

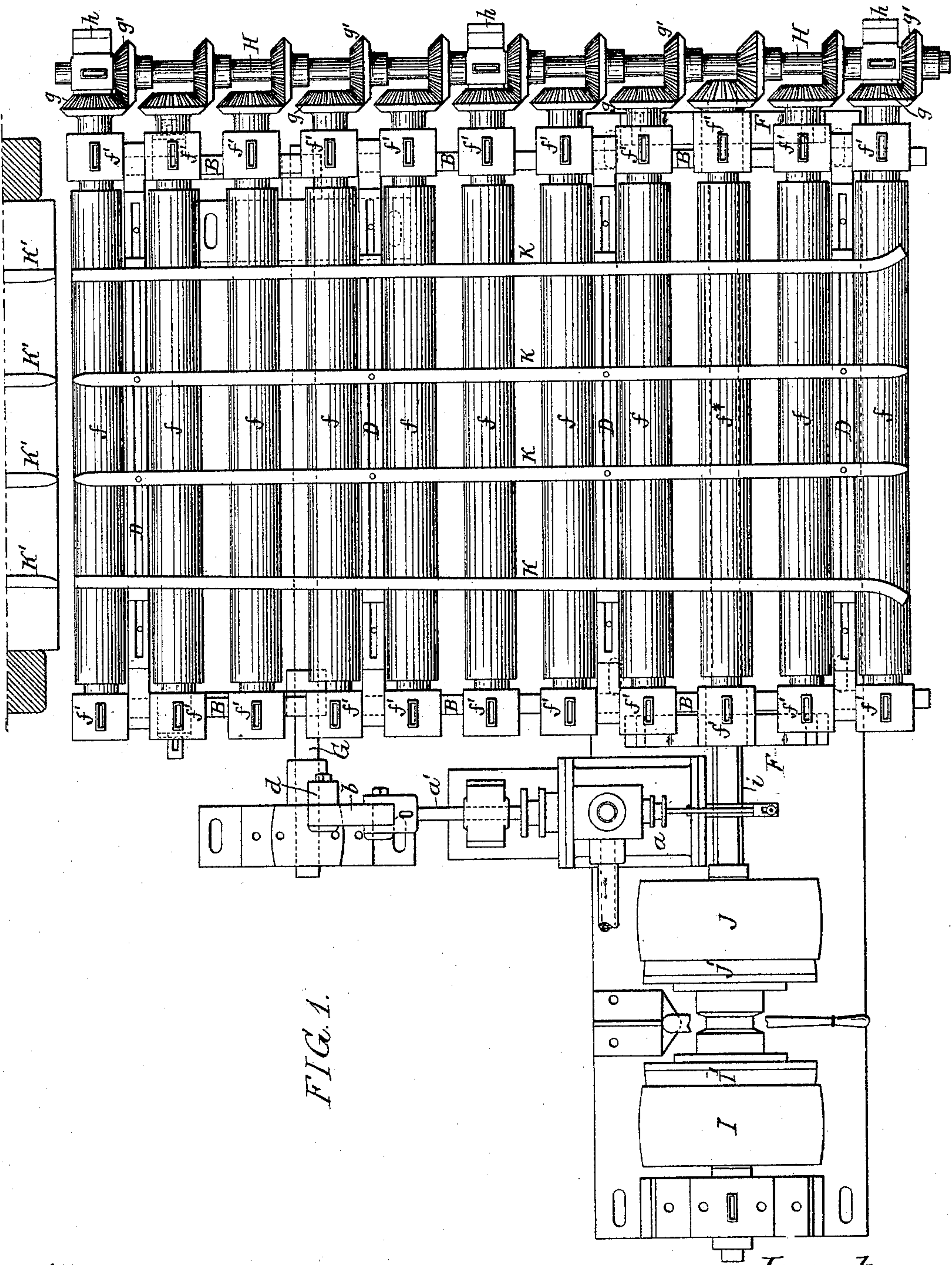
(No Model.)

2 Sheets—Sheet 1.

T. J. PRICE.  
FEED TABLE FOR ROLLING MILLS.

No. 441,895.

Patented Dec. 2, 1890.



