May 27, 1952 M. GROSSU 2,597,985

ADVERTISING MACHINE

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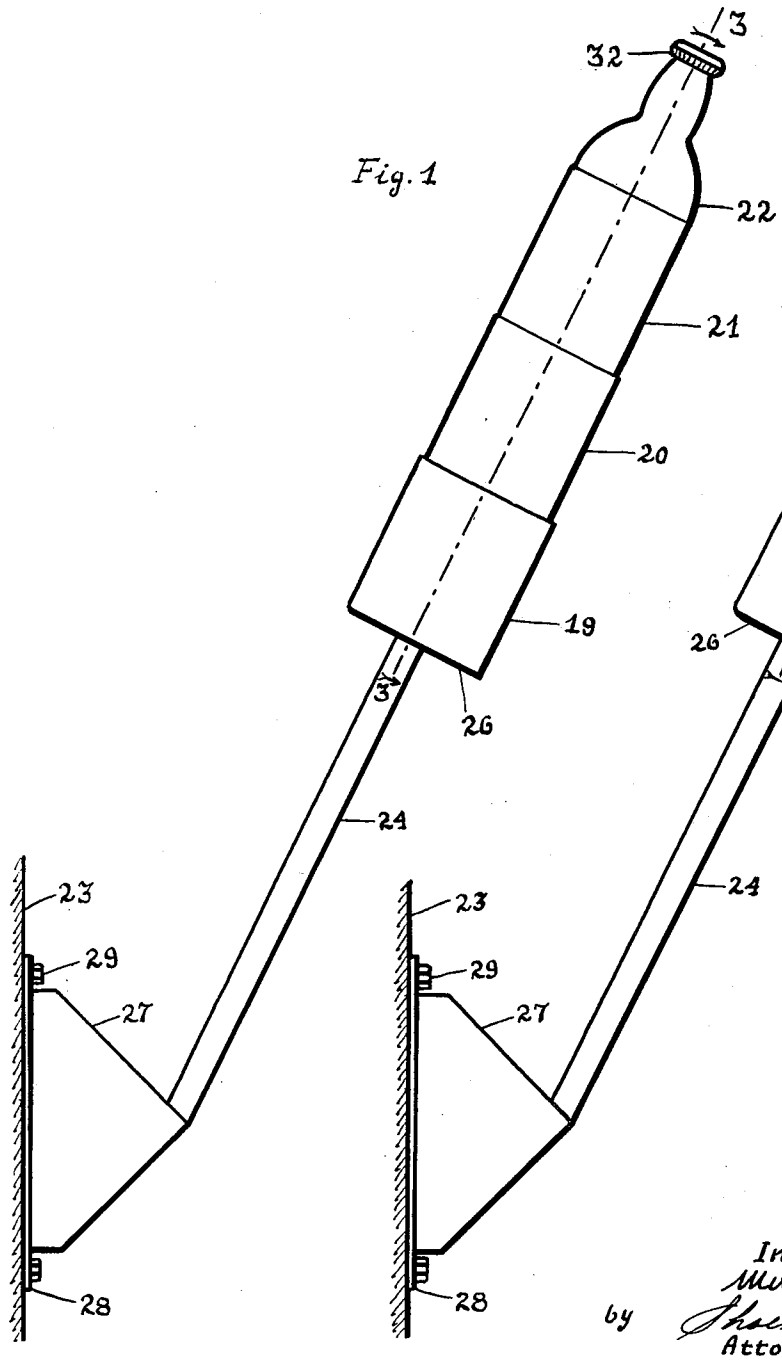
Fig. 1



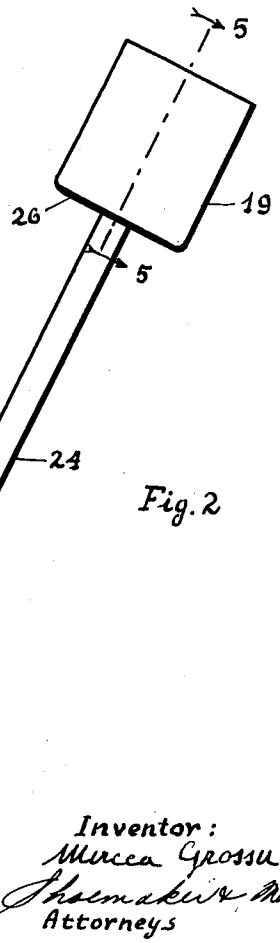


Fig. 2

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ADVERTISING MACHINE

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Fig. 4.

