No. 768,050. PATENTED AUG. 23, 1904.

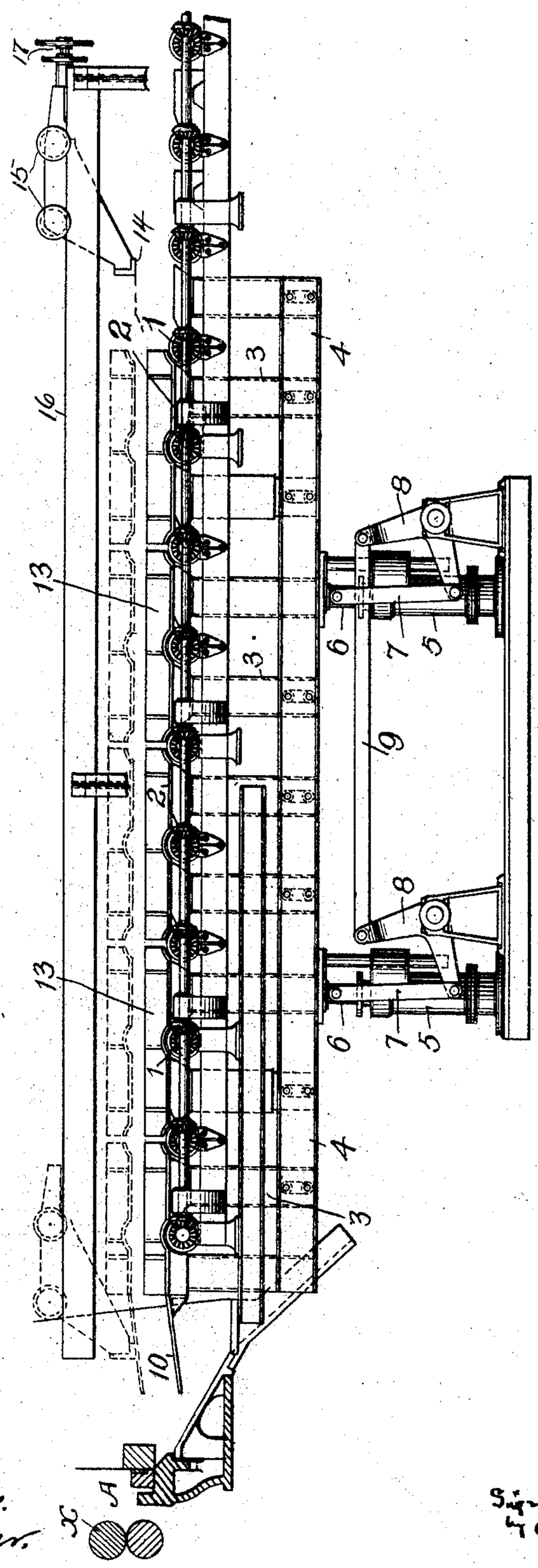
S. V. HUBER.

PILING MECHANISM.

APPLICATION FILED JAN. 2, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:
Herbert Bradley.
Fred Kirchner.

INVENTOR
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NO MODEL. 2 SHEETS—SHEET 2.

