

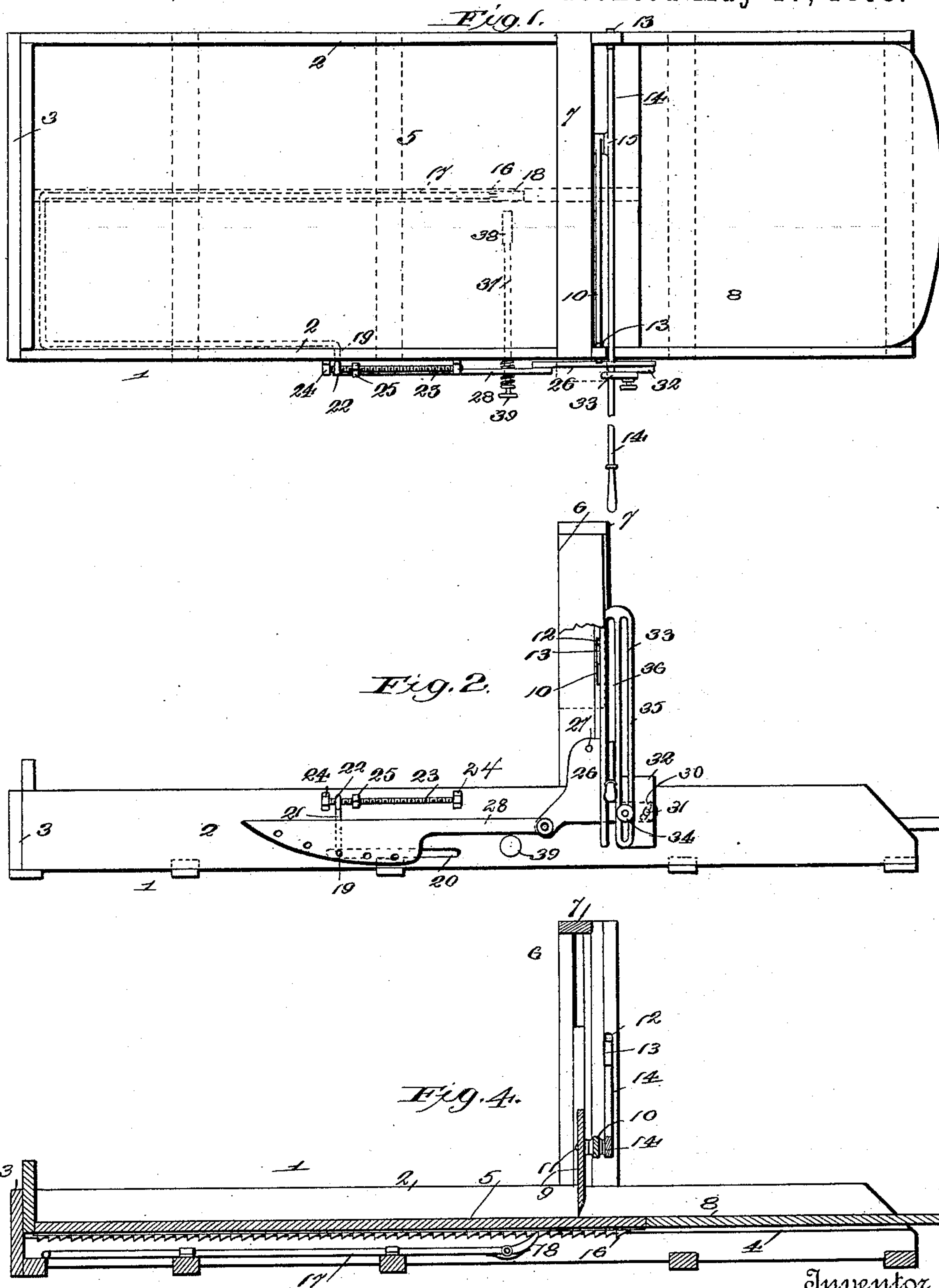
(No Model.)

2 Sheets—Sheet 1.

E. F. GOULD.
CANDY MACHINE.

No. 604,314.

Patented May 17, 1898.



