Nov. 8, 1949 N. ZAKARIAN 2,487,505

AUTOMATICALLY OPERATED CASE FOR RED LIP-SALVE STICKS

Filed June 4, 1947

FIG. 2

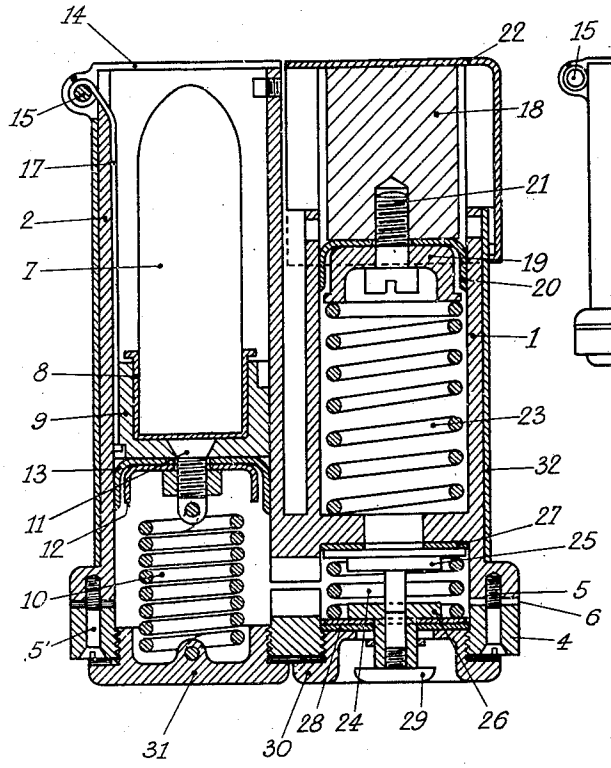
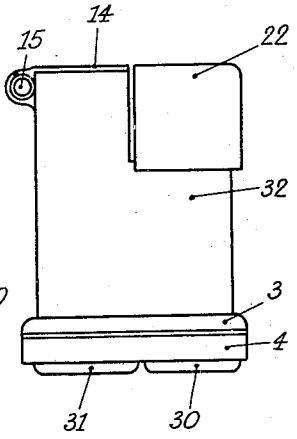


FIG. 1



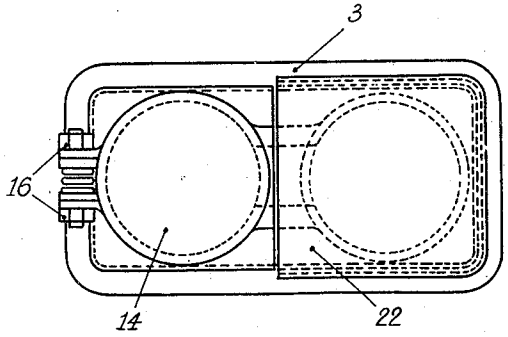


FIG. 3

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AUTOMATICALLY OPERATED CASE FOR RED LIP-SALVE STICKS

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7 Claims. (Cl. 206—56)

1

The object of the present invention relates to an automatically operated case for a red lip-salve stick.

Usually cases for red lip-salve stick consist of a cylindrical sheath made of brass or of any other appropriate alloy, the said sheath being more or less decorated with a pattern on its outer surface and within which slides a socket in which one end of the lip-salve stick is fitted, the said socket being operated by means of a small stud projecting from the sheath and movable along a slit made on the length of the cylindrical sheath thereby moving the other end of the stick to become flush with the upper end of the sheath or to come out from the sheath to the user's convenience.

Many disadvantages result from