HINDSIGHT 20/20

Part 2

Building The Chicagoland RPM 2019 Mini-Kit

Finishing the Small Details, Paint and Decals

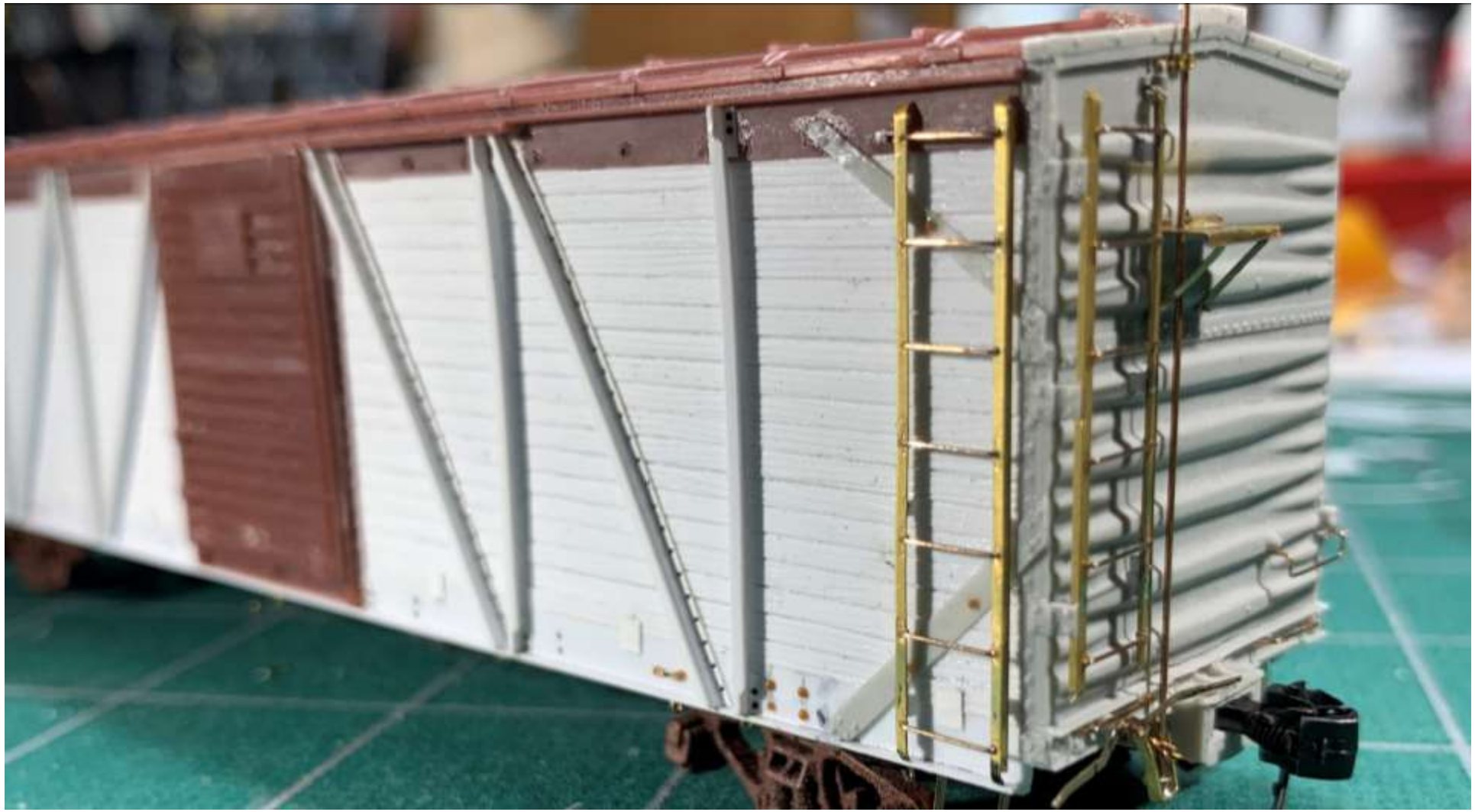
Presented by George Toman

June 2020

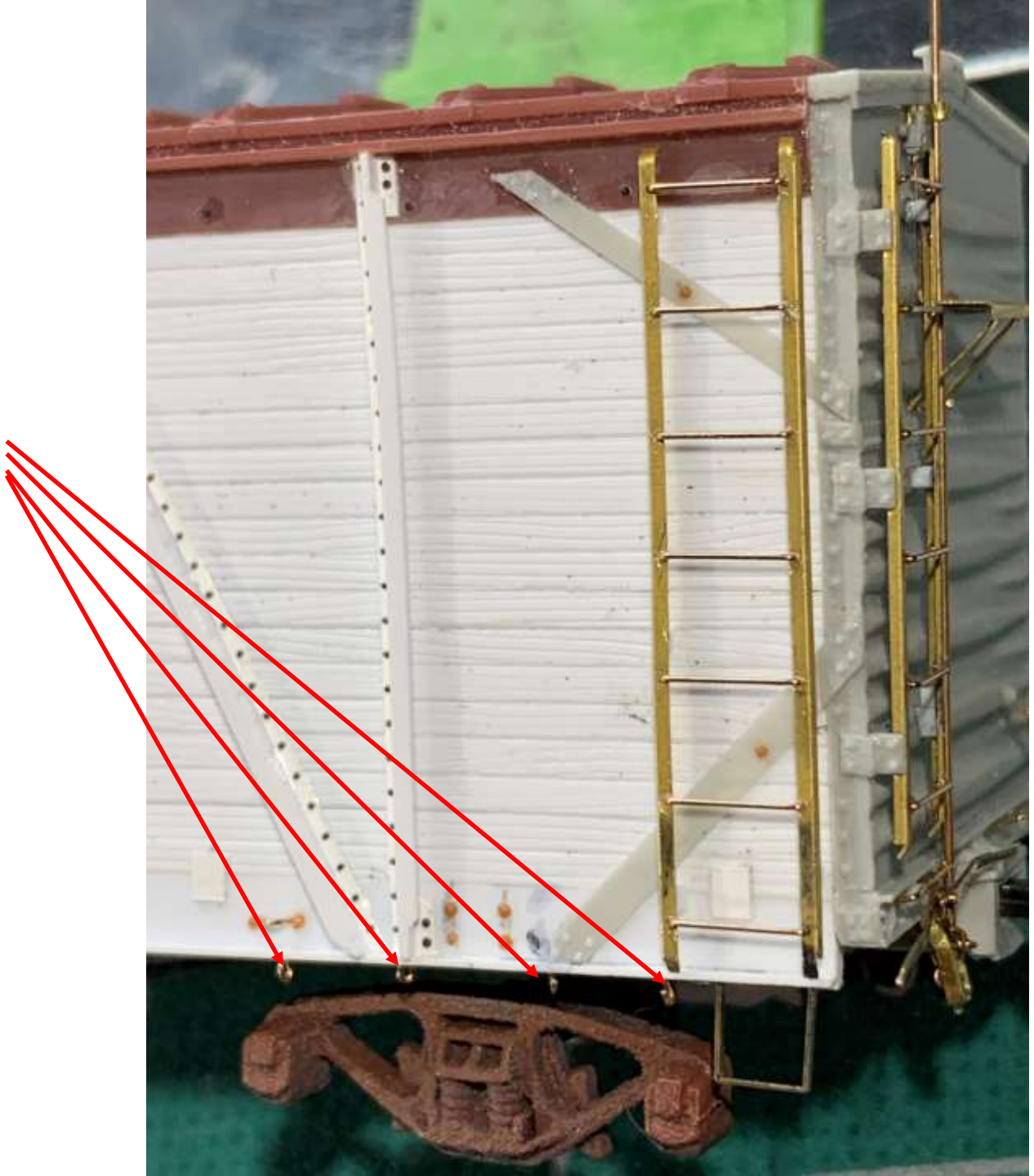
Illinois Central Single Sheathed Boxcar

Photo Credit Ray Breyer Collection

¾ View Showing Progress up to this point

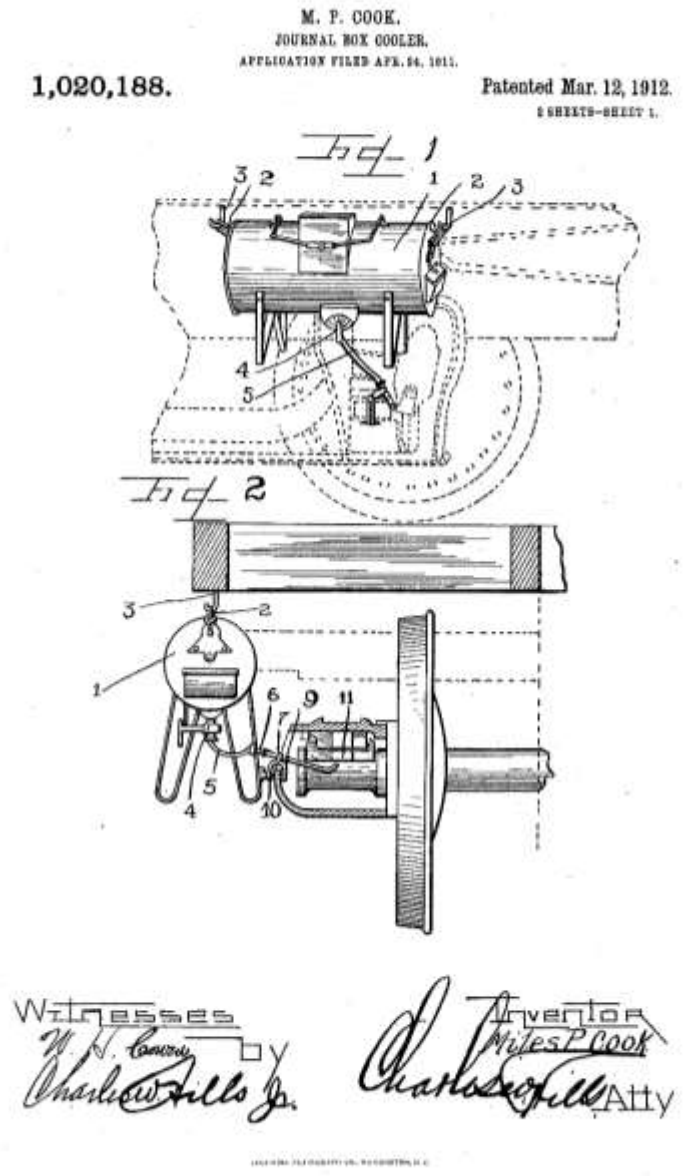


Close up of progress You can see the four Hooks for the Keeley Cans. Note how they are positioned with the hooks opening facing outward



Note: I made a styrene drilling template as well to drill the 4 small hooks on each corner

What are Keeley Cans?


M. P. COOK.
JOURNAL BOX COOLER.
APPLICATION FILED APR. 24, 1911.

1,020,188. Patented Mar. 12, 1912.

2 SHEETS-SHEET 1.

Fig. 1

Fig. 2

Witnesses
W. W. Causey
Charlow Fills Jr.

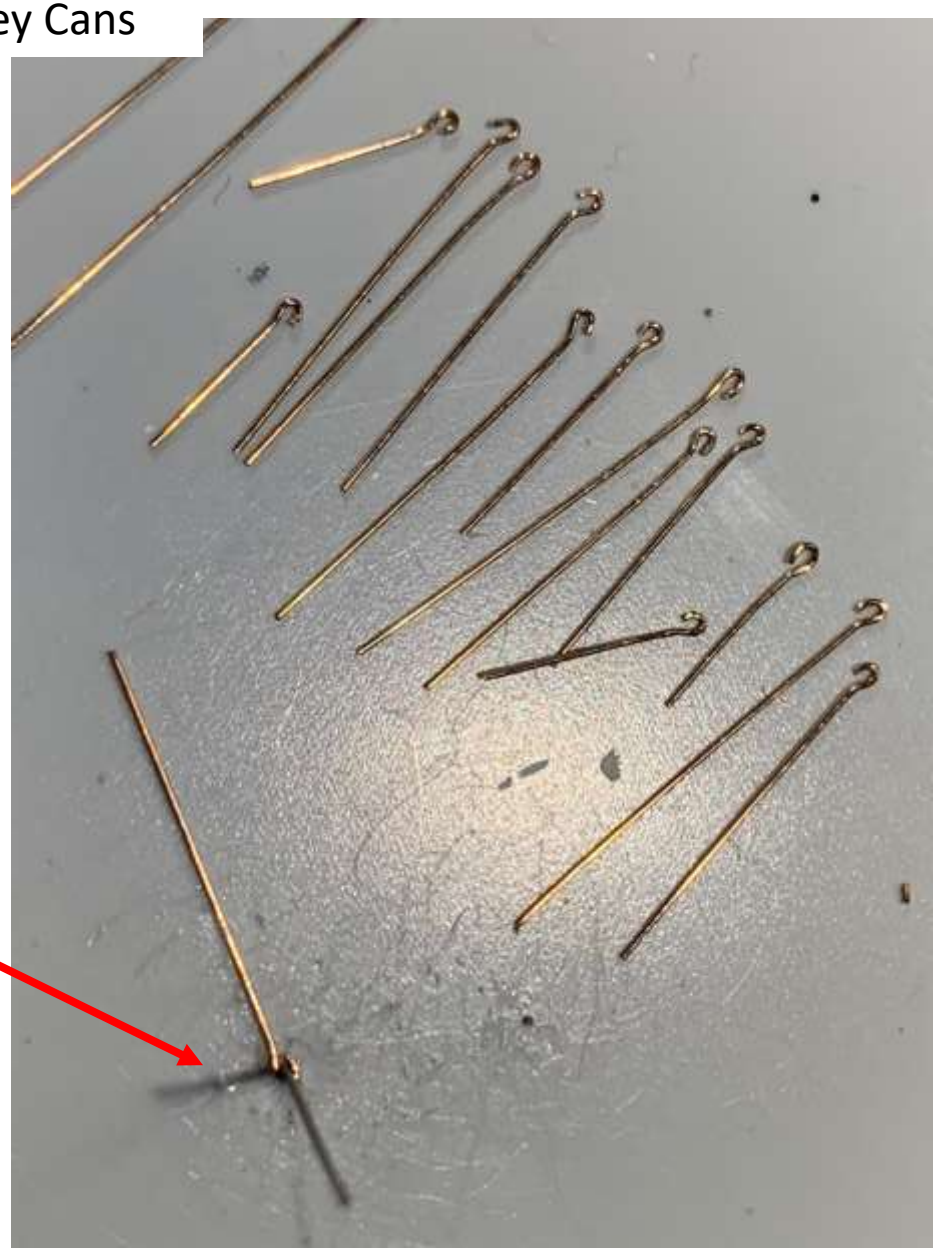
Inventor
Miles P. Cook
Charlow Fills Atty

Journal Box Cooler for plain journals and patented by M.P. Cook in March 1912. This type of Journal Box Cooler for Hot Boxes became known as Keeley Cans.
When a journal heated up too much, a Keeley Can was hung on hooks above the trucks and journals box covers. A hose was inserted into the open journal box and let water drip to cool it off.

Photo credit Google Patent
for M.P. Cook

Making Hooks for Keeley Cans

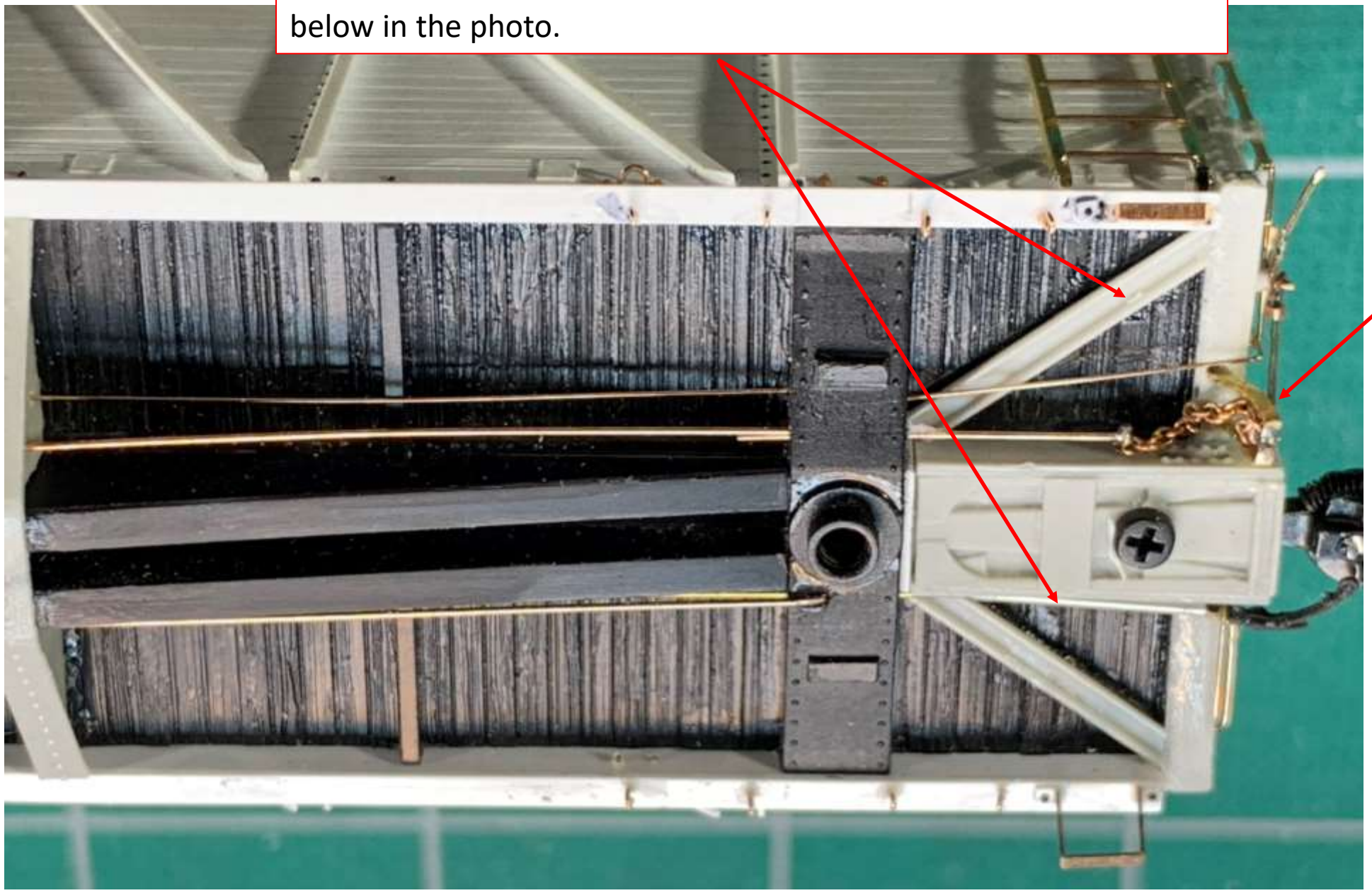
.012 Stainless Steel Wire in styrene base



