Jan. 23, 1962 H. T. PROBASCO 3,018,148

DISPENSER

Filed July 7, 1958 2 Sheets-Sheet 1

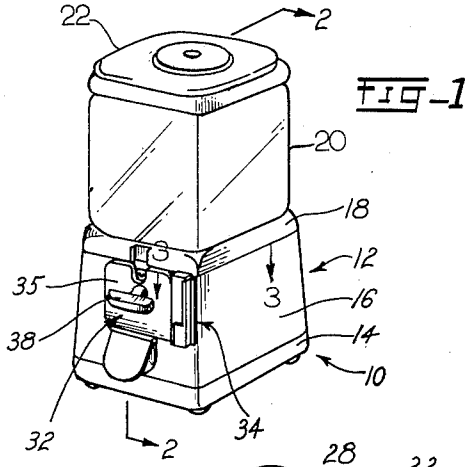


FIG-1

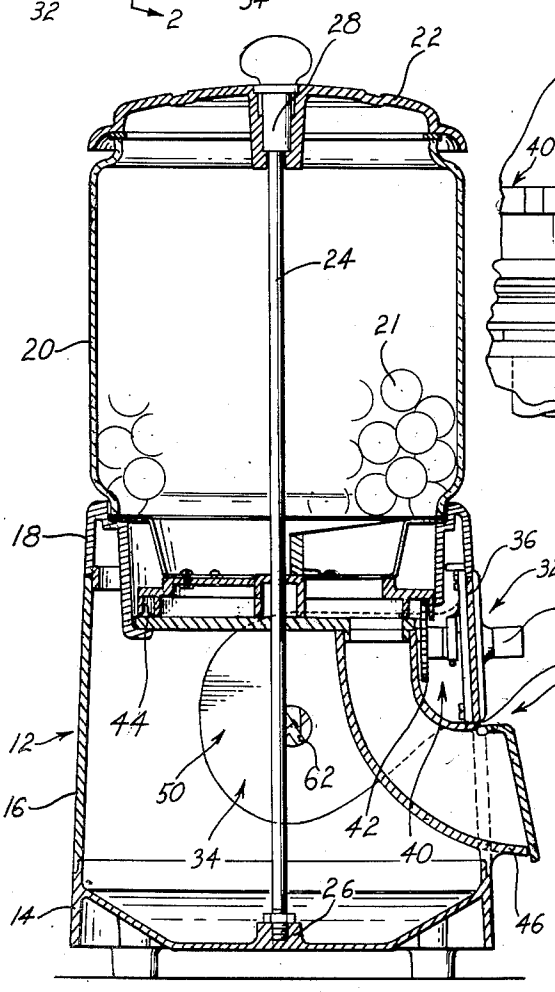


FIG-2

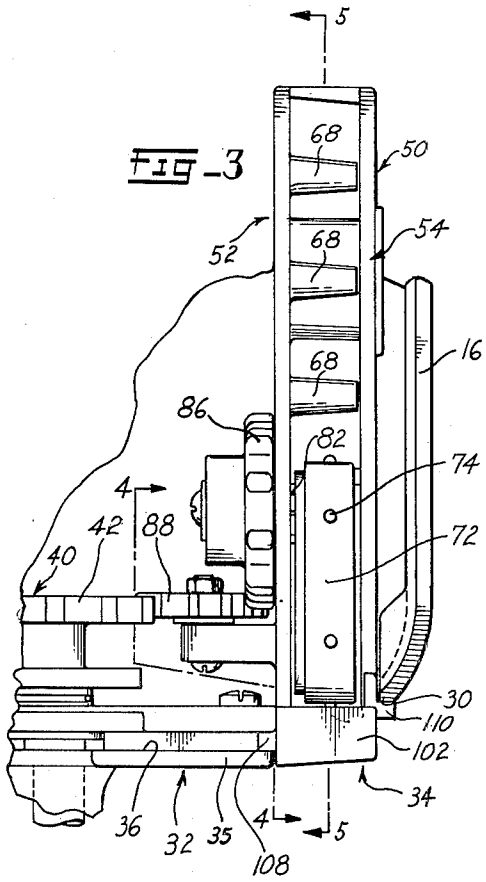


FIG-3

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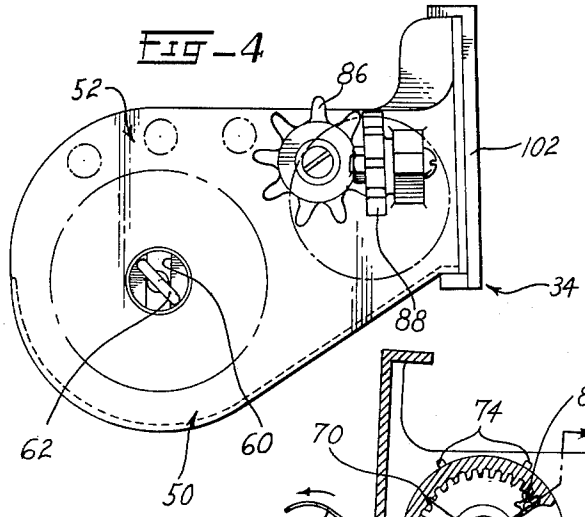
ATTORNEY

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DISPENSER

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FIG-4



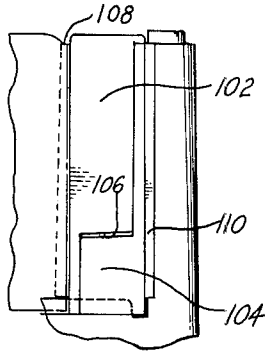


FIG-6

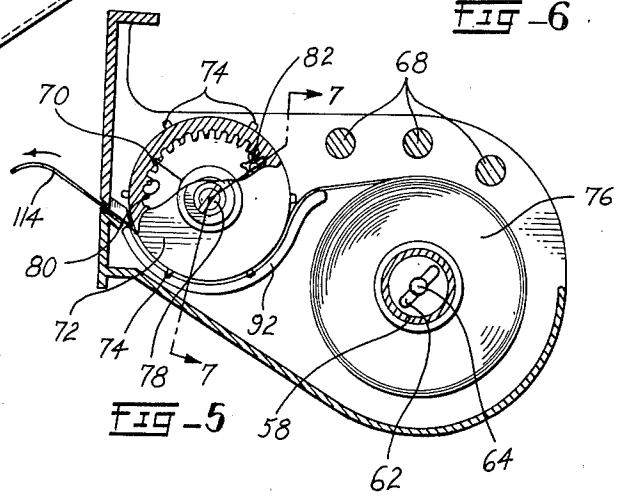


FIG-5

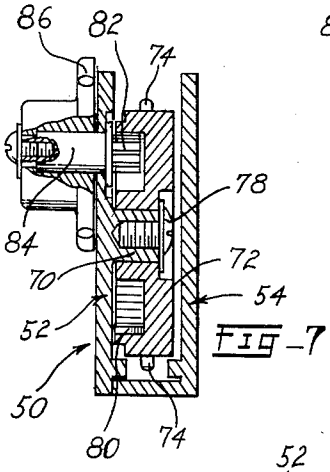


FIG-7

