

(No Model.)

W. T. BARNUM.
ELECTROTYPE.

No. 441,920.

Patented Dec. 2, 1890.

Fig 1

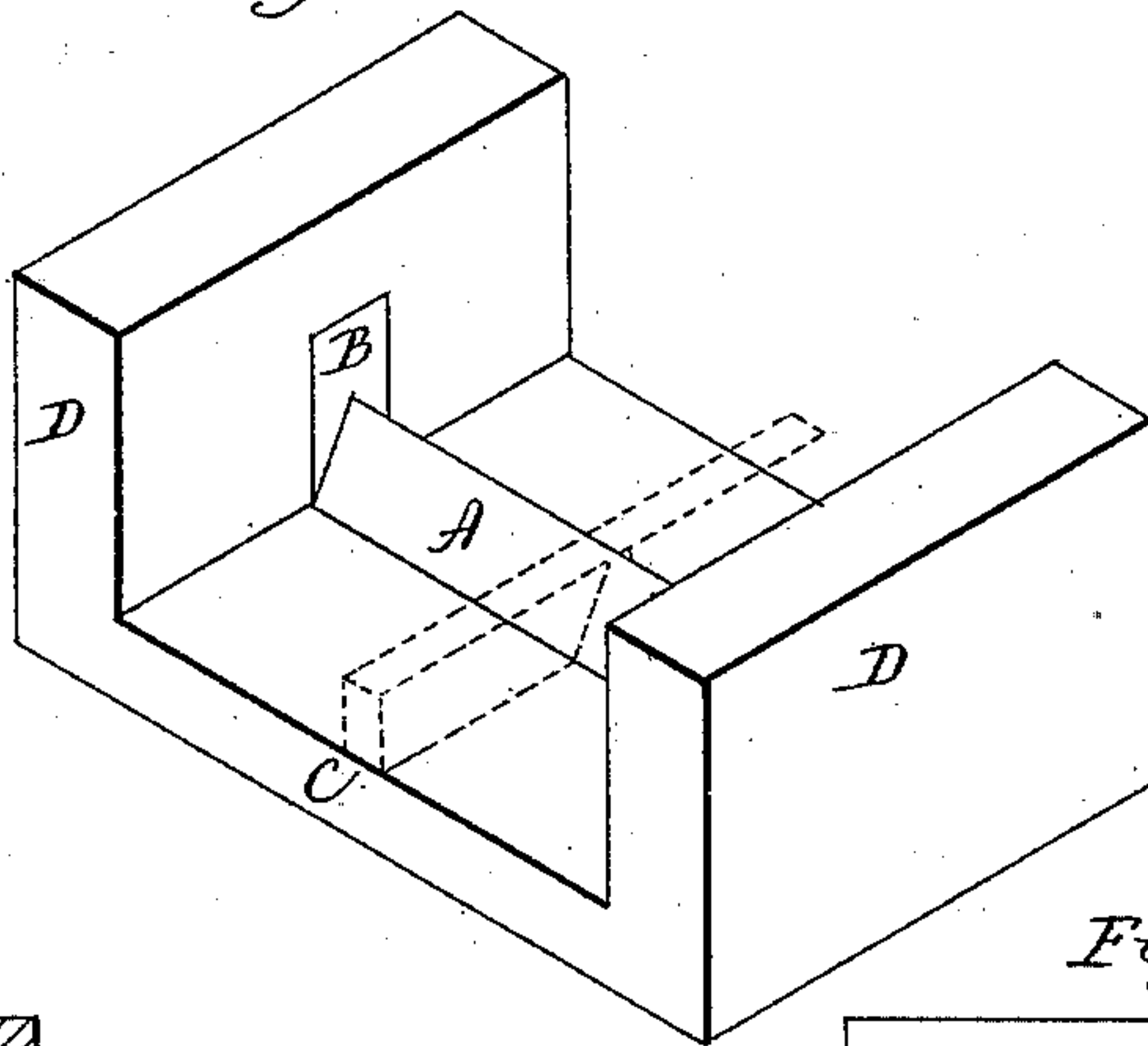


