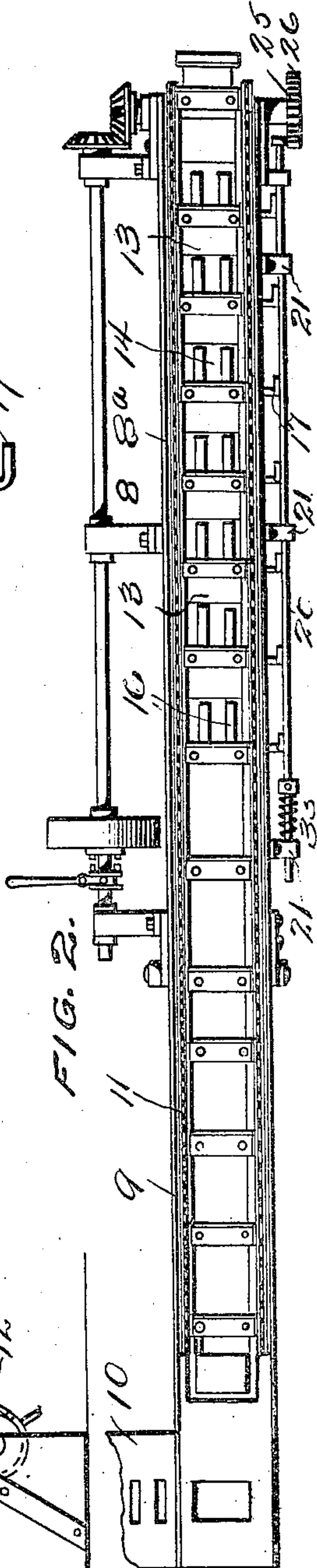
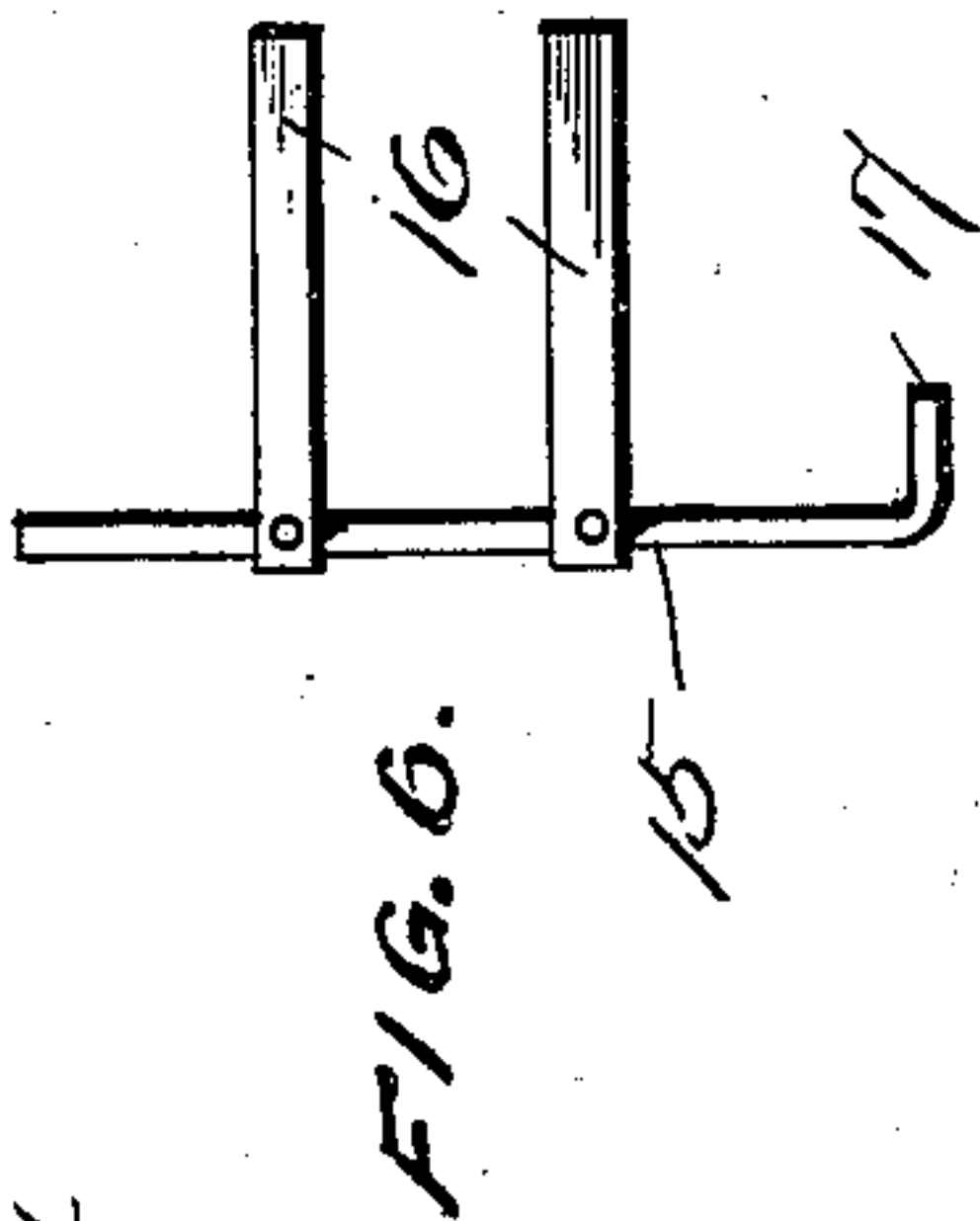
