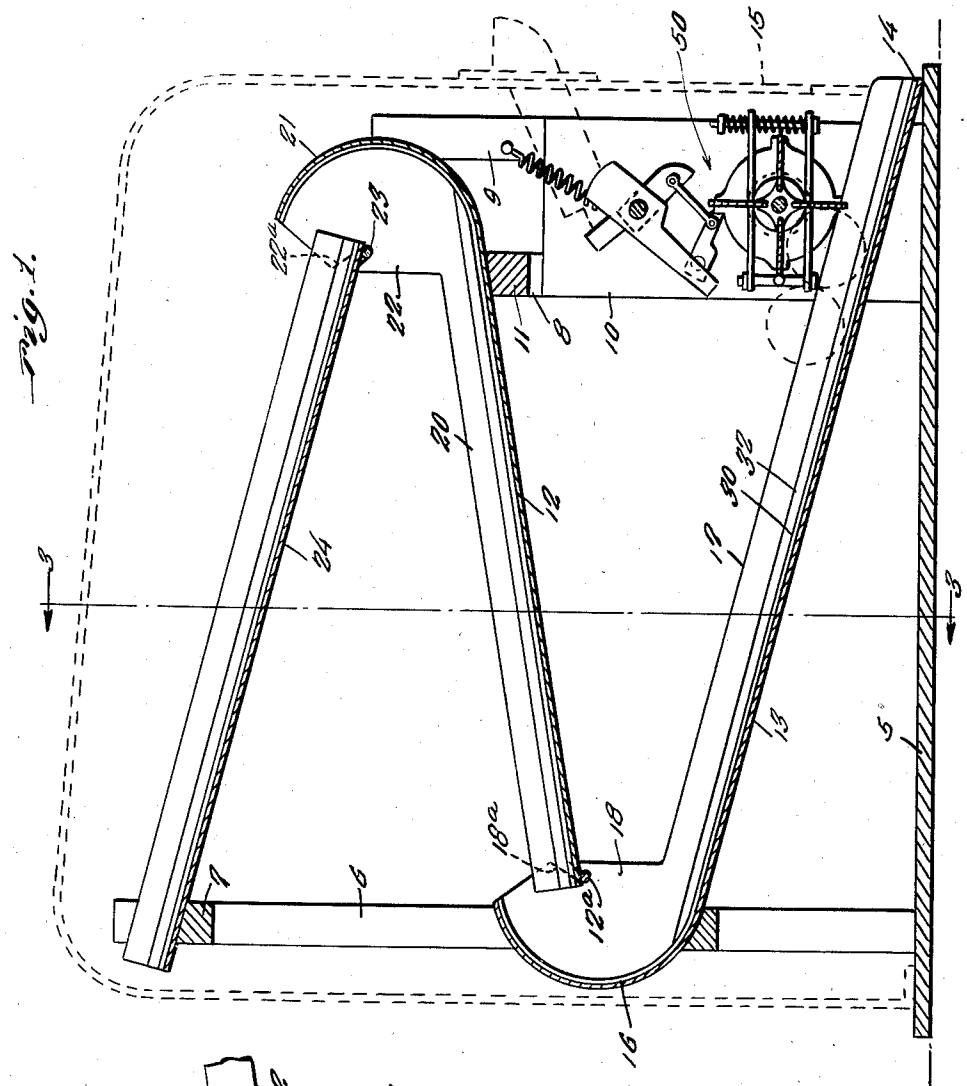
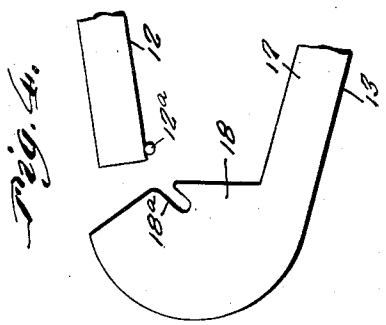
Aug. 6, 1940. L. D. DENNIS 2,210,653

DISPENSING MACHINE CHUTE

Filed Aug. 11, 1939 2 Sheets-Sheet 1





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Filed Aug. 11, 1939 2 Sheets-Sheet 2

Fig. 3.

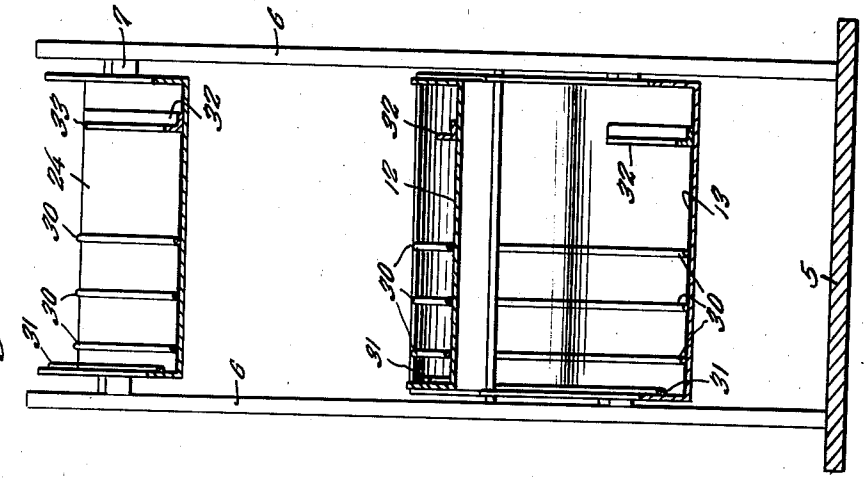
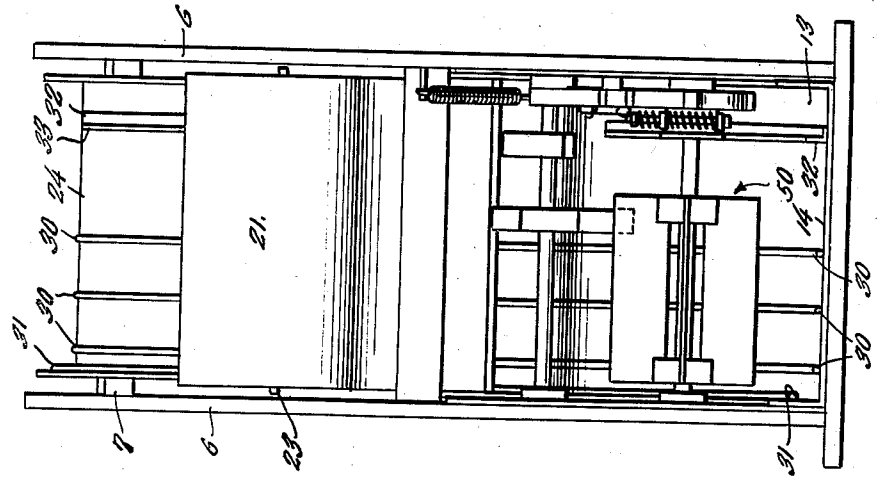


