

No. 775,093.

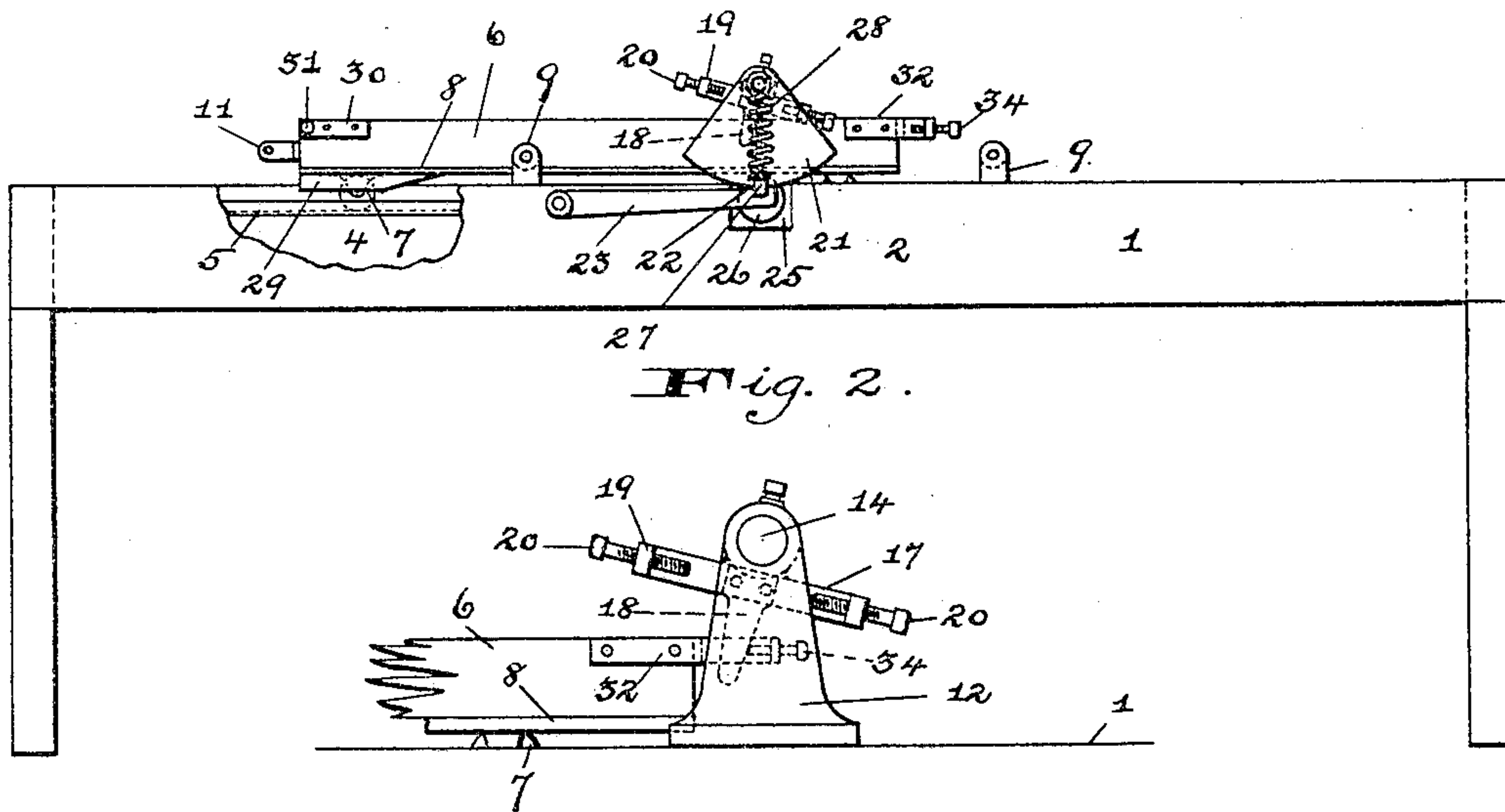
