M. J. HUGHES.

Blocking Stereotype-Plates in Casting.

No. 145,179. Patented Dec. 2, 1873.

Fig. 1.

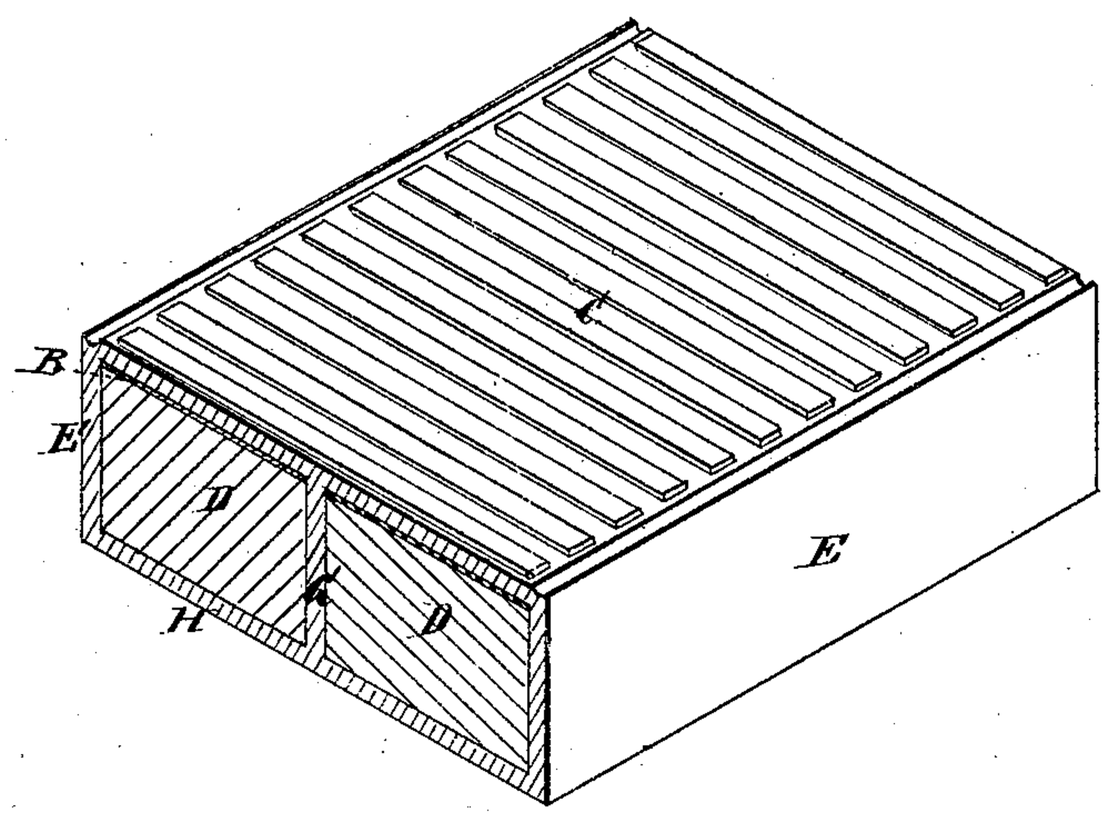
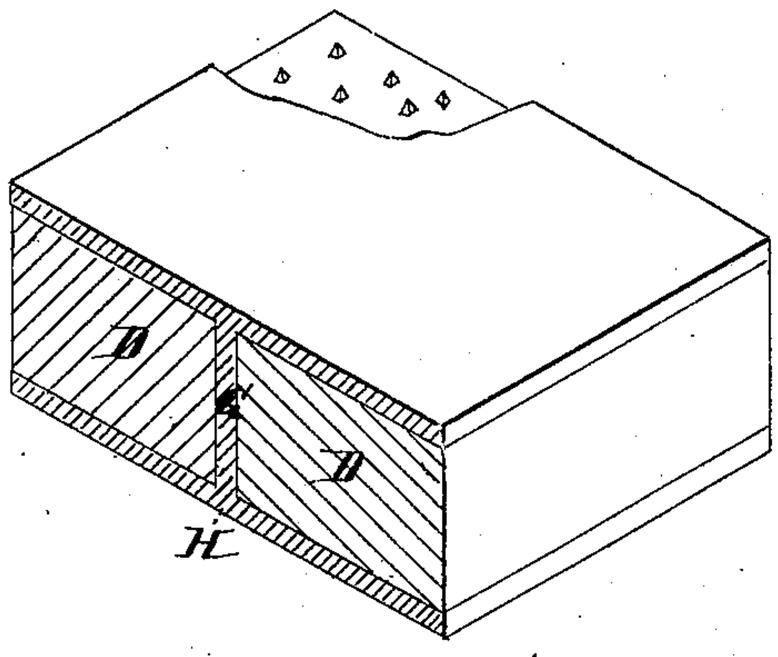


Fig. 2.



