

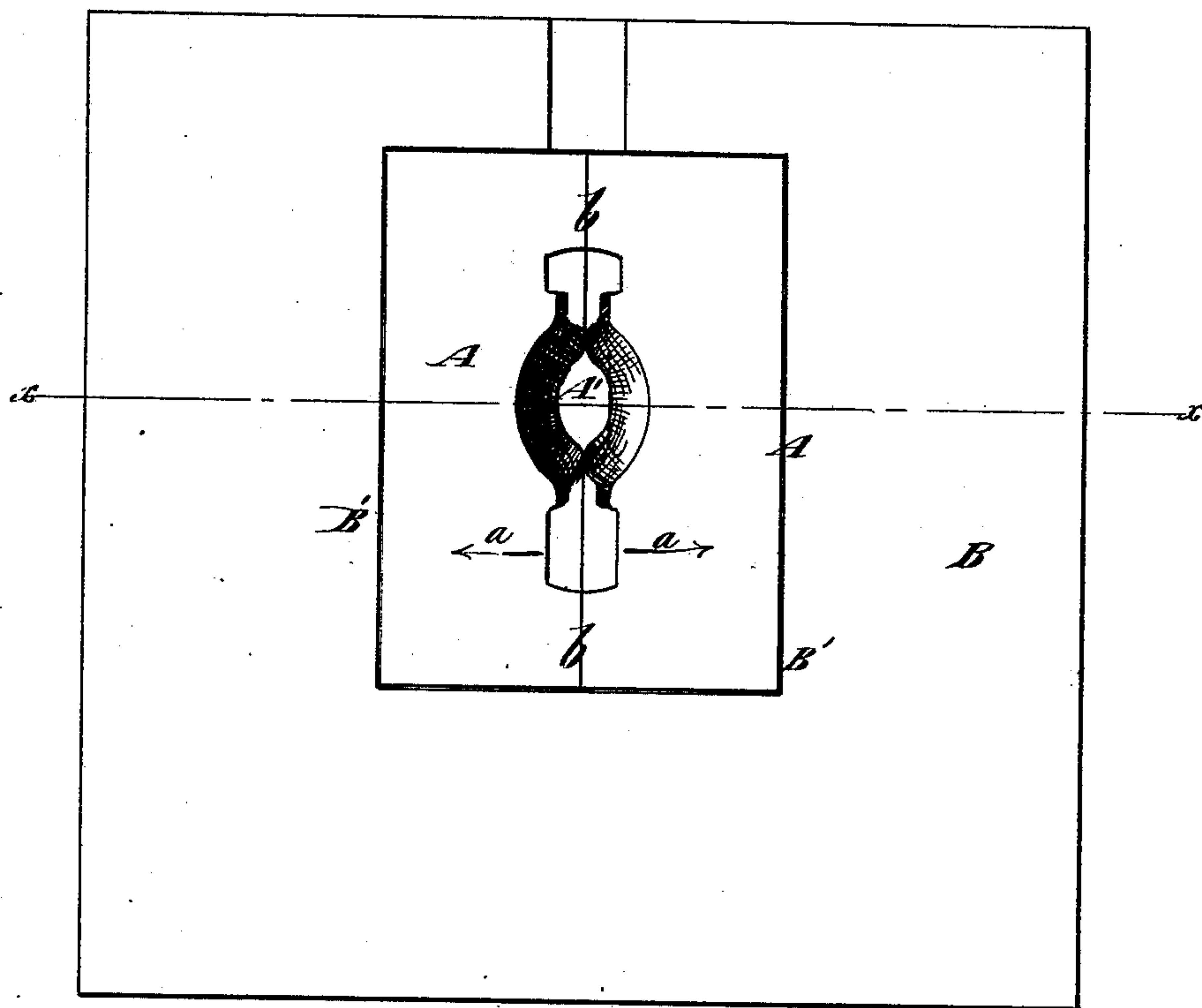
(No Model.)

