

No. 671,991.

Patented Apr. 16, 1901.

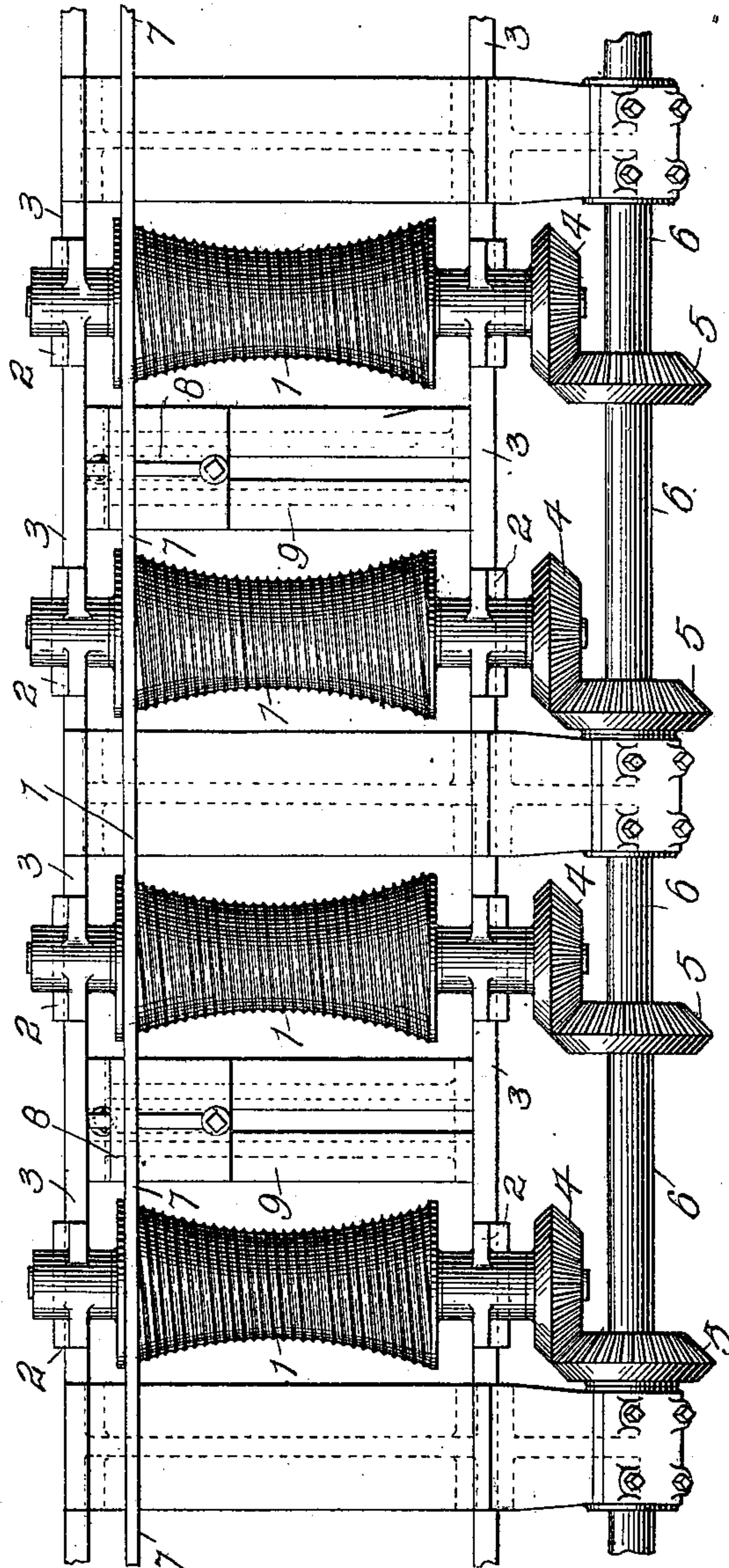
S. E. DIESCHER.
FEED TABLE.

Application filed Oct. 2, 1900

(No Model.)