Witnesses:  
*Murray C. Boyer.*  
*A. V. Groupe*

Inventor:  
*Thomas J. Price*  
by his Attorneys  
*Howson & Howson*

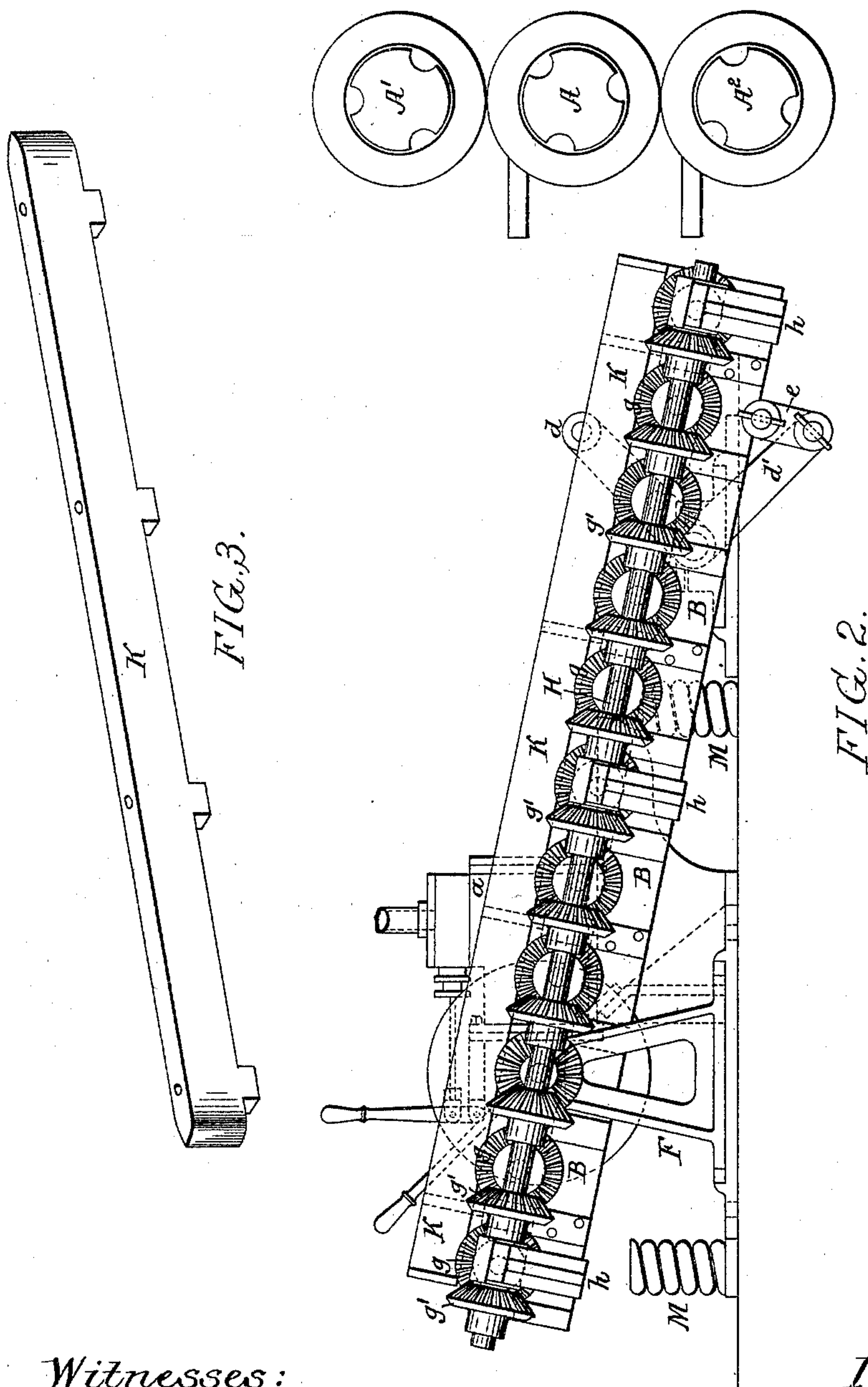
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# UNITED STATES PATENT OFFICE.

THOMAS J. PRICE, OF DANVILLE, PENNSYLVANIA.

## FEED-TABLE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 441,895, dated December 2, 1890.

Application filed September 30, 1890. Serial No. 366,629. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS J. PRICE, a citizen of the United States, and a resident of Danville, Montour county, Pennsylvania, have invented certain Improvements in Feed-Tables for Rolling-Mills, of which the following is a specification.