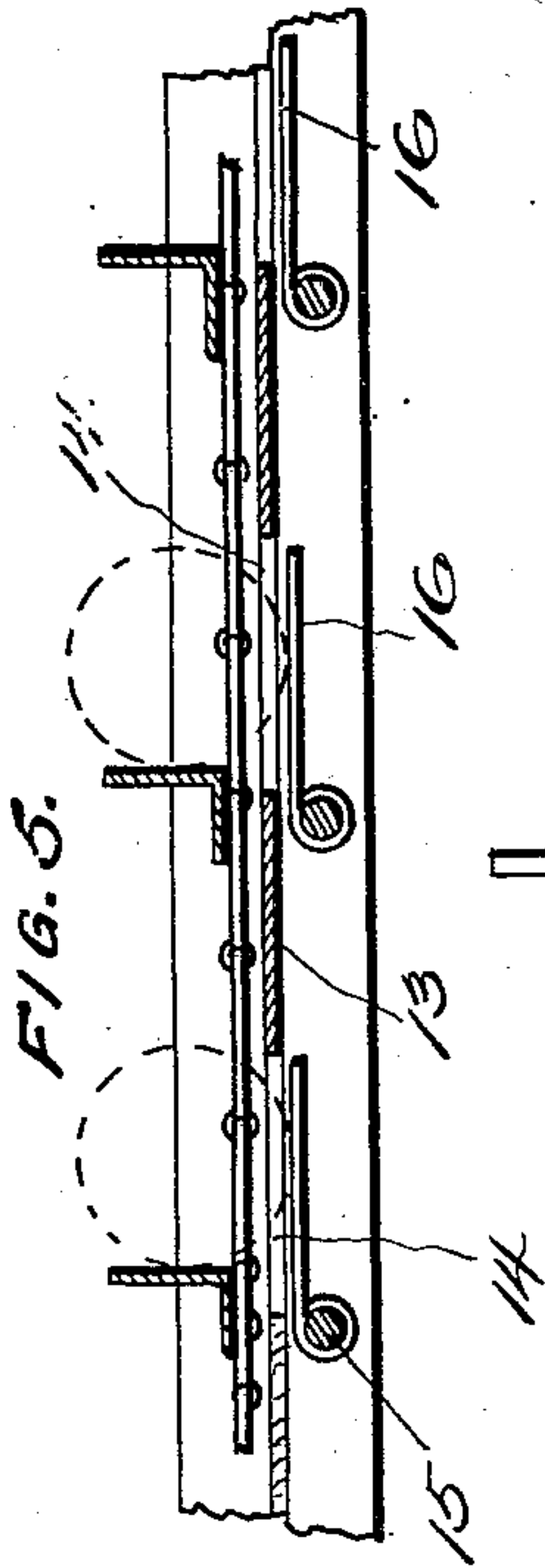
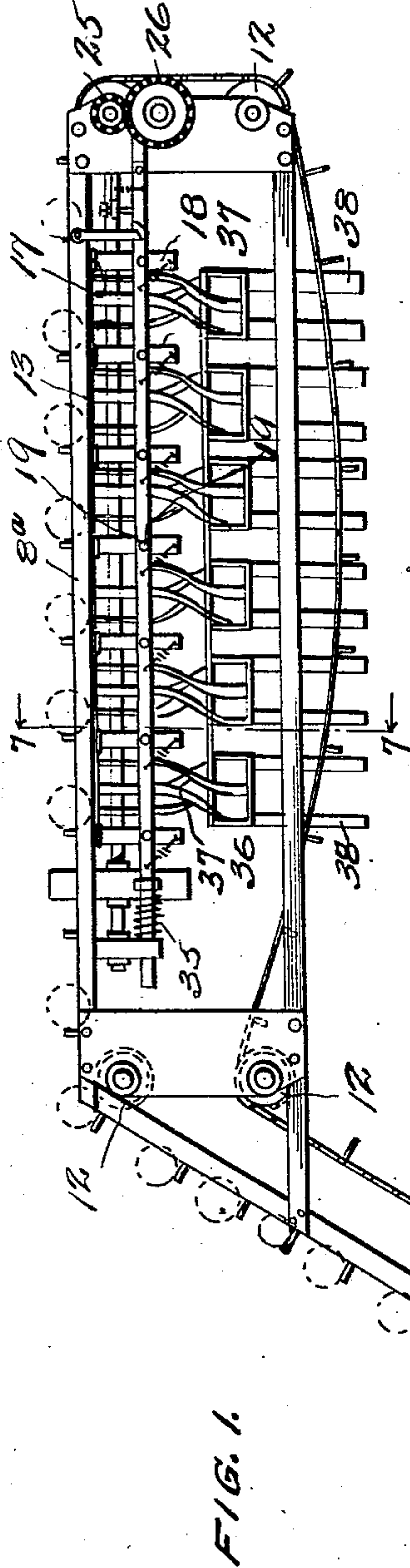


