

(No Model.)

2 Sheets—Sheet 1.

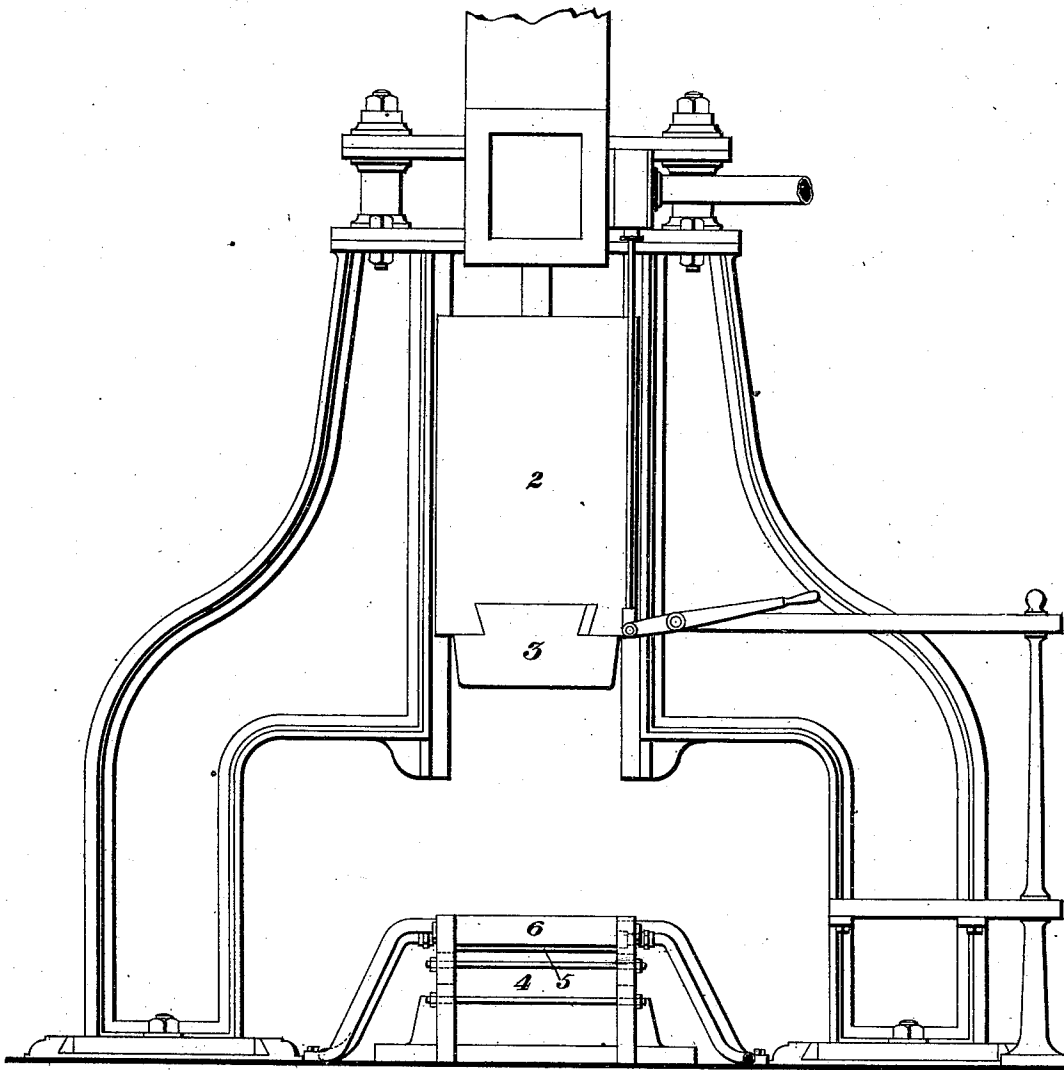
A. E. BARNARD.

ANVIL FOR STEAM HAMMERS.

No. 357,546.

Patented Feb. 8, 1887.

