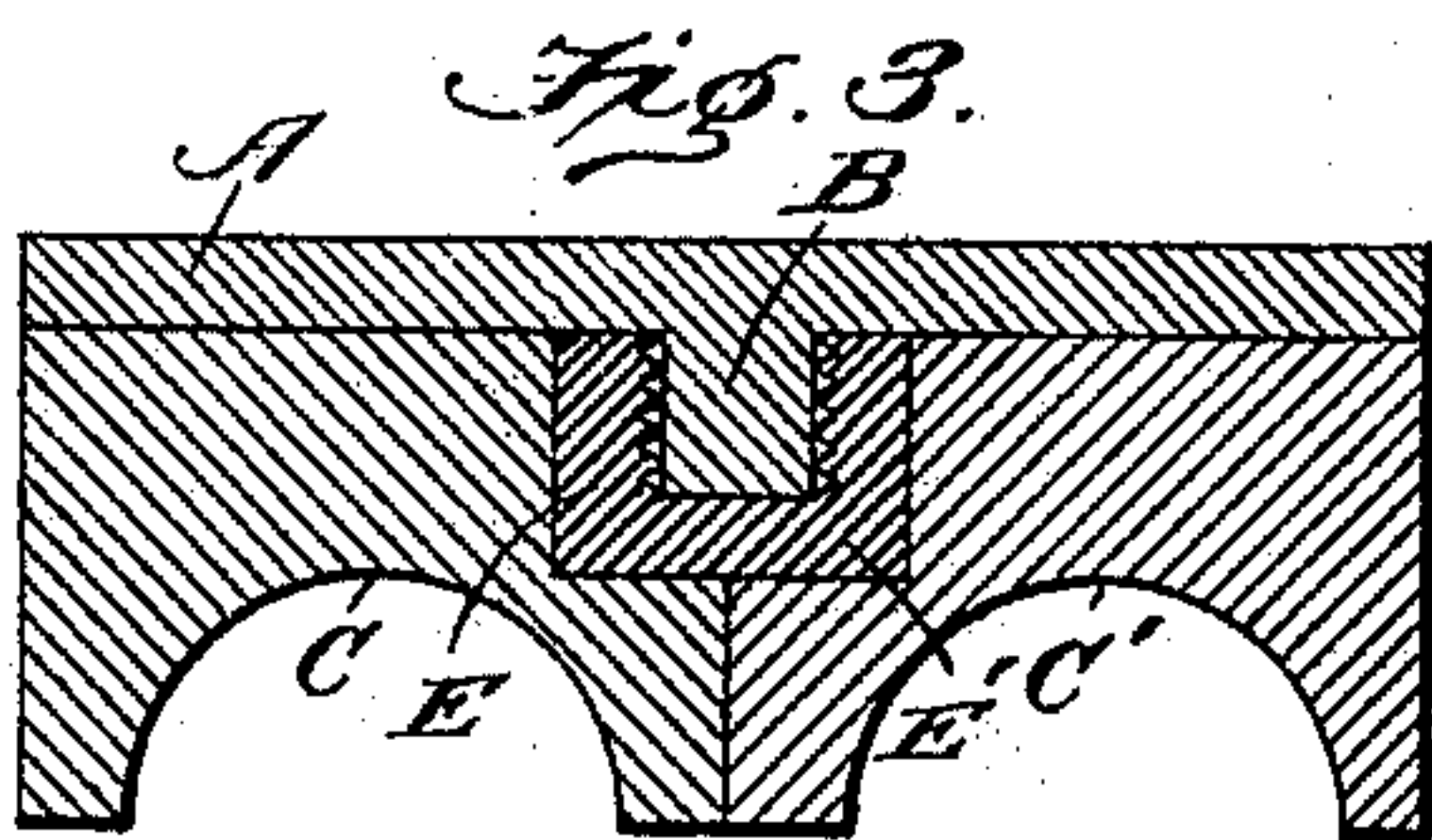