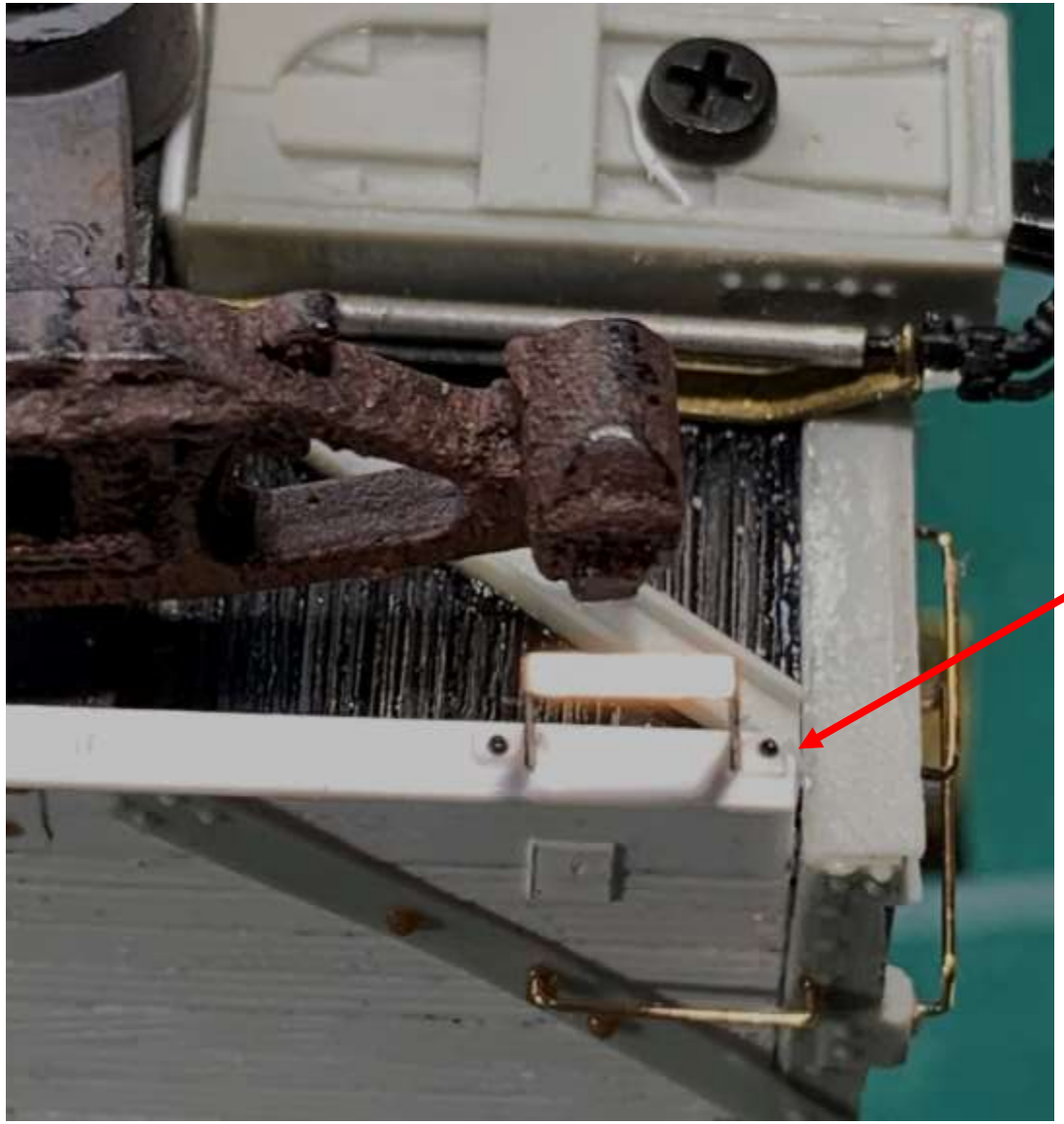
Small hooks were formed from .010 brass around a .012 Stainless Steel wire from Detail Associates.
Xuron Tweezer Nose pliers were used

The four hooks for the Keeley Cans and their position can be seen

The 4 Resin Corner braces were trimmed and installed as seen below in the photo.



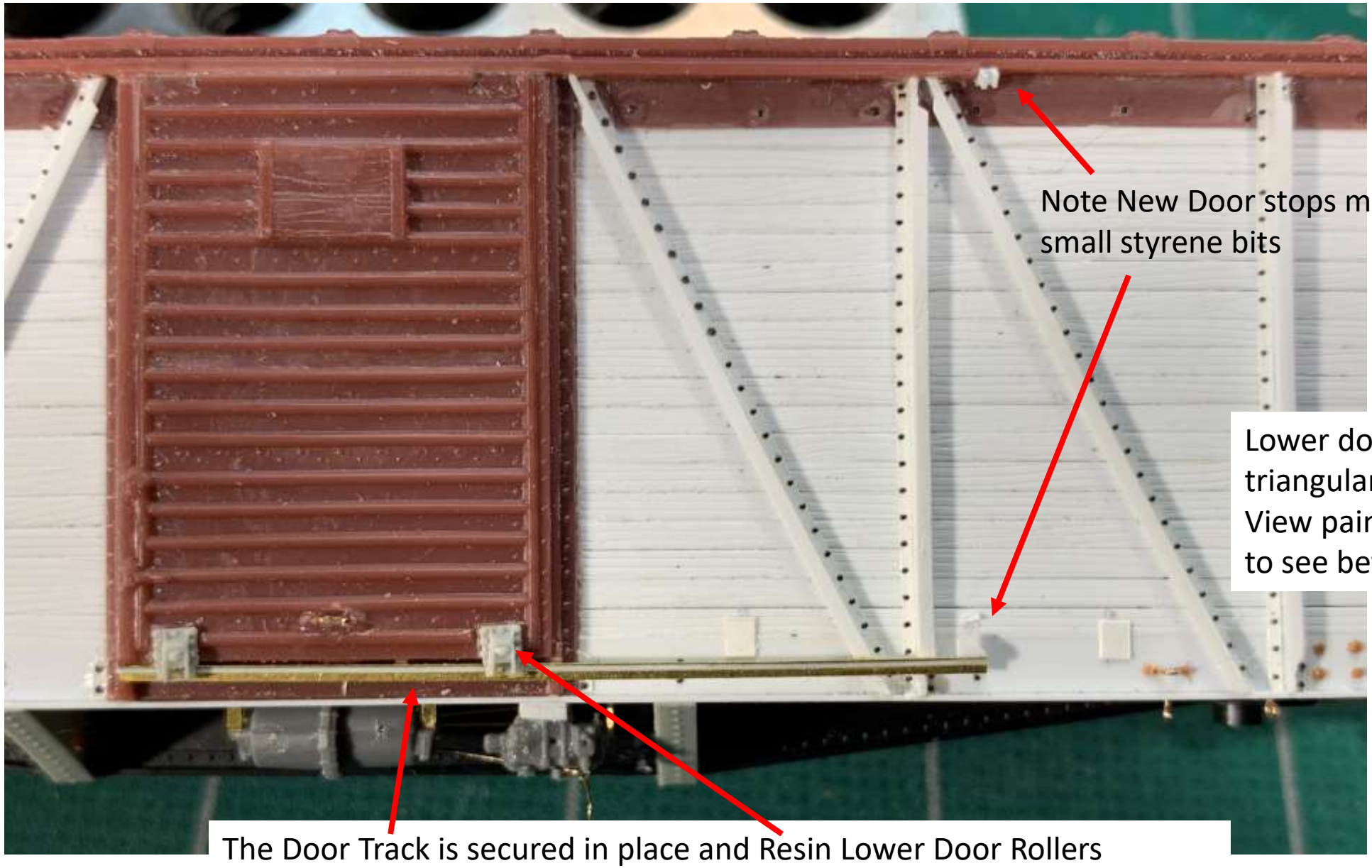
Note Brake Chain



Further Detailing the Yarmouth Photo Etched steps previously installed

Next to each step I used a .010 thick by .030x.030 glued in place and a harvested Athearn Rivet added

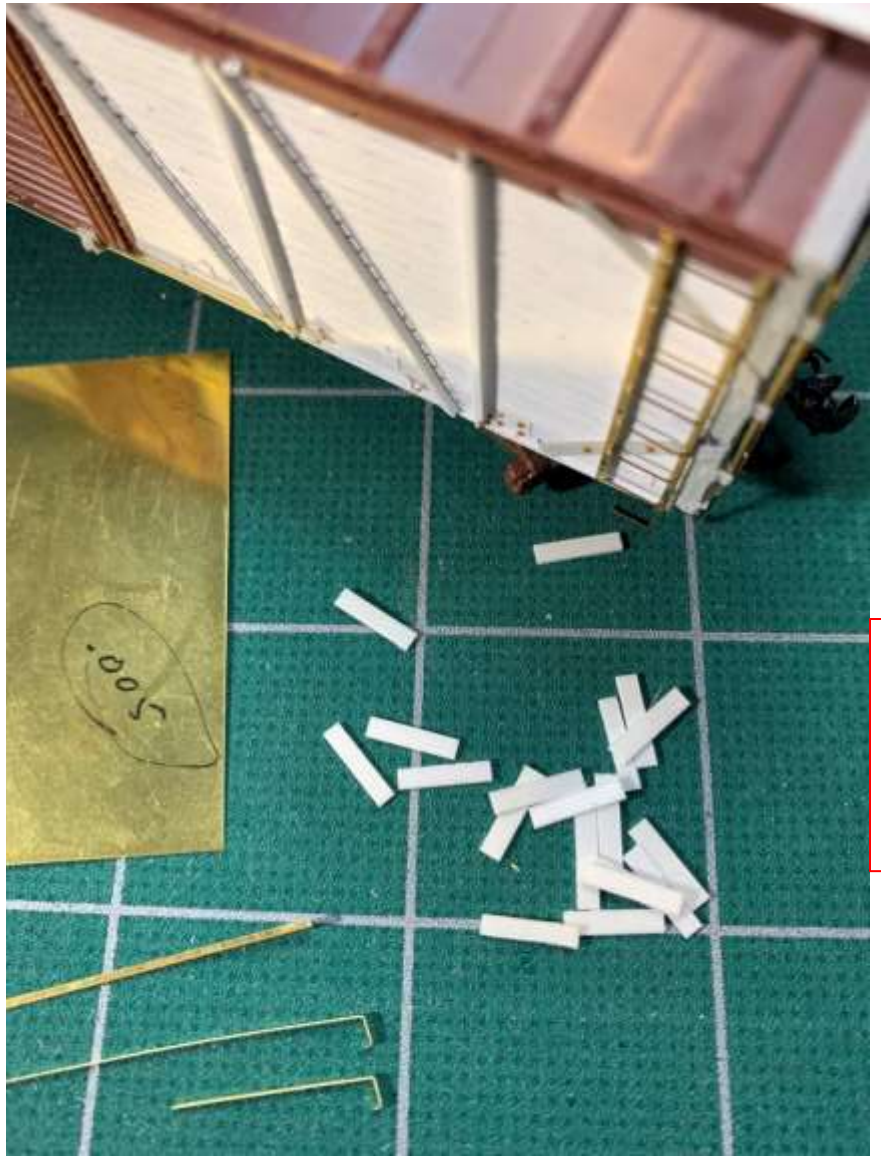
Underframe Complete


Note New Door stops made of small styrene bits
Lower door stop is triangular in shape. View painted model to see better.
The Door Track is secured in place and Resin Lower Door Rollers installed

View of upper door stop made of .010 thick by .030 x.030 cut on a diagonal to a triangular shape

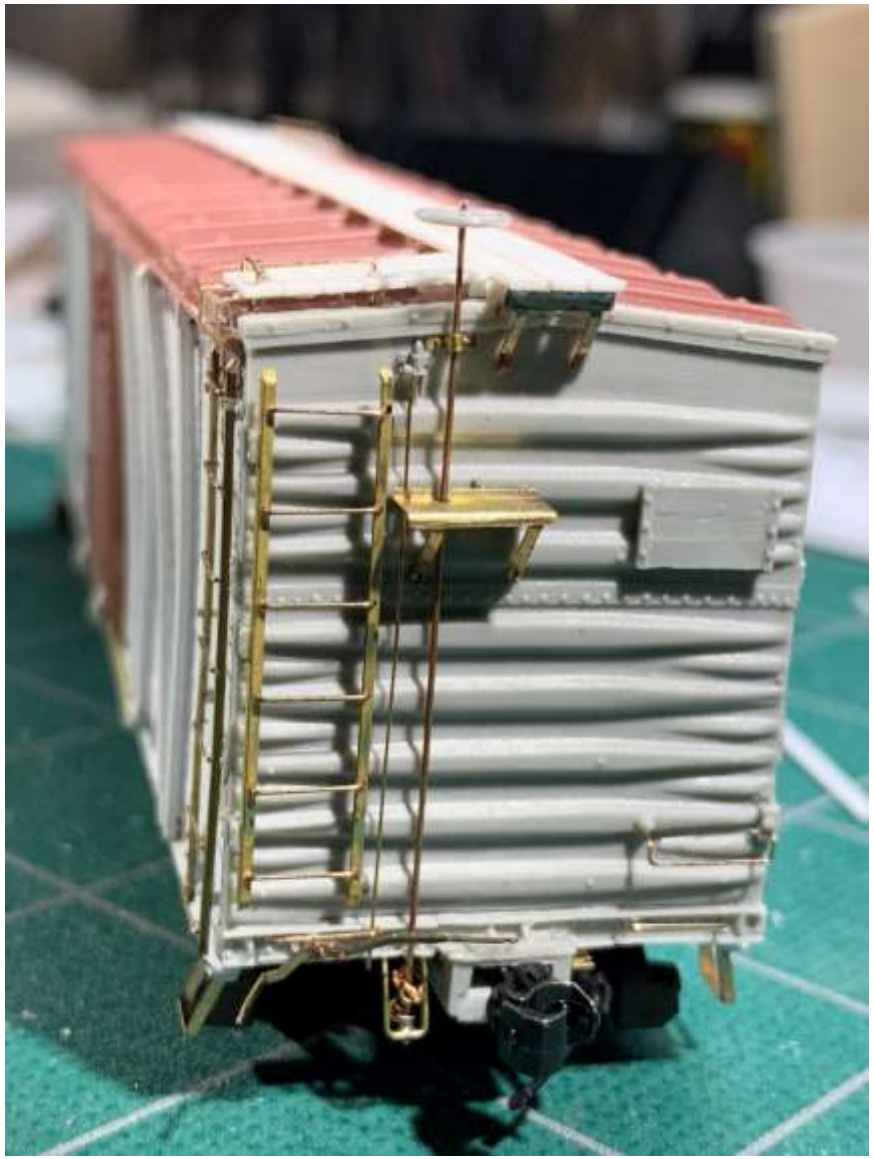
Alternate View

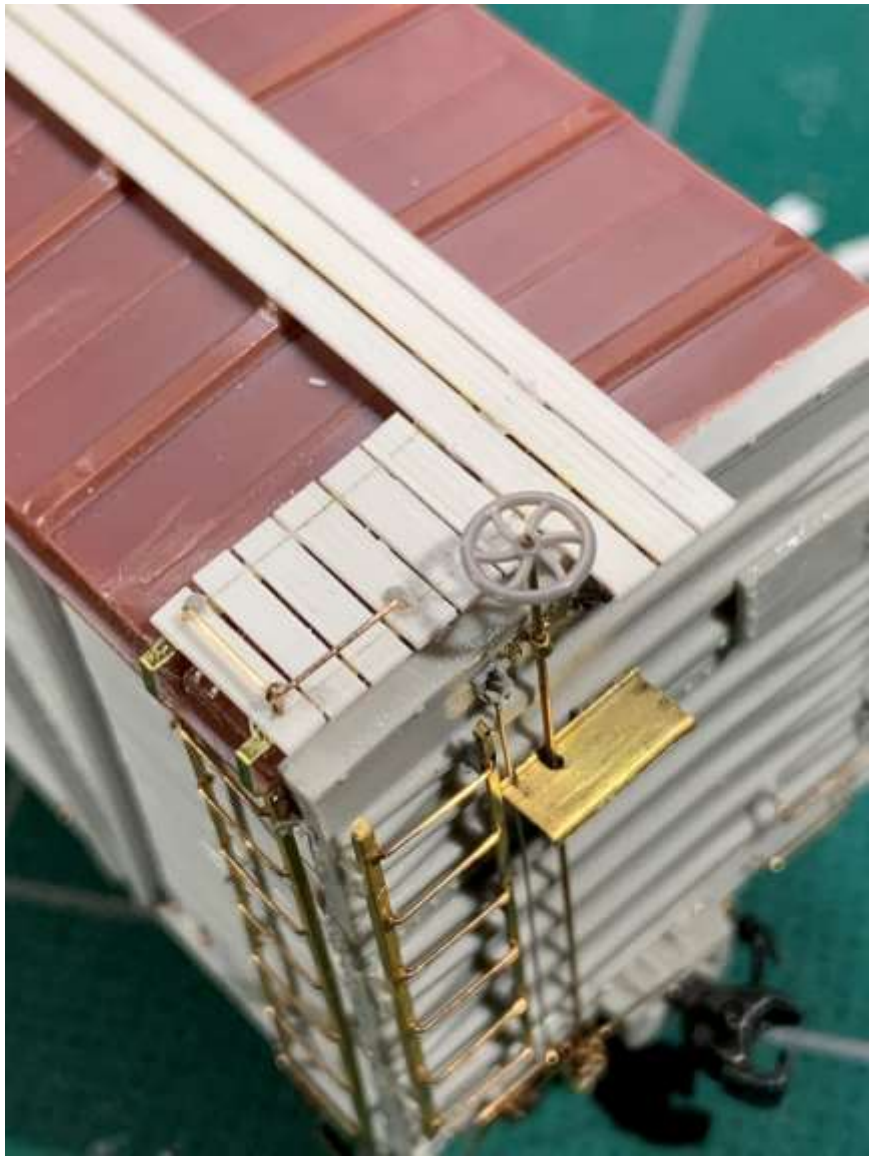
Lateral Running Board supports were cut and formed from .005 x. 030 brass and installed on the roof. The running boards were made from .015 x.060 scribed styrene

