

(No Model.)

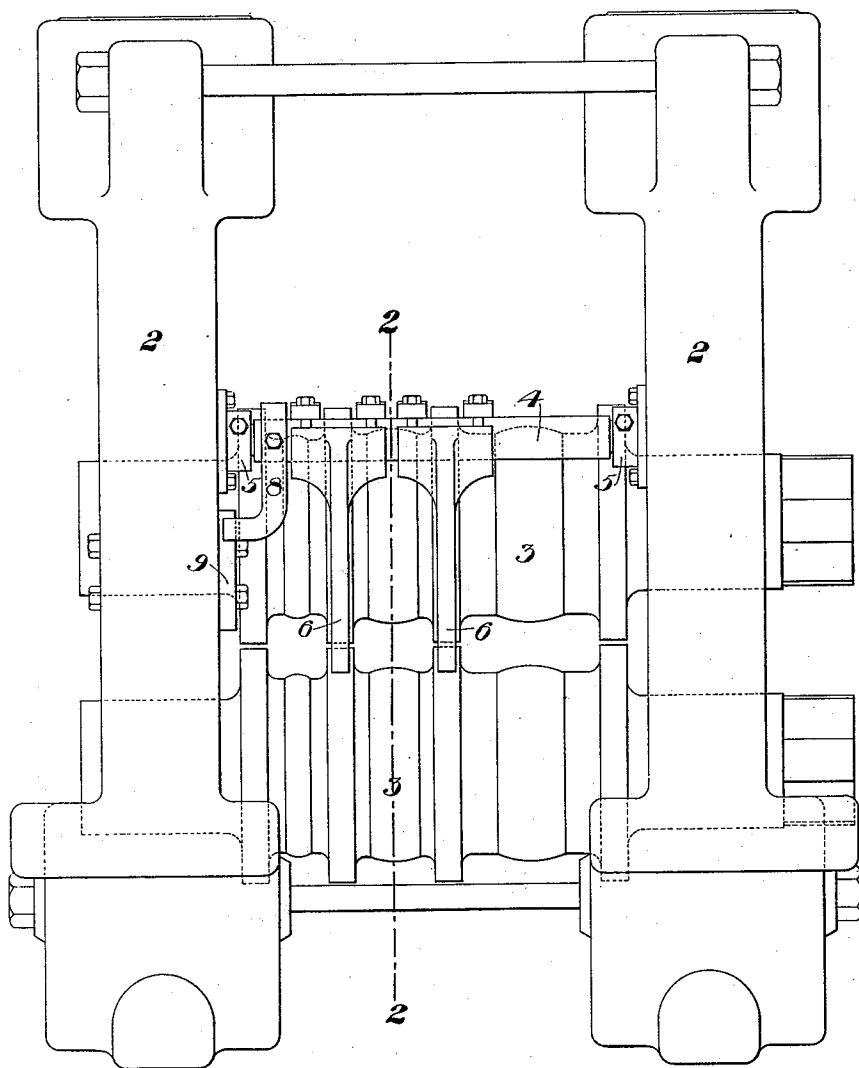
2 Sheets—Sheet 1.

T. MORRISON.
SWINGING GUIDE FOR ROLLING MILLS.

No. 505,922.

Patented Oct. 3, 1893.

Fig. 1.



WITNESSES

W. B. Corwin
A. M. Corwin

INVENTOR

Thomas Morrison
by his attorneys
W. B. Maxwell, Senr.

(No Model.)

2 Sheets—Sheet 2

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Fig. 2.