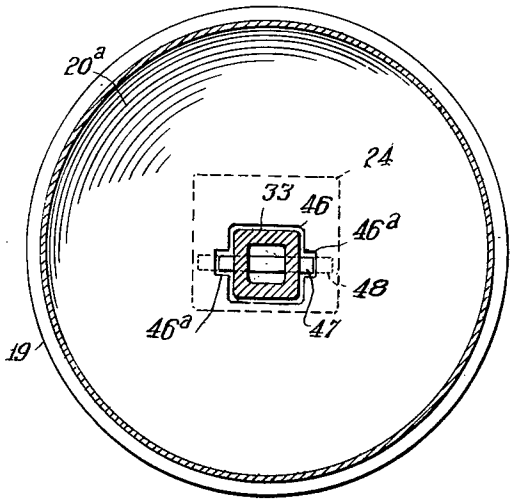


Fig. 3.

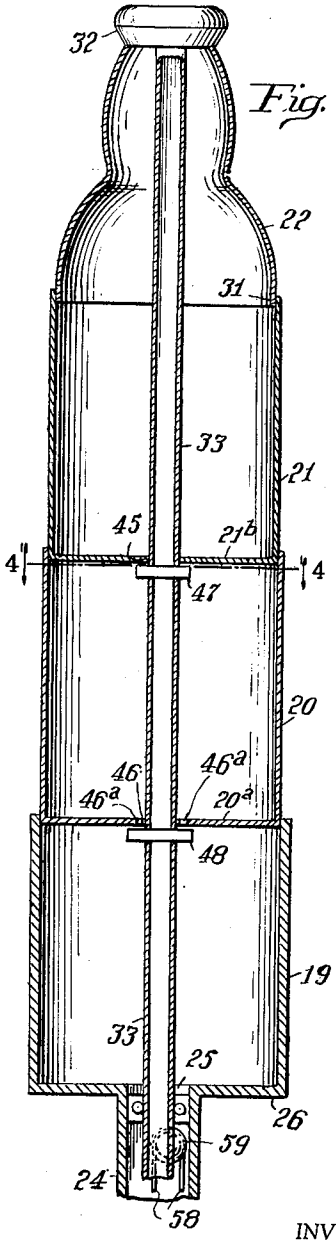
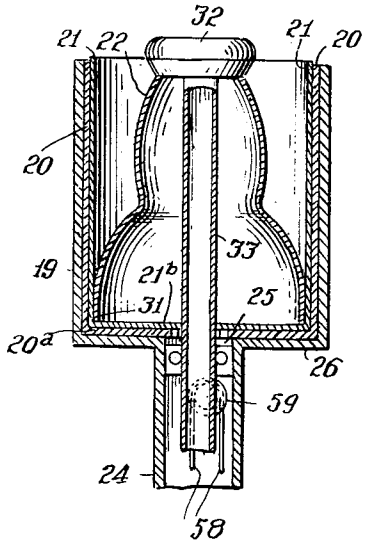


Fig. 5.



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ADVERTISING MACHINE

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Fig. 8.

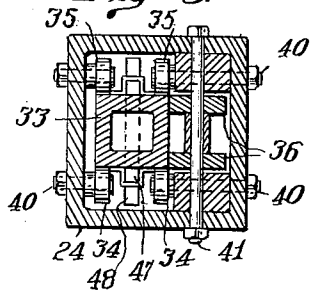

Fig. 6.

Fig. 7.

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ADVERTISING MACHINE

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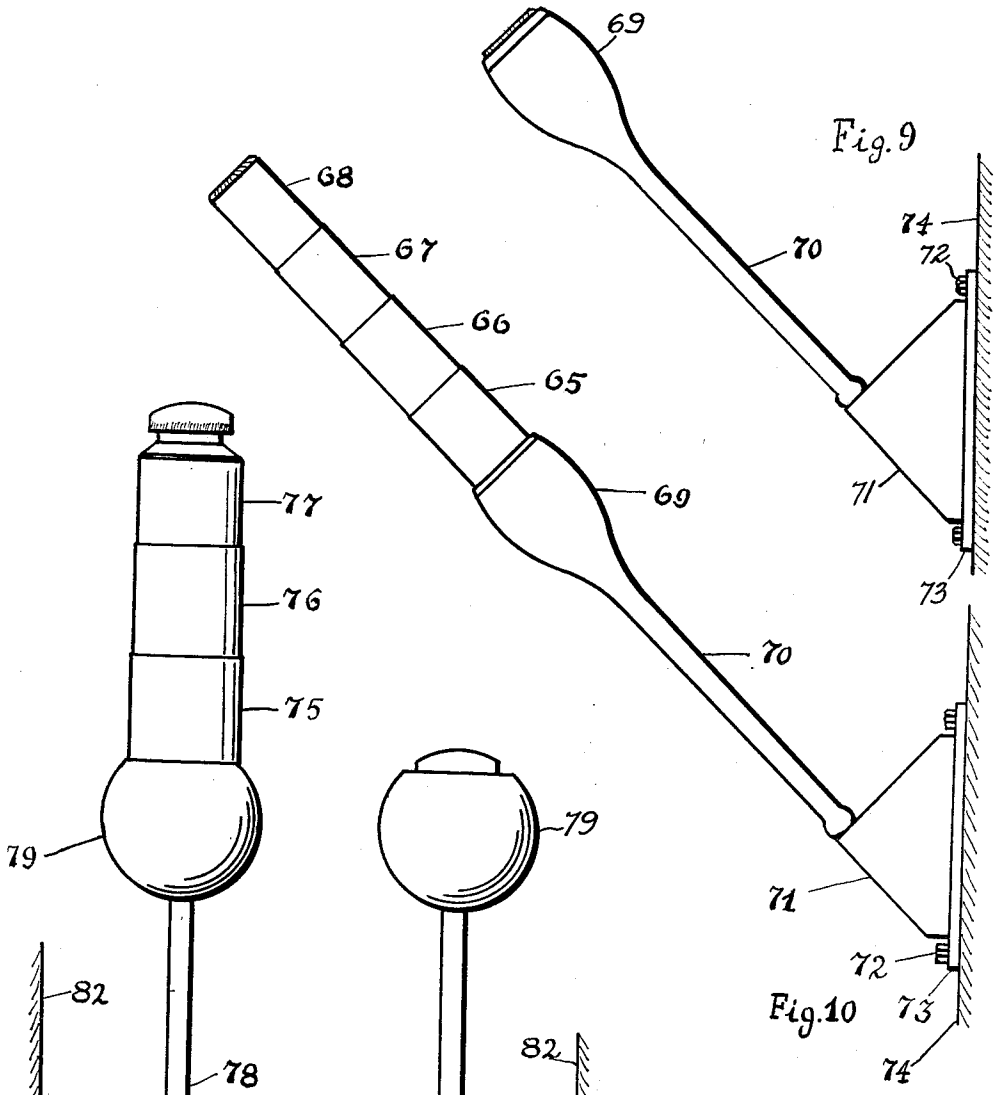