Fig 2

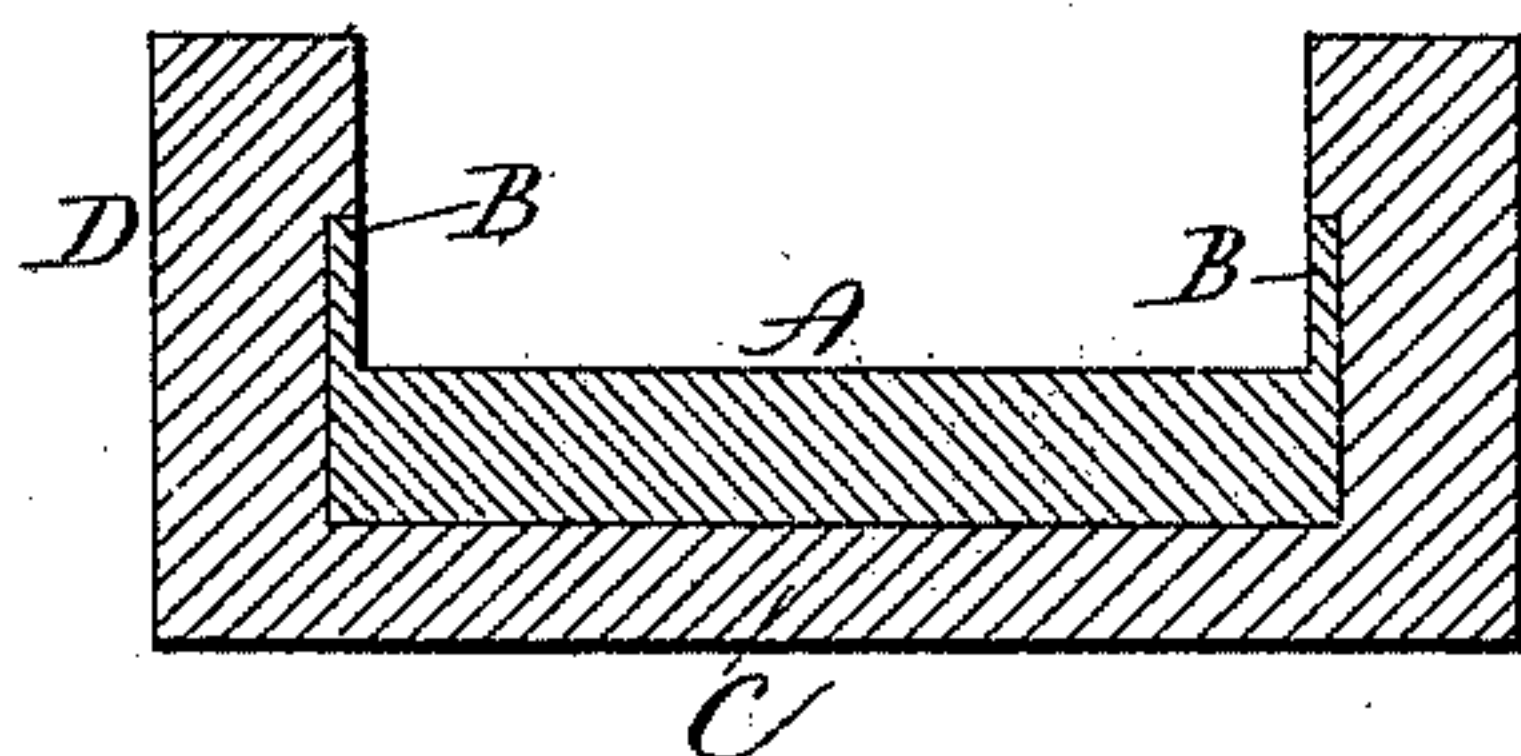


Fig 3

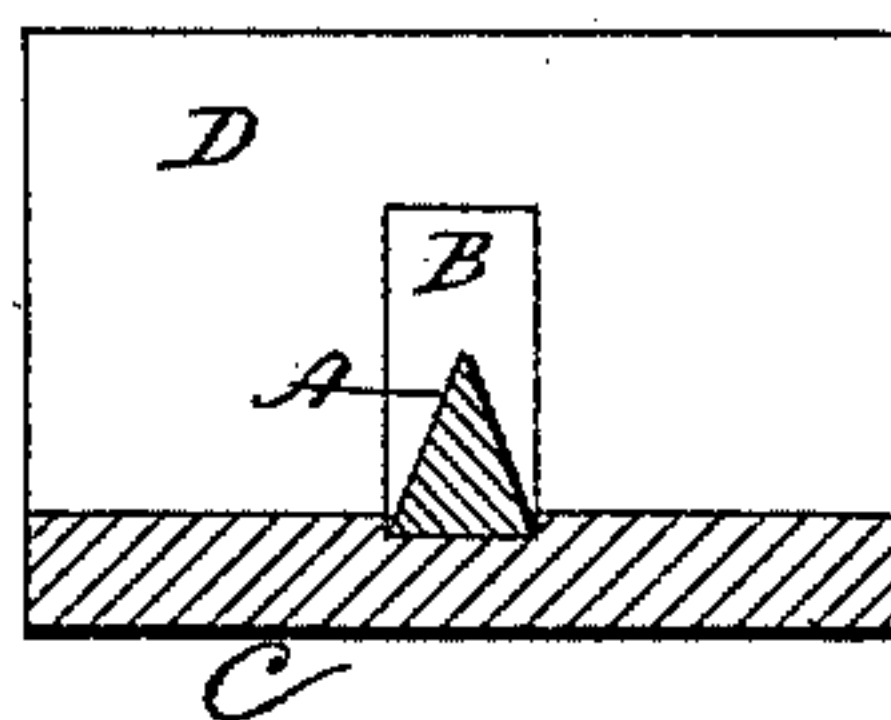


Fig 4

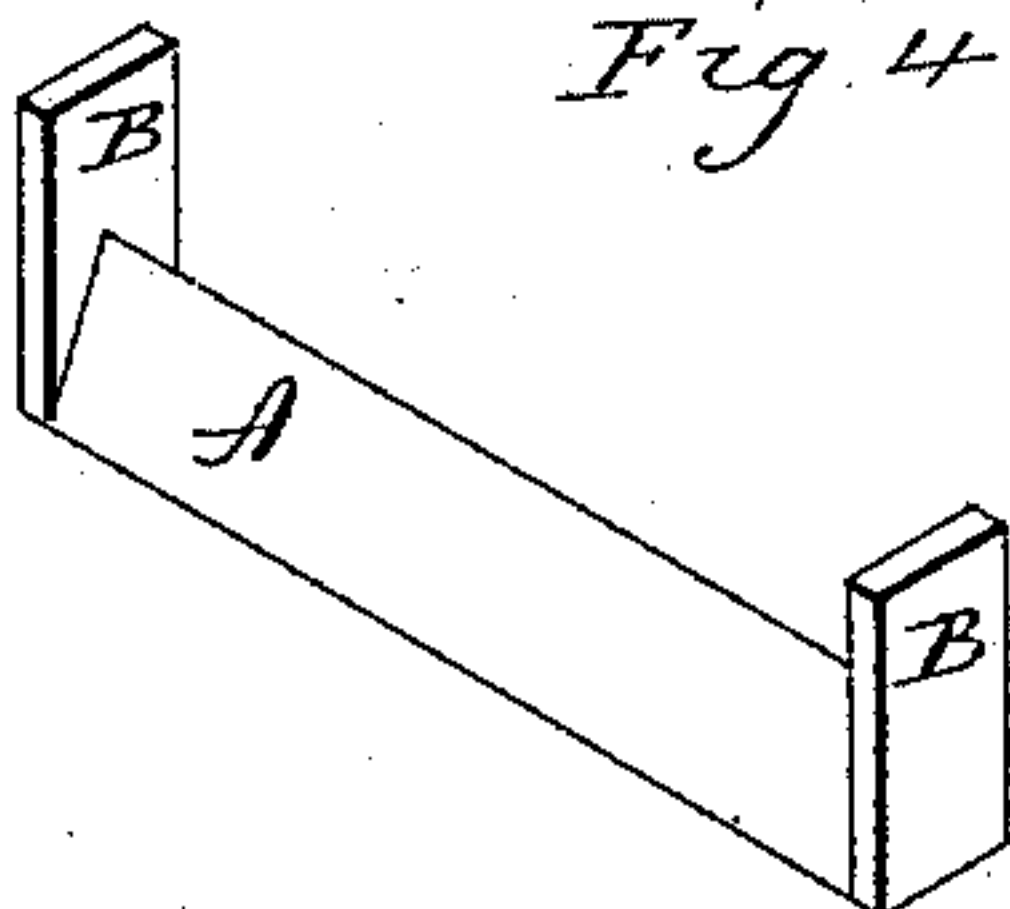


Fig 5



Witnesses
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WILLIAM T. BARNUM, OF NEW HAVEN, CONNECTICUT.