W. E. SNEDIKER.  
Dies.

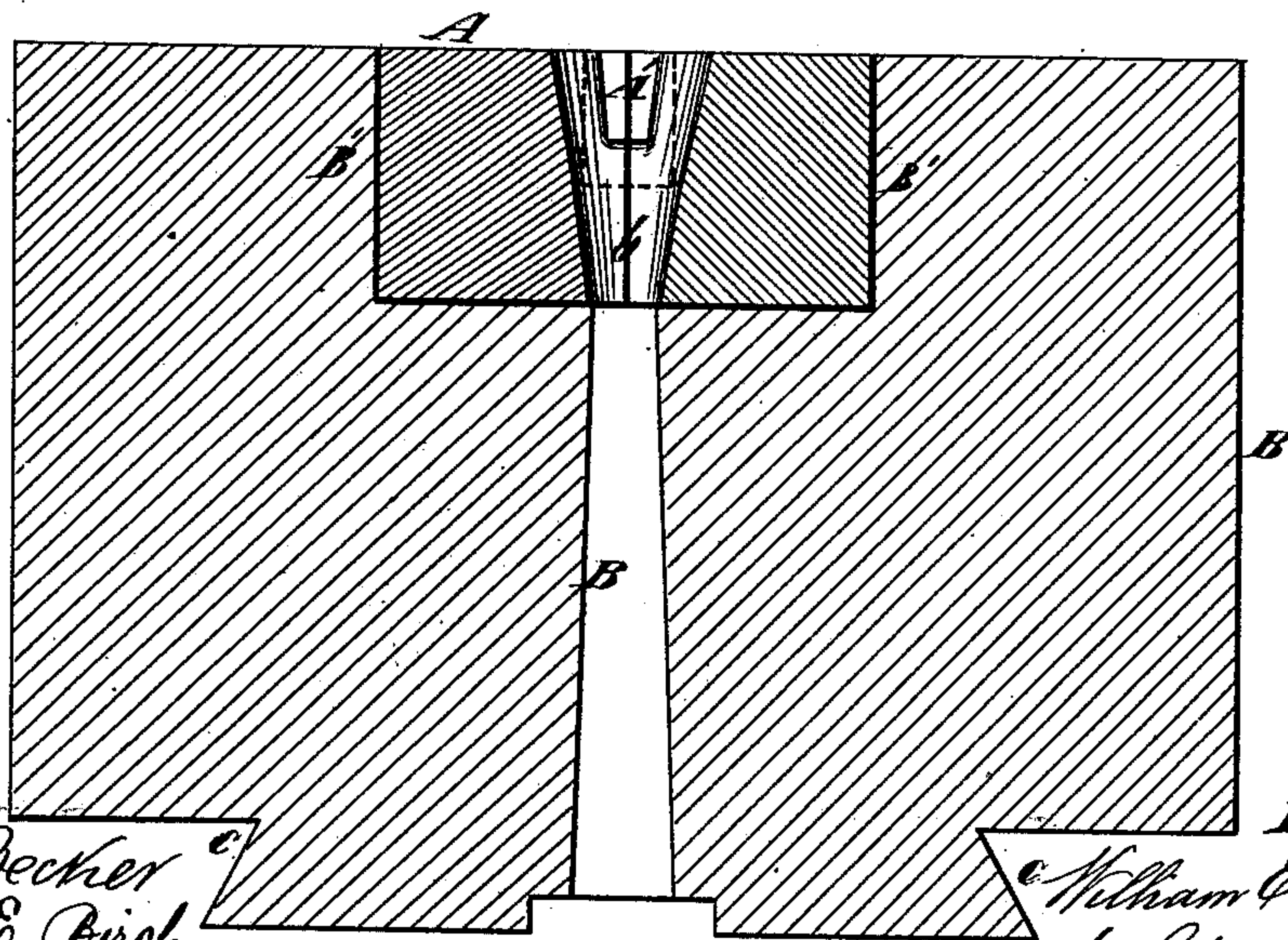
No. 235,308.

Patented Dec. 7, 1880.

