No. 711,418. Patented Oct. 14, 1902.

J. C. CROMWELL.

FEED TABLE SHIFTING MECHANISM.

(Application filed Mar. 26, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

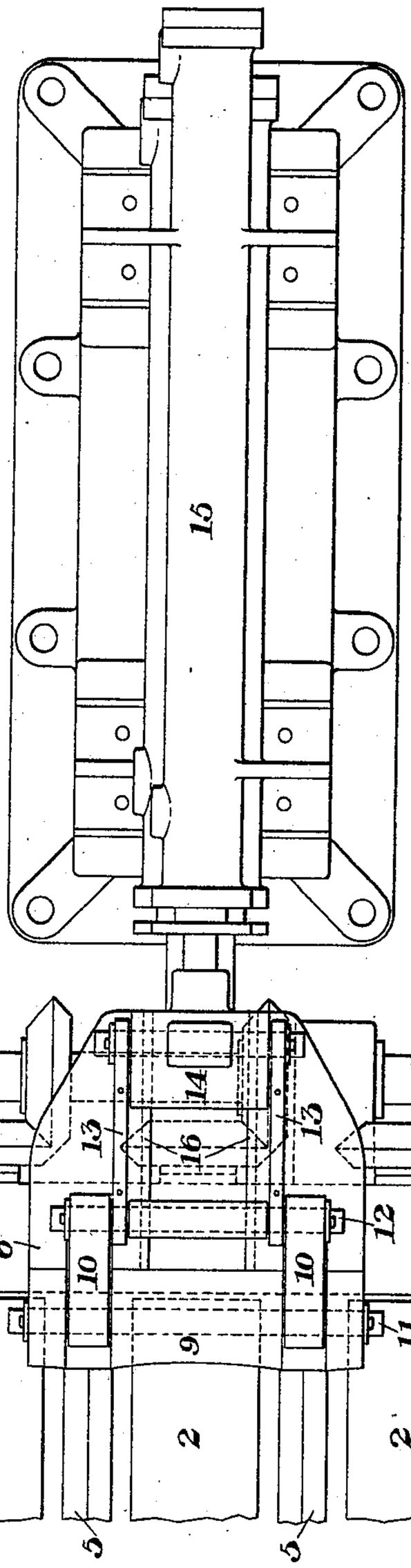
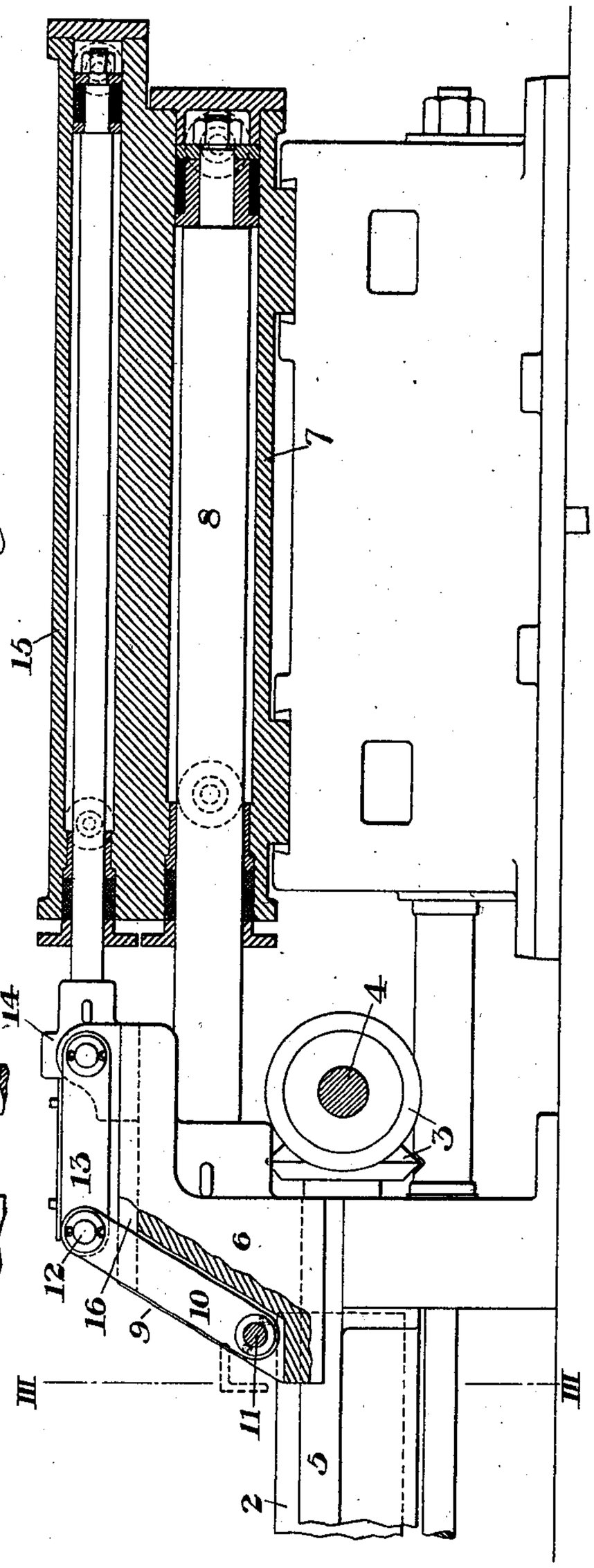


Fig. 2.