ELECTROTYPE.

SPECIFICATION forming part of Letters Patent No. 441,920, dated December 2, 1890.

Application filed May 5, 1890. Serial No. 350,576. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BARNUM, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Electrotpe-Blocks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same,
10 and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of an electrotype-block complete, face down; Fig. 2, a sectional view cutting longitudinally through
15 one of the ribs; Fig. 3, a sectional view cutting the rib transversely; Fig. 4, a perspective view of one of the ribs detached; Fig. 5, a transverse section of the rib detached.

This invention relates to an improvement
20 in electrotpe-blocks, particularly to that class in which the block is made from metal.

In the more general construction of this class of blocks they are recessed upon the reverse side to reduce the weight of the block.
25 These recesses have usually been semicircular in transverse section, so as to form grooves crosswise or longitudinally of the block, the metal between the grooves extending down to the plane of the edges and so as to form a
30 support for the block, the intermediate supports being necessary in order to sustain the pressure brought upon the face of the electrotpe. While such construction reduces to some extent the weight of the metal, the blocks
35 are still very heavy.

In advertising, the electrotypes are sent by mail to a very great extent, and the greater the weight the greater the cost of such transportation. It therefore becomes important to
40 make the block as light as possible, but yet it must have sufficient strength to withstand the great pressure which is brought upon its face in printing.

The object of my invention is to construct
45 an electrotpe very strong to resist pressure, but yet so that a very greatly reduced amount of metal may be employed over that usually required; and it consists in constructing the electrotpe as a plate with flanges upon opposite edges to govern the depth of the block,
50 combined with hard metal ribs introduced between the said flanges and across the body of

the block, which hard metal ribs form a firm support for the face of the block, but yet permit the block to be made comparatively thin
55 and consequently light, and as more fully hereinafter described.

I prefer to make the ribs from hard cast metal, as iron, and of a shape shown in Figs. 4 and 5, in which A represents the rib, which
60 is of V shape in transverse section, and constructed with a leg B at each end. These ribs are of a length corresponding to the width or length of the block, as the case may be. They
65 are placed in the mold in which the block is to be cast.

The mold is formed in the usual manner for the outer surface of the block. The electrotpe-plate is placed therein in the usual manner, and the mold is formed so as to produce
70 a flange on the opposite sides of the body.

C represents the body of the block, and D D the two flanges upon opposite edges of the block. The supporting-ribs are introduced into the mold so that the metal of the flanges
75 will be cast around the ends of the ribs to make a firm connection, and as seen in Figs. 2 and 3. These ribs being of hard strong metal may be very light and yet possess great strength. The flanges at the edges of the
80 block are of a depth corresponding to the depth of the block, so that the block may be properly supported in the form. The ribs are arranged as frequently as may be desirable to give the requisite support. The body is cast
85 quite thin, as also the flanges, the flanges being only required to support the block at the edges, and in its proper plane. The ribs taking their bearing in the flanges serve to support the body of the block and resist the pressure
90 thereon. Under this construction the block may be very greatly reduced in weight over the usual construction and yet possess even greater strength than in such usual construction, and the cost of the block is no greater
95 than the usual construction, the saving of the type-metal being very considerably in excess of the cost of the hard-metal ribs. In large blocks one or more additional supporting-flanges may be introduced between the side
100 flanges, as represented in broken lines, Fig. 1; but ordinarily the side flanges are all sufficient. By thus reducing the weight of the block the cost of transportation of the blocks

is very greatly reduced, and without any practical addition to the cost of the block itself.

It will be understood that the shape of the hard-metal ribs may be varied, if desirable.

5 I claim—

An electrotpe-block composed of the body C, having supporting-flanges D D formed as

an integral part thereof, combined with a hard-metal rib A, united with said flanges and body, substantially as described.

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Witnesses:

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