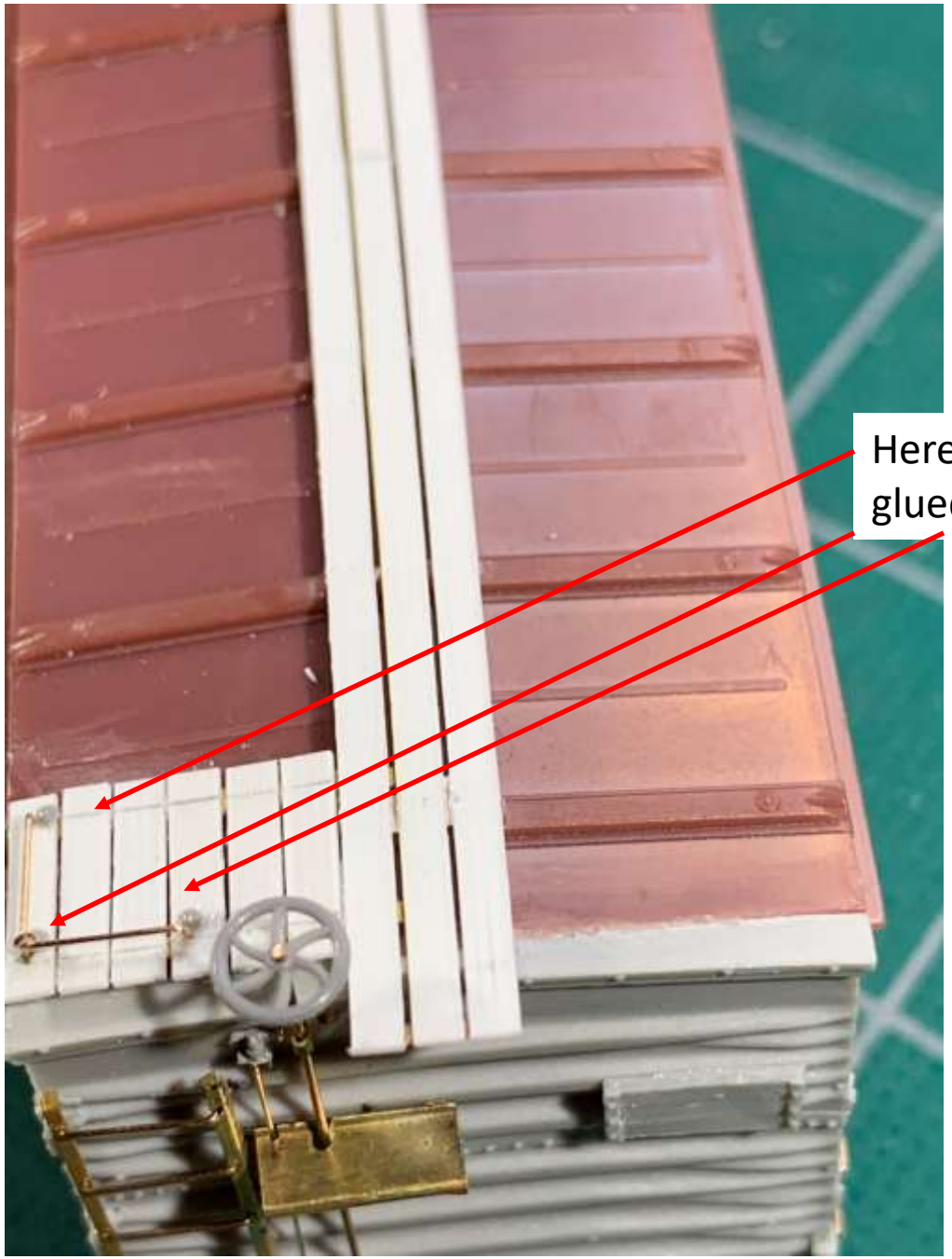


Note: Styrene supports under lateral supports

The grabs were formed from .010 wire and Tichy Plastic Ladder Rung ends cut off and glued next to the wire ends and Yarmouth eyelet

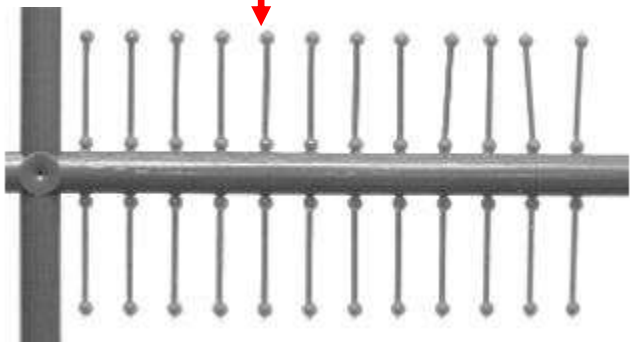


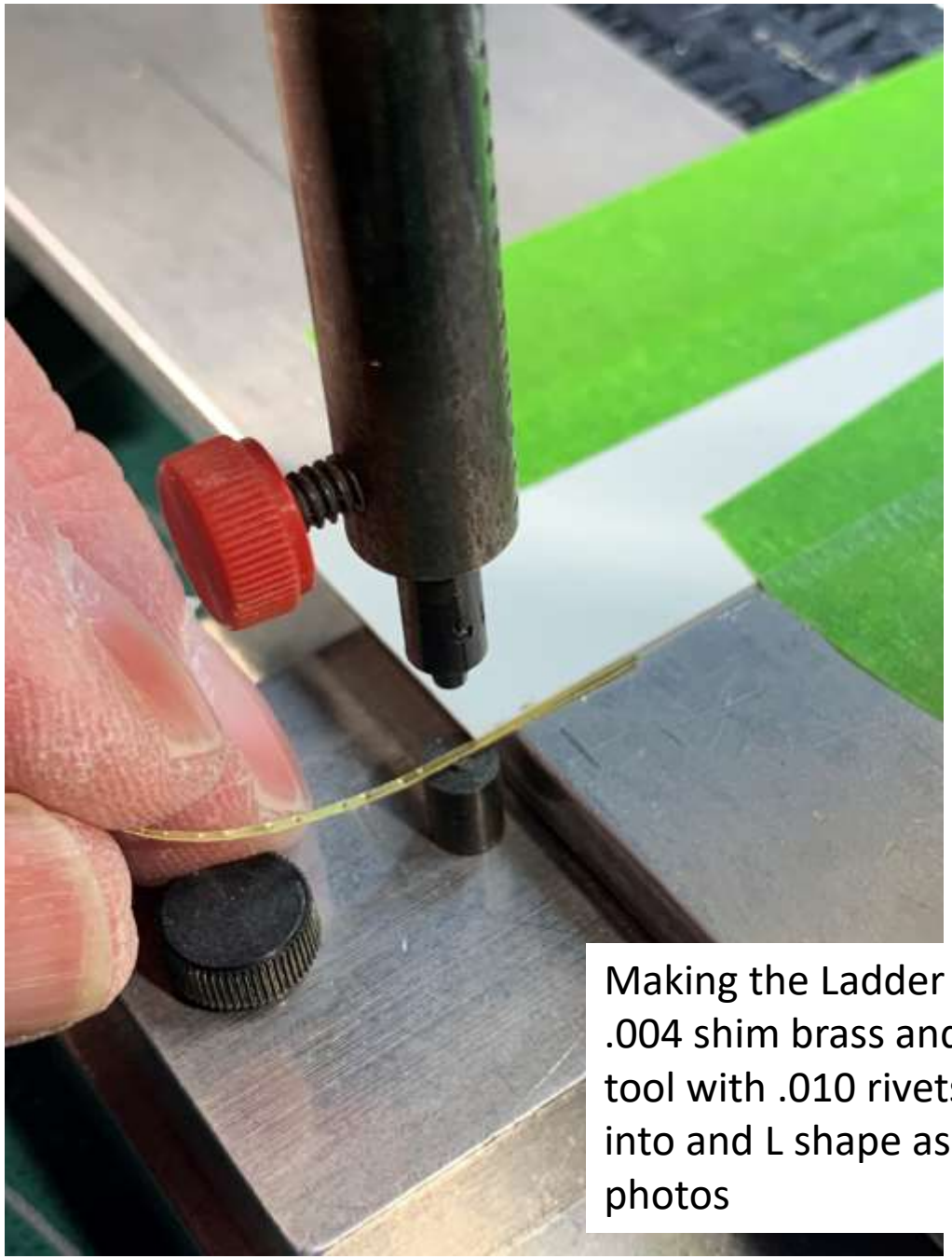


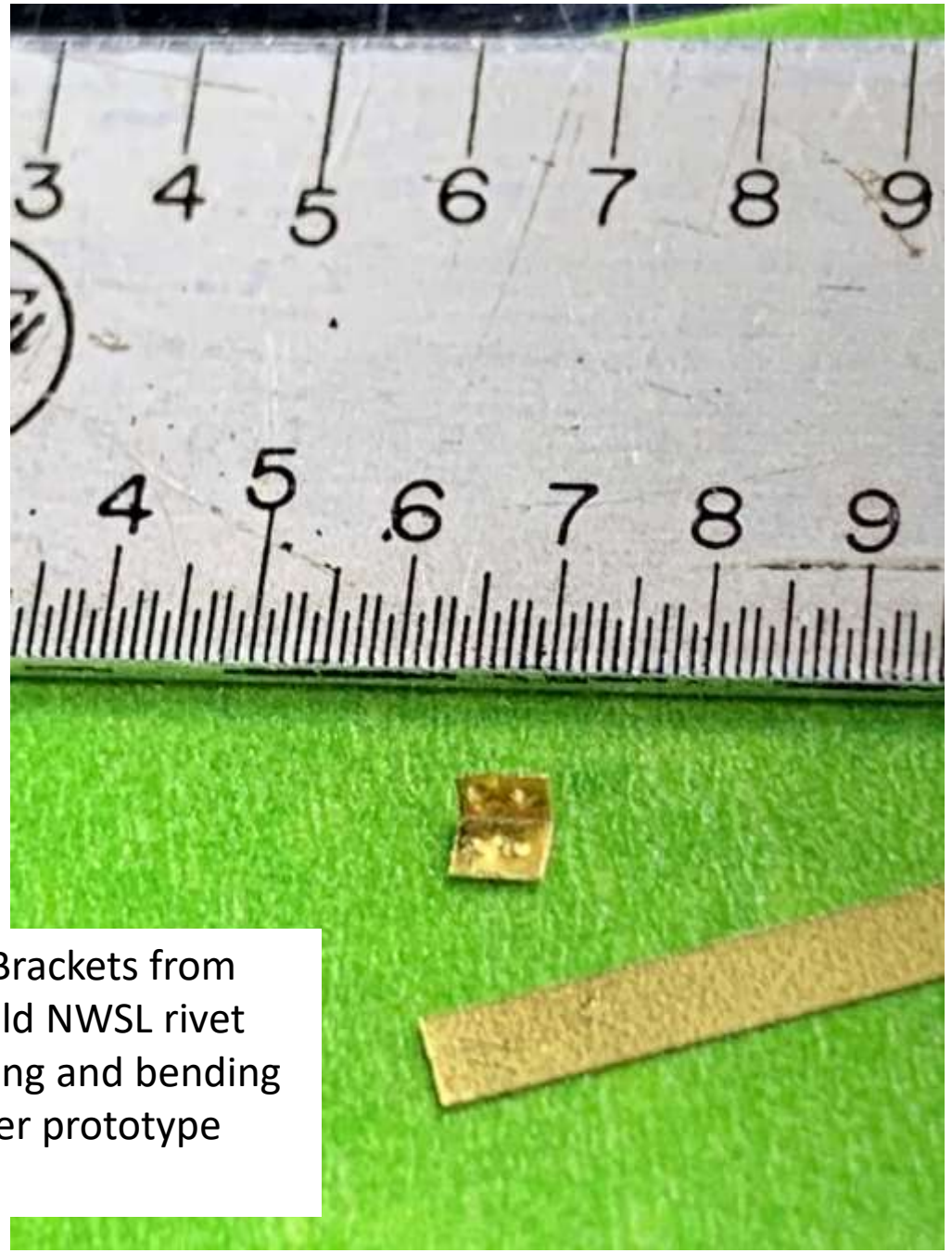


Here you can see the Tichy Ladder Rung ends cut and glued in place next to the .010 formed grab

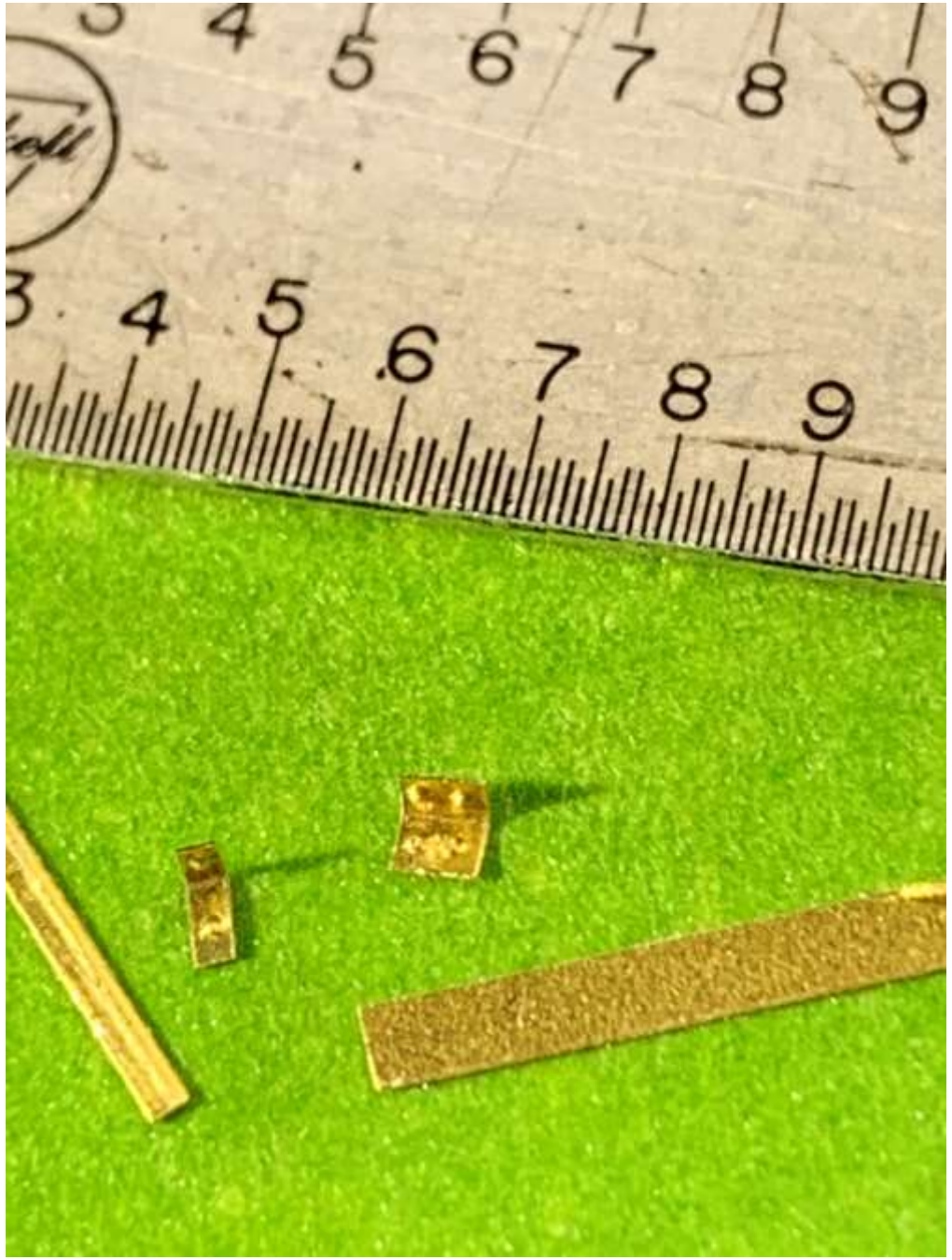
Tichy Ladder Rungs Part # 3062



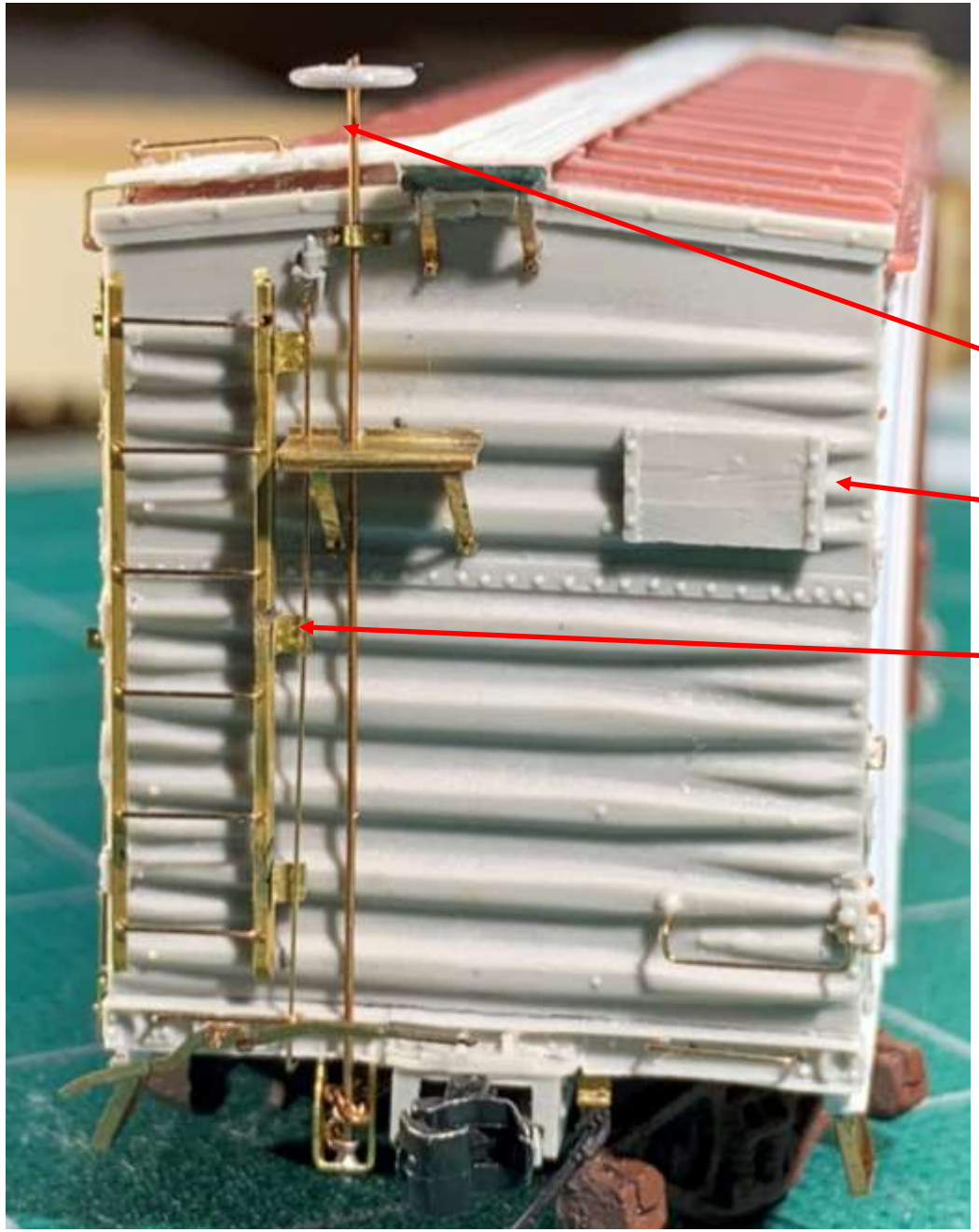




Making the Ladder Mounting Brackets from .004 shim brass and using an old NWSL rivet tool with .010 rivets dies. Cutting and bending into and L shape as required per prototype photos



Making the Ladder Mounting Brackets from .004 shim brass and using an old NWSL rivet tool with .010 rivets. Cutting and bending into and L shape as required per photos. Two different styles were required as shown.



