

## **PEWTER AND LACE BOBBINS.**

By Brian Lemin

### **INTRODUCTION**

Pewter was a favourite decoration of many of the old time bobbin makers. Probably the combination of pewter decoration on bone bobbins with tasteful colouring constitutes some of the prettiest and most skilled crafted bobbins of the East Midlands.

The application of pewter as a decoration was not confined to the East Midland bobbins, but also the South Bucks, and indeed Waddesdon too. Only those of the Honiton genre did not have any examples of pewter decoration. I have also seen quite a few examples of pewter decoration on continental bobbins, though I have only seen fixed or loose rings of pewter on these bobbins.

### **PEWTER.**

Pewter is an alloy of tin and lead, i.e. a mixture. There are no real standards as to the mixture of might be called pewter. it can be from three to nine parts of tine to one part of pewter. It may also contain a little of the element antimony, which has the effect of giving the alloy an added lustre. Modern pewter may even contain a little copper.

Pewter melts at a relatively low temperature (225 C) At this temperature any very slight scorching that might occur is only visible on light coloured bobbins and is very easily removed with fine sandpaper.

The bobbin makers used moulds to pour the pewter into the decorative grooves that they cut into the bobbins. It is an obvious technique but one which is confirmed by the existence of incomplete cleaning up after the pour which shows the "key" joining the separate holes used for pouring the pewter into the mould.

The wooden bobbin is firstly turned and the decorative grooves cut into it. It is then placed in the mould and the molten pewter is poured into the mould and it finds the grooves and fills them with the pewter. When the pewter is hardened the bobbin is returned to the lathe and cleaned up.

To hold the pewter into place, especially the bands so that they do not turn, the old makers used to put a angled saw cut at the base of the groove. This acted as an anchor for the pewter.

Insert "key" picture.

David and Christine Springetts research on the use of pewter discovered only one reference to this , which told of a mould being made from stone. David took this to mean a mould made from fired clay or pottery. I was never totally comfortable with this explanation as I had it in the back of my mind that there was, as part of a mould making process, a stage known as making a "stone". Since then I have been able to glean more information from a near neighbour, who is a dental technician and a dentist who is a subscriber to lace@arachne.com.

In dentistry it is a two-part process of taking preliminary impressions, cast them in plaster of Paris and from them making trays that would enable a more accurate final impression.

When these impressions were taken the final, and more accurate mould was made with "dental stone", colloquially known as making the "stone. This "stone" mould is made with a finer powder than plaster of Paris and gave rise to less distortion on setting. It is my opinion that the origin of the term "stone" that David and Christine found could well have referred to the stage of the process that I have described above. Not that the makers took preliminary impressions etc but that they used the fine powder as a mould which they knew to be called a "stone."

Which one of us is correct we will probably never know, but both David and I agree that for the mould to be made from an actual stone is highly unlikely. Also it is interesting to note that none of these moulds appear to have been found and/or kept for us to examine.

I do believe that David and Christine have since been told that they used to wrap the bobbin in brown paper and pour the pewter into that "cup" of paper.

I have tried this and it works, but I now use baking paper as it withstands the heat better. For standard pewter inlays I use David's approach as explained in his

book, Turning Lace Bobbins, but for occasional use with non-standard dimensions, I use the baking paper approach (Glad Bake)

## PEWTER DEGRADATION

No discussion on pewter as applied to lace bobbins would be complete without an explanation of why the condition of the pewter in many bobbins is so poor. It is swollen, distorted in other ways, but more particularly has become very powdery. When it has reached this stage it soon falls out, and this is why so many pewter bobbins no longer have the pewter in them.

Tin exists in three forms, depending on the temperature. This is called polymorphism (poly-many, morphism-shapes). At temperatures between 13 and 160 C, it is called White tin, and the atoms (think of them as little balls in this description) are packed closely together to form the metal. Hence, it is a dense metal, i.e. it is hard. The critical temperature is 13 deg C.

The degradation does not happen suddenly but occurs over a period of time. The pewter has to be subjected to long periods of sub 13 deg C temperature, very easy in Europe! It appears that when the pewter catches "tin disease" some atoms change places, and in so doing crumbles the pewter and makes it swell.