WITNESSES

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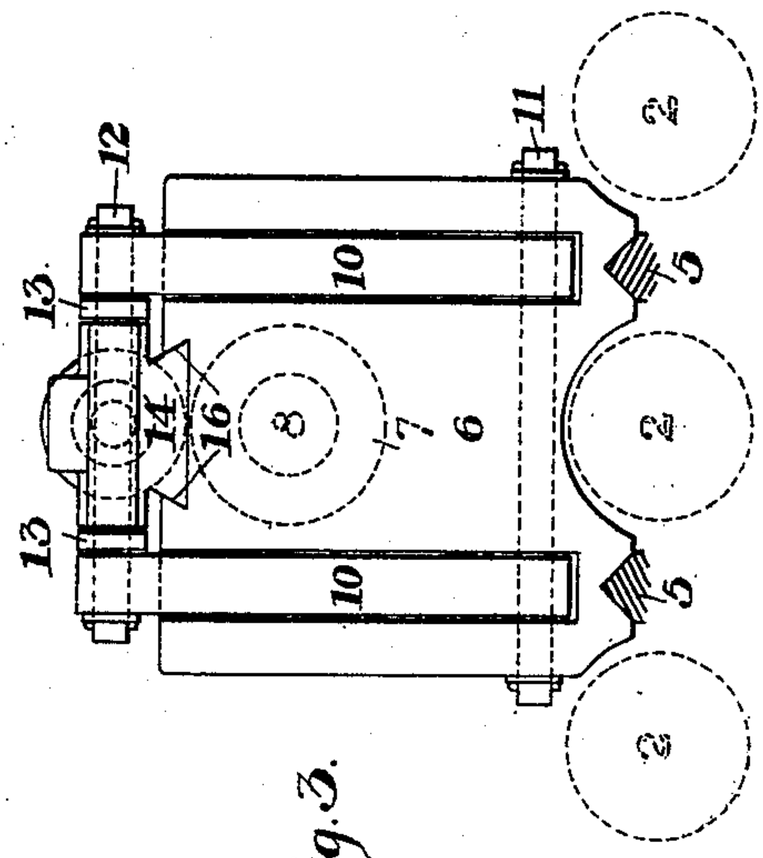

Fig. 3.