Brake wheel mounted from Tichy AB set

End view with the Resin Tack Boards in place

Brass Ladder mounting brackets also glued in place. Three on the end ladders. I used Canopy Glue with a bit of CA after the Canopy Glue Dried

Three Ladder Mounting brackets can be seen in this view

Note the ones for the sides only use a single rivet vs the ends that use two as shown in the prototype photos

Side View Ready for final cleaning Paint and Trucks

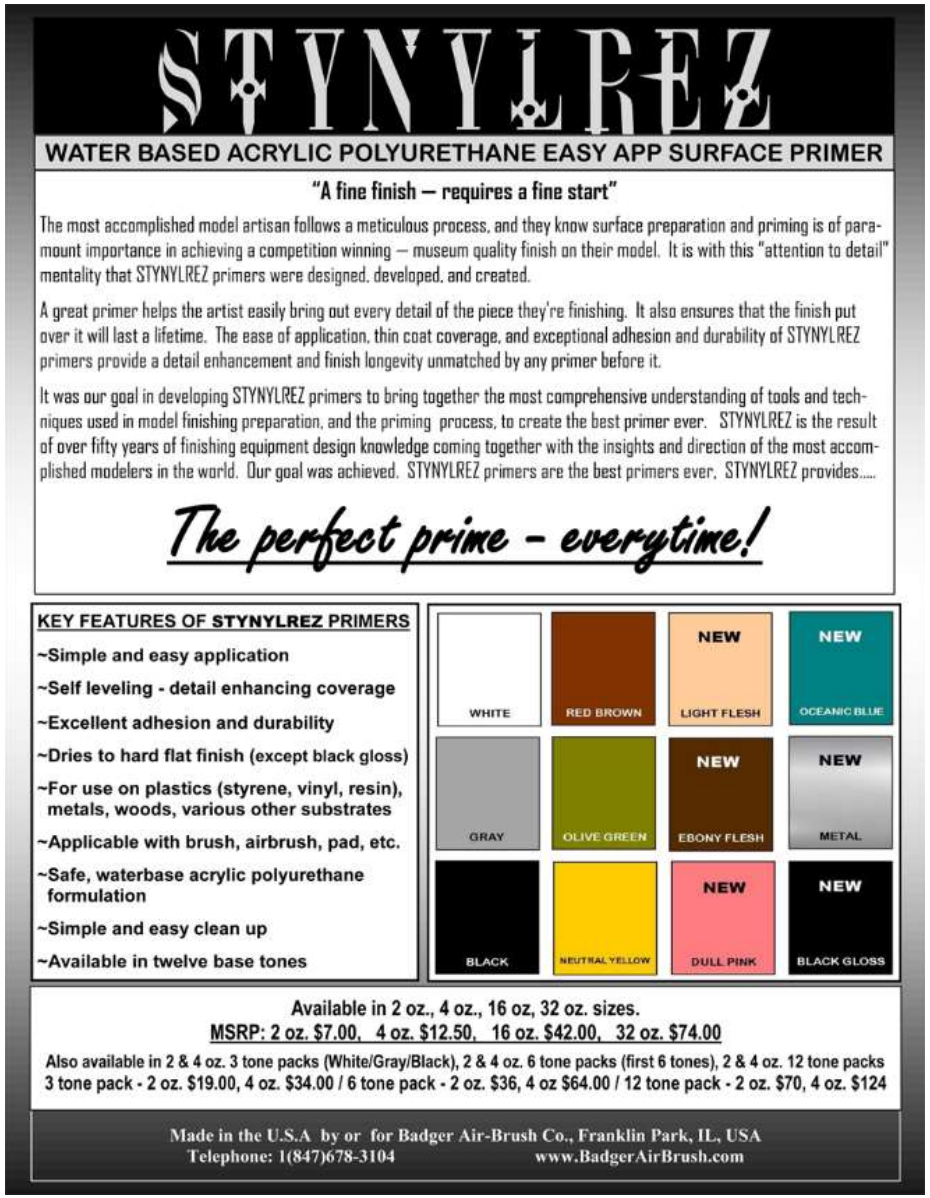
The B End complete

Painting the Model

Stynylez Primer Neutral Yellow
Body Vallejo Black Red (70.818) 80% and Saddle Brown (70.950) 20%
Underframe Vallejo Black Gray (70.862)

My favorite primer. Made by Badger Airbrush. Comes in 12 colors

I typically use Neutral Yellow under Browns, Reds, and Yellow top coats. If I want to vary the shade of the top coat I may use the Gray.



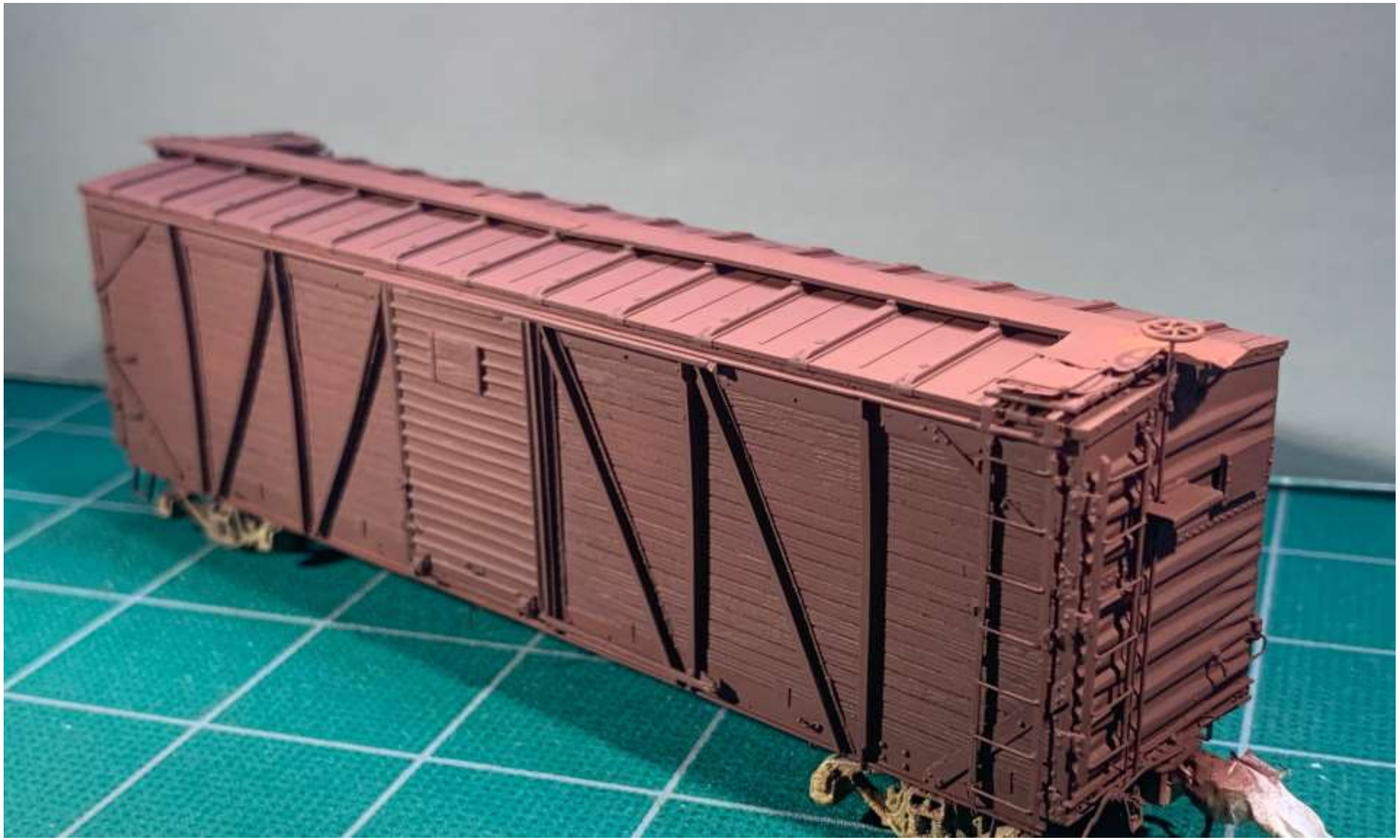
Stynylez Neutral Yellow Primer Applied with Grex .5 mm size needle at 20psi

Pre weathering running board with oil based washes from AK Interactive Dark Brown Wash

The running board was taped off and a coat of Vallejo Custom Mixed paint applied.
Vallejo Black Red (70.818) 80% and Saddle Brown (70.950) 20%

Note Running Boards are tapped off. Also not the couplers are wrapped in white Teflon tape as used in plumbing. Thanks to **Michael Gross** for this tip.

Scrap Trucks are used for painting.



A gloss coat of Future/Pledge applied and let dry overnight and then applied kit decals Scraps of yellow post It Notes were used on the tack boards and sides. Chalk marks available from Speedwitch Media
More on decals in a bit.

I can’t read the small print

Tips for Viewing Decals

I can’t read the small print

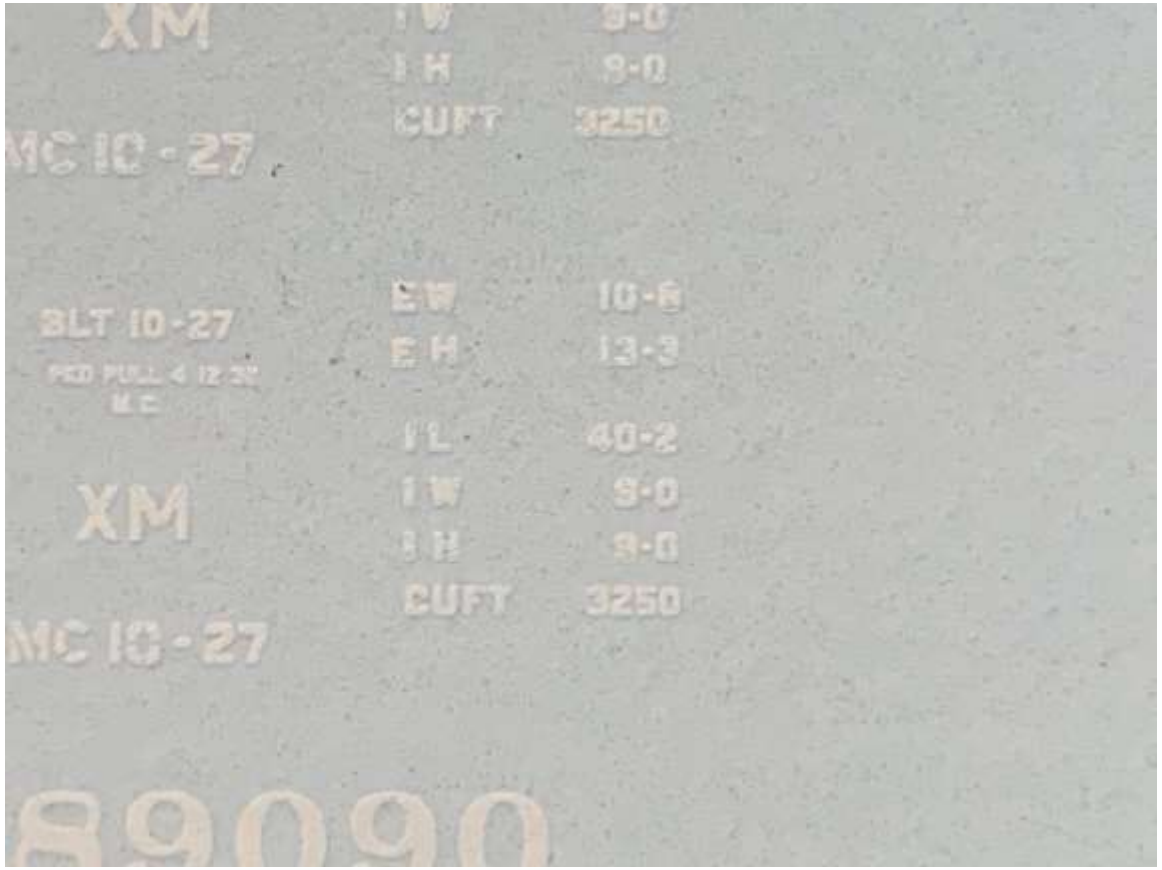
By George Toman

June 2020

I often have trouble reading and selecting the correct information printed on the sheet of decals. This is especially true of the small data and print. I have found the use of my Camera Phone (iphone 10) and a light table made from a Swing Arm Desk Lamp with a .020 thick piece of styrene to help me read and select the proper decals.

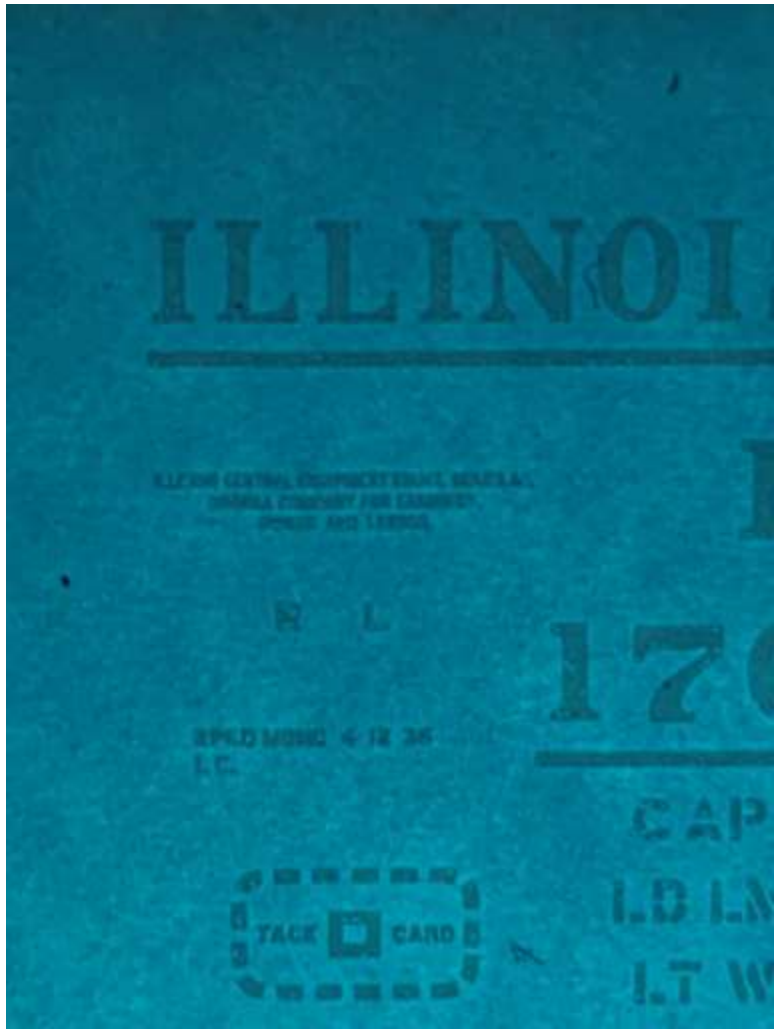
View of IC Decal Sheet Included with Mini-Kit
Taken with my iPhone X (Actually pretty easy to read)

