

# Antique Silver Mirror Instructions

from AngelGilding.com

You can make beautiful and subtle or wild and dramatic “antique” silver mirrors using simple techniques and plenty of imagination and experimentation. The idea is to interfere with the silver before, during or after you pour it on the glass. Because our “pouring silver” deposits slowly, it gives you the time you need to achieve a wide range of different antiquing effects.

To make an antique silver mirror, you will need either a Sheet Glass Mirroring Kit, 3-D Glass Mirroring Kit or a Blown Glass Mirroring Kit plus the following minimum supplies:

- ❖ Thiourea Crystals (#2503) contain sulfur.
- ❖ Stannous Chloride Crystals (#2504) form the basis of our tinning solutions.
- ❖ Whiting (#2505 & 2507) is an inert polishing powder.
- ❖ Silver Remover (#2122) removes the silver
- ❖ Gilsonite Asphaltum (#2019) is an old-fashioned mirror backing paint.

These instructions contain examples of various techniques. The results you get will depend on the amount of chemicals used and the way in which they are applied. We have found that the adage “less is more” is a good rule to follow. We recommend that you take careful notes as you work. Nothing is more frustrating than getting a wonderful result and forgetting which process you used to produce it.



The picture at the left is a photograph of a pure silver mirror taken under the same conditions as the photos below. We include it as a “control piece.” The photos are about 3 times smaller than the original mirror.

All photos are taken from the glass side of the mirror. What you see on the back of the mirror is not what you will see on the front. Silver tarnishes on the surface; the thicker the silver layer, the less the tarnish will show on the mirror face. Grey and black areas occur where the silver is thin and the backing paint is visible through the silver.

We include three samples of silver mirrors combined with galena mirroring chemicals. Galena mirrors are naturally blue/black. Galena chemicals deposit on a layer of silver as easily as they do on a layer of palladium sensitizer.

## Whiting

Whiting is powdered chalk, an inert powder that does not react chemically with the silver. When you sprinkle it on the glass as the silver is depositing, it blocks the silver to create thin areas that will show up later as dark gray clouds. Pumice is also inert and can be used instead of whiting.

### Version 1



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1. Clean, tin and rinse the glass.
  2. Sprinkle the glass with whiting.
  3. Do not rinse or tip the glass.
  4. Pour on the silver chemicals and let them deposit for 5 minutes.
  5. Rinse, dry and paint the mirror.

### Version 2



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1. Clean and tin the glass as usual.
  2. Mix and pour on the silver chemicals.
  3. Immediately sprinkle on some whiting.
  4. Let the silver and whiting mix deposit for 5 minutes.
  5. Rinse, dry and paint the mirror.

### Version 3



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1. Clean, tin and silver the glass.
  2. Let the silver deposit for 1 minute.
  3. Sprinkle or dump the whiting on top of the silver.
  4. Let the silver deposit for 4 minutes.
  5. Rinse, dry and paint the mirror.

## Silver Remover

As a general rule, glass cleaned with Silver Remover needs to be re-tinned. As you see here, sometimes there is enough tin remaining on the glass for some silver to deposit.

### Version 1



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1. Clean, tin and silver the glass as usual.
  2. Dip a clean, old toothbrush in freshly mixed Silver Remover.
  3. Shake off all the excess Silver Remover to avoid large drips.
  4. Hold the brush over the glass, bristles facing up.
  5. Run your thumb over the bristles to create small spatters.
  6. Rinse, dry and paint the mirror.

### Version 2



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1. Clean, tin and silver the glass as usual.
  2. Dip a cotton ball in Silver Remover and squeeze it dry.
  3. Blot the cotton ball over the silver.
  4. Rinse the glass.
  5. Re-tin the glass for 1 minute.
  6. Re-silver the glass for 5 minutes.
  7. Rinse, dry and paint the mirror.

### Version 3



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1. Clean, tin and silver the glass as usual.
  2. Spatter the silver with Silver Remover.
  3. Rinse the glass.
  4. Do not re-tin the glass.
  5. Pour on additional silver.
  6. Let it sit for 5 minutes.
  7. Rinse, dry and paint the mirror.

## Dry Stannous Chloride Crystals

Begin by crushing some of the stannous chloride crystals into a fine powder between two small pieces of scrap glass.

### Version 1



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1. Clean and tin the glass as usual.
  2. Pour on the silver.
  3. Let the silver deposit for 30 seconds.
  4. Sprinkle the silver with the crushed stannous chloride crystals.
  5. Let the mix sit for five minutes without rocking.
  6. Rinse thoroughly and pour on a 2<sup>nd</sup> layer of silver.
  7. Let the 2<sup>nd</sup> layer deposit for 5 minutes.
  8. Rinse, dry and paint the mirror.
- Note: The white areas in the photo are reflective silver crystals.

### Version 2



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1. Clean the glass.
  2. Sprinkle the damp glass with crushed stannous chloride crystals.
  3. Let the crystals sit on the glass for 2 minutes.
  4. Pour on the silver chemicals.
  5. Let the silver deposit for 5 minutes.
  6. Rinse the glass well with distilled water.
  7. Pour on a 2<sup>nd</sup> layer of silver and let it deposit for 5 minutes.
  8. Rinse and pour on a 3<sup>rd</sup> layer of silver.
  9. Let the silver deposit for 3 minutes.
  10. Rinse, dry and paint the mirror.

## Dissolved Stannous Chloride

First dissolve a few stannous chloride crystals in a little hot tap water to make a milky liquid.