*Fig 1*



*Fig 2.*



Witnesses  
John Becker  
Thomas E. Birch.

Inventor  
W. E. Snediker  
By his Attorneys  
Brown & Brown



# UNITED STATES PATENT OFFICE.

WILLIAM E. SNEDIKER, OF TRENTON, NEW JERSEY.

## DIE.

SPECIFICATION forming part of Letters Patent No. 235,308, dated December 7, 1880.

Application filed July 9, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. SNEDIKER, of Trenton, in the county of Mercer and State of New Jersey, have invented a certain new and useful Improvement in Dies, of which the following is a specification.

My invention relates to the dies commonly used in drop-presses for making articles of various forms from iron or steel. In such presses two dies are commonly used—a stationary die fitted in a die-holder secured to the press-bed, and a movable die fitted to the drop of the press.

Where the cavity in the die for giving form to the article to be made extends through or is deeply sunk below the face of the die the lateral strain produced by the falling of the drop and the forcing of the metal into the cavity is so great that oftentimes the die is split vertically into two pieces, rendering it worthless.

The object of my invention is to obviate these difficulties; and to this end my invention consists in the combination of a die divided in the direction in which the drop or pressure is to be applied, and having a flat bottom, and an undivided die-holder containing a flat-bottomed cavity into which the die is fitted, and the bottom of which affords a support or bed for the bottom of the die, while the sides prevent the lateral movement of the parts of the die.

In the accompanying drawings, Figure 1 represents a plan of a die and a die-holder embodying my invention; and Fig. 2 represents a vertical section thereof on the dotted line *xx*, Fig. 1.

Similar letters of reference designate corresponding parts in both figures.

A designates the die, which may be made of any suitable material, such as steel or chilled cast-iron.

A' designates the cavity in the die by which the desired form is imparted to the articles produced with the die.

In the die here represented the said cavity A', it will be observed, is very deep, extending, in fact, entirely through the die, and it is obvious that the blow of the drop and the forcing of the metal into the cavity will produce a great lateral strain upon the die, prin-

cipally in the direction indicated by the arrows *a a*.

In practice dies are often split by such lateral strain, and to obviate such breaking I form the die of two pieces or sections, it being vertically divided at *b*, preferably in the direction of its greatest length, and transverse to the line of greatest strain. The vertical division *b* is in a plane parallel with the direction of the drop or pressure.

B designates the die-holder, having in its upper surface a cavity, B', in which the die A is fitted, and by which the two parts or sections of said die are prevented from spreading laterally to any extent.

Of course the blow of the drop will tend to force the two parts of the die apart; but such movement of the said parts is prevented by the side walls of the cavity B', the die-holder being of sufficient strength to resist any strain that it may be subjected to by the tendency of the dies to spread.

It will be observed that both the die and the cavity in the die-holder are flat-bottomed, and that the bottom of the cavity affords a support or bed to the bottom of the die, while the sides of the cavity prevent the lateral movement of the parts of the die.

It is obvious that the die-holder can be conveniently made of sufficient strength to withstand almost any strain, while it is objectionable to make the die itself of a size to give such strength.

At the bottom the die-holder is represented as provided with a dovetailed rib or projection, *c*, by means of which it may be secured to the bed of the press.

By my invention I provide in a very simple manner for remedying a difficulty heretofore existing, and as the dies used in drop-presses are often quite costly, their preservation is very desirable.

I am aware that it is old to employ, in connection with a die-holder having a slanted or taper hole or opening, a divided die having its opposite sides inclined to conform to the sides of said hole or opening, and the two parts of which are forced together by pressure or a blow applied at the top thereof. Such die must be withdrawn from the holder every time a new article is to be produced, and I do

not claim such construction as of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

- 5 The combination of a die divided in the direction in which the drop or pressure is to be applied, and having a flat bottom, and a die-holder containing a flat-bottomed cavity into which the die is fitted, and the bottom of which

affords a support or bed for the bottom of the die, while the sides prevent the lateral movement of the parts of the die, substantially as specified.

W. E. SNEDIKER.

Witnesses:

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