

H. Colburn,

Horseshoe Machine.

No. 102,372.

Patented Apr. 26. 1870.

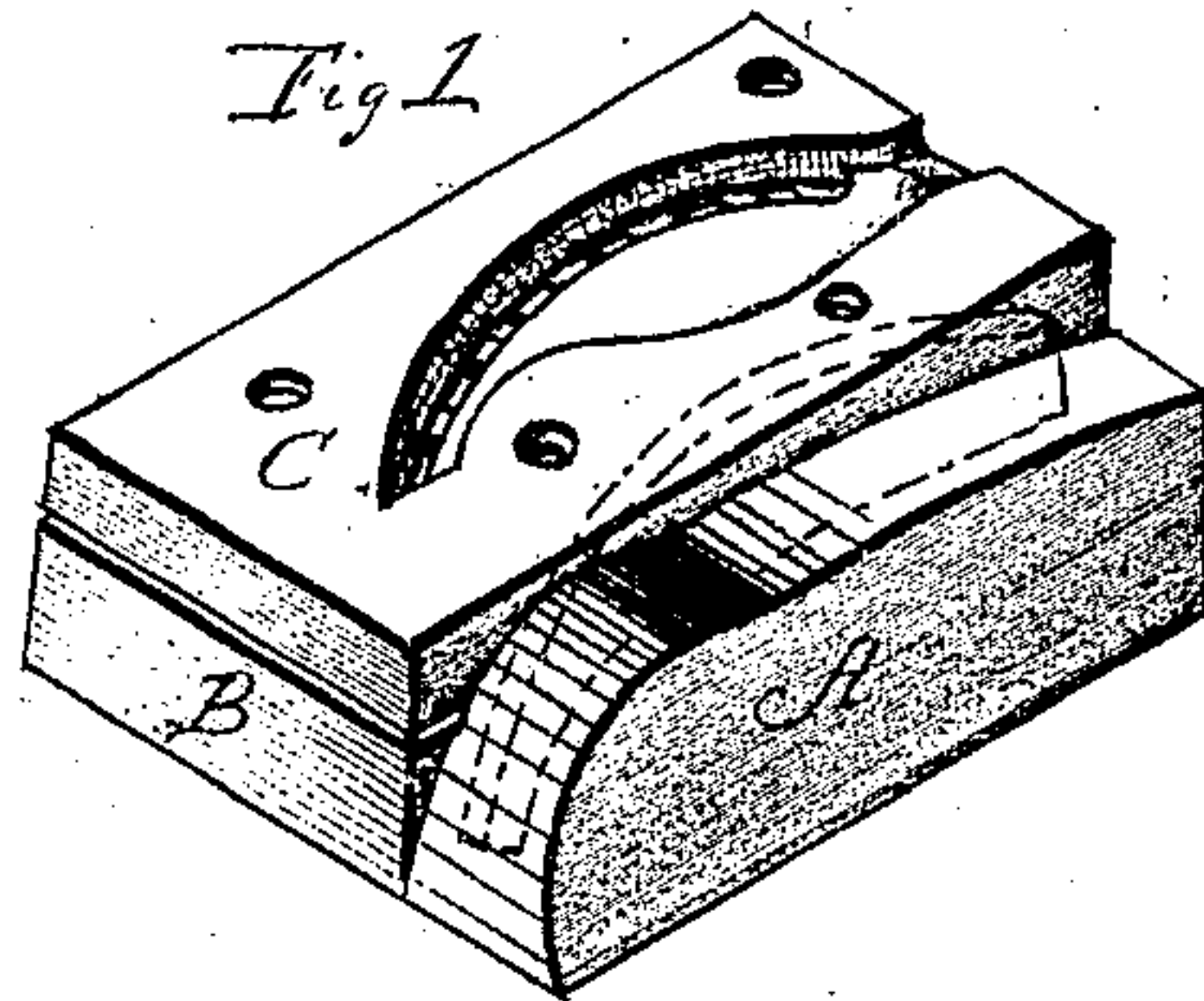