### Version 1



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1. Clean and tin the glass as usual.
  2. Dip a paper towel in the stannous chloride solution and wring it out.
  3. Place the towel on the glass and let it dry for 5 minutes.
  4. Remove the towel but *do not* rinse the glass.
  5. Pour on the silver and let it deposit for 5 minutes.
  6. Pour off the silver and rinse the glass.
  7. Pour on a 2<sup>nd</sup> layer of silver and let it deposit for 2 minutes.
  8. Rinse, dry and paint the mirror.

### Version 2



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1. Clean and tin the glass.
  2. Pour on the silver and let it deposit for 30 seconds.
  3. Pour a little stannous chloride solution into the silver.
  4. Let the mix deposit for 5 minutes.
  5. Rinse well with distilled water.
  6. Pour on a 2<sup>nd</sup> layer of silver and let it deposit for 3 minutes.
  7. Rinse, dry and paint the mirror.

### Version 3



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1. Clean and dry the glass.
  2. Blot the glass with a cotton ball dipped in stannous chloride solution.
  3. Let the glass dry.
  4. Rinse the glass very lightly with distilled water.
  5. Pour on the silver and let it deposit for 5 minutes without rocking.
  6. Rinse the glass well with distilled water.
  7. Pour on a 2<sup>nd</sup> layer of silver and let it deposit for 2 minutes.
  8. Rinse, dry and paint the mirror.

## Dry Thiourea Crystals

Thiourea is a crystal form of sulfur, the chemical found in eggs that is so effective in tarnishing silver spoons. Unlike other forms of sulfur, thiourea has little or no odor.

### Version 1



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1. Clean and tin the glass.
  2. Pour on the silver chemicals.
  3. Immediately sprinkle thiourea crystals all over the silver.
  4. Let the silver and thiourea deposit for 5 minutes without rocking.
  5. Rinse the glass well.
  6. Pour on a 2<sup>nd</sup> layer of silver and let it deposit for 5 minutes.
  7. Rinse and pour on a 3<sup>rd</sup> layer of silver.
  8. Let it deposit for 3 minutes.
  9. Rinse, dry and paint the mirror.

### Version 2



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1. Clean and tin the glass.
  2. Pour on the silver chemicals and let them deposit for 30 seconds.
  3. Sprinkle thiourea crystals all over on top of the silver.
  4. Let the mix deposit for 5 minutes without rocking.
  5. Rinse the glass well.
  6. Pour on a 2<sup>nd</sup> layer of silver.
  7. Let it deposit for 5 minutes.
  8. Rinse, dry and paint the mirror.

### Version 3



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1. Clean, tin and silver the glass as usual.
  2. Sprinkle thiourea crystals on the wet glass.
  3. Set the glass down flat and let it dry completely.
  4. Rinse, dry and paint the mirror.
- Note: The back of the mirror will have a rough layer of crystals on it.

## Dissolved Thiourea

Begin by dissolving some thiourea crystals in hot tap water. The solution should be fairly concentrated.

### Version 1



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1. Clean and tin the glass.
  2. Pour on the silver chemicals and let them deposit for 30 seconds.
  3. Pour a little thiourea solution into the silver.
  4. Let the mix deposit for 5 minutes.
  5. Rinse the glass and let it dry.
  6. Mix and pour on a 2<sup>nd</sup> layer of silver.
  7. Rinse, dry and paint the mirror.

### Version 2



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1. Clean and tin the glass as usual.
  2. Pour on the silver chemicals and let them deposit for 30 seconds.
  3. Tip off the silver chemicals.
  4. Drop the thiourea solution from an eyedropper onto the damp silver.
  5. Let the solution sit on the glass for 2 minutes.
  6. Rinse the glass.
  7. Re-tin the glass.
  8. Add a 2<sup>nd</sup> layer of silver and let it deposit for 2 minutes.
  9. Rinse, dry and paint the mirror.

## Silver and Galena Combined

Galena mirrors are dark but perfectly reflective. Galena also contains thiourea. When you add galena on top of the silver, you can create a light/dark mirror that is still reflective.

### Version 1



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1. Clean and tin the glass.
  2. Pour on the silver and let it sit for 2 minutes.
  3. Do not pour off the silver chemicals.
  3. Mix up a small amount of the Galena mirroring chemicals.
  4. Pour small drops of the Galena chemicals on top of the silver.
  5. Let the mix sit on the glass for 7 minutes without rocking.
  6. Rinse, dry and paint the mirror.

### Version 2



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1. Clean, tin and silver the mirror as usual.
  2. Blot the silver with paper towel dipped in Silver Remover.
  3. Rinse the glass .
  4. Sensitize the glass with diluted Palladium Sensitizer for 30 seconds.
  5. Rinse the glass.
  6. Mix and pour on Galena mirroring chemicals.
  7. Let the glass sit for 7 minutes.
  8. Rinse, dry and paint the mirror.

### Version 3



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1. Clean, tin and silver the glass as usual.
  2. Rub the dry silver with a damp cotton ball dipped in pumice.
  3. Rinse the glass.
  4. Do not re-tin or sensitize the glass.
  5. Mix and pour on the galena chemicals.
  7. Let the galena chemicals deposit for 5 minutes.
  8. Rinse, dry and paint the mirror.

## Cerium Oxide

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1. Clean and dry the glass.
2. Wipe on a heavy layer of cerium oxide with a damp paper towel.
3. Do not rinse the glass.
4. Tin and silver on top of the cerium oxide layer.
5. Rinse, dry and paint the mirror.

## Tap Water

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1. Clean and tin the glass as usual.
2. Sprinkle the tinned surface with tap water.
3. Mix and pour on the silver chemicals.
4. Let the silver deposit for 5 minutes.
5. Rinse, dry and paint the mirror.

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