

No. 696,232.

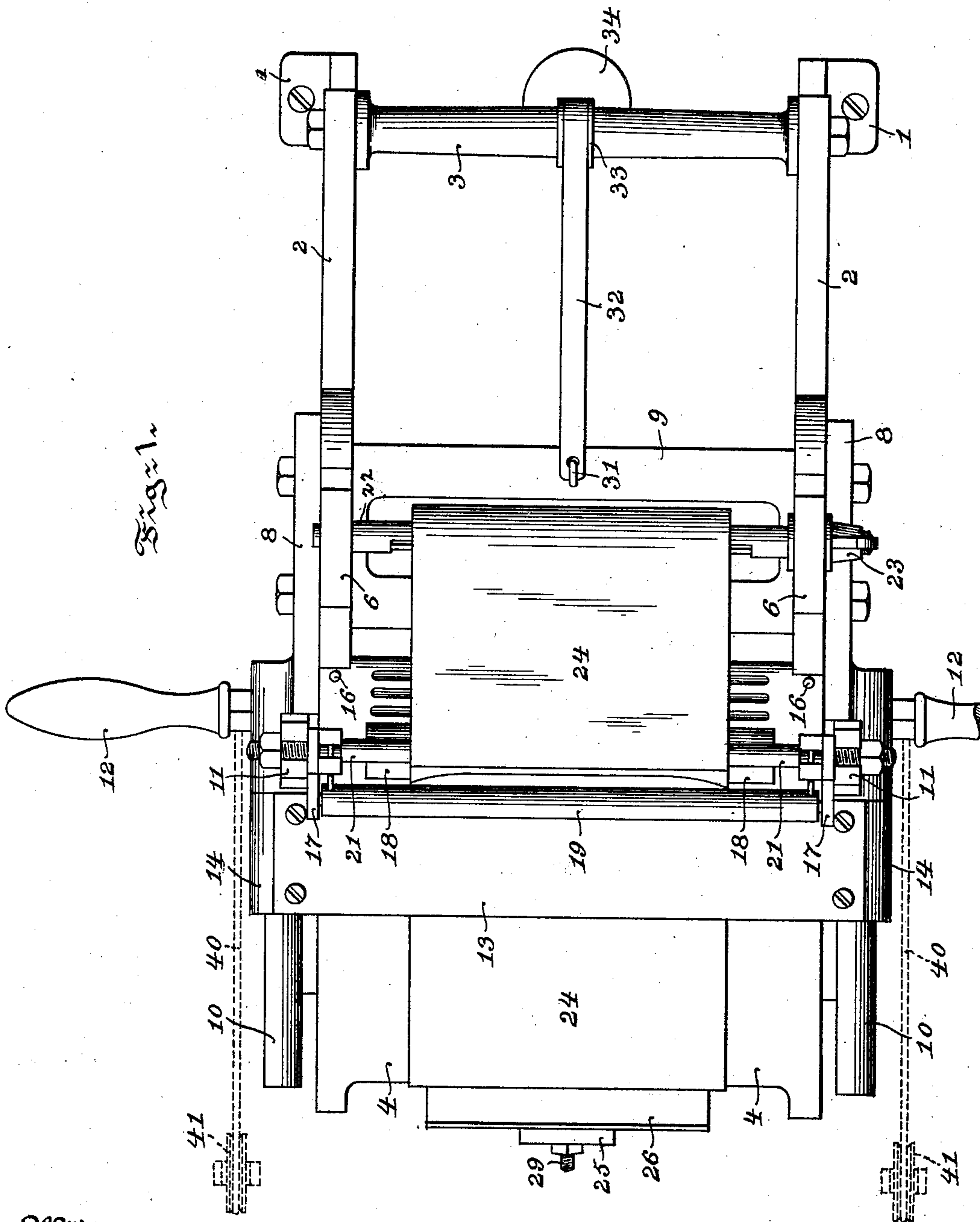
Patented Mar. 25, 1902.

P. H. FRATZ.
CIGAR BUNCHING MACHINE.

(Application filed Mar. 5, 1901.)

(No Model.)

