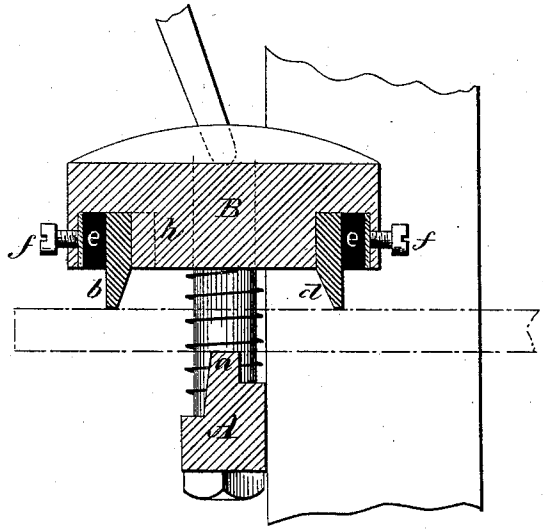
(No Model.)

T. A. BLAKE.

PIG IRON BREAKER.

No. 256,960. Patented Apr. 25, 1882.



Witnesses.
J. H. Shumway
Jos. C. Earle

Theo. A. Blake
Inventor
By atty
Wm. C. Earle

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THEODORE A. BLAKE, OF NEW HAVEN, CONNECTICUT.

PIG-IRON BREAKER.

SPECIFICATION forming part of Letters Patent No. 256,960, dated April 25, 1882.

Application filed January 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, THEODORE A. BLAKE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machines for Breaking Pig-Iron; and I do hereby declare the following, when taken in connection with accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents a vertical sectional view.

This invention relates to an improvement in the machine for breaking pig-iron for which Letters Patent were granted to me dated May 3, 1881, No. 240,951.

In my previous patent the machine consists essentially of an anvil, over which the pig is placed to be broken, and a reciprocating slide above, carrying two breaking-points, one in front and the other in rear of the anvil, so as to strike upon the top of the pig each side the anvil and force it downward, breaking it over the anvil.

I have found from experience that sometimes the pig will be arranged over the anvil so that the outer breaking-point will strike close to the end of the pig, and then, as the force is applied, that breaking-point tends to glance outward over the end of the pig, and thus bring a transverse strain above the breaking-point, which sometimes breaks it; or the same kind of strain is brought upon either of the breaking-points when they come upon any irregularity in the surface of the pig, and this irregularity may tend to force them in either direction, out or in, according to the way in which the irregularity is presented to them. The strain produced always tends to break the points.

The object of my invention is to overcome this difficulty; and it consists in providing one or both of the breaking-points with an india-rubber seat or bearing which will yield to the transverse strain brought upon it, as more fully hereinafter described.

In the drawing I illustrate only the anvil and a reciprocating slide, which carries the two breaking points or blocks, that being sufficient for the illustration of my invention.

A represents the bed upon which the anvil *a* is arranged, and upon which the pig is placed to be broken. B is a vertically-reciprocating slide, arranged to be moved up and down in suitable guides from and toward the anvil. Upon its under side it is fitted with two breaking points or blocks, *b d*, one each side—that is, in front and rear of the anvil—so that the pig lies on the anvil, as indicated in broken lines. When the slide descends it will bring the two blocks *b d* to a bearing upon the upper surface of the pig, one each side of the anvil, and then, forced downward, will break the pig across the anvil. This is substantially like the device shown in my previous patent.

Instead of making the blocks rigid upon the slide or head B, I make a recess in the head outside the block, and into that place a spring, *e*, of india-rubber, against which the hammer will firmly bear. The force of the spring may be adjusted by a set-screw, *f*. By this improvement, when the slide descends the transverse strain which is brought upon the blocks, tending to throw them outward or inward, will be received by the springs *e*, and they, yielding, will permit the block to move with or upon the parts of the pig, and thus avoid the transverse or breaking strain heretofore experienced in my pig-iron breaker.

If one of the blocks only be provided with a spring, it will accomplish the object; but both may be, and in some cases would be better, provided with the rubber.

The rubber may be arranged on the opposite side of the hammer—as, for instance, as indicated at *h*; but I prefer to arrange the spring upon the outside.

As stated in my patent referred to, it will be understood that the anvil and breaking point or block may be reversed, the single breaking-point being above and the other two below, without departing from my invention.

I claim—

In a pig-iron breaker, the breaking block or blocks provided with a rubber spring to receive the transverse strain produced in breaking the pig, substantially as described.

THEODORE A. BLAKE.

Witnesses:
JOHN E. EARLE,
LILLIAN D. ROGERS.