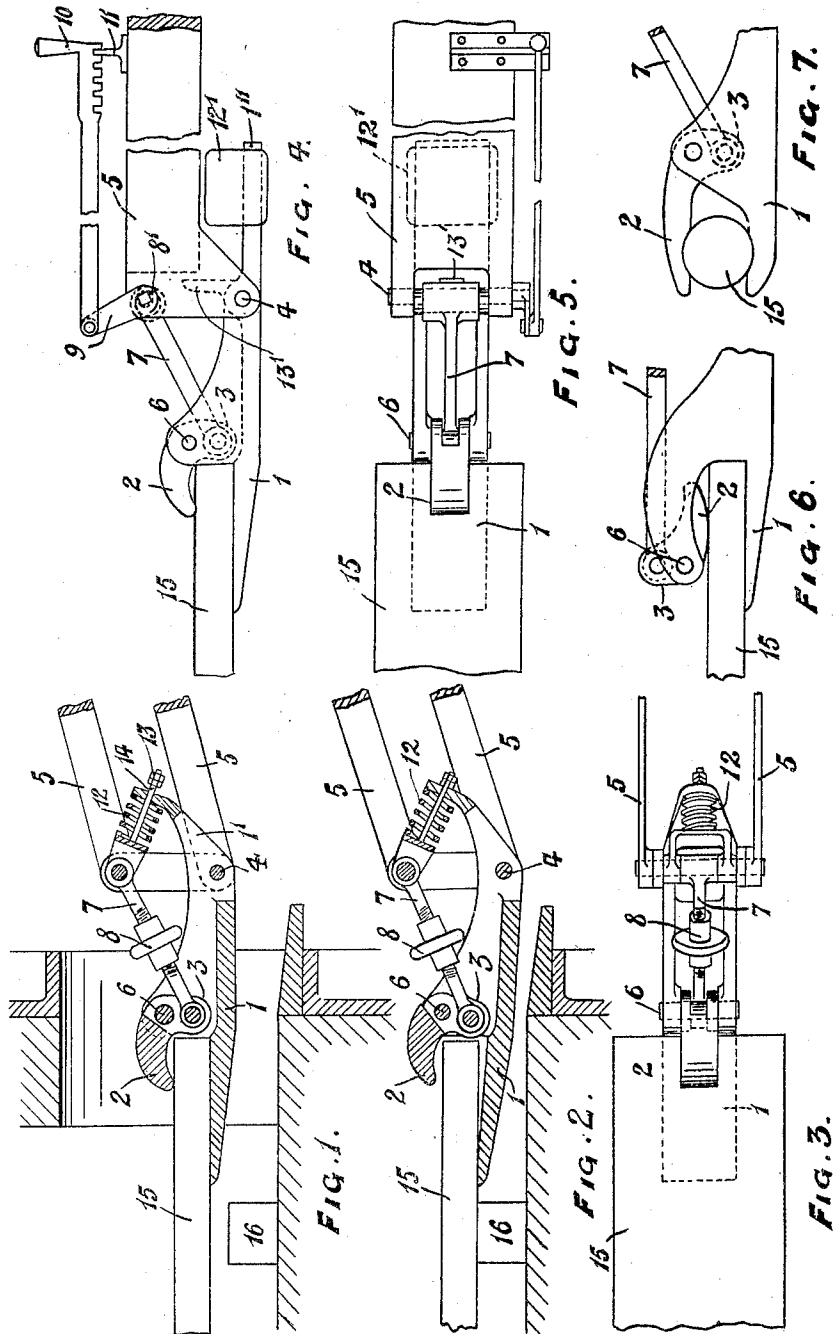


A. W. JONES, J. BRYDEN AND A. J. H. MOWERAY.
GRIP FOR HANDLING SLABS, BARS, BILLETS, OR OTHER MATERIAL.
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UNITED STATES PATENT OFFICE.

ARTHUR WAKEFIELD JONES, OF STEPPS, JAMES BRYDEN, OF CARTCOSH, AND
ARCHIBALD JOHN HOLME MOWBRAY, OF STIRLING, SCOTLAND.

GRIP FOR HANDLING SLABS, BARS, BILLETS, OR OTHER MATERIAL.

1,345,930.

Specification of Letters Patent.

Patented July 6, 1920.

Application filed September 18, 1919. Serial No. 324,619.