E. M. BURR.  
CAN FEEDING APPARATUS.  
APPLICATION FILED DEC. 26, 1908.

Patented May 18, 1909.

3 SHEETS—SHEET 1.

921,672.



WITNESSES

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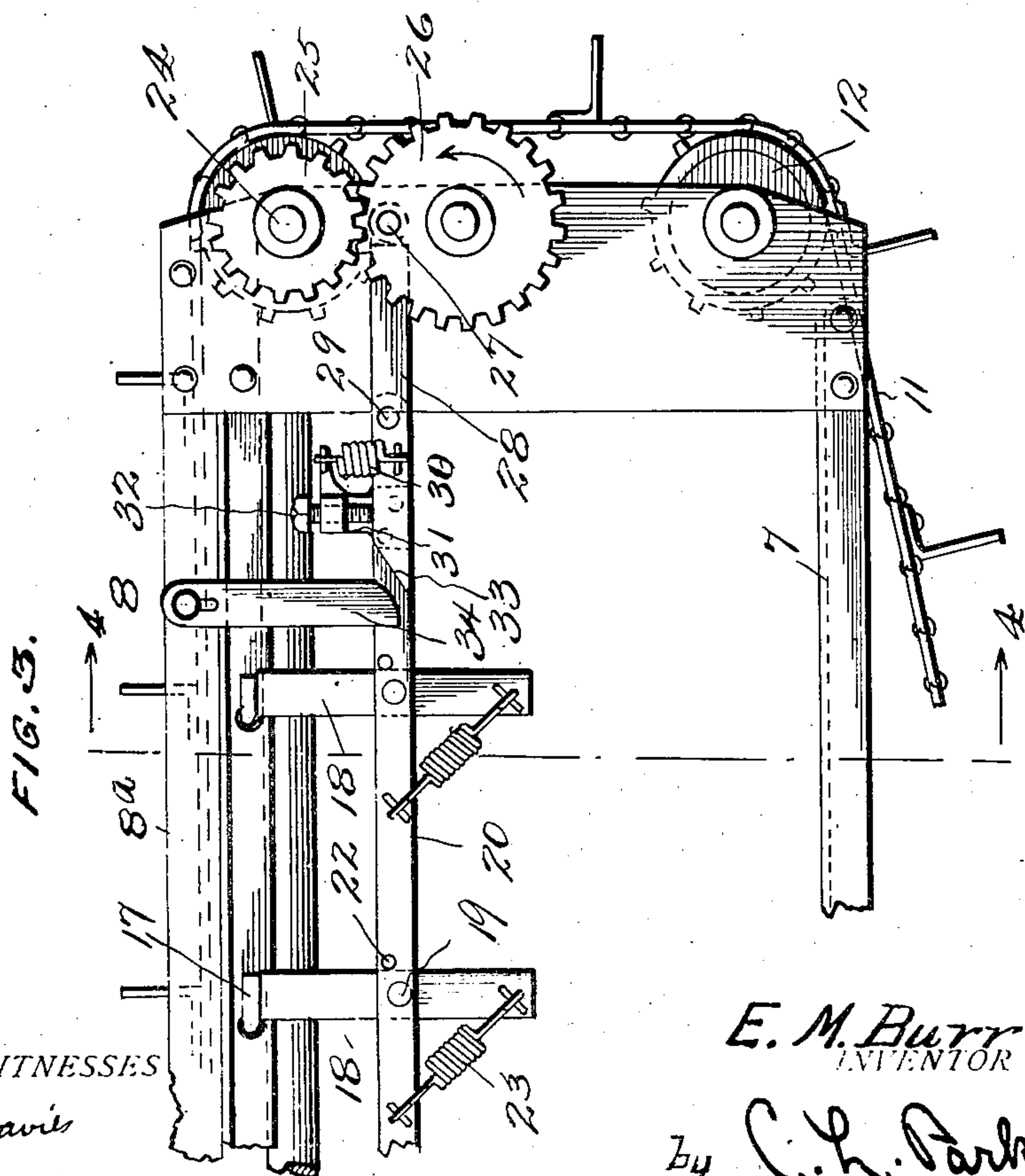
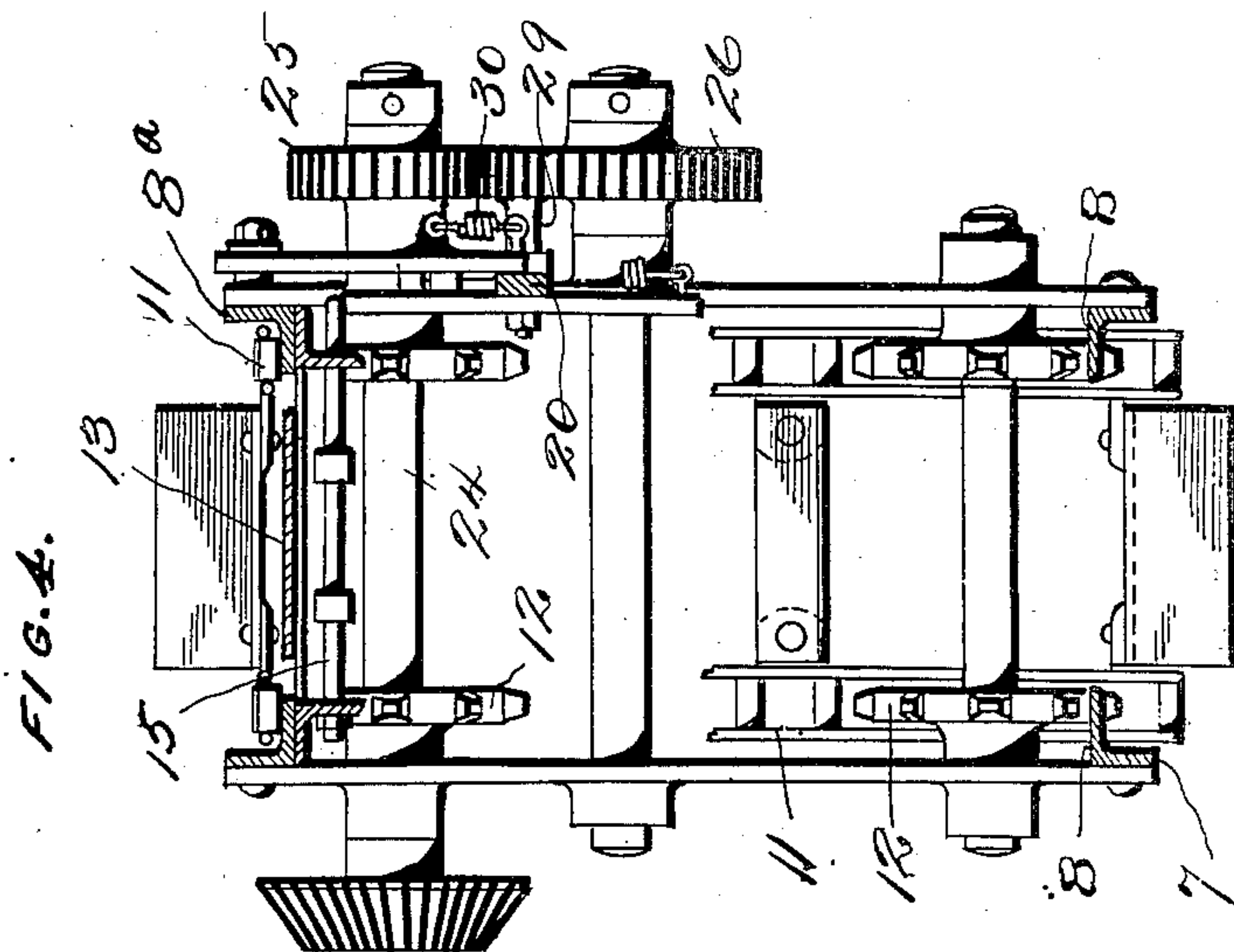
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

