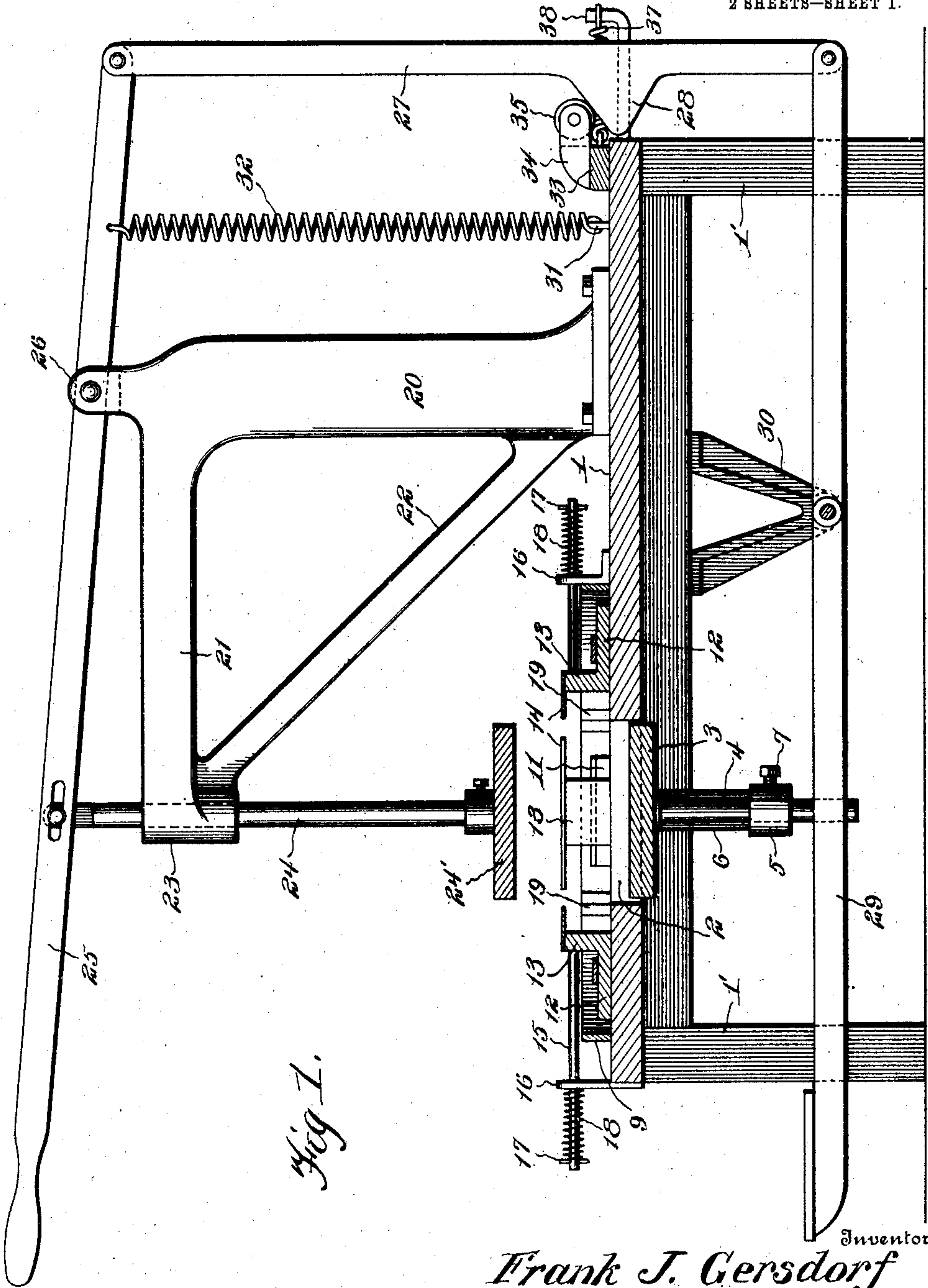


F. J. GERSDORF.
BOX COVERING MACHINE.
APPLICATION FILED FEB. 29, 1908.

907,028.