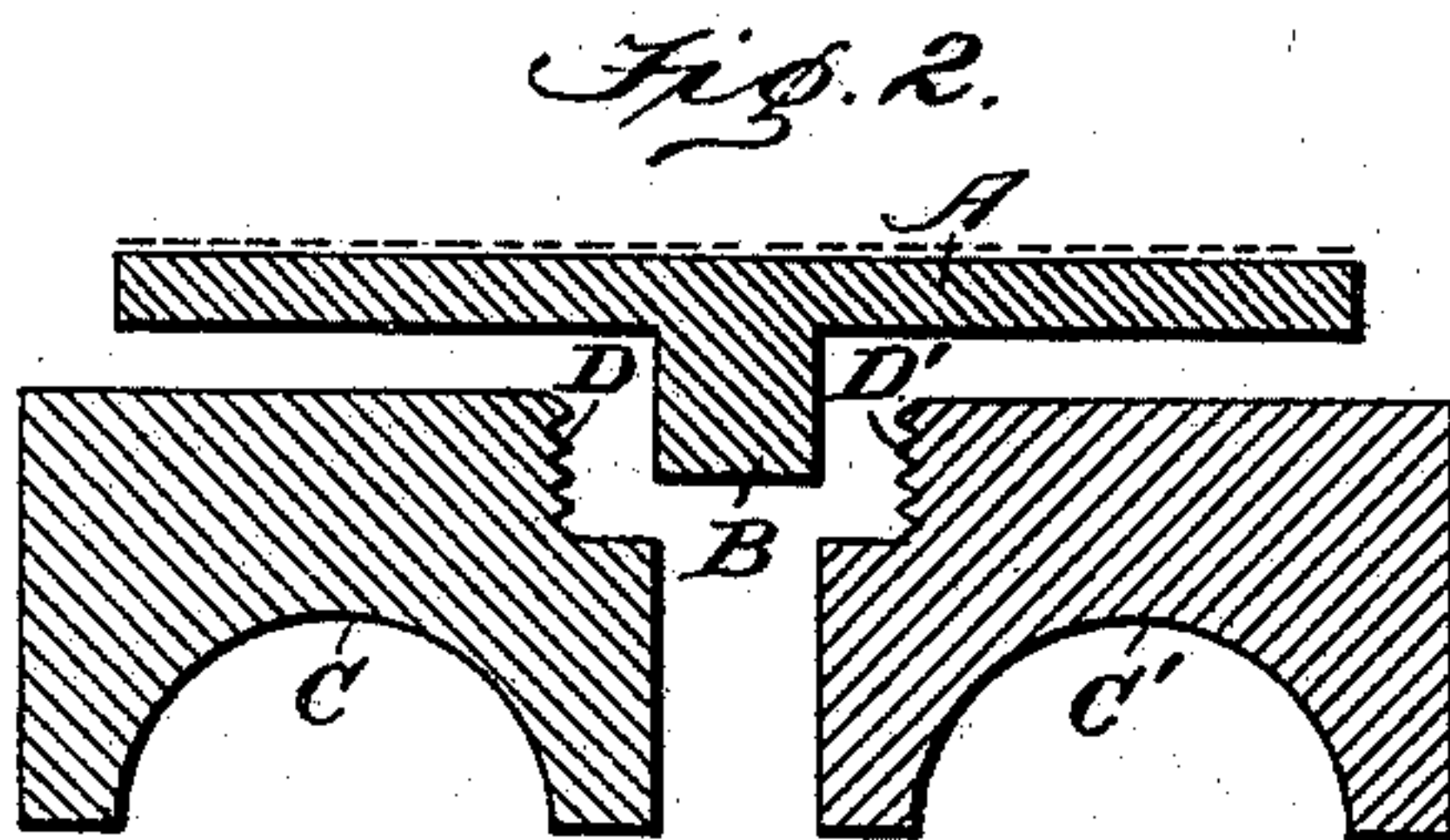