FIG. 8.

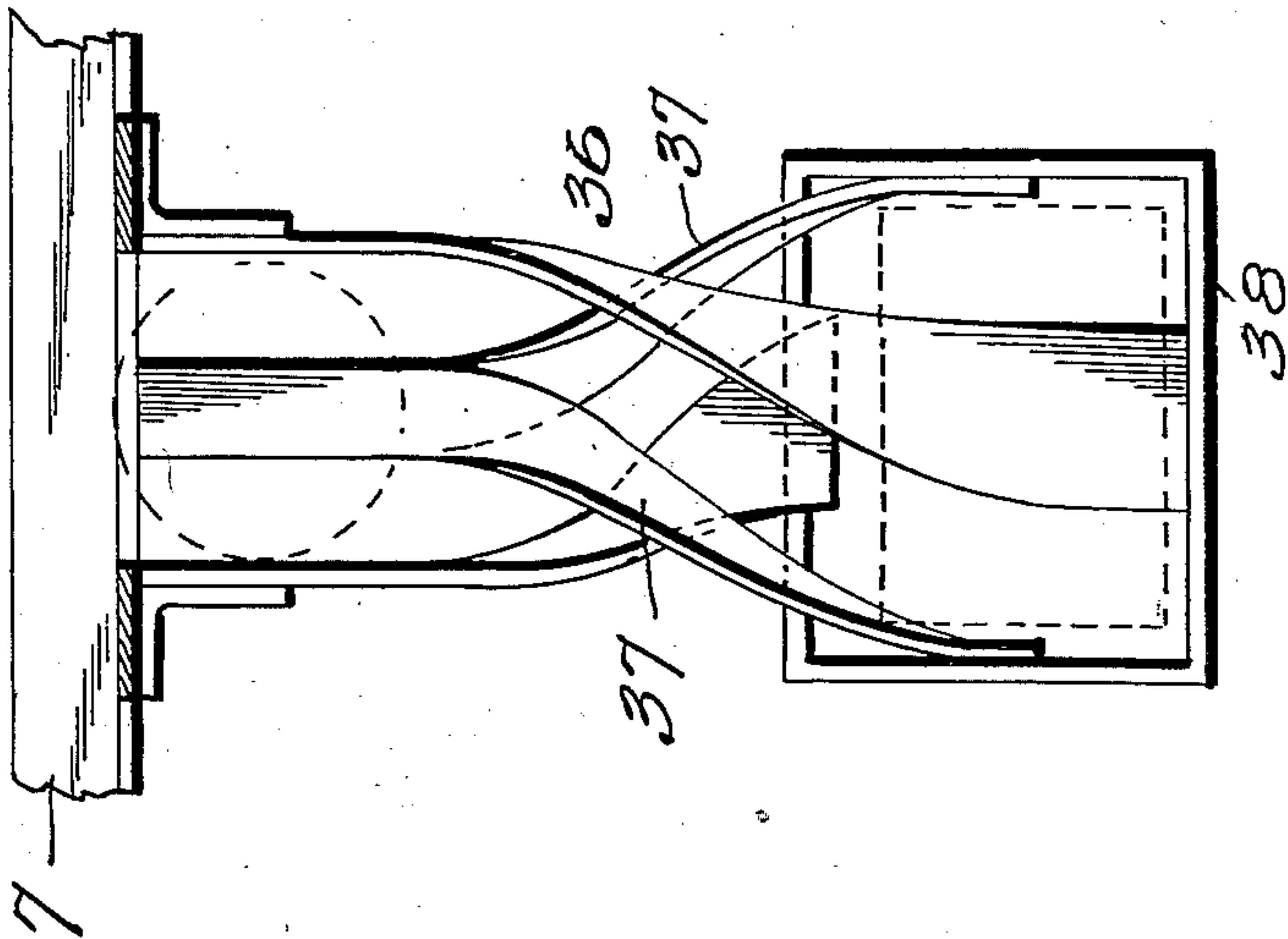