4 Sheets—Sheet 1.



Witnesses
Perjoal H. Branger
C. H. Branger

Inventor
Philip H. Fratz
By Charles N. Butler
Attorney

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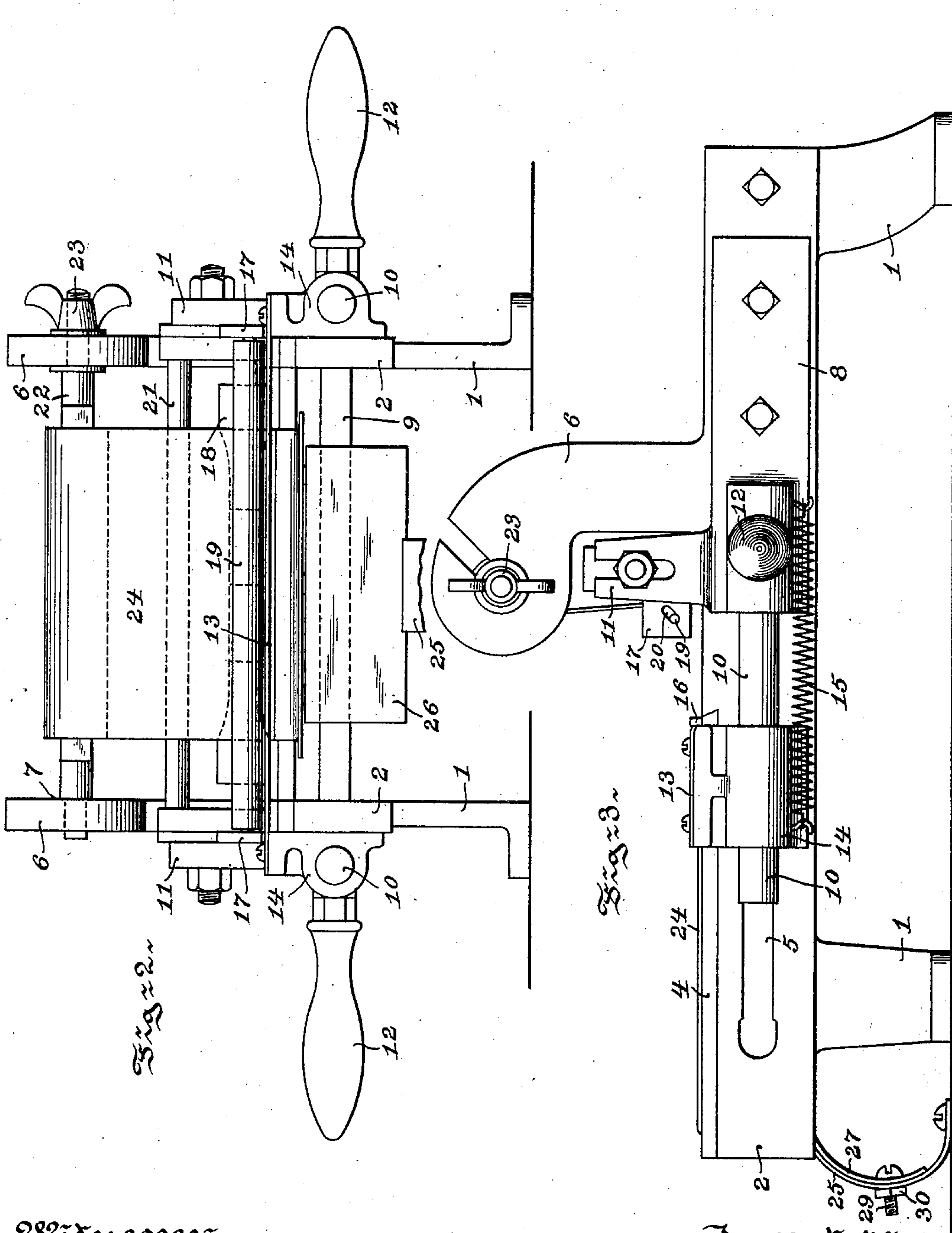
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4 Sheets—Sheet 2.