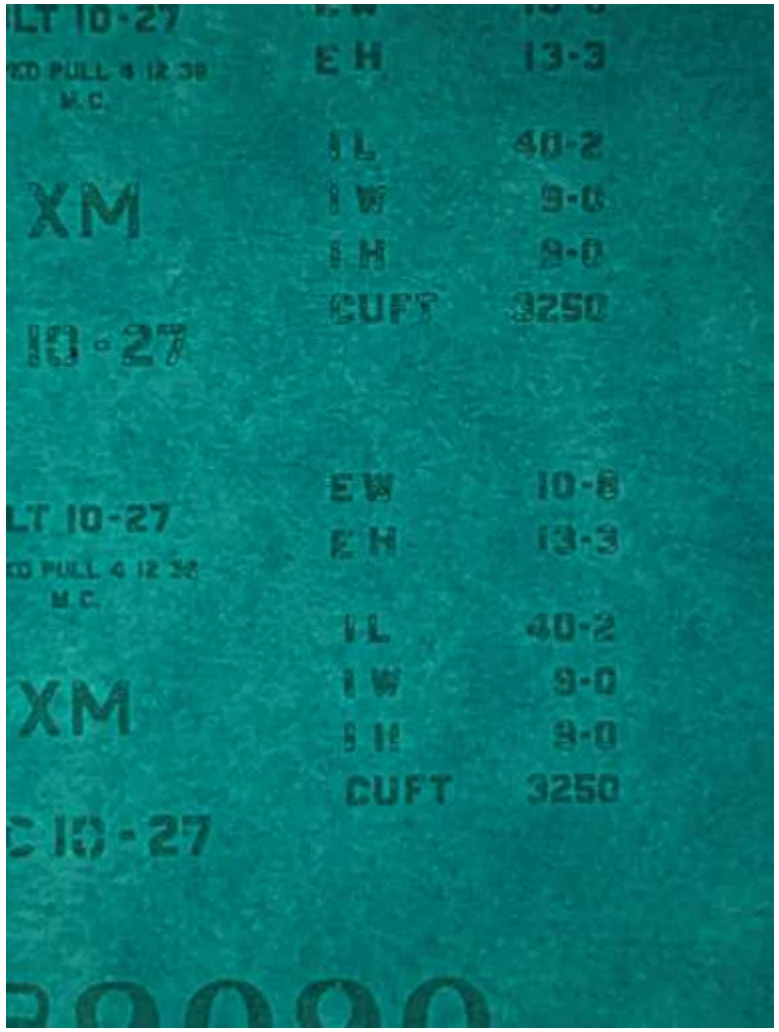
I found that I can take a photo and use the camera zoom feature to enlarge the small data as seen below and snap a photo



For really tiny and still tough to read data and print, a homemade light table made from a simple swing arm desk lamp with a .020 white styrene sheet is used and held in place with tape. This view shows my desk lamp with a LED 2700 Kalvin 60 watt equivalent. You may need a brighter LED to help read depending on the decal backing sheet and color

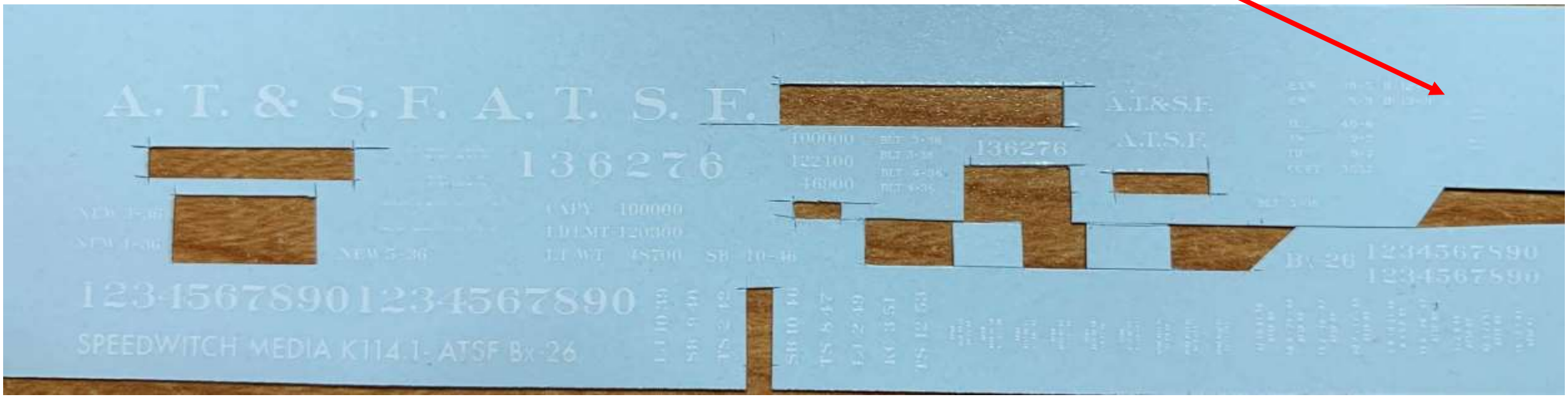
Views of photos on the LED Light Table





Sample of another decal sheet that is very hard To read

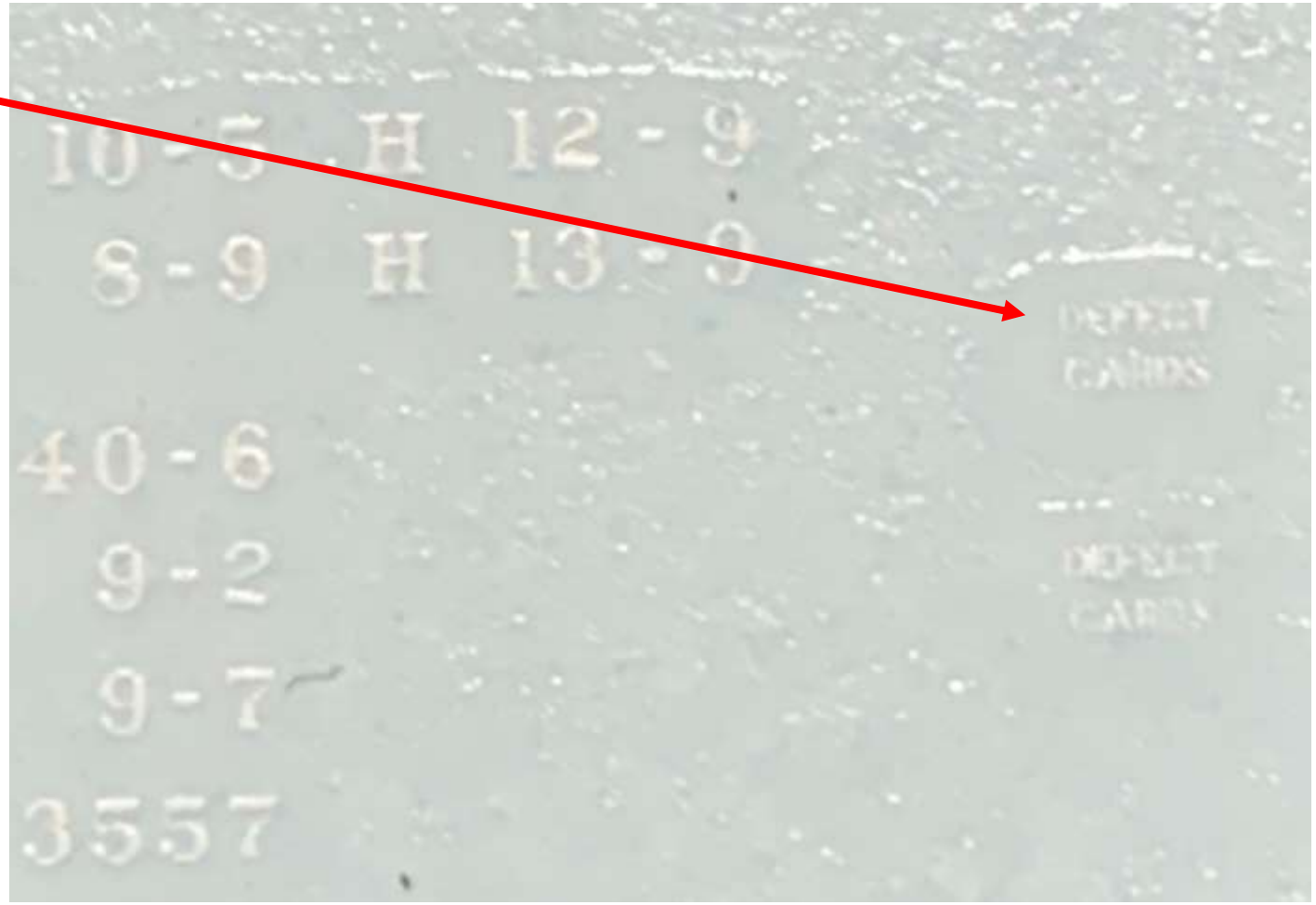
There is data on the right side that is extremely hard to see even in this enlarged view



Same Decal Sheet as seen on previous page.
Photo taken on full zoom with iPhone

Same image on left and enlarged on computer

Defect Cards



Although this is not a perfect solution for the many decals and brands out there, I find it to be another tool to help me in my quest to get it right.

I have tried the trick of putting the decal sheets on a dark (black) background or even using a Black Sharpie to color the backing sheet with some luck, but find this method to work fairly well