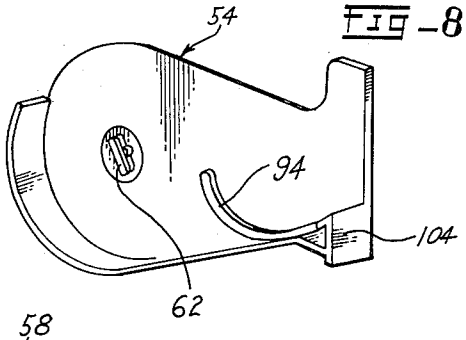


FIG-8

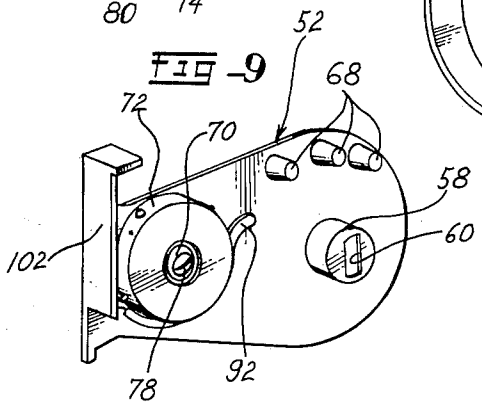


FIG-9

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3,018,148

DISPENSER

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Filed July 7, 1958, Ser. No. 746,968
5 Claims. (Cl. 312—35)

This invention relates to a dispenser adapted to simultaneously dispense a plurality of articles and, more particularly, to a dispenser which is adapted to dispense an article such as a comestible and simultaneously therewith to dispense a premium coupon redeemable at a later date in conjunction with a plurality of other coupons which have been similarly collected.

