

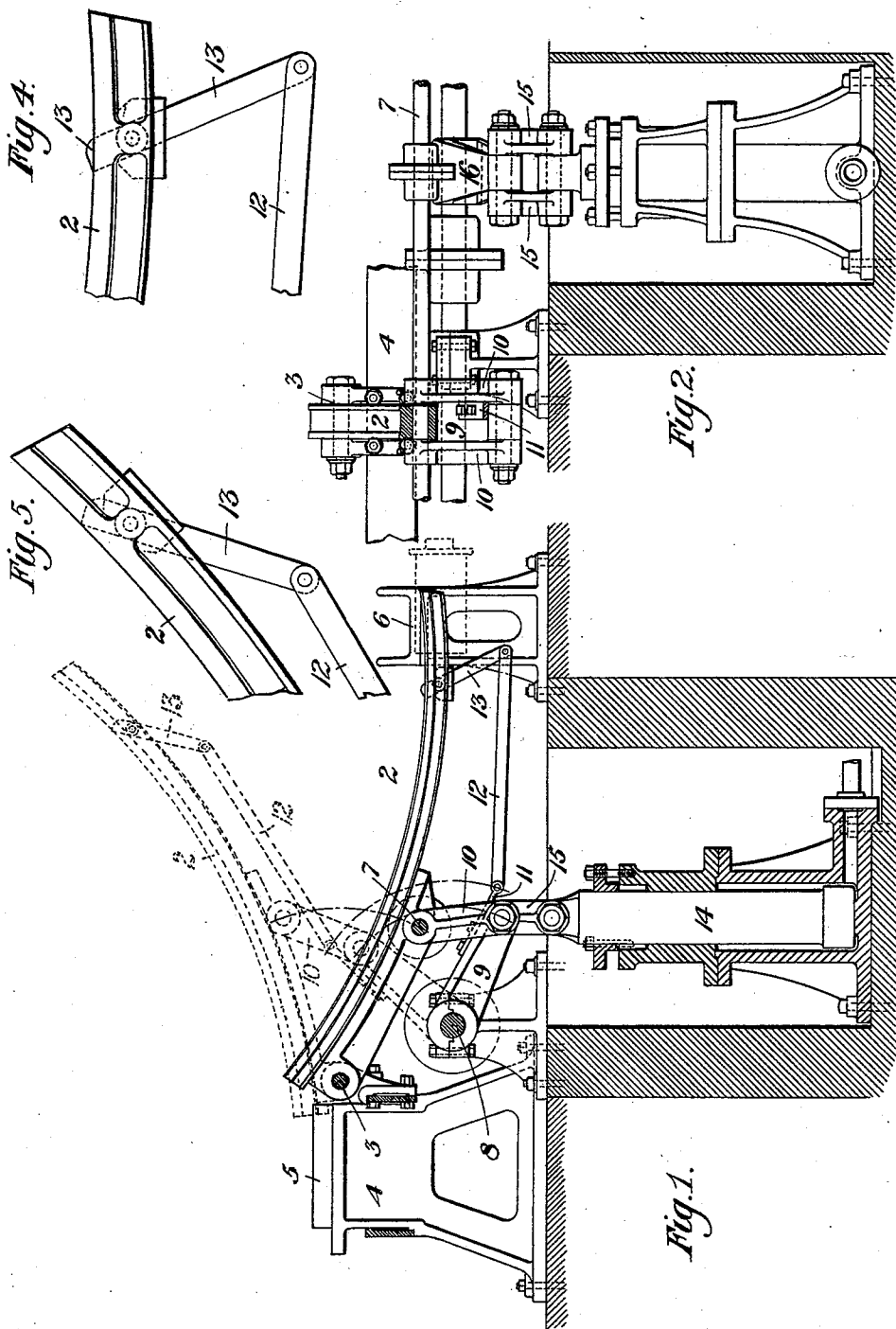
(No Model.)

2 Sheets—Sheet 1.

T. MORRISON.
AUTOMATIC TRANSFER DEVICE.

No. 505,921.

Patented Oct. 3, 1893.



