Aug. 26, 1941. E. E. LEIMER 2,253,793

SANITARY TOOTHPICK DISPENSER

Filed July 6, 1940

Fig. 1.

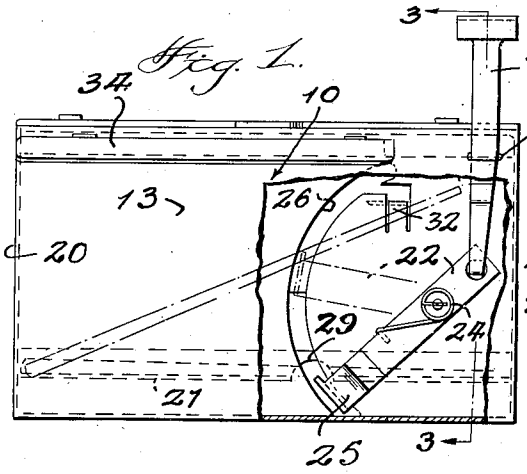
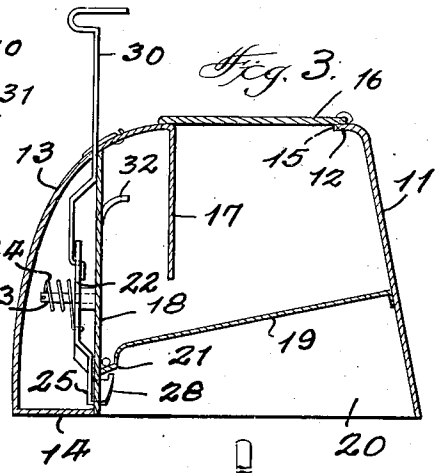


Fig. 3.



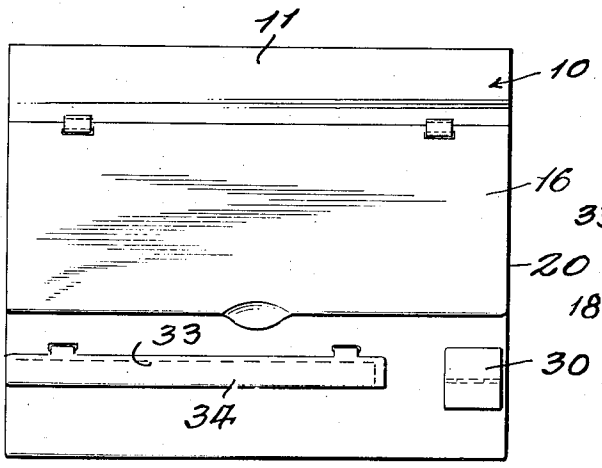


Fig. 4.

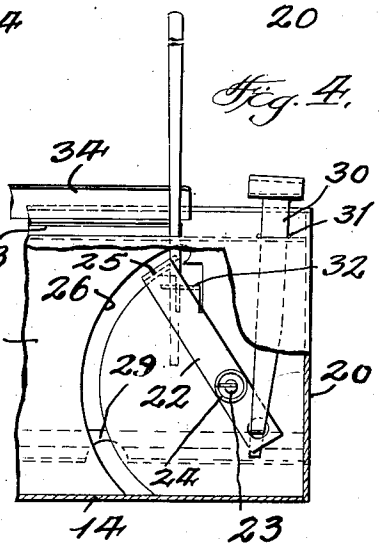
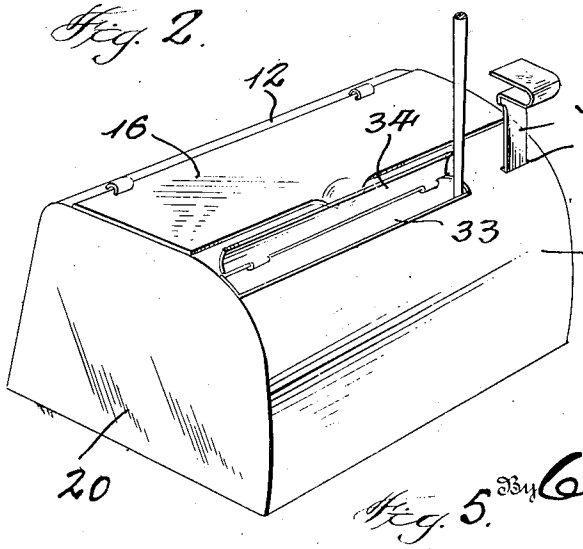


Fig. 2.



