

Cartridge Cleaning and Care

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www.cartridgecollectors.org

IAA - A Guide to Ammunition Collecting

Let's face it. if you have been collecting cartridges for any length of time. you have an investment to protect. The investment is both financial and cultural. It is hard to justify spending today's hard-earned dollars on your hobby if there isn't much chance of preserving that investment and, as collectors. we have a moral obligation to be caretakers for these small elements of our arms heritage.

This section is intended to provide guidelines and suggestions for the preservation of your collection.

First let's address a few taboos:

Polishing and Lacquering:

It is the position of most collectors that this is an unacceptable practice. As nice as a row of sparkling shiny brass tubes may appear in a drawer to the uninitiated, the act of polishing and lacquering has two distinct drawbacks:

1. You will have reduced the desirability and sales value to some extent.
2. You will have created a specimen which in no way resembles the round in its original state. And, often critical markings or meaningful colour tones are lost.

Affixing Labels:

Gummed labels. clear tape (especially the nonpermanent type) and the like have contributed to the deterioration of more cartridges than any collector action except the above noted polishing and lacquering.

A safe method of affixing identification data to cartridges will be discussed in the following section.

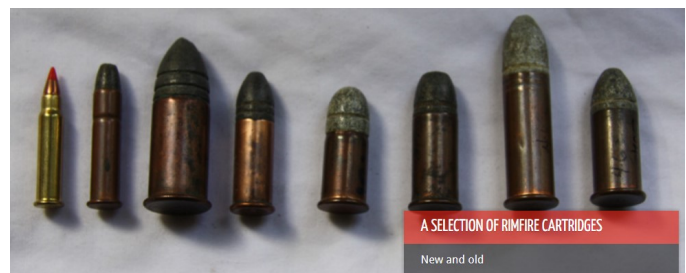
A few supplies are suggested for the collector:

- * **Bronze wool** in fine and medium grades. This can be obtained from good hardware stores, or ordered in NZ from: *Barnes Products Pty Limited, Henderson Auckland 0612 info@barnesnz.co.nz*
- * **Sani-Wax liquid wax** (available from grocery stores or good hardware stores or direct from the Sani-Wax Corp. *) (alternative liquid furniture waxes may also serve this purpose).
- * **Pilot Pens.** Extra Fine-Point Permanent Marker, SCA UF (available from office supply stores - make sure of the type; it should have the above exact designation.)
- * **Acetone**, lacquer thinner or nail polish remover (not perfume, no oil type)
- * **Toluene or MEK** solvent (available from good hardware stores)
- * **Acetic acid** (available from drug stores) or **white vinegar**
- * **Coarse paper towels**
- * **Cotton cosmetic puffs**



The following tips will discuss how, these are used:

- 1) In general **all cleaning activities should start with the most gentle methods** and proceed to the more extreme. Caution and patience are the watchwords. If there is any question as to whether to proceed to a more extreme step, it is best to stop. Soap and water are a good place to start. A water-pik may be used to concentrate cleaning action.
- 2) **Brass-cased cartridges** can be cleaned with bronze wool (which is softer than brass). It is an amazing fact that nearly all corrosion can be removed from brass without affecting the underlying patina. Bronze wool should not be used on copper-cased cartridges. Never use steel wool on any cartridge. Try soaking the bronze wool in Sani-Wax for an even gentler scrubbing of brass. The wax will leave a pleasing glow to the patina and provide longer term protection.
- 3) **Lacquer** can usually be removed by gently swabbing the cartridge with acetone or, more effectively, Toluene but not around any areas of colour. Caution - use these products in a well-ventilated area, preferably outdoors, and wear rubber gloves! If polyurethane lacquer was used forget it!
- 4) As noted above, **never use identification labels** on cartridges. At best they leave a gummy residue which is hard to remove, and leaves unsightly marks and, at worst may contain acid which will etch the case. If you wish to mark the cartridge, use the Pilot Pen noted above. It will leave a clear impression which can be easily removed by wiping with acetone. Unfortunately excessive handling will also remove the pen markings. Alternatively, paper rings (of acid-free paper) may be made which will fit snugly around the case without adhesives being used.



A selection of rimfire cartridges young and old

5. **Cartridges stored in drawers** should be cradled in acid free corrugated paper which prevents rolling about. Rolling causes abrasions where the cartridge contacts the surface of the drawer.

6. **Storage of cartridges** in some wooden drawers has been known to accelerate deterioration. This seems especially true with newly-built cabinets where the wood may have high degrees of tannin which is still viable.

Oak seems to be one of the worst offenders. Older ones such as the ever-popular antique spool cabinets, are less likely to have the same effect. If you are storing in wood cabinets, it is well to check rounds occasionally, especially during periods of high humidity. If you see them frosting (developing a powdery coating) rub them down with coarse paper towels, burlap or fine bronze wool and coat them with Sani-Wax. If the problem persists, find another storage area.

7. **Split necks** occur in highly-stressed brass for several reasons. Changes in temperature may cause progressive metal fatigue and result in neck (or occasionally shoulder or base) cracks. There is not much that can be done about this and certain types or calibers will almost inevitably crack with time.

