

(No Model.)

H. J. BIERHART.
POWER HAMMER.

No. 385,540.

Patented July 3, 1888.

Fig. 1.

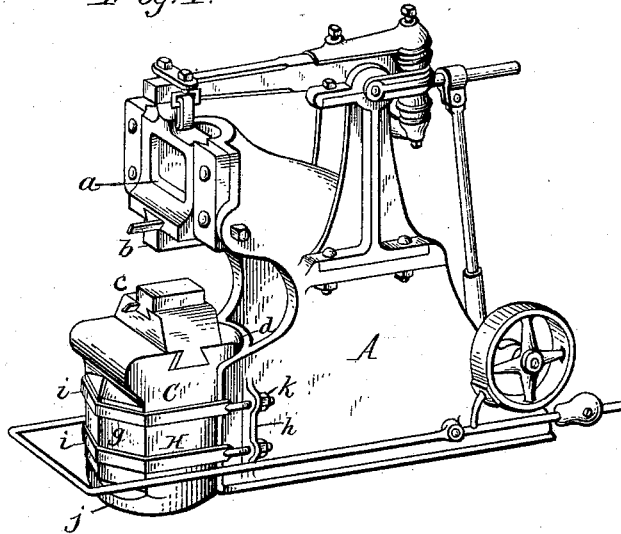


Fig. 2.

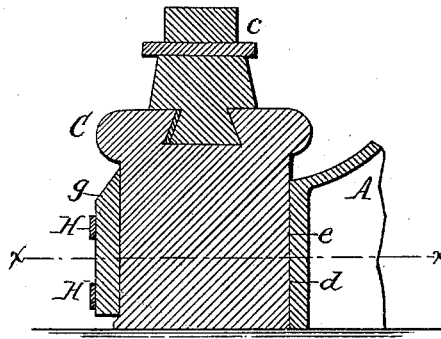
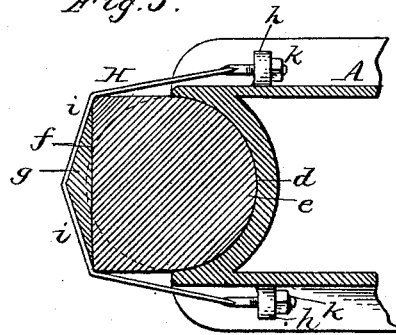


Fig. 3.



Witnesses:

Theodore L. Popp.
Geo. J. Buchheit Jr.

Herman J. Bierhart Inventor.
By Wilhelm & Bonner
Attorneys.

UNITED STATES PATENT OFFICE.

HERMAN J. BIERHART, OF SYRACUSE, NEW YORK, ASSIGNOR TO CHRISTOPHER C. BRADLEY, OF SAME PLACE.

POWER-HAMMER.

SPECIFICATION forming part of Letters Patent No. 385,540, dated July 3, 1888.

Application filed January 19, 1887. Serial No. 224,747. (No model.)

To all whom it may concern:

Be it known that I, HERMAN J. BIERHART, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Power-Hammers, of which the following is a specification.

This invention relates to the anvil-blocks of power-hammers, and has the object to attach the anvil-block to the hammer-frame in such manner that the block can be turned or adjusted in a horizontal plane for adjusting the die in the anvil to that of the hammer-head, and can be rigidly secured in place when adjusted. Heretofore anvil-blocks have been rigidly secured to the hammer-frame without being capable of adjustment therein, which construction is objectionable, because it renders it very difficult to correct the position of the dies when they are out of line. Anvil-blocks have also been attached to the frame, so that they could be turned therein, but without providing means for securely holding the anvil-block under the jarring produced by the blows of the hammer.

My invention has the object to overcome this difficulty; and it consists of the improvements which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a power-hammer provided with my improvement. Fig. 2 is a longitudinal vertical section of the anvil-block and adjacent portion of the frame. Fig. 3 is a horizontal section in line *xx*, Fig. 2.

Like letters of reference refer to like parts in the several figures.

A represents the frame of a power-hammer; *a*, the hammer-head; *b*, the die of the hammer-head; C, the anvil-block, and *c* the die of the anvil-block.

d represents a curved socket formed in the lower front portion of the hammer-frame and having the form of a hollow-cylinder segment.

e represents the round back of the anvil-block C, fitted in the round socket *d*, so as to be capable of turning therein.

f represents the flat upright front side of

the anvil-block, and *g* is an angular bearing-piece placed against the flat front side of the anvil-block.

H H represent tie-rods by which the anvil-block is secured to the hammer-frame, and which pass with their rear ends through lugs *h h*, formed on both sides of the hammer-frame in rear of the anvil-block. The tie-rods H straddle the anvil-block, and are provided with bent angular front portions, *i*, which rest against the angular bearing-piece *g*. The latter prevents the tie-rods from changing their position on the anvil-block. The rods are tightened by screw-nuts *k* bearing against the rear sides of the lugs *h*. Upon loosening the nuts on one side of the hammer-frame and tightening those on the other side the anvil-block is turned in the cylindrical socket of the frame, thereby adjusting the lower die, *c*, horizontally. By this means the lower die can be adjusted so as to be parallel with the upper die. Upon tightening the screw-nuts *k*, after the anvil-block has been adjusted, the anvil-block is firmly secured to the hammer-frame and prevented, by the angular bearing-piece *g* and the angular front portions, *i*, of the tie-rods, from changing its position in the socket of the frame under the blows of the hammer.

The bearing-piece *g* is made of wood or similar yielding material, while the anvil-block is made of iron, as usual. The bearing-piece permits the tie-rods H to be drawn perfectly tight and cushions the rods to a certain extent, thereby easing the strain upon the rods and preventing them from working loose. The lower portion of the anvil-block is made cylindrical, as indicated at *j*, so that the anvil-block can turn if it should embed itself into the wooden foundation.

I claim as my invention—

1. The combination, with the hammer-frame provided with a cylindrical socket, *d*, of an anvil-block having a round back, *e*, fitted in said socket and having an angular front, and tie-rods H, provided with angular front portions, *i*, fitted against the front of the anvil-

block and secured adjustably with their rear ends to the hammer-frame, substantially as set forth.

2. The combination, with the hammer-frame
5 provided with a cylindrical socket, *d*, of an anvil-block provided with a round back fitted in said socket, an angular bearing-piece, *g*, fitted against the front side of the anvil-block,

and tie-rods *H*, provided with angular front portions, *i*, substantially as set forth.

Witness my hand this 15th day of January, 1887.

HERMAN J. BIERHART.

Witnesses:

JOHN J. LYNCH,

JAMES CAHILL.