

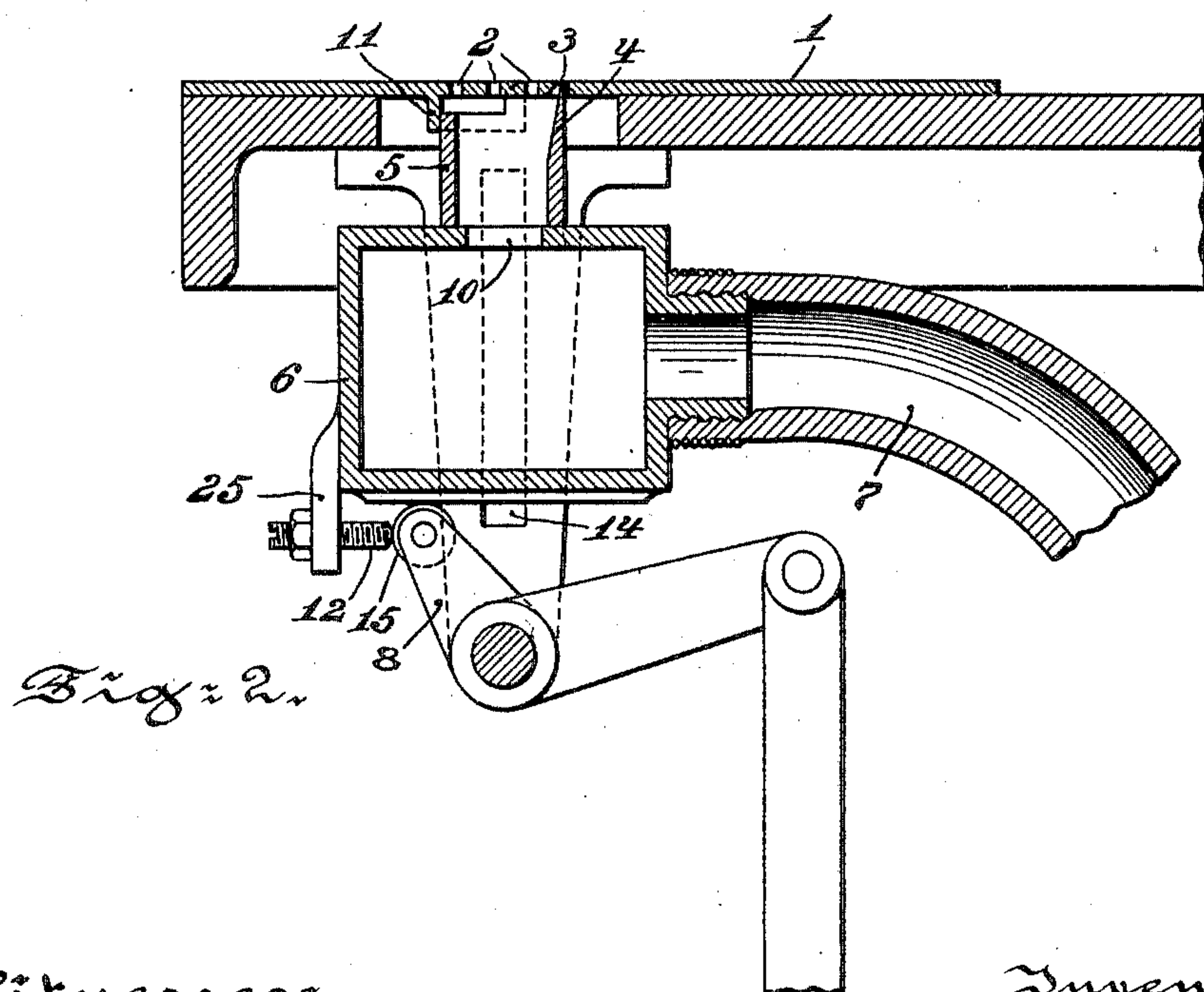
