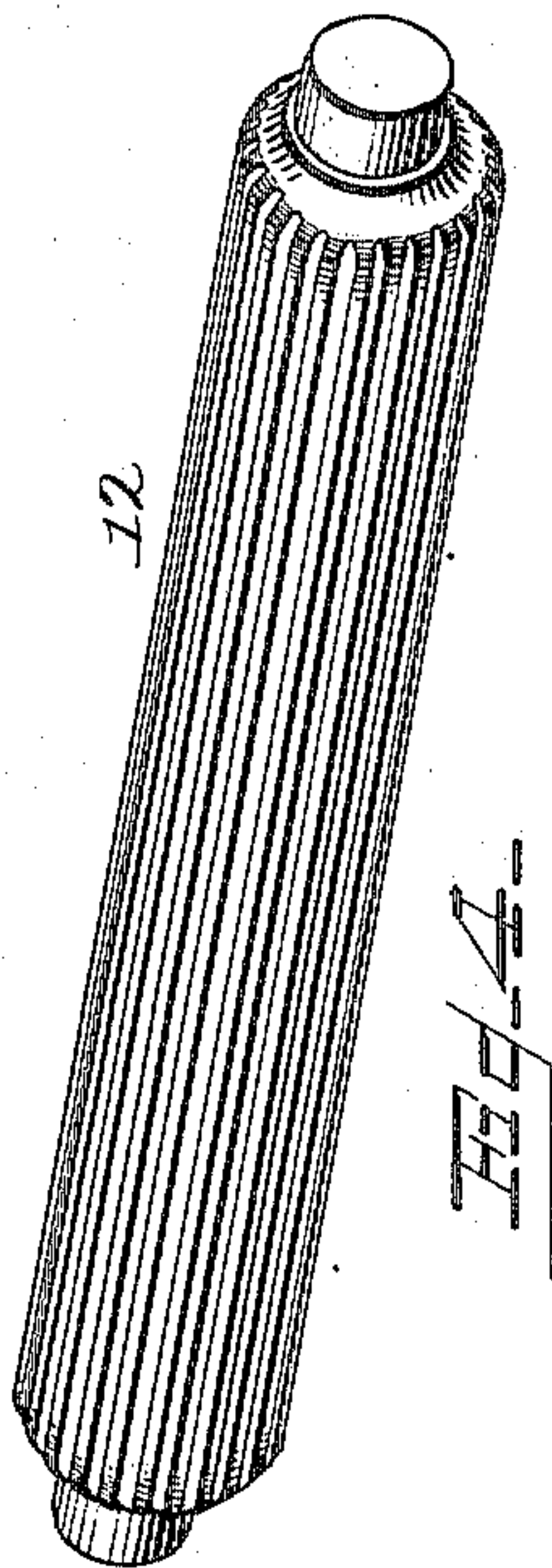