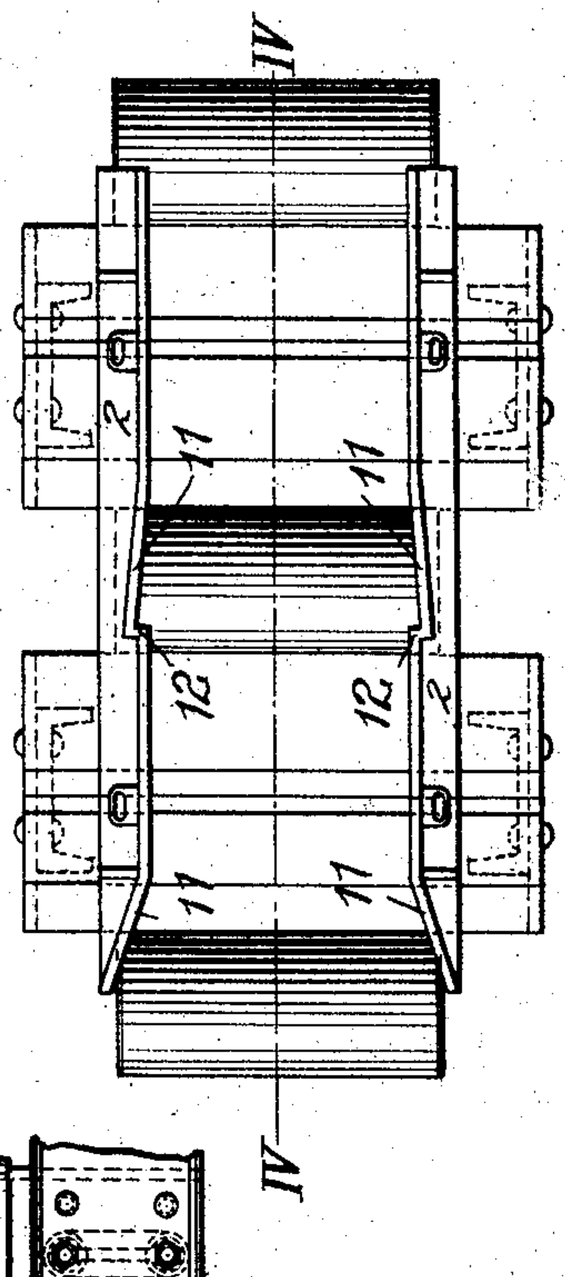

FIG. 3.

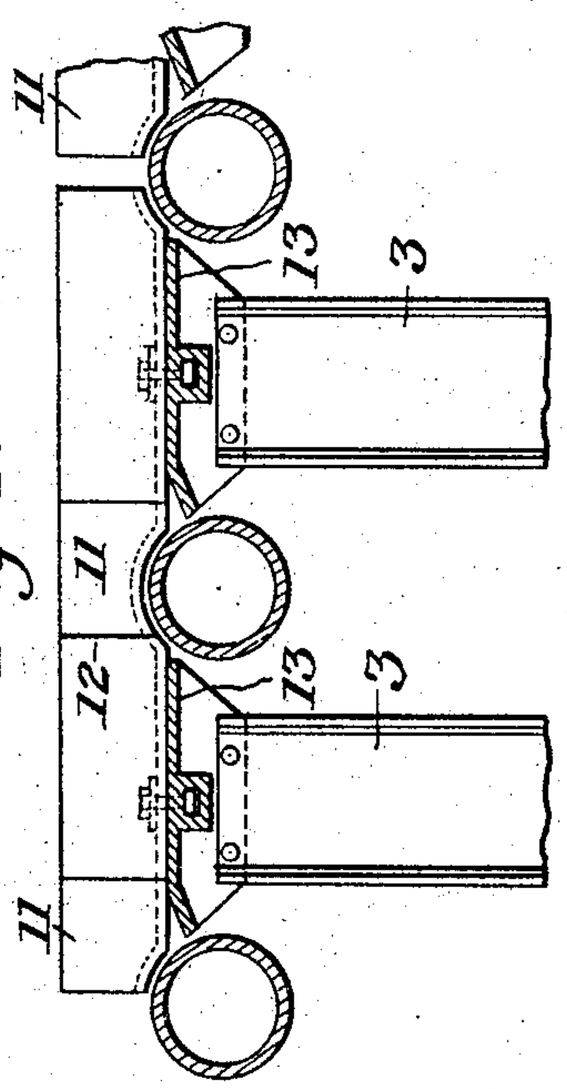

Fig. 4.