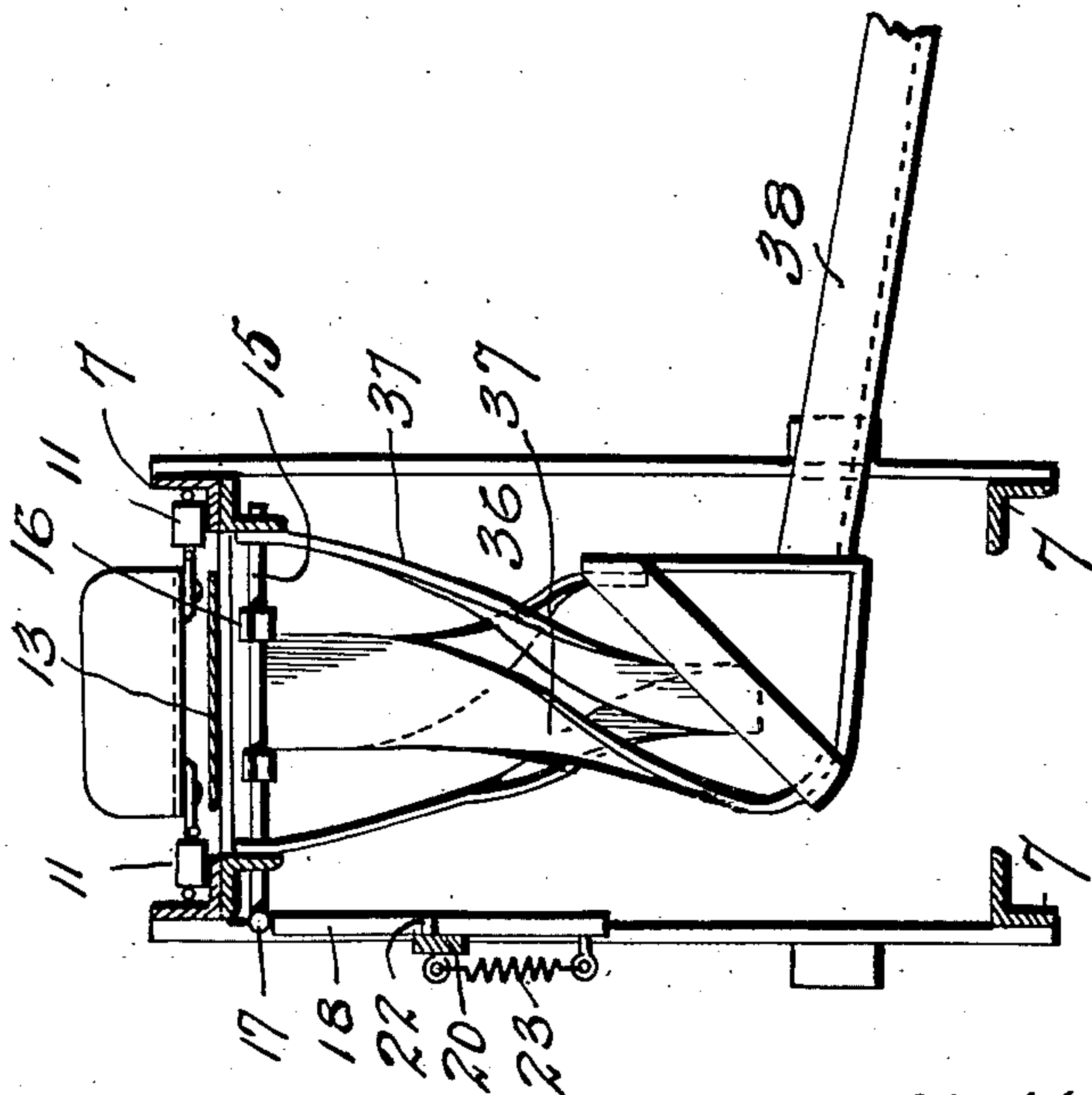