3 Sheets—Sheet 1.

FIG. 1.



WITNESSES:

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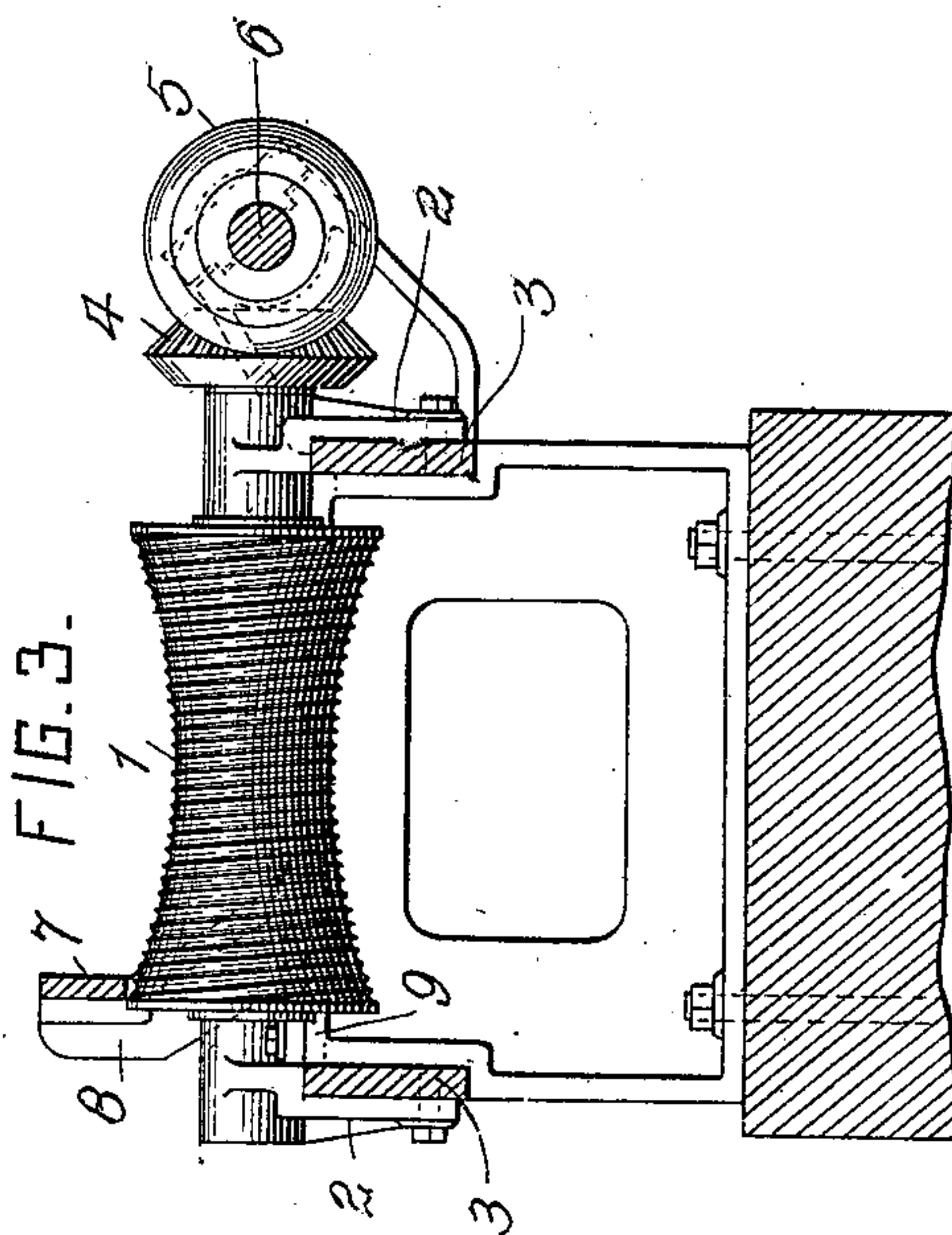