Fig. 2

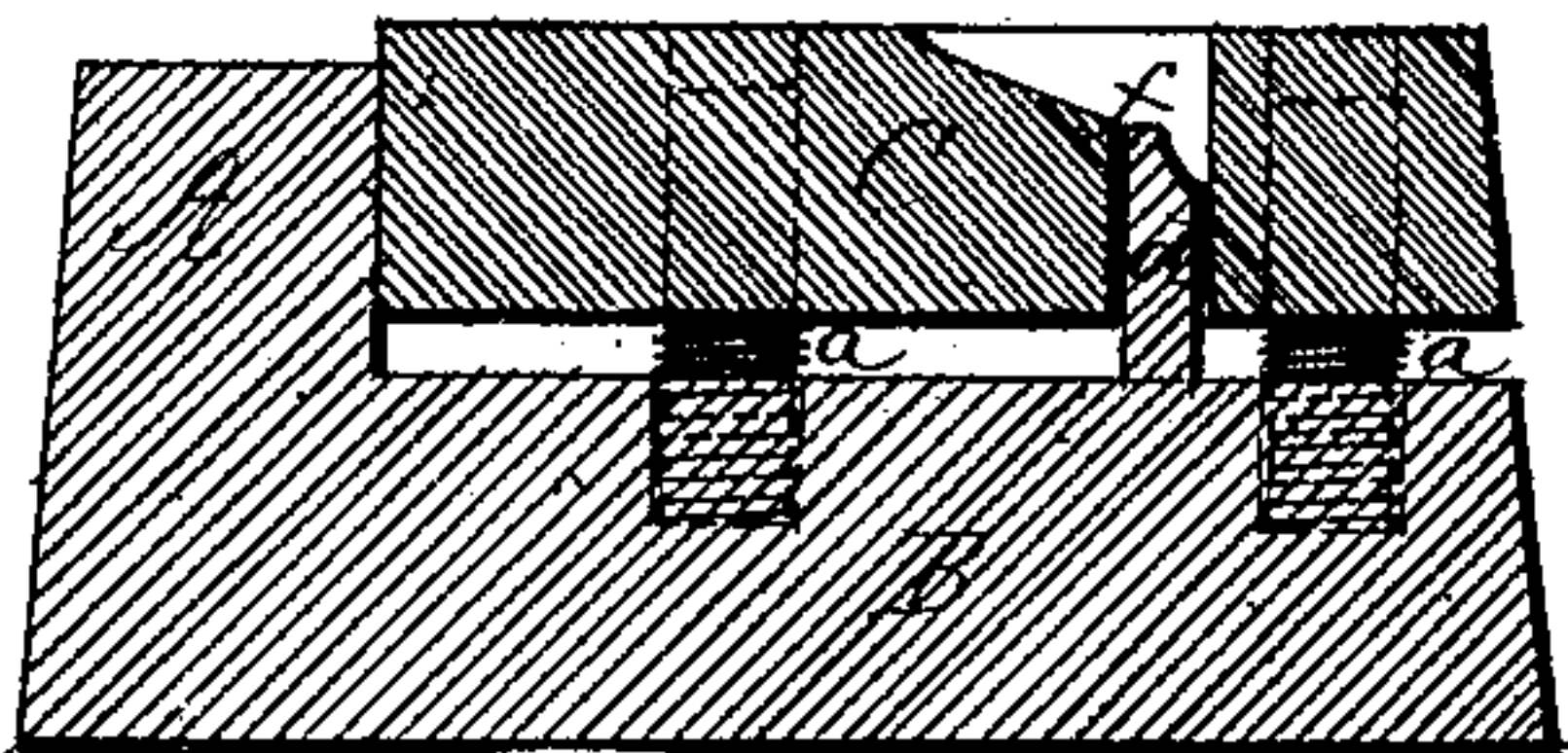
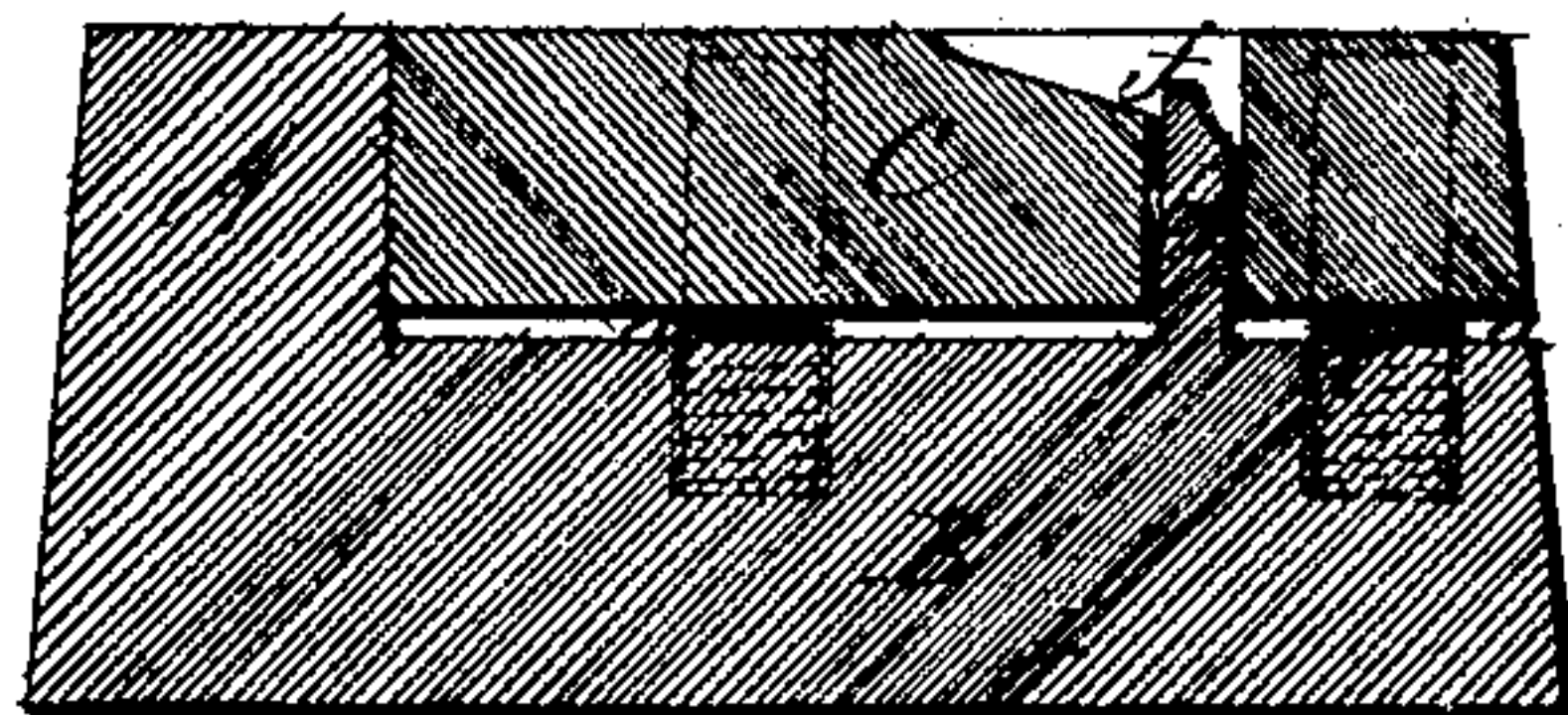


