

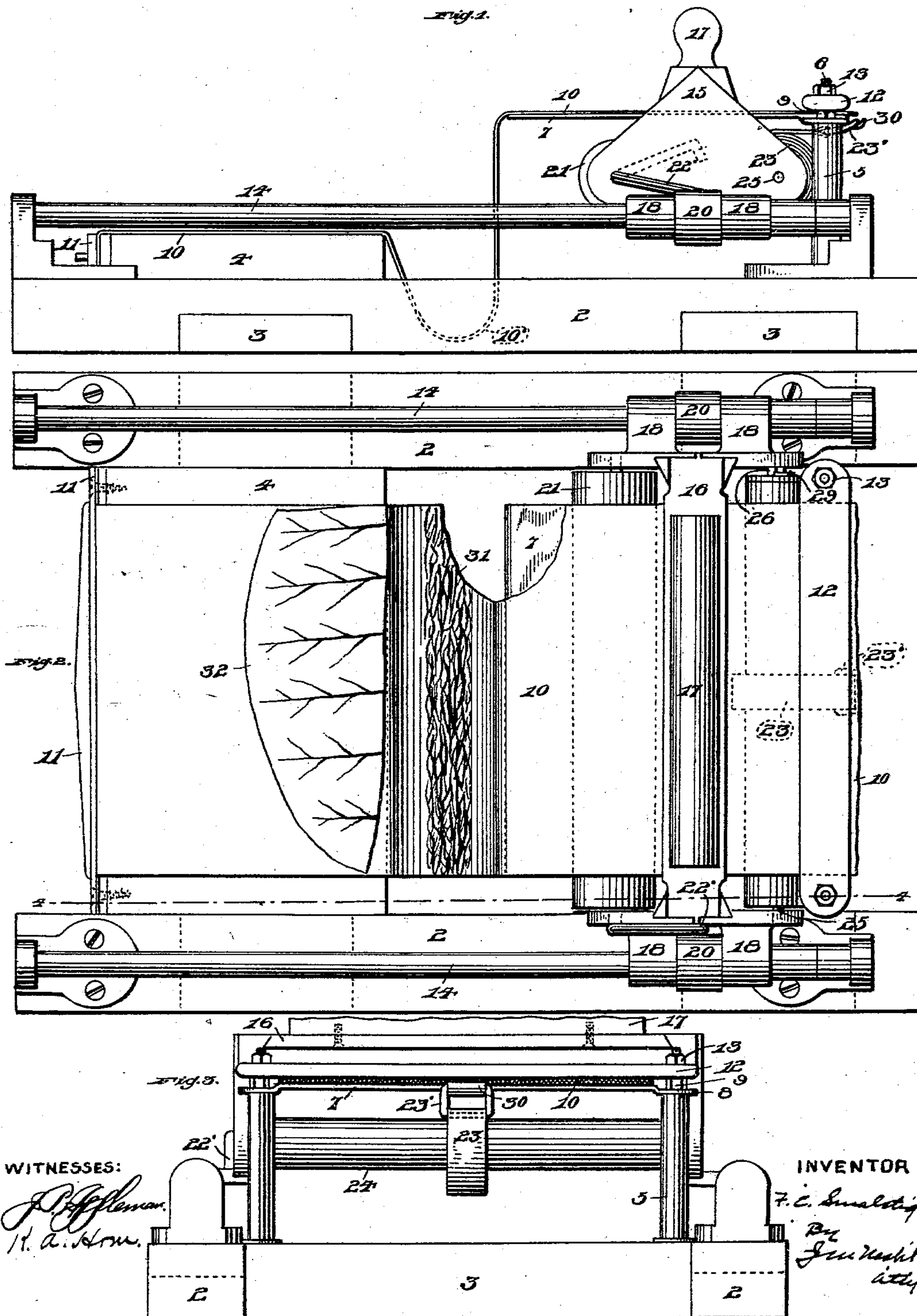
No. 740,934.

PATENTED OCT. 6, 1903.