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UNITED STATES PATENT OFFICE.

MARSHALL J. HUGHES, OF NEW YORK, N. Y.

IMPROVEMENT IN BLOCKING STEREOTYPE-PLATES IN CASTING.

Specification forming part of Letters Patent No. **145,179**, dated December 2, 1873; application filed September 16, 1873.

To all whom it may concern:

Be it known that I, MARSHALL J. HUGHES, of the city, county, and State of New York, have invented a new and useful Improvement in the Method of Blocking Stereotype-Plates by the Process of Casting; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a perspective view of a plate cast on and around blocks or "filling." Fig. 2 is a perspective view of a modified form of casting, with part of the plate broken out to show pins set in the filling.

My invention is an improvement in blocking stereotype-plates. The usual practice is to attach the plates to wooden blocks by screws or equivalent means, the blocks being, in turn, locked in the chase by quoins of suitable construction. Another recent plan is to incase wooden blocks with metal and secure the plates thereto by claws or clamps projecting up through slots. In either case the plate is cast at one operation, and attached to the block by another. In my invention the plate is cast and attached to the block or blocks at one operation, so that the two are permanently connected as one article or device.

C is the top of the plate, (bearing the face of the letter or impression.) B is a sheet of tin-foil, sheet-zinc, cloth, tin, copper, or analogous material, which is placed on or around the blocks D to prevent the hot or melted metal from scorching or shrinking the latter in the operation of casting, to enable the plate C to be made thinner than it otherwise could be, thus rendering its cost less and increasing its pliability and durability. It aids, also, in forming an elastic bed for the plate. The operation of casting may be effected in molds of the ordinary or other preferred construction by placing the face of the plaster or paper cast in contact with the face of the block D, with the plate or lining B interposed, and placing them together into the mold. E E are the cast sides of the plate. D is the prepared wood, metal, or other rigid substance, acting as the filling, base, and support for the top, bottom, and sides of the plate C. G is a brace or binding support, cast solid between the top and bottom of the plate, and between the inclosed filling pieces or blocks D. These braces and supports are, as a rule, designed to extend through between the blocks from end to end, in order that the blocks D may be readily removed from the plate when desired. H is the blank bottom plate, cast on or over and under the substance used; cast by one operation, in connection with the sides E and top C, composing the plate completed. The upper part of the filling or blocks D, be they of metal, wood, or other substance upon which the part of the plate bearing the letters or impression is directly cast, has headed nails or pins projecting up from its surface for about half the thickness of the plate, or a sufficient height to secure the plate more firmly to the filling D, so as to keep it from moving by shrinkage or other causes. These pins or projections are of course embedded in the metal when the casting takes place. Incisions or punctured holes are also claimed to accomplish the same result as that produced by the projections. The casting is made very thin on the sides and bottom of the blocks in order to economize material.

The middle braces or partitions G, between the blocks or filling, may be dispensed with if desired, and then the latter are made sufficiently wide to fill the space between the sides of the casting; but it is obvious this will only occur when the casting, plates, or furniture, are made to embrace both sides, as well as the top and bottom of the block, and not when the casting is dispensed with on the outer sides of the blocks or filling, as in Fig. 2, for in the latter case the ribs or braces form the sole connection between the plate and the bottom of the casting.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is, viz:

1. The combination, with the block or blocks D, of the stereotype-plate C and the bottom plate connected therewith, by continuation of the metal on the sides of the block or blocks, as shown and described, whereby said parts form one article or device, as shown and described.

2. In combination with the blocks D, the protecting-plate or lining B, the same being applied, as shown and described, to form a more elastic bed for the plate, and render it more durable, as specified.

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