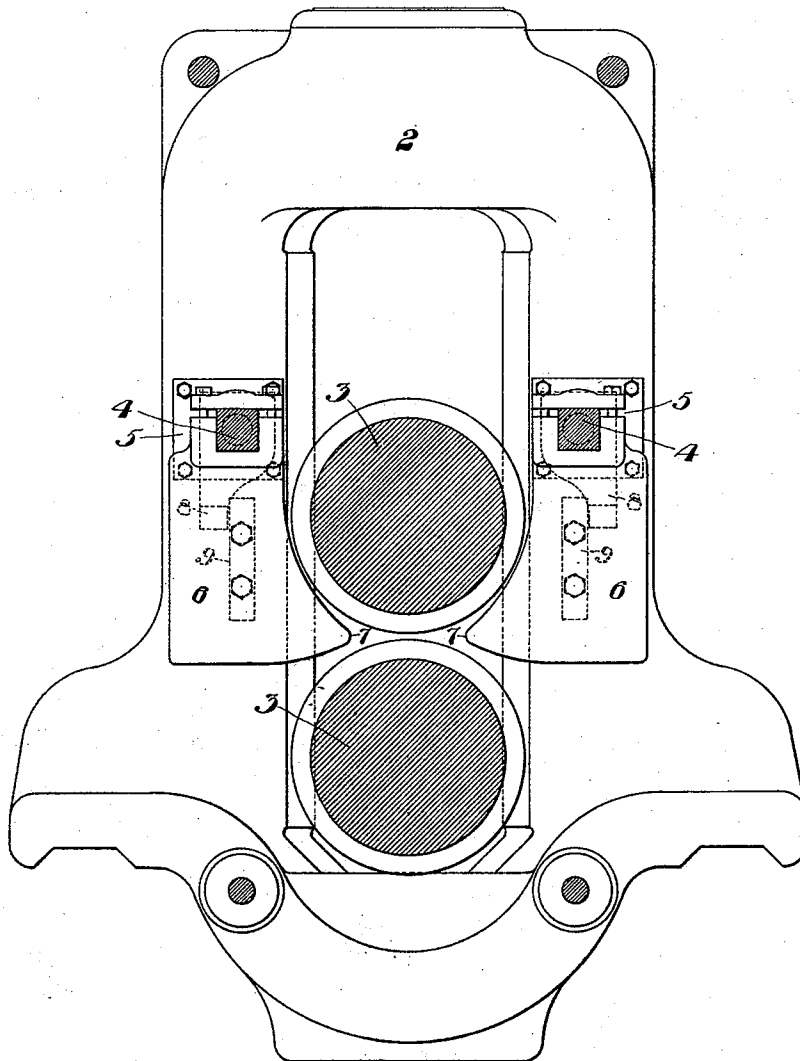
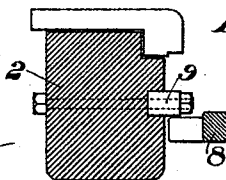


Fig. 3.

WITNESSES
M. C. ...
A. M. ...



INVENTOR
Thomas Morrison
by his attorneys
N. B. Bakewell & Sons

UNITED STATES PATENT OFFICE.

THOMAS MORRISON, OF DUQUESNE, PENNSYLVANIA.

SWINGING GUIDE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 505,922, dated October 3, 1893.

Application filed July 1, 1893. Serial No. 479,406. (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 Swinging 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 front elevation of a two-high mill provided with my improved swinging guides; and Fig. 2 is a vertical section on the line II—II of Fig. 1. Fig. 3 is a detail view of a stop.

My invention relates to the manipulation of metal in two-high reversing mills, and is designed to obviate the necessity of an attendant to direct the metal back through the pass from which it has emerged.

To that end it consists in an automatic guide composed of pivoted plates hung at right angles to the rolls and upon each side of the pass.

In the drawings, 2 indicates the roll-housings, and 3 the rolls of an ordinary two-high reversing mill. On each side of the upper roll is hung a shaft 4, this shaft being squared and having cylindrical end portions supported in bearings 5 bolted to the roll-housings.

To these shafts are secured the plates 6, which extend at right angles to the rolls and are curved upon their inner edges, terminating in points 7, which project between the rolls. These plates are secured on each side of the pass, and to their shaft is secured a stop 8, having a bent portion which strikes a pro-

jecting piece 9, secured to the housing, and prevents the guide-plates swinging into contact with the rolls. The action of the guides is apparent. When the metal emerges upon the feed-rollers, its end still remains within the guides, and hence when the feed-rollers are actuated to move the metal back through the pass, the end is directed into the pass by the side-plates. When a bad end occurs upon the metal bar or the metal twists, the guides swing freely outwardly and offer no obstruction thereto, returning to their normal position as soon as the metal is moved.

The advantages of the device result from the automatic action of the guides and their free movement when obstructions occur.

Many variations may be made in the form and arrangement of the parts without departing from my invention, since

What I claim is—

1. The combination with a two-high mill, of a swinging shaft supported upon the housings, and separated guide-plates carried upon said shaft and extending at right angles to the rolls; substantially as described.

2. A rolling-mill having a shaft pivotally supported in front of the rolls, guide-plates carried by said shaft, and a stop arranged to prevent the plates contacting with the rolls; substantially as described.

In testimony whereof I have hereunto set my hand.

THOMAS MORRISON.

Witnesses:

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