Fig. 1.



Witnesses.

N. L. Gill

W. B. Comm

Inventor.

Ambrose Edward Barnard

by Baxwell & Ken

his Attorneys

(No Model.)

2 Sheets—Sheet 2.

A. E. BARNARD.
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Fig. 2.

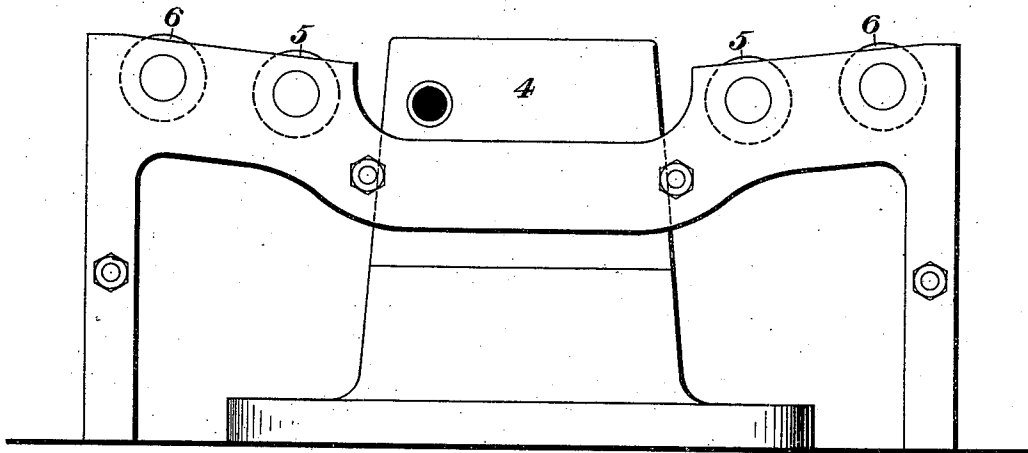
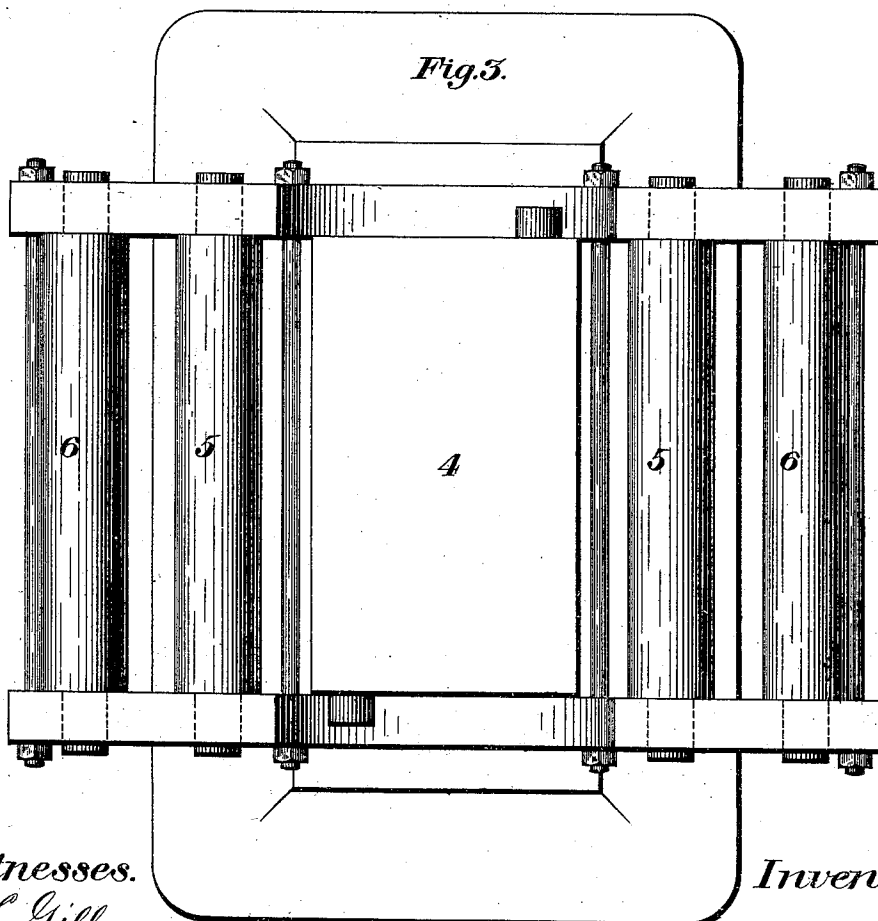