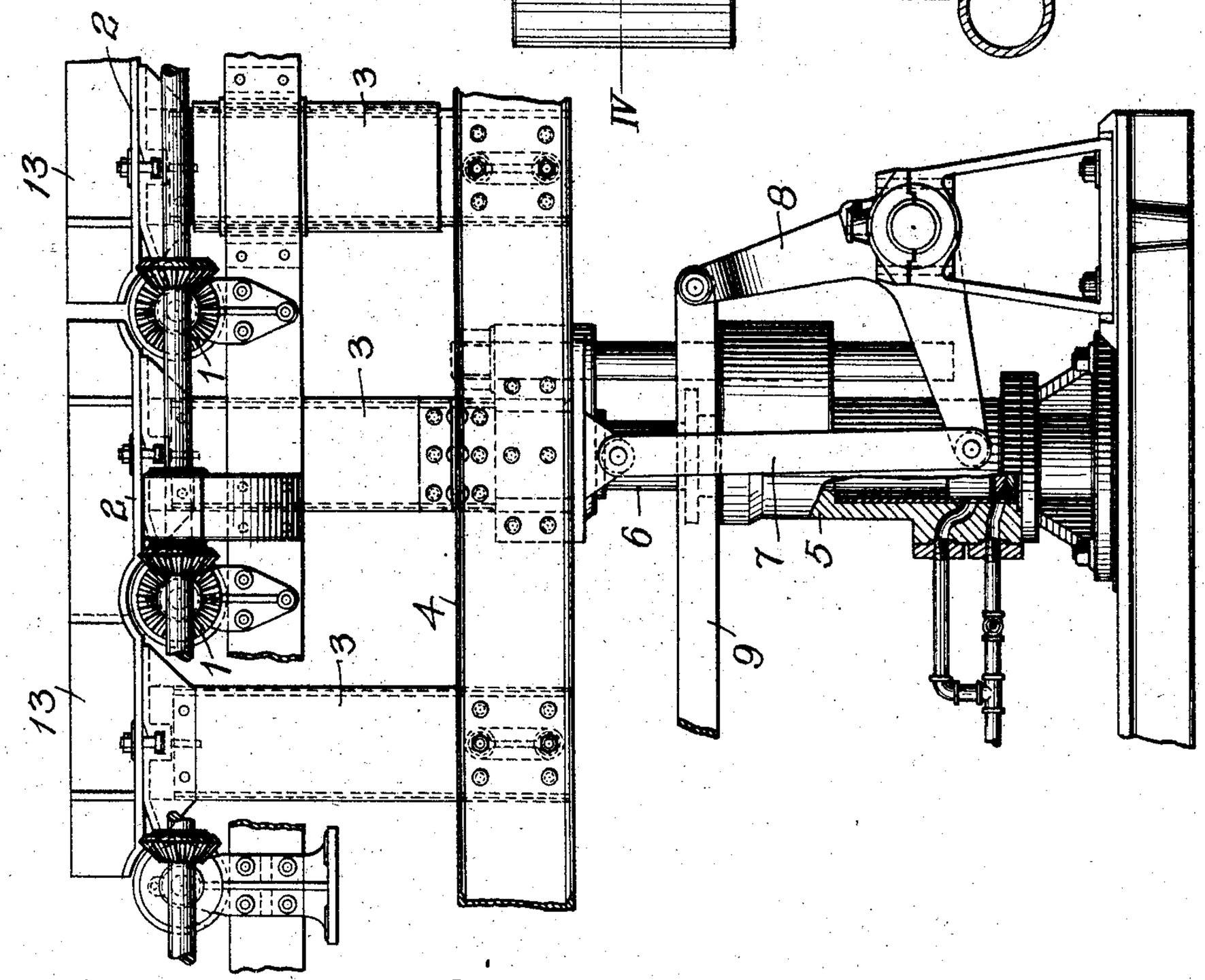

FIG. 2.

WITNESSES:
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No. 768,050. Patented August 23, 1904.

UNITED STATES PATENT OFFICE.

SIGMUND V. HUBER, OF PITTSBURG, PENNSYLVANIA.

PILING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 768,050, dated August 23, 1904.

Application filed January 2, 1904. Serial No. 187,530. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND V. HUBER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Piling Mechanism, of which improvements the following is a specification.

The invention described herein relates to certain improvements in mechanism for arranging bars or plates in piles as they come from a shearing or other mechanism and transporting such piles to any desired point.

It is a further object of the invention to provide for the feeding of the bars or plates through the shears or other mechanism onto a movable support and then shifting such support so as to bring the upper surface of the plate or bar last fed to or approximately to the level of the upper edge of the lower shear-blades.