Witnesses:
Cyril H. Granger
J. H. Frantz

Inventor:
Philip H. Frantz
By Charles N. Butler
Attorney

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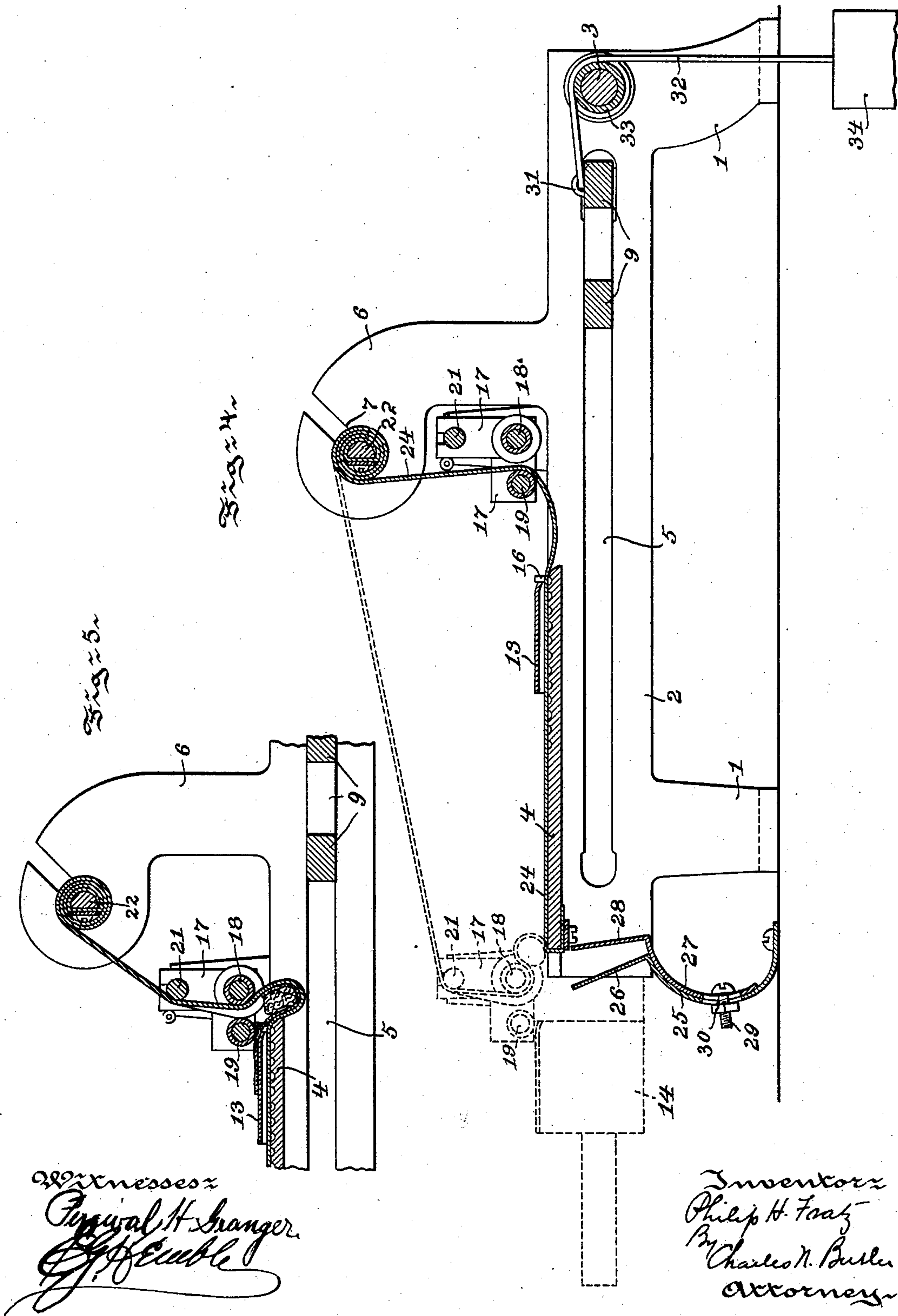
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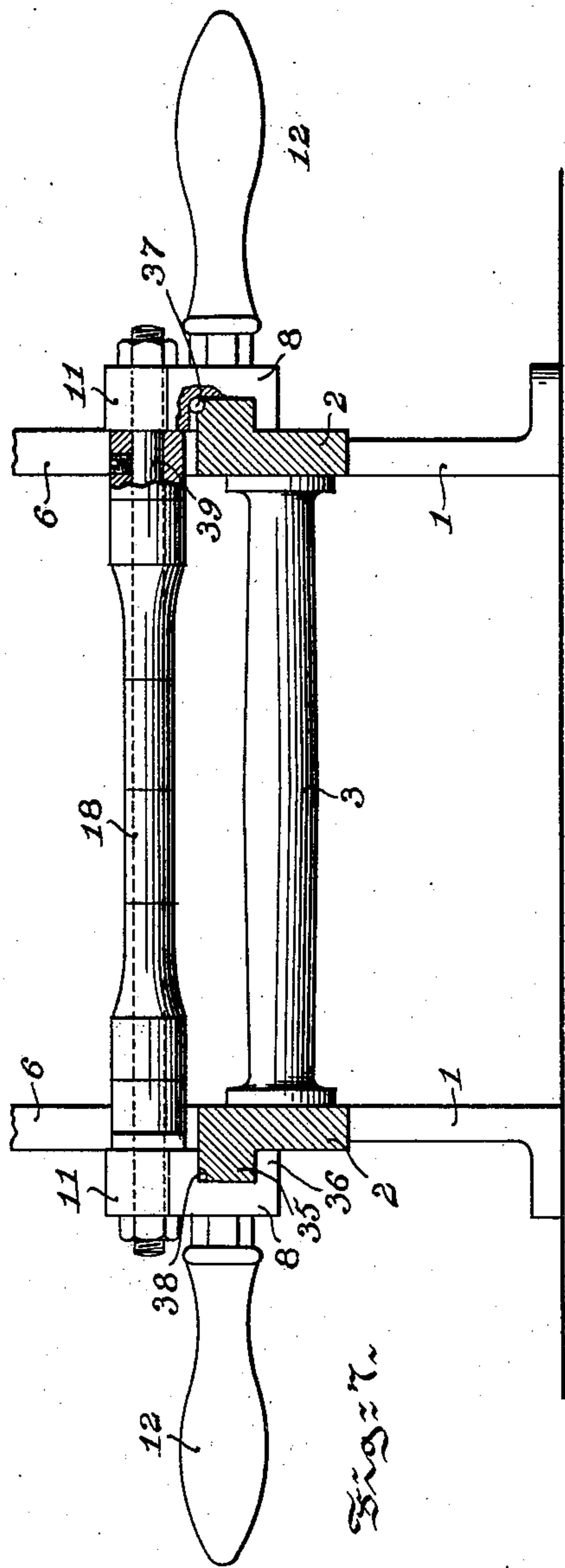