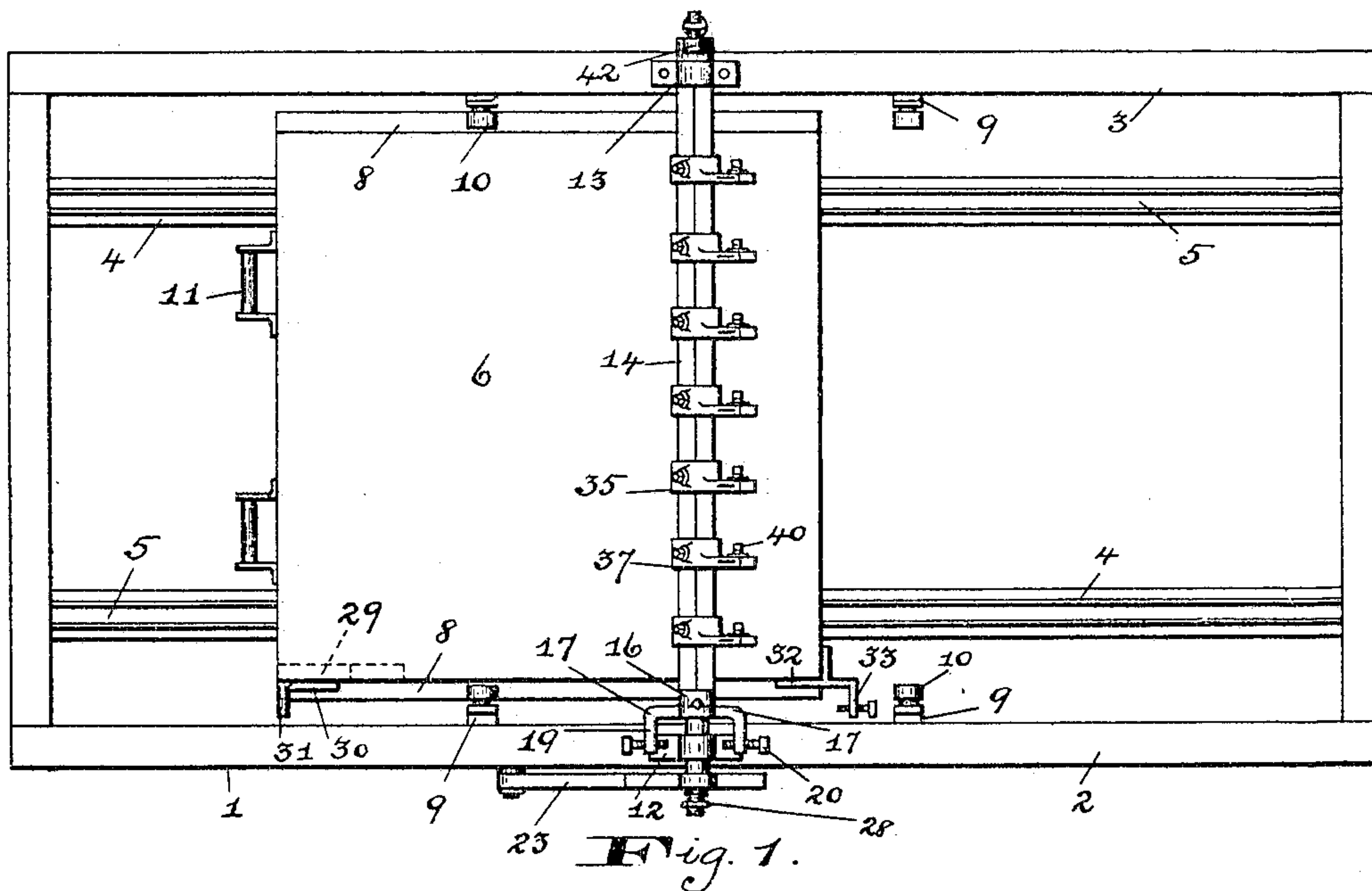
PATENTED NOV. 15, 1904.