Fig. 9

Fig. 10

Fig. 12

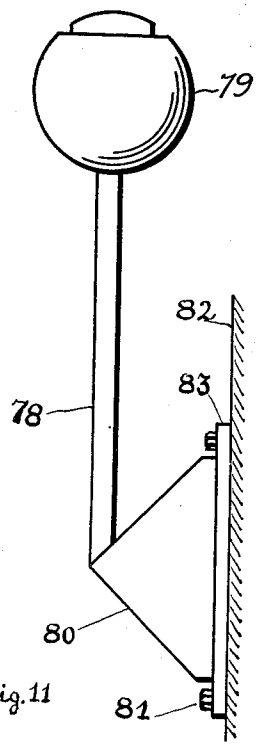

Fig. 11

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Patented May 27, 1952

2,597,985

UNITED STATES PATENT OFFICE

2,597,985

ADVERTISING MACHINE

Mircea Grossu, Youngstown, Ohio

Application March 3, 1950, Serial No. 147,341

10 Claims. (Cl. 40—126)

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This invention relates to an improved advertising machine.

One of the most impressive ways of advertising is the alternate luminous system, which by night makes writings and flat pictures appear and disappear, the alternate appearance and disappearance strongly attracting the attention of the eye. However, the alternate luminous system is not efficient by day. It is very noticeable in large cities that some business centers which are strikingly impressive by night, due to electrical advertising displays, present a dull, unattractive appearance in daylight.

A primary object of the invention is to provide for impressive advertising by day as well as at night; to provide a machine adapted without periodic illumination, to periodically effect sudden apparitions and disappearances of not only writings and flat pictures, but also of objects in three-dimensions, or in volume, simulating articles of manufacture.

The invention comprehends a machine including a container with a plurality of sign elements of a size to be disposed within the container concealed from view, and movable outwardly from the container in succession to a displaying position extending one beyond another in continuous formation to jointly form a sign, and there being mechanism providing for the periodic sudden projection of the sign elements from the container and the retraction of the same therewithin.

Another object of the invention is to provide a machine of the character referred to of simple construction that will operate automatically and be durable and efficient in use.

Another object of the invention is to provide a machine of the kind mentioned in which the movable sign elements and the means for transmitting movement thereto will be of light but strong, efficient construction in order to obtain the maximum erection or outward projecting acceleration of the sign elements from sudden application of driving force thereto, and thereby effect the sudden erection or projection of the sign elements in continuous extended display formation to produce an impressive sudden apparition of the sign. Small inertia of all moving parts is also highly important, not only because of the desired acceleration, but also on account of the deceleration problem, since every sudden stroke has to be brought to a stop without excessive shock.

A further object of the invention is to provide in a machine of the character referred to having sign elements of light construction, simple, efficient means whereby the sign elements will be supported for smooth, easy operation into and out of extended display position, and so that the structure, when the sign elements are in extended displaying position, will withstand the strain due to the weight of the projected sign elements and any eventual loads, such as wind or snow.

