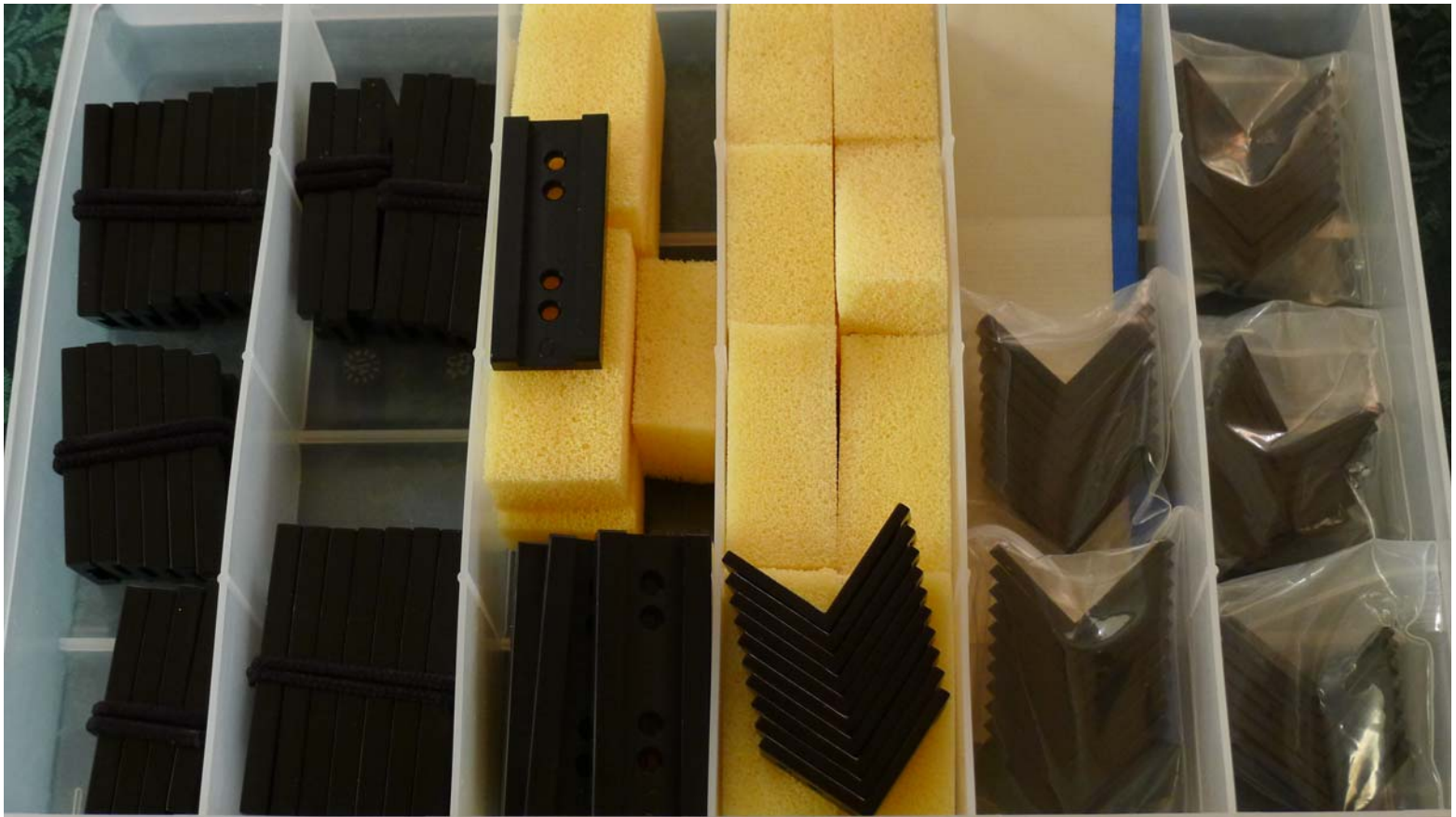
Diamond Marimba I (a)

Delrin blocks.

HR-23 foam supports.

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 (2010).

HR-23 foam supports (2010).

Black anodized aluminum bar brackets (2010).

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

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 the longest cast acrylic poles of DM I and II to the base.

3 flange nuts for fastening the other three cast acrylic poles of DM I and II to the 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: $54 \text{ bars} \times 2 \text{ pcs} = 108 \text{ pcs}$. $6 \text{ packs} \times 18 \text{ pcs} = 108 \text{ pcs}$.

