M. J. HUGHES.

Stereotype Cast.

No. 212,937. Patented Mar. 4, 1879.

Fig. 1.

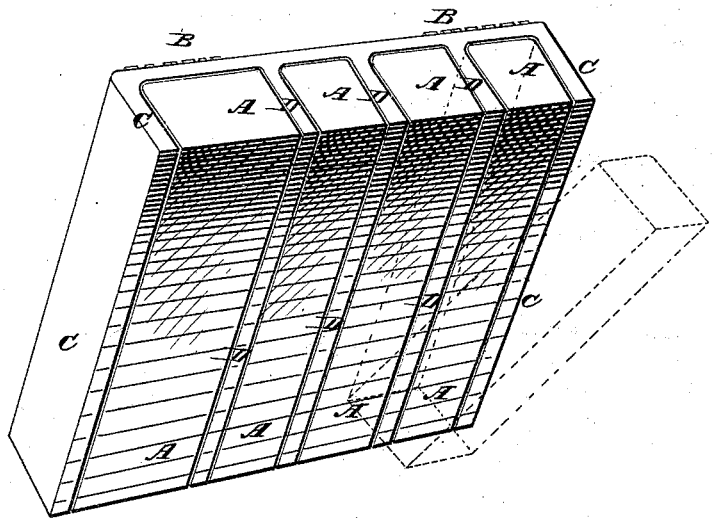
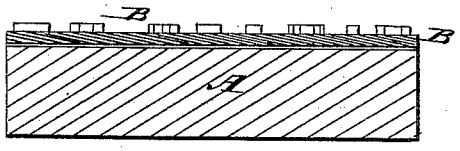


Fig. 2.



WITNESSES:

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MARSHALL J. HUGHES, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN STEREOTYPE-CASTS.

Specification forming part of Letters Patent No. **212,937**, dated March 4, 1879; application filed December 28, 1878.

To all whom it may concern:

Be it known that I, MARSHALL J. HUGHES, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Stereotype-Casts, of which the following is a specification:

One method of making stereotype printing plates or blocks is to cast them solid. Another method is to cast them with longitudinal recesses in the under side, such recesses being formed by means of iron cores, which have such cross-section as will enable them to be lifted out of, and thus easily separated from, the plate or block. A third method (which is illustrated in a patent heretofore granted to me) consists in casting the plates around wooden blocks, which are thus embedded in the metal, so as to form a permanent attachment of the plates. The said wooden blocks, therefore, serve as cheap and light filling-pieces, taking the place of an equal bu o f metal.

My present invention consists in casting a printing-plate on wooden cores, which serve as filling-pieces in subsequent use, yet which are so attached to or held in place on the plate, by reason of the relative form or construction of both, that they may be readily separated from the plate, when occasion requires, by drawing them downward out of the grooves or recesses in the same. In other words, I produce a printing-plate which is so attached to a wooden block or blocks that the two may be separated, for the purposes hereinafter stated, but which yet form practically one device, capable of use, and of being handled and locked in the form in the same manner as if the two components were of metal and cast solid together.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved cast and its attached cores or filling-pieces. Fig. 2 is a longitudinal vertical section of the same.

A A indicate the wooden pieces which serve, first, as cores in the casting process, and afterward as detachable filling-pieces in practical use of the plate in printing. B is the stereotype-cast or printing-plate, having vertical parallel ribs C and D, between which the pieces A are held by frictional contact. The cast B is formed in the usual way, the wooden pieces being placed in a casting-box and suitably supported over the face of the type from which the impression is to be taken, and the metal being then poured in. The ends of the cast and cores are then sawed off and the rough edges of the metal removed.

The pieces A, being rectangular, have parallel sides. The recesses or spaces between the outer supports, C, and partitions D are necessarily of corresponding shape. Thus the parts C D are parallel throughout their length, so that while the pieces A are in use held between them by friction, they may be conveniently detached, which is effected by drawing the same forcibly downward, as shown in Fig. 1.

In some instances the use of a wedge or pointed implement may be necessary to aid in removal of the cores.

To state the matter in other words, the combined cores and filling-pieces are so held in the metal that they form practically an integral portion of the plate in actual use for printing purposes, yet the filling-pieces may be detached when required for underlaying or rectifying the surface of the plate, or for other purpose.

I secure, by my improved construction, the advantages incident to a plate cast solid with its support, and also those which are incident to a plate cast hollow or with recesses on its under side.

Having thus referred to prior inventions, and described my own, what I claim is—

The composite stereotype printing-block consisting of the two parts, constructed and combined as hereinbefore described, to wit: first, the plate B, having the parallel and vertical outer and intermediate supports, C C D D; and, second, the removable wooden cores and filling-pieces A A, made rectangular in form, and fitted in the recesses between the supports, so that their under side shall be flush with the lower edges of the supports, and, together with them, form the under surface of the block, all as shown and described.

MARSHALL J. HUGHES.

Witnesses:

C. SEDGWICK,

J. H. SCARBOROUGH.