Conventional dispensers of the character of that under consideration here are utilized to dispense such comestibles as ball gum, peanuts, assorted candies and the like and since the various comestibles so dispensed are generally of the same quality and the same quantity, it has become desirable to provide an auxiliary means for inducing patronage of particular dispensing machines. In order to secure such continued patronage, it has been suggested that, in addition to dispensing a particular edible article, the dispenser simultaneously dispense a premium coupon which, when saved in conjunction with other premium coupons, can be redeemed for a suitable premium. As the result of simultaneously dispensing an edible commodity and the premium coupon, the purchaser will be induced to repeatedly patronize the same machine or machines to the exclusion of the machines of others not vending an edible article in conjunction with a premium coupon. Therefore, the volume of dispensing machines incorporating means for simultaneously vending an edible commodity and a premium coupon will be greatly increased.

Of course, most vending machine operators have a relatively large number of machines in their possession and would not look with favor upon the necessity for buying new machines in order to incorporate the premium coupons in each.

It is, therefore, an object of my invention to provide an auxiliary dispensing head adapted to be utilized in conjunction with vending machines of a particular type whereby, when a relatively minor portion of the housing of such machines is replaced, the coin receiver and auxiliary dispensing head can be utilized in conjunction with machines already in operation by a particular operator. Thus, the necessity for purchasing new machines to achieve the premium coupon dispensing feature is eliminated.

Another object of my invention is the provision of a dispensing machine for a plurality of items which includes the conventional coin receiver having an actuating handle and an actuating member connected to said handle adapted to cause the operation of the primary dispensing mechanism of the machine, the actuating member being operatively connected to an auxiliary dispensing head mounted in the housing of the dispensing machine and adapted to simultaneously dispense a premium coupon in conjunction with dispensing an edible article.

Another object of my invention is the provision of a dispenser wherein the auxiliary dispensing head can be readily dismounted from operative relationship with the associated housing to facilitate the reloading of the same with dispensing coupons, said reloading being accomplished simultaneously with the reloading of the glass bowl containing the edible commodity being dispensed.

A further object of my invention is the provision of an auxiliary dispensing head of the aforementioned character which includes a two-part enclosure, said parts being adapted to be maintained in operative relationship with each other by means of a detent which can be released

to permit the parts to be separated from each other and thus permit reloading of the auxiliary dispensing head.

A further object of my invention is the provision of an auxiliary dispensing head of the aforementioned character wherein there is incorporated a rotatable dispensing member operatively connected to the actuating member of the coin receiver by a gear train whereby energization of the actuating member by means of the coin receiver handle will cause simultaneous energization of the gear train and rotation of the dispensing member to dispense the premium coupon with the edible commodity customarily dispensed.

Other objects and advantages of the invention will be apparent from the following specification and the accompanying drawings which are for the purpose of illustration only and in which:

FIG. 1 is a perspective vew of a dispenser constructed in accordance with the teachings of my invention;

FIG. 2 is a vertical, sectional view taken on the broken line 2—2 of FIG. 1;

FIG. 3 is an enlarged, fragmentary, sectional view taken on the broken line 3—3 of FIG. 1;

FIG. 4 is a transverse, sectional view taken on the broken line 4—4 of FIG. 3;

FIG. 5 is a transverse, sectional view taken on the broken line 5—5 of FIG. 3;

FIG. 6 is an enlarged, fragmentary, sectional view showing the front of the auxiliary dispensing head of my invention;

FIG. 7 is a vertical, sectional view taken on the broken line 7—7 of FIG. 5;

FIG. 8 is a perspective view of one part of the enclosure of the auxiliary dispensing head; and

FIG. 9 is a perspective view of the other part of the auxiliary dispensing head enclosure.

Referring to the drawings and particularly to FIGS. 1–2 thereof, I show a dispenser **10** constructed in accordance with the teachings of my invention, said dispenser including a housing, generally indicated at **12**, constituted by a base having a bottom portion **14**, an intermediate portion **16**, and a top portion **18**.