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The invention, with other objects, novel features and the advantages thereof, and the particular construction, combinations and arrangements of parts comprising the same, will be understood from the following detail description, when considered in connection with the accompanying drawings forming part hereof and illustrating one embodiment of the invention.

In the drawings:

Fig. 1 is a side elevation of an advertising machine constructed and attached to a wall in accordance with the present invention, the sectional sign unit being shown in displaying position projecting outside the container;

Fig. 2 is a view similar to Fig. 1 with the sectional sign unit disposed in retracted position within the container;

Fig. 3 is a longitudinal sectional view, on an enlarged scale, taken on the line 3—3 of Fig. 1;

Fig. 4 is a transverse horizontal section on the line 4—4 of Fig. 3;

Fig. 5 is a section on the line 5—5 of Fig. 2;

Fig. 6 is a fragmentary vertical section of the structure shown in Fig. 2;

Fig. 7 is a fragmentary horizontal section on the line 7—7 of Fig. 6;

Fig. 8 is a transverse horizontal section on the line 8—8 of Fig. 6;

Fig. 9 is a side elevation of a modified construction with the sectional sign unit disposed within the container;

Fig. 10 is a side elevation of the modified construction illustrated in Fig. 9 with the sectional sign unit positioned in extended displaying position outside the container;

Fig. 11 is a side elevation of another modified form of the invention with the sectional sign unit disposed within the container;

Fig. 12 is a similar view of the modified construction illustrated in Fig. 11, but with the sectional sign unit shown in extended displaying position projecting outside the container.

While several preferred embodiments of the invention are illustrated in the drawings, it will be understood that minor changes and modifications may be made in the particular constructions shown, and the invention may be embodied in other forms, as will appeal to those skilled in the

art and falling within the scope of the appended claims without departing from the spirit of the invention.

Referring to a detail description of the particular embodiment of the invention illustrated in Figs. 1 to 8 of the drawings, 19 is a base serving as a container for a plurality of hollow sign elements or sections 20, 21 and 22, the container 19 of general cup-shaped form being attached to a wall 23 or other suitable support by a straight rod 24 extending outwardly at an upward inclination therefrom, the container being open at the top and being fixedly secured at its bottom to the outer end of the rod. The rod 24 is in the form of a tube, and the container 19 has an opening 25 in its bottom wall 26, the upper end of the rod or tube 24 being joined to the bottom wall 26 of the container at the central opening 25 therein so that the tubular rod 24 is in communication with the interior of the container 19. The rod or tube 24 at its lower end is joined to a housing 27, said housing having an attaching flange 28 that is secured by bolts 29 to the wall 23. The rod or tube 24, as shown, is of substantial length so that the container 19 is disposed well out from the wall 23, and said rod is several times thinner and several times longer than the respective width and length of the container 19 to create the impression that there is no backing to or support for the container 19.

The hollow sign elements or sections 20, 21 and 22 are of a size to slidably fit one within another, and the outermost sign element 20, being of a size to slidably fit within the container 19, said sign elements or sections being adapted to be disposed within the container 19 and concealed from view, as illustrated in Fig. 5 of the drawings, and to be moved successively outwardly from the container 19 to a displaying position extending one beyond another in continuous formation to jointly form a sign as shown in Figs. 1 and 3, means, hereinafter described, being provided for periodically effecting sudden outward movement of the sign elements or sections from the container to a displaying position, and the retraction of the same within the container.

The invention contemplates the use of sign elements or sections of different shapes to jointly represent various articles of manufacture. In the particular exemplification of the invention illustrated in Figs. 1 to 8 of the drawings, the sign elements are of a shape so that when in displaying position extending one beyond another in continuous formation outside the container, the same jointly simulate a bottle. In this instance, there are three sign elements or sections to jointly form the shell of the bottle. The container 19 and the two lower sign elements or sections 20 and 21 are circular in cross section. The sign elements or sections 20 and 21 have bottom walls 20^a, 21^b. The top sign element or section 22, which is innermost when the sign elements are in collapsed condition, has a lower part 31 of a size to slidably fit within the next sign element 21. It tapers upwardly from its lower part 31 and has a top 32 shaped to simulate a closure cap. The sign elements or sections 20 and 21 are made of very light, thin sheet metal or other equivalent light and thin material, the wall thickness being around $\frac{15}{1000}$ of an inch for a bottle or like object of 10 inches in diameter, the wall thickness of these sections 20 and 21 being such as to present an almost flush and unnoticeable overlap, so that for the layman viewing the sign at a distance, who cannot detect what happens during the sudden collapsing and erection of the sign elements, the process of erection and collapsing of the sign sections will remain unexplained and the effects produced will thus be made more impressive. The number of sign elements employed depends upon the aspect ratio of the article to be advertised and the length of the container 19, it being desirable to have the sign sections as short as possible so that the container need be only of small length or height in order to create the illusion that the object formed by the sign sections appears out of nothingness and thereby makes the sudden appearance of the object more impressive.

