

(No Model.)

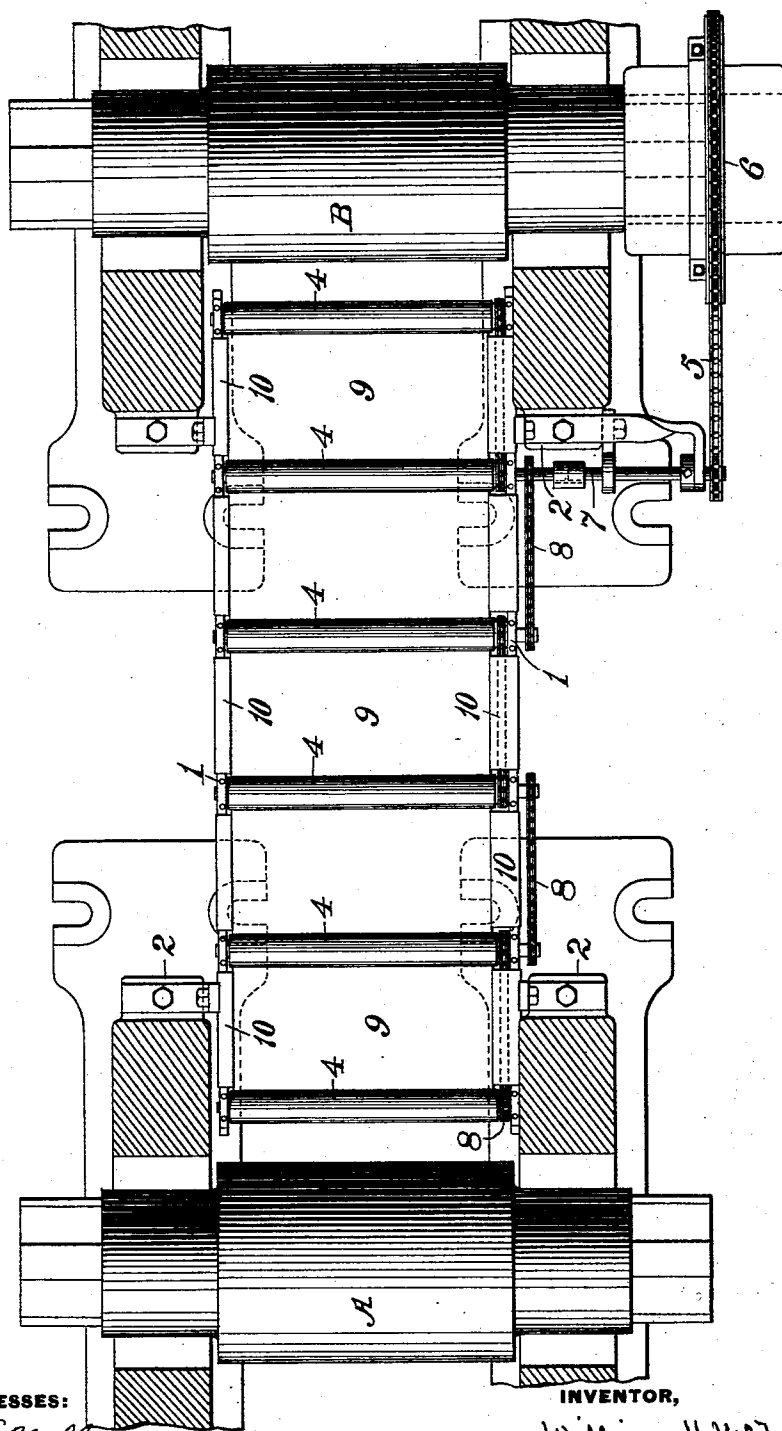
2 Sheets—Sheet 1.

W. H. McFADDEN.
FEED TABLE FOR ROLLING MILLS.

No. 572,175.

Patented Dec. 1, 1896.

FIG. 1.



WITNESSES:

Chas. F. Miller.
J. E. Gaithers.