Fig. 3.



Witnesses.

A. L. Gill

W. T. Corwin

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UNITED STATES PATENT OFFICE.

AMBROSE EDWARD BARNARD, OF ALLEGHENY, PENNSYLVANIA.

ANVIL FOR STEAM-HAMMERS.

SPECIFICATION forming part of Letters Patent No. 357,546, dated February 8, 1887.

Application filed November 3, 1886. Serial No. 217,853. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE EDWARD BARNARD, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Anvils for Steam-Hammers; and I do hereby declare the following to be a full, clear, and exact description thereof.

In hammering and forging metal blooms and ingots there has always been difficulty in moving the heavy metal back and forth under the hammer to obtain the proper shapes, and the degree of care and accuracy which the handling of the metal demands makes it desirable to reduce the manual labor to a minimum. This is the primary object of my invention, which consists, first, in providing the hammer block or anvil with a set or sets of friction-rollers, which enable the metal to be easily moved; and, second, in arranging these friction-rollers so that the one next to the anvil shall be on a lower level than the roller in the rear thereof, the purpose of which I shall explain hereinafter.

In the accompanying drawings, Figure 1 is a front elevation of a steam-hammer and anvil provided with my improvement. Fig. 2 is a side elevation of the anvil and friction-rollers. Fig. 3 is a plan view thereof.

Like symbols of reference indicate like parts in each.

2 represents the vertically-reciprocating hammer-stock of a steam-hammer, and 3 is the head or die.

4 is the anvil, which is arranged directly beneath the hammer. On each side of the anvil are horizontally-journaled friction-rollers 5 and 6, there being preferably one pair of rollers on each side of the anvil. The rollers 5, which are adjacent to the anvil, are set at a lower level than the rollers 6, which are on the outside, and which are about on the same level with the top of the anvil-block.

In manipulating the blooms, they are set on the rollers and moved thereon back and forth

on the anvil under the hammer. The presence of the rollers enables the metal to be manipulated with comparative ease, and by largely relieving the workmen from attention to the manual labor of handling the heavy blooms enables them more easily to devote care to the proper shaping of the metal. An increased output and better results are thus obtainable.

The location of the rollers 5 below the level of the anvil forms an important feature of my invention. If a bloom were placed upon the anvil, where the roller 5 is on the same level therewith, the first strokes of the hammer would cause the end of the bloom projecting and resting upon the roller 5 to bend upward and out of shape. When the roller 5 is below the anvil-level, this cannot occur, and when the bloom is elongated sufficiently to rest on the outer roller 6 its bending can do no harm.

I do not limit myself to the use of any specific number of the rollers. One or more may be employed.

I have reduced my invention to actual use, and have found it to be of great practical value.

I claim as my invention—

1. The combination, with the anvil of a hammer for hammering metal blooms, of a friction-roller journaled adjacently to the anvil, substantially as and for the purposes described.

2. The combination, with the anvil of a hammer for hammering metal blooms, of a friction-roller journaled adjacently to the anvil, below the level thereof, substantially as and for the purposes described.

3. The combination, with the anvil of a hammer for hammering metal blooms, of the friction-rollers 5 and 6, the roller 5 being journaled below the level of the roller 6, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 29th day of October, A. D. 1886.

AMBROSE EDWARD BARNARD.

Witnesses:

W. B. CORWIN,

THOMAS W. BAKEWELL.