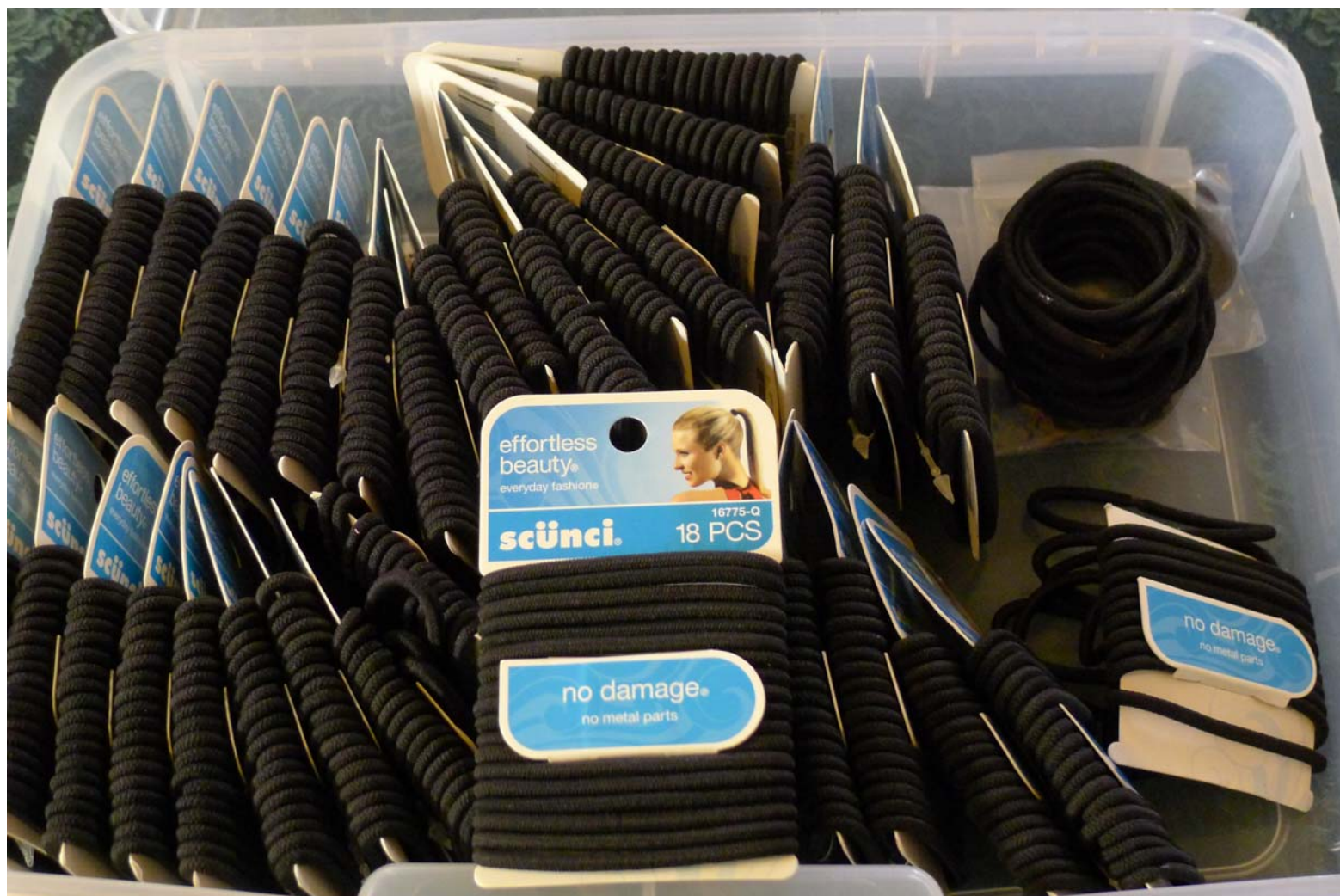
With very few exceptions, the *soft braided* sheaths make no noise or rattling sounds inside the bar holes.

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 Marimbhas (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, 2010

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.