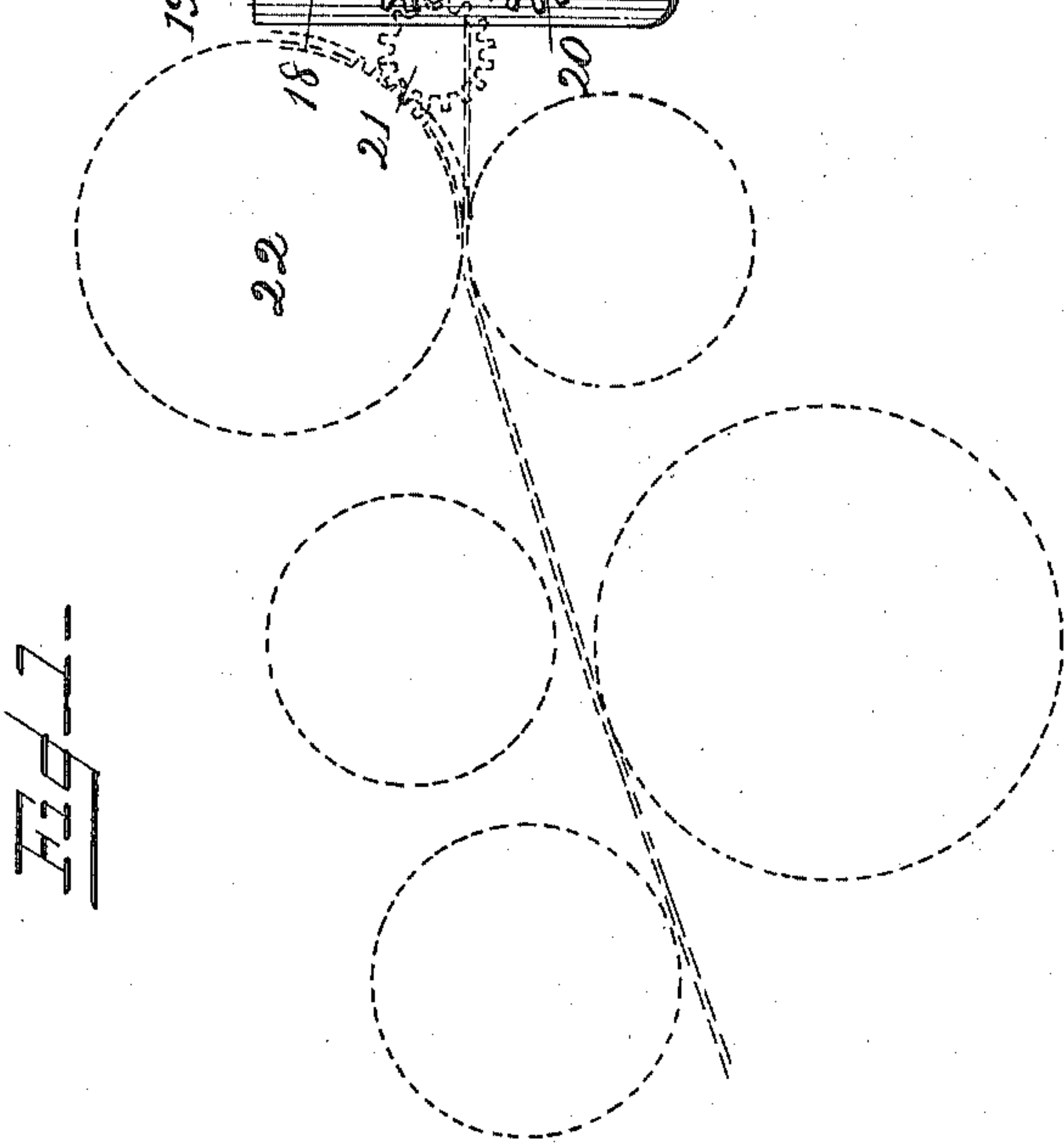