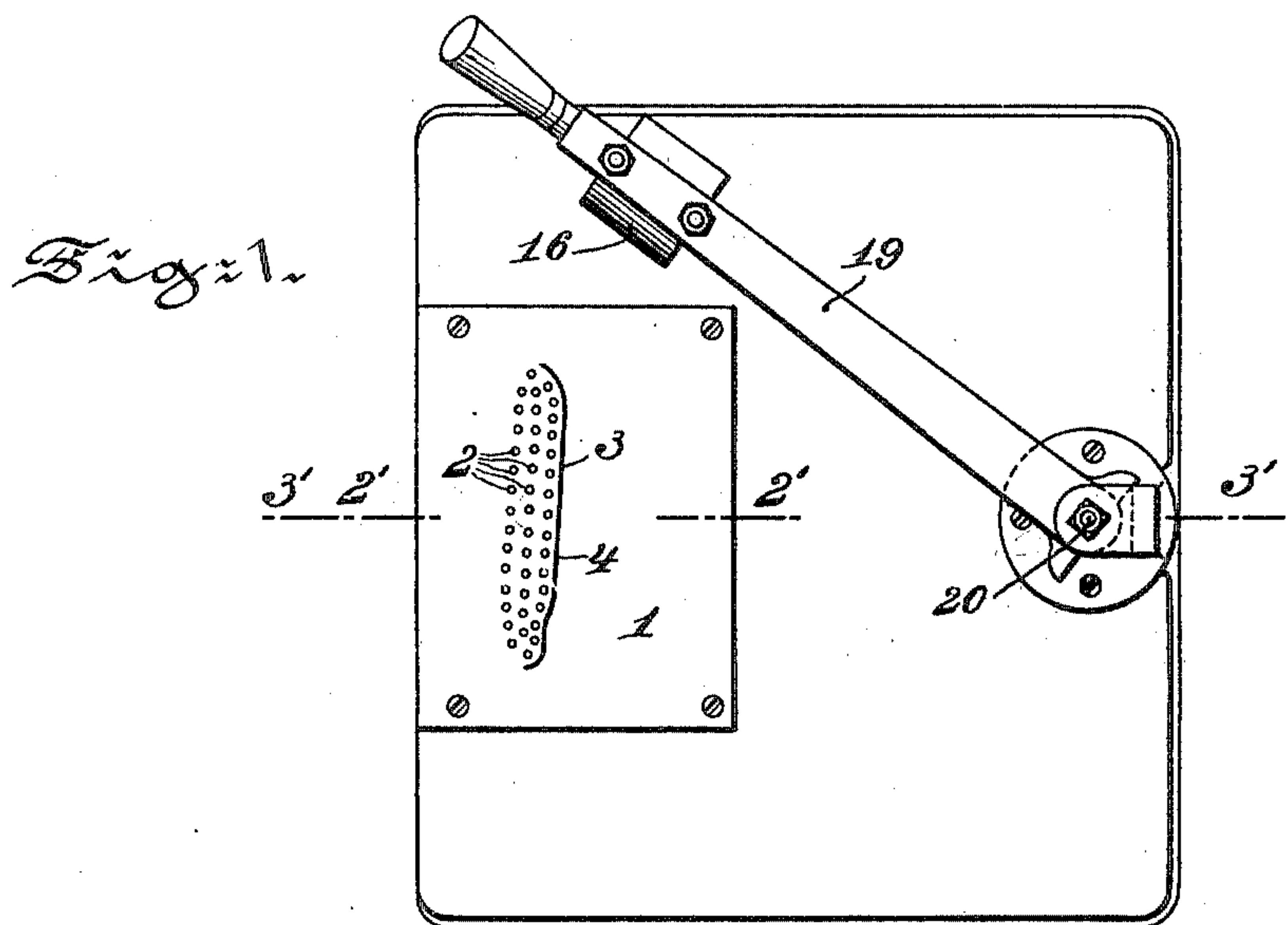
No. 817,493.