WITNESSES

H. M. Corwin
H. L. Gill.

INVENTOR

Thomas Morrison
by his attorneys
W. B. Baskerville & Sons

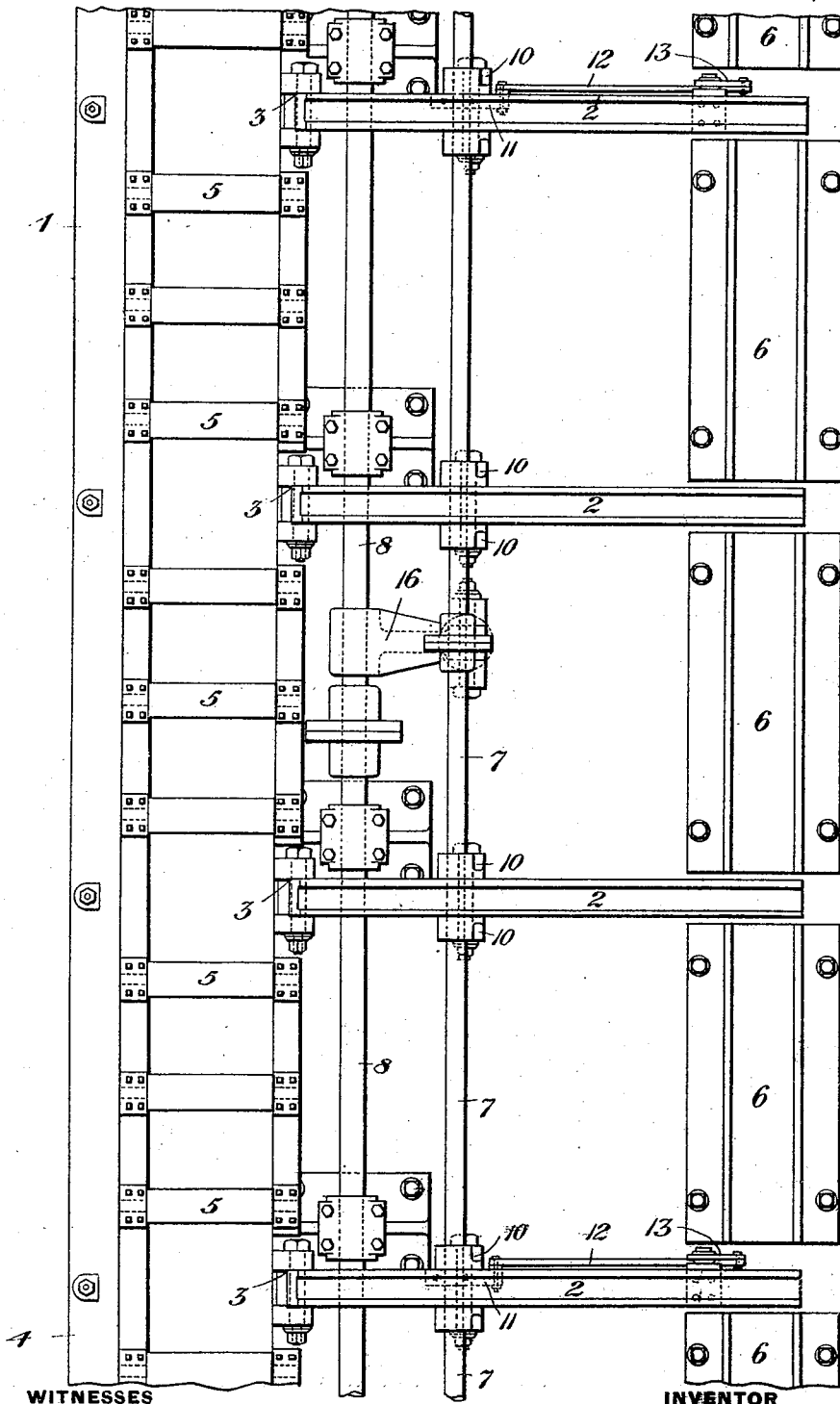
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H. M. Connor
H. L. Gill

Fig. 3.

Thomas Morrison
by his attorneys
W. B. Saxwell, Sols.

UNITED STATES PATENT OFFICE.

THOMAS MORRISON, OF DUQUESNE, PENNSYLVANIA.

AUTOMATIC TRANSFER DEVICE.

SPECIFICATION forming part of Letters Patent No. 505,921, dated October 3, 1893.

Application filed July 1, 1893. Serial No. 479,405. (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 Transfer Devices, 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 an end elevation, partly in section, of my improved transfer arms. Fig. 2 is a partial front elevation of the same. Fig. 3 is a plan view of a feed-trough and a feed-table having my intermediate transfer arms; and Figs. 4 and 5 are detail views, showing the stop in different positions.

Like symbols of reference indicate like parts in each.

My invention relates to the transferring of metal from one feed-table or trough to another by means of transfer arms down which the metal slides by its own gravity, and is designed to retain the metal at the outer portions of the arms until they have risen to a predetermined point, when the metal is released, and the momentum acquired in descending the incline, carries the metal past the lower ends of the arms on to the adjacent feed-table or rollers.

In the drawings, 2 indicates the transfer arms, pivoted at 3 to the side of a feed-table 4, carrying the rollers 5. The outer ends of the arms work within slots in a feed-trough 6, and the series of parallel arms employed are connected by the continuous shaft 7. A continuous shaft 8 extends longitudinally beneath the arms, and is provided with a series of projecting lever-arms 9, one beneath each transfer arm, which lever-arms, at their outer ends, are pivoted between the double links 10, connecting pivotally with the transfer arms 2. To each of the lever-arms 9 is bolted a plate 11, which connects by a link 12 with a stop-lever 13, pivoted to the outer end of the transfer arm and projecting slightly above the same when in normal position, as shown in Fig. 1. A hydraulic plunger 14 is arranged to actuate the arms, being connected with the shaft 8 by the double link 15 and lever 16 of Fig. 2, at a point between two of the transfer arms.

The action is as follows:—The metal having entered the trough 6, the transfer-arms, which lie normally below the level of the trough, are raised by means of the hydraulic plunger 14, and as they rise the metal is prevented from sliding down the same by the pivoted stops 13. These stops are, however, turned by their link connection as the arms rise, and when these arms reach a certain elevation the stops descend below their upper surface, and the metal, sliding down the incline, acquires sufficient momentum to carry it past the ends of the arms on to the rollers 5. The arms are then retracted and the operation repeated as desired.

The advantages of the device are apparent. The billets or bars resting upon the arms ordinarily slide gradually down the incline as the arms rise and lie at their lower portions, and great trouble has been had in making them slide past the ends of the arms, especially where the pieces were of slight weight. My invention removes all these difficulties, as momentum is acquired sufficiently in every case to carry the metal to the desired point.

The stop is simple, cheap and positively operated, and within the scope of my invention as defined in the claims, may be widely varied without departure from my invention, since

What I claim is—

1. The combination with swinging transfer arms, of an automatic stop arranged to release the metal at a certain inclination of the arms; substantially as described.

2. The combination with swinging transfer arms, of a stop lever pivoted thereto, and means for swinging the stop lever as the arm is raised; substantially as described.

3. The combination with swinging transfer-arms, of pivoted stop-levers carried thereby, and having a link-connection with swinging lever-arms; substantially as described.

In testimony whereof I have hereunto set my hand.

THOMAS MORRISON.

Witnesses:

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