Referring now particularly to Figs. 3, 5, 6 and 7 of the drawings, the rod or tube 24 is rectangular shaped in cross section and mounted for movement longitudinally within the tube 24 is a rail 33. This rail 33 extends into the container 19 and is suitably secured at its upper end to the top 32 of the top sign section 22. The rail 33 serves as means for transmitting movement to the sign elements or sections 20, 21 and 22 in the movement of the same to displaying position outside the container 19. It also forms a central support or backbone for the erectable sign unit structure, acting to maintain the proper alignment of the sign sections and to support the same throughout the erecting and retracting movements of the same, the rail 33 being of a length so that when it has been moved outwardly to fully project or erect the sign sections to displaying position, a substantial part of the rail is still within the tube 24, whereby the structure will withstand the strains due to the weight of the erected sign elements and any eventual loads such as wind or snow. The rail 33, which is of light tubular construction, rectangular shaped in cross section, is supported to slide freely within the tube 24 by pairs of rollers 34, 35 and 36 on the upper part of the tube 24, and pairs of rollers 37 and 38, and a roller 39 on the lower end of said rail. The pairs of rollers 34 and 35 are mounted on pins 40 extending inwardly from a wall of the tube 24, and the pair of rollers 36 are mounted on an axle or pin 41 extending transversely of the rail 33 and secured to opposite side walls thereof. 42, 43 and 44 designate, respectively, pin mountings for the rollers 37, 38 and 39.

The bottom walls 20^a and 21^b of the sign sections 20 and 21 are provided with square shaped openings 45 and 46 centrally thereof to permit the rail 33 to pass freely therethrough, the opening 46 in the bottom wall of the section 20 being provided with aligned narrow lateral extensions 46^a. On the rail 33 at properly spaced points along the same are transverse pins 47 and 48 adapted to respectively engage the bottom walls 21^b and 20^a of the sign sections 21 and 20 and move said sections outwardly in the outward movement of the rail 33. The pins 47 and 48 each have opposite end portions projecting from opposite faces of the rail 33. The uppermost pin 47 is longer than the width of the opening 45 in the bottom 21^b of the intermediate sign section 21, but shorter than the width of the opening 46 in the bottom wall 20^a of the lowermost section 20 at the narrow lateral extensions 46^a of said opening, so that said pin can pass therethrough. The lowermost pin 48 is longer than the width of the opening 46 in the bottom wall 20^a of the lowermost section 20 at the narrow lateral extensions 46^a of said opening, so that said lower pin, during the latter part of the

outward stroke of the rail 33, will engage the bottom wall 20a of the lowermost sign section 20.

When the erection or outward projection of the sign sections starts from the initial collapsed condition illustrated in Fig. 5, the rail 33 carries out the top sign section 22 which is fastened thereto, until this sign section is almost entirely out. At this point, the upper pin 47 passing through the opening 46, 46a in the bottom 20a of the lowermost section 20 reaches the bottom wall 21b of the sign section 21, and the latter is moved outwardly with the rail 33, the same being at that time supported at its upper end on the lower part 31 of the top section 22 and at its bottom 21b on the rail 33. When the sign section 21 has been moved almost entirely out, the lower pin 48 on the rail 33 reaches the bottom 20a of the lowermost section 20, which is then carried along by the rail 33 to the position shown in Fig. 3, the section 20 during the outward movement of the same and when in full outer position being supported at its upper part on the lower part of section 21 and at its bottom on the rail 33.

The operating means for the erectable sign unit structure providing for periodically rapidly projecting the sign elements outwardly from the container 19 and for the retraction of the sign elements within the container, includes an oscillating lever 49 and a source of power for suddenly forcing the lever in one direction. In the particular embodiment of the invention illustrated in Figs. 1 to 8, the source of power is shown as comprising an electric motor 50, a worm 87 and a gear reducer 86 and a weight 89. The weight 89 is secured by a bolt 91 on a crank 90 rotating concentrically with the gear 86 around the same stationary shaft 88 secured at one end on the wall of the housing 27 by means of bolts 92. The lever 49 is welded on a shaft 93 which is maintained by two bearings 94 secured on the wall of the container 27 by bolts 95. The lever 49, as illustrated in Fig. 7 is stepped down toward the shaft 93, as to provide only a local path for the roller 96 carried by the bolt 91. The electric motor 50, supported by a bracket 107 secured on the wall of the housing 27 by bolts 51, drives the worm 87 by means of a coupling 52, and the worm 87 is maintained by two bearings 98 secured to the wall of the housing 27 by bolts 99.

The lever 49 carries by means of an axle 60 a pulley 61, at the end opposed to shaft 93 and the side opposed to the path reserved for the roller 96.

The gear 86 carries two overhanging lugs 102 and 103 which limit the possible angular relative rotation between the crank 90 and the worm 86 to an angle of about 180°.

