

(No Model.)

T. MORRISON.

AUTOMATIC EDGING GUIDE FOR ROLLING MILLS.

No. 505,923.

Patented Oct. 3, 1893.

Fig. 1.

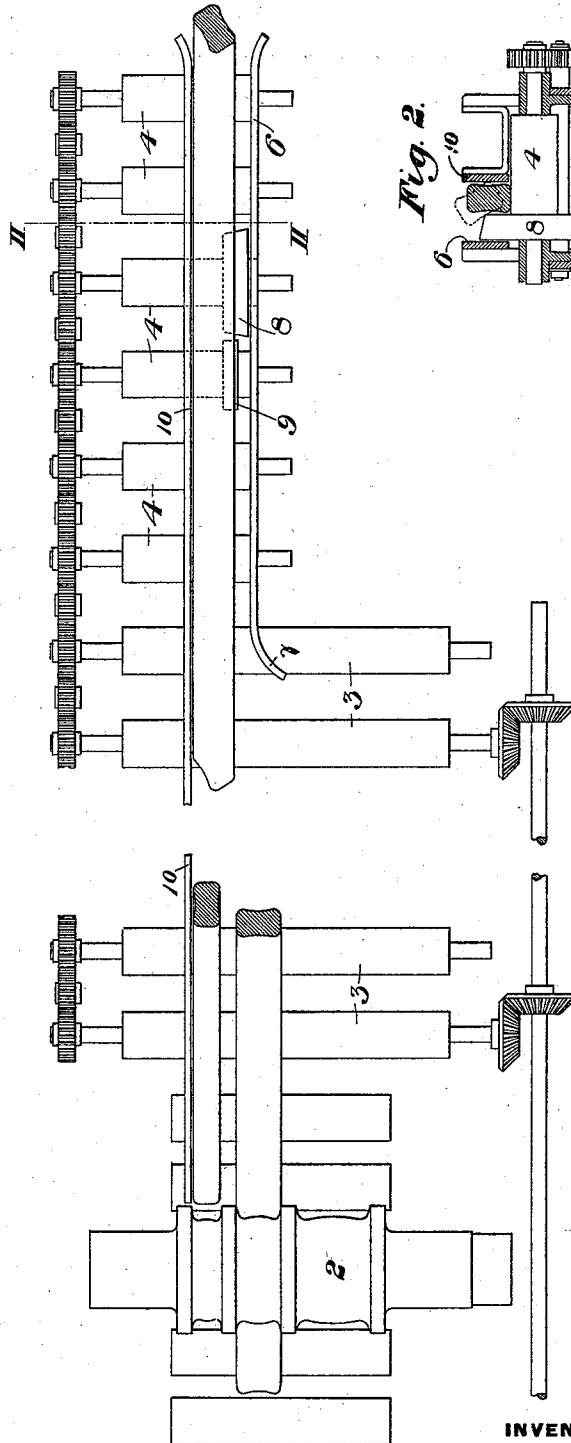
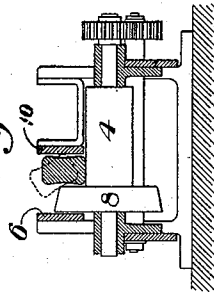


Fig. 2.



WITNESSES

W. H. Corwin
H. M. Corwin

INVENTOR

Thomas Morrison
by his attorneys
H. B. Bakerwell & Sons

UNITED STATES PATENT OFFICE.

THOMAS MORRISON, OF DUQUESNE, PENNSYLVANIA.

AUTOMATIC EDGING-GUIDE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 505,923, dated October 3, 1893.

Application filed July 1, 1893. Serial No. 479,407. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MORRISON, of Duquesne, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Automatic Edging-Guides for Rolling-Mills, 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 of my improved feed-table partly broken away; and Fig. 2 is a cross-sectional view on the line II—II of Fig. 1.

My invention relates to the manipulation of metal upon the feed-tables of rolling-mills, and is designed to produce a table by which the metal is automatically shifted from one pass to the next and at the same time partially rotated or turned over a quarter revolution.

In the drawings, in which similar numerals indicate corresponding parts, 2 represents the upper roll of a mill, having the positively-driven feed-rolls 3. In the rear of these rolls is a series of shorter rolls 4, along whose ends is secured the guide-strip 6, having the curved end portion 7. Of these shortened rolls, one is provided with a tumbler-collar 8 adjacent to the guide-strip, this tumbler-collar being of frusto-conical shape, while a second roll is provided with a plain annular collar 9 in line with the first. Located substantially parallel to the strip 6 is a second guide strip 10, which is placed a sufficient distance from the collar 9 to allow the partially rotated bar to fit snugly between the strip and this collar which holds it in edged position. The guide-strip 10 extends nearly to the rolls and the action is as follows:—The metal emerging from the middle pass strikes the curved end

of the strip 6 and is thereby deflected and turned into the inclosed space between the strips. As it is moved along therein, it strikes the conical collar, and riding upon the same slides down the inclined surface and by force of gravity is rotated and drops into the space between the collars and the strip 10, as shown in Fig. 2. The feed-rolls then being reversed, the metal is carried forward to the next pass with which it is now in line, being retained in position by the strip 10.

The advantages of the invention are apparent, since no hand manipulation is necessary, the entire handling of the metal being done automatically by the action of the rolls.

More than one frusto-conical collar may be used, and many other variations will suggest themselves to those skilled in the art without departure from my invention, since

What I claim is—

1. The combination with a series of feed-rollers, of a tumbler-collar upon one or more of the rollers; said collar having an inclined surface, substantially as described.

2. The combination with a feed-table having driven rollers, of a guide-strip extending along the rollers, and a collar having an inclined surface and carried by one of the rollers; substantially as described.

3. The combination with a guide-strip and a feed-roller having a tumbler-collar coacting therewith to turn the metal, of a second strip arranged to hold the metal in turned position; substantially as described.

In testimony whereof I have hereunto set my hand.

THOMAS MORRISON.

Witnesses:

H. M. CORWIN,
GEO. B. MOTHERAL.