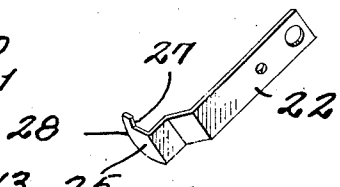


Fig. 6.

Fig. 5.

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SANITARY TOOTHPICK DISPENSER

Eugene E. Leimer, Chicago, Ill.

Application July 6, 1940, Serial No. 344,277

5 Claims. (Cl. 312—78)

This invention relates to a tooth pick dispenser and it consists in the constructions, arrangements and combinations herein described and claimed.

It is the cardinal object of the invention to provide a novel construction of tooth pick dispensing device in which a single tooth pick is elevated to a position exteriorly of the housing in position to be readily grasped and removed, the tooth pick functioning to open a gravity actuated shutter during its ejecting movement; the shutter returning to closed position after removal of the tooth pick.

It is also an object of the invention to provide a dispensing device of extreme simplicity and of few moving parts.

Additional objects, advantages and features of invention will be apparent from the following description and accompanying drawing, wherein

Figure 1 is a side elevation of the dispenser with a portion of the front wall broken away.

Figure 2 is a top plan view thereof.

Figure 3 is a cross section on the line 3—3 of Figure 2.

Figure 4 is a fragmentary sectional view illustrating the position of the parts when a tooth pick has been elevated to ejected position.

Figure 5 is a perspective view of the dispenser in its operative position.

Figure 6 is a perspective view of the ejector arm.

There is illustrated a housing 10 of a preferred shape and construction, in the present instance being illustrated as a substantially rectangular housing having a rear wall 11 inclined slightly in a forward direction to join with a top wall 12. The wall 12 is continued forwardly in a slight arcuate formation forming a front wall 13 and thence downwardly to a horizontal base portion 14. The top wall 12 has an opening 15 therein for filling of the dispenser, closed by a hingedly connected lid 16. The opening 15 is formed by stamping out a portion of the top wall, by making cuts longitudinally of the top and transversely thereof, adjacent the ends. The wall thus severed is bent downwardly at right angles to the top wall, forming a partition wall 17, as clearly shown in Figure 3.

A sub-wall 18 is arranged within the housing, rigidly secured to an upper portion of the curved front wall 13 and the base 14, the wall 18 extending the full length of the housing and in parallel relation to the partition wall 17.

A bottom wall 19 is secured between the rear wall 11 and the end walls 20 of the housing, being inclined forward to its juncture with the sub-wall 18, at which point a trough 21 is formed in the wall 19.

An ejector arm 22 is rockably mounted on the sub-wall 18 by means of a pintle 23 presented toward the front wall 13, and as shown, a helical tension spring 24 is mounted on the pintle, one end being secured to the pintle and the other end being secured upon the upper side of the arm 22. The spring 24 thus tends to hold the arm in its lowermost position.

The arm 22 has an offset right-angularly disposed bill 25 adapted to project through an arcuate slot 26 formed in the sub-wall 18 and follows this slot during ejection of a tooth-pick, as will be described hereinafter. The bill 25 is formed with a kerf 27 for reception of a tooth-pick, and the edge 28 is preferably slightly arcuate in the direction of its point of juncture with the arm, so that when the arm returns to its lower position for reception of another tooth-pick, the edge 28 will have a tendency to move the tooth-pick to one side within the trough 21 so that the bill may pass to its lower position to engage the tooth-pick. This action is further made possible since the arm 22 has a limited lateral movement against the spring 24.