Witnesses
J. C. Stack.
Victor J. Evans

Inventor
Edwin F. Gould
by John Wedderburn
Attorney

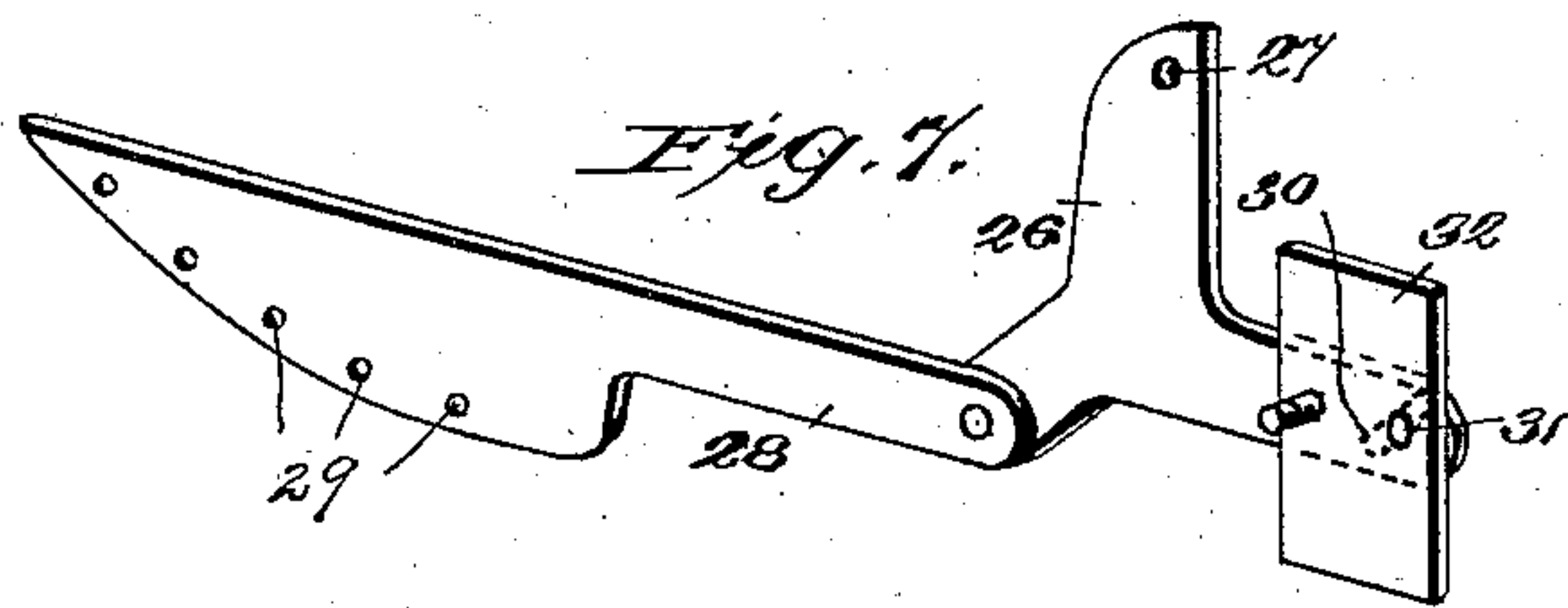
