

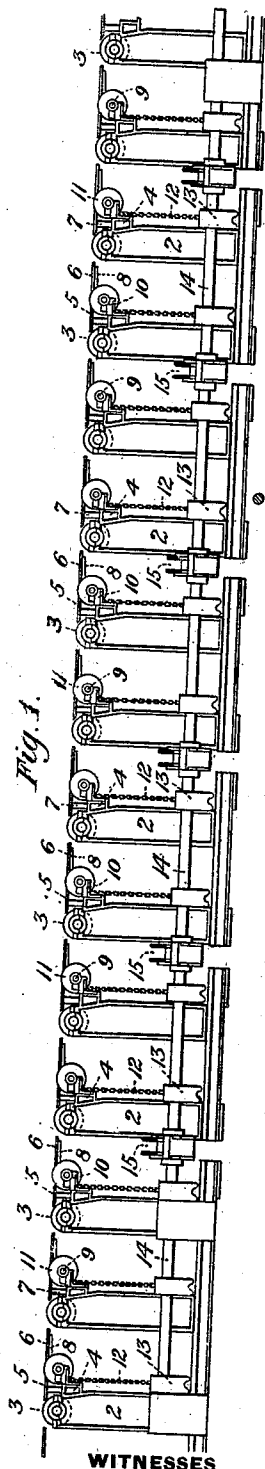
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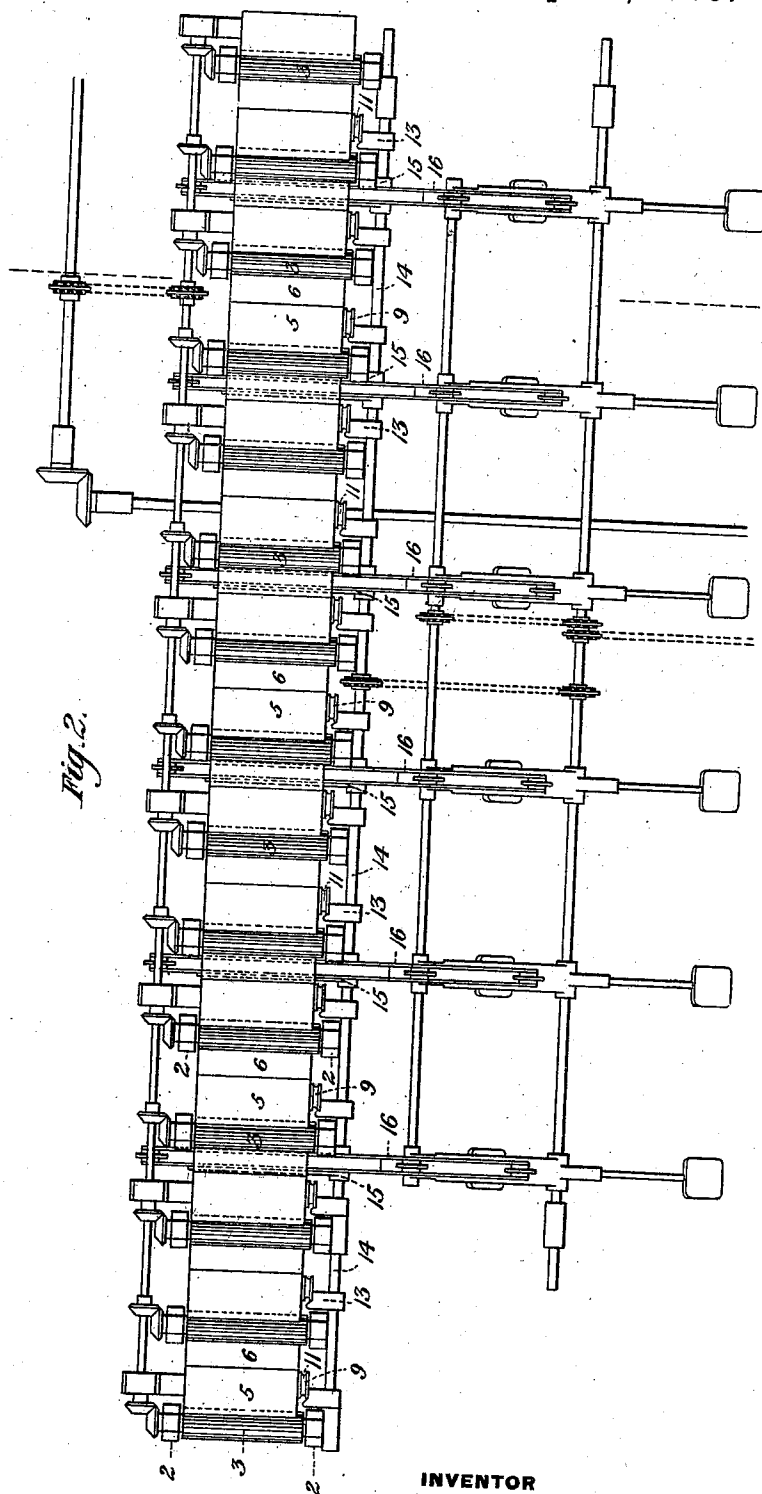
W. H. MADDOCK.
FEEDING MECHANISM FOR ROLLING MILLS.

