

MAKING A NEW DRY-TYPE AIR FILTER FOR YOUR EARLY V-8

Tom Somsak April 2008

The air filter element in my 1940 Ford was in pretty poor shape. The retaining screens were fine, but the filtering mesh inside was filthy, shedding particles, and showing signs of corrosion.

Deciding to replace the whole thing, I quickly checked a few reproduction Ford parts catalogs. I didn't find anyone offering a replacement part for my car. The local parts store had no suggestions, either. I knew I wasn't the first one with this problem, so I turned to my fellow V-8ers for help. Luckily, I had the phone number of Craig Gorris which he had given to me at a swap meet a year earlier. Craig had the perfect solution: With some "copper wool pot scrubbies" from my local grocer, I could make my own filter.

Figure 1 shows all of the needed materials. I was able to reuse the inner & outer screens from my original filter. Notice the original filter element to the upper left. That lovely unit wasn't going back on *my* carburetor.

I used four scrubbies. One is shown here in its unraveled state.

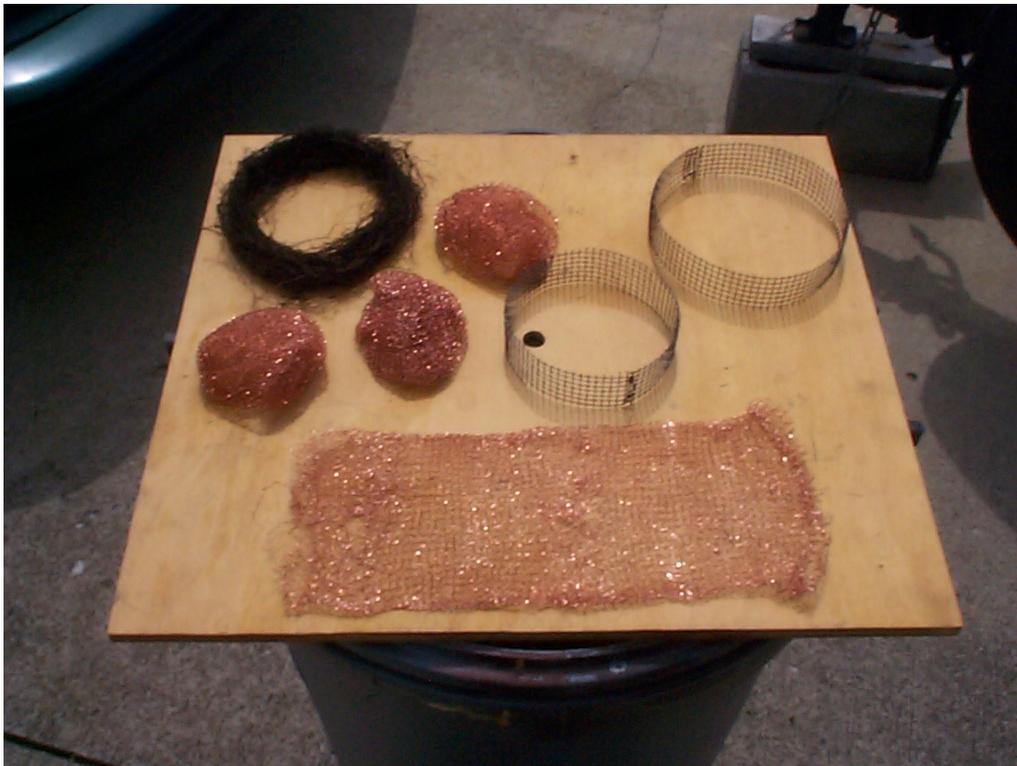


Figure 1

Basic needed materials. Four scrubbies shown; one has been opened & flattened. See text.

The first step is to “disassemble” the scrubbies. They are formed into a pouch with any open ends twisted to hold their original shape. Untwisting them yields a tube of coarse copper mesh. Once both ends are open, flatten the tube and work the mesh into a neat & uniform rectangle, as shown in figure 1. Try to maintain the original mesh density as you go. Shake out any loose copper pieces.



Figure 2
Opening up the scrubbies

The width of the mesh rectangle ended up being approximately three times what I needed for my filter, so I folded them three times, flattening & forming along the way. Figure 3 shows four scrubbies folded & ready for installation.