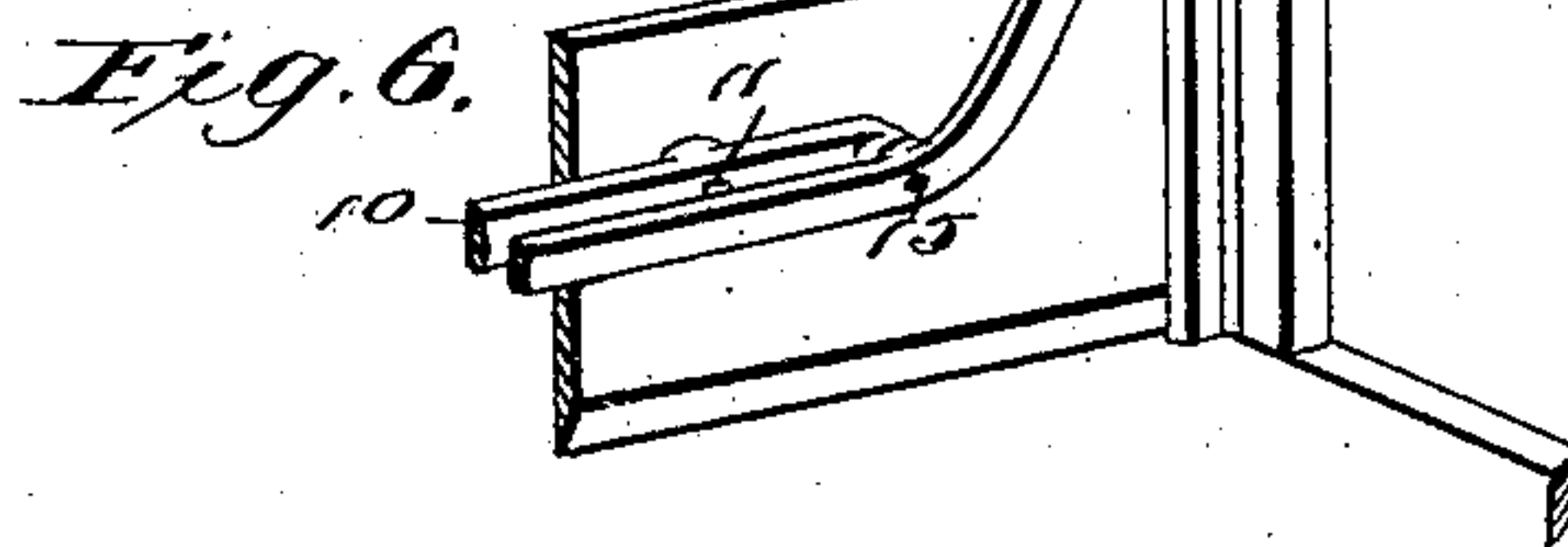
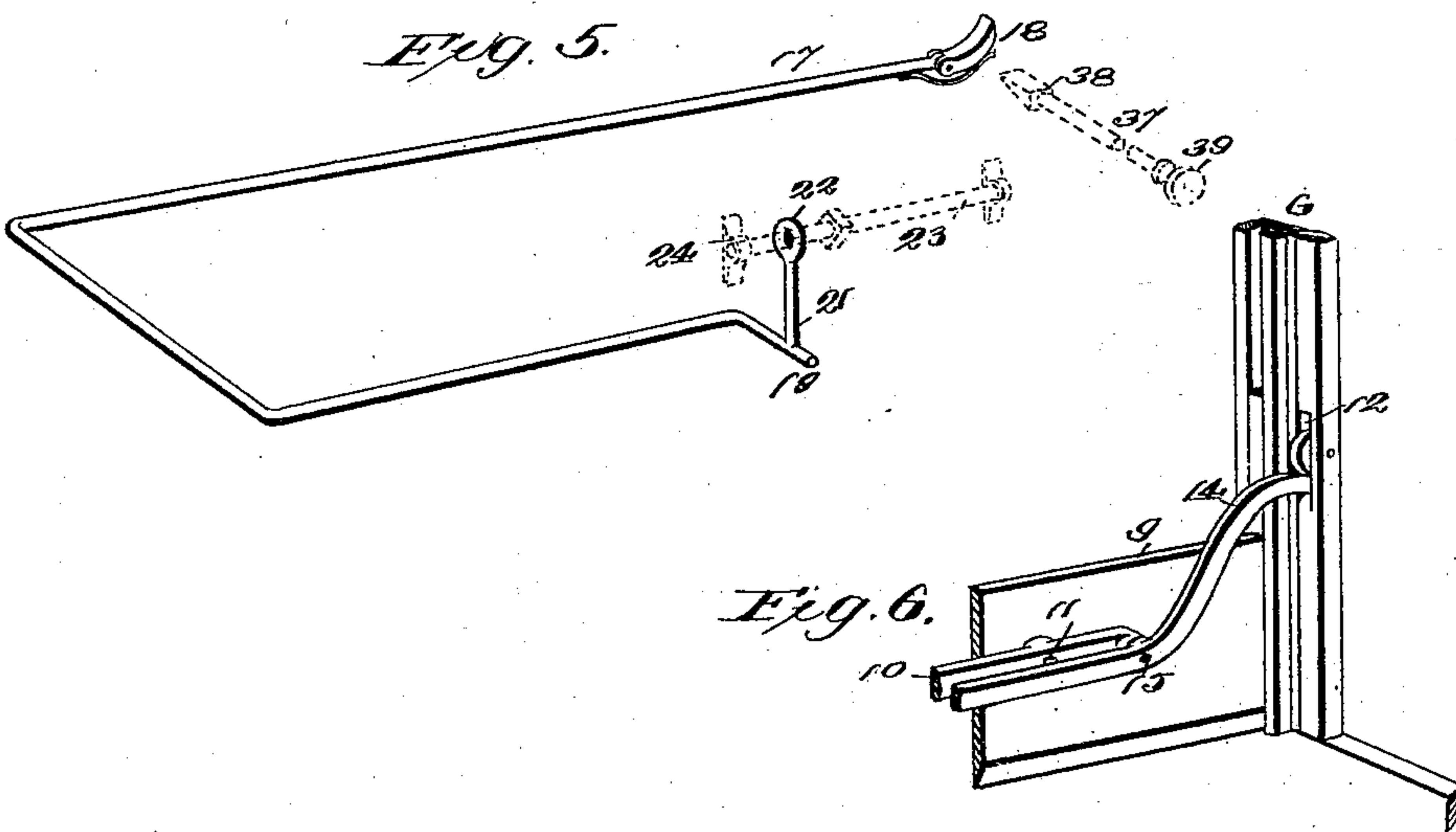