F. C. SMALSTIG.
CIGAR BUNCHING MACHINE.
APPLICATION FILED MAY 1, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



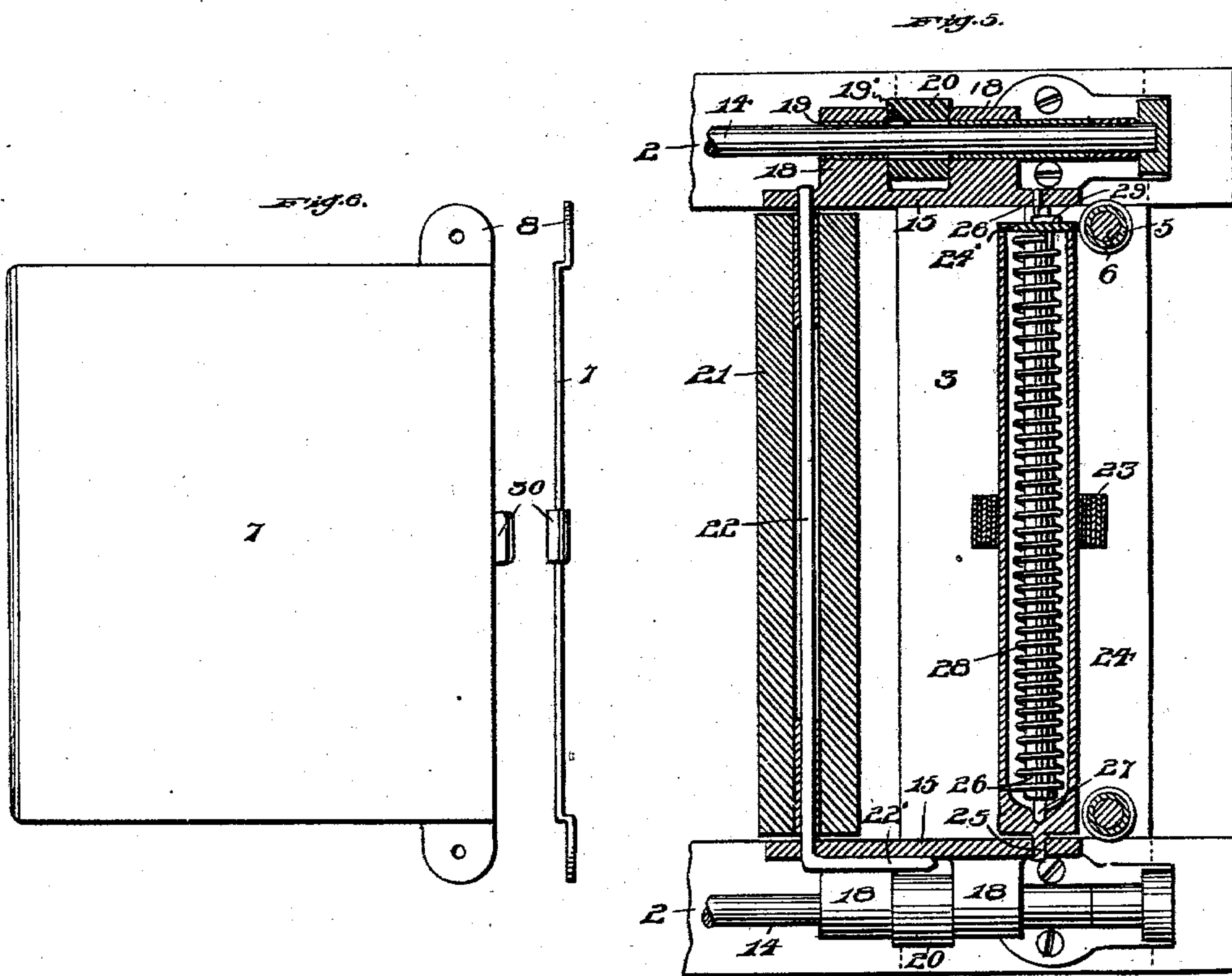
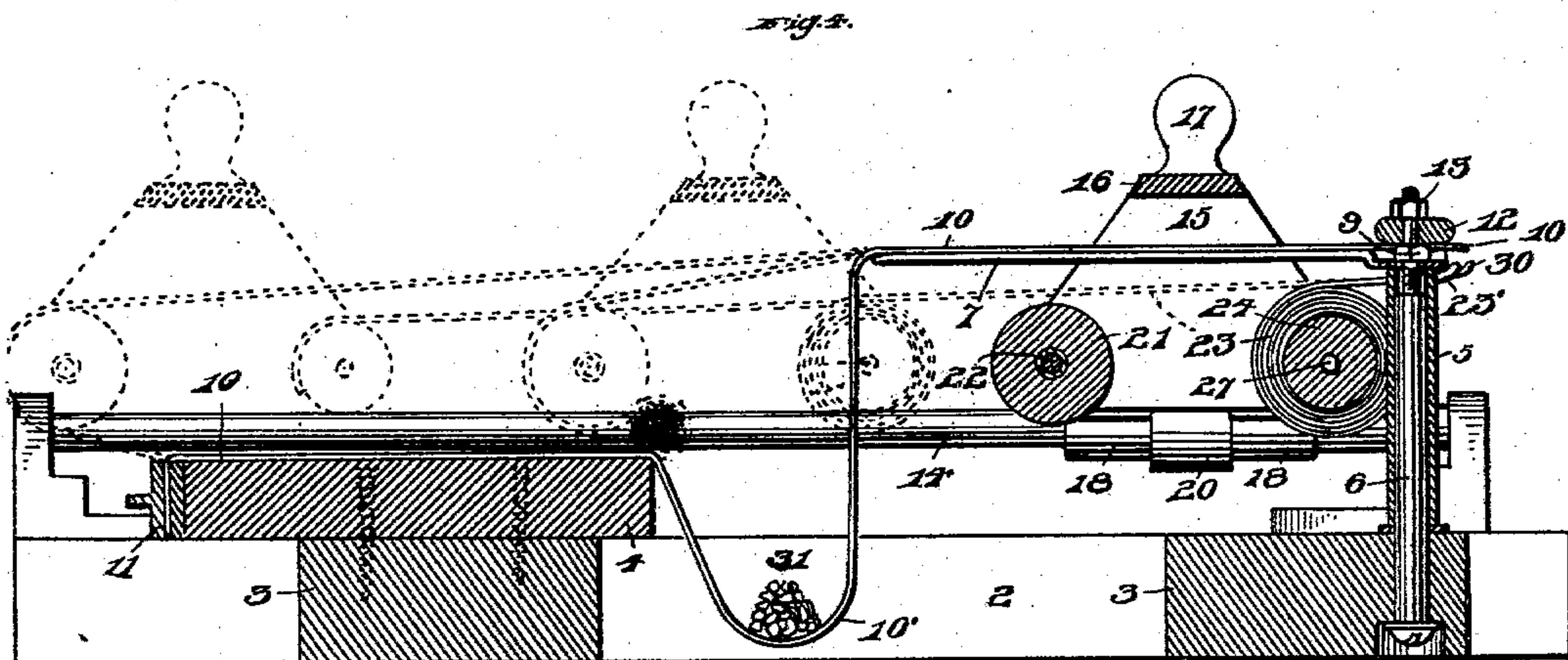
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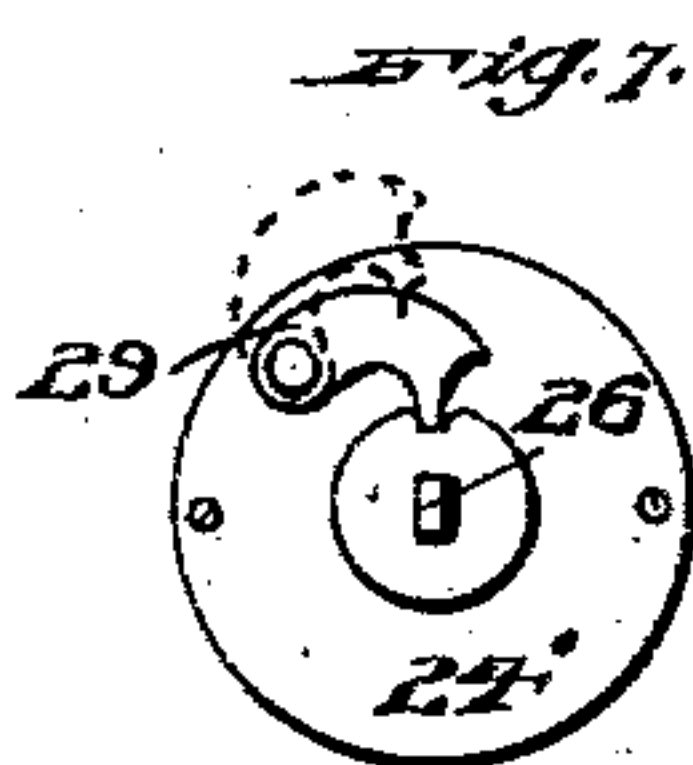
NO. MODEL.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK C. SMALSTIG, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO GABRIEL MAYER, OF ALLEGHENY, PENNSYLVANIA.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 740,934, dated October 6, 1903.