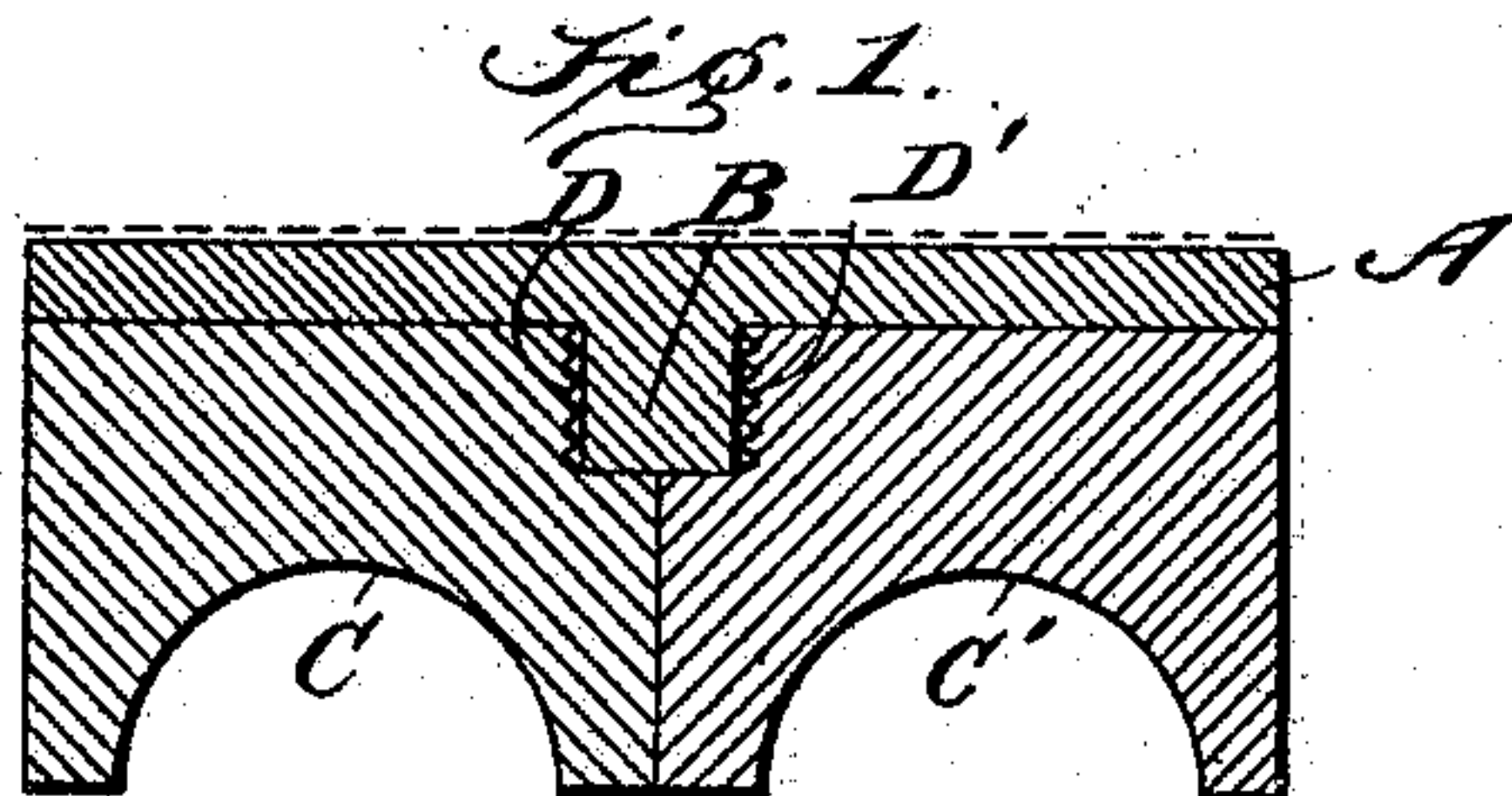