I do keep looking for new ways to get the job done

George Toman

Flat Coat of Vallejo applied

Left Side

Right Side

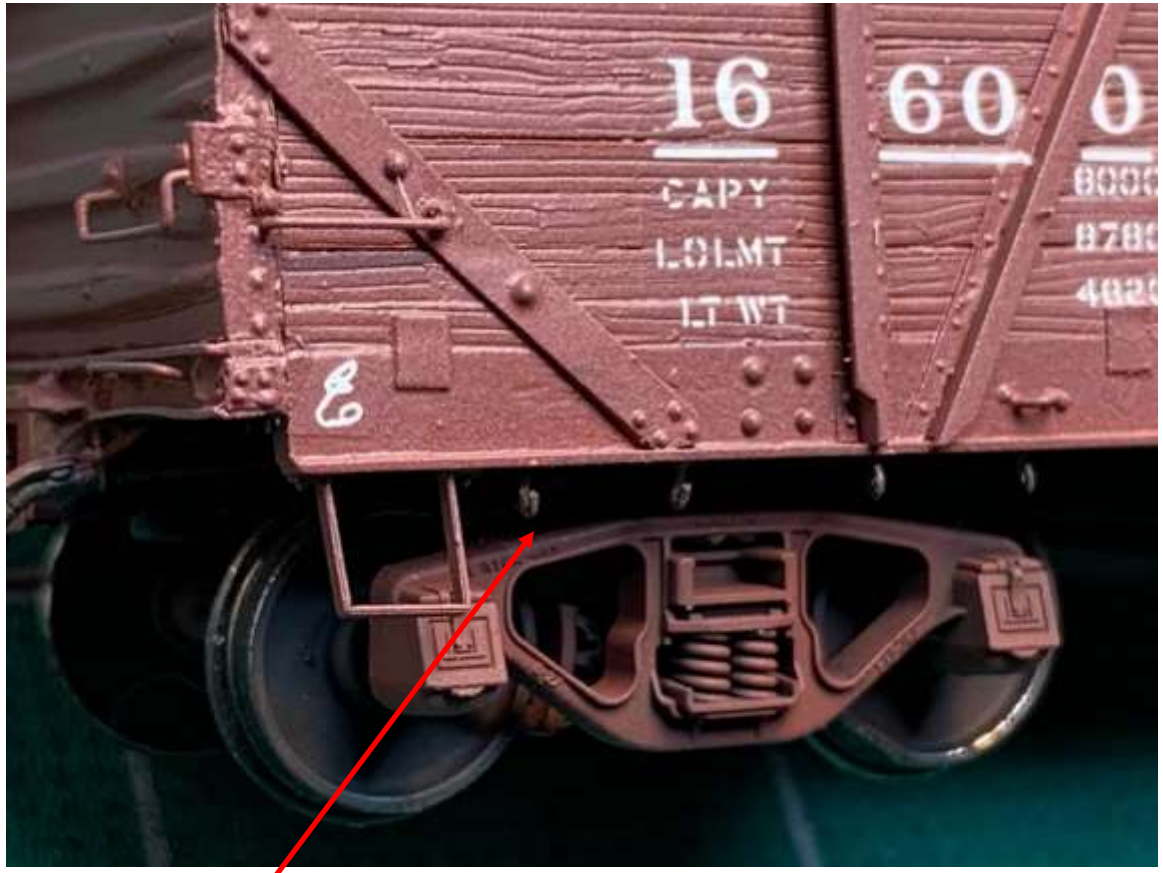
A End

B End

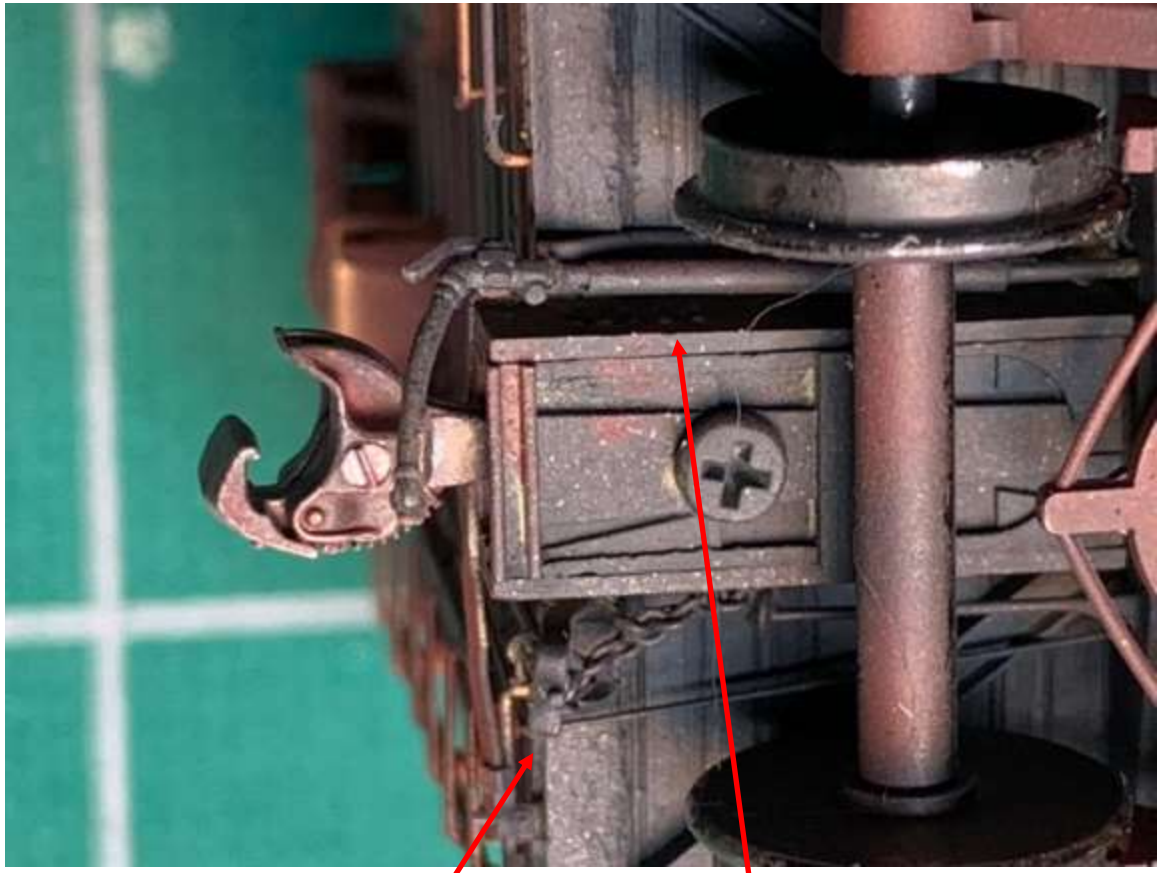
Right Side


ILLINOIS CENTRAL
I C
16 60 0
CAPY
LDLMT
LT WT
80000
97800
48200 JSTM 3-54
2-14
BOS
22
ARX

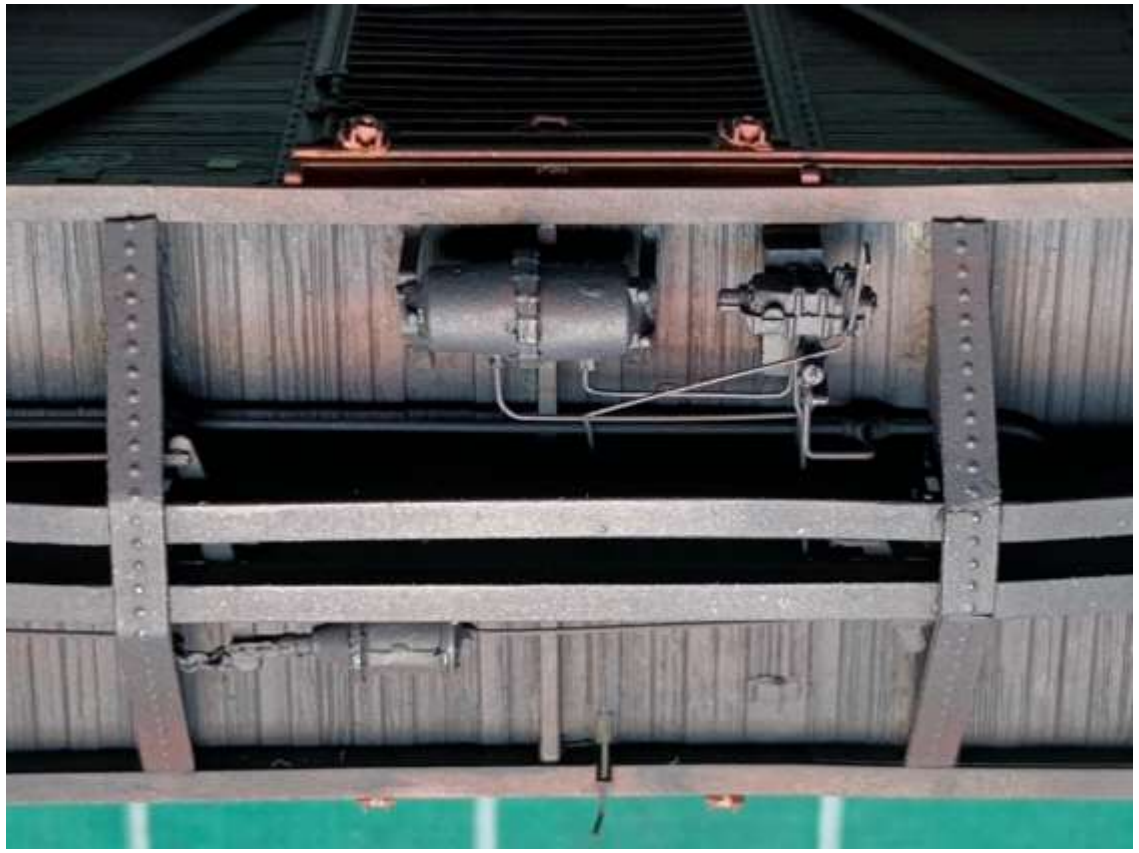
Left Side



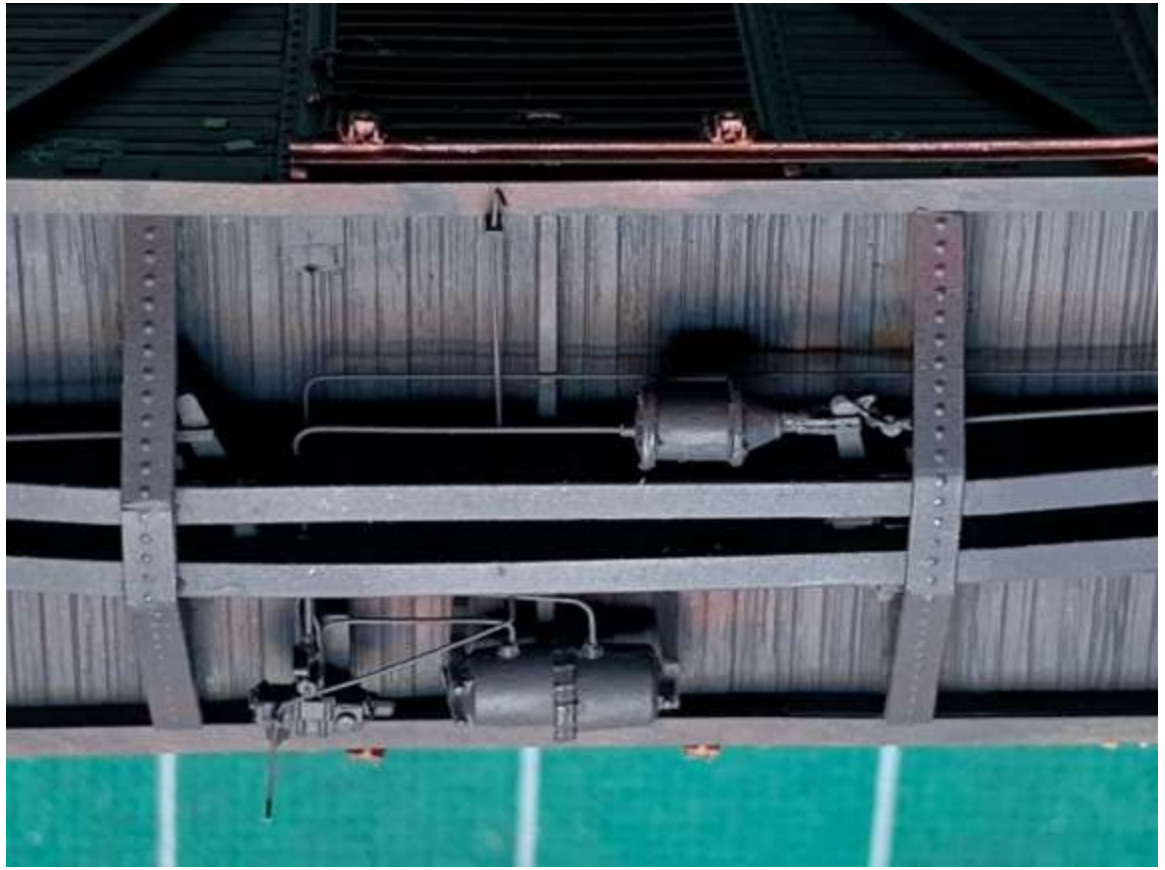
Keeley Hooks



Brake Chain And train line



Underframe

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The Concludes the construction of the IC Mini-Kit

Cutting and Bending thin Brass Next

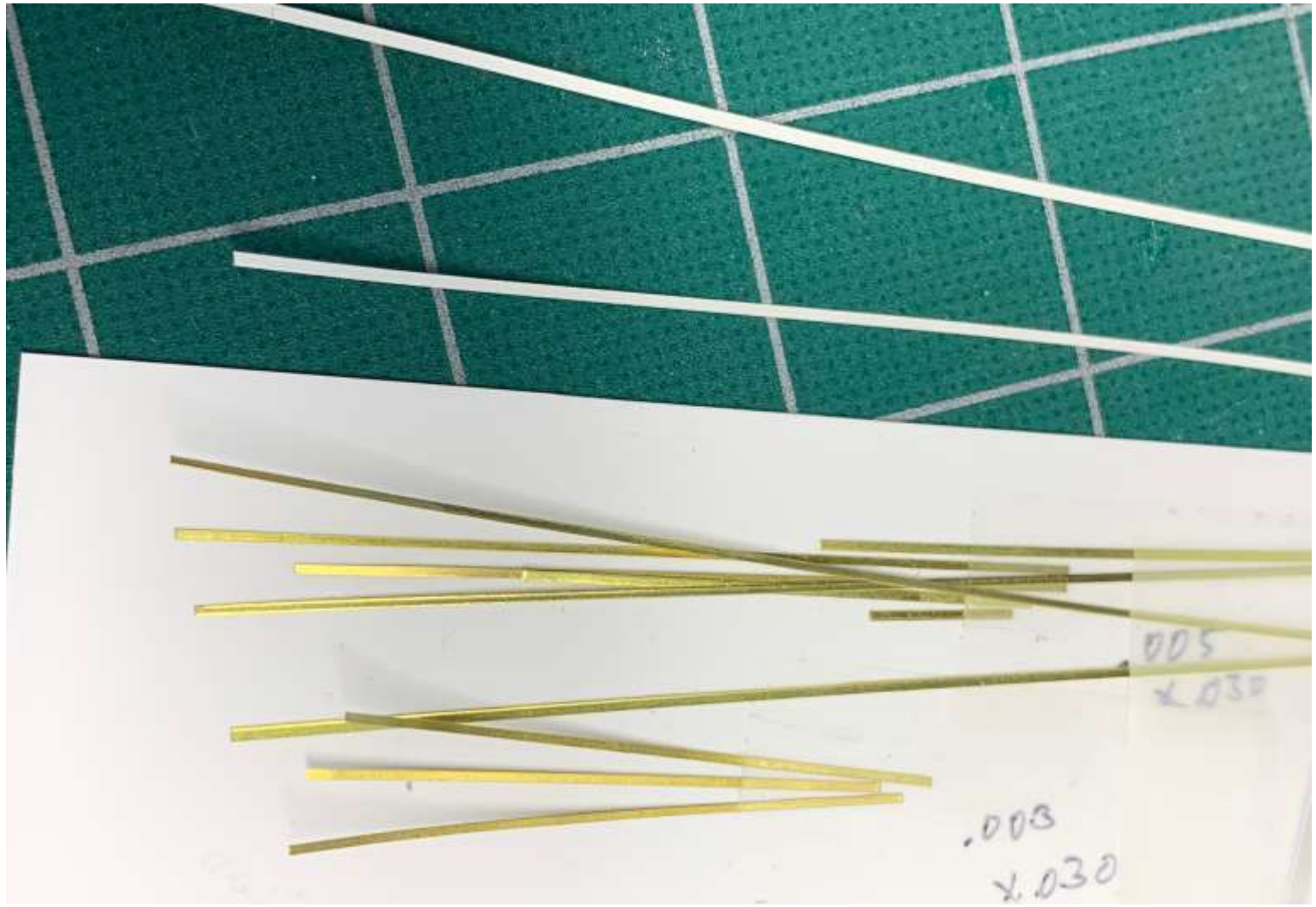
Cutting Styrene & Thin Brass Strips

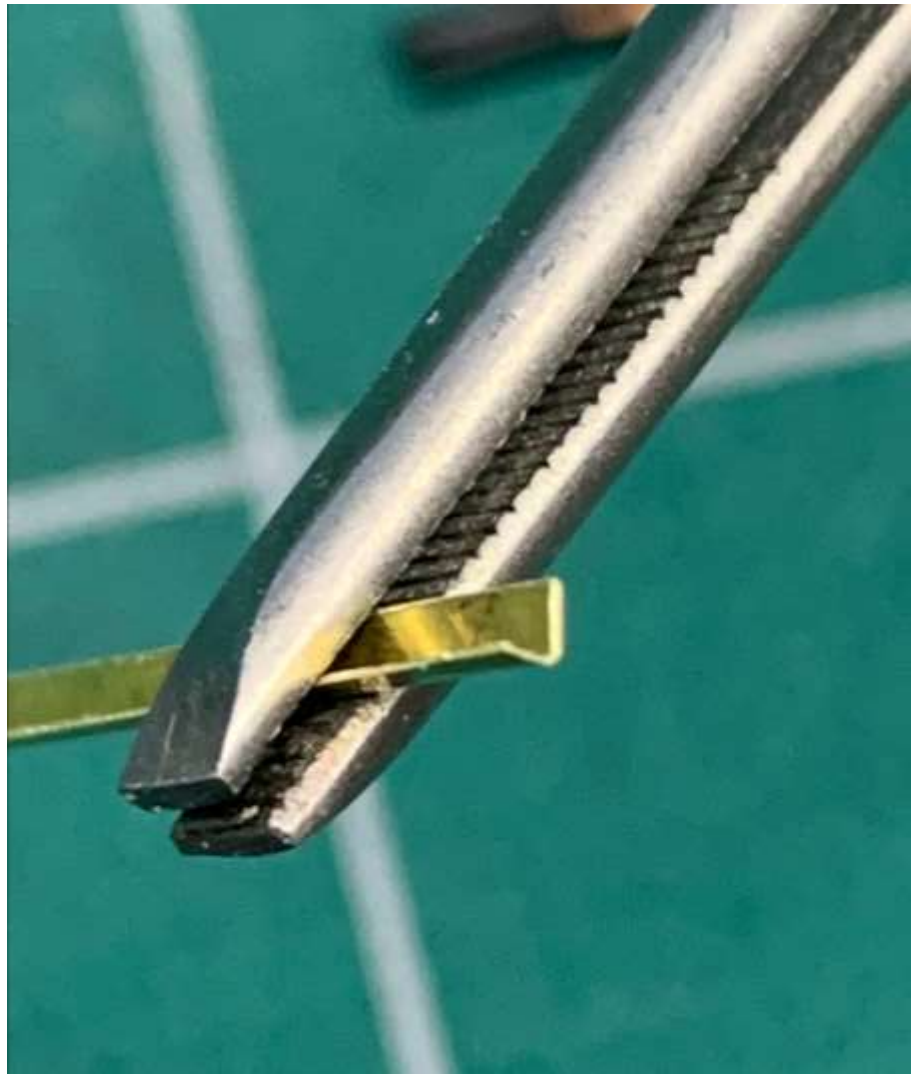
with some Bending Brass

By George Toman

June 2020

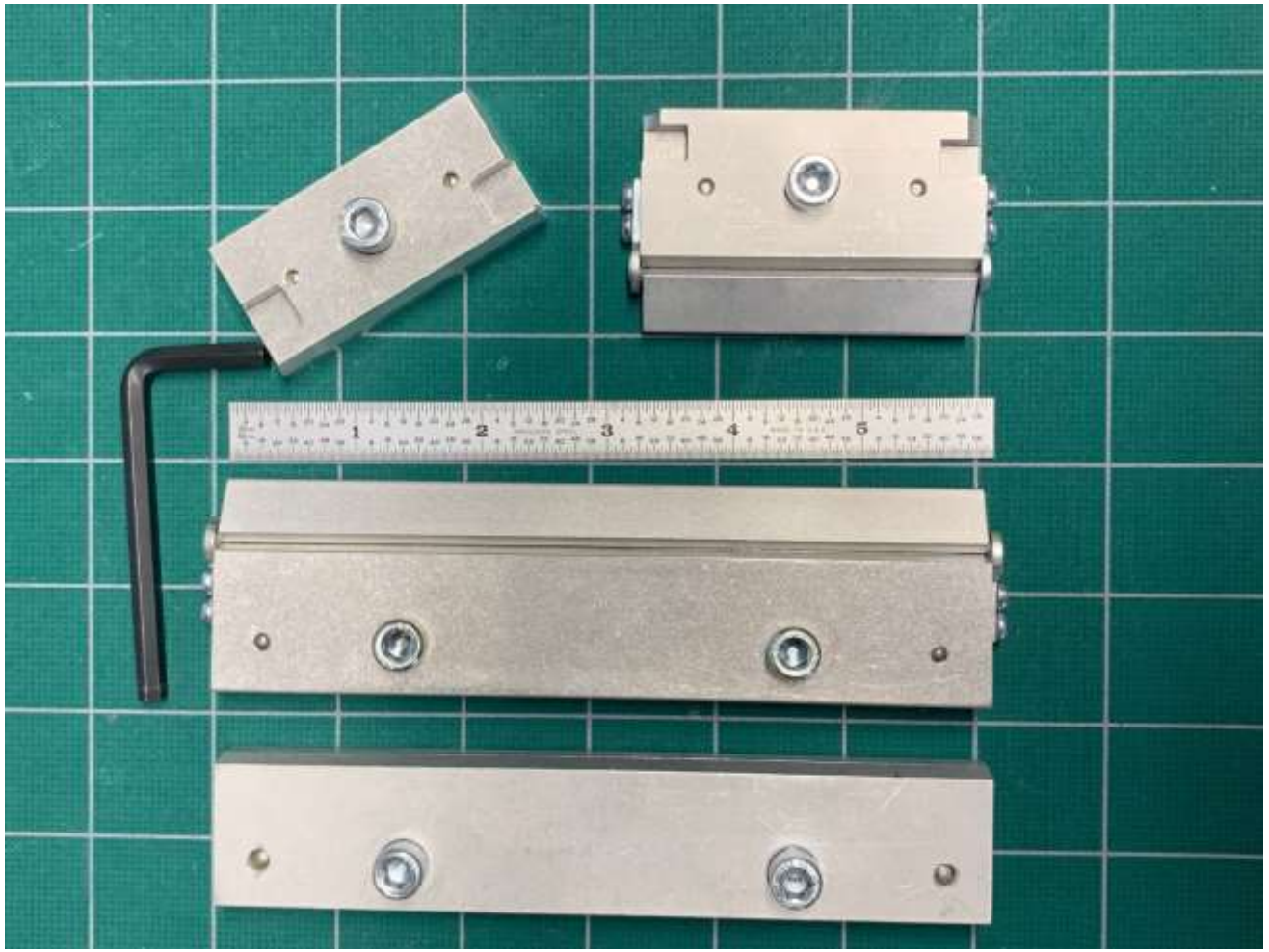
Cutting small thin strips of styrene and brass + making angle shapes from shim brass



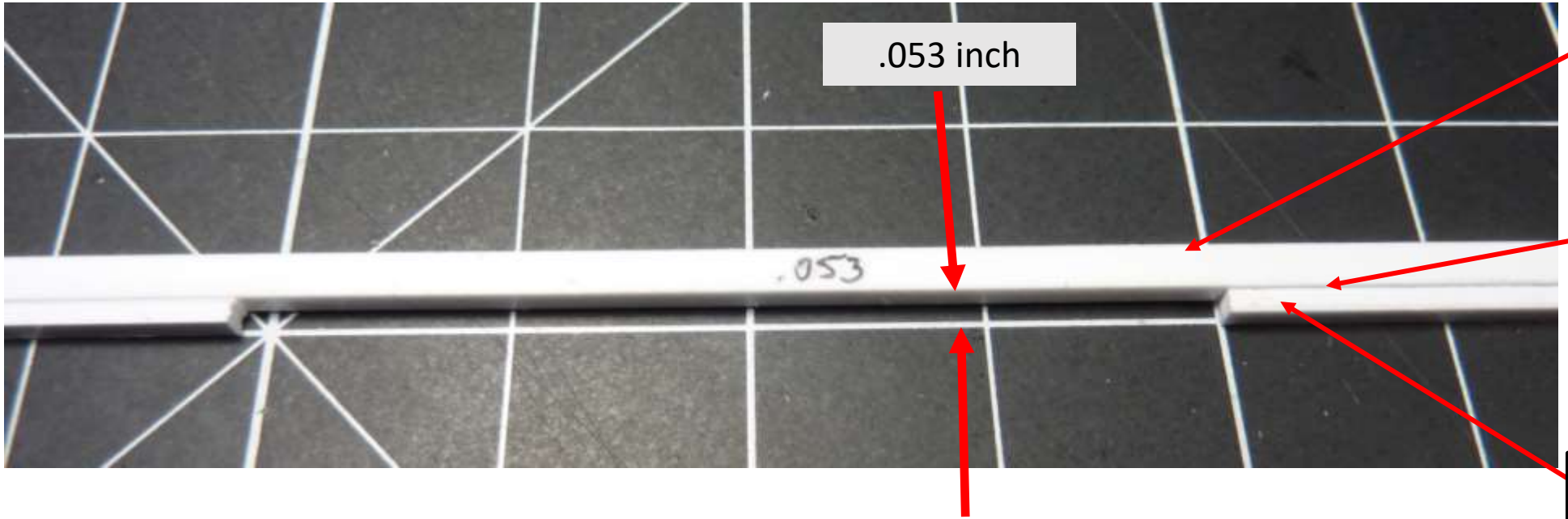


I use a Photo Etch bending tool from UMM-USA to hold fold and bend. You can also use these with styrene to securely hold kind of like a vice. There are now 4 versions of this bender

A short and long and also now a short and long with a built in bending brake. The short are excellent to bend PE Stiles such as those from Yarmouth Models.

