

Improvement in Gripping-Blocks for Presses.
No. 131,640. Patented Sep. 24, 1872.

A schematic diagram of a mechanical assembly. It features a central rectangular block with a smaller rectangular cavity in the middle. The block is shaded with diagonal lines. A horizontal arm extends from the right side of the block. The arm has a rectangular cross-section. At the end of the arm, there is a small rectangular feature. The entire assembly is shown in a cross-sectional view, with dashed lines indicating internal features. The diagram is labeled with 'A' at the top left, 'B' at the top right, and 'C' at the bottom right. There are also labels 'X' and 'Y' on the left and right sides of the block, respectively.

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GEORGE W. SWINEBROAD, OF BOLIVAR, TENNESSEE.

IMPROVEMENT IN GRIPING-BLOCKS FOR PRESSES.

Specification forming part of Letters Patent No. 131,640, dated September 24, 1872.

To all whom it may concern:

Be it known that I, GEORGE W. SWINEBROAD, of Bolivar, in the county of Hardeman and State of Tennessee, have invented a new and useful Improvement in Griping-Blocks, of which the following is a specification:

My invention consists of steel bars combined with the inner walls of the griping-blocks in presses and other machines for griping hold of straight bars passing through them by tilting on said bars, so as to gripe and hold for working said bars short stages at a time by levers, the said steel bars being used in the parts most subject to wear to resist the same, and because of the superior capacity of steel to gripe the bars and retain its hold; also because they can be removed when worn out and new pieces put in.

Figure 1 is a sectional elevation on line *xx* of Fig. 2 of a pair of griping-blocks arranged according to my improvement; also an elevation in dotted lines of some parts of a press, showing the manner of using the said blocks. Fig. 2 is a horizontal section of one of the blocks on the line *yy* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the said griping-blocks, which are used in pairs, one being suspended by a link, B, and hook C from the follower D, which is to be moved, so that the strain being on one side of the block will cause it to tilt on the bar E passing through it, and thereby bind thereon. The other block, having the same bar passing through it, is suspended in like manner from the short end of a lever, F, by a hook, G, and the lever is suspended from the follower by a link, H.

By moving the lever in the direction to force the follower down, the lower griping-block will "bite" the bar and hold the lever while said lever forces said follower down; at the same time the upper block will fall with the follower, and then, as the latter springs back upon the reversing of the lever, it will gripe the bar and hold the follower from going back.

I now propose to apply square or other suitably-shaped steel bars or blocks, I, to these griping-blocks, as shown, where the greatest wear comes on the griping-surfaces to resist the wear and to maintain efficient griping edges at the corners of said blocks for acting on the bars. The said steel blocks will be hardened and tempered to make them more durable. Thus the efficiency of griping-blocks, of this character will be very greatly increased as compared with the ordinary cast-iron blocks which very soon wear away in the parts corresponding to my steel bars, and become worthless. Besides wearing very much longer than the ordinary blocks, I can remove the steel pieces and substitute new ones as they wear out.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with griping-blocks A, of steel blocks I, arranged in the said blocks A, as represented, and so as to be removed and replaced by new ones, substantially as specified.

GEORGE WASHINGTON SWINEBROAD.

Witnesses:

GEO. G. BELL,
C. P. DUNCAN.