

(No Model.)

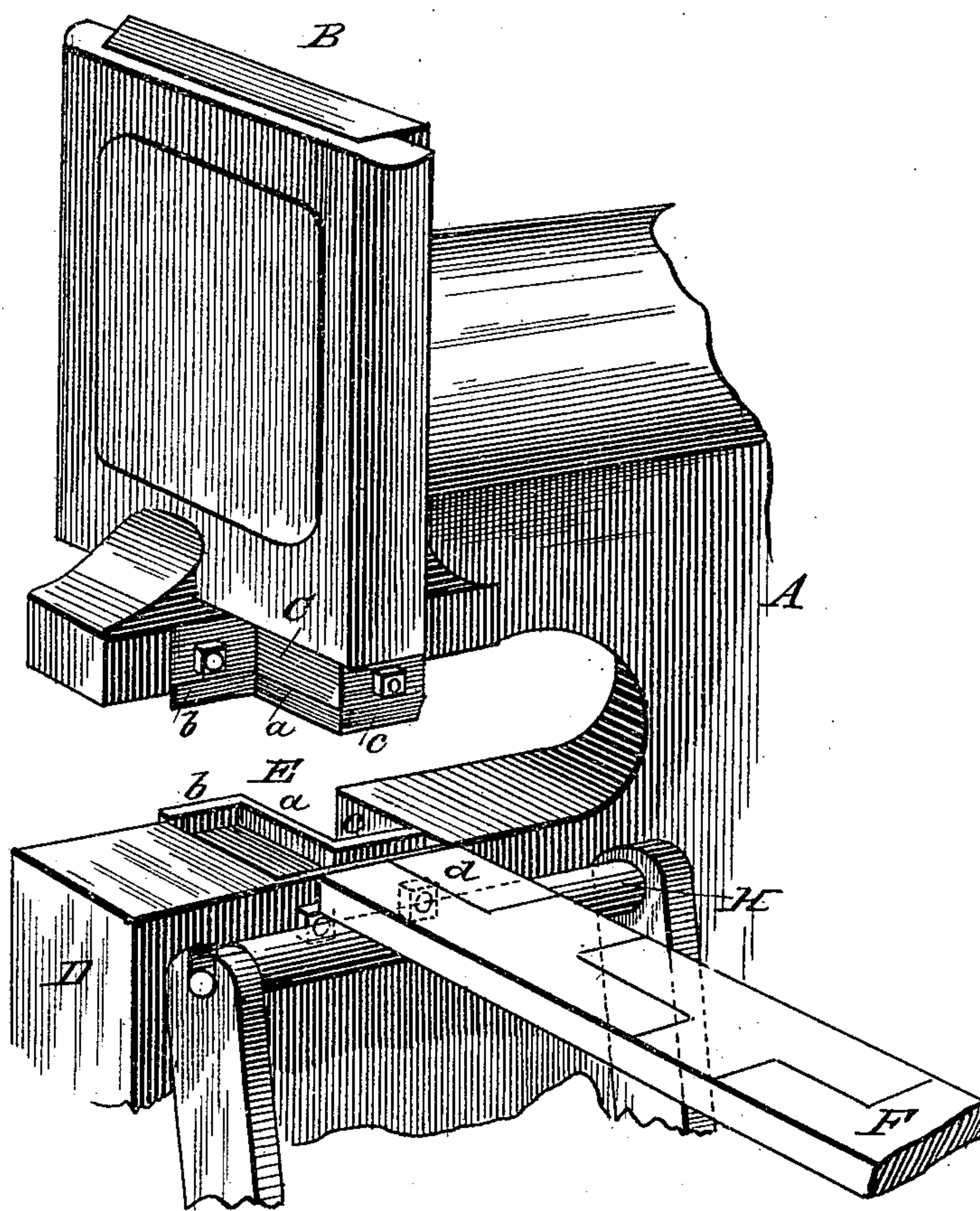
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MACHINE FOR CUTTING SHOVEL BLANKS.