W. L. RUHE.
CONFECTIONERY MACHINE.

APPLICATION FILED SEPT. 13, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.
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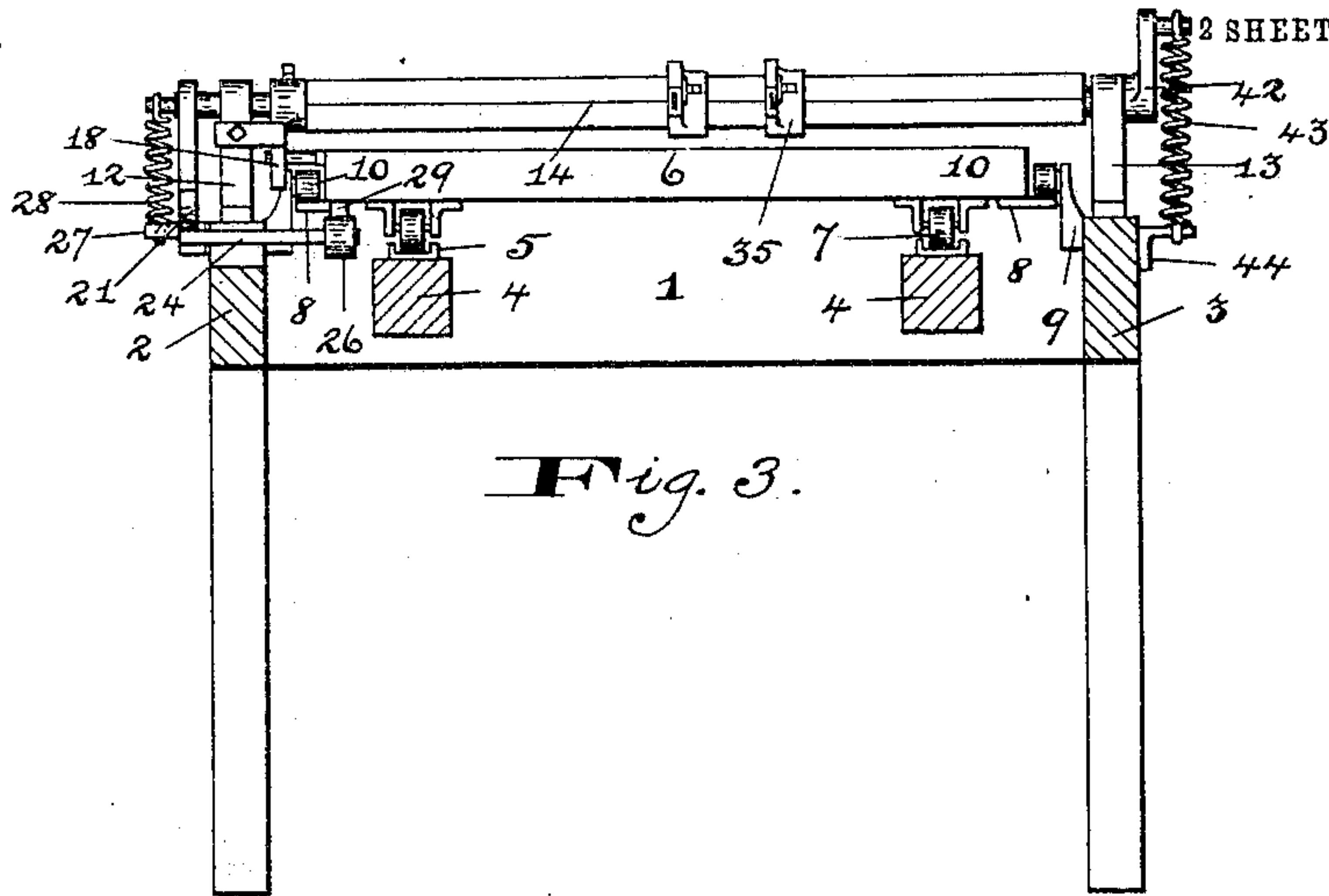


Fig. 3.

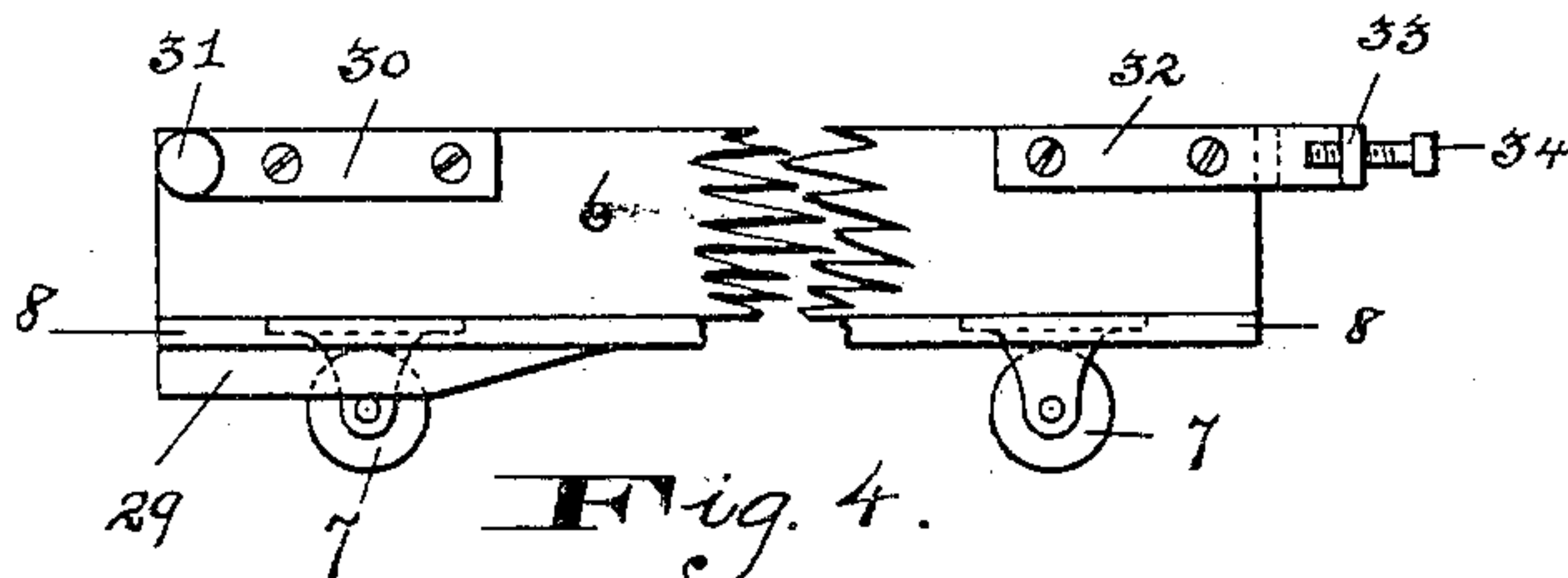


Fig. 4.