However, when **green corrosion** appears in the crack, there is another mechanism at work - a chemical reaction of the propellant with the cartridge case.

This must be nipped in the bud, because, if allowed to be continued, it will destroy the round. If it is an easily replaced round, discard it and get another. If it is worth preserving, pull the bullet and flush the powder down the toilet. The case can be cleaned with bronze wool and the chemical action can be neutralized by soaking the case in alternate baths of dilute acetic acid (or white vinegar), and baking soda dissolved in water, Flushing with hot water between baths and after the last bath. The bullet may then be resealed, being careful to reseat it to its original seating depth (it is a good idea to measure overall length first).



Corrosion of the brass cartridge case can often be caused by breakdown of the propellant.

8. A cartridge whose **patina has been destroyed** by cleaning can often be improved by carrying around in your pocket for a day or so, occasionally 'fingering' it. The combination of natural oils in your skin and the gentle polishing action from the pocket lining should impart a soft patina. Make sure there are no hard objects such as change in the pocket.

9. **Copper-cased cartridges** more often suffer from 'grease corrosion' than any in-depth attacks to the metal. This is often best removed by scrubbing with a coarse paper towel. Save your old popsicle sticks as this wood is ideal for focused hard rubbing (with a bit of toweling wrapped around its end.) Sani-Wax can be used after cleaning.

10. **Fired brass shotshells** are a problem unto themselves.

They have often been stored for decades in moist environments without ever having been cleaned prior to storage and often have heavy encrustations of verdigris and black powder staining.

These can be cleaned by boiling in dilute acetic acid and flushing in boiling water. Several treatments may be required. If stubborn add a bit of salt to the water.

Again, Sani-Wax is a good finish coat. Older paper shotshells are often found with dirt, oil, and other contaminants embedded in the paper. Many times this objectionable discoloration can be at least partially removed.

Wet a paper towel with a light solvent, such as Coleman Fuel. Gently rub the dirty case with the solvent-soaked towel, and much of the contamination will come off. Let the case dry, and then with finger tips rub a little neutral color shoe polish on the paper to replace the wax removed by the solvent. This will help prevent the case deteriorating any further.

Finally, 'CAUTION' is the watchword.

Proceed with caution.

It is better to under clean than to over clean.

Be sensitive to annealing colors, bullet tip and primer annulus colors, paper patched bullets and other unique features. Future collectors will revere your efforts and your heirs will receive top-dollar from your collection.

* **Sani-Wax** is a high quality liquid wax available from most good supermarkets.

Cartridge Boxes

Cartridge boxes are often found with split corners, tears, missing ends, loose labels. Scotch tape staining or in extremely dirty condition. Amazing repairs can often be made to these damaged boxes.

While on the subject, it should be mentioned that with some early boxes it was a common practice of manufacturers to recycle surplus boxes by placing a later label over an earlier one.

If you have an early box and can see evidence of an under-label, it may be well to steam off the upper label to reveal the label beneath. This effort often yields a rare early label in mint condition! The following tips should prove useful in restoring old cartridge boxes:



A nice collection of cartridge boxes

1. **Never discard an old cartridge box.** Parts can be used to replace missing ends or even to completely replicate a box upon which a sound label may be mounted. Ethical considerations dictate that boxes which have been extensively restored be so marked inside, in ink, with the date of restoration

2. **Split-out comers can be reglued** using Duco Household Glue. Other acetate airplane glues may work as well. Since cardboard is porous, rub a light coat of glue on the parts to be glued, allowing it to dry before applying a bonding coat. The box can be held together during drying with weak, thin rubber bands of appropriate size.

3. **Badly-warped boxes** can be helped by splitting the corners and flattening them under a steam iron. If flimsy they can be stiffened by a light application of a spray starch. They should be protected from direct heat by a layer of damp paper toweling. The comers should, of course, be reglued after flattening.

4. **For removing old Scotch tape and staining,** some recommend Acetone solvent. However, this can destroy the box finish. WD-40 can be used and the initial discoloration of the box will disappear as the product evaporates. If you use acetone, use rubber gloves and work out doors! This is bad stuff!

5. **Labels can be cleaned** to some degree with an art gum) eraser, and solvents such as lighter fluid or acetone, using a cotton swab. Don't use this technique on early gold over black labels.

Note comment on use of acetone in #4 above.

6. **Black lettering** can be freshened by the judicious use of a fine-tipped India ink pen. Use tiny dots to stipple the area rather than line and watch for bleeding in the paper. Proper-coloured fine tipped pens can also improve scuffed boxes but go slow, there is no second chance.

7. **Never use rubber cement** or any tape product in repairing boxes.

8. **Flimsy empty or partially full boxes** can be strengthened by filling them with a carefully cut pieces of acid-free paper or with styrofoam blocks as box stiffeners. Wrap them carefully with Saran clear plastic wrap. Don't use shrink-wrap as it can do more damage than good. Saran is a bit more difficult to work with than Handy Wrap but gives much better results.



.410 Pall Mall shotgun cartridges along with a 12g to .410 conversion insert



See Also:

www.cartridgecollectors.org/ammunition-reference/

NZ Cartridge Collectors Assn:

www.nzccc.org.nz