The wall 19 has a cut-away portion 29 in registry with the arcuate slot 26 permitting the bill 22 to move upwardly and downwardly therethrough.

An operating lever 30 is reciprocably mounted in a slot 31 formed in the wall 13, the lower end of the lever being connected to the arm 22 at the end opposite the bill 25.

At a point adjacent the upper end of the slot 26 a hook member 32 is formed which functions as a stop in conjunction with the bill for retaining a single tooth-pick in withdrawal position. The hook 32 is so shaped and proportioned as to retain but a single tooth-pick. This is accomplished by giving the stop a slight curvature away from the wall 18, and since the kerf 27 is only of sufficient width to accommodate a single tooth-pick, gripping action between the bill 25 and the stop 32 can only be obtained upon the tooth-pick directly in the kerf.

The wall 13 is provided with an elongated opening 33 extending from a point adjacent the upper end of the slot 26 to the opposite end wall 20, the opening 33 being closed by a gravity actuated cover 34.

In use, the tooth-picks are deposited within the housing upon the floor 19, certain of the picks feeding downwardly so as to position a

tooth-pick in the trough **21**. Should more than one tooth pick fall into the trough, the kerf **27** is so shaped and of a width to engage but one pick.

Upon depression of the lever **30**, the arm **22** will be swung upwardly, elevating the tooth pick, as indicated in dotted lines in Figure 1, with one end of the pick engaging the hook **32**. Further downward movement of the lever will cause an upward swinging movement of the other end of the pick by reason of engagement with the hook **32**, and the movement of the free end of the pick raises the cover **34**. The tooth pick may now swing through the slot **33** until it reaches a vertical position as in Figures 4 and 5, and in this position, the cover **34** will drop by action of gravity against the pick and secure it so that it may be readily withdrawn.

While I have shown and described a preferred construction, this is by way of illustration only, and I consider as my own all such modifications in structure as fairly fall within the scope of the appended claims.

I claim:

1. In a tooth-pick dispenser, a housing having an inclined floor, a wall at the lower end of the floor, a trough at the juncture of the floor, and wall, said housing having an elongated slot in an upper part thereof, a gravity actuated closure lid for the slot, an arm rockably mounted on the wall, said wall having a slot extending from the base of the housing in an upward direction, a bill on the arm adapted to traverse said last named slot, the trough having an opening for passage of the bill, a stop means on the wall for a tooth-pick engaged by the bill and elevated thereagainst, said stop means being positioned adjacent the upper end of the last named slot, and lever means for actuating the arm.

2. In a tooth pick dispenser, a housing having an inclined floor, a wall within the housing at the lower end of the floor, a trough at the juncture of the floor and wall, said wall having an arcuate slot extending from below the trough to a point above the floor, the trough having an opening aligned with the arcuate slot, an arm rockably mounted on the wall, lever means exteriorly of the housing for actuating the arm, the arm having a right angular bill adapted to traverse through the opening and the arcuate slot upon actuation of the lever means, said bill having a kerf for engaging a single tooth-pick within the trough, said housing having an elongated slot in an upper portion thereof extending from one end of the housing to a point approximately aligned with the upper termination of the arcuate slot, a gravity actuated closure lid for the elongated slot, and stop means on the wall positioned adjacent the termination of the upper end of the arcuate slot in the path of a tooth-pick elevated by the bill for impingement thereagainst, whereby the free end of the tooth pick will raise said gravity-actuated closure lid for passage through the slot to a vertical position upon further movement of said arm and lever means.

3. The structure of claim 2 in which the arm is rockably mounted on a pintle, and spring means are interconnected between the arm and pintle to return the parts to normal position.

4. The structure of claim 2 in which the stop means is constructed to dislodge more than one tooth-pick from the bill.

5. The structure of claim 2 in which the edge face of the bill is arcuately inclined in a downward direction whereby to shunt tooth picks laterally within the trough upon downward movement of the arm.

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