Below 13 C the atoms rearrange themselves to become more loosely packed (actually in the same configuration as diamond). This shows first as wart like structures on the surface, and eventually leads to the tin crumbling into a powder. This is called "tin pest", and is what is said to have happened to the buttons on Napoleon's soldiers coats. The metal appears to change from what they call Grey Tin to White tin. Grey tin is apparently not attacked or is less likely to be attacked, but when it changes to white tin then it becomes vulnerable. I have not been able to find out how long this degradation takes..

Above 160 C, tin changes to another form called Brittle tin.. Another form of packing for the atoms occurs at this temperature, but this is an unlikely scenario for our antique lace bobbins

David and Christine had the pewter of some bobbin makers analysed and they discovered that those that used the "best" pewter had the greatest experience of degradation and those that used more lead in their mixture had the least. I

understand that many modern bobbin makers use solder rather than pewter for their inlays.

I have discovered that rather than a high lead content, the reduction of the possibility of tin disease is probably more aligned to the higher amounts of copper and antimony in the alloy.

One thing that those of you who wish to maintain the beauty and value of their antique pewter decorated bobbins must know is that there is nothing that you can do to stop this once it has started. "Perhaps" keeping them in a warm ambient temperature might help, but it is doubtful.

The above discussion on pewter, has been created from contributions by a few members of lace@arachne.com and from my own research. I thank all those who have helped.

Insert picture of an "empty" pewter bobbin.

## PEWTER INLAY DESIGNS ON EAST MIDLAND BOBBINS.

There are a number of established bobbin designs that are in generic use. These are;

Bedford-fly bobbin. or Butterfly bobbin.

Inlaid with pewter in the form of a "butterfly". Named after the supposed look of a butterfly's wing, but better described as arrowhead or crows foot, also described as an anchor lying on its side. Sometimes the wings are not opposite each other (i.e., symmetrical) but protrude from one side. Often these make a symmetrical pattern on the shank of the bobbin when taking the whole of the design into view..

Bedfordshire Leopards. or Leopards

The shank studded with small pewter spots. The bobbin is usually drilled and pewter rods inserted or pewter is melted into the holes. Sometimes the spots are filled indentations. Sometimes brass spots are used. The name reflects the spots

of a leopard. The holes might go right through the shank or just partially through the shank. The results are different designs. Where a hole goes right through the shank then the spots are opposite whereas when they are just indented the spots might appear anywhere the maker wanted.

It has been suggested that when leopards had protruding spots, they were made deliberately for those lacemakers that suffered from arthritis. In a similar way that copper bracelets are said to help arthritis sufferers today the handling of the pewter was said to do likewise.

Whilst this could be true, those of you that make lace will know that to handle such a "rough" bobbin would make your hands quite sore. I suspect that the protrusion is part of the expansion that the pewter goes through in the disease process described in the [paragraphs above. More research is needed into the behaviour of the pewter before one can pontificate on this matter.

### Bedfordshire tigers or Tigers

Inlaid with pewter bands around the shank. The decoration is cut into the bobbin shaft with a slight undercut to hold the pewter in the bands. The bands or stripes may be few or many and vary in width though they are usually the same width on any single bobbin. Named after the tiger's stripes.

### Bedfordshire trailer bobbin.

A Huntingdon name for a thick, stout, sometimes single necked bobbin sometimes with spangles. (Adapted) Fitted with loose pewter or wooden rings called "gingles", mostly in wood but sometimes in bone with bone gingles. The historical description is, "have pewter rings round them but instead of being inlaid into the bobbin they are loose; these rings are called gingles and they fit loosely in a groove round the bobbin so that they can rattle about. There can be any number of rings from one to nine, on each bobbin. Five or seven are the usual number of gingles, bone bobbins usually have bone gingles." Wooden gingles do not last as long as bone and pewter, which is probably why few are seen today. Also called trolley bobbins, trollies (Note that Devon bobbins have a trolley that is different to the East Midland bobbins.)