(No Model.)

L. E. CHAPIN.
STEREOTYPE PLATE HOLDER.

No. 544,958.

Patented Aug. 20, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS E. CHAPIN, OF BROOKLYN, NEW YORK.

STEREOTYPE-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 544,958, dated August 20, 1895.

Application filed January 18, 1895. Serial No. 535,374. (No model.)

To all whom it may concern:

Be it known that I, LEWIS E. CHAPIN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Stereotype-Plate Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved stereotype-plate and base-block, the object being to secure an absolutely positive connection between the said parts and at the same time produce as light a plate as possible, in order to save in the cost of metal and the expense of transportation. Of course it is necessary to have a firm surface to print from, and I am able to get this with a very light plate by making a firm and rigid connection between the said plate and the base, the latter being of ample strength and solidity.

I am aware that stereotype-plates have been connected with base-blocks by frictional arrangements and by dovetailing and by various independent connecting devices for joining the parts; but all these arrangements either require that the plate shall be made too heavy or else that the joining of the parts involves needless expense. For example, when friction is depended upon for holding the plate to the base-block there has to be a deep lug upon the bottom of the stereotype-plate, in order that there may be surface enough for the necessary friction. Moreover, in the dovetail and other arrangements the metal has to be first cast and then shaped with a cutting-tool for making the dovetail shape, and this involves a good deal of expense. The same is true with regard to other arrangements which have been suggested for making what may be broadly termed a "positive connection" between the plate and base.

I make a thin stereotype-plate of type-metal or other soft metal, with a shallow lug upon its under side, and I combine it with a two-part base-block made of or faced at its inner edges with a metal that is harder than the metal of the plate itself. I then preferably provide upon the inner faces of the two

parts of the base-block—that is to say, those faces which come against the sides of the lug on the plate—a series of points, sharp edges, teeth, or other irregularities which will positively enter the metal of the lug and hold the plate and base-block together, it being understood, of course, that the two parts of the base-block are locked together when they are put into the forms. What I mean by this last statement is that lateral pressure is exerted upon the two parts of the base-block in the process of "locking up" a form of type, such lateral pressure tending to force the teeth, points, edges, or other irregularities into the lug for the purpose described.

In the drawings which accompany and form a part of this specification I have shown a single form of point or edge for entering the lug upon the base-plate—namely, a saw-tooth arrangement; but it follows, as a matter of course, that I may use other devices for this purpose, the simple requisite being that the teeth, points, edges, or other irregularities should positively enter the metal of the lug and hold the whole thing in place.

In the drawings, Figure 1 is a vertical section through one of my stereotype-plates and the base, the parts being locked together. Fig. 2 is a vertical section of the same parts detached; and Fig. 3 is a vertical section of a modification, in which the base-block halves are made for the most part of type-metal or some cheap kind of metal faced on the inside with a hard metal.

In the drawings, A is a stereotype-plate, and B the lug on the bottom thereof.

CC' are the two parts of the base-block, the said parts being notched at their inner edges and having the vertical faces of the notches provided with teeth, points, sharp edges, or other irregularities, as shown at D D'.

Fig. 1 shows the parts locked or pressed together. In this position the teeth D D' enter the sides of the lug and positively hold the plate in place. To this end the parts CC' are made of harder metal, such as iron or steel, the type-plate being made, as usual, of type-metal. The essential thing, however, is that the teeth should be of harder metal than the lug, and this will be accomplished even if I make the main body of the base-block halves out of some soft metal and simply face

the notches with pieces, such as E E', of harder metal.

It is manifest that the pointed or serrated surfaces of the two parts of the base-block
5 really constitute jaws which grasp the lug on the bottom of the stereotype-plate and the teeth of which enter the said lug.

I do not wish to surrender the advantages which reside in the fact that the base-block
10 is made of a harder metal than the type-plate. Very good results might be obtained, no doubt, by the use of iron or steel base-blocks, the inner surfaces of which retain the roughness of the castings. It may suffice to have
15 the teeth or points along made of the harder metal, and not the entire jaws.

Having described my invention, what I claim is—

1. The combination with a type plate of
20 comparatively soft metal, such as type metal, and a lug or extension thereon, of a base having jaws of a material harder than the type plate.

2. The combination with a type plate and
25 a lug or extension thereon, of a base having

jaws of a metal harder than the type plate, such jaws being provided with teeth, points, edges or other irregularities adapted to enter the said lug or extension.

3. The combination with a type plate of 30 comparatively soft metal, such as type metal, and a lug formed on the said plate, of a two part base of harder metal having jaws provided with teeth, points, sharp edges or other irregularities adapted to enter the said lug or 35 projection.

4. The combination with a type plate of comparatively soft metal, such as type metal, and a lug on the said plate, of a base having jaws provided with teeth, points, or sharp 40 edges, of a material harder than the lug, and adapted to enter the same.

In testimony whereof I have signed my name, in the presence of two witnesses, this 16th day of January, A. D. 1895.

LEWIS E. CHAPIN.

Witnesses:

C. L. BELCHER,

G. H. STOCKBRIDGE.