No. 504,395.

Patented Sept. 5, 1893.



W. H. Maddock
C. M. Clarke



INVENTOR
William H. Maddock
by *W. Baxwell & Sons*
his Attorneys.

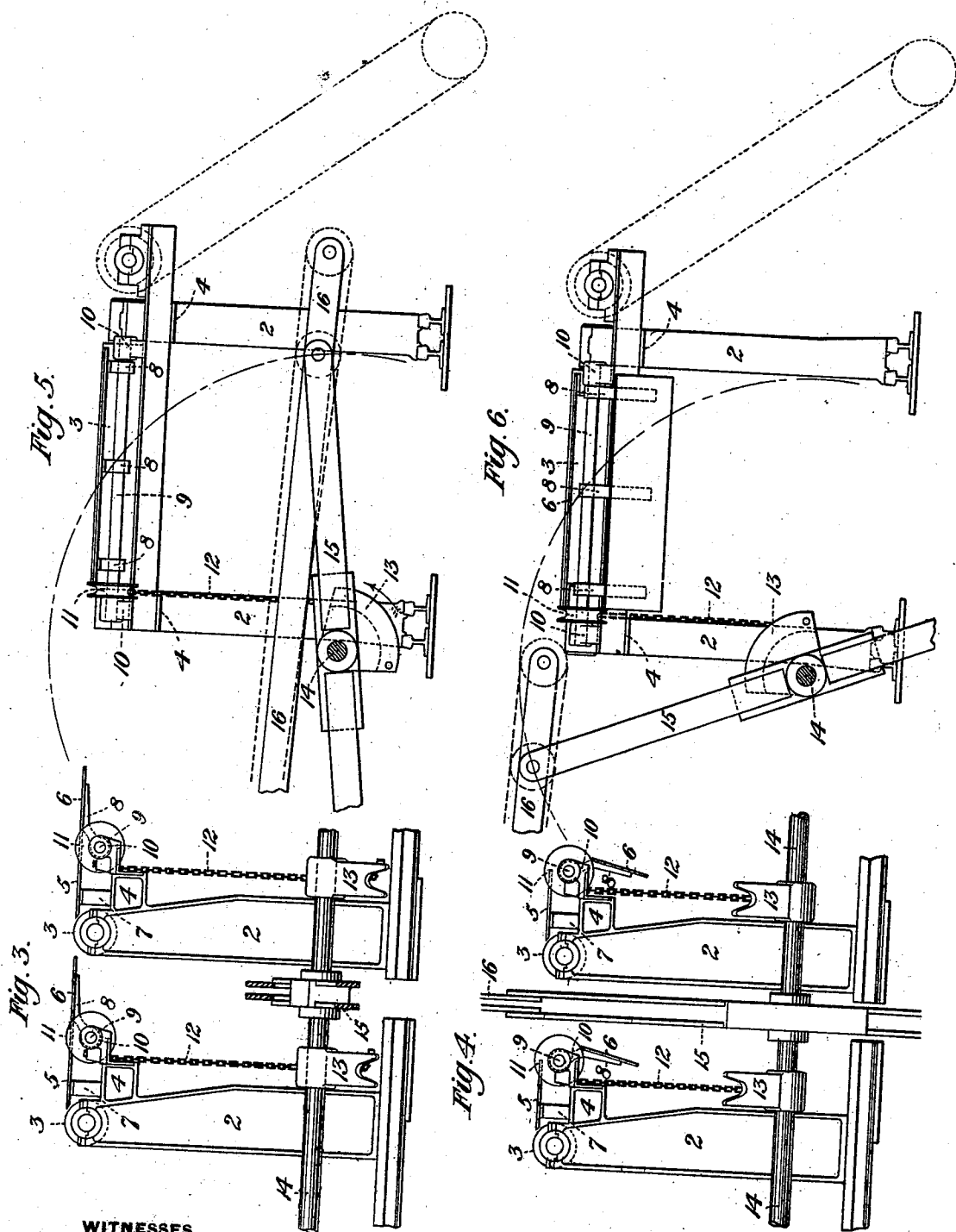
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WITNESSES

N. P. Corwin
C. M. Clarke

INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM H. MADDOCK, OF PITTSBURG, PENNSYLVANIA.