Application filed May 1, 1903. Serial No. 155,097. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. SMALSTIG, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Bunching Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Cigar-bunching machines now in use are usually constructed in connection with a table or bench of special design, so that the latter constitutes an essential part of the machine. Such machines are cumbersome and expensive and are not portable in the sense that they can be owned and carried from place to place by the operators.

The primary object of the present invention is to provide a light and inexpensive machine which may be placed for operation on an ordinary table or bench and by which the operation of bunching may be accomplished rapidly and effectively.

In designing the operative parts of the machine one object is to provide for tensioning the apron and to compensate for variations of size in the bunches.

A further object is to provide improved means for retracting the apron-operating carriage after each operation.

These and further objects and advantages are fully set forth in the following specification and claims, taken in connection with the accompanying drawings, wherein—

Figure 1 is a side elevation of my improved machine. Fig. 2 is a top plan view. Fig. 3 is a rear end view. Fig. 4 is a vertical longitudinal sectional view taken on line 4 4 of Fig. 2, showing different positions of the carriage in dotted lines. Fig. 5 is a sectional plan view of the carriage. Fig. 6 is a detail view of the apron-tensioning device. Fig. 7 is an end view of the roller.

Referring to the drawings, the machine-base consists of a flat frame formed of side pieces 2 and cross-pieces 3, and secured to one of the latter is rolling-table 4. From the other cross-piece 3 rise tubular posts 5, which inclose securing-bolts 6.

7 is a spring-plate formed at opposite ends of its rear edge with apertured ears 8, which

fit over bolts 6 and rest on the upper extremities of posts 5, being clamped thereto by nuts 9, thus rigidly securing the same with its free or unsupported portion extending toward table 4.

10 is the bunch-forming apron, which extends loosely over the table and spring-plate, being secured at one end to the outer edge of the table by clamping-bar 11 and at its opposite end between the rear portion of spring-plate 7 and bar 12, the latter being apertured to fit over bolts 6 and secured by nuts 13. Between table 4 and spring-plate 7 the sag of the apron forms pocket 10', which receives the bunch or filler before being rolled in the binder, as will be presently explained.

Secured to sides 2 of the base are rods 14, and slidable thereon beneath plate 7 and over table 4 is the apron-actuating mechanism, which consists of a carriage formed of end members 15 and top cross-bars 16, the latter carrying handhold 17. Formed on each of ends 15 are the separated eyes 18, in which are secured the brass bushings 19, embracing rods 14. Each bushing is open at 19' between eyes 18 to expose the rod to the fibrous ring 20, encircling the bushing between the eyes. With the fibrous rings soaked with oil rods 14 are thoroughly lubricated and at the same time the rings serve as wipers, keeping the upper and most exposed portions of the rods clear of dust.