INVENTOR,

William H. McFadden
by Dennis S. Wolcott
Att'y.

(No Model.)

2 Sheets—Sheet 2.

W. H. McFADDEN.
FEED TABLE FOR ROLLING MILLS.

No. 572,175.

Patented Dec. 1, 1896.

FIG. 4.

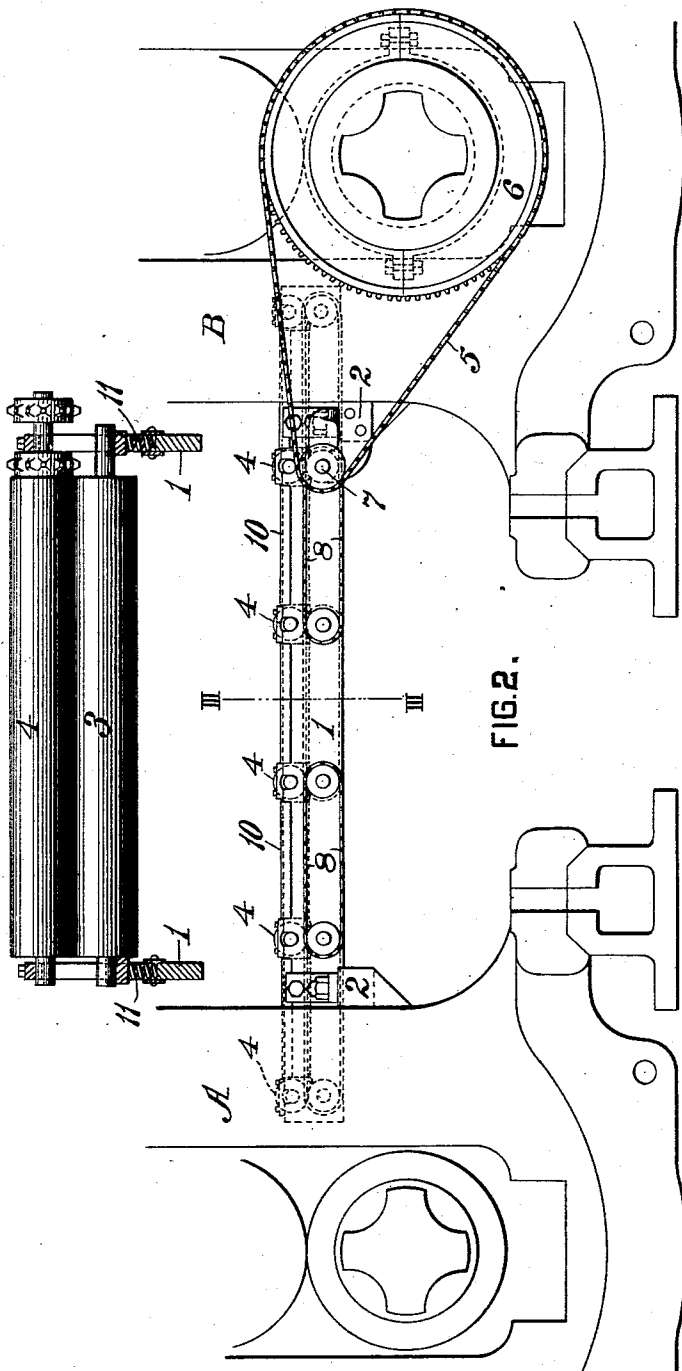
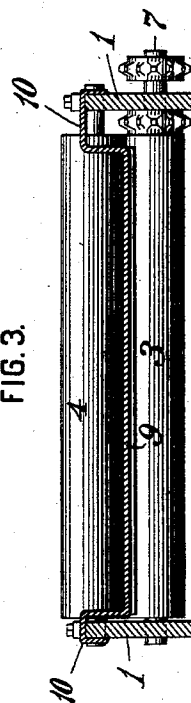


FIG. 2.

FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. MCFADDEN, OF ALLEGHENY, PENNSYLVANIA.

FEED-TABLE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 572,175, dated December 1, 1896.