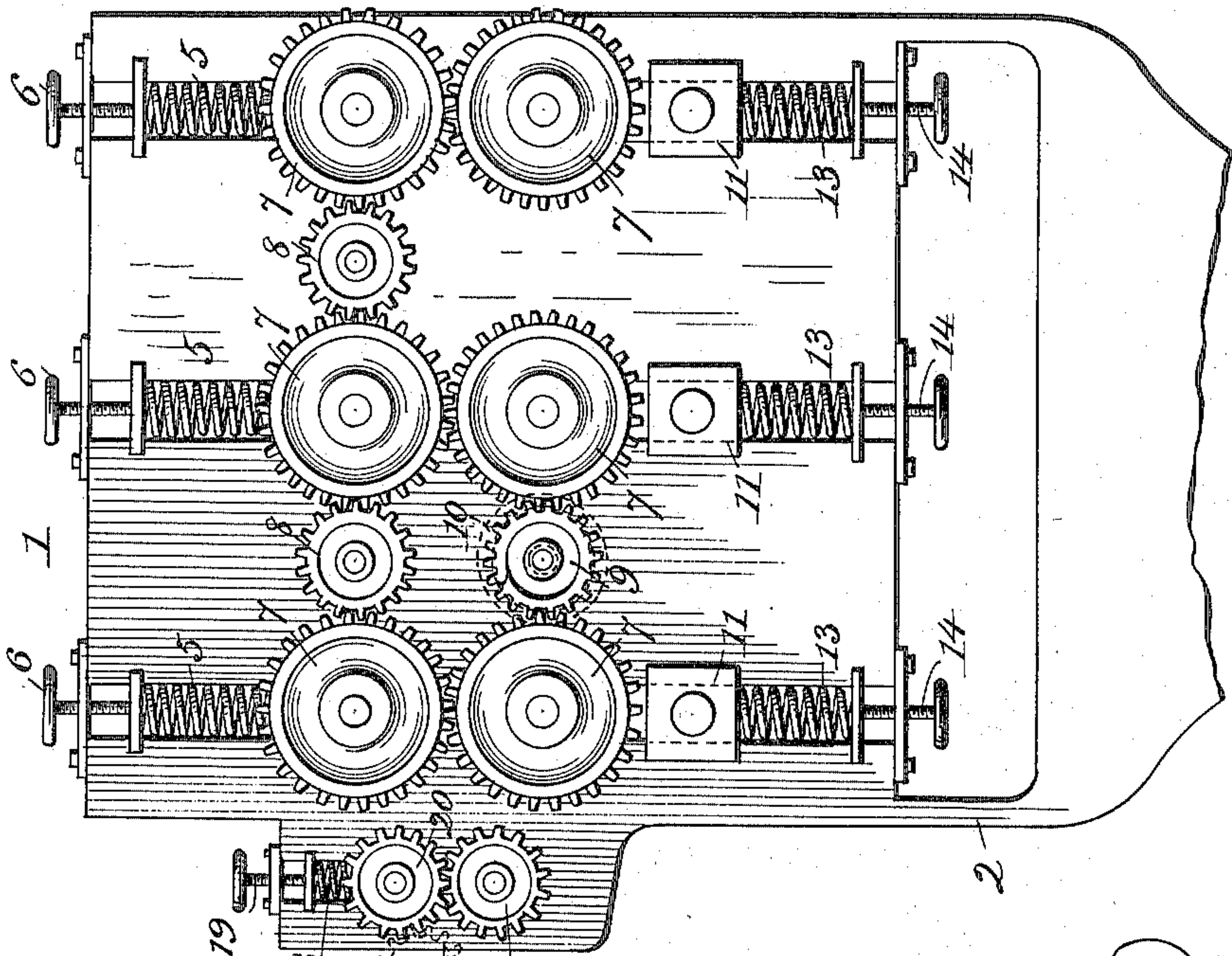