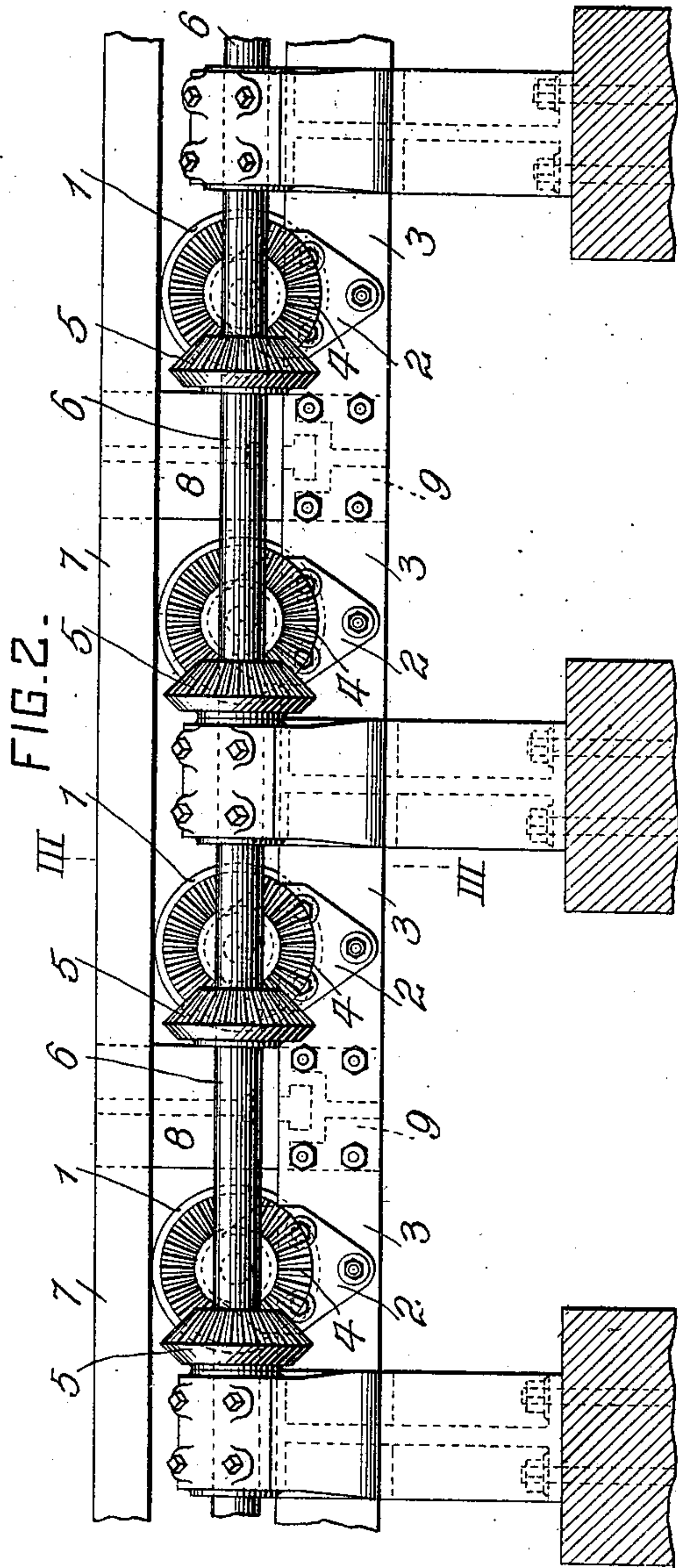
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(No Model.)

