

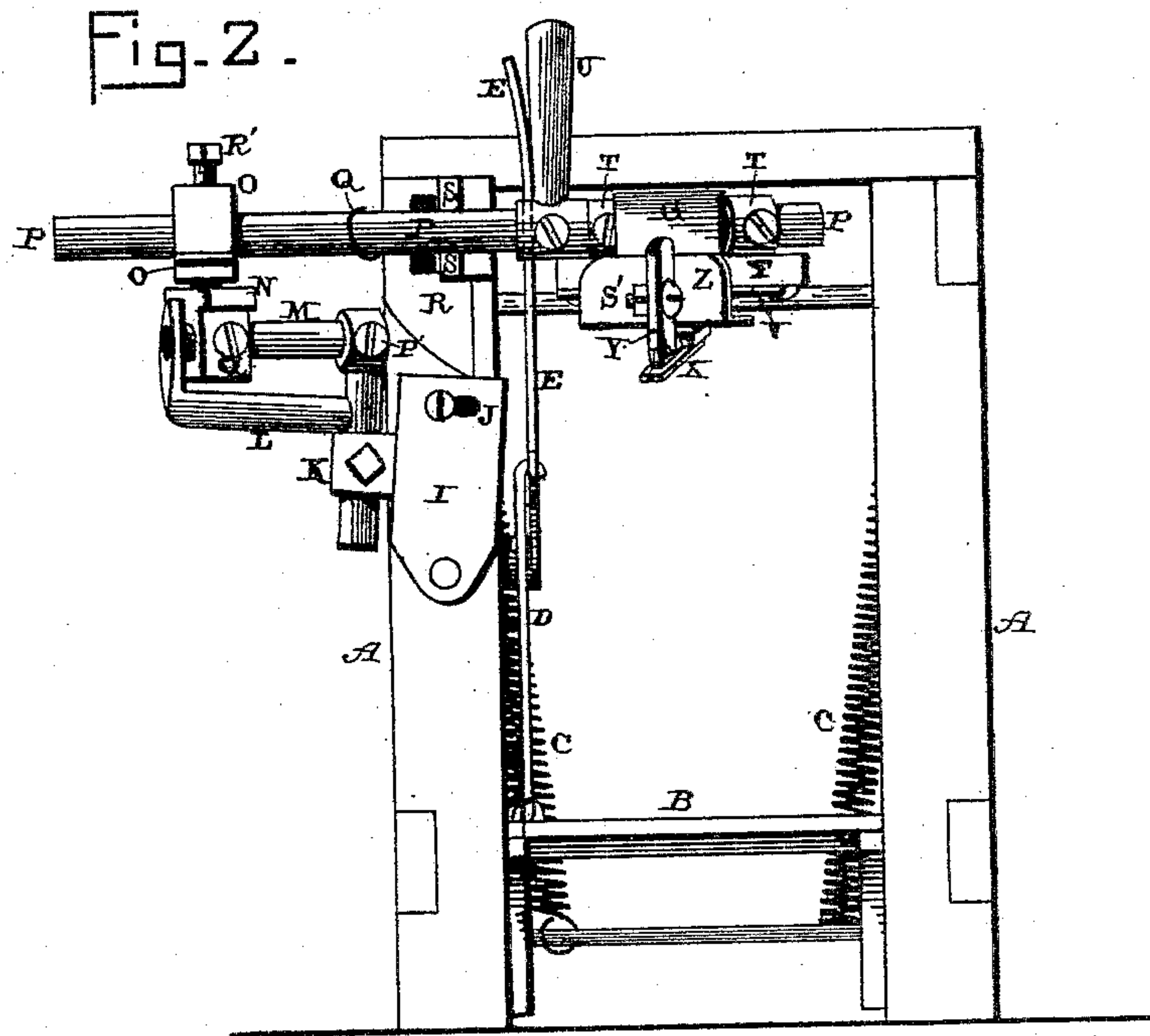