Surmounting the top portion **18** is a bowl **20** formed from glass, plastic, or other transparent material and adapted to incorporate a plurality of edible commodities **21**. Mounted in superimposed relationship with the upper extremity of the bowl **20** is a cover **22**. The cover **22** and the various metallic portions of the housing may be formed from die-castings but, if desired, these component parts of the housing **12** can be formed from sheet metal or other equivalent material.

The various portions of the housing **12**, including the bottom portion **14** of the base, the intermediate and top portions **16** and **18**, respectively, of the base, the bowl **20** and the cover **22** are maintained in operative relationship with one another by means of the centrally located retention rod **24** whose lower extremity is threaded into a boss **26** in the bottom portion **14** of the base and whose upper extremity has a lock **28** provided thereupon adapted to retain the cover **22** in operative relationship therewith.

The front face of the intermediate portion **16** of the base is provided with an elongated, substantially rectangular opening **30** in which are located a coin receiver **32** and an auxiliary dispensing head **34**, both the coin receiver **32** and the auxiliary dispensing head **34** being readily demountable from operative relationship with the opening **30**, for a purpose which will be described in greater detail below.

The coin receiver **32** includes a die-cast metal body **35** having a peripheral groove **36** in the edges thereof adapted to embrace contiguous edges of the opening **30** and the lower extremity of the top portion **18** of the base, as best shown in FIG. 2 of the drawings.

Mounted for rotation in the coin receiver 32 is an actuating handle 38 which is secured by means of a shaft, not shown, to an actuating member 40 constituted by a rotatable spur gear 42. The spur gear 42 has, for its primary purpose, the rotation of a dispensing plate 44, as best shown in FIG. 2 of the drawings, which is adapted to permit edible commodities 21 to pass into a dispensing chute 46, as best shown in FIG. 2 of the drawings. The dispensing plate 44 is rotatable in a horizontal plane about an axis constituted by the retention rod 24 of the housing 12.

The auxiliary dispensing head 34 is incorporated in a die-cast enclosure 50 formed from two separable parts 52 and 54, as best shown in FIGS. 4 and 8–9 of the drawings. The portion 52 of the enclosure 50 incorporates a roll mounting hub 58 having a slot 60 incorporated therein and adapted to receive a rotatable retention lug 62 mounted in the other portion or part 54 of the enclosure 50. The retention lug 62 is mounted for rotation on a pin 64 which has a lug similar to the lug 62 secured to its outer extremity and located externally of the portion 54 of the enclosure 50 whereby, when the first and second portions 52 and 54 of the enclosure 50 are juxtaposed to each other, the retention lug 62 may be inserted through the slot 60 and the corresponding lug, not shown, rotated to permit the retention lug 62 to lock against the base of the hub 58 and thus retain the first and second portions 52 and 54 of the enclosure 50 in operative relationship with each other.

The first portion 52 of the enclosure 50 is provided with a plurality of spacer bosses 68 which serve to close up the upper portion of the closure 50. Also provided on the first portion 52 of the enclosure 50 is a boss 70 which, as best shown in FIGS. 7 and 9 of the drawings, is adapted to mount a rotatable dispensing member 72 having a plurality of prongs 74 in its periphery adapted, as best shown in FIG. 5 of the drawings, to engage in perforations in a strip of premium coupons dispensed from a roll 76 thereof mounted on the hub 58.

The rotatable dispensing member 72 is maintained in operative relationship with the boss 70 by means of a screw 78, or similar fastener, and incorporates an internal gear 80 which, as best shown in FIGS. 5 and 7 of the drawings, is engageable by a pinion 82 which is formed integrally with a square shaft 84 having a gear 86 mounted thereupon which is, in turn, in mesh with a gear 88 driven by the actuating member 40 constituted by the spur gear 42.

The first portion 52 of the enclosure 50 is provided with a guide rib 92 for the strip of premium coupon tape and a similar guide rib 94 is formed on the vertical wall of the second portion 54 of the enclosure 50.