PATENTED APR. 10, 1906.

B. LIBERMAN.
CIGAR ROLLING TABLE AND WRAPPER CUTTER.

APPLICATION FILED AUG. 2, 1905.

2 SHEETS—SHEET 1.



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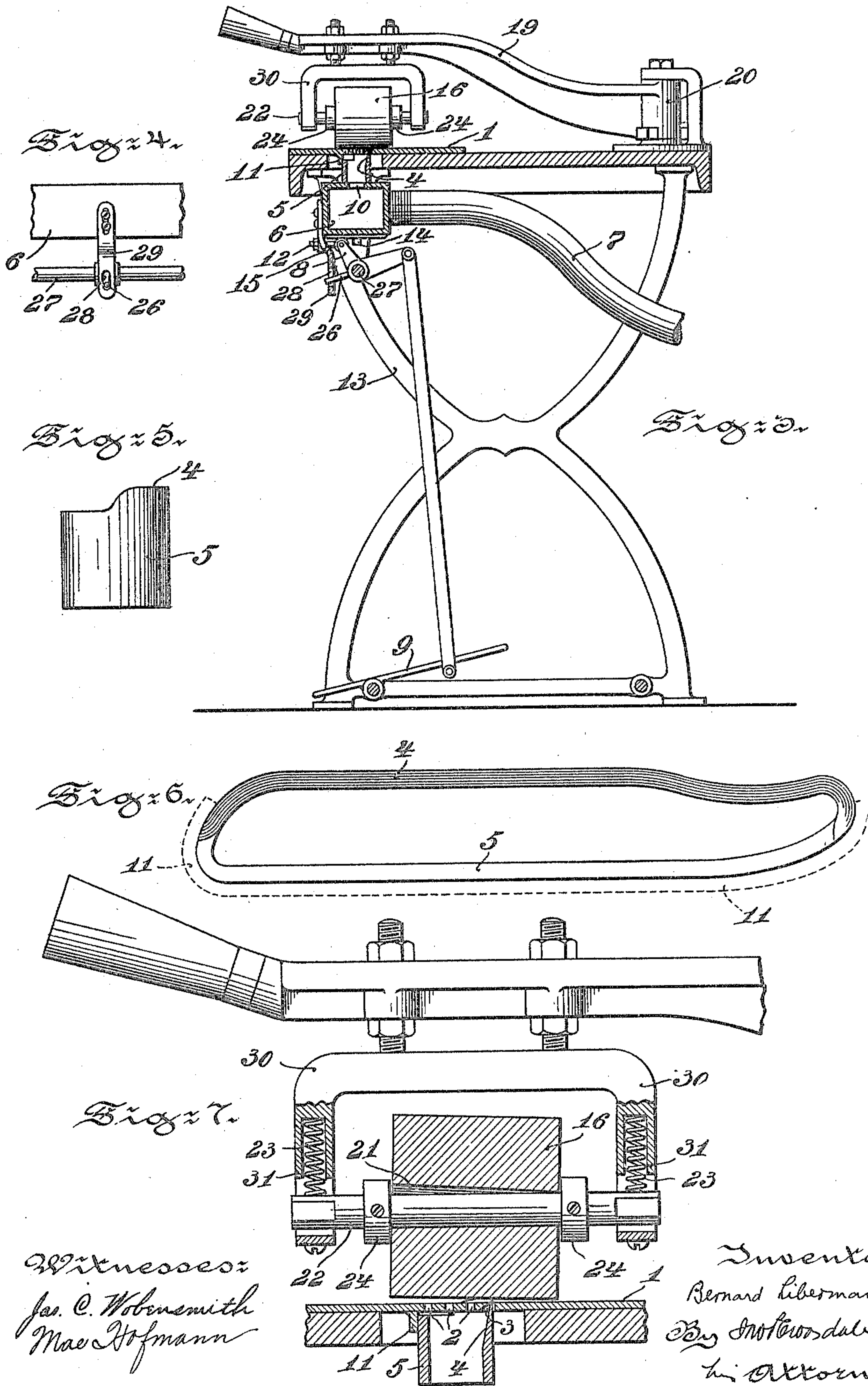
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UNITED STATES PATENT OFFICE.

BERNARD LIBERMAN, OF PHILADELPHIA, PENNSYLVANIA.

CIGAR-ROLLING TABLE AND WRAPPER-CUTTER.

No. 817,493.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed August 2, 1905. Serial No. 272,279.

To all whom it may concern:

Be it known that I, BERNARD LIBERMAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Cigar-Rolling Table and Wrapper-Cutter, of which the following is a specification.

My invention relates to improvements in cigar-rolling tables and wrapper-cutters, my object being to provide means for cutting the wrapper and also improved means for forming the bunch and rolling the same into the wrapper.

My invention belongs to that class of tables in which perforations are provided and an air-suction through the perforations to hold the cigar-leaf in place during the cutting of the wrapper and also to hold the wrapper in place during the rolling or wrapping operation.

Heretofore, especially in connection with a continuous die which entirely surrounded the platen, it has been the custom to support the platen by resilient means, so that the same may be depressed below the edge of the knife during the cutting operation.

By my improved means I provide the perforated platen integral with the surrounding table, and consequently rigidly supported. This is made possible by the formation of the knife, which instead of being a continuous die has a formation substantially equal or similar to one-half of the ordinary form of continuous die, so that only a single curved aperture is formed in the table, and part thereof has to be severed entirely from another.

My invention comprises the special improved form of cutting-knife and means for securing the same in place and for moving it into and out of the cutting position.

My invention also comprises improved means for cutting the wrapper with a bevel, as and for the purpose hereinafter to be described.

