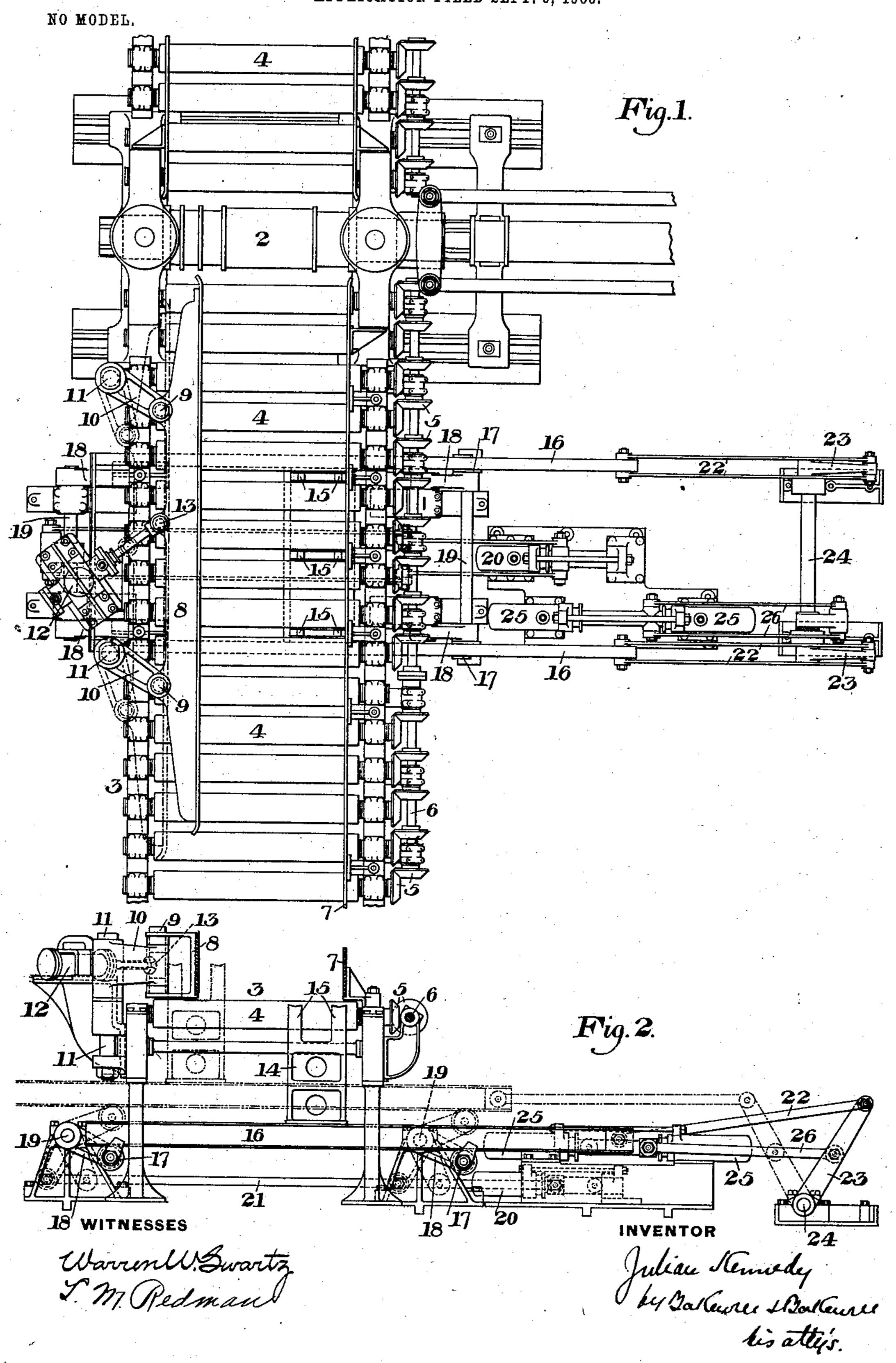
J. KENNEDY.
ROLLING MILL APPLIANCE.
APPLICATION FILED SEPT. 6, 1900.



United States Patent Office.

JULIAN KENNEDY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND SAMUEL T. WELLMAN, TRUSTEES, OF CLEVELAND, OHIO.

ROLLING-MILL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 721,046, dated February 17, 1903.

Application filed September 6, 1900. Serial No. 29,116. (No model.)

To all whom it may concern:

Be it known that I, JULIAN KENNEDY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rolling-Mill Appliances, 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 appliance shown in connection with a slabbing-mill, and Fig. 2 is an end ele-

vation of the same.

My invention relates to the manipulation of ingots, slabs, or other pieces of metal upon rolling mill feed tables. Heretofore vertically and laterally movable manipulators having fingers projecting upwardly between the feed-rolls have been used for this general purpose; but these in many cases have not enabled the operator to properly turn and move the piece.

My invention is designed to provide improved mechanism for moving the piece on the table; and it consists, broadly, in providing a longitudinal laterally-movable guide which extends over the feed-rollers and is moved across the table in parallel lines by suitable mechanism, in combination with a

30 manipulator which coacts therewith.

In the drawings, 2 represents a stand of rolls which are shown as forming a slabbingmill, and 3 a feed-table leading thereto and having feed-rolls 4, provided with bevel-35 wheels 5, driven from similar bevel-wheels on a longitudinal shaft 6. This feed - table is provided at one side with a stationary shield or guide 7, extending over the rollers and longitudinally of the table, while at the op-40 posite side and parallel thereto is provided the laterally-movable guide 8, carried on the pivots 9 of levers 10 10. The links or levers 10 are secured to short shafts or bolts 11, pivoted in the frame of the table, and the guide 45 is moved by a small hydraulic cylinder 12, having its piston-rod pivoted thereto at 13. Owing to the equal lengths and angles of the levers, it is evident that when this movable guide is actuated it will move in parallel lines 50 or planes across the table. In connection with this guide I have preferably used a manipulator, which may consist of finger-sup-

ports 14, carrying the fingers 15 and secured to a platform having rails 16, resting upon rollers 17, mounted on levers 18. The levers 55 18 are secured to rock-shafts 19, which are actuated from motive cylinder 20 through the link 21. The platform carrying the fingers is moved back and forth upon the rollers through links 22, connected to levers 23, 60 which are secured to rock-shaft 24. This rock-shaft is actuated from another motive cylinder 25 through link 26.

In the use of my improved appliance the operator, through suitable valves, controls 65 the movement of both the movable top guide and the manipulator proper, and by actuating them in the proper way can tilt and move the slab or piece into any desired position on any part of the table. This is done quickly 70 without the use of manual labor, and owing to the longitudinal guide the piece is prop-

erly alined to enter the desired pass.

Many variations may be made in the form and length of the movable guide and the 75 mechanism for moving it without departing from my invention.

I claim—

1. The combination with a feed-table, of a longitudinal guide extending across the roll-80 ers and having a flat vertical face, mechanism for moving the guide across the table and over the rollers in substantially parallel lines, a manipulator arranged to tilt the metal against the guide in the different adjusted 85 positions thereof, and mechanism for moving the manipulator transversely of the table; substantially as described.

2. The combination with a feed-table, of a movable guide extending longitudinally over 90 its rollers, connections arranged to move the guide in substantially parallel lines across the table and above the rollers, a manipulator having fingers projecting between the rolls and arranged to tilt the metal; and mechan-95 ism for moving the manipulator transversely of the table and independently of the guides; substantially as described.

In testimony whereof I have hereunto set my hand.

JULIAN KENNEDY.

Witnesses:

H. M. CORWIN, C. P. BYRNES.