Fig. 4.



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UNITED STATES PATENT OFFICE

2,210,653

DISPENSING MACHINE CHUTE

Luther D. Dennis, Comanche, Okla.

Application August 11, 1939, Serial No. 289,670

1 Claim. (Cl. 193—27)

This invention appertains to new and useful improvements in dispensing apparatus and more particularly to a novel chute arrangement in which the articles to be dispensed can be stored.

The present invention is a continuation in part of the chute structure divisible from my co-pending application Serial No. 256,352, filed February 14, 1939.

The principal object of the present invention is to provide a chute structure for dispensing machines which can be readily assembled or disassembled when the chute is to be replenished with stock.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a vertical sectional view through the structure.

Figure 2 is a front elevational view of the chute structure.

Figure 3 is a vertical section on the line 3—3 of Figure 1.

Figure 4 is a side elevational view showing sections of the chute separated.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 represents a base from which rises the rear uprights 6, bridged by the bar 7, just below the upper ends thereof. At the forward end of the base 5 are the inner uprights 8 and the outer uprights 9. Each set of inner and outer uprights 8 and 9 is connected by the wall or plate 10 and between these plates are mounted the check controlled dispensing mechanism generally referred to by numeral 50 and which forms the subject matter of my co-pending application Serial No. 256,352.

The upper ends of the uprights 8 are bridged by the bar 11 which supports the forward end portion of the chute section 12. The lower chute section 13 inclines from its lower discharge end 14 passing through the front of the shell 15 to the upwardly curved end wall 16. The side flanges 17 of the chute section 13 merge with the side walls 18 extending forwardly from the back wall 16, and to the side walls 18 is pivotally secured the lower end of the chute 12. This pivotal connection consists of the cross pin 12*a* on the lower end of the chute 12 having its protruding end portion disposed into the slot 18*a* in the side walls 18 of the chute 13, these slots 18*a* extending downwardly from the upper edge portions of the side walls 18.

The forward end portion of the chute 12 is formed with the upwardly curved wall 21 and at this point the flanges 20 merge with the side walls 22 extending rearwardly from the wall 21. To the side walls 22 are pivotally secured as at 23 the uppermost chute section 24 which has its free end adapted to rest on the cross bar 7 of the uprights 6, as when the machine is closed for operation. As shown in Figure 1, the lower end of the chute 24 has a cross pin 23 which seats in slots 22*a* of the side walls 22 as in the manner of the pin 12*a*

It can be seen that when the bottles have been dispensed to an extent that the last one is on the chute 13, then the upper chute sections 24 and 12 can be conveniently removed from over the chute 13, of course, after the shell 15 has been displaced from the base 5. However, should the last bottle be on the second chute 12, then only the uppermost chute section 24 would be removed. In this way the supply of bottles can be replenished and built from one section to the other until the machine is completely charged.

As can be seen in Figures 2 and 3, each chute section has a plurality of longitudinally extending ribs 30 along which the fat or large portion of a bottle can roll and a longitudinally extending rib 31 along one side wall against which the base of the bottle rides.

The chutes are further provided adjacent the remaining side walls with longitudinally extending cleats, each having an upstanding flange 33 serving as a track for the neck portions of the bottles. Thus with the bottles riding on the cleats and ribs there is less friction to the free movement of the bottles down the inclines.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

In a dispensing apparatus, an article feed chute, said feed chute consisting of a pair of frames vertically disposed, one of said frames having a pair of cross members, the other frame having a third cross member, a bottom chute section having its upper end resting on one of the cross members of one frame, an intermediate chute section having its upper end resting on the said third cross member, and an upper chute section having its upper end resting upon the remaining cross member, the upper ends of the lower and intermediate chute sections being pro-

vided with elbow-like formations for catching articles from the lower ends of the intermediate and upper sections, each of the elbow-like structures consisting of an arcuate-shaped back wall merging with the bottom wall of the corresponding chute section, each of the said elbow-like structures being further provided with a pair of side walls each having a downwardly extending recess therein, the lower ends of the upper and intermediate sections having pin members thereon projecting laterally beyond the sides of the corresponding sections for disposition detachably into the said recesses, said upper and intermediate sections being removable from the cross members and being swingable or removable at the said pin and recess connections.

LUTHER D. DENNIS.