T. F. MINAHAN.
DAMPENING MACHINE.
APPLICATION FILED MAY 20, 1909.

951,425.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

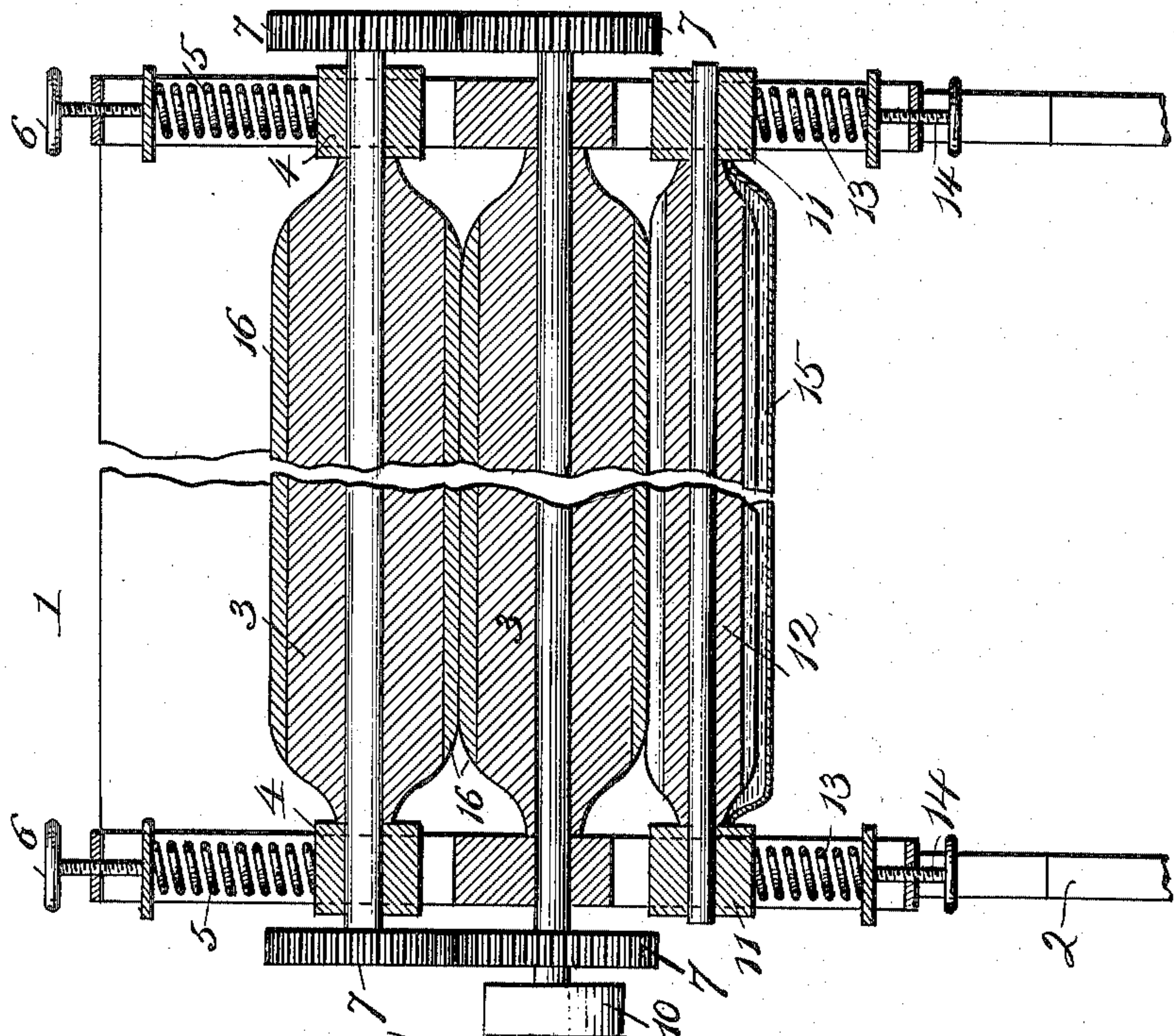


Fig. 1.