FIG. 7.



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# UNITED STATES PATENT OFFICE.

ELLIS M. BURR, OF CHAMPAIGN, ILLINOIS.

## CAN-FEEDING APPARATUS.

No. 921,672.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed December 26, 1908. Serial No. 469,466.

*To all whom it may concern:*

Be it known that I, ELLIS M. BURR, citizen of the United States, residing at Champaign, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Can-Feeding Apparatuses, of which the following is a specification.

The present invention relates to can feeding means, and more particularly to mechanism for removing the cans from the sealing apparatus, and delivering the same to a cooker.

The primary object is to provide novel and effective mechanism of a simple character for taking the cans successively from the sealing apparatus and delivering a series of them simultaneously to the cooker.

A simple embodiment of the invention is disclosed in the accompanying drawings, but it will be evident from an inspection of the appended claims that the said invention is not limited solely to the structure disclosed.

In the drawings:—Figure 1 is a side elevation of the apparatus. Fig. 2 is a plan view of the same. Fig. 3 is a detail elevation on an enlarged scale of the support-releasing means. Fig. 4 is a sectional view on the line 4—4 of Fig. 3. Fig. 5 is a detail longitudinal sectional view of a portion of the runway shown at the right of Fig. 1. Fig. 6 is a plan view of one of the can supports. Fig. 7 is a cross sectional view on an enlarged scale taken on the line 7—7 of Fig. 1, looking in the direction of the arrow. Fig. 8 is an end elevation of one of the twisters.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the structure disclosed, an elevated supporting frame 7 is employed having a substantially horizontal runway 8, composed of spaced side rails 8<sup>a</sup>, between which the cans are moved. An inclined track or runway 9 extends from the sealing apparatus, shown generally at 10 to one end of the horizontal runway, and an endless conveyer 11, operating over suitable idlers 12, carries the cans up the runway 9 and longitudinally along the runway 8. The said runway 8 has a bottom 13, which, as shown in Fig. 5, has portions cut away to form openings 14 large enough to permit cans to pass downwardly. Ordinarily, however, can supports are employed that extend across these openings, said can supports consisting of rock shafts 15 hav-

ing outstanding fingers 16. The said outstanding fingers 16 are in a horizontal plane which is substantially lower than the bottom 13 of the runway 8. The rock shafts are each provided at one end with an offset crank arm 17, located at one side of the frame, as illustrated in Fig. 3.

In order to normally maintain the supporting fingers 16 across the openings 14, fingers 18 are employed that are normally located beneath the crank arms 17. These fingers are pivoted, as illustrated at 19 to a reciprocatory actuating bar 20, slidably mounted at one side of the frame, as shown at 21. The fingers 18 are normally located in upright position, being held by springs 23 against stops 22 secured upon the said reciprocating actuating bar 20, said fingers can, however, be moved from beneath the crank arm 17, and the following mechanism is employed for the purpose. One of the wheels 12 is mounted on a shaft 24 that carries a gear wheel 25 meshing with a rotary actuating gear wheel 26 that is provided with a crank pin 27. A trip lever 28 is pivoted between its ends, as shown at 29 to one end of the actuating bar 20, and has its rear end normally disposed in the path of movement of the crank pin 27. It is yieldingly maintained in this position by a spring 30 connected to the trip lever 28 and to a bracket 31 carried by the bar 20. The said spring 30 maintains the lever against an adjustable stop screw 32 carried by the bracket 31. The rear end of the trip lever 28 is beveled, as shown at 33, and located in the path of movement thereof, is the beveled end of a cam element 34 fixed to one of the tracks 8. With this arrangement, it will be evident that as the gear wheel 26 is revolved, the crank pin 27 will strike the trip lever, thereby forcing the bar 20 longitudinally in a direction to carry the fingers 18 from beneath the crank arms 17. As a result, the can supports are released, and will drop downwardly. Upon this longitudinal movement, the inclined end 33 of the lever 28 will strike the cam element 34. Consequently said lever 28 will be swung upwardly out of engagement with the pin 27, and upon its release, the bar will move longitudinally backward under the impulse of a coiled spring 35 mounted on said bar. Upon the return movement, the fingers 18 will strike the crank arms 17 and swing the can supports