### Compound inlay bobbin.

A bobbin that has more than one type of inlay that is used separately in the design of other bobbins i.e. the butterfly, leopard, and tiger bobbins. e.g. Leptig which has the tiger stripes and the butterfly decoration. BTW the term Leptig is a modern coining of a phrase by the Springetts. It is not an historical name.

Spiral pewter bobbin.

An inlaid bobbin with a spiral of pewter inlay around the shank.

## PEWTER INLAY AND SOUTH BUCKS BOBBINS

(If you want to know more specifically about South Bucks bobbins go to the home page and click on the appropriate title)

South Bucks bobbins have a tradition of having some with Gingles on them. It is also spelt Jingle. A loose pewter ring that fits into grooves around the bobbin. They rattle as the bobbin is used. The rings are usually made from pewter but can be found of bone or of wood though the wood rings are rare as they ware out. Often the broken jingles are replaced with beads on a wire etc. Frequent examples can be seen with pewter rings, leopard spots either of pewter or different colour wood. (these latter are sometimes known as "domino" as opposed to leopard).

Loose pewter rings and leopard spots are the limit of pewter decoration on South Bucks bobbins. However Christine Springett recounts a most interesting tale about these gingles which I have precede below.

A certain lacemaker and designer, named Miss Nettleship also dabbled in antique lace bobbins. She was clearly what today we would call a "spin merchant" or marketer extraordinaire!

She spread the fanciful story that bobbins that had gingles on them, particularly the South Bucks bobbins had their origins in the time of Henry the 8th. If it had one bobbin, that represented that the bobbin belonged to Catherine of Aragon, and thence on to 6 gingles, each representing one of his wives. If a bobbin had 8 gingles then it had its origins in Henry the 8th himself. She marketed them as her "Royal Wives" set! Not to be in want of a smart spin she even gave the reason

for the lack of 2 or 5 rings on bobbins as being the reason that these were because the owners of these two bobbins were beheaded.

As always, I recommend readers to go to the original publication to read a more full and accurate story of Miss Nettleship.

## SOME COMMENTS ON MAKERS WHO USED PEWTER INLAY

Springett tells us that Jesse Compton's pewter was 78% tin and 20% antimony and 2% lead and this degraded badly, whereas the composition of Bobbin Browns pewter was 48% tin 44% lead and the remainder probably antimony. His pewter is still in good condition.

Jessie Compton is judged by Springett to have made some of the most intricate and attractive bobbins decorated with pewter. He tells us of one in the Bedford museum that is still in good condition which visitors should look out for. Whilst, from what I can gather Jessie did make butterflies and leopards etc. Most of his better designs would have come under the heading of compound pewter inlays.

Joseph Haskins has probably got the accolade of the best bobbin maker ever, however his most spectacular bobbins were not known for their pewter inlay. There are examples of his that comprise all the accepted designs and were not of any special merit.

David Haskins, on the other hand appears to have produced a rather special kind of butterfly wing. It is longer thinner and has a pleasing curve like appearance that bulges slightly at the end of the wing. Most attractive.

Bobbin Brown follows the accepted design approach as does Archibald Abbott.

And so the tradition carried on down through the Saunders Bothers of Waddesdon and to our modern makers of today.

## PEWTER BOBBINS

In the few books that feature bobbins to any extent there are few that show pewter bobbins. A pewter mother in babe is shown in Freeman (p37) and a plain bobbin in Hopewell (p18)

I have made a few pewter bobbins and include a picture of one for you to see. I have not yet perfected the technique, but I have to say that they can bend, and

thus break, quite easily. That together with the tin disease is perhaps why there are not a lot of them left?

## CONCLUSION.

The combination of pewter design in a bone or wooden bobbin gives the tool an air of elegance that wire and beads do not seem to confer on a bobbin. It is a great shame that the pewter on so many bobbins have degraded, but now you know that the reason for it is a matter of temperature you can see why England, especially in those olden days without central heating, was so detrimental to their conservation. Those of us that have lived there understand it readily.

Could I ask that if any of you are blessed with the pleasure of having some antique pewter bobbins and live in a country subject to temperature changes, particularly the cold spell, that you keep your bobbins in an even and "warm" temperature.