

UNITED STATES PATENT OFFICE.

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FEED MECHANISM FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 526,447, dated September 25, 1894.

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To all whom it may concern:

Be it known that I, SIGMUND V. HUBER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Feed Mechanism for Rolling-Mills, of which improvements the following is a specification.

The invention described herein relates to certain improvements in mechanism for feeding metal bars, &c., back and forth between the rolls of a rolling mill, and has for its object an arrangement of mechanism whereby the article is not only shifted laterally from pass to pass, but is also given a quarter turn on its axis while being transferred.

In general terms the invention consists in the construction and combination of parts, substantially as hereinafter described and claimed.

In the accompanying drawings forming a part of this specification, Figure 1 is a plan view of a portion of a rolling mill feed table having my improvements incorporated therein with. Fig. 2 is an end elevation of the same; and Fig. 3 is a view similar to Fig. 2, showing certain modifications in the turning mechanism.

In the construction shown in Figs. 1, 2, and 3, a trough 1 provided with a series of ears 2, is pivotally mounted on a series of trucks 3 whose wheels 4 are arranged on rails 5 extending across from the line of feed of one pair or stand of rolls to the line of feed of an adjacent pair or stand of rolls. Two or more of the trucks are connected by links 6 to the ends of arms 7, keyed on the shaft 8, which can be rotated in any suitable manner, so as to move the arms back and forth and thereby shift the trough from in front of one stand of rolls to the line of feed of the other stand of rolls. On one side of the trough are secured arms 9 provided at their outer ends with rollers 10, resting upon the bent rails 11 arranged parallel with the rails 5. While the rollers 10 rest upon the portions *a* of the rails 11, the trough is held with its open side up as shown at the left of Fig. 2, but as the rollers move down along the inclined portions *b* of the rails 11 during the movement of the trucks and trough from left to right, the trough is turned

on its pivotal support as indicated in dotted lines at the right of Fig. 2. As shown in Fig. 1, notches 12 are formed in the side of the trough so that when the latter is turned over as described, the rollers 13 will project into the trough raising the article therein from contact with the side of the trough, so that as the feed rollers 13 are rotated, the article is moved longitudinally out of the trough and into the reducing rolls. It will be observed that as the trough is turned through an arc of ninety degrees while being shifted laterally, the article will be similarly turned on its axis during its lateral movement.

In order to insure the turning of the trough in the manner described, a guard rail 14 is arranged above the inclined portion *b* of the rails 11 so as to cause the rollers 10 on the arms 9 to remain in contact with the portion *b* of the rails during the lateral movement of the trough.

As shown in Fig. 3, the trough may be mounted directly on the axles of rollers or wheels 15 arranged on the rails 5, and the links 6 connected to said axles. In this construction, the arm 7 will in addition to shifting the trough laterally tend to tip the trough over as indicated at the right of Fig. 3, thereby keeping the rollers 10 in contact with the rails 11.

I claim herein as my invention—

1. In a feed mechanism for rolling mills, the combination of rails extending from the line of feed of one pass to the line of feed of another pass in reducing rolls, a trough or support for the article being rolled, movable along said rails, an arm for rotating the trough and a guide along which the arm travels for shifting the arm so as to turn the trough axially, substantially as set forth.

2. In a feed mechanism for rolling mills, the combination of rails extending from the line of feed of one pass to the line of feed of another pass in the reducing rolls, a pivotally mounted trough movable along the rails, and provided with a laterally projecting arm, and a rail for supporting the outer end of the arm, the rail being so bent as to effect an axial movement of the trough, during its lateral movements, substantially as set forth.

3. In a feed mechanism for rolling mills,

the combination of rails extending from the line of feed of one pass to the line of feed of another pass in the reducing rolls, trucks movable along the rails, a trough pivotally mounted on the trucks and provided with a laterally projecting arm, a rail for supporting the outer end of the arm and so bent as to effect an axial movement of the trough during its lateral movements, and a guard rail

for holding the outer end of the arm of the trough in contact with the supporting rail, substantially as set forth.

In testimony whereof I have hereunto set my hand.

SIGMUND V. HUBER.

Witnesses:

F. E. GAITHER,
DARWIN S. WOLCOTT.