

United States Patent Office.

H. McMANUS AND JOHN B. HATTING, OF NEW YORK, N. Y.

Letter's Patent No. 84,894, dated December 15, 1868.

IMPROVED PLATE OR SALVER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, H. McMANUS and JOHN B. HATTING, of New York city, have invented an Improved Plate or Salver; and we do hereby declare the following to be a full, clear, and exact description of the same.

Our invention consists of a chased or ornamented plate or salver, of soft metal, produced by casting, and being harder, stiffer, less expensive, and less liable to injury than the ordinary plates of stamped or spun metal, ornamented by the addition of pieces soldered to the same.

In order to enable others to make our invention, we will now proceed to describe the mode of manufacturing the same.

A pattern of metal, or other suitable material, is first made, the said pattern being chased, to produce the desired ornamentation, polished, and otherwise prepared, so as to resemble in all respects the articles which it is desired to produce. A mould is then made from this pattern, in the following manner:

The pattern is placed upon a "parting-board," within one portion of a two-part moulding-flask, which is then packed with a composition of very fine washed sand, and flour, or equivalent material, dampened with water, but not sufficiently to prevent it from being sifted through a fine sieve.

The other portion of the flask is then applied to the first, and is packed with a similar composition, after which the two parts of the flask are separated, and the pattern is removed.

On the face of the mould, which contains the impression of the ornamented portion of the plate, is now sifted a layer of fine casting-material, the plate is replaced in its first position, and pressed downwards so as to sharpen the impression, and is then removed.

Four or more "gates" are now made in the upper portion of the mould, communicating with the edges of the pattern, opening at nearly the entire circumference, and a "rise" or opening is made in the centre. The two parts of the mould are now adjusted, and, after being perfectly dried, molten soft metal is poured into the gates, until the latter, the pattern-opening, and the riser are filled.

After the metal has cooled, the casting is removed, and the masses of metal which occupied the gates and rises are detached, the edges are trimmed, the back of the casting, if necessary, is turned down or filed, the plain portions are polished. The plate is then plated and burnished at the proper parts, and when thus finished, without the application of a graver or other tool, will be a fac-simile, both in its ornamentation and form, of the original pattern.

Frequent attempts have hitherto been made to duplicate chased or otherwise ornamented plates, or salvers, by taking moulds from such articles, and making cast-

ings of soft metal in the moulds; but such attempts, from various causes, have never been successful, the castings being almost invariably defective, so that, at the present time, all the plates, salvers, &c., produced, are formed by stamping or spinning up sheet-metal to the proper shape, and then ornamenting it by stamping figures thereon with dies, by chasing, or by soldering or otherwise securing ornamental figures to the same. After this, the solder, where it has flowed improperly, is filed or cut from the plate, and the latter, after being polished, is plated and burnished.

Another objection to the plate thus made arises from the difficulty of properly depositing the coating-metal on the portions of solder exposed at the joints, between the parts soldered together, so that the plating is thinnest at the points where it should be thickest.

The article produced by our improved process is different from any plate hitherto manufactured, being stiffer than those of rolled metal, and therefore less liable to be bent or otherwise injured by blows; harder, and less liable to be indented; while the edge-border, which forms a part of the body of the plate, greatly strengthens the latter, and cannot be separated from it by hard usage, as occurs with the plates having borders of ornamental metal soldered to the body in the usual manner.

The plate so formed is not liable to the objection of being thinnest at the points where it is bent to form the ogee or other ornaments, as in the case with plates formed by stamping or spinning. The plates are also free from the openings which exist in the ordinary plates, in consequence of the imperfect running of the solder with which the ornamental parts are secured, which openings afford a lodgment for dirt, and for acids, which attack the metal.

In addition to their superiority in quality, our improved plates may be manufactured and sold at one-half the price of the ordinary plates, while they may be ornamented, at but little if any extra cost, to a degree which would be impossible in the plates produced in the ordinary manner, except at an expense that would render them unsalable.

We claim as our invention, and desire to secure by Letters Patent, as a new manufacture—

The chased or ornamented plate or salver, herein described.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

H. McMANUS.
JOHN B. HATTING.

Witnesses:

CHARLES E. FOSTER,
EDM. F. BROWN.