Referring to the drawings, Figure 1 is a plan view of my device. Fig. 2 is a fragmentary section, on an enlarged scale, on line 2' 2' of Fig. 1. Fig. 3 is a vertical section on line 3' 3' of Fig. 1. Fig. 4 is a detail in elevation of the exhaust-box and stop mechanism. Fig. 5 is an end elevation of the knife on an enlarged scale. Fig. 6 is a plan view of same.

Fig. 7 is a vertical section, on an enlarged scale, of the roller and cutting-die and associated parts.

Similar numerals refer to similar parts throughout the several views.

1 indicates a plate formed of a single piece upon which the operator cuts the wrapper from the cigar-leaf and rolls the bunch therein. Suitably located on this plate are a plurality of perforations 2, substantially in the form of a wrapper. Around one side only of the group of perforations is provided a slit 3, through which the knife 4 is adapted to project from below the plate 1. This knife is in the form desired for one side of the wrapper only. This is the side of the wrapper which is exposed or which overlaps the under part of the wrapper when the cigar is completed. It is desirable that the line of the exposed edge of the wrapper, which extends spirally from one end of the cigar to the other, should be uniform. It is not so important that this condition should exist with respect to the other margin of the wrapper, which is concealed. It is, however, important that the wrapper should overlap sufficiently to prevent any bulging or leaking between its margins, and therefore it is better to have too much than too little surplus on the other side of the wrapper from that which is cut by the knife 4. It is also desirable, as the wrapper is usually made of a tobacco of much higher grade and price than the filler, that no more should be wasted than is absolutely necessary. For this reason the cutting of the leaf on one side only, leaving all the surplus margin on the other side uncut, results in a much more efficient wrapping and a substantial saving of tobacco to be rolled into the cigar, which would otherwise be wasted.

Another advantage of my improved means resides in forming the entire cutting-table integral, so that when the knife is pressed below the surface of plate 1 the operator will have a perfectly smooth surface upon which to form and wrap his cigar. This is a distinct advantage over former devices in which a resiliently-supported platen is employed, since the pressure thereon due to the rolling of the cigar tends to depress the platen, thereby forming a ridge between platen and surrounding table. This ridge interferes with the smooth rolling of the cigar. My knife structure 5, as shown best in Figs. 5

and 6, is made in the form of a continuous body as to its lower extension. The knife-edge proper, 4, extends above one longitudinal side only of the upper extension and is beveled or sloped at each end of its cutting extension, so that the roller may ride over it smoothly. The advantage of the beveled or sloped construction of the ends of the knife is that the roller is not nicked or otherwise injured by its contact with the knife, nor is the knife nicked or chipped by its engagement with the roller, as would be the case were the roller to encounter a sharp point at each end of the cutting edge. This cutting edge of the knife is adapted to be reciprocated through the slit 3 of the table 1. This knife structure 5 rests upon the suction-box 6, which is connected by the flexible conductor 7 with suitable exhausting means. This box 6 is slidably supported in the ways 14, secured to the framework 13 of the machine and is adapted to be moved up and down by the lever 8, operated by the foot-pedal 9. The lever 8 is preferably provided with the antifriction-wheel 15. The knife structure 5 rests upon the exhaust-box 6 and surrounds the opening 10 in said exhaust-box. Upon the under side of the table 1 is provided the downwardly-extending member 11, which embraces that side of the member 5 which is not provided with the knife edge and extends slightly beyond each end of said knife edge, as shown in Fig. 6. This semisleave 11 is adapted to have a nice movable engagement with the knife-body 5. It is also to be noted that the knife-edge 4 is never withdrawn entirely from the slit 3. It is merely depressed sufficiently to clear the upper surface of the table 1. From this structure it will be seen that a substantially air-tight communication is maintained between the exhaust-box and the apertures 2 of table 1. It is also pointed out that the knife-body 5, having once been put in place by merely resting it upon the exhaust-box 6, the proper limiting of the downward movement of said exhaust-box 6 will result in the maintaining of said knife-body 5 in its proper position, in view of its engagement with the semisleave 11 and the engagement of the knife-edge 4 in slit 3. This results in an extremely convenient method of assembling the parts or of changing, removing, or replacing the die. A simple adjustable means for limiting the downward movement of box 6 is the set-screw 12, operating in a member 25, secured to the exhaust-box 6. This set-screw is adapted to encounter the wheel 15, secured in the free end of lever 8. The rod 26, which is secured to shaft 27, is adapted to operate in the slot 28 of member 29. This member 29 is adjustably secured to the suction-box by means of bolts operating in slots in said member, whereby adjustable means is afforded for limiting the movement of the

member 8 in the direction away from set-screw 12. The two adjusting mechanisms are illustrated in Fig. 4. In order to remove the knife, it is simply necessary to operate the set-screw 12 to permit a further descent of box 6. After replacing the various parts the said set-screw 12 is returned to its former position.