My invention relates to that class of feed-tables for rolling-mills in which the bed of the table is composed of a series of rotating rollers which can be caused to revolve in either direction, so as to feed the metal forward to the rolls or carry it away from the rolls when it is delivered thereby, my invention relating especially to feed-tables for three-high mills for the manufacture of grooved skelp.

One object of my invention is to so construct such a feed-table that it will be available for the proper direction and guidance of strips or bars of any width less than the width of the rolls, and a further object is to simplify the gearing for driving the rollers constituting the body of the table, while a still further object is to prevent shock or jar as the table is raised or lowered in order to communicate, as desired, with the pass between the upper and middle rolls or with the pass between the lower and middle rolls. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of a feed-table for rolling-mills constructed in accordance with my invention. Fig. 2 represents a side view of the same, and Fig. 3 a detached perspective view of one of the guide-bars.

In Fig. 2, A, A', and A<sup>2</sup> represent, respectively, the middle, upper, and lower rolls of a set of three-high rolls.

The frame of the table consists of opposite side bars B, connected at suitable intervals by transverse stays D, and said frame is hung near one end to opposite standards F, so that it is free to swing therein in order to permit that end of the frame adjacent to the rolls to be raised or lowered, so that it may either feed the metal to or receive it from the pass formed by the middle and lower rolls of the set, as shown in Fig. 2, or from the middle and upper rolls of the set. The raising and lowering of the frame is effected by means of steam or hydraulic power, a cylinder *a* at one side of

the frame having a piston with rod *a'*, which is connected by means of a link *b* to an arm *d* on a transverse rock-shaft G, the latter having arms *d'*, which are connected by links *e* to the side bars of the frame, so that as the piston is caused to traverse in the cylinder *a* in one direction or the other the movement of said piston will be transmitted to the frame, and that end of the same adjacent to the rolls will be raised or lowered.

The rollers *f*, which form the body of the table, have journals adapted to bearings *f'*, carried by the opposite side bars of the frame, and the journal at one end of each roller has a bevel-wheel *g*, meshing with a like bevel *g'* on a counter-shaft H, which is mounted in suitable projecting bearings *h* on one of the side frames B. One of the rollers *f*—in the present instance that marked with a star—has a shaft *i*, extending through the trunnions of the frame and provided with two belt-pulleys I and J, both of which are loose on the shaft, and either of which may be clutched to said shaft by means of a friction or other clutch disk I' J', one of these pulleys being intended to be driven by a straight belt and the other by a crossed belt, so as to provide for rotating the shaft *i* and its roller *f*.\*

Mounted upon the transverse bars D of the frame are a series of guide bars or rails K, four of these being shown in the present instance, although more or less than this number may be employed, if desired, similar guides K' being formed upon the plate or platform carried by the roll-housings in advance of the guides on the table. The transverse bars D are slotted for the reception of the bolts, whereby the guides K are secured thereto, so that said guides can be adjusted transversely in respect to the rolls, or can be moved toward or from each other, so as to form guideways for strips or bars of any width less than the width of the rolls, and so as to direct these bars or strips to any desired portion of the rolls.

Under each of the side bars B of the frame of the table are a pair of springs M—one in advance of the trunnion and one in rear of the same—these springs being such that the forward springs will receive the weight of the table just before the latter reaches the limit of its movement in lowering the front end of the same, while the rear springs act upon the



rear portion of the table just before the front end of the same has been fully lifted. The springs therefore serve to cushion the movements of the table and prevent any shock or jar which might otherwise be caused.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of the frame of the table, trunnioned in standards or supports so as to swing therein, the feed-rollers carried by the table, the counter-shaft geared to said rollers, and the driving-shaft extending through the trunnions of the table and geared to said counter-shaft, substantially as specified.

2. The combination of the table and its power-driven rollers with transverse support-

ing-bars and guides mounted on said bars above the rollers and adjustable transversely on the table, substantially as specified.

3. The combination of the pivoted table and its power-driven rollers with cushioning-springs acting on the table as the latter approaches either extreme of its movement, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS J. PRICE.

Witnesses:

H. W. THOMAS,  
ROBERT ADAMS.