The electric motor 50 is acting as a source of continuous power, and by driving the worm 86 which through the lug 102 determines the rotation of the crank 90 and the weight 89 from the bottom dead center to the top dead center, the continuous power is converted into potential energy. As soon as the weight 89 is carried a little over the top dead center, it falls around the shaft 88 until the roller 96 hits the limited path of the lever 49, which is initially in the position illustrated in Fig. 6. The weight 89 is proportioned so as to overcome the existing resistance on pulley 61, and it falls to the bottom dead center depressing the lever 49 from the position illustrated in full lines in Fig. 6 to the position illustrated in dotted lines in which the crank 90 is vertical and the lever 49 horizontal. During this motion the roller 96 was rolling on the path provided on lever 49, approaching the end of it.

Although the potential energy of the weight 89 is exhausted during this motion in overcoming the existing resistance on roller 61, there might be enough kinetic energy left and the inertia might carry the roller 96 above the dead center, but as it hits the lug 103 secured on the high ratio worm gear 86 which is not reversible, it stops practically on the bottom dead center before reaching the end of the path provided by lever 49. As the gear 86 continues rotating, the weight 89 stays on bottom dead center by gravity preventing the lever 49 from returning upwards, and the lug 102 describes half a circle reaching again the crank 90 and determining it to rotate again. This determines the roller 96 to roll over the edge of the limited path towards the narrower part of lever 49, releasing the lever 49 to return to its initial position as illustrated in Fig. 6.

The rotating movement continues on half a circle lifting the weight 89 upwards, and the cycle is repeated again as long as the electric motor 50 is on. The electric motor is a constant speed motor and the interval of time, while it is idling for half a gear 86 circle until the lug 102 reaches downwards the crank 90, is practically equal to the time spent for lifting the weight 89, the result being that during a cycle the lever 49 is half time up and half time down.

The speed of the electric motor 50 and the ratio of the worm gear reducer are chosen so as to provide the most convenient timing. Instead of the electric motor 50 driving a falling weight 89, as power means for operating the rod 49, air or hydraulic cylinders may be employed or a solenoid, or any stored energy as preloaded springs.

The transmission connecting the operating means with the rail 33 consists of pulleys and ropes arranged so as to amplify the stroke obtained during the motion of lever 49 and pulley 61. It consists of fixed pulleys 62, 63 and 100, respectively, secured on the walls of the housing 27 by pins 104, 105 and 101, and fixed pulley 59 secured on the wall of the straight rod 24 by the pin 106, combined with movable pulleys 61 and 55 which latter pulley is attached on clevis 56.

Two ropes 54 and 58 are connecting the movements of lever 49 and rail 33.

The rope 54 starts on attachment 64 secured on the wall of the container 27, is doubled around pulley 61 and turns around pulley 62 to reach the clevis 56, and by doubling around the pulley 61 the stroke of the clevis 56 is twice the stroke obtained from the radial motion of lever 49.

The rope 58 starts on attachment 57 secured on the wall of the housing 27, doubles around pulley 55 attached on clevis 56, turns around pulleys 63, 100 and 59 to reach its attachment on pin 44 on the lower end of the rail 33.

By doubling around the pulley 55 the stroke of this rope is double the stroke of clevis 56 and four times the stroke of pulley 61, and by doubling around pulley 59 the downward pull resulting from the operating means is transformed in an upward motion of the rail 33 and the erection of the sign elements outwardly.

The weight 89 is proportioned as to overcome the weight of the sign elements and rail 33 with a considerable excess resulting in the desired acceleration for projecting the signs suddenly out.

The signs stay out, their weight resting through the ropes and pulleys on the lever 49 which can not move upwardly as long as the weight 89 is at the bottom dead center: as soon as the lug 102 pushes the weight 89 away and the

roller 96 escapes beyond the limited rolling path provided on lever 49, the sign elements and rail 33 suddenly return in to the container 19 and rod 24 by gravity.

The successive arrangement of the sliding telescoping sign elements 20, 21 and 22 connected, as hereinbefore described, with the sliding rail 33 helps materially in obtaining the desired accelerating and decelerating movements of the sign unit. At the beginning of the erecting movement of the sign unit, for the first third of the movement, only the masses of sections 22 and the sliding rail 33 are to be accelerated, therefore, the entire force available from the source of sudden power is concentrated on these masses. Then, on the second third of the outward movement of the sign unit, the available force for acceleration is reduced by the added weight of sign section 21, and for the last third of the outward stroke of the rail 33, the acceleration is reduced again by the added weight of the lowermost sign section 20. The successive increase in weight and consequent reduction in acceleration, as will be understood, is desirable for minimizing the impact at the end of the outward stroke of the rail 33. The particular arrangement provides for good erection time and the final shock and the power requirement are maintained within reasonable limits. On the retracting stroke of the sign unit including the rail 33, which is insured by gravity, the total weight of sign sections 20, 21 and 22 and the rail 33 insures a good initial acceleration, but the successive elimination of the weights of the sign sections 20 and 21 reduces the downward impact.