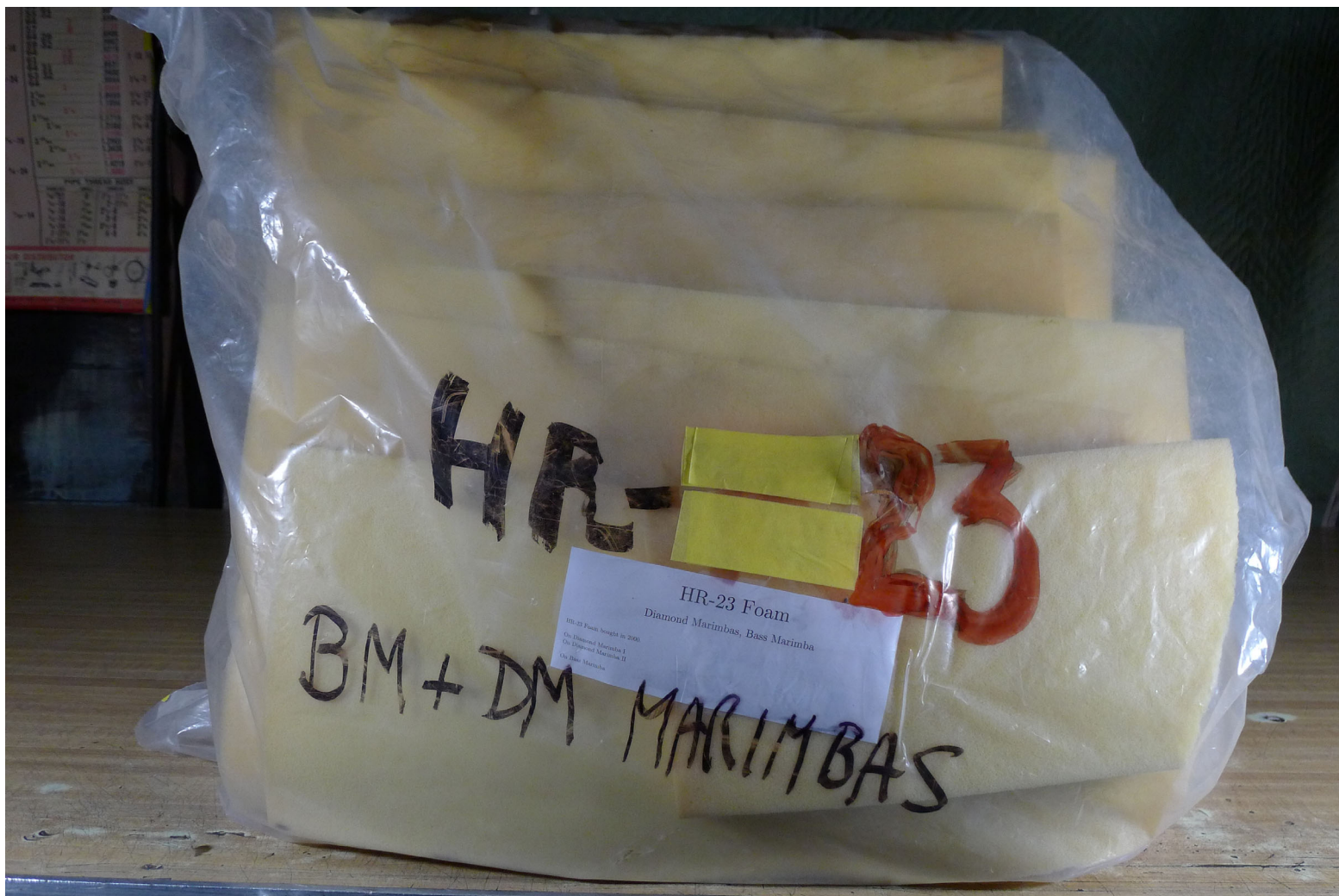
In one large bag: 28 in. × 24 in. × 12 in.

HR-23 Foam bought in 2000:

On Diamond Marimba I, 2019

On Diamond Marimba II, 2010

On Bass Marimba, 2002



Felts

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 two mallet shelves on the Bass Marimba.

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



Nut Plates & Furniture Foot Levelers

Bass Marimba, String Winder, Diamond Marimbas

Long Bass Marimba nut plates.

Long String Winder nut plates.

Short nut plates (not used on instruments).

1/2-13 left hand nuts welded to plates.

1/2-13 right hand nuts welded to plates.

For Diamond Marimbas I and II, *unmachined* and *unfinished* furniture foot levelers.



Instrument Building Jigs & Extra Parts (2) ⁻¹¹⁻

Glassdance and Diamond Marimbas

One foam support — Part #5028 — for Glassdance motor base. Two more 5028 supports in Glassdance (6) box.

Six Diamond Marimba I (pernambuco bars) hose clamp assemblies.

Six Diamond Marimba II (Honduras rosewood bars) hose clamp assemblies.

Seven aluminum spacer blocks for Diamond Marimba I and II bars.

One Diamond Marimba I and II caster.

One round Diamond Marimba I and II bar lifter for replacing foam and double-stick tape without cutting Scüinci cords.

Three Diamond Marimba I and II drilling jigs.

- (1) Delrin block drilling jig.
- (2) Aluminum bracket drilling jig.
- (3) T-square type terrace platform drilling jig for Delrin blocks and aluminum brackets.

Not in photo:

Sixteen wood spacer blocks for Diamond Marimba I and II bars.

One Diamond Marimba II aluminum pole block.



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.