Patented Dec. 15, 1908.

2 SHEETS—SHEET 1.



Witnesses

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By Victor J. Evans
Attorney

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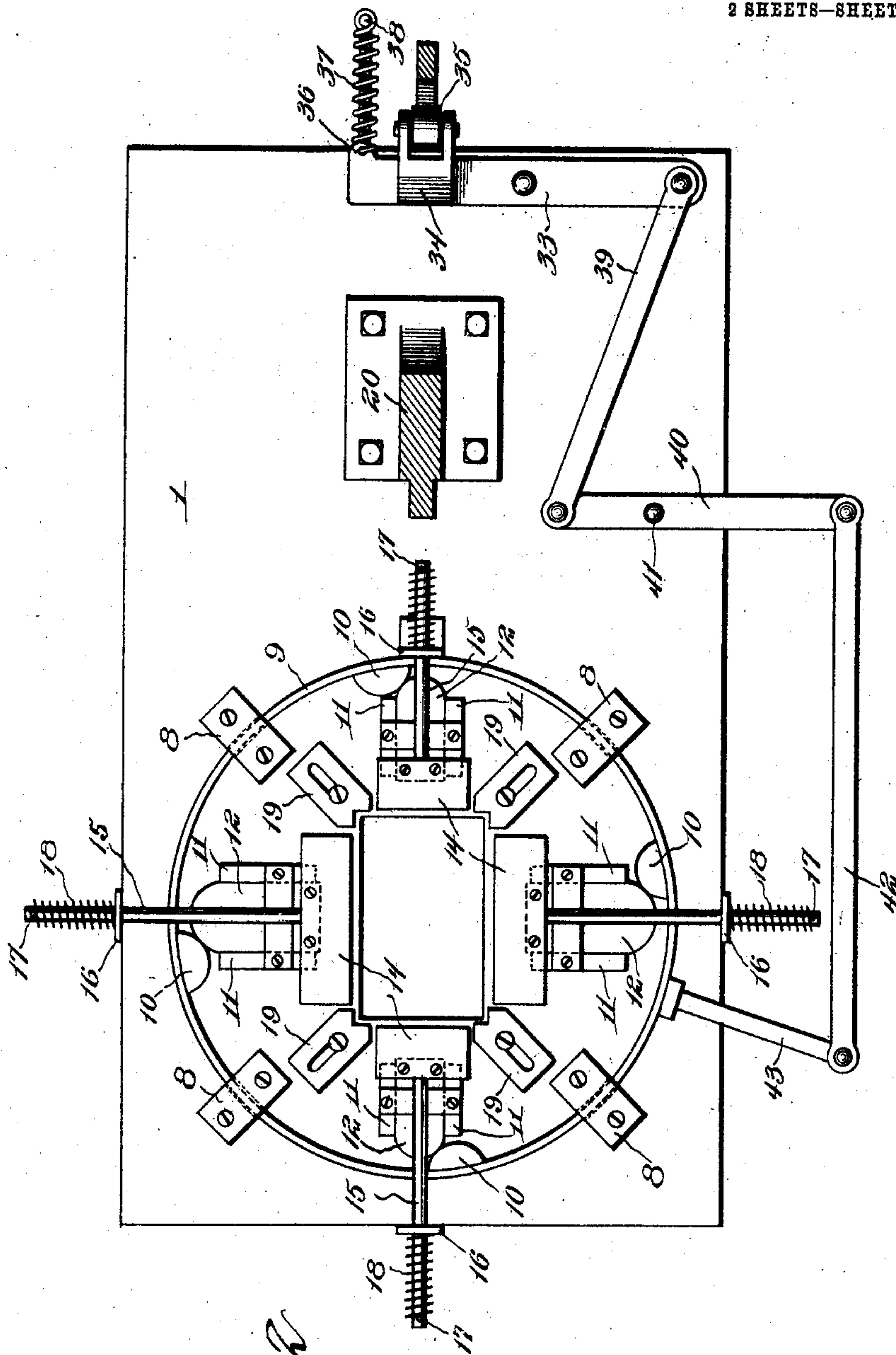


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK J. GERSDORF, OF BROOKLYN, NEW YORK.