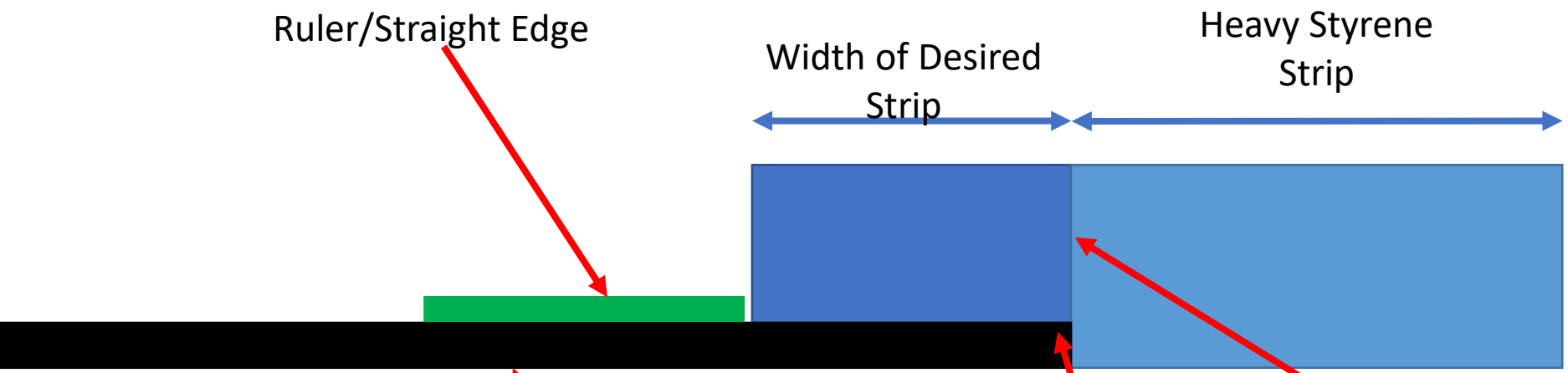


Cutting small consistent custom widths of styrene with Homemade Guides.
Sizes of styrene are a suggestion only. I use scrap that I have for heavier pieces.
Below is a cutting guide to cut thin styrene to .053 wide



Note: I do find that the sizes of the styrene to vary by + & - of a couple thousands and measure at least each package before selecting for use

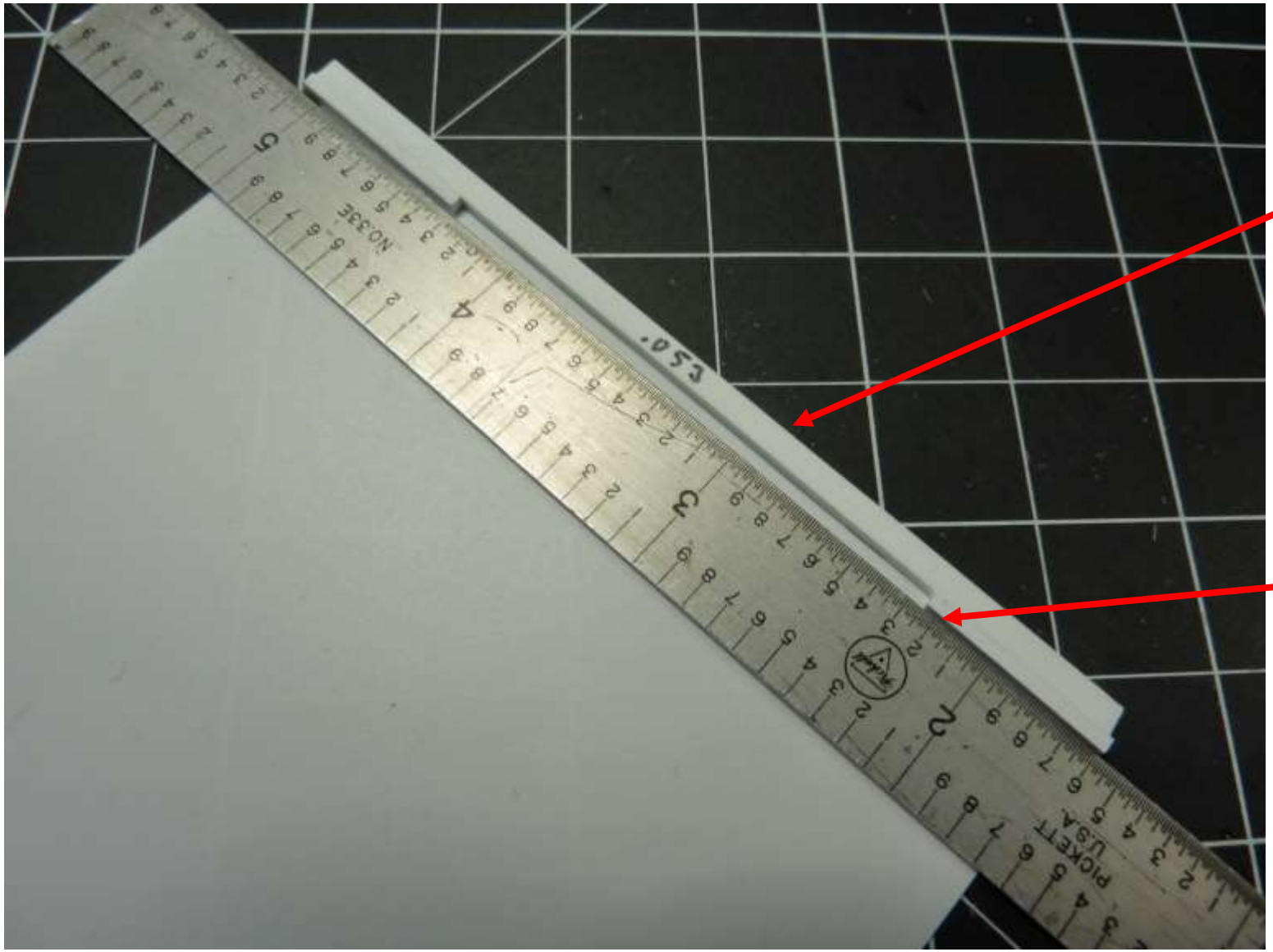
End View of Strip Cutting Guide



Styrene Sheet to be cut

Two Stryene Strips pictured in Blue are Glued Together. The lighter blue strip is selected to be the desired width of the strips needed and glued to the darker Blue Strip.
Note the it is glued leaving a lip that will rest against and on top of the Styrene color Black

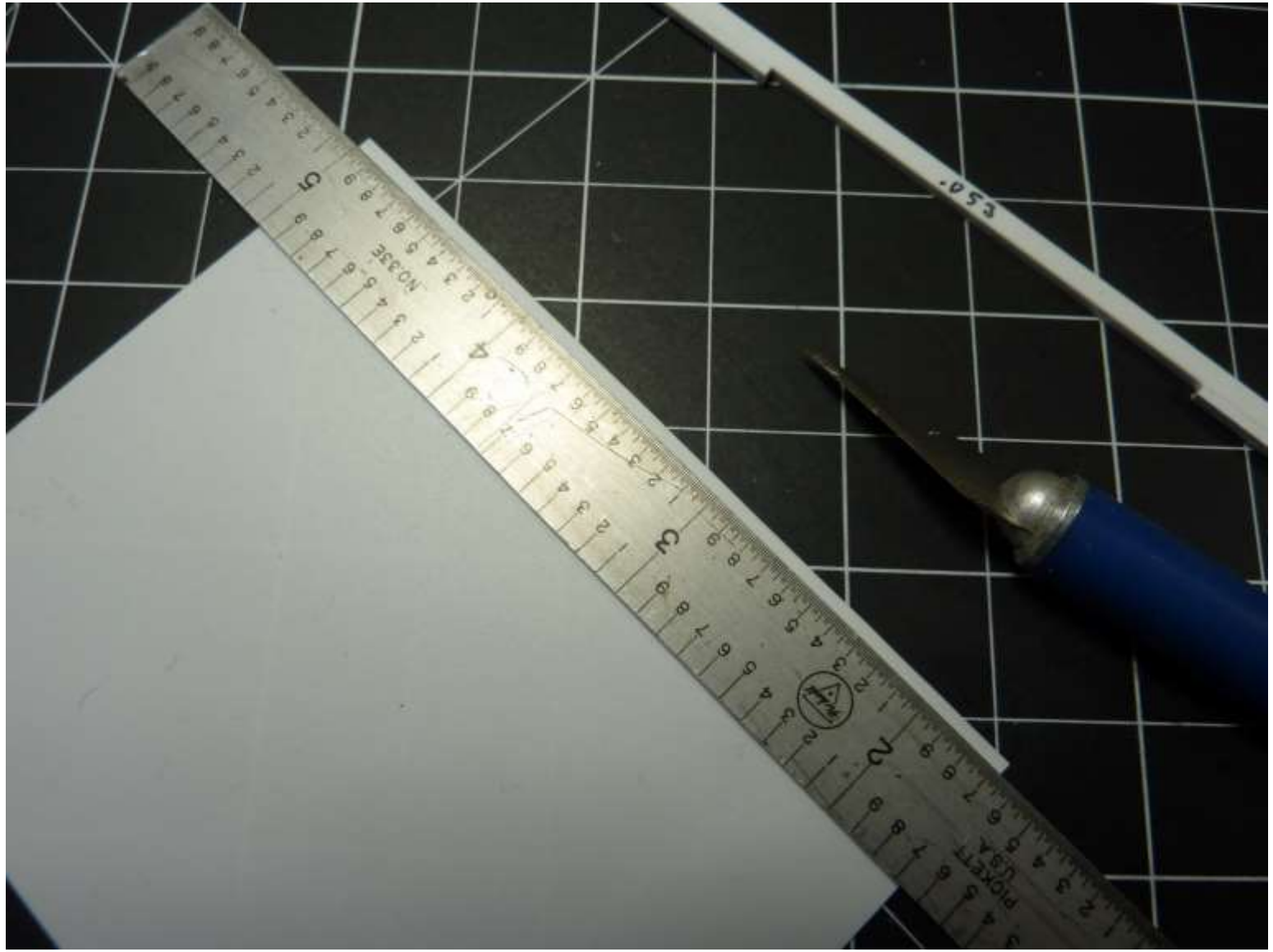
Positioning the cutting guide



Homemade cutting guide is pushed up against a straight edge of styrene or brass stock

Straight Edge is pushed up against cutting guide stops at top and bottom

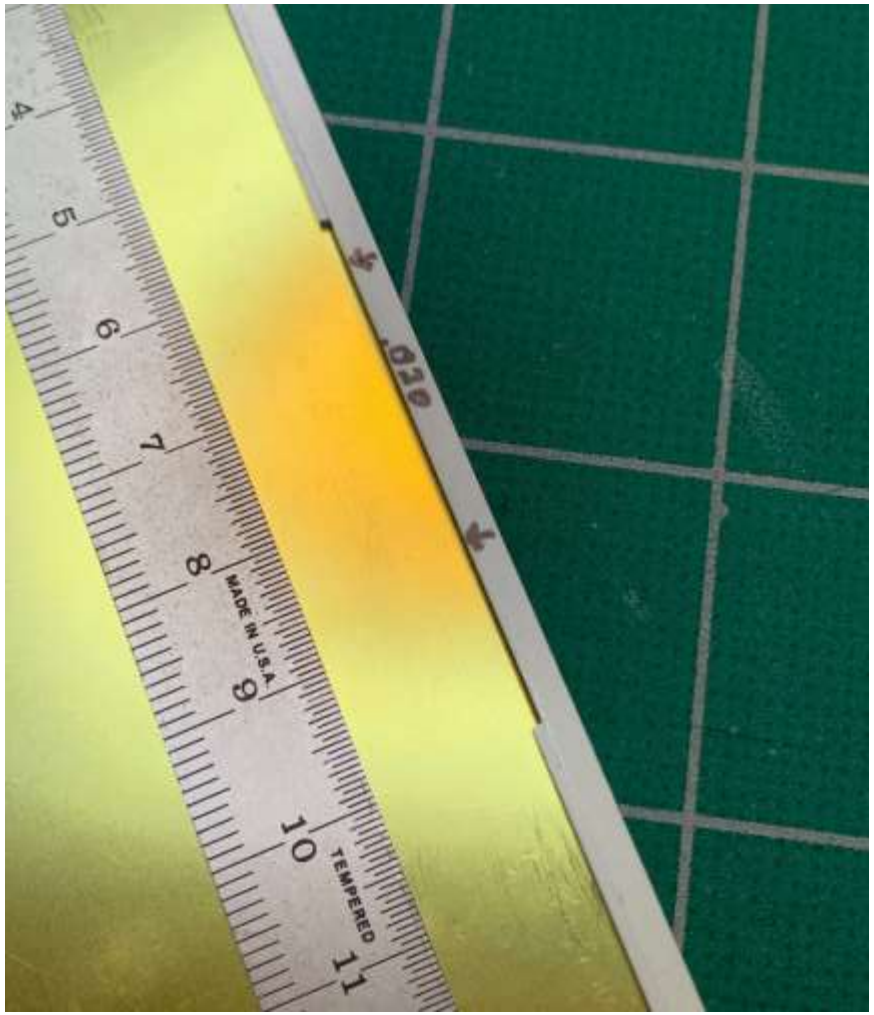
Firmly hold straight edge in place and score the styrene with blade and you can now bend at score make and break off. Note the PE bending tool is useful to hold the styrene and bend and break off small widths of sheet styrene.



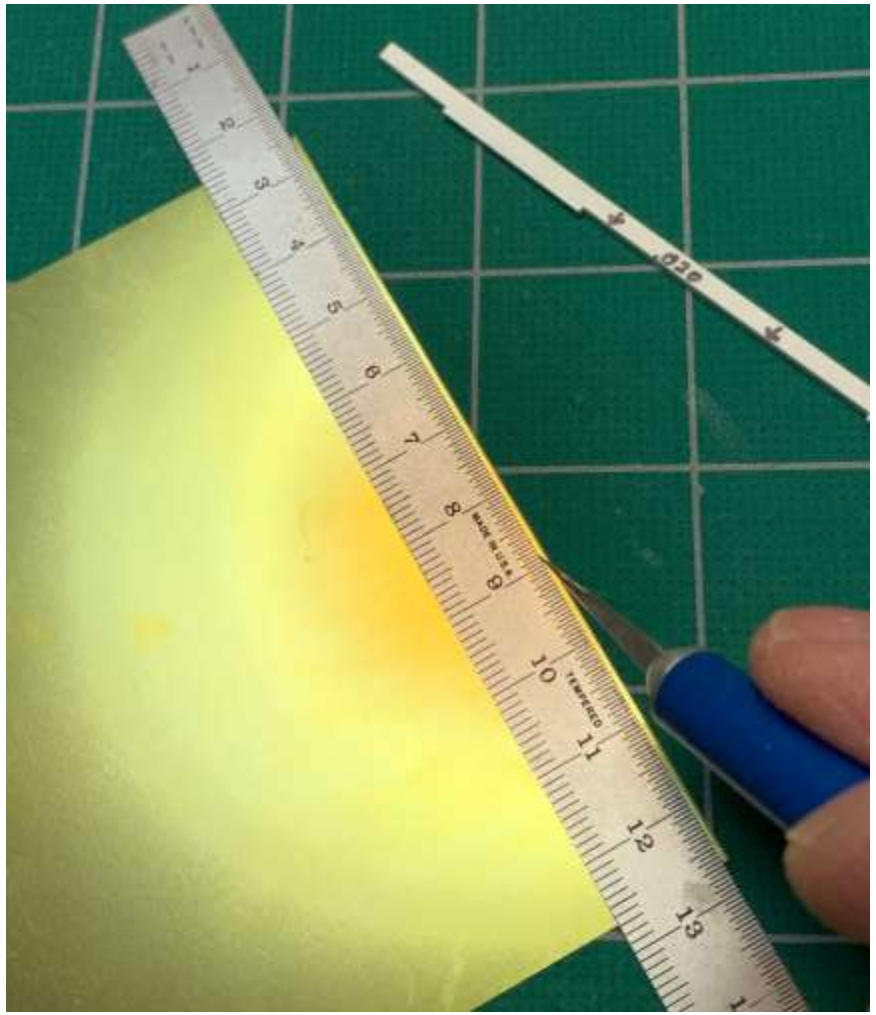
Note:
For .005 thick styrene I make light multiple cuts to cut all the way through.

I also use this for cutting .010 and thinner brass using the following method

Place guide up to edge of sheet brass. We will be cutting a .030 wide strip of brass .005 thick

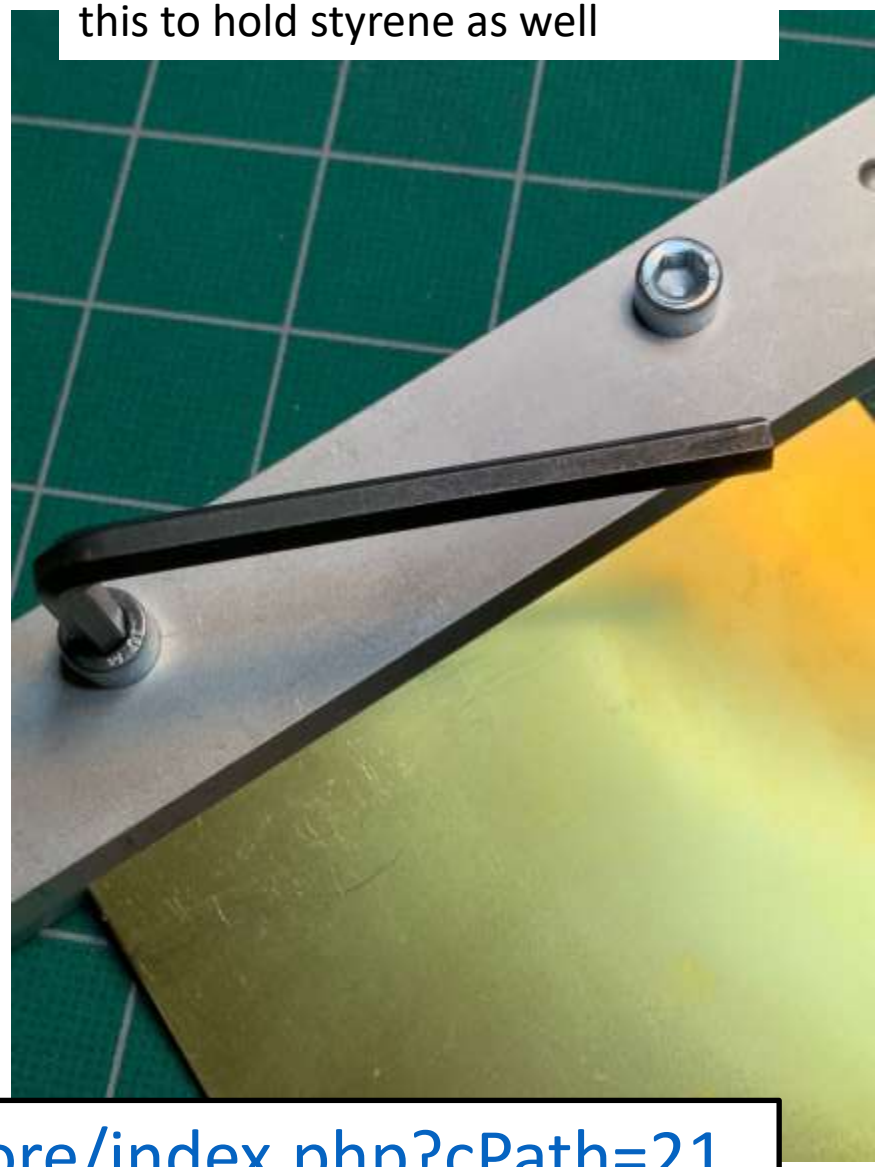


Slide straight edge against guide and scribe brass sheet with blade a couple of passes