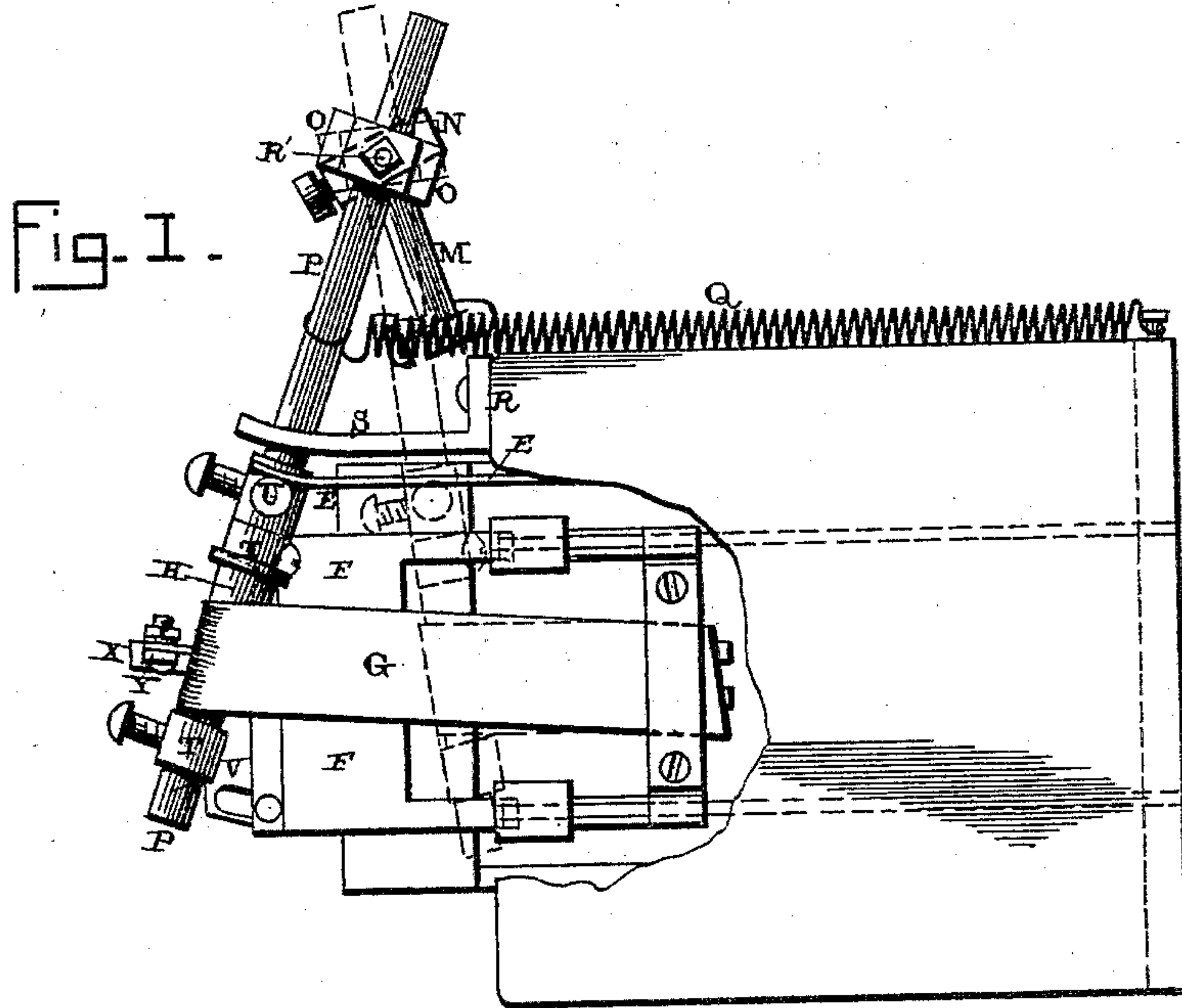
(Model.)