The cutting-roller 16 is mounted in the usual way in the yoke 30, adjustably secured to the arm 19, which is pivotally secured at 20 to the stationary part of the machine, except that a certain amount of play is permitted between the roller 16 and its supporting-shaft 22, due to the fact that the aperture 21, through which the shaft extends, is slightly larger at one end than the other, so that the roller is permitted to assume an inclined position between the knife and table. The collars 24 are adapted to serve as adjustable means for maintaining the roller in the required lateral position on the shaft, and the shaft 22 is flattened at its ends and adapted to have a vertical but not a rotative movement in the slots 31 of yoke 30. This vertical movement is controlled by the springs 23. The knife being of the shape above described, it follows that the roller will assume an inclined position when coming in contact with the knife with one edge nearer the surface of the table than the other. This is shown in Fig. 7. The result of this is that the tobacco-leaf is cut with a slight bevel, so that the white streak which usually appears upon the cut edge of the wrapper will be upon the under side thereof and out of view when the wrapper is finally in place on the cigar.

What I claim is—

1. In a cigar-wrapper cutter, the combination of a knife having the contour of one side of the wrapper only, a wrapping-table having a continuous fixed surface provided with a slit conforming to the contour of the knife, and provided with apertures upon one side of the slit, and exhaust means connected with said apertures beneath the table.

2. In a cigar-wrapper cutter, the combination of a knife conforming to the contour of the exposed side of the cigar-wrapper only, said knife being beveled at each end of its cutting extension, and a roller for coöperating with said knife.

3. In a cigar-wrapper cutter and rolling-table, the combination of a knife adapted to cut the exposed edge of the wrapper only, a continuous or integral rolling and wrapping table provided with a slit conforming to the contour of the knife and having on one side thereof a plurality of suction-apertures.

4. In a cigar-wrapper cutter and rolling-table, the combination of a knife-body having a knife formed and adapted to cut the exposed edge of the wrapper only, an integral wrapping and rolling table provided with a slit conforming to the contour of the knife-

edge, and suction-apertures approximate the slit, a reciprocating suction-box for supporting and moving the knife-body, having communication with the interior of said knife-body, and means for maintaining an air seal between the knife-body and the suction-apertures.

5. In a cigar-wrapper cutter and rolling-table, the combination of a knife-body having a knife-edge formed and adapted to cut the exposed edge of the wrapper only, a continuous rolling and wrapping table provided with a slit conforming to the cutting edge of the knife, and suction-apertures approximate said slit, a reciprocating suction-box adapted to support said knife-body and having communication through said knife-body with the suction-apertures, and a semisleave or collar secured to the under side of the table for maintaining in connection with the slit, a movable seal between table and knife-body.

6. In a cigar-wrapper cutter and rolling-table, the combination of a knife-body having a cutting-knife formed and adapted to cut the exposed edge of the wrapper only, a continuous rolling and wrapper table having a slit conforming to the cutting edge of the knife, and suction-apertures approximate thereto, a reciprocating suction-box adapted to support said knife-body and having communication through said knife-body with the suction-apertures, a semisleave connected with the under side of the table and forming, in conjunction with the slit of the table, a movable seal between the knife-body and the table, means for moving the reciprocating

suction-box and means for limiting its downward movement.

7. A cigar-wrapper cutter and rolling-table, comprising a cutting-knife formed and adapted to cut the exposed edge of the wrapper only, and a roller, for cooperating with the cutting-knife, loosely mounted so as to permit an inclination of the roller from the knife toward the table, the elevation of the knife above the table being such with respect to the position and extension of the roller from the knife toward the table, as to secure a beveled cut of the wrapper.

8. In a cigar-wrapper cutter, the combination of a knife having the contour of one side of the wrapper only, a wrapping-table recessed to fit the knife and to permit its elevation above the surface thereof, and a roller journaled and disposed so as to lie at an inclination between the knife and the table to cooperate with the knife in causing a beveled cut.

9. In a cigar-wrapper cutter, the combination of a knife having the contour of one-half the wrapper only, a wrapping-table recessed to fit the knife and to permit its elevation above the surface thereof, a roller for cooperating with the knife and a shaft for supporting the roller, the roller provided with a tapered recess for receiving the shaft, said roller, shaft and knife being so proportioned and positioned relatively as to cut the wrapper with a beveled edge.

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