The modified construction of the machine illustrated in Figs. 9 and 10 of the drawings is the same as that hereinbefore described and shown in Figs. 1 to 8, except that the sign sections are of a shape to simulate a cigarette instead of a bottle and there are four of such sign sections instead of three. In Figs. 9 and 10, 65, 66, 67 and 68 designate the hollow, slidable, telescoping sign sections. 69 is the container for the sign sections mounted on the tubular rod 70 which is joined at its lower end to the housing 71 the seat 73 of which is secured by bolts 72 on a wall 74.

In the modified form of machine shown in Figs. 11 and 12, the sign sections designated 75, 76 and 77 are of a shape to jointly represent a cream or tooth paste tube. In this instance, the tubular supporting rod 78 for the container 79 is joined at its lower end to the housing 80 to extend vertically, the housing being secured by bolts 81 to a wall 82 against a vertically extending seat 83 thereon. The operating means for the sliding telescoping sign elements 75, 76 and 77 in this modified form of machine is the same as that shown in Figs. 1 to 8, because, as illustrated in Fig. 6, the rope 56 turns around pulley 100 and, therefore, the rod 24 may be set at slightly various angles without any trouble.

What I claim is:

1. An advertising machine including a container open at one end, means for attaching the container to a support, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom in succession to a displaying position extending one beyond another in continuous formation to jointly form a sign, a rail slidably supported to extend longitudinally of the sign elements interiorly of and downwardly from the container and connected at its upper end to one of said sign elements, and mechanism for periodically rapidly projecting said sign elements from the container and for the retraction of the same therewithin, said mechanism comprising a driving means including an oscillating lever having a relatively short power stroke in one direction, and transmission means between said lever and said rail whereby the power stroke of the said lever transmitted to the rail is amplified.

2. An advertising machine including a container open at one end, means for attaching the container to a support, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom in succession to a displaying position extending one beyond another in continuous formation to jointly form a sign, a rail slidably supported to extend longitudinally of the sign elements interiorly of and downwardly from the container and connected at its upper end to one of said sign elements, and mechanism providing for periodically rapidly projecting the sign elements from the container and for the retraction of the same therewithin, said mechanism including driving means comprising an oscillating lever having a relatively short power stroke in one direction, and transmission means between said lever and said rail comprising a system of cables and pulleys, whereby the power stroke of said lever transmitted to the rail is amplified.

3. An advertising machine including a container open at one end, means for attaching the container to a support, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom in succession to a displaying position extending one beyond another in continuous formation to jointly form a sign, a rail slidably supported to extend longitudinally of the sign elements interiorly of and downwardly from the container and connected at its upper end to one of said sign elements, and mechanism providing for periodically rapidly projecting said sign elements from the container and for the retraction of the same therewithin, said mechanism including a lever pivotally supported at one end for vertical oscillation, an electric motor, a worm connected with the motor shaft, a reducer gear meshing with said worm, a weight supported for movement relatively to said lever and adapted to engage and swing the lever in one direction, means on said reducer gear for intermittently raising said weight, and transmission means between the free end of said lever and said rail.

4. An advertising machine including a container open at its upper end, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom to a displaying position extending one beyond another in continuous formation to jointly form a sign, means for attaching the container to a support comprising a tube secured at one end to the bottom of the container and in communication with the interior thereof, and a housing to which the other end of said tube is joined, a rail supported to slide longitudinally within the tube, said rail extending into the container and being operatively connected with the sign elements, and mechanism providing for projecting the sign elements from the container and for the retraction of the same therewithin, said mechanism including an oscillating lever in said housing, power means in the housing for driving said lever in one direction, and transmission means between the lever and rail extending within said tube.

5. An advertising machine comprising a stationary base, a support, a hollow member for attaching said base to said support constituting a guide, a movable sign unit carried by said base and comprising a plurality of hollow elements having telescoping engagement with each other and movable longitudinally one after another from a retracted position at rest upon the base to an extended position in which they form the sign unit and back to the retracted position, a rail slidable longitudinally in the hollow guide and through said base and having its outer end connected to one of said sign elements, and mechanism for periodically effecting alternate movement of the sign elements to the extended position and return thereof to the retracted position including a driven member having a relatively short power stroke in the ejecting direction, and transmission means between the driven member and said rail serving to amplify the power stroke of the said member and causing the sign elements to be rapidly moved to the extended position.