Fig. 3



Witnesses
J. H. Shumway
A. J. Tibbitts

Horace Colburn
Assignor to self + Sylvester Colburn
Inventor
By Attorney
John E. Earle

United States Patent Office.

HORACE COLBURN, OF STAFFORD, ASSIGNOR TO HIMSELF AND SYLVESTER COLBURN, OF ANSONIA, CONNECTICUT.

Letters Patent No. 102,372, dated April 26, 1870.

IMPROVED DIE FOR FORGING OX-SHOES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, HORACE COLBURN, of Stafford, in the county of Tolland and State of Connecticut, have invented a new Improvement in Dies for Forging Ox-Shoes; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent in—

Figure 1 a perspective view of the die;

Figure 2, a transverse section, in position for introducing the blank; and in

Figure 3, a transverse section, as when the blow is struck.

This invention relates to the construction of dies for the manufacture of ox-shoes; and

It consists in a die for giving the requisite curve or edge shape to the blank, and a second die into which the curved blank is placed and struck into the required form, and partially or entirely perforated for the nails.

I represent the two dies as formed in one and the same piece; but this is not essential.

A, the first die is shaped upon its upper surface so as to give the requisite curve to the heel of the shoe.

A follower, curved to correspond to the external edge of the shoe, is struck down upon the blank, bringing it to the form denoted in broken lines on the die in fig. 1.

B is the base of the second die.

C, the die proper, supported on the base and held slightly above by springs *a*, the said die being wrought into the shape for the under side of the shoe, as denoted in fig. 1, and around the outer edge of the die is a flange, *d*, projecting up from the bed through a corresponding recess in the die C, the upper edge of

this flange *d* being provided with punches, *f*, as seen in fig. 1, for the purpose of perforating the shoe for the nails.

The blank, after having been formed on the die A, is laid into the die C while in a properly heated state, and the depth of the die at its outer edge is equal to or little more than the outer edge of the blank, so that the metal which is struck by the flat face of the drop or hammer spreads into the broad part of the shoe, the die settling down upon the bed, as seen in fig. 3.

The flange *d* extends up and forms the groove and partially perforates the shoe for the nails, and the action of the flange tends to fill the outer edge of the shoe, and thus the whole is formed in the most perfect manner.

The object in arranging the die C upon the spring is two-fold:

First, that the die shall be raised above the flange, so as to permit the blank to drop below the surface upon the outer edge, and this prevents the formation of a fin upon the outer edge and the consequent necessity of trimming.

Secondly, to raise the die from the flange after the shoe is formed. Hence, to dispense with the springs and make the die solid may necessitate trimming the dies.

I, therefore, do not wish to confine myself to the die C upon springs.

I claim as my invention—

The two dies A and C, the die C provided with a ledge, *f*, to form the groove and perforations, and constructed substantially as herein described.

HORACE COLBURN.

Witnesses:

R. D. DAVISON,
T. C. PROUTY.