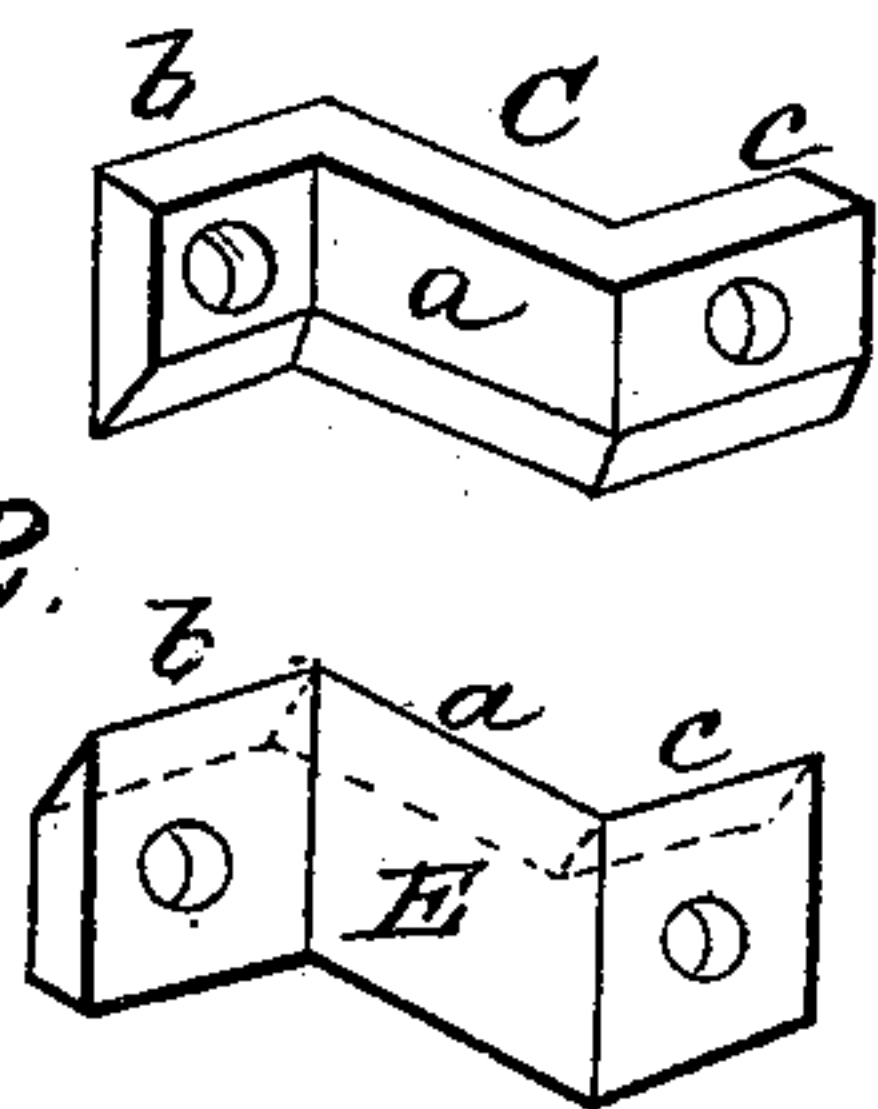
No. 354,170.

Patented Dec. 14, 1886.

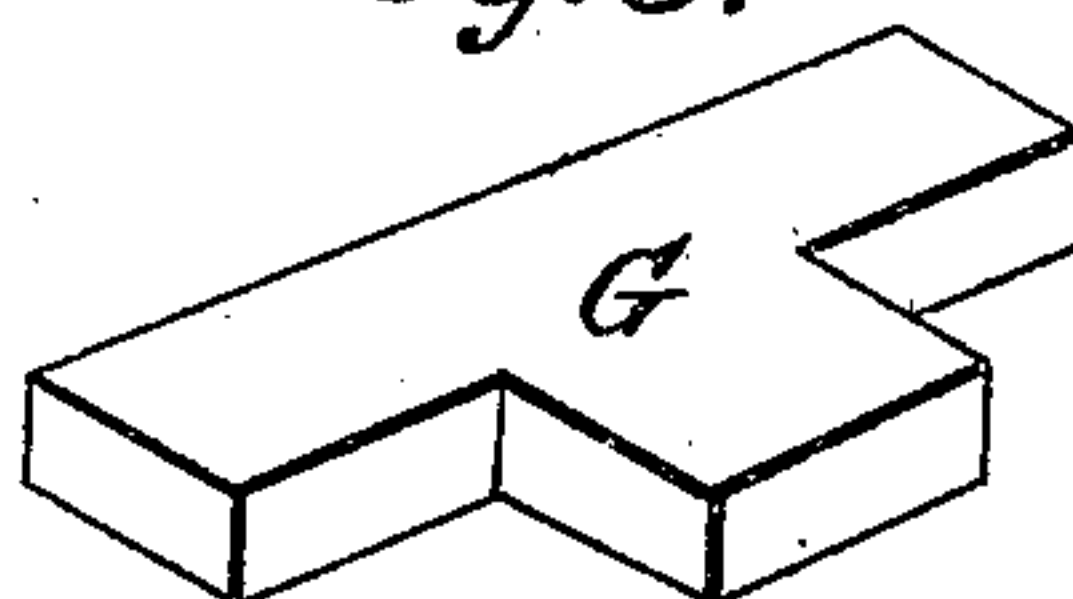
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
*Fred G. Dieterich.*  
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# UNITED STATES PATENT OFFICE.

