(Model.)

# C. BAECHLER.

## METHOD OF CASTING STEREOTYPE PLATES.

No. 278,652. Patented May 29, 1883.


Fig. 1.

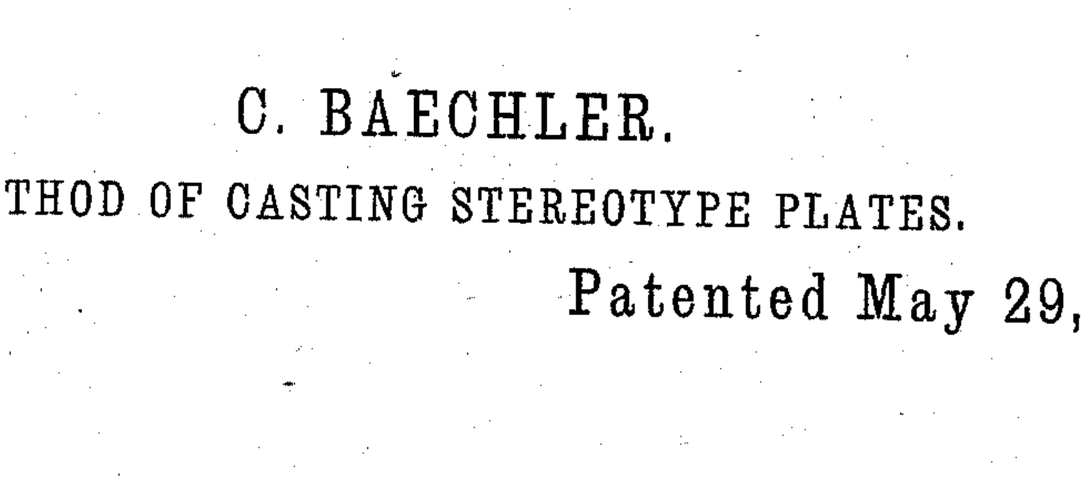


Fig. 2.

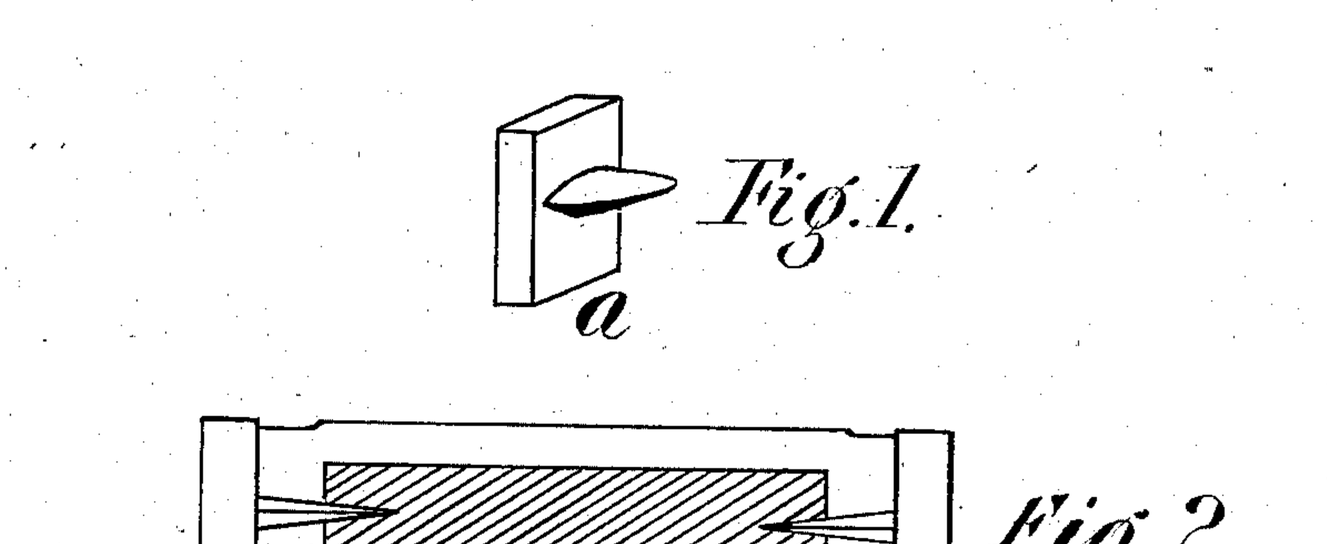


Fig. 4.