(Application filed Oct. 2, 1900.)

3 Sheets Sheet 2.



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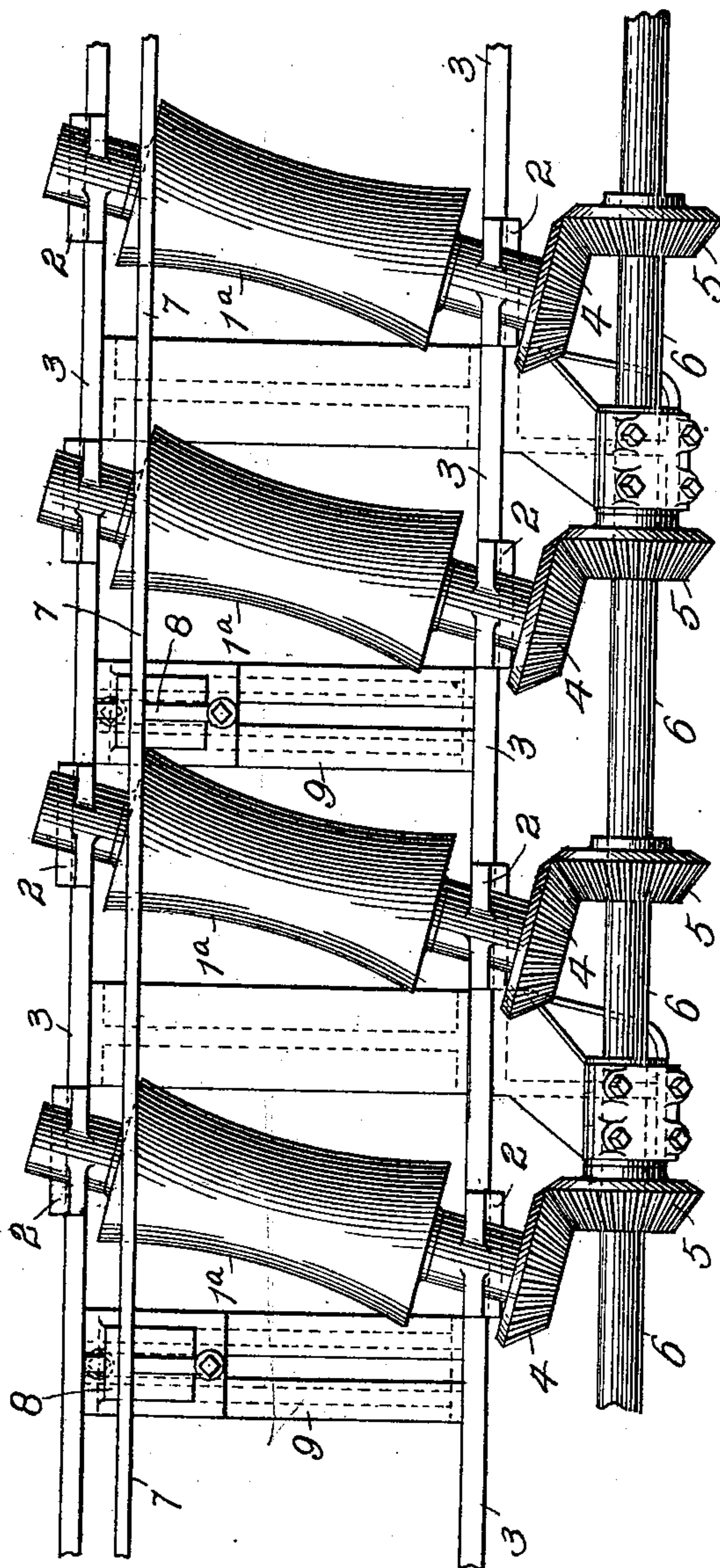
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(No Model.)

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3 Sheets—Sheet 3.

FIG. 4.



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UNITED STATES PATENT OFFICE.

SAMUEL E. DIESCHER, OF PITTSBURG, PENNSYLVANIA.

FEED-TABLE.

SPECIFICATION forming part of Letters Patent No. 671,991, dated April 16, 1901.

Application filed October 2, 1900. Serial No. 31,755. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. DIESCHER, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Feed-Tables, of which improvements the following is a specification.

It is characteristic of the method now generally practiced that only one side or portion of the pipe, bar, &c., is in contact with the cold rollers of the feed-table. Hence the side or portion in contact with the rollers is chilled, thereby rendering subsequent reduction or other working irregular.