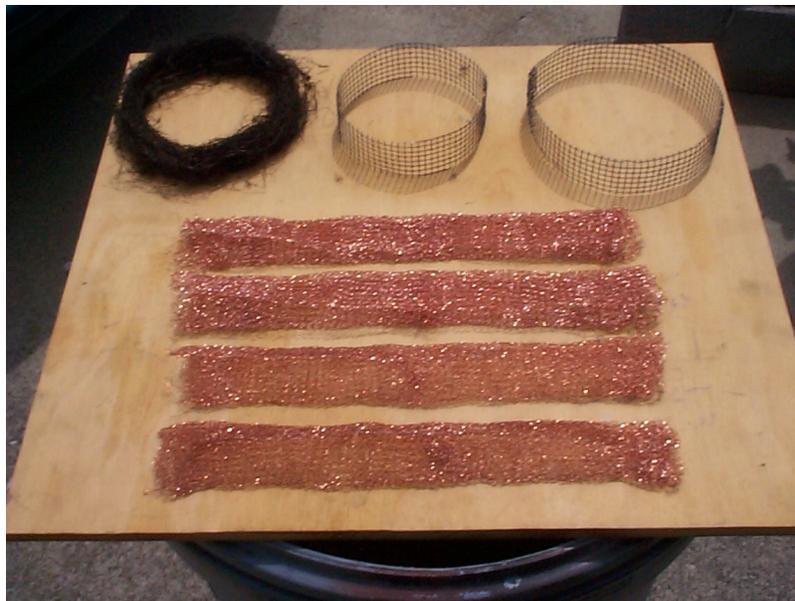


Figure 3
Four fully processed scrubbies.

Wire is used to attach the scrubbie mesh segments to the inner screen. At 90° intervals, thread four wires vertically through the screen. Leave enough wire at each end to wrap around the screen & secure the mesh.

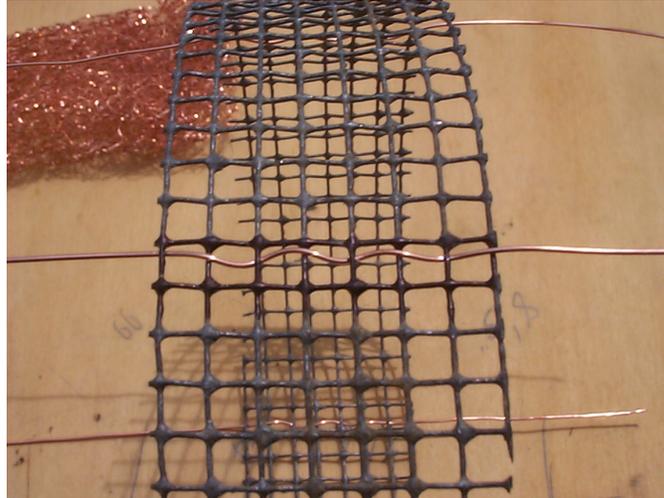


Figure 4
Wires are threaded through the screen to secure the mesh.

Gently tie a mesh segment to the inner screen with a bottom extending wire by wrapping the wire up & around the mesh. (See figure 5.) Thread the wire neatly through the inside of the screen. Repeat this action until all four mesh segments are secured at one end as shown in figure 6.

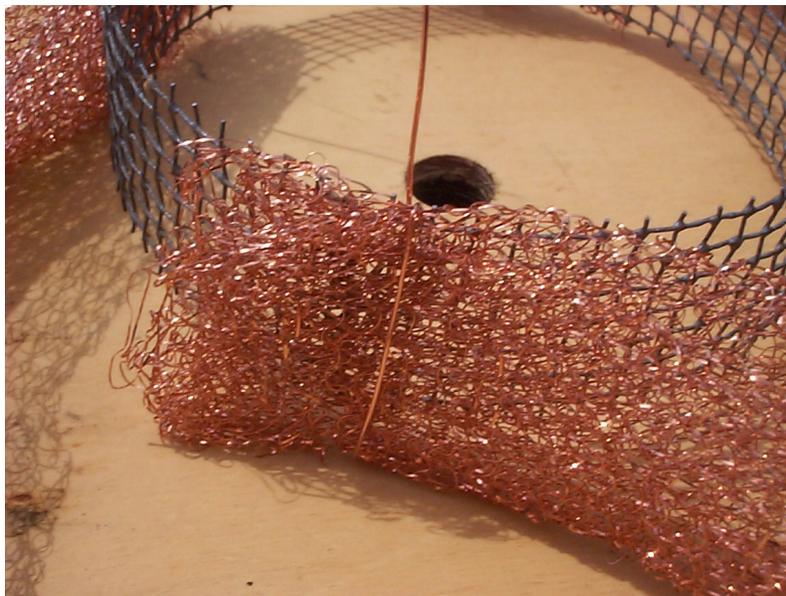


Figure 5
One end of each mesh segment is secured to the inner screen.

Carefully wind each segment around the screen along with the next one and fasten it in place with the top extending wire 180° from the start of that segment.