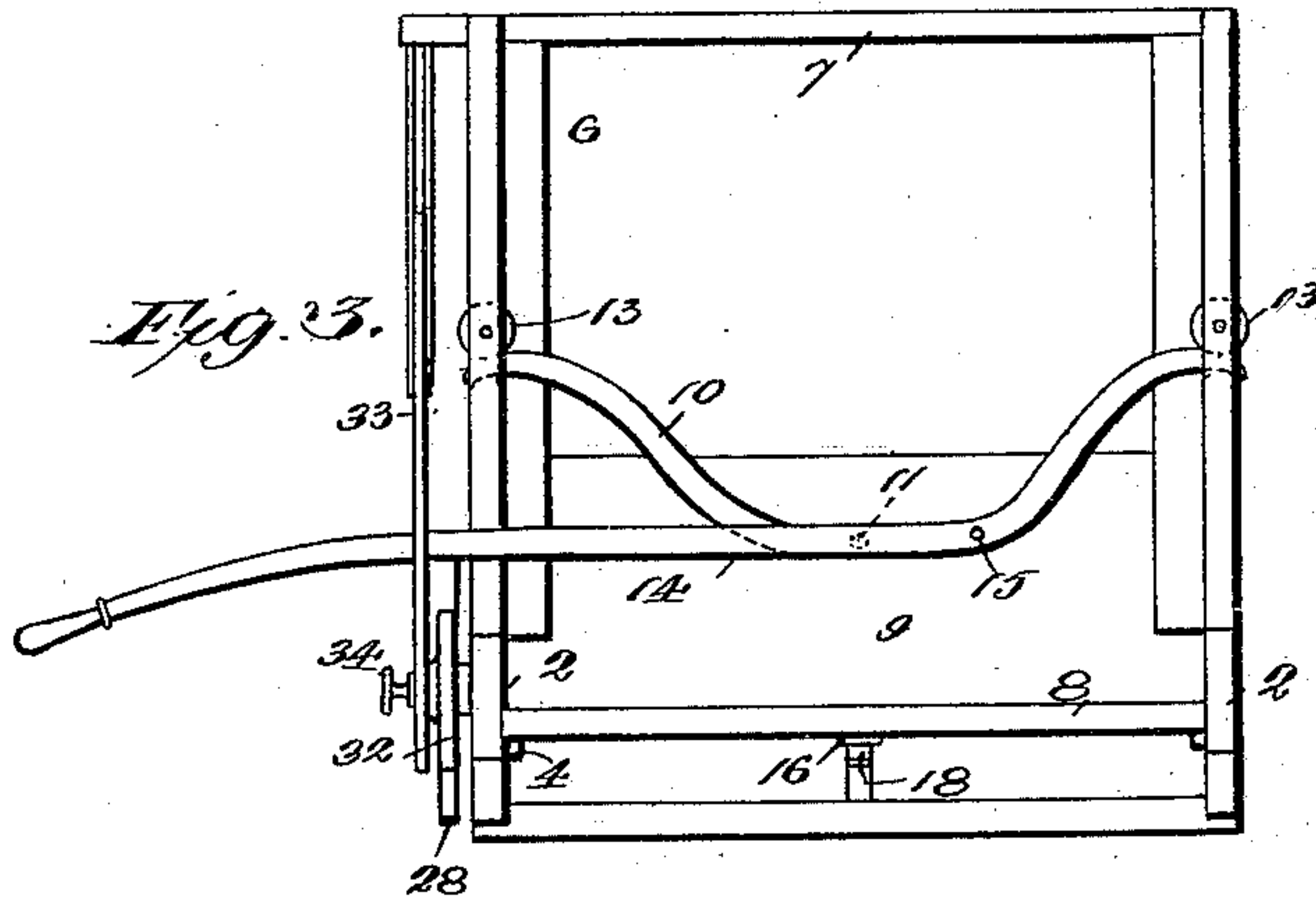
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By *John Meddlerburn*
Attorney

