

# Workshop Hints

## Silvering Dials

*The British Horological Institute has archived and edited the following from e-mails sent to the [Clock/ClockSmiths](#) mailing lists on the Internet. The information here does not necessarily indicate a method approved by the BHI, we are only publishing this digest so that others can decide for themselves whether the methods listed below will suit them.*

---

On many older dials, the brass was engraved and Silvered with the engraving filled in with black wax. Over the years the silvering gets rubbed off by the owners polishing the faces of their clocks. All these notes here assume that the dial has engraved and filled numerals. If the numerals, name or any other decoration is printed or stenciled on, do not continue with any of these hints as they will all remove these markings!

### Tarnished or dull dials

Providing the silvering is only tarnished it is sometimes possible to revive it by gently polishing the dial with a soft cloth and cream of tartar (Potassium Acid Bitartrate). Note this is cheaper to buy at a chemist than a supermarket.

### Re-silvering Dials

If the dial is so bad that it needs re-silvering then do not be afraid of attempting it. The skill required is not insurmountable but care and patience is required.

There are many Silvering kits available and your local horological parts supplier should be able to supply one for you. The kits usually consist of a Black Engravers wax, silvering powder, a finishing powder and usually a jar of lacquer.

For those who want to make their own compounds, the silvering compound is (taken from DeCarle's 'Watch and Clock Encyclopedia')

- 1 part silver chloride
- 2 parts cream of tartar (potassium bitartrate)
- 3 parts common salt (sodium chloride)

*The finishing compound is Cream of Tatar.*

The instructions for silvering a dial are usually included in the kits, but for those who want instructions, here goes.

- Clean the dial thoroughly making sure that all the old silvering is removed and it is free from dirt and grease. Using a brass cleaner will ensure that the dial surface is clean. However, DO NOT clean too hard and start wearing down the edges of the engraving!
- Warm the dial and melt the engraving wax into the engraving. Make sure that you put too much wax rather than too little into the engraving. When cooled, carefully scrape off any extra wax from the dial.
- Using a soft damp cloth apply the silvering powder in a small circular motion. This is the bit that takes the patience to get a nice even silver color over the entire dial. After the silvering is done, the silvering powder can be returned to the bottle for use next time. Ensure that the silvering powder is kept in a light proof container as any long term exposure will deteriorate the powder.
- Wash the dial in clean running water and dry with a soft cloth.
- Apply the finishing powder with a soft damp cloth, again in a small circular motion.
- Wash the dial and dry with a soft cloth.
- Some people now finish the dial with sodium bicarbonate to neutralize the acidity, and reduce the risk of long-term corrosion developing. Again apply with a soft damp cloth.
- Rinse the dial and dry with a soft cloth. Lacquer the dial or, polish with beeswax, to prevent the dial oxidizing.

© 1999 British Horological Institute.

British Horological Institute. Upton Hall, Upton, Newark, Notts. UK. NG23 5TE  
Telephone (01636) 813795. Fax (01636) 812258. E-Mail [info@bhi.co.uk](mailto:info@bhi.co.uk)