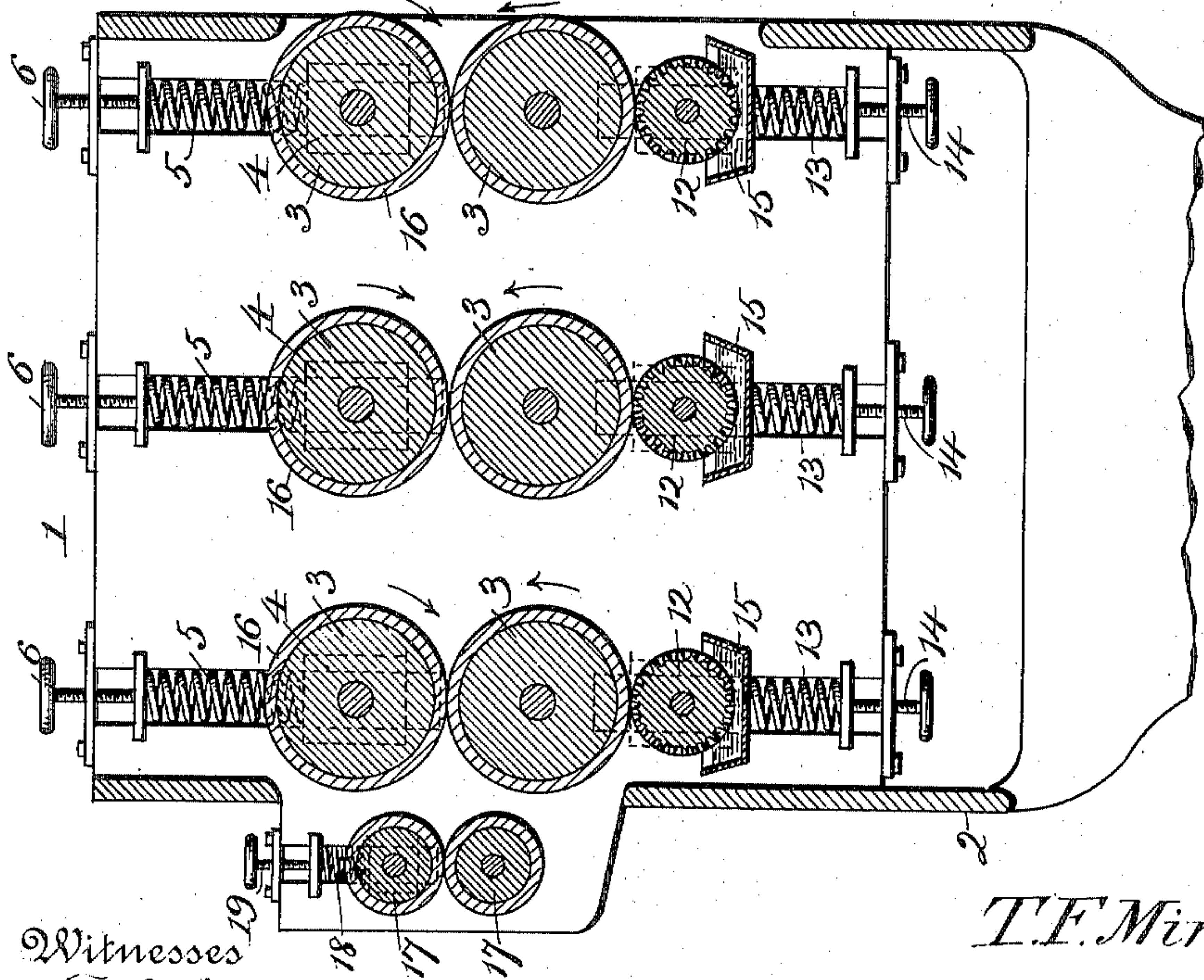


Fig. 2.

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UNITED STATES PATENT OFFICE.

TIMOTHY F. MINAHAN, OF TROY, NEW YORK.

DAMPENING-MACHINE.

951,425.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed May 20, 1909. Serial No. 497,356.

To all whom it may concern:

Be it known that I, TIMOTHY F. MINAHAN, a citizen of the United States, residing at Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Dampening-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in dampening and stretching machines for collars.

The object of the invention is to provide a machine of this character, by means of which the collars are dampened by pressing or forcing moisture into the same thus expediting this operation and enabling the dampening, stretching and ironing of the collars to be performed in one continuous operation.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side view of a collar dampening and stretching machine constructed in accordance with the invention showing in dotted lines a part of an ironing machine; Fig. 2 is a vertical longitudinal sectional view of the same; Fig. 3 is a vertical transverse sectional view taken through one pair of dampening rolls and the moisture conducting roll engaged therewith; Fig. 4 is a detail perspective view of one of the moisture conducting rolls.

Referring more particularly to the drawings, 1 denotes my improved dampening machine which consists of a suitable supporting frame 2 having arranged therein a series of dampening rolls 3, said rolls being arranged in a series of pairs, as clearly shown in Fig. 2 of the drawings. The lower rolls of each pair are revolvably mounted in suitable bearings in the opposite sides of the frame 2, while the upper rolls of each pair are mounted in movable bearings 4 arranged in the sides of the frame, above the bearings of the lower rolls.

