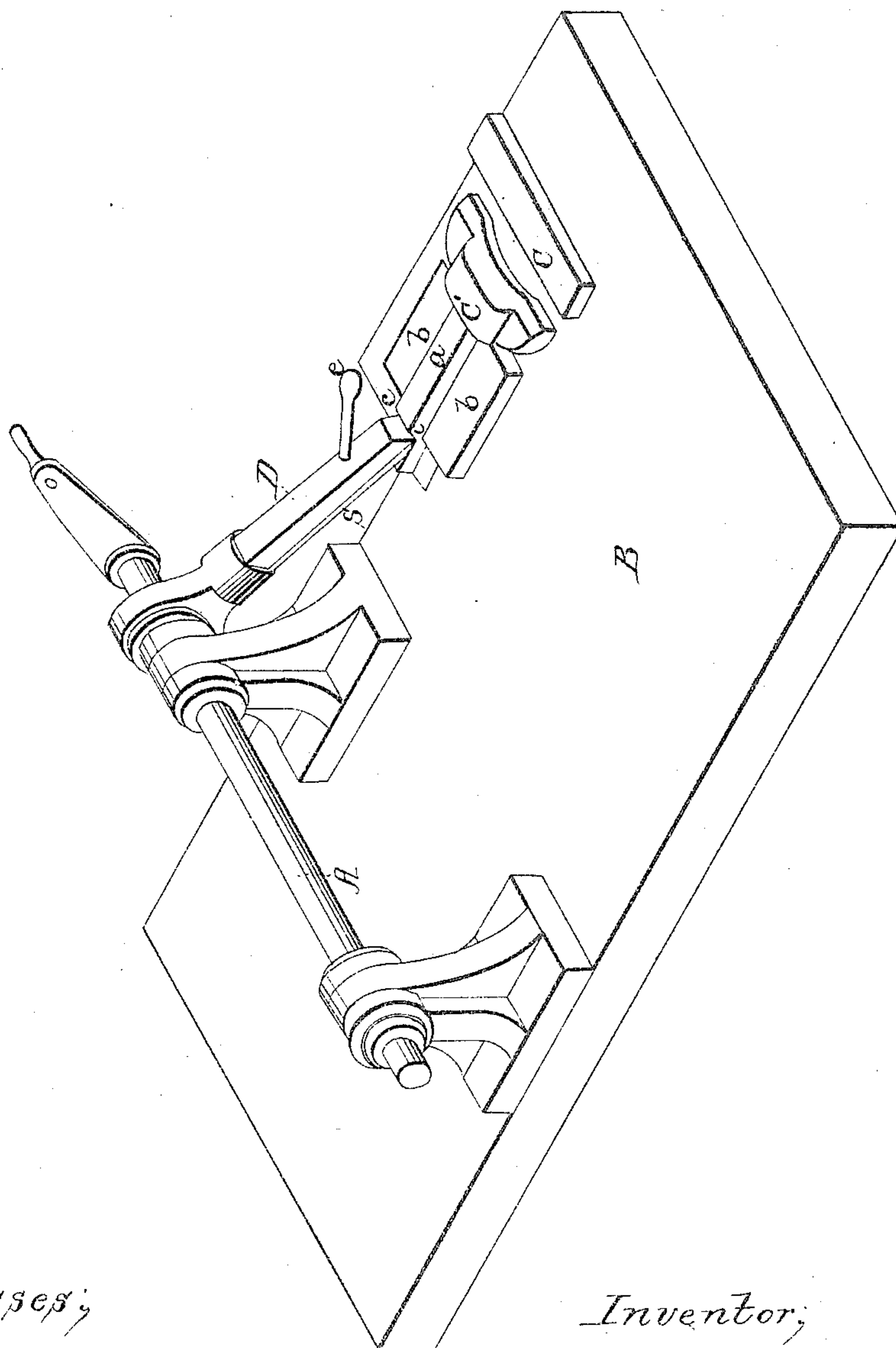


C. H. PERKINS.  
MACHINE FOR MAKING HORSESHOES.

No. 44,840.

Patented Oct. 25, 1864.



Witnesses;

John D. Thurston  
Thomas Aldrich

Inventor;

Charles H Perkins

# UNITED STATES PATENT OFFICE.

CHARLES H. PERKINS, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO THE  
UNION HORSESHOE COMPANY, OF SAME PLACE.

## MACHINE FOR MAKING HORSESHOES.

Specification forming part of Letters Patent No. 44,840, dated October 25, 1864.

### *To all whom it may concern:*

Be it known that I, CHARLES H. PERKINS, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Machine for Thickening the Ends of Horseshoe-Blanks; and I do hereby declare that the following specification, taken in connection with the drawing making a part of the same, is a full, clear, and exact description thereof.

The machine is fully represented in the perspective drawing.

I design to make the apparatus an attachment to the machine for making horseshoes for which Letters Patent, numbered 1,641 were granted to me on the 25th day of June, A. D. 1861; but the same can be used, if desired, as a separate and independent machine.

A horseshoe should be made with the metal at the heels considerably thicker than at the toe. In shoes which are made by hand this is effected by "upsetting" the shoe by blows upon the ends, either before or after it has been bent into shape, the bar being held at the time in a vise at the point where it is desired the increased thickness should commence.

In the accompanying drawing, A represents a shaft which, when the apparatus is attached to my machine for making shoes referred to, will be the main cam-shaft.

B represents the platform or bed upon which the parts are mounted.

C is a stationary die with a straight face, and *c'* is a movable one with its face cut away or made concave midway between the extremities, so as to compress a piece of metal placed between the two dies more at the ends than at the middle.

The die E is furnished with a shank *a*, which is fitted to slide between the guides *b b*. A spring (not shown in the drawing) located underneath the shank, with one end fixed in the bed B and the other let into a mortise in the shank, or otherwise arranged for the pur-

pose, tends to keep the back of the die C bearing against the guides *b b*.

The revolving shaft A is connected with the movable die C by means of the pawl D, attached by a strap to an eccentric on the shaft, whereby a reciprocating motion is imparted to the pawl as the shaft revolves. Upon the under side of the pawl is placed a flexible spring-piece *s*, the office of which is, when the pawl is not acting to work the movable die, to support the pawl and enable it to ride on the back of the shank *a*, so as to clear a shoulder *c*, against which it is designed that the end of the pawl shall press when it is desired to operate the die.

The bar of iron of which the shoe is to be made is taken from the furnace and placed upon the bed B between the faces of the two dies C and C'. The attendant with his hand then depresses the pawl D by the aid of the handle E. This causes the movable die to be thrown forward, and, squeezing the bar at the ends against the fixed die C, thickens it at the parts which will form the heels of the shoe. As the pawl moves backward, the die C is carried back by the spring above described, and at the same time the spring-piece *s* raises the pawl clear of the shoulder *c*. The bar is then pushed along the platform to that part of the machine where the operations of bending, creasing, and plating are to be performed upon it, as described in the patents before referred to.

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

The method of thickening the ends of horseshoe-blanks by the combination of the dies C and C', when constructed and operated in the manner substantially as described, for the purpose specified.

CHARLES H. PERKINS.

Witnesses:

J. D. THURSTON,  
THOMAS ALDRICH.