upwardly. In this movement, the fingers 18 are permitted to move backwardly by the springs 23 so that danger of injury and shock to the parts is avoided.

5 Briefly described, the operation of the entire apparatus is as follows. The cans are successively carried upwardly onto the horizontal runway by the conveyer, and when a series of cans are located upon the supporting  
10 fingers 16, the crank pin 27 strikes the trip lever 28, and carries the supporting fingers 18 from beneath the crank arms 17. The can supports being thereby released, are moved downwardly, permitting a series of  
15 the cans to drop simultaneously through the open bottom of the track or runway. Immediately after this operation, the trip lever, being disengaged from the crank pin, the supporting fingers 18 will return to their  
20 original positions, thereby elevating and holding the can supports in proper position to receive another series of cans. The cans after passing through the open bottom of the track or runway, fall into a plurality of separate  
25 twistors 36, comprising curved strips 37, which turn or twist the cans at right angles and deposit them in suitable chutes 38 that lead to a cooker or other suitable apparatus. These twistors thus change the position of  
30 the cans so that they will roll out of the machine at right angles thereto.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be  
35 apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from  
40 the spirit or sacrificing any of the advantages of the invention.

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

45 1. In can feeding apparatus, the combination with a runway, of a plurality of pivoted can supports forming the bottom thereof, a reciprocatory bar, and holding fingers carried by the bar and movable into and out of  
50 engagement with the supports to maintain the same in operative positions.

2. In can feeding apparatus, the combination with a runway, of a plurality of pivoted  
55 can supports forming the bottom thereof, said supports having crank arms, a reciprocatory bar, means for periodically reciprocating said bar, holding fingers pivoted on the bar and movable to positions beneath the crank arms, stops mounted on the bar for  
60 maintaining the fingers in upright position during the movement of the bar in one direc-

tion, and springs for yieldingly maintaining the fingers against the stops.

3. In can feeding apparatus, the combination with a runway, of a plurality of pivoted  
65 can supports constituting the bottom thereof, and means for holding and releasing the supports including a reciprocatory bar and a rotary element that periodically operates  
70 said bar.

4. In can feeding apparatus, the combination with a runway, of a plurality of pivoted  
75 can supports constituting the bottom thereof, and means for holding and releasing the supports including a reciprocatory bar, a trip pivoted on the bar, a stop, a spring engaging the trip for normally holding the same in a predetermined position and a rotary  
80 operating member having a crank pin that engages the trip.

5. In can feeding apparatus, the combination with a runway having an open bottom,  
85 of a conveyer for carrying cans onto said track or runway, a plurality of downwardly swinging can supports arranged across the open bottom and having crank arms, a reciprocatory bar, a plurality of supporting fingers pivoted on the bar and movable beneath the crank arms, means for normally  
90 maintaining the fingers in upright position, a trip pivoted on the bar, a rotary actuating member operating with the conveyer, and a crank pin carried by the member and operating against the trip.

6. In a can feeding apparatus, the combination with a runway, comprising spaced  
95 side rails, and a bottom provided with spaced openings therein, of a plurality of downwardly swinging can supports arranged beneath the said spaced openings, the said can  
100 supports being in a plane substantially lower than the bottom of said runway, and means adapted to periodically operate the said supports to permit the cans to drop through the said openings.  
105

7. In a can feeding apparatus, a runway provided with a pivoted can supporting  
110 mechanism, comprising a portion of the bottom thereof, means adapted to advance cans along said runway and means associated with said can advancing means and operable in conjunction therewith to periodically tilt the said supporting mechanism and permit the cans to fall through the bottom to said  
115 runway.

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

ELLIS M. BURR.

Witnesses:

C. A. TUFTS,  
GEO. E. MARTIN.