FEEDING MECHANISM FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 504,395, dated September 5, 1893.

Application filed August 3, 1892. Serial No. 442,017. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MADDOCK, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rolling-Mill Feeding Mechanism, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved feed-tables. Fig. 2 is a top plan view of the same. Fig. 3 is a detail side elevation of two of the feed-rollers and attachments; and Fig. 4 is a similar view with the parts in a different position. Fig. 5 is an end elevation of the tables, showing the transfer devices, and Fig. 6 is a similar view with the swinging plates lowered.

Like symbols of reference indicate like parts in each.

My invention relates to that class of feed-tables wherein supporting plates are required between the feed-rollers in order to prevent the metal from bending down between the rollers; and it consists in a feed-table having a part or all of these plates pivoted to allow the passage of transfer arms between the rollers.

It also consists in the construction and arrangement of the parts as hereinafter more fully described and set forth in the claims.

In the drawings, 2 indicates the pillow-block stands of the feed-rollers 3, and 4 projections therefrom upon which are supported the stationary plates 5 and the swinging plates 6. The stationary plates are carried on the supports 7 rigidly secured to the projections, while the swinging plates are carried upon arms 8 projecting from a shaft 9 journaled in suitable bearings 10 upon the projections.

Upon the shaft 9 is secured a sheave 11, to the grooved periphery of which is secured a chain 12, which at its lower end is fastened in the groove of a segmental pulley 13 carried upon a shaft 14. The shaft 14 carries between the feed-rollers and directly below the swinging plates, the levers 15, which at their upper ends support the links 16, which are arranged to carry the metal to or from

the feed-rollers. I preferably arrange the transferring links and levers as described and claimed in my copending application Serial No. 442,016, filed August 3, 1892; but it will be understood that any suitable construction may be used therefor.

The operation of the device is obvious. The levers normally lie beneath the rollers in the position of Figs. 3 and 5, the swinging table then being horizontal and forming a continuous rest between the rollers; when, however, it is desired to transfer the metal to or from the rollers, the shaft 14 is oscillated, causing the levers to rise and also through the chain causing the swinging plates 6 to fall into the position of Figs. 4 and 6, thus allowing the levers to rise between the rollers, and the metal being lifted by the links, is carried laterally to the next set of feed-rollers or to any point desired. The advantages of the table result from the use of these swinging plates which support the metal while the feed-rollers move it toward or from the rolls, but automatically drop out of the way when the levers rise to carry the metal laterally.

Many changes will suggest themselves to the skilled mechanic in the construction and arrangement of the parts, without departure from my invention, since

What I claim, and desire to secure by Letters Patent, is

1. A set of feed-rollers, having separately pivoted plates between each pair of rolls, and means for swinging said plates; substantially as and for the purposes described.

2. A set of feed-rollers, having pivoted plates therebetween, transfer mechanism arranged to move between the rollers, and means for oscillating the plates; substantially as and for the purposes described.

3. A set of feed-rollers, having pivoted plates therebetween, transfer mechanism arranged to move between the rollers, and actuating connections between the transfer mechanism and the plates arranged to swing the plates upon the movement of said mechanism; substantially as and for the purposes described.

4. A set of feed-rollers, having pivoted

plates therebetween, a shaft below the rollers carrying transfer levers arranged to move between the rollers, and flexible connections between the shafts of the plates and levers; substantially as and for the purposes described.

5 5. A set of feed-rollers having stationary tables, and pivoted tables therebetween, transfer mechanism located beneath the pivoted tables, and means for swinging said tables; substantially as and for the purposes
10 described.

6. A set of feed-rollers having stationary tables and pivoted tables therebetween, a shaft beneath the rollers having transferring
15 levers thereon, and flexible connections be-

tween the levers and the pivoted tables; substantially as and for the purposes described.

7. A set of feed-rollers having stationary tables and pivoted tables therebetween, a shaft beneath the rollers having transfer le- 20 vers located beneath the pivoted tables, and chains secured to sheaves upon the shafts of the pivoted tables and transfer levers; substantially as and for the purposes described.

In testimony whereof I have hereunto set 25 my hand this 14th day of July, A. D. 1892.

WILLIAM H. MADDOCK.

Witnesses:

W. B. CORWIN,
C. BYRNES.