21 is the apron-engaging bunch-forming roller that may have such peripheral form as to impart the desired shape to the bunch. Said roller is here shown straight or cylindrical and is mounted and turns on rod 22, extending through apertures in the forward portion of carriage ends 15, one end of the rod being bent at 22' to turn down into engagement with one of eyes 18. The rod is thus securely held, though capable of ready removal whenever a change of rollers is desired.

For retracting the carriage after each operation I provide a tape 23, having a spring winding and which is anchored at one end and adapted to be unwound by the forward movement of the carriage. In the present adaptation of the invention the winding is embodied in a tubular roller 24 in the rear

portion of the carriage and closed at one end and provided with bearings 25 in one of the carriage ends 15, while secured in the other carriage end is rod 26, which extends into the roller and its inner end has bearing 27 therein. A spring 28 is coiled around this rod and at one end secured thereto and its opposite end to the roller. A ratchet 29, pivoted to roller-head 24', serves to hold the spring at any desired tension, as in the well-known type of shade-roller, and with tape 23 wound on the roller and anchored at its outer end by eyelet 23' to hook 30 the resistance to the advance of the carriage does not vary appreciably from one end of its travel to the other and serves to return the carriage to starting position easily and without injuriously jarring the same.

In operation the filler 31, sufficient to form a bunch of desired size, is placed in apron-pocket 10', and the binder 32 is spread on the apron over table 4, as shown in Fig. 2. The carriage is then drawn forward by the operator grasping handle 17, causing the filler to be rolled within the binder while passing over the table and discharging the rolled bunch at the front edge of the same, as is usual in this class of machines.

The size of the apron-pocket may be varied by lengthening or shortening the apron at bar 12. Spring-plate 7, upon which the apron exerts a downward pull during the preliminary stages of rolling, serves to so tension the apron as to roll the bunches uniformly, the same being neither too tightly rolled nor too loose. At the same time it compensates for variations in amount of filler. The substantially uniform backward pull on the carriage exerted by tape 23 operates to so govern or balance the same as to make its movement even or uniform. While the machine is designed primarily for bunching long filler, it will operate as well with short filler.

The machine is light and readily portable and may be placed for operation on an ordinary table, bench, or other support. It may be manufactured at small cost, the parts being few and simple, and there are no delicate adjustments liable to disorder.

I claim—

1. In a bunching-machine, a table, an apron, a yielding support for the apron higher than the table, and apron-actuating means.

2. In a bunching-machine, a table, an apron, a vertically-springing support from which the apron depends, and apron-actuating means.

3. In a bunching-machine, a table, an apron, a vertically-springing support higher than the table and from which the apron depends to form a pocket, and an apron-actuating roller movable beneath the support and over the table.

4. In a bunching-machine, a table, a spring-plate higher than the table, an apron secured at its ends and extending over the table and spring-plate, and apron-actuating means.

5. In a bunching-machine, a base, a table at one end thereof, and a support higher than the table at the opposite end of the base, a spring-plate on the support extending toward the table, an apron secured at its ends and extending over the table and spring-plate, and apron-actuating means movable beneath the spring-plate and over the table.

6. In a bunching-machine, apron-actuating mechanism, a tubular roller closed at one end and at said end having a bearing, a non-rotating rod extending into the opposite end of the roller and constituting a bearing therefor, a spring coiled around the rod and secured at one end to the rod and at the other end to the roller, and a tape wound on the roller adapted to be unwound by the forward movement of the apron-actuating mechanism and automatically retract the same when released.

7. In a bunching-machine, apron-actuating means comprising a carriage, a removable rod in the carriage bent at one end to turn into engagement with the carriage and be held against removal, and an apron-engaging roller rotatable on and removably secured by the rod.

8. In a bunching-machine, guide-rods, an apron-actuating carriage having bearings slidable on the rods, and fibrous rings embracing the rods and movable with the carriage.

9. In a bunching-machine, guide-rods, an apron-actuating carriage, separated rod-embracing eyes at each end of the carriage, bearing-bushings extending through the eyes at each end of the carriage and open between the eyes, and fibrous rings between the eyes and embracing the bushings.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK C. SMALSTIG.

Witnesses:

J. M. NESBIT,
MARGARET HUGHES.