Figure 6
All four mesh segments mounted to the inner screen.

Wrap the top wire down & around the mesh to the inside & thread it into the screen as before. (See Figures 7 & 8.) While winding, tuck any “unruly” strands into the folded mesh for neatness. Again, remove all completely loose copper pieces. Continue with the other three segments until all of them are evenly wound & fastened around the screen.



Figure 7
Top wire bent down & around to hold the wound mesh.

Squish & form the mesh segments, smoothing the points where one segment overlaps the next. The finished assembly should look round & uniform.

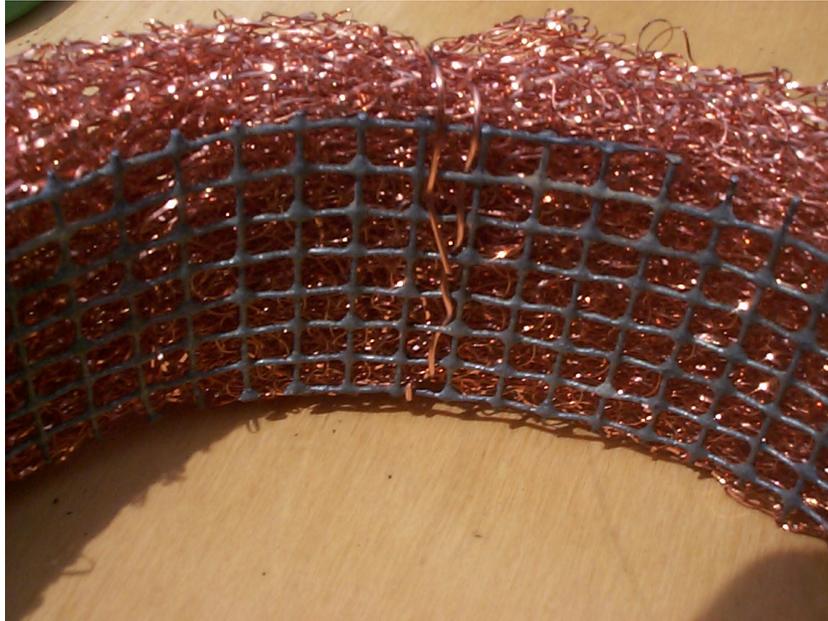


Figure 8
Top & bottom wires threaded into the screen to stay “put”.

To install the outer screen, wrap the finished mesh filter with a strip of newspaper & secure it with tape. (The paper will keep the outer screen from snagging the mesh.) Slide the outer screen over the newspaper, compressing the mesh as needed for a nice fit.

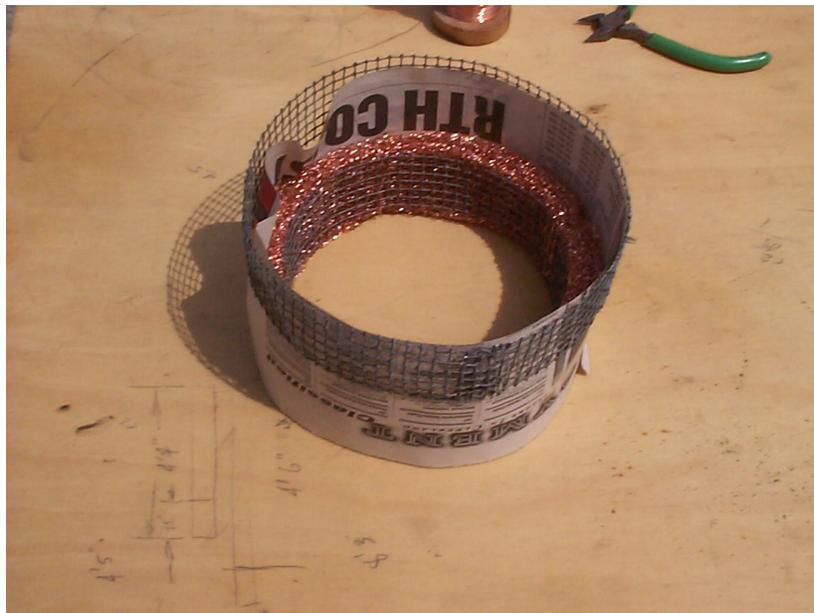


Figure 9
A paper ring allows the outer screen to slide over easily.

With the outer screen in place, slide the newspaper out. It is not necessary to fasten the outer screen, as the air cleaner top piece will secure the entire assembly.



Figure 10
Slip the newspaper out leaving the outer screen.

Lightly oil the copper mesh as you would any filter of this type. The unit is ready to install.



Figure 11
Complete filter element ready to keep your V-8 clean.