Fig. 3.

Witnesses:

Chas. B. Talbot.

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# UNITED STATES PATENT OFFICE.

CHARLES BAECHLER, OF PORTLAND, OREGON.

## METHOD OF CASTING STEREOTYPE-PLATES.

SPECIFICATION forming part of Letters Patent No. 278,652, dated May 29, 1883.

Application filed February 10, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES BAECHLER, of Portland, in the county of Multnomah, in the State of Oregon, have invented a new and useful Method of Making Stereotype or Electrotype Blocks, wherein a core of wood or other material than the metal composing said blocks is completely enveloped by said metal, in the manner described in the subjoined specification.

There are several methods of making wooden or other cores in or through a stereotype or electrotype block, whereby the cores or mount-blocks are partially covered by the metal; but such cores or mount-blocks are constantly liable to warp or swell from the water when forms are washed, and thereby become injured or useless. To avoid this difficulty is the object of the invention described herein, as also cheapness and special permanence and durability.

In Figure 1 is shown a perspective view of the supports *a*, used for setting the cores. Fig. 2 shows a side or longitudinal section, wherein are illustrated two of the supports in place while holding the core *c*, the letter *b* representing the enveloping metal. Fig. 3 shows a perspective of the whole arrangement, ready for casting, the supports *a a a* forming legs for the core *c*, the dotted lines in this figure showing the external lines of the inclosing metal. Fig. 4 shows a longitudinal section of an electrotype-plate treated and mounted similar to a stereotype-plate. In the several figures the plan is supposed to be square, after the manner of stereotype or electrotype blocks, and of the usual height of common type.

To prepare a core for casting, I place the wood or other material over the casting-box and let it remain until it becomes sufficiently hot, having previously scratched the ends with a gage to indicate where the points of the supports *a a a* are to be set or driven, (there usually being three, as in Fig. 3,) *a a a* being the supports, *b* the inclosing metal, and *c* the core enveloped by said metal.

When a stereotype is to be made, I place the matrix in casting-box in the usual manner, and set the core in place by means of the supports *a a a*, two of which are usually in the lower end of the box and one at the upper end of the box. The inclosing side and pieces being in place between the lid of the casting-box and the molten metal for the block ready to pour, I cover the upper support *a* with stereotyper's paste on the upper side only, to prevent it melting when the metal is poured against it, and so lose the support for the core. This proceeding is had when the stereotype is made and the core covered at one operation.

When a stereotype or electrotype plate is already cast and is ready to be mounted on a block another mode of working is followed. The electrotype is "backed" in the usual manner and "straightened" or "planed," or, if a stereotype, is planed, as is usual, before mounting. Then, laying the face against the bottom of the casting-box, the core is placed on the back, and strips of tin-foil put around the edges, which strips are to be fused when the metal is poured. Then some pieces, (two, three, or four,) of fusible metal, *e e*, just thick enough to fill the space between the core and the lid of the casting-box, are placed on the back of the core, and the inclosing side and end bars set as in the first case, when the same is ready to receive the molten metal. If the stereotype or electrotype plates are old or long cast or corroded in any way, the edges around the outside of the core where they are to fuse with the new flow of metal are usually scraped bright and the tin-foil placed in the joint the same as before. If the metals to be joined are similar in alloy it is not always necessary to use the tin-foil; but any of the common acid fluxes may be used, and the result be the same—a good joint.

A block made in the above way is waterproof, is not effected by the air in any manner, and has other valuable features. These blocks also require less metal than those of partially-inclosed cores with ends or sides open to dampness; and in the case of stereotype and electrotype plates previously made ready for mounting, the inclosing metal may be of a commoner and cheaper sort, and barely thick enough to flow and cover the cores, greatly reducing the expense of such blocks.

I claim—

The improvement in the method of making stereotype or electrotype blocks, consisting in placing in the casting-box over the metal plate or matrix a wooden core, securing the core in place by supporting devices, substantially as described, made of easily-fused metal, and then pouring in the molten metal so as to surround the core, fuse the supporting devices, and form a continuous metal shell for the wooden core, substantially as specified.

CHARLES BAECHLER.

Witnesses:
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