BOX-COVERING MACHINE.

No. 907,028.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed February 29, 1908. Serial No. 418,562.

To all whom it may concern:

Be it known that I, FRANK J. GERSDORF, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Box-Covering Machines, of which the following is a specification.

This invention relates to box covering machines, and the object of the invention is to provide a device of this character whereby a covering applied to the sides and ends of the box may be turned over the edges and the covering applied to the sides and ends of the inside of the box by a single operation of a lever.

Another object of the invention is to provide a device of this character which may be operated by either a hand or foot lever with equal efficiency.

With these and other objects in view the invention resides in the novel construction of devices and their arrangement in operative combination, hereinafter fully described and claimed.

In the drawings, Figure 1 is a central longitudinal section of a box covering machine constructed in accordance with my invention. Fig. 2 is a horizontal sectional view upon the line 2—2 of Fig. 1.

In the accompanying drawings the numeral 1 designates the top of a substantially rectangular bench or table, being provided with suitable legs or supports 1', by which it is elevated from the ground. The bench has its top provided with a substantially rectangular opening 2, of a size slightly greater than that of the box upon which the device is adapted to operate. Positioned within this opening 2 is a table 3, having a depending spindle 4, mounted in a hollow head 5 of a bracket 6, secured upon the bench 1. The head 5 is provided with a suitable threaded orifice adapted for the reception of a threaded member 7, adapted to contact with the spindle 4 and to retain the table 3 in any desired position in relation to the top of the bench 1.

Slidably mounted in guides or bearings 8, upon the top of the bench 1 is a ring 9, having its inner periphery provided with a plurality of rounded cam faces 10, the purpose of which will hereinafter be fully described. The bench 1 is also provided, within the ring 9, and adjacent the edges of the cut away portion 2, with spaced guides 11 arranged in pairs opposite each of the walls

of the cut away portion 2, and adapted for the reception of sliding blocks 12. These blocks 12 are provided upon their inner ends with an up turned portion 13, and secured to the top face of this up turned portion is an edge turning plate 14.

The inner wall of the up turned portion 13 is provided with a rod 15, extending through bearings 16 provided upon the bench 1. The outer end of the rod 15 is provided with a suitable orifice adapted for the reception of a pintle 17, and interposed upon the rod between the pintle 17 and the bearing face 16 is a helical spring 18, adapted to normally force the sliding blocks rearwardly against the inner periphery of the ring 9, and the edge turning plate 14 away from the opening 2 of the bench 1. The faces of the sliding blocks 12 adjacent the inner periphery of the ring 9 are rounded so as to provide a suitable contacting face for the rounded cams 10 upon the ring 9, when the ring is rotated to force the sliding blocks inwardly against the pressure of the spring 18 so as to bring the edge turning plates 14 over the box adapted to be positioned upon the table 3 within the opening 2. The squared opening 2 of the bench 1 is provided with corner guides 19. These guides 19 are provided with suitable slots adapted for the reception of headed bolts positioned within the bench 1 and whereby the guides may be moved towards or away from the corners of the opening 2.

Positioned upon the bench 1 is a standard 20, having a bracket 21 secured to the standard and provided with a suitable brace 22. The standard 21 is provided with a guide head 23, within which is slidably mounted a rod 24, connected with a plunger 24', positioned above the opening 2 of the bench 1. The opposite end of the rod 24 is connected with a hand lever 25, having a pivoted bearing in ears 26 connected to the upper end of the standard 20. The rear end of the hand lever 25 is connected with a bar 27, provided with a suitable cam face 28. This bar 27 is positioned adjacent the rear of the bench 1, and its free end is connected with a foot lever 29, pivotally secured upon a bracket 30 connected with the rear of the bench 1. The table 1 is provided at the rear of the standard 20 with a suitable staple 31, adapted for the reception of a torsional spring 32, which is also connected with the hand lever 25, and which serves as an effective means for elevating the front end of the

handle and raising the plunger 24' away from the bench 1, as well as depressing the cam face 28 of the bar 27 beneath the upper edge of the bench 1.