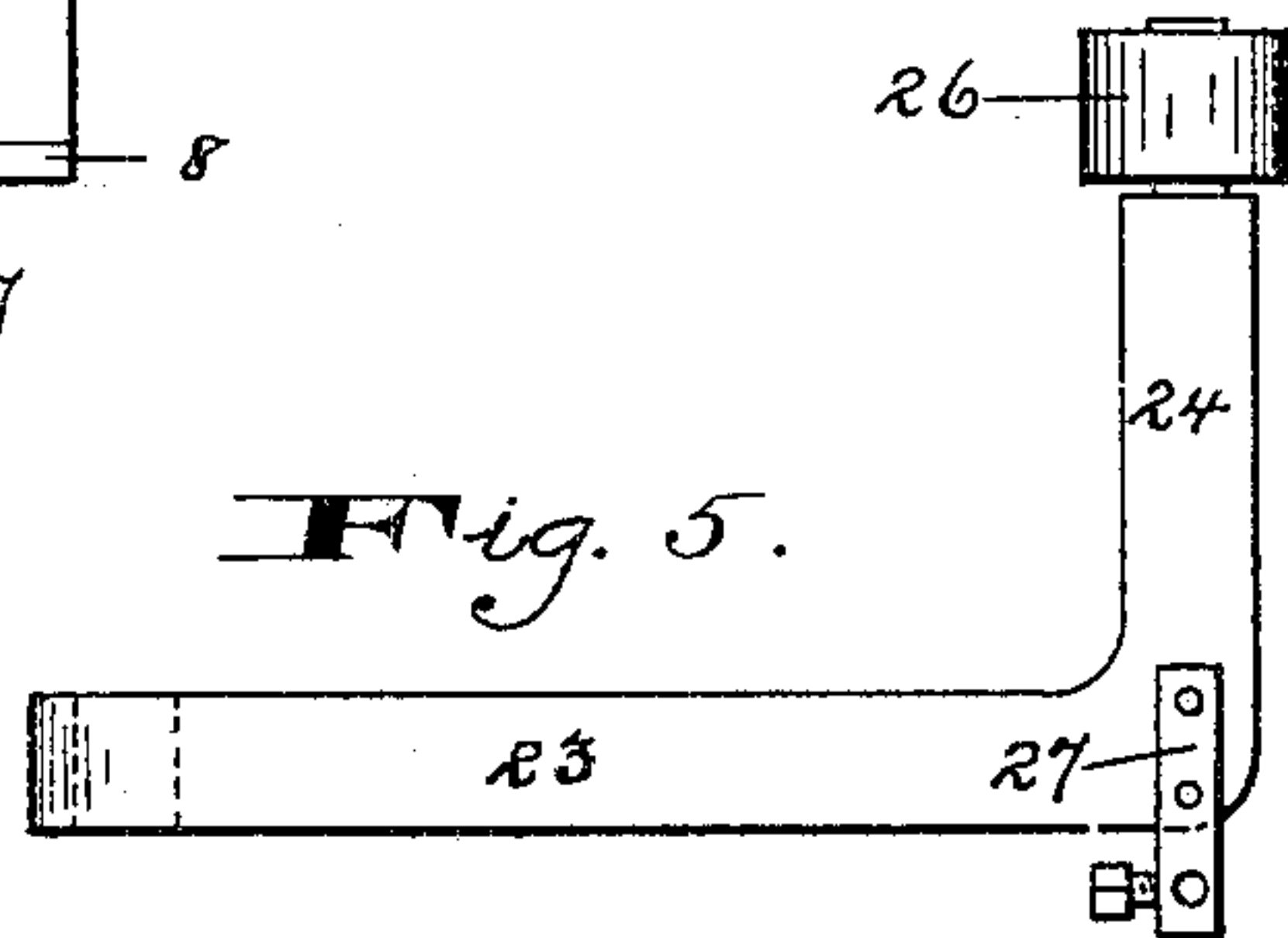


Fig. 5.

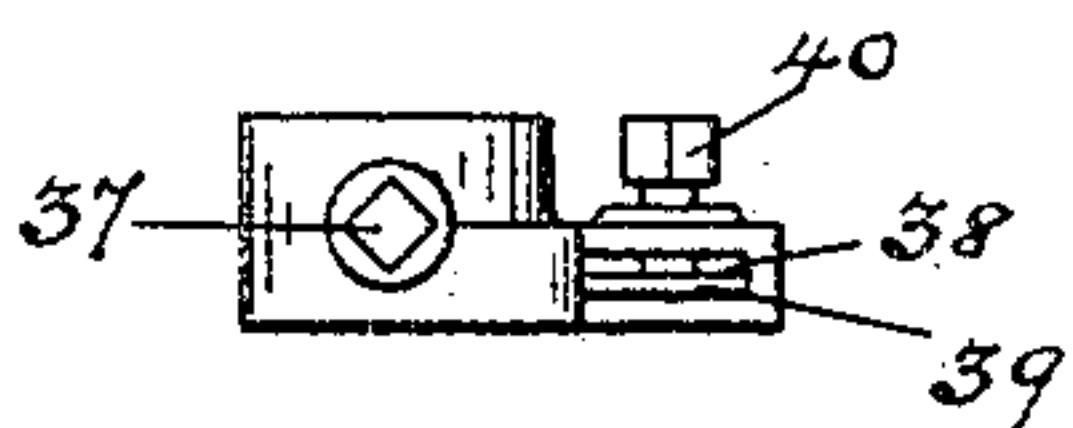


Fig. 6.

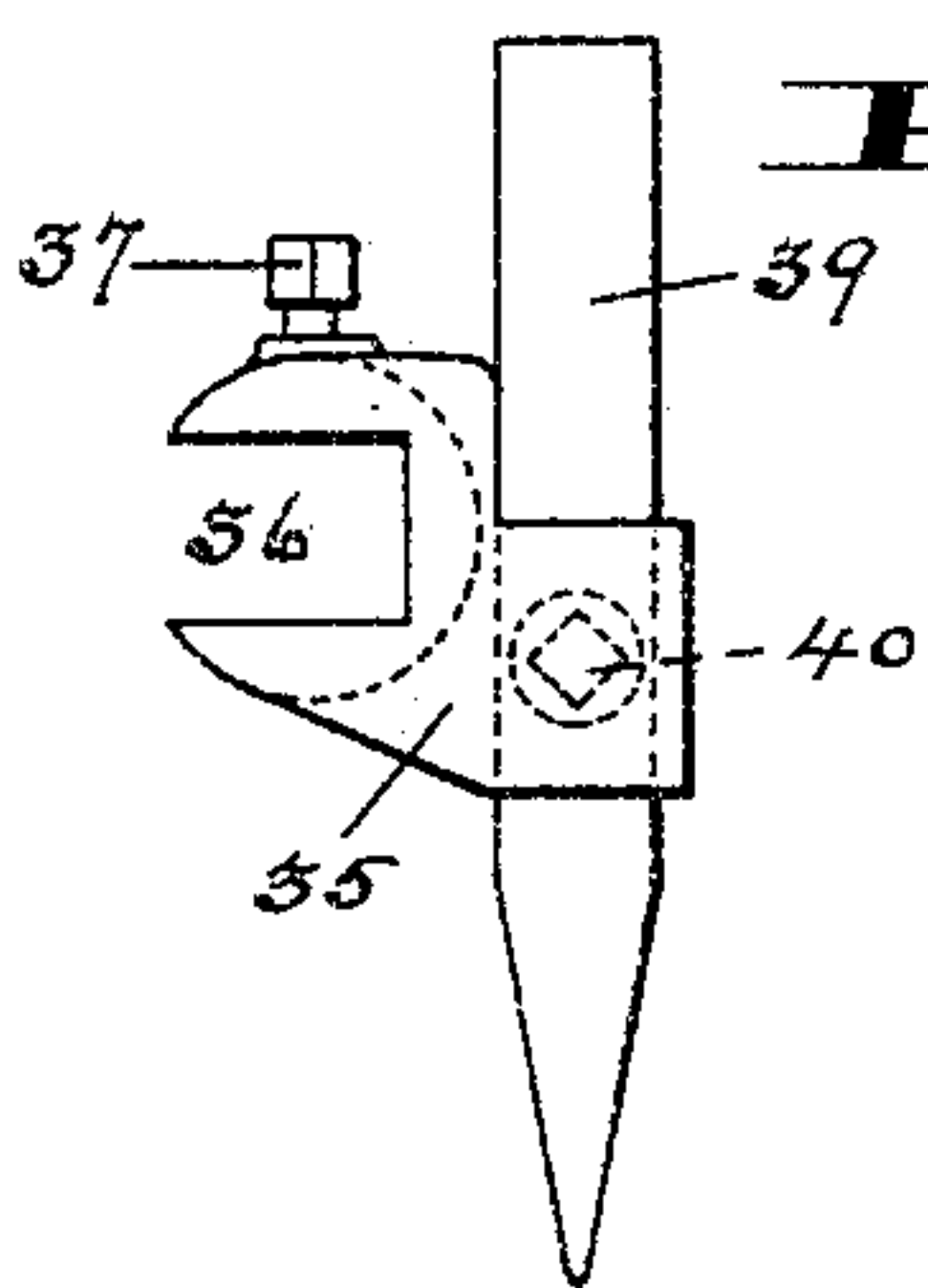


Fig. 7.

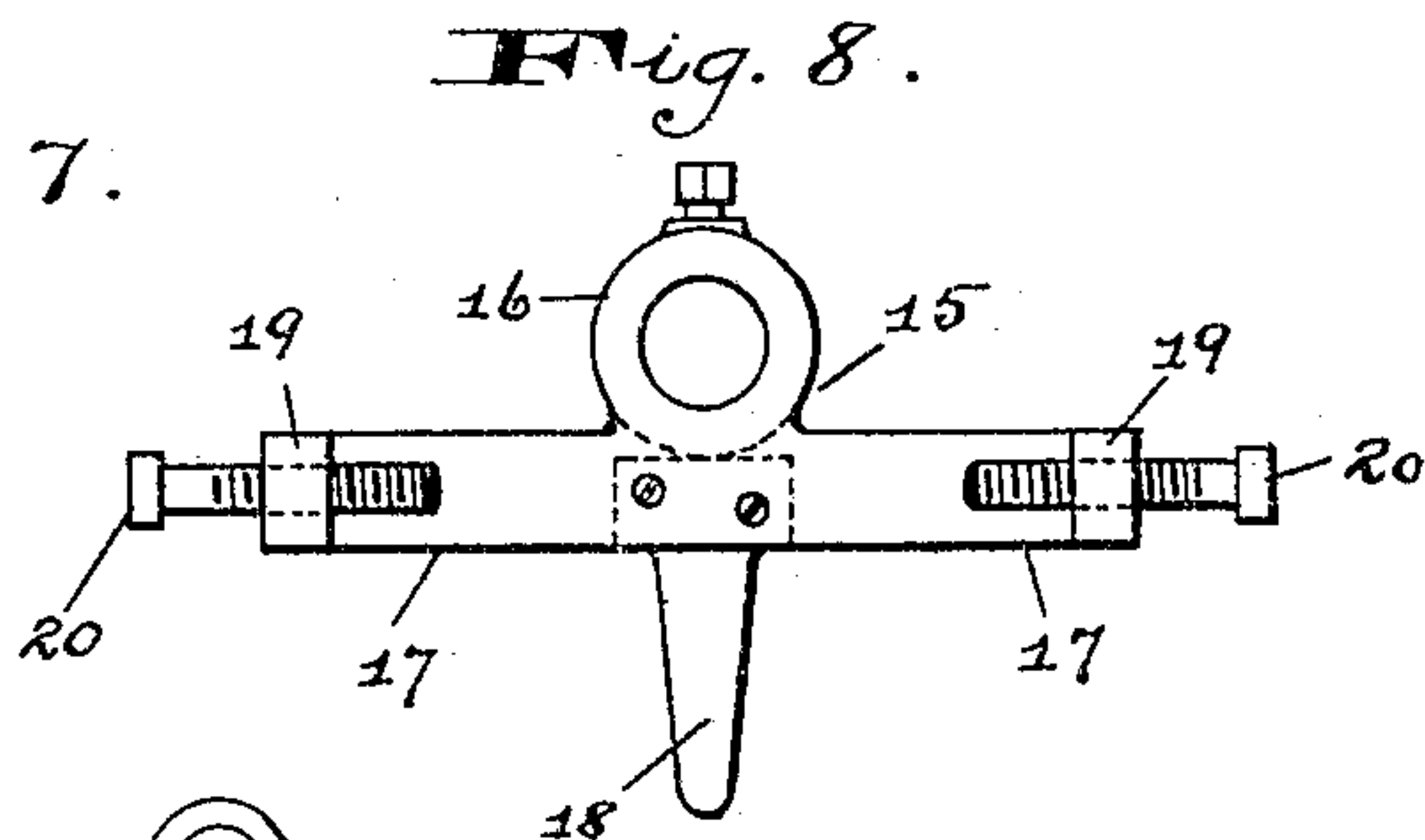


Fig. 8.

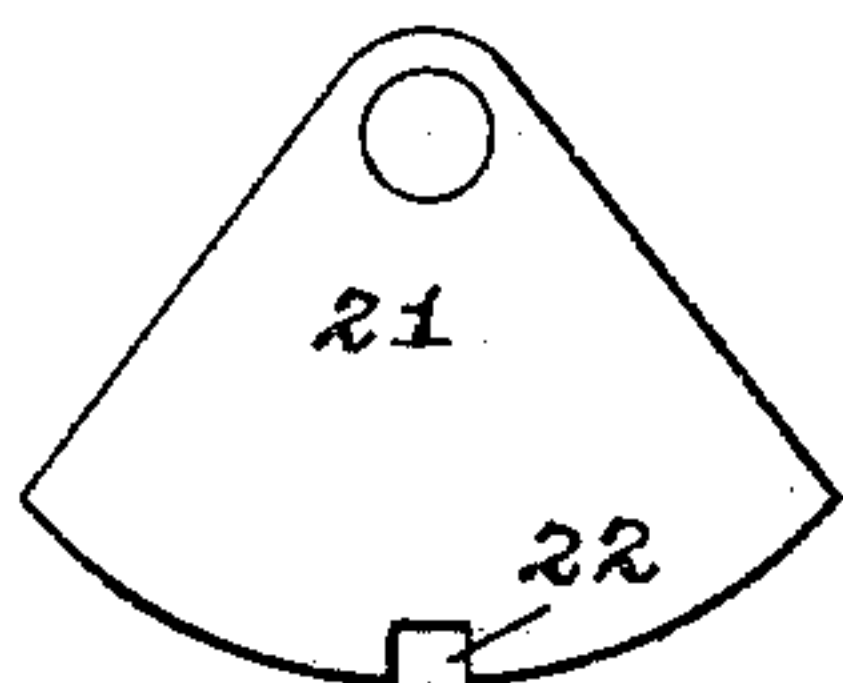


Fig. 10.

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UNITED STATES PATENT OFFICE.

WILLIAM L. RUHE, OF BALTIMORE, MARYLAND.

CONFECTIONERY-MACHINE.

SPECIFICATION forming part of Letters Patent No. 775,093, dated November 15, 1904.

Application filed September 13, 1904. Serial No. 224,252. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. RUHE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Confectionery-Machines, of which the following is a specification.

The invention relates to confectionery-machines, and has for its object to provide an improved machine for cutting candy, dough, or other materials while the latter is in a plastic or hardened state. The invention is particularly designed for cutting such materials in strips or blocks; and it consists in the novel construction, combination, and arrangement of devices, as hereinafter described, and particularly pointed out in the claims.

The accompanying drawings illustrate the invention, in which—

Figure 1 shows a plan view of a machine constructed in accordance with the invention; Fig. 2, a side elevation of same; Fig. 3, a vertical sectional elevation; Fig. 4, a detail side elevation of the opposite ends of the wheeled carrier. Fig. 5 is a plan view of the arm for locking the cam and cutter-shaft. Figs. 6 and 7 illustrate a plan and side elevation, respectively, of one of the knife-holders. Fig. 8 is a side elevation of the device for rocking the cutter-shaft. Fig. 9 illustrates a detail of the same in the operated position, and Fig. 10 shows a detail of the cam for locking the cutter-shaft.

In the drawings, 1 designates a table of rectangular form and having parallel sides 2 and 3. Within the frame and extending in a lengthwise direction are two parallel supports 4, on top of which channel-rails 5 are secured. A bed or carrier 6 is provided on its bottom with rollers 7, which rest and travel on the rails 5, and at opposite sides and adjacent the sides 2 and 3 of the table said carrier is provided with a plate 8, which projects laterally and forms a ledge. Secured to the sides of the table and projecting vertically therefrom are brackets 9, each of which supports a roller 10. These rollers have positions so as to project over the ledge on the carrier as the latter is moved lengthwise of the table, and by means of these rollers vertical displacement

of the carrier is obviated. In practice the carrier may be moved in any desired manner; but in the drawings it is shown as having suitable handles 11 at one end, by means of which it may be moved horizontally by the operator.

On top of the sides 2 and 3 and preferably midway between the opposite ends of the table are bearings 12 and 13, which support a horizontal shaft 14. This shaft is preferably square or angular between its ends, but round at said ends. Adjacent the bearing 12 the shaft is provided with an operating device 15, which comprises a collar 16, two laterally-projecting arms 17, and a depending stem 18. Each of the arms 17 is provided with an outturned end 19, through which a set-screw 20 extends. These outturned ends and set-screws (see Figs. 1, 3, and 9) project toward the bearing 12, so that the inner ends of the set-screws will have position on opposite sides of said bearing for a purpose to be presently described. A cam 21 is carried on the outer end of the shaft 14, and said cam is provided at its lowermost point with a notch 22.

Pivotaly secured to the side 2 of the table is a lever 23, and said lever extends beneath the cam 21, and its free end 24 turns inwardly and passes through a notch 25 in the side 2 of said table. This free end 24 of the lever is provided with a roller 26, which has position in a plane beneath the carrier. The upper surface of the lever 23 is provided with a lug or plate 27, which is positioned so as to enter the notch 22 in the cam when the cutter-shaft is in the operative position. A spiral spring 28 in the present instance has one end attached to the end of the shaft 14 and its other end secured to the lug or plate 27, so as to keep the free end of the lever and the lug thereon normally elevated, so that the lug will enter the notch in the cam when the two register. On the bottom of the carrier or bed and near one end thereof is a cam-plate 29, which when the carrier is moved forward will contact with the roller 26 on the free end of the lever 23 and depress said free end to withdraw the lug or plate 27 from the notch 22 in the cam 21 to enable the shaft to be rocked. The rocking movement is accomplished as follows: On the rear end of the carrier or bed is a plate 30,

provided with a lateral stem 31, which projects toward the side 2 of the table and in a plane above the plate or ledge 8. When the carrier is moved forward beneath the shaft 14, the cam-plate 29 will contact with the roller 26 and by depressing the lever will withdraw the lug 27 from the notch in the cam 21. The stem 31 then contacts with the depending stem 18 and by moving the latter forward will cause the shaft to be rocked until the set-screw 20 contacts with the bearing 12, which acts as a stop to limit the rocking movement of the shaft and also limits the forward movement of the carrier. On the front end the carrier is provided with a corner-bracket 32, having an outwardly-projecting arm 33, through which a set-screw 34 extends. This set-screw points in a direction toward the stem 31 at the opposite end of the carrier and when the latter is moved back contacts with the stem 18 and rocks the shaft back to its original position. The squared portion of the shaft is provided with a plurality of knife or cutter holders 35, which are adjustable thereon, as will now be described. Each holder is provided at one side with a square socket 36, which fits over the shaft 14, and a set-screw 37 serves to secure the holder on the shaft in its adjusted position. The holders are also provided with a vertical slot 38, through which the knife 39 is passed. A set-screw 40 serves to hold the knife in the holder in any vertically-adjusted position.

It will be understood that the shaft 14 is rocked, and the knife-holders and knives are all raised or lowered, according to the direction in which the shaft is rocked.

The end of the shaft 14 adjacent the bracket 13 is provided with a crank-arm 42, and a spiral spring 43 is connected at one end to said crank, while its other end is attached to a bracket 44 on the side of the table. The object of this spring is to keep the knives elevated by holding the shaft in the inoperative position while the carrier is being returned to its starting-point.

In the operation the tray containing the material to be cut is placed on the carrier while the latter is retracted. The knives having been adjusted in the holders and the latter also adjusted lengthwise on the shaft the machine will be in readiness for operation. By moving the table forward beneath the knives the latter will cut through the material on the tray, and as the cam-plate 29 contacts with the roller 26 on the lever 23 the latter will be depressed to release the plate or lug 27 from the cam 21. After this has been accomplished the stem 31 will contact with the depending stem 18 and rock the shaft to raise the knives. As the carrier is returned to its starting-point the spring 43 will hold the shaft and knives in the inoperative position until the set-screw 34 contacts with the depending stem 18 and rocks the shaft and knives back to the operative position,

at which time the lug 27 will again enter the notch 22 in the cam 21 and hold the shaft in the cutting position. The tray may then be turned on the carrier, so that the cuts previously made will extend in a crosswise direction and another cut made into the material to form blocks or squares.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; knives sustained above the carrier; means for lowering the knives to make the cut while the carrier is moved in one direction, and means to raise the knives while the carrier is moved in the reverse direction.

2. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft above the carrier; knives sustained by said shaft; means for holding said shaft and knives against movement when the carrier is moved in one direction, and means for rocking said shaft and knives to enable the carrier to be moved in the other direction.

3. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; knives sustained above the carrier and movable in a vertical plane and arranged to cut the material when the carrier is moved in one direction and means interposed between the carrier and knives to raise the latter when the carrier is moved in the opposite direction.

4. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft above the carrier; knives sustained by said shaft and means coacting between the carrier and shaft to rock the latter first one way and then the other when the carrier has reached a predetermined point.

5. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft above the carrier; knives sustained by said shaft; means for locking the shaft and knives against movement while the carrier is moved in one direction; means operated by the movement of the carrier for releasing the locking means, and means also operated by the movement of the carrier to rock the shaft and elevate the knives.

6. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft above the carrier; knives sustained by said shaft; means on the shaft through which the latter may be rocked, and devices on the carrier for operating said rocking means alternately in opposite directions.

7. In a confectionery-machine the combination with a table, of a carrier movable with

respect to said table; a shaft above said carrier; knives sustained by said shaft; a stem depending from said shaft; means on the carrier for moving said stem to rock the shaft in one direction, and means also on said carrier for moving the stem to rock the shaft in the opposite direction.

8. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft above said carrier; knives sustained by said shaft; means for locking the shaft and knives against movement while the carrier is being moved in one direction; means on the carrier for releasing said locking means; means on the carrier for rocking the shaft to elevate the knives after the locking means has been released, and means also on the carrier for rocking the shaft to lower the knives after the carrier has been returned.

9. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft; knives sustained by said shaft; a cam on said shaft and having a notch; a lever pivoted to the table and having a projection to enter the notch of said cam; means on the carrier for operating said lever to release the cam, and means also on said carrier for rocking the shaft.

10. In a confectionery-machine the combination with a table, of a carrier movable with respect to said table; a shaft; knives sustained by said shaft; means for locking the shaft when the carrier is moved in one direction; means on the carrier for operating said locking means; means on the shaft for limiting the movement of the latter, and means also on the carrier for rocking said shaft and limiting the movement of said carrier.

11. In a confectionery-machine the combination with a table, of trackways extending in a direction lengthwise of said table; a wheeled carrier movable on said trackways; a shaft extending in a direction at right angles to said trackways and above said carrier; a plurality of knives adjustably sustained on said shaft; a stem depending from said shaft and at the side of said carrier; means on the carrier for rocking the shaft in opposite directions, and means for locking the shaft when the carrier is moved in one direction.

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

WILLIAM L. RUHE.

Witnesses:

CHARLES B. MANN, Jr.,
G. FERDINAND VOGT.