Application filed March 23, 1896. Serial No. 584,404. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MCFADDEN, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Feed-Tables for Rolling-Mills, of which improvement the following is a specification.

The invention described herein relates to certain improvements in mills for rolling sheet metal, and has for its object a feed-table whereby the sheets may be automatically fed from one set of rolls to an adjacent set of rolls, thereby rendering it possible to employ a continuous form of mill for the production of sheet metal.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a sectional plan view of a sheet-mill embodying my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse section of the feed-table, the plane of section being indicated by the line III III, Fig. 2; and Fig. 4 is a transverse section of the feed-table, illustrating a modification in the mounting and driving of the feed-rollers.

In the practice of my invention the mill consists of two or more stands of rolls A B, &c., arranged in line with and in suitable proximity to each other. Between the stands of rolls is arranged a feed-table adapted to receive a sheet from one pair of rolls and deliver it to the next pair. It is preferred to support the side bars 1 of the table on lugs 2 on the housings of the rolls. The side bars are provided with bearings for the lower or positively-driven rollers 3 and with bearings for the upper or frictionally-driven rolls 4, the bearings for the two series being arranged in or approximately in line one above the other, as shown in Fig. 2. The lower rolls may be driven in any suitable manner, but preferably by means of a chain or belt 5, passing around the journal of one of the rolls or a sprocket-wheel 6 thereon and a corresponding wheel on the extended journal 7 of one of the lower rollers, as clearly shown. Movement is transmitted from one roller to the

next by a chain or belt 8. The table is arranged at such a height on the housing that a plane tangential to the rolls at their point of contact will be tangential or approximately so to both sets or series of feed-rollers at their points of contact, (shown in Fig. 2,) so that a sheet passing from between rolls will be fed between the feed and be by them fed into the next pair of rolls. As the sheets vary in thickness, the bearings for the upper rolls are elongated, as shown in Fig. 2, to permit the upper rollers to rise as the sheet comes between the two series of rollers, so that the sheets are pressed against the positively-driven feed-rollers by a force equal to the weight of the upper rollers, thereby rendering the grip of the lower rollers on the sheets positive. In addition to increasing the effectiveness of the feeding action the upper rollers will prevent the sheets from bending or twisting while passing between the two stands of rolls, thus insuring their proper delivery to succeeding rolls.

In order to prevent the drooping of the ends of sheets between the pairs of rollers, a supporting-plate 9 is arranged between adjacent pairs of feed-rollers. These plates are provided at their ends with angular extensions 10, which rest upon the side bars 1 and support the plate 9 in or approximately in a horizontal plane tangential to the top of the lower roller.

As shown in Fig. 4, the journals of both series of rollers may be mounted in slots in the side bars 1 and the journals of the lower rollers supported on springs 11. In this construction the lower rollers would move down from the upper rollers as sheets were fed between them. If desired, the upper rollers may be positively driven and the lower rollers driven by frictional contact with the sheets or upper rollers, as shown in Fig. 4.

I claim herein as my invention—

1. The combination in a feed-table for rolling-mills of two series of feed-rollers, the rollers of one series being arranged to press the sheets against the rollers of the other series, and means for positively driving the rollers of one series, substantially as set forth.
2. The combination, in a feed-table for rolling-mills, of a series of positively-driven roll-

ers and a series of rollers arranged to press the article being fed against the positively-driven rollers, substantially as set forth.

3. The combination, in a feed-table for rolling-mills, of a series of positively-driven rollers, and a series of rollers arranged to press the article being fed against the positively-driven rollers, and to be rotated by frictional contact with the article, substantially as set forth.

4. The combination, in a feed-table for rolling-mills, of a series of positively-driven rollers,

a series of supporting-plates intermediate of the rollers, and a series of rollers arranged to press the article being fed against the positively-driven rollers, substantially as set forth.

In testimony whereof I have hereunto set my hand.

WILLIAM H. McFADDEN.

Witnesses:

DARWIN S. WOLCOTT,
M. S. MURPHY.