5 Pivotaly secured to the rear of the top of the bench 1 is an arm 33, having a bracket 34 provided with a roller 35, adapted for engagement with the cam 28 of the bar 27. The arm 33 is also provided with a suitable ear 36, adapted for the reception of a helical spring 37, the opposite end of the spring being secured in a bracket 38 provided upon the end of the table 1. By this construction it will be seen that the roller 35 is normally
10 contacted with the cam face 28 of the arm 27. Suitably spaced from the arm 33, and connected therewith by an inclined link 39 is an arm 40, pivoted to the bench 1 as at 41. The free end of this arm 40 is provided with
15 a link 42 by which it is connected with an arm 43, connected with the ring 9.

The operation of my device is as follows: The box to be covered is positioned upon the table 3, the covering being suitably gummed
20 and applied to the bottom and sides of the box if desired, the covering for the edges and the sides of the interior of the box is left upstanding, having previously been cut the required length. Either the hand lever 25 or the foot lever 29 is operated, causing the cam
25 28 to contact with the roller 35, thus swinging the arm 33 upon its pivot and forcing its free end inward against the pressure of the spring 37. The opposite end of the arm 33 carrying the link 39 moves the arm 40 upon
30 its pivot 41, which in turn moves the arm 42 and the arm 43 connected with the ring 9, thus causing the ring to rotate within the guides 8 and the cams 10 to contact with the rounded faces of the sliding blocks 12, forcing the edge turning plates 14 against the edges of the covering of the box. When the
35 cams 10 have been rotated past the sliding blocks 12, the springs 18 connected with the rods 15 will force the blocks rearwardly against the inner periphery of the ring 9, thus retracting the edge turning plates to their original position. The plunger 24' is
40 now descended within the box causing the gummed faces of the covering to adhere to the inner sides of the box. When pressure is released from either the hand lever 25 or the foot lever 29, the spring 32 will force the plunger upwardly and the lower face of the
45 cam 28 again into engagement with the roller 35 when the ring 9 will be again rotated to return it to its original position. The box

upon the table 3 is now removed, a second box and covering inserted within the opening 2 and upon the table 3, and the operation
60 repeated.

Having thus fully described the invention what is claimed as new is:

1. In a box covering machine, the combination with a movable table and a plunger, of
65 a bench having a cut away portion, slidable spring retarded plates upon the bench adjacent the edges provided by the cut away portion, a ring having cam faces upon the bench, and means for rotating the ring to force the
70 cam faces into contact with the plates to move the plates forward over the cut away portion of the bench.

2. A box covering machine comprising a bench having a cut away portion, an adjustable table beneath said cut away portion,
75 spring pressed plates above the sides of the cut away portion, a plunger above said cut away portion, means connected with the plunger for forcing the plates over the opening and the plunger within the opening after
80 the plates have been forced away from the opening.

3. In a box covering machine, a bench having an opening, a movable table below said
85 opening, guide plates upon said bench, blocks between the guide plates, plates upon said blocks adjacent the sides of the opening, rods upon the blocks, bearings for the rods, springs upon the rods normally tending to
90 force the plates away from the openings, adjustable guides for the corners of the opening, a ring having cams mounted in guides upon the bench, a standard upon the bench, a lever upon the standard, a plunger upon
95 the lever, a bar having a cam face upon the lever, a second lever connected with the bar, a spring pressed roller contacting the cam of the bar and a plurality of arms connecting the roller and the ring, whereby the ring may
100 be rotated by the cam upon the bar and the cams upon the ring contact the sliding blocks to force the strips over the opening and the plunger within the opening after the cam upon the bar has passed the roller, and means
105 for normally holding the plunger away from the opening in the bench.

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

FRANK J. GERSDORF.

Witnesses:

THOS. J. HIGGINS,
GEORGE KRUMENACKER.