It is a further object of the invention to arrange the bars or plates upon a suitable frame or support and when a sufficient number have been arranged in a pile to bring such pile into contact or engagement with positively-driven rollers whereby the pile may be shifted to any desired point.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of my improved piling and transfer mechanism. Fig. 2 is a side elevation, parts being shown in section, on an enlarged scale, of a portion of the piling mechanism. Fig. 3 is a detail plan view of a portion of the transfer mechanism; and Fig. 4 is a sectional elevation of a plane indicated by the line IV IV, Fig. 3.

In the practice of my invention a series of positively-driven rollers 1 are arranged in a suitable framework located in the rear of a shear A or other mechanism for operating on plates or bars. These plates or bars as they pass through the shear move onto a suitable trough or frame 2, which is secured to posts or standards 3, extending up from the supporting-beams 4. The trough consists of cross-pieces 13, secured to the upper ends of posts 3, and the side plates or guides which are adjustably secured to the cross-pieces, forming the bottom of the trough and filling the space between the feed-rollers. These beams 4, together with the trough or frame, are designed to be raised and lowered by any suitable form or construction of mechanism—such, for example, as that shown, consisting of fluid-pressure cylinders 5, provided with rams or pistons 6, to which are secured the beams 4. In order to insure an equal and simultaneous movement of the rams or pistons, the latter are connected by links 7 to arms or bell-cranks 8, the opposite arms of these bell-cranks being connected together by a bar 9. By this construction the trough 2 may at the beginning of a shearing operation be raised to such a height that its guide-tongue 10 will be on a level with the edge of the lower blade of the shear mechanism.

After a bar or plate has been fed onto the trough by feed mechanism (indicated at *x*) the latter is lowered a distance equal to the thickness of the previous plate or bar and another plate or bar fed thereonto, the rear end of the previous plate or bar serving as a guide for the second plate or bar from the shear to the trough. As soon as a sufficient number of plates or bars have been thus arranged one upon the other a suitable movement is imparted either to the series of positively-driven rollers or to the trough 2, whereby the pile of bars will be caused to rest upon the rollers 1 and be clear of the bottom of the trough. On the rotation of the rollers after such adjustment or shifting of the parts the pile of plates or bars will be shifted longitudinally by the rollers. As the trough 2 is moved to permit of the piling of the plates or bars thereonto, it is preferred that it should also be moved in order to bring the pile of plates or bars into engagement with the rollers. This latter movement is effected by simply lowering the trough, the positively-driven rollers being arranged below the latter and extending across the same transversely.

As shown in the drawings, the bottom of the trough or frame is cut away in line with

the rollers, so that when the latter is lowered the pile of plates or bars will rest upon the rollers projecting through such openings.

In order to prevent thin plates or bars from entering between the guides or sides of the trough and the rollers, these guides or sides are provided with inclined portions 11 and shoulders 12, which will tend to throw the advancing end of the plate or bar away from the sides. A stop-block 14 is provided in order to determine the length of the article to be sheared. This block is provided with rollers 15, mounted upon a bar 16, and suitable means, as a screw 17, are provided for the adjustment of the stop.

I claim herein as my invention—

1. In an apparatus for piling bars, plates, &c., the combination of a pair of rolls, a receiving trough or frame arranged to receive articles from said rolls, means for raising and lowering the trough or frame, and means for moving the plates or bars longitudinally from the trough, substantially as set forth.

2. In an apparatus for piling plates, bars, &c., the combination of a pair of rolls, a receiving trough or frame arranged to receive articles from said rolls, means for raising and lowering the trough or frame, positively-driven feed-rollers, and means for bringing the trough or frame and the feed-rollers into such relation to each other that the plates or bars may be shifted longitudinally by the rollers, substantially as set forth.

3. In an apparatus for piling plates, bars, &c., the combination of a pair of rolls, a receiving trough or frame arranged to receive articles from said rolls, a series of positively-driven feed-rollers, and means for moving the trough or frame toward and from the rollers, substantially as set forth.

In testimony whereof I have hereunto set my hand.

SIGMUND V. HUBER.

Witnesses:

DARWIN S. WOLCOTT,

F. E. GAITHER.