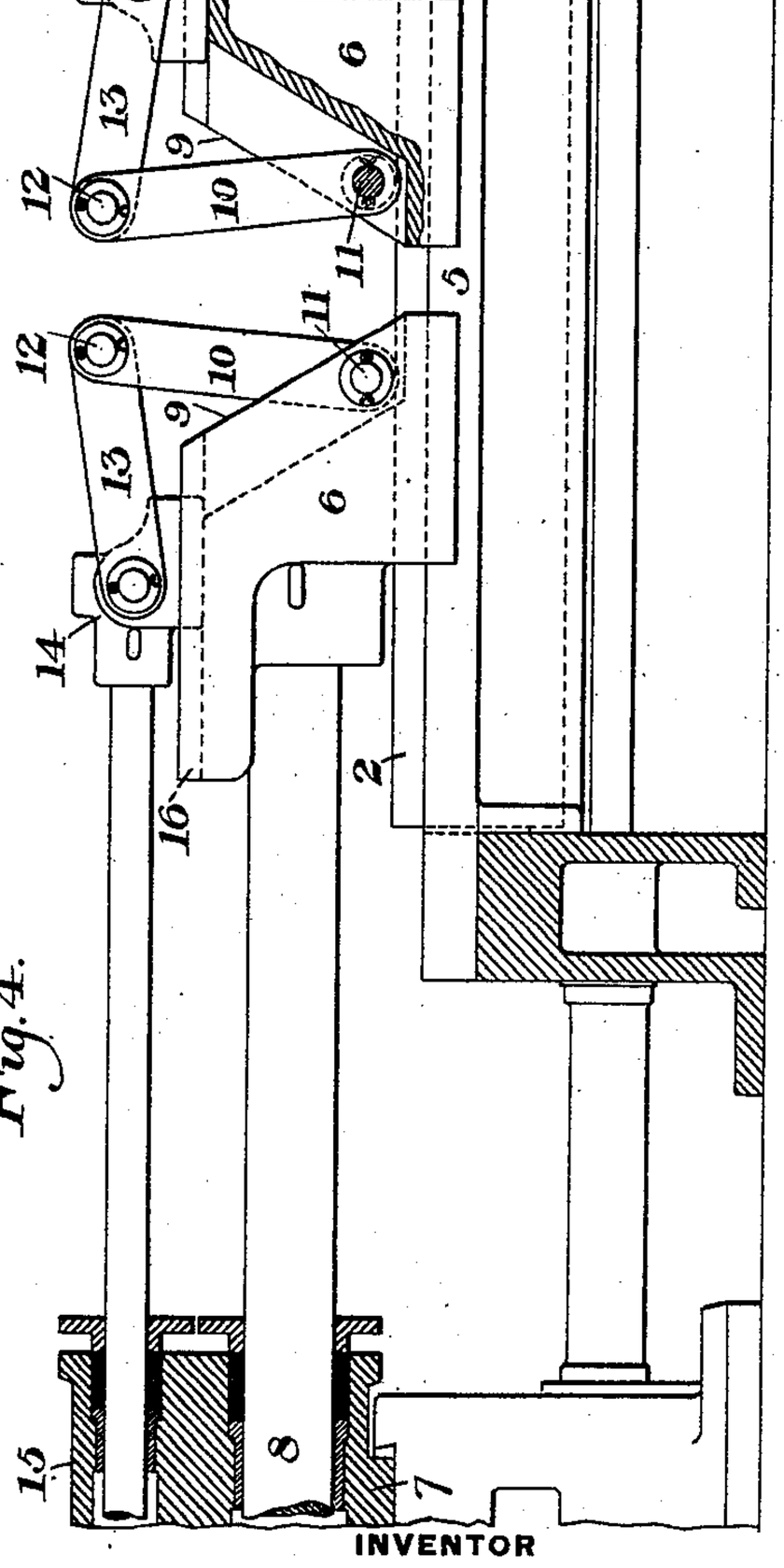

Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN C. CROMWELL, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO WILLIAM GARRETT, OF CLEVELAND, OHIO.

FEED-TABLE-SHIFTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 711,418, dated October 14, 1902.

Application filed March 26, 1901. Serial No. 52,945. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. CROMWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Feed-Table-Shifting Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view showing a portion of a rolling-mill feed-table provided with my improved appliance. Fig. 2 is a cross-sectional elevation of the same. Fig. 3 is a broken detail section on the line III III of Fig. 2; and Fig. 4 is a cross-sectional view of a feed-table, showing my preferred form of the appliance.

My invention relates to the shifting and turning of metal upon rolling-mill feed-tables, and is designed to provide a simple and effective appliance by which metal of any size or shape can be tilted to and held in the proper position to enter the passes of the reducing-rolls.

In the drawings I show a feed-table having the usual rollers 2, driven by bevel-gear connection 3, with a rotary shaft 4. Between the rollers 2 I provide suitable tracks or rails 5 5, with which interfit and are adapted to move two sliding pusher-blocks 6 6. These blocks are cut away or suitably shaped so as to pass between the rollers, as shown in Fig. 3, and are moved toward and from each other by motive cylinders 7 7, to the piston-rods 8 of which they may be directly secured. Each of these pusher-blocks may consist of a casting with an inclined face 9, and to one of these blocks and preferably both are pivoted the turners. Each of these turners is preferably formed of links 10, hinged to a pin 11, extending through the lower part of the block, and also to an upper pin 12, having links 13, connecting with a cross-head 14, secured to the piston-rod of motive cylinder 15. The pusher-block is cored out or slotted to receive the turner, so that the wear comes mainly on the inclined face of the pusher-block, the turner lying within it when retracted, as shown in Fig. 2. The cylinders 15 may be superimposed upon the cylinders 7 for actuating the blocks, and the cross-heads 14 slide within dovetailed guideways 16 in the pusher-blocks, as shown in Figs. 3 and 4.

In the operation of the device the slab or other piece of metal lying upon the table is moved sidewise by actuating either or both of the pushers and is then tilted to and held in the proper position to enter the rolls by actuating the pivoted flaps or turners, as shown, for example, in Fig. 4.

The advantages of my invention result from the use of the oppositely-located pusher-blocks, which move toward and from each other in opposite directions, at least one of these blocks having a swinging turner, by which the piece may be tilted, and special advantages flow from the use of pivoted turners on both of the blocks, since I am thus enabled to hold the slab or piece in the position desired to enter the pass.

The pusher-blocks may be made narrower and move on a single track between two of the rollers, the turners may be in the form of plates covering the faces of the blocks, and many other changes may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. A rolling-mill feed-table having a transversely-movable pusher-block, a turning device pivoted thereto, and mechanism for moving the turning device into operative position and for retracting the same so that in its retracted position its operative face shall lie back of the operative face of the pusher-block; substantially as described.

2. In a feed-table appliance, a sliding pusher-block, a turner hinged thereto, and a cross-head movable on the block and linked to the turner; substantially as described.

In testimony whereof I have hereunto set my hand.

JOHN C. CROMWELL.

Witnesses:

C. P. BYRNES,

HARRY V. LAKE.