2 Sheets—Sheet 1.

F. C. SMALSTIG.  
CIGAR BUNCHING MACHINE.

No. 411,736.

Patented Sept. 24, 1889.



Witnesses:  
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L. L. Burket.

Inventor:  
Fredrick C. Smalstig  
per  
F. A. Lehmann, atty.

(Model.)

2 Sheets—Sheet 2.

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Fig. 3.

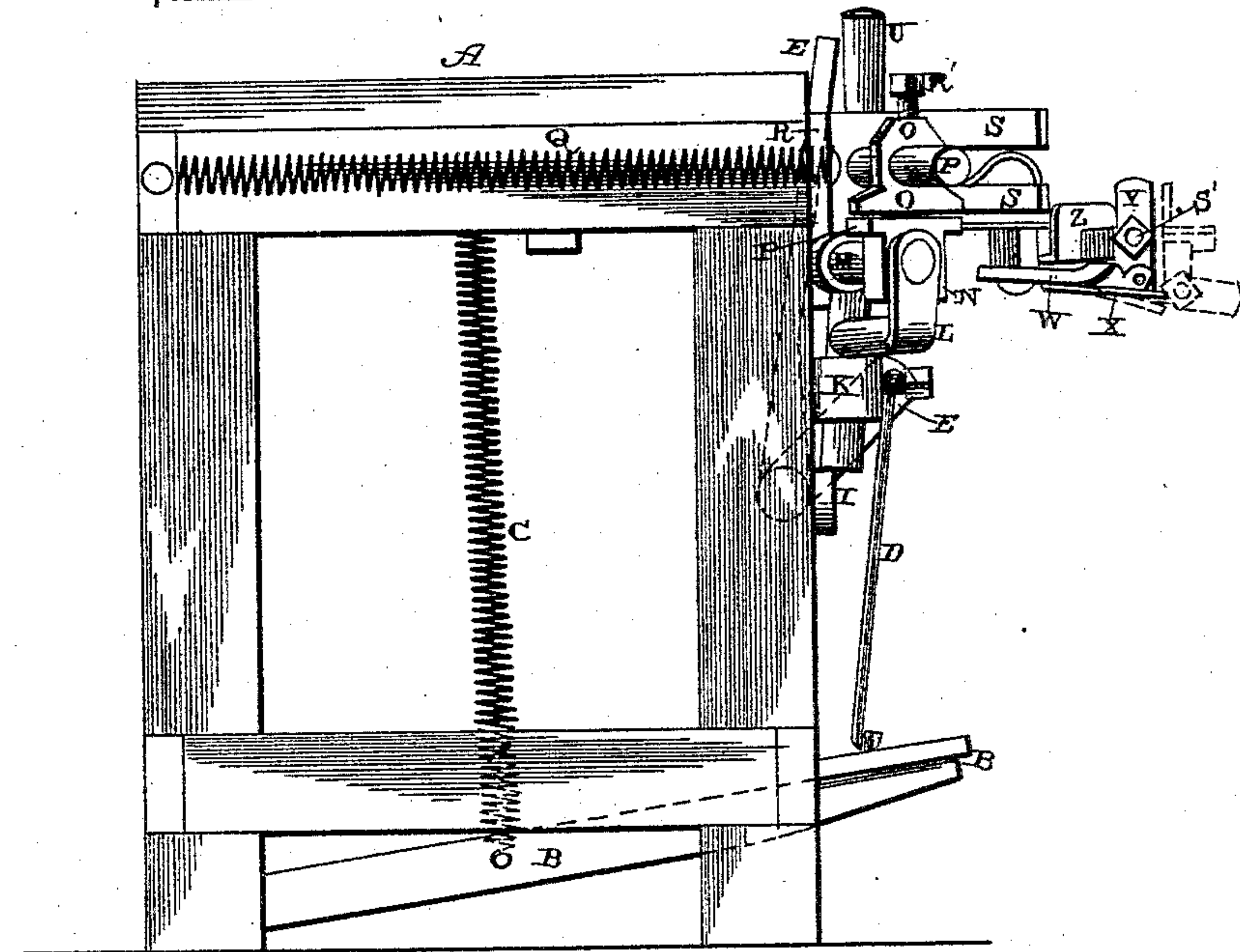
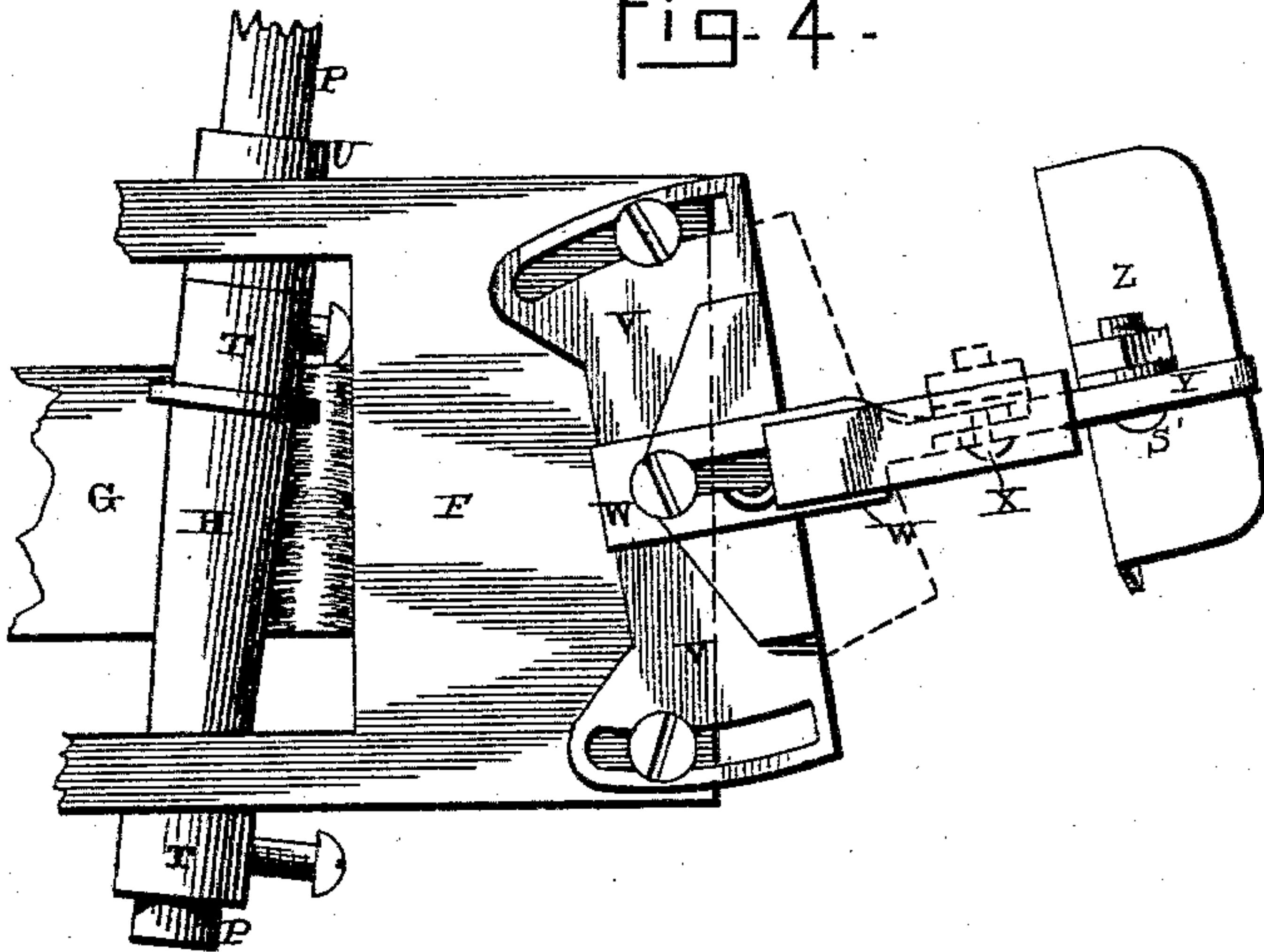