Moreover, the first portion 52 of the enclosure 50 is provided with a front wall portion 102 adapted to cooperate with the front wall portion 104 on the second portion 54 of the enclosure 50. The lower extremity of the front wall portion 102, in conjunction with the upper extremity of the front wall portion 104, defines a slightly inclined dispensing slot 106, as best shown in FIG. 6 of the drawings, and the front wall portion 102 is provided with a laterally extending flange 108 adapted to engage in the corresponding slot or groove 36 in the adjacent edge of the body of the coin receiver 32, while the vertical side wall of the second portion 54 is provided with a laterally extending flange 110 adapted to overlie the adjacent edge of the opening 30, as best shown in FIG. 3 of the drawings.

Since many vending machine operators are already owners of dispensers of the same basic configuration as the dispenser 10 of FIG. 1, with the exception that they do not incorporate the auxiliary dispensing head 34, if such operators desire to utilize the auxiliary dispensing head 34 it is merely necessary to provide such owners with a dispensing head 34 and a new intermediate portion 16 of the base of the housing 12 incorporating the enlarged opening 30. Thus, the original base intermediate portion can be discarded and the new intermediate portion 16 substituted therefor.

In assembling the components, the intermediate portion 16 is superimposed upon the bottom portion 14 of the base and the coin receiver 32 inserted in the opening 30. The auxiliary dispensing head 34 is then inserted in the opening 30 with the laterally protruding flange 108 thereof inserted in the peripheral groove 36 of the body of the coin receiver 32.

Prior to such insertion, however, the auxiliary dispensing head has been loaded with a roll 76 of premium coupons by separating the first and second portions 52 and 54, respectively, of the enclosure 50 to permit the roll 76 to be mounted upon the hub 58. After the roll 76 is so mounted and a strip thereof is threaded on the radial prongs 74 on the rotary dispensing member 72, the two portions 52 and 54 of the enclosure 50 are joined in operative relationship with each other by means of the rotatable lug 62 being inserted through the slot 60 and then rotated out of registry therewith.

When the auxiliary dispensing head 34 is so juxtaposed to the coin receiver 32, the gear train constituted by the gears 86 and 88 is juxtaposed to the actuating member gear 42 energizable by the handle 38 of the coin receiver 32. Therefore, when the handle 38 of the coin receiver 32 is rotated to cause corresponding rotation of the actuating member constituted by the gear 42, corresponding and simultaneously energization of the gear train incorporating the gears 86, 88, and 82 will take place, causing concomitant rotation of the internal gear 80 and the rotatable dispensing member 72 incorporating said internal gear.

When this occurs, the strip is projected a predetermined distance from the enclosunre 50 of the auxiliary dispensing head 34, in the manner shown at 114 in FIG. 5 of the drawings, to permit a person utilizing the dispenser 10 to receive a premium coupon with an edible commodity 21. This, a customer will simultaneously receive a premium coupon and an edible commodity with one energization of the machine inducing him to return to the machine for repeated purchases in order that his supply of premium coupons may be completed.

I claim:

1. In a dispenser, the combination of: an enclosure having a base incorporating a front wall, said front wall having an elongated opening therein which is open at its upper edge; a coin receiver having a perimetrical groove engageable with one edge of said opening, said coin receiver having an operating handle thereupon and a dispensing gear operable thereby; a primary, rotary dispensing plate in said enclosure operatively connected to said dispensing gear; and an auxiliary dispensing head mounted in said opening, said dispensing head including a housing having edge portions engageable, respectively, with the perimetrical groove of said coin receiver and an adjacent edge of said opening to retain said housing in said opening, said housing incorporating a driven gear engaged by said dispensing gear and a rotatable dispensing member operable by said driven gear to cause conjoint movement of said rotary dispensing plate and rotatable dispensing member.

2. In a dispenser, the combination of: an enclosure including a base having a front wall incorporating an elongated opening therein, said opening being open at its upper edge and said base incorporating a top portion adapted to close the upper edge of said opening; a coin receiver mounted in said opening including a body having a perimetrical groove adapted to engage an edge of said opening and to be engaged by said top of said base, said body having an operating handle thereupon and a dispensing gear operable thereby; a primary, rotary dispensing plate in said top of said base connected to said dispensing gear; and an auxiliary dispensing head incorporated in a housing having its front portion located in

said opening in juxtaposition to said coin receiver, said front portion having projections on the opposite sides thereof engageable, respectively, with said perimetrical groove of said coin receiver body and the other edge of said opening, said housing incorporating a driven gear engaged by said dispensing gear, said driven gear being connected to a rotatable dispensing member disposed in a vertical plane in said housing, rotation of said handle of said coin receiver being adapted to cause simultaneous rotation of said dispensing gear, said driven gear, said rotary dispensing plate and said rotatable dispensing member.