Fig. 7.

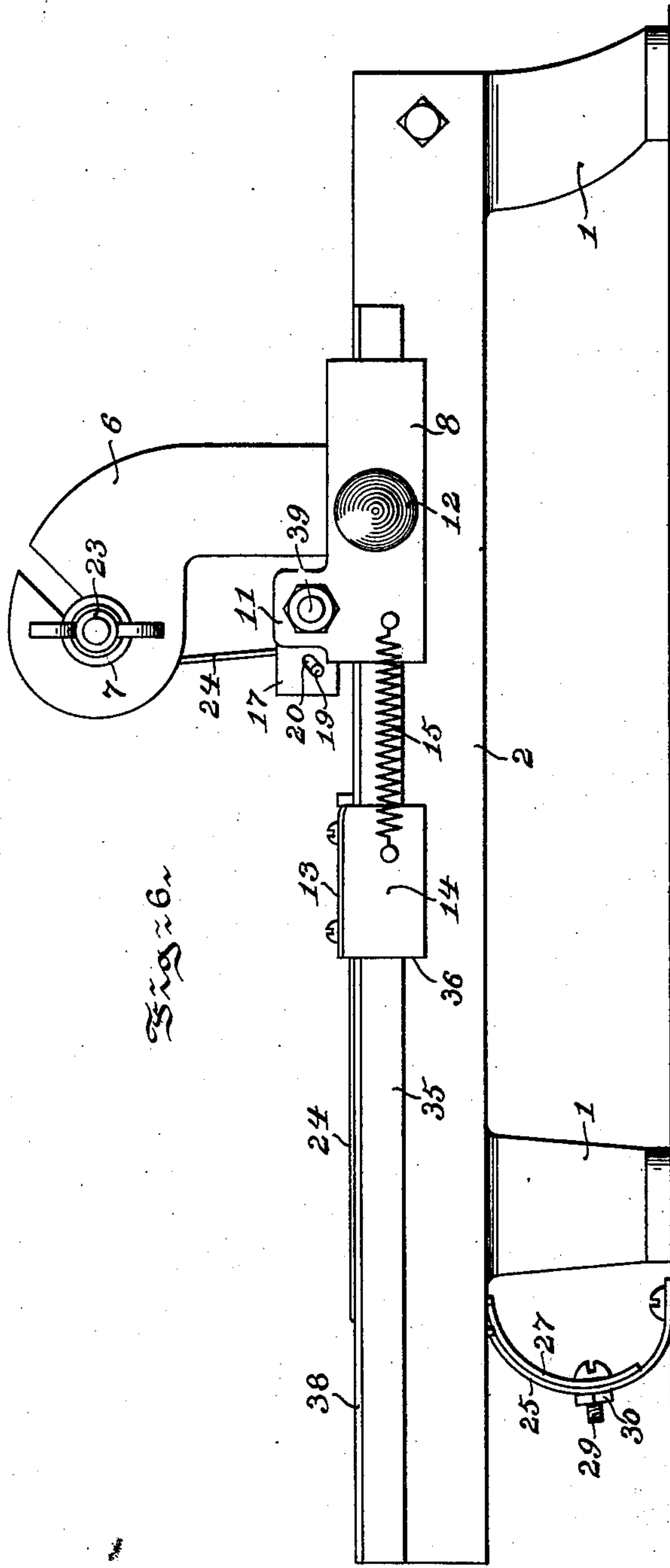


Fig. 6.

Witnesses:
Cecilia H. Granger
[Signature]

Inventor:
Philip H. Fratz
By Charles N. Butler
Attorney

UNITED STATES PATENT OFFICE.

PHILIP H. FRATZ, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ELBRIDGE G. KEMBLE, OF PHILADELPHIA, PENNSYLVANIA.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 696,232, dated March 25, 1902.

Application filed March 5, 1901. Serial No. 49,898. (No model.)

To all whom it may concern:

Be it known that I, PHILIP H. FRATZ, a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Bunching Machines, of which the following is a specification.

This invention relates to machines for forming the cigar bunch or filler and wrapping the binder thereon. Its objects are to provide a cigar-bunching machine of simplified construction and improved operation that will roll a long filler as well as scrap tight and firm, also smooth, and wrap the binder thereon in a satisfactory manner and deliver the same to an improved holder.

The characteristics and purposes of my improvements will more fully appear from the following description, taken in connection with the accompanying drawings, of which—

Figure 1 is a top plan view of my invention. Fig. 2 is a front elevation thereof. Fig. 3 is a side elevation thereof. Fig. 4 is a longitudinal vertical sectional view thereof. Fig. 5 is a longitudinal vertical sectional view showing a second position of details illustrated in Fig. 4. Fig. 6 is a side elevation in illustration of modifications that may be employed, and Fig. 7 is a front sectional elevation of the construction illustrated in Fig. 6.

Referring to the drawings, the machine comprises the feet 1, adapted to be secured to any convenient bench or table, the side bars 2, supported thereby, the cross-bars 3, connecting the side bars, and the table 4 supported thereon.

As shown in Figs. 1 to 5, inclusive, the side bars 2 are provided with the ways 5 and with the strut 6, having the bearing 7 therein. The ways 5 guide a carriage comprising the side bars 8, connected by the cross-bars 9, adapted to slide in the ways, the carriage being provided with the guide-bars 10, the struts 11, and the handles 12. The bars 10 guide the movements of the binder-stretching plate 13, which has the brackets 14 sleeved on the bars and movable thereon relative to the movement of the carriage, the coiled spring 15 connecting the stretching-plate and carriage to normally draw them together, and the stops 16 limiting the inward movement of the plate,

which is held in position by the spring tension due to moving the carriage to its initial position. The struts 11 carry the brackets 17, which provide bearings for the bunch-forming roller 18 and the binder smoothing or stretching roller 19, the latter being preferably covered with rubber or other pliable fabric and mounted in the slotted bearings 20 in order that it may rise and fall in passing over irregularities in the binder. The smoothing-roller is so placed in advance of the forming-roller that it prevents the filler or bunch in process of formation from rising, while acting in a flexible manner to smooth the binder resting on the stretching-plate. The brackets 17 may be connected by a rod 21. The struts 6 carry in the bearings 7 the apron take-up roller 22, which is held by a clamp 23 in any position to which it may be set, the roller having the end of the apron 24 secured thereto and wound thereon. The apron passes near the rollers 18 and 21, beneath the roller 19 and plate 13, and over the table 4, to the end of which it is fastened.