6. An advertising machine including a container open at its upper end, a plurality of hollow sign elements adapted to slidably fit one within another, the sign elements being of a size to be received within the container when in telescoped condition, and the outermost sign element slidably fitting in said container, the sign elements being movable successively outwardly from the container to a displaying position extending one beyond another in continuous formation to jointly simulate an article of manufacture, means for attaching the container to a support comprising an upwardly extending tube secured at one end to the bottom of the container centrally thereof, said tube being in communication with the interior of the container, a rail extending longitudinally within said tube and into the container, said rail being supported on the tube for longitudinal sliding movement relatively thereto and to the container, said rail being fastened at its upper end to the innermost sign element, means on the rail at intervals along the same to successively engage and move outwardly the other sign elements upon upward movement of the rail, and means for forcing said rail upwardly to project the sign elements from the container, said means permitting the sign elements and rail to return by gravity to retracted position.

7. An advertising machine including a container open at its upper end, a plurality of hollow sign elements adapted to slidably fit one within another, the sign elements being of a size to be received within the container when in telescoped condition, and the outermost sign element slidably fitting in said container, the sign elements being movable successively outwardly from the container to a displaying position extending one beyond another in continuous formation to jointly simulate an article of manufacture, means for attaching the container to a support comprising an upwardly extending tube secured at one end to the bottom of the container centrally thereof, said tube being in communication with the interior of the container, a housing at the other end of said tube, a rail extending longitudinally within the tube and into the container, said rail being supported on the tube for longitudinal sliding movement relatively thereto and to the container, the rail being fastened at its upper end to the innermost sign element at the upper part of the latter, means on the rail at intervals along the same to successively engage and move outwardly the other sign elements upon upward movement of the rail, and operating mechanism including an oscillating lever within said housing having a relatively short power stroke, and transmission means between said lever and the rail located within the tube and housing, and whereby the power stroke of said lever transmitted to the rail is amplified.

8. An advertising machine including a container open at one end, means for attaching the container to a support, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom in succession to a displaying position extending one beyond another in continuous formation to jointly form a sign, a rail slidably supported to extend longitudinally of the sign elements interiorly of and downwardly from the container and connected at its upper end to one of said sign elements, and mechanism providing for periodically rapidly projecting said sign elements from the container and for the retraction of the same therewithin, said mechanism including a lever pivotally supported at one end for vertical oscillation and having a track thereon, an electric motor supported with its drive shaft extending horizontally, a worm disposed horizontally in alignment with and connected to the motor shaft, a reducer gear meshing with said worm, an arm supported at one end for rotation concentric with the axis of rotation of the reducer gear at one side thereof, a weight on said arm, a roller on the arm to periodically engage the track, and a laterally projecting pin on said reducer gear intermittently engaging said arm to rotate the same to disengage the roller from the track and carry the weight around to raised position past the upper dead center point, and transmission means between the free end of said lever and said rail.

9. An advertising machine including a container open at its upper end, a movable sign unit comprising a plurality of sign elements of a size to be disposed within the container and movable outwardly therefrom to a displaying position extending one beyond another in continuous formation to jointly form a sign, means for attaching the container to a support comprising an upwardly extending tube secured at one end to the bottom of the container and in communication with the interior thereof and a housing to which the other end of said tube is joined, a rail supported to slide longitudinally within the tube, said rail extending into the container and being operatively connected with the sign elements, and mechanism provided for projecting the sign elements from the container and for the retraction of the same therewithin, said mechanism including a lever pivotally supported at one end on the housing for vertical oscillation and having a track thereon, an electric motor supported with its driving shaft extending horizontally, a worm disposed horizontally in alignment with and connected to the motor shaft, a reducer gear meshing with said worm, an arm supported at one end for rotation concentric with the axis of rotation of the reducer gear at one side thereof, a weight on said arm, a roller on said arm to intermittently engage said track, a laterally projecting pin on the reducer gear intermittently engaging said arm to rotate the same to carry the weight around to raised position past the upper dead center point, and transmission means between the lever and said rail including a pulley on the free end of said lever, a pulley on the upper part of the housing, a cable fixed at one end to the upper part

of the housing looped around the pulley on the lever and the pulley on the housing, said cable extending downwardly from the last mentioned pulley and having a clevis at its lower end, a pulley on said clevis, a pulley on the lower part of the housing, a pulley on the upper part of said tube, and a cable fastened at one end to the lower part of the housing, said last mentioned cable extending around the pulley on the clevis, the pulley on the lower part of the housing and the pulley on the upper part of the tube and fastened to the lower part of said rail.

10. An advertising machine including a container open at one end, means for attaching the container to a support, a plurality of hollow sign elements adapted to telescope one within another, said sign elements being of a size and configuration to be received within said container when in telescoped condition and being movable outwardly successively from the container to a displaying position extending one beyond another in continuous formation to jointly simulate an article

of manufacture, a rail slidably supported to extend interiorly centrally of and downwardly from the container and connected at its upper end to the innermost sign element, said rail forming a central support for the sign elements when the same are moved outwardly to displaying position, and mechanism operatively connected with said rail providing for periodically rapidly projecting the sign elements from said container in displaying position and for the retraction of the sign elements within the container to effect sudden apparitions and disappearances of said sign elements.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,025,624	Tonai	Dec. 24, 1935