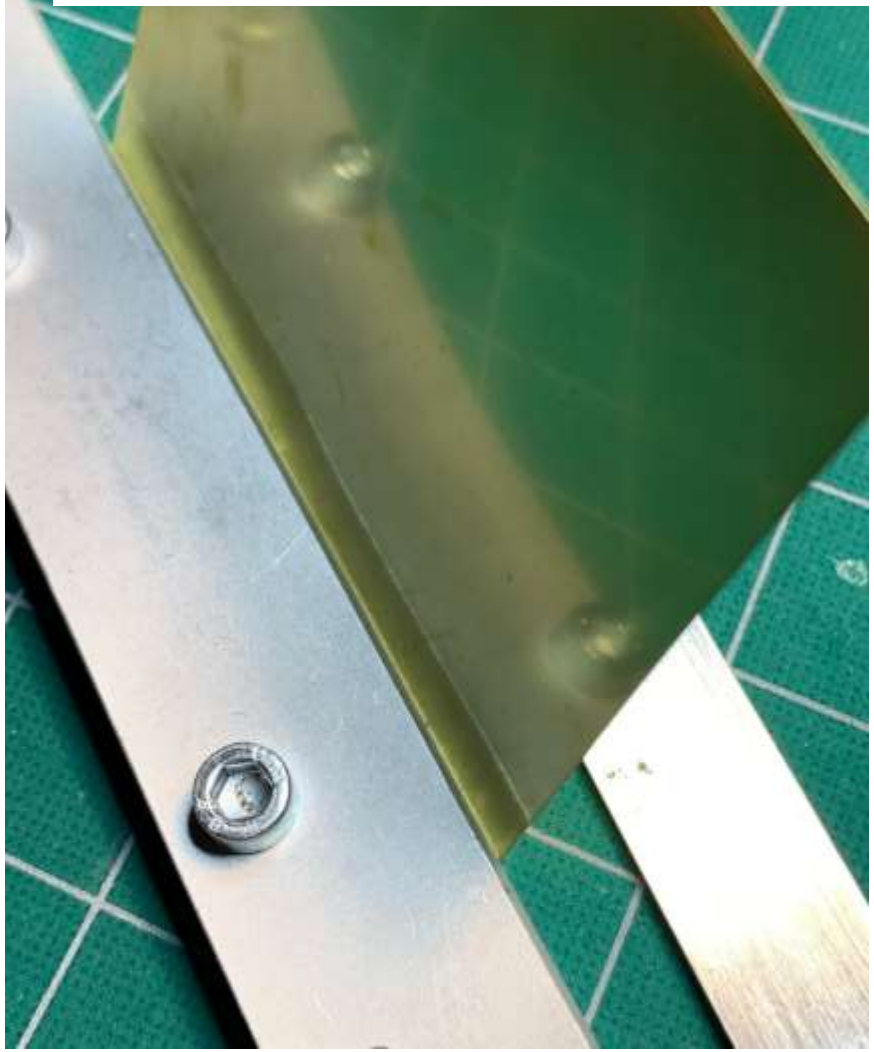
UUM-USA MN013 UMM™ Photo Etch Easy Bender 150mm will be used to bend and break at Score mark

Place sheet with scribe mark aligned with edge You can also use this to hold styrene as well



http://umm-usa.com/onlinestore/index.php?cPath=21

Using a metal straight edge to make a bend. Try for one smooth motion
The newer version of PE bender with bending break makes this easier



Back and Forth bending motion is used. Bending the sheet backwards then forward. On the third bend it broke off

Measuring strip

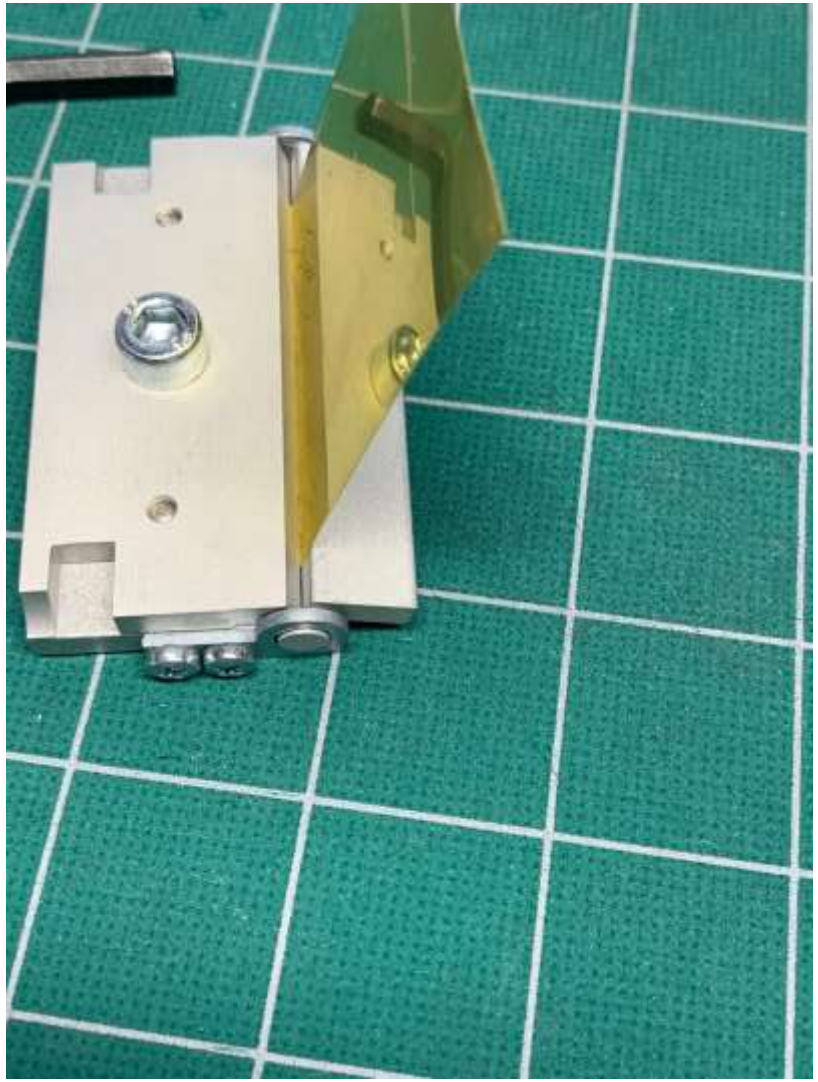
Using a sanding stick to smooth edges to remove slight raised edge

Make Brass Angles From .005 shim stock

.005 brass is 1st scribed with a xacto blade. I made this strip .080 wide and scribed a line at .035 in the center for the bend. I allowed .005 for bend

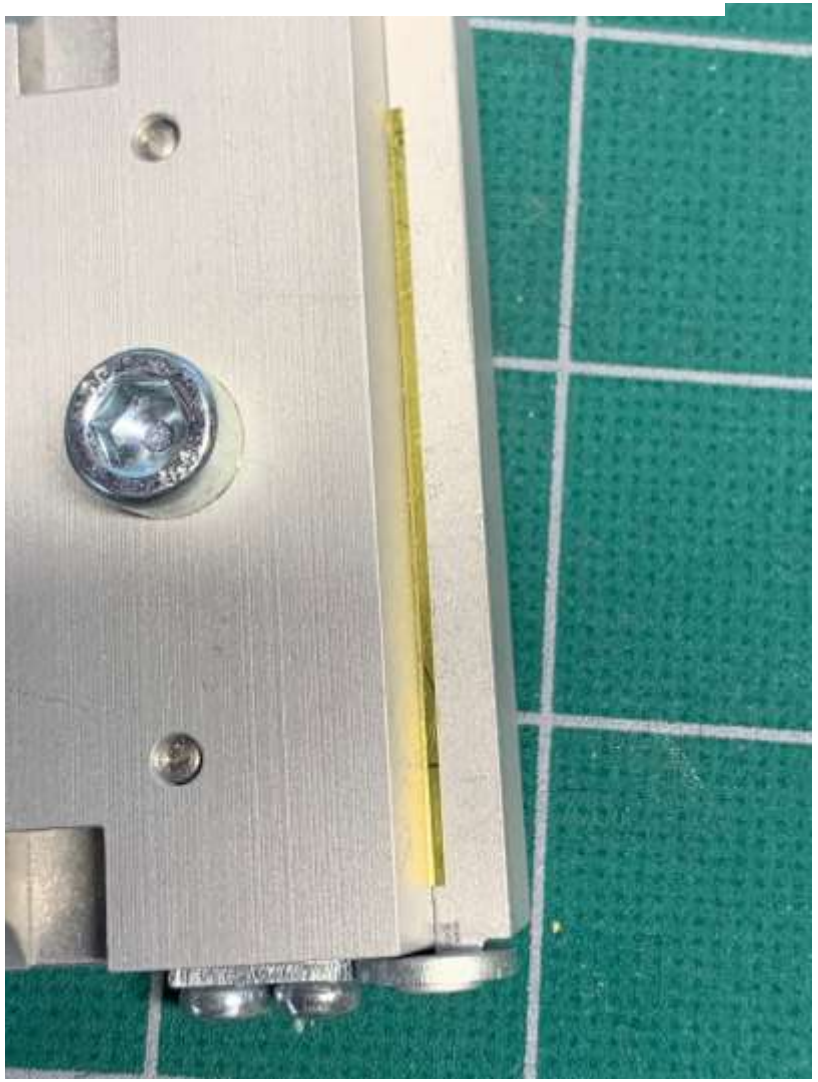
Scribe Line at .080 wide is lined up in bending tool

Bending the brass back and forth to break it off from the sheet

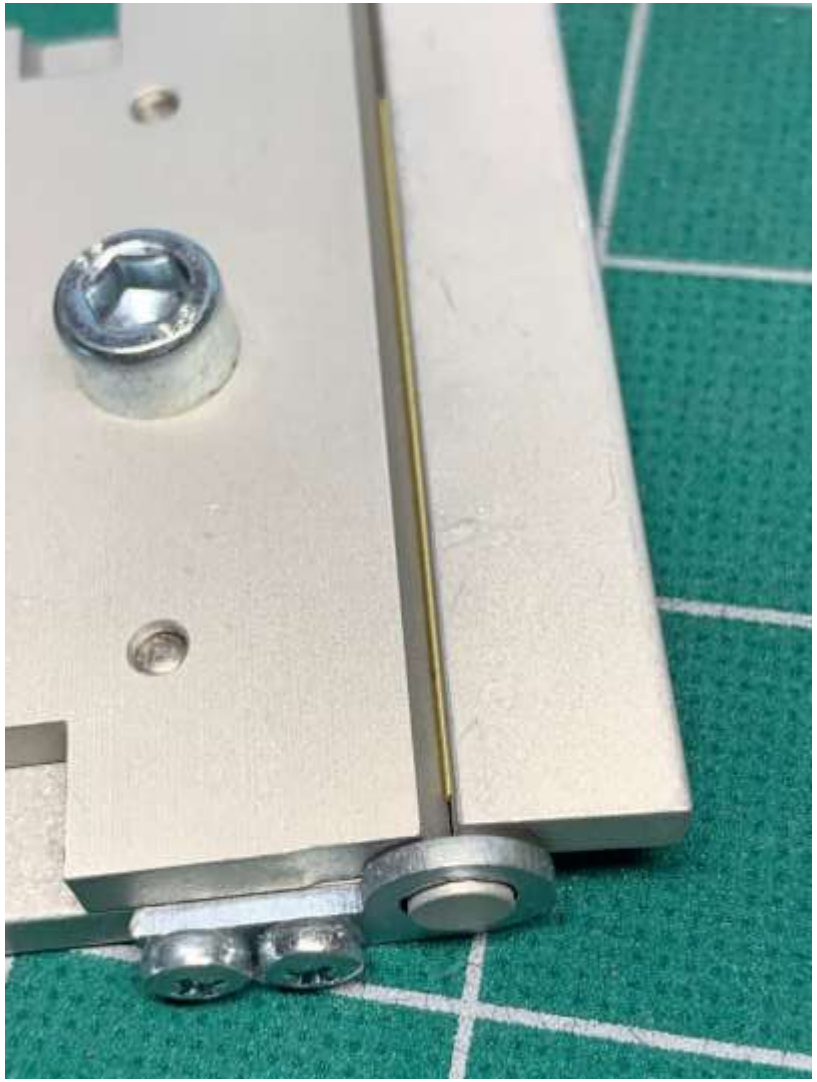


.080 wide strip is now cut off. One side is .045 and the other is .035. I usually allow .005 for the bend

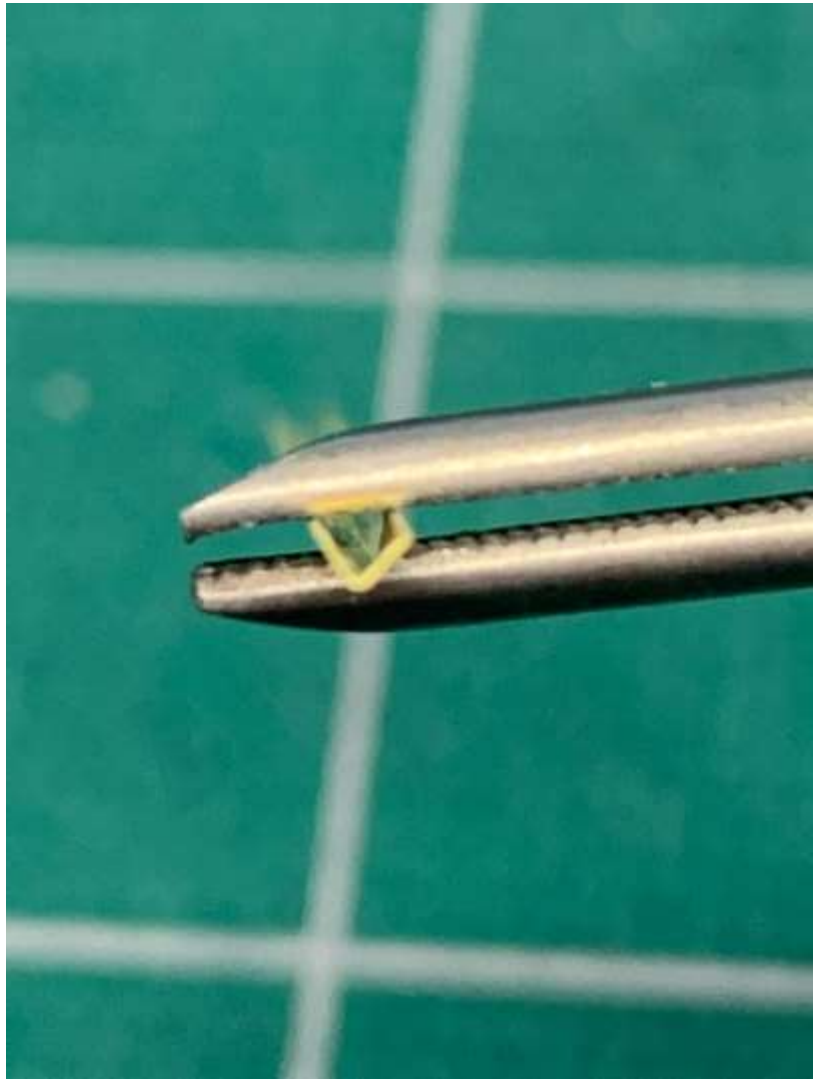
Brass strip inserted into bender on center scribe line. Note I usually score the bend line 2 or 3 times to make the bending a bit easier.

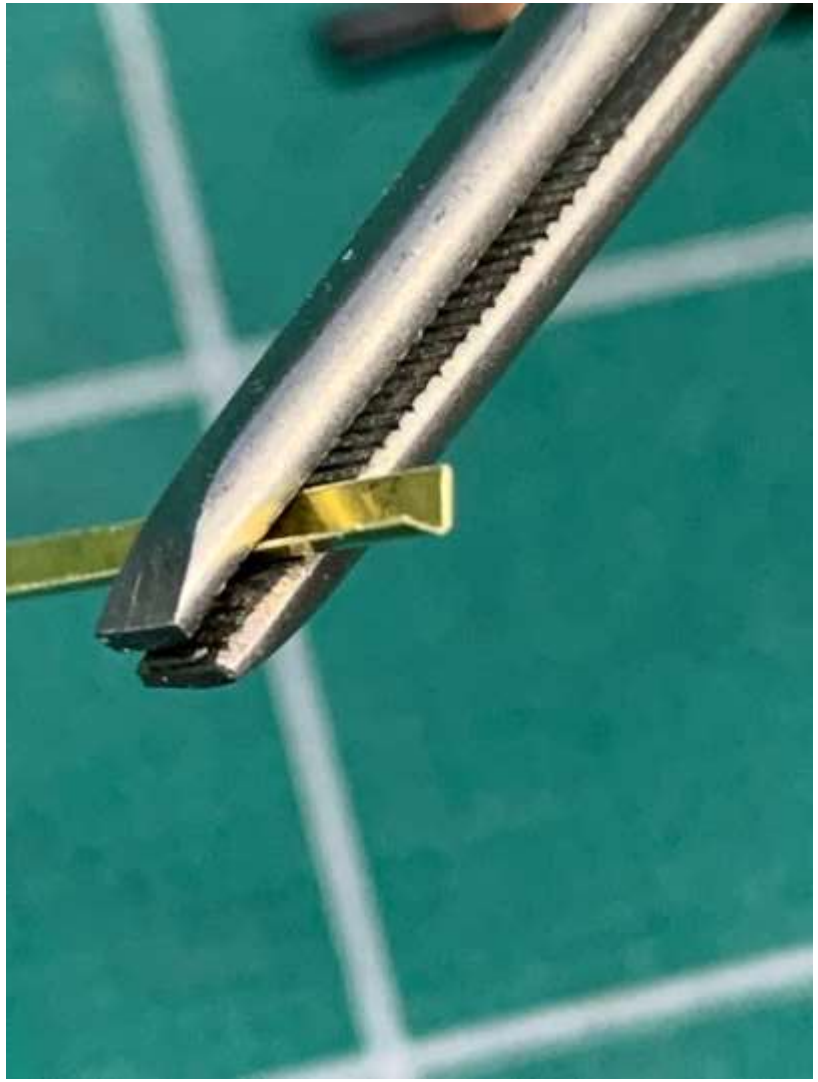


.Bending brake is raised 90 degrees to form right angle



L shaped is complete
leaving a .040x.040 angle





This concludes this short how to on the cutting of thin styrene and brass with some bending.

The End