Fig. 4.



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# UNITED STATES PATENT OFFICE.

FREDRICK C. SMALSTIG, OF ALLEGHENY, PENNSYLVANIA.

## CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 411,736, dated September 24, 1889.

Application filed January 29, 1889. Serial No. 297,992. (Model.)

*To all whom it may concern:*

Be it known that I, FREDRICK C. SMALSTIG, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain  
5 new and useful Improvements in Cigar-Bunching Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable  
10 others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in cigar-bunching machines.

15 The objects of my invention are to so construct the parts of a machine that a tapering bunch can be formed, deposited in a receiver secured to the end of a table, and the roller then automatically returned to position by a  
20 separate spring of its own; to attach the roller to a rod which is pivoted outside of the frame of the machine, so that the roller is made to sweep through a portion of a circle, and to make the parts adjustable, so that the circle  
25 through which the roller sweeps can be increased or diminished according to the size of the bunch that is to be made.

Figure 1 is a plan view of a machine which embodies my invention, the bunching-roller  
30 being shown in one position in solid lines and in another position in dotted lines, and a portion of the top of the table being broken away. Fig. 2 is a front view. Fig. 3 is a left-hand side elevation. Fig. 4 is an inverted  
35 view of the receiver and other parts.

A represents a suitable frame in which the treadle B is pivoted, and which is returned to position by means of the two springs C, which are secured thereto. To this treadle  
40 is fastened a connecting rod, cord, or wire D, the upper end of which is fastened to the short arm of a bell-crank lever E, which has its long arm projecting upward beyond the upper surface of the frame A. Placed upon  
45 suitable supporting-rods under the top of the frame A is the bunch-rolling table F, which has an opening made through it to facilitate the formation of a pocket in the apron G. The ends of this apron are secured to this

table, which is slightly inclined, being held by 5c means of suitable clamps in such a manner as to adapt the apron to conform to the motion of the bunching-roller H. If the ends of the apron were fastened squarely to the ends of the rectangular table when the bunching-  
55 roller reached the end of its stroke, the apron would be doubled at its outer end and sooner or later destroyed. By fastening the ends at a slight angle the front end of the apron conforms to the position of the bunching-roller  
60 H when it has been moved outward to its greatest extent. The opening through the table F extends backward any desired distance; but the front end of the opening comes just sufficiently far in advance of the bunch-  
65 ing-roller when it is in its normal position, as shown in dotted lines in Figs. 1 and 4, to allow the pocket to be formed.

Secured to the front end of the frame is the casting I, which has a pivotal hole formed  
70 through its lower end, and which receives a screw or pin and a slot J through its upper one. Through this slot J is passed a clamping-bolt, and when this bolt is loosened the upper end of this casting I can be turned  
75 at any desired angle, so as to adjust the parts supported thereon into any desired position. This casting is intended to be reversed from one side of the frame to the other, according as to whether the bunch-  
80 ing-roller is to be moved from the right or left side of the frame. In some cases it may be preferred to operate the lever from one side of the table and in others to operate it from the opposite side, and this reversibil-  
85 ity of the casting enables the lever to be applied to either side of the table desired. Upon one edge of this casting I is formed a socket K, through which passes the projecting corner of the supporting-frame L. This frame  
90 L is clamped rigidly in socket K in any desired horizontal or vertical position by means of a set-screw, as shown. Through the upper end of this frame L is passed the horizontal rod M, which is secured in position by  
95 means of the set-screw P'. On this rod M is placed the adjustable support N, which is clamped in position by means of the set-