To all whom it may concern:

Be it known that we, ARTHUR WAKEFIELD JONES, JAMES BRYDEN, and ARCHIBALD JOHN HOLME MOWBRAY, subjects of the King of
5 of the United Kingdom of Great Britain and Ireland, and residing at Stepps, Lanarkshire, Scotland, Cartcosh, Lanarkshire, Scotland, and Stirling, Stirlingshire, Scotland, respectively, have invented a certain
0 new and useful Improvement in Grips for Handling Slabs, Bars, Billets, or other Material, of which the following is a specification.

The subject of this invention is a grip for
5 handling slabs, bars, billets, piles, plates or other articles.

The invention is illustrated in the accompanying drawings in which Figures 1 and 2 are sectional elevations of one embodiment
10 with the jaws in operative position and in inoperative position, respectively; Fig. 3 is a corresponding plan; Figs. 4 and 5 show in elevation and in plan, respectively, an embodiment including a weight for holding the
15 jaws in inoperative position; Fig. 6 is a fragmentary view showing a modification; Fig. 7 is a like view showing the jaws arranged for engagement with cylindrical material.

As shown, the grip comprises a lower jaw
10 1 and an upper jaw 2, 3, the lower jaw 1 being constituted by an arm pivotally mounted at 4 on a grip-sustaining jib 5 (Figs. 1 to 5).

35 The upper jaw 2, 3 is constituted by a bell-crank lever fulcrumed at 6 on the arm or jaw 1, the bell-crank arm 2 presenting a jaw surface and the arm 3 being connected to the jib 5 by a link 7 the effective length
40 of which is adjustable, for example, by means of a right-and-left-hand screw-thread mechanism as indicated at 8 in Figs. 1 to 3 or, as in Figs. 4 and 5, by means of an eccentric 8' controlled by a crank 9 and a
45 hand lever 10 placed conveniently for the operator and provided with notches engageable by a detent 11.

50 The jaws may be sustained in inoperative position as indicated in Fig. 2 by a spring 12 or, as in Fig. 4, by a weight 12' acting to raise the lower jaw.

In the example shown in Figs. 1, 2 and 3 the spring 12 presses on an extension 1' of the jaw 1 and its action is limited by nuts 13 on a bolt 14.

55 In the example illustrated in Figs. 4 and 5 the weight acts on an extension 1'' of the lower jaw 1 and its action is limited by a stop 13' corresponding in function to the nuts 13.

60 In operation, the grip is brought into gripping relation with a slab 15 or the like as shown in Fig. 2 and the jib 5 is raised, whereupon downward pressure is exercised on the lower jaw 1 in opposition to the action of the spring 12 or weight 12', where-
65 by the jaw 1 is rocked on its pivot 4 until the jaw surface of the upper jaw 2, 3 is constrained to move into clamping engagement with the slab 15 or the like under the control of the link 7.

It will be understood that, when the slab 15 is brought to rest on a support, such as at 16, the downward pressure on the jaw 1 is relieved and the jaws are permitted to move
75 into inoperative position under the action of the spring or weight.

In the embodiment shown in Fig. 6 the upper jaw 2, 3 is of cam formation.

The jaws may be of suitable form for
80 gripping a variety of materials. For example, in the embodiment shown in Fig. 7 the jaw surfaces are curved to conform to the surfaces of cylindrical articles.

We claim:—

85 1. A grip for handling slabs and other articles comprising, in combination, a jib, a lower jaw and an upper jaw, the lower jaw pivoted to said jib, and the upper jaw constituted by a bell-crank lever pivoted to said
90 lower jaw, a link connecting said lever to said jib at a point remote from the pivot of said lower jaw, and means normally maintaining said jaws in open position, and adapted to be overcome by pressure of the
95 load acting downwardly on said lower jaw.

2. A grip for handling slabs and other articles comprising, in combination, a jib, a lower jaw and an upper jaw, the lower jaw
100 pivoted to said jib, and the upper jaw constituted by a bell-crank lever pivoted to said lower jaw, a link connecting said lever to

said jib at a point remote from the pivot of said lower jaw, means for adjusting the effective length of said link, and means normally maintaining said jaws in open position and adapted to be overcome by pressure
5 of the load acting downwardly on said lower jaw.

In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

A. W. JONES.

JAMES BRYDEN.

ARCHIBALD JOHN HOLME MOWBRAY.

Witnesses:

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