Engaged with the bearings 4 are pressure springs 5 which force the bearings 4 downwardly and hold the upper rolls in forcible

engagement with the lower rolls. The springs 5 are provided with tension adjusting screws 6 whereby the pressure of the springs on the boxes 4 and the consequent pressure of the upper rolls on the lower rolls is regulated. The journals of the rolls 3 project beyond the sides of the frame and are provided with intermeshing gears 7 and the gears of the upper rolls of each pair are operatively connected together by small gear pinions 8. The gears of the lower rolls of the last and intermediate pairs of rolls are connected together by a gear pinion 9. By thus connecting the rolls together, they will be driven in the proper direction, as indicated by the arrows in Fig. 2 of the drawings. The shaft of the pinion 9 is provided with a drive pulley 10 which is operatively connected to any suitable power for driving the machine.

Mounted in suitable bearings 11 in the side pieces of the frame 1, below the bearings of the lower rolls 3, are moisture conveying rolls 12 which are corrugated longitudinally and are held in forcible engagement with the lower roll 3 by pressure springs 13 arranged below the bearings 11. The tension of the springs is adjusted by screws 14 whereby the pressure of the rolls 12 against the lower rolls 3 is adjusted and the amount of water thus applied to the rolls is regulated. The rolls 12 are driven by frictional contact with the rolls 3.

Arranged below each of the moisture conducting rolls 12 and supported in any suitable manner, are water holding receptacles 15 which are preferably in the form of shallow pans or trays in which the lower portions of the rolls 12 turn. The dampening rolls 3 are padded, as shown at 16, by wrapping the same with a suitable fabric or absorbent material whereby the moisture from the rolls 12 will be absorbed by the lower rolls engaged therewith and by said lower rolls will be pressed or forced into the collars when passed between the pairs of dampening rolls. By applying the moisture to the lower rolls only and passing the collars between the rolls with the outer side of the collar uppermost, simply the underside of the collar will be dampened so that when the collars are ironed, the shiny or greasy appearance usually found on the seams of the collars, after ironing, is obviated. By thus forcing or crushing the moisture into the collars, they are sufficiently dampened

after passing through the pairs of dampening rolls to permit the same to be immediately stretched and ironed, thus enabling the dampening, stretching and ironing of the collars to be performed in one continuous operation.

In connection with the dampening mechanism, I employ a stretching mechanism consisting of a pair of padded rolls 17 which are here shown as being suitably mounted in a portion of the side pieces of the frame 1 of the dampening machine. The lower roll 17 is revolubly mounted in stationary bearings, while the upper roll is mounted in movable bearings and is held in forcible engagement with the lower roll by pressure springs 18 having adjusting screws 19 by means of which the pressure of the upper roll against the lower roll is regulated. The journals of the rolls 17 are provided on their outer ends with intermeshing gears 20 and motion is imparted to said rolls by a train of gears 21 connecting with the driving gears of the ironing rolls 22, shown in dotted lines in the drawings. The gears of the train 21 are of such size and are so arranged that the speed of the stretching rolls will be slower than that of the ironing rolls thus retarding the movement of the collars and causing the same to be stretched by the first pair of ironing rolls which pull or draw the collars from between the stretching rolls.

From the foregoing description, taken in connection with the accompanying drawings,

the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claim.

Having thus described my invention, what I claim is:

In combination, a frame, a plurality of pairs of cooperating padded pressure rollers, one of each pair of rollers having movable bearings mounted to reciprocate in the frame, springs to engage said bearings to force the rollers mounted therein toward the opposite rollers, the opposite roller of each pair being mounted in stationary bearings carried in the frame, slidable bearings mounted in the frame, liquid tanks carried on said slidable bearings, corrugated dampening rollers mounted in said sliding bearings and positioned within said tanks, and means to force the dampening rollers into engagement with the rollers in the stationary bearings.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

TIMOTHY F. MINAHAN.

Witnesses:

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JAMES F. WADE.