HENRY M. MYERS, OF BEAVER FALLS, PENNSYLVANIA.

## MACHINE FOR CUTTING SHOVEL-BLANKS.

SPECIFICATION forming part of Letters Patent No. 354,170, dated December 14, 1886

Application filed August 10, 1886. Serial No. 210,557. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY M. MYERS, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Cutting Shovel-Blanks; 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.

The invention relates to a machine for cutting shovel-blanks from a bar of steel, and has for its object an improvement on the machinery heretofore used for making such blanks. The blank is substantially of the form shown in my Patent No. 340,603, of April 27, 1886, which was designed to be made from rolled bars of metal, as shown in my Patents Nos. 340,607 and 340,608, and by machinery such as shown in my Patents Nos. 340,953 and 340,954, all of the same date.

The object of the present invention is to make shovel-blanks with facility and dispatch, and to reduce the waste of stock to the minimum; and it consists in the constructions hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a perspective of a machine for cutting blanks; Fig. 2, a similar view of the knives detached from the machine, and Fig. 3 a perspective of a blank cut from a bar of metal.

Heretofore it has been proposed to form shovel-blanks by rolling or swaging them in dies. This practice has not proven satisfactory, for the reason that several machines were required to do the work, or one machine had to be fitted with different parts for performing the several steps in the operation, which resulted in loss of power and time. By my present invention blanks are cut in rapid succession by a single machine having only one moving part.

Reference being had to the drawings and the letters marked thereon, A represents an ordinary cutting or punching machine having a reciprocating head, B, to which is de-

tachably secured a knife, C, the configuration of which is clearly shown in the drawings, and consists of a blade, *a*, having end sections, *b c*, projecting from opposite sides of the blade at right angles thereto, and forming substantially a **L**-shaped figure. In the lower part or anvil, D, of the machine A is also detachably secured a corresponding die, E, between which and the knife C the bar F, of steel, is inserted by a workman.

In the operation of cutting blanks the bar F is first inserted between the knife C and the die E and the rectangular piece *d* cut out. Said piece *d* and a corresponding one at the other end of the bar constitute the only waste of material produced in cutting blanks. The bar is turned over after each stroke of the cutting-head, and after the end piece, *d*, has been removed each stroke of the machine cuts out a blank, G, as shown in Fig. 3. After the blanks G have been cut from the bar they are straightened by means of a hammer and anvil. The bar while being operated upon and fed into the machine is supported upon a roller, H.

The form of the machine employed is not a part of my invention, as any of the well-known machines for cutting or punching metal may be supplied with a reciprocating head formed so as to have the knife attached thereto.

The knife and the die are detachably secured, to facilitate their removal and the application of different-sized knives and dies for the various-sized blanks required.

Having thus fully described my invention, what I claim is—

1. In a machine for cutting shovel-blanks, a reciprocating head having a knife attached thereto, which consists of a blade having end sections projecting from opposite sides and at right angles thereto, substantially as shown and described.

2. In a machine for cutting shovel-blanks, a reciprocating head having a knife attached thereto, which consists of a blade having right-angled sections projecting from opposite sides thereof, in combination with an anvil or fixed portion of the machine having a

die corresponding with the knife secured thereto, substantially as described.

3. A knife for cutting shovel-blanks of the form shown in Fig. 3, which consists of a  
5 blade having right and left projecting sections on the ends thereof, forming a figure approximately L-shaped, as shown in Figs. 1 and 2.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY M. MYERS.

Witnesses:

JOE CONNER,  
JOHN VORHAM.