At the end of the table 4 is located a bunch holder or catcher, comprising the strut 25, preferably curved, having a plate 26 at the top thereof, with which is combined a curved spring 27, carrying a plate 28, the parts 25 and 27 being connected in adjustable relation by means of a set-screw 29, passing through the slots 30. The carriage may be provided with a connection 31, with a strap 32 passing over the roller 33 and supporting a weight 34, by means of which the carriage may be returned to the initial position in the frame, while the movement of the carriage in the opposite direction may be effected by attaching thereto the straps 40, passing over the rollers 41, to be operated by foot-power.

As shown in Figs. 6 and 7, the structure may be modified by mounting the carriage side bars 8 and the stretching-plate brackets 14 on ways 35, formed on the bars 2, the parts 8 and 14 being provided with keepers 36 for engaging the ways. Balls 37, running in bearings 38 on the ways, may be employed for facilitating the movements of the carriage and stretcher-plate. In this construction the struts 11 are connected by the rod 39, upon which the forming-roller 18 revolves.

In operation the take-up roller 22 is adjusted and fixed at the position required for providing the length of apron necessary to the size of the bunch or filler to be rolled. Then
 5 with the mechanism in the position illustrated in Fig. 4 the binder is put in position upon the stretching-plate and the filler is placed between this plate and the smoothing-roller. The carriage is then drawn forward, the
 10 smoothing-roller stretching the binder upon the stretching-plate and substantially closing the pocket formed by the apron, while the forming-roller rolls the bunch in the pocket upon the straight table, at the end of which
 15 the bunch thus formed is delivered to the catcher.

I have found that distinct advantages result from employing a straight or plane rolling-table in that the bunch is rolled more
 20 evenly, firmly, and certainly. It is also of advantage to employ in the apron a flexible webbing.

It will be seen that by providing the springs
 15 for connecting the otherwise independent carriage and stretching-plate and by providing the stops 16 for checking the movement of the stretching-plate while permitting the carriage to be withdrawn from its normal relation thereto the increased space desirable
 25 for manipulating the filler and engaging it with the binder at the beginning of the operation is obtained, while the springs drawing the carriage forward from its initial position act to roll the filler in the binder, bringing and
 30 holding the carriage in such relation to the stretcher-plate as to enable the smoothing-roller to coact therewith in the manner desired.

Having described my invention, I claim—
 40 1. In a cigar-bunching machine, a reciprocating carriage, a forming-roller carried by

said carriage, guides on said carriage and a stretching-plate supported by said guides, said stretching-plate being adapted to reciprocate on said guides, substantially as specified. 45

2. In a cigar-bunching machine, a reciprocating carriage, guides on said carriage, a forming-roller carried by said carriage, a stretching-plate supported by said guides, 50 said stretching-plate being adapted to reciprocate on said guides, and a spring connecting said stretching-plate to said carriage, substantially as specified.

3. In a cigar-bunching machine, a reciprocating carriage, guides on said carriage, a forming-roller journaled thereon, a smoothing device carried thereby, a stretching-plate supported by said guides, said stretching-plate being adapted to reciprocate on said guides, 60 a stop for limiting the movement of said stretching-plate, and a spring connecting said stretching-plate to said carriage, substantially as specified.

4. In a cigar-bunching machine, the combination of a straight table, with straight 65 ways, a reciprocating carriage guided by said ways, guides on said carriage, a reciprocating stretching-plate supported by said guides, means for limiting the movement of said 70 stretching-plate relative to the movement of said carriage, a smoothing device, and a forming-roller carried by said carriage, substantially as specified.

In testimony whereof I have hereunto set 75 my hand, this 15th day of February, 1901, in the presence of the subscribing witnesses.

PHILIP H. FRATZ.

Witnesses:

THOMAS S. GATES,
 CHARLES N. BUTLER.