screw Q', and upon the top of the support N is pivoted the box or bearing O in such a manner as to have a free turning movement through a portion of a circle. Passing through the box or bearing O, which can be freely adjusted back and forth on the rod M by means of its support N, is the rod, lever, or pipe P, which is clamped rigidly to the box O by means of the set-screw R'. Secured to the frame A above the casting I is a second casting R, which is provided with the two horizontal forwardly-projecting guiding-arms S, in between which the rod, lever, or pipe P extends, and which serve to keep the rod or lever in position when moved horizontally. This rod or lever is always returned to position by a spring Q when left free to move after having been operated. This casting R is provided with a vertical slot, through which a clamping-bolt is passed, and by means of which slot and bolt the casting can be adjusted either up or down or set at any desired angle. The rod P is made long enough to project beyond the outer side of this pivotal box or bearing and across beyond the top of the table F any desired distance. The nearer the pivotal box or bearing O is moved through its support N to the inner end of the rod M the smaller will be the circle through which the tapering bunching-roller H, placed upon the rod or lever P, is moved. This tapering bunching-roller H, placed upon the rod or lever P above the top of the bunching-table, can be moved longitudinally back and forth upon the said rod or lever P and adjusted in position by means of the collars T, which also serve as guides for the edges of the apron. Also secured to the lever P between the inner collar T and the horizontal guiding-arms S is a handle U, by means of which the operator can move by hand the bunching-roller through a portion of a circle at any time, and thus avoid the necessity of using the treadle B, if desired. The long arm of the bell-crank lever E projects between the front end of the frame A and the rod or lever P, so that when this long arm of the bell-crank lever E is moved outward toward the operator it will force the lever P, carrying the bunching-roller H, across the top of the table F, for the purpose of rolling the bunch.

The smaller the arc of a circle through which the bunching-roller is made to pass the less the amount of thickness or diameter which can be given to one end of the bunch that is being rolled, and the greater the arc of the circle the greater the amount of thickness or diameter which may be given to the bunch at its thick end and the larger the bunch which can be rolled.

Clamped to the under side of the outer end of the table F is the plate V, as shown in Fig. 4, and which is provided with an arc-shaped slot at each end, so that the outer edge of this plate V can be turned at any desired

horizontal inclination to the front edge of the table F and then secured rigidly in position by suitable clamping-bolts. These circular slots and bolts allow the position of the plate to be changed so as to accommodate it to the side from which the bunching-roller is operated. If the bunching-roller is operated from one side of the table, this plate V must be inclined toward that side, and if operated from the opposite side of the table the plate must be inclined toward that side. The central portion of this plate V is made thicker than its ends by attaching a block to it, and secured to the under side of this thickened portion or block is a slotted supporting-plate W, which can be adjusted back and forth at the will of the operator, and upon the lower side of the outer end of this supporting-plate W is secured a spring X. Pivoted to the outer or front end of this supporting-plate W is a vertical support Y, through which is passed a horizontal clamping-bolt S', by means of which the receiver Z is secured thereto. This receiver, as is here shown, is made wider at one end than the other, so as to adapt it to the shape of the tapering bunches delivered to it from the apron G, and which receiver Z can be turned outward by hand through a portion of a circle, so as to bring its vertical edge into a horizontal or nearly horizontal position, as shown, and thus form a table or support for the bunch. By turning this receiver outward into the position shown in dotted lines the bunch can be removed readily and easily by the operator.

The pocket is formed in the apron just in front of the roller, as shown in Fig. 4, the binder placed therein, and then the regular quantity of tobacco is dropped into the pocket upon the binder. The operator has but to move the bunching-roller toward the outer edge of the table, either by hand or by the treadle, when the bunch will be rolled in the usual manner and deposited into the receiver. This construction is especially designed for rolling tapering bunches and to vary both the size and the amount of taper which the bunches shall have.

Having thus described my invention, I claim—

1. The combination of the table and the apron with a spring-actuated pivoted lever, the bunching-roll placed upon the lever, the adjusting devices placed upon the lever for holding the roller in any desired position, and a treadle mechanism for moving the rod or lever through a portion of a circle, substantially as set forth.

2. The combination of the frame A, the casting secured thereto, a supporting-frame L, mounted upon the casting, an adjustable bearing or support mounted upon the frame, a pivoted box or bearing, a spring-actuated lever P, which passes through the box or bearing, a bunching-roller placed upon the lever,



the table, the apron, and treadle mechanism for moving the rod or lever, substantially as specified.

5 3. The combination of the table and the apron with the bunching-roller, the lever upon which the bunching-roller is placed, a treadle mechanism for moving the lever, a spring for returning the lever to position, the pivoted box or bearing through which the rod or lever

passes, and a suitable casting provided with 10 projecting arms for holding the lever in position, substantially as shown.

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

FREDRICK C. SMALSTIG.

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CHAS. R. WEITERSHAUSEN.