

(No Model.)

E. TOLMAN.
STAMPING SPOONS, &c.

No. 533,382.

Patented Jan. 29, 1895.

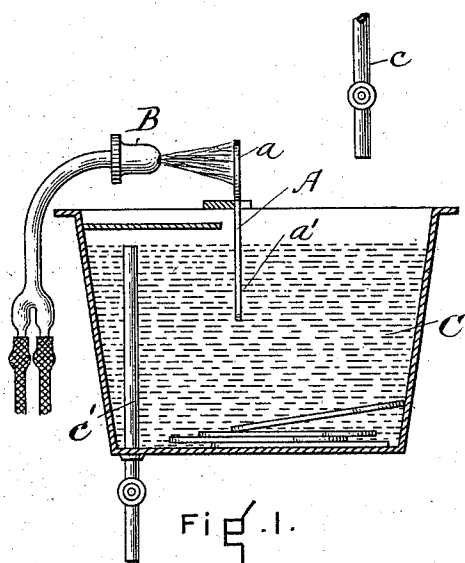


Fig. 1.

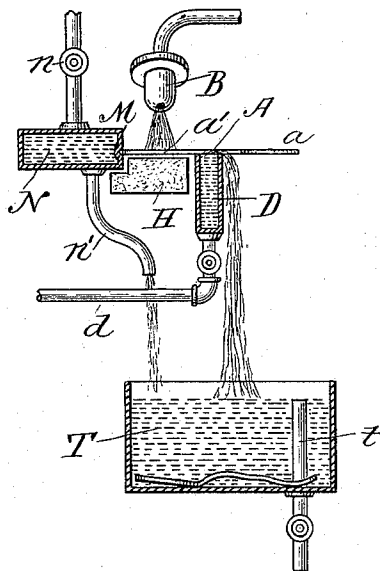


Fig. 2.

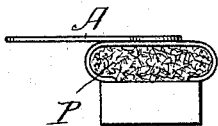


Fig. 3.

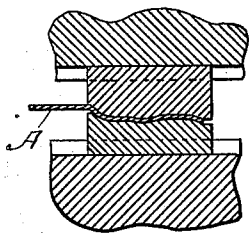


Fig. 4.

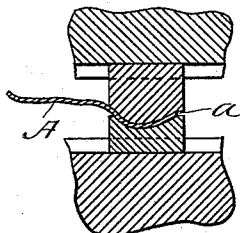


Fig. 5.

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STAMPING SPOONS, &c.

SPECIFICATION forming part of Letters Patent No. 533,382, dated January 29, 1895.

Application filed June 29, 1894. Serial No. 516,060. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH TOLMAN, a citizen of the United States, residing at Taunton, in the county of Bristol and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Stamping Spoons and Similar Metallic Articles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to use the same.

The object of my invention is to produce a spoon or other similar article of superior strength and finish wherein a struck up design is desired.

I have discovered that, where it is desired to produce a struck up design upon articles made from silver and similar metals, a much better result is produced by having the parts stamped while hot than while cold, and also that the wear on the dies is materially or entirely decreased thereby.

In order that the spoon or similar article may be possessed of superior strength and rigidity, it is necessary that the slender shank between the handle and bowl, be left as hard as when rolled, and consequently it must not be exposed to the heat which is used to anneal or soften the ends. To produce this result, I treat the articles to be stamped in such a way that only the parts which are to be compressed between the stamping dies shall be heated.

To carry my invention into effect, I first preferably anneal the bowl end. This step is taken first, for economical reasons as it is more convenient in the manufacture to thus treat the blank when straight as soon as it has been rolled. This annealing of the bowl end is accomplished by hanging the blank with the handle immersed in a tank of water, exposing the bowl end to the flame of a blast lamp until it is heated to a sufficient temperature, and then cooling it by immersion in water. This is illustrated in Figure 1 of the accompanying drawings, in which—

A represents the spoon blank; B, the blast lamp; C, the tank; c, the supply pipe, and c', the overflow.

a is the bowl end of the spoon blank, and a', the handle end.

I arrange the height of the water in the tank so that a portion of the shank next the bowl is not submerged and thus becomes heated by conduction. By this means, I anneal not only the bowl, but that portion of the shank next the bowl which is not covered by the water, and which consequently can be shaped somewhat, as is necessary, by the bowl forming dies.

After heating the bowl end as described, I heat the handle of the blank red hot, which I preferably do by the use of a mechanism shown in Fig. 2. In the drawings, A represents the spoon blank of which a is the bowl end and a', the handle end. B is the blast lamp which heats the blank as it is held over the stone hearth H. The tip of the handle is supported in a niche in the jacketed plate M, N being the jacket, of which n and n' represent, respectively, the supply and discharge pipes for the cooling water. The shank of the blank on the other side of the hearth rests on the water dam D, which consists of a long trough, supplied with water by the pipe d so that it constantly overflows, as shown, into the tank T. By this apparatus, the handle of the blank may be heated red hot, the shank being kept cool, and the handle and bowl dry.

When the handle is sufficiently heated, the bowl is grasped with the bare hand in order to remove it from the machine; the blank wiped on a pad P Fig. 3, to remove all moisture, and then inserted under or between dies and stamped as shown in Fig. 4.

In stamping the handle, it is absolutely necessary to remove all moisture before it goes to the dies, and this is very easily and quickly done in my process, as the only portion of the blank which is wet, is that part of the shank which rested on the water dam. Thus the blank may be perfectly dried and in so short a time that the hot handle loses little or none of its heat, either by radiation or by conduction to the other part of the blank. In fact, the whole operation is accomplished so quickly that the bowl end does not become uncomfortably warm to handle.

After stamping, the blank is thrown into water to cool and finally the bowl end is stamped with dies which form the bowl, shown in Fig. 5.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

5 1. The process herein specified for stamping silver spoons and other similar silver articles consisting in first heating one end of the article, while the shank is immersed in water for the purposes described, and secondly drying it and finally stamping the
10 heated end, substantially as described.

2. The process herein specified for stamping silver spoons and similar metallic articles consisting, first, in keeping the shank cool, and at the same time in annealing, by heat-

ing and cooling, the bowl end; second, in 15 keeping the shank cool, and at the same time in heating the handle end; third, in wiping the shank; fourth, in stamping, while hot, the handle end; and fifth, in stamping, while cold, the bowl end, all substantially as de- 20 scribed.

In witness whereof I have hereunto set my hand.

ELIJAH TOLMAN.

Witnesses:

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