The object of the present invention is to provide for the axial rotation of the pipe, bar, &c., while being moved longitudinally along the feed-table.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of a feed-table embodying my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation, the plane of section being indicated by the line III III, Fig. 2; and Fig. 4 is a view similar to Fig. 1, illustrating a modification of my improvement.

In the practice of my invention the feed-rollers 1 have the journals mounted in bearings 2, secured to the side frames 3 of the table. A portion at least of the rollers have the journals at one end extended to form necks for the reception of driving-pinions 4, which intermesh with corresponding pinions 5 on the shaft 6. It will be understood by those skilled in the art that any suitable form or construction of driving mechanism may be employed for rotating the rollers.

In the construction shown in Figs. 1, 2, and 3 the rollers are arranged with their axes at right angles to the desired line of longitudinal movement of the pipe, bar, &c., but the body portions of the rollers are made concave or oppositely coned from a line approximately midway of their length. The surfaces of these concave or double-cone rollers are spirally roughened from one end to the other, as by the formation of ribs extending spirally around the rollers from one end to

the other. By reason of this construction a pipe or bar while being moved longitudinally is rolled toward one or the other end of the rollers, dependent upon the direction of rotation of the latter. As the under portion of the pipe, bar, &c., is held from sliding back by the roughened surfaces of the rollers the shifting of center of gravity of the pipe or bar as it moves laterally up the inclined surfaces of the rollers will cause it to rotate axially and roll down to or toward the middle of the rollers, from which position it will be immediately shifted by the spirally-roughened surfaces of the rollers.

In lieu of forming the rollers with spirally-roughened surfaces they may be arranged, as shown in Fig. 4, with their axes at an angle less than a right angle to the desired line of longitudinal movement of the pipe or bar, &c. As the points on the rollers 1^a which bear on the roller to shift it longitudinally move in a direction at an angle to the axis of the pipe or bar a lateral as well as a longitudinal movement will be given to the article, causing it to move up into the inclined portions of the rollers, from which position it will roll down, as heretofore described.

It will be readily understood from the foregoing that the pipe or bar, &c., is being constantly shifted both longitudinally and axially, so that any cooling by reason of contact with the feed-rollers will be uniformly distributed.

In order to prevent the article from being moved laterally off of the rollers in case it fails to roll down the inclined portions of the latter, a guide-rail 7 is secured to brackets 8, which are adjustably mounted in cross-bars 9 of the frame. This rail is arranged above and adjacent to the ends of the rollers toward which the article is shifted laterally.

It is characteristic of both forms of my invention that the surfaces of the rollers act upon the pipe, bar, &c., at an angle to the line of movement of the article, so that the latter is subjected simultaneously to a longitudinal and lateral thrust. As this thrust is exerted on the under side of the article and tangentially thereto, it will tend to impart an axial rotation to the article.

The table may be employed for either feeding the article to or removing it from rolls,

dies, or other mechanism for operating on the article, and the term "feed-table" is used herein in its broadest sense.

I claim herein as my invention—

5 1. A feed-table having in combination a line or series of feed-rollers arranged in or approximately in a common plane below the line or plane of movement of the article to be fed and having their supporting or operative
10 surfaces arranged to impart an axial and longitudinal movement to the articles fed thereby, substantially as set forth.

15 2. A feed-table having in combination a series or succession of two or more feed-rollers having portions of their surfaces inclined, and means whereby the article while being moved longitudinally is caused to move laterally up the inclined portions, substantially as set forth.

3. A feed-table having in combination a 20 series or succession of two or more concave or double-cone rollers, arranged in or approximately in a common plane below the line or plane of movement of the article to be fed and having their operative surfaces arranged at 25 an angle to the line of feed of the article, substantially as set forth.

4. A feed-table having in combination a series or succession of two or more concave or double-cone rollers, having their surfaces 30 spirally roughened, substantially as set forth.

In testimony whereof I have hereunto set my hand.

SAMUEL E. DIESCHER.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.