3. In a dispenser, the combination of: an enclosure having a base incorporating an elongated opening in its front wall, said opening being open at the top thereof and said base having a top portion adapted to close off said opening; a coin receiver mounted in said opening including a body having a perimetrical groove engageable with a side edge of said opening and by said top portion of said base to retain said body in said opening, said body mounting a rotatable handle connected to a dispensing gear; a primary rotary dispensing plate in said top portion of said base connected to said dispensing gear; and an auxiliary dispensing head incorporated in a housing having its front portion located in said opening, said front portion having laterally extending projections in the opposite sides thereof engageable, respectively, with said perimetrical groove of said coin receiver and the other side edge of said opening to retain said housing in operative relationship with said coin receiver and said opening, said housing having a driven gear mounted thereupon engaged by said dispensing gear and incorporating a rotatable dispensing member connected to said driven gear, said housing having a dispensing opening therein and said top portion of said base overlying the upper extremity of said housing.

4. In a dispenser, the combination of: an enclosure including a base having a front wall incorporating an elongated opening therein, said opening being open at its upper edge and said base incorporating a top portion adapted to close the upper edge of said opening; a coin receiver mounted in said opening including a body having a perimetrical groove adapted to engage an edge of said opening and to be engaged by said top of said base, said body having an operating handle thereupon and a dispensing gear operable thereby; a primary, rotary dispensing plate in said top of said base connected to said dispensing gear; and an auxiliary dispensing head incorporated in a housing having its front portion located in said opening in juxtaposition to said coin receiver, said front portion having projections on the opposite sides thereof engageable, respectively, with said perimetrical groove of said coin receiver body and the other edge of said opening, said housing incorporating a driven gear engaged by said dispensing gear, said driven gear being connected to a rotatable dispensing member disposed in a vertical plane in said housing, rotation of said handle of said coin receiver being adapted to cause simultaneous rotation of said dispensing gear, said driven gear, said rotary dispensing plate and said rotatable dispensing member, said housing being constituted by two separable parts and detent means on one of said parts engageable with the other of said parts to maintain said parts in operative relationship with each other.

5. In a dispenser, the combination of: an enclosure having a base incorporating an elongated opening in its front wall, said opening being open at the top thereof and said base having a top portion adapted to close off said opening; a coin receiver mounted in said opening including a body having a perimetrical groove engageable with a side edge of said opening and by said top portion of said base to retain said body in said opening, said body mounting a rotatable handle connected to a dispensing gear; a primary rotary dispensing plate in said top portion of said base connected to said dispensing gear; and an auxiliary dispensing head incorporated in a housing having its front portion located in said opening, said front portion having laterally extending projections in the opposite sides thereof engageable, respectively, with said perimetrical groove of said coin receiver and the other side edge of said opening to retain said housing in operative relationship with said coin receiver and said opening, said housing having a driven gear mounted thereupon engaged by said dispensing gear and incorporating a rotatable dispensing member connected to said driven gear, said housing having a dispensing opening therein and said top portion of said base overlying the upper extremity of said housing, said housing being constituted by two separable parts and detent means on one of said parts engageable with the other of said parts to maintain said parts in operative relationship with each other.

References Cited in the file of this patent

UNITED STATES PATENTS

426,086	Williams	Apr. 22, 1890
461,461	Whiteside	Oct. 20, 1891
614,553	Jaeger et al.	Nov. 22, 1898
924,252	Linde	June 8, 1909
1,010,888	Fritsche	Dec. 5, 1911
1,694,599	Lea	Dec. 11, 1928
1,933,840	Bolen	Nov. 7, 1933
2,044,153	Colton	June 16, 1936
2,269,164	Rinehart	Jan. 6, 1942
2,293,073	Osborne et al.	Aug. 18, 1942
2,361,977	Stair	Nov. 7, 1944
2,696,324	Jones	Dec. 7, 1954
2,846,122	Jenkins et al.	Aug. 5, 1958

FOREIGN PATENTS

28,291/30	Australia	Dec. 19, 1930
1,030,352	France	Mar. 11, 1953
1,062,548	France	Dec. 9, 1953