UNITED STATES PATENT OFFICE.

EDWIN F. GOULD, OF MACHIAS, MAINE, ASSIGNOR OF ONE-HALF TO
CLEMENT B. DONWORTH, OF SAME PLACE.

CANDY-MACHINE.

SPECIFICATION forming part of Letters Patent No. 604,314, dated May 17, 1898.

Application filed August 12, 1897. Serial No. 648,026. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. GOULD, a citizen of the United States, residing at Machias, in the county of Washington and State of Maine, have invented certain new and useful Improvements in Candy-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a novel construction in a cutting-machine, and is designed more especially for use in cutting candy into the required lengths.

The object of this invention is to provide an inexpensive and durable machine which is simple in construction and effective in operation.

The invention consists in the features of construction hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of a cutting-machine constructed in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a front end elevation. Fig. 4 is a central vertical section. Figs. 5, 6, and 7 are detail perspective views which will be understood in connection with the following description.

Referring now to said drawings, 1 indicates a bed consisting of upright side pieces 2 and rear end piece 3. On the inner face of each of the side pieces 2 are the longitudinal strips 4, upon which the traveling board 5 rests and moves. Near the front end of the frame or bed 1 are the uprights 6, secured to the side pieces 2 thereof and which are connected at their upper ends by the cross-piece 7. The said traveling board 5 is long enough to extend from the rear end of the bed a little distance past the uprights 6, and I prefer to employ a plate 8, that extends from the end of the board 5 to the end of the bed. The said plate serves to form a continuation of the board to prevent any pieces resting thereon from falling into the bed thereof, and is pushed out as the board proceeds. The said uprights 6 are provided on their inner faces with upright guides to receive the knife 9, which is suitably mounted in said guides in any approved manner.

The devices for moving the knife 9 consist of a lever 10, that is pivoted midway between the ends and near the upper edge of the knife by the pivot 11 and having one end extending toward the upright at the near side of the machine and extending into the recess or slot 12 therein. Within this slot 12 and above the lever 10 is an antifriction-roller 13, against which the lever 10 bears when the knife is being forced downwardly. Upon the opposite upright is another slot 12 and antifriction-roller 13, in which is situated the end of the operating-lever 14. This operating-lever extends across and beyond the other side of the machine and is pivoted to the end of the lever 10 by means of a pivot 15, as shown in Figs. 3 and 6. It will be seen from the foregoing description that upon lifting the operating-lever 14 the fulcrum is between the end of this lever and the bottom of the slot, while the work is at the pivot 15 and causes the lever 10 to move with the fulcrum between its end and the bottom of the slot in which it is situated, while the work is done by the pivot 11. It is seen also that by moving the end of the operating-lever down the knife is moved with great power and that the fulcrum of the two levers is between their ends and the antifriction-rollers situated in these slots. I have also provided devices for moving the board by reason of the movement of this operating-lever as well as for controlling the extent to which the knife can be moved as well as the extent of movement on the part of the traveling board and will now proceed to describe the same. The said traveling board 5 is provided on its lower face with a toothed rack 16, extending the full length of the board, the teeth of which project to the rear. Mounted upon the bed or frame 1 is a sliding rod 17, situated just below the toothed rack and provided at its forward end, which is below the knife, with a spring-actuated pawl 18. The said sliding rod 17 is provided with a lateral extension 19, that extends through the longitudinal slot 20 in one side piece 2 of the bed. The lateral extension 19 is provided with an upright projection 21 just on the outside of the side pieces 2, that is provided at its upper end with a guide or loop 22. Mounted upon the outer face of one of the side pieces 2 is a longitudinal adjusting-rod

23, that extends through the eye or loop 22 of said upright and is held rigidly in place by the end brackets 24. This rod 23 is screw-threaded and is provided with an adjusting-nut 25, between which and the rear bracket 24 the eye or loop of the upright is situated. In this way it is seen that the extent to which the said eye or loop can be moved, and consequently the movement on the part of the traveling board, is regulated by this adjusting-nut 25.

Mounted upon the upright 6 on the near side of the machine is a plate 26, that is practically a bell-crank lever and which is pivoted to said upright by a pivot 27. One end of this plate is pivoted to a link 28, that is in turn pivotally connected at its rear end with the lateral extension 19 of the sliding rod 17. The pivotal connection between the link 28 and the said lateral extension can be changed by reason of the plurality of openings 29 in said link, into any of which the end of the lateral extension can be inserted and is secured without fastening. The other end of the plate 26 is slotted, as at 30, and engages a pivot 31 upon the plate 32, that is rigidly secured on and in an adjustable manner to the upright slide 33. This plate 32 and slide 33 are connected together by means of the set-screw 34, that passes through an upright slot 35 in said slide. In this way it is seen that the relative position of the plate 32 and slide 33 can be adjusted for regulating the upward throw of the lever 14. The slide 33 is also provided with an upright guide 36, through which extends the end of the operating-lever 14. The said operating-lever 14 is adapted to come into contact with the upper end of the upright guide 36 and through the intermediacy of the plate 32, plate 26, and link 28 to move the lateral extension 19, and consequently the rod 17, toward the front of the machine when the lever is raised, although the movement of the lever in an opposite direction reverses the movement on the part of the devices referred to. It is understood, of course, that suitable devices must be provided to release the pawl 18 from the rack after the traveling board has reached the limit of its movement, and for this purpose a sliding detent 37 is mounted in bearings upon the bed and transverse thereto. This sliding detent 37 is provided with a tapering end 38 to engage the pawl, while the handle 39 thereof extends beyond the side pieces 2. By moving this detent inwardly the pawl 18 is retracted to allow the board to be moved back to its former position, after which the pawl is again released to engage the toothed rack.

In using this machine the adjusting-nut 25 is first turned to correspond to the length of the piece of candy to be cut, while the adjusting devices for the operating-lever are also arranged to allow the knife to rise the requisite distance. Upon lifting the operating-lever it is seen that the knife is raised, and when

said operating-lever strikes the top of the upright guide 36 the plate 26 is turned upon its pivot and causes the link 28 to move forwardly and also carry the lateral extension and rod 17 in the same direction, thus carrying forward the board 5 until the eye at the end of the upright 21 strikes the adjusting-nut 25. Then the operating-lever is forced downwardly to cause the knife to pass through the candy, while at the same time said operating-lever strikes the extension upon the plate 26 and throws the link 28 to the rear, and consequently the longitudinal rod 17, the pawl 18 passing over the teeth, as is obvious.

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

1. In a cutting-machine, a traveling board provided on its lower face with a toothed rack, in combination with a reciprocatory rod arranged underneath said board and provided on one end with a pivoted spring-actuated pawl for engaging said rack, a pivoted operating-lever and intermediate devices for actuating said rod, and a laterally-sliding detent adapted to engage the said pawl and release it from the toothed rack, substantially as described.

2. In a cutting-machine, a traveling board, a reciprocatory rod for moving the same, an operating-lever, and a pivoted plate situated in the path of said operating-lever and connected with said reciprocatory rod.

3. In a cutting-machine, a traveling board, a reciprocatory rod provided with devices for engaging the same, a lateral extension upon said rod, a link adjustably connected with said lateral extension, an operating-lever and a pivoted plate located in the path of said lever and connected with said link to move the same backwardly and forwardly.

4. In a cutting-machine, a traveling board, a reciprocatory rod for moving the same, a knife-operating lever, a slide provided with a guide to receive said knife-operating lever, a plate pivoted to said slide and situated in the path of said knife-operating lever, and connections between said plate and the reciprocatory rod to move the latter through the movement of the former.

5. In a cutting-machine, a traveling board, a reciprocatory rod for moving said board, a knife-operating lever, an upright slide having a guide to receive said knife-operating lever, a plate pivoted upon the frame of the machine having an adjustable pivotal connection with said slide, and connected with said reciprocatory rod for moving the same.

6. In a cutting-machine, a frame provided with uprights, a knife sliding in said uprights, an operating-lever having one end situated in the slot of one of said uprights, an anti-friction-roller situated above said operating-lever, a lever pivoted to said knife and to said operating-lever and having its ends situated within a slot in the other upright, and an an-

tifrication-roller situated within said slot and above said lever.

7. In a cutting-machine, a movable knife, a knife-operating lever, a lever pivoted to the frame of the machine, a slide having a guide to receive said operating-lever, a slot in said slide, a plate adjustably secured to said slide by means of an adjusting-screw extending through said slot, a pivotal connection between said lever and said plate, and connec-

tions between said lever and the traveling board for moving the latter.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWIN F. GOULD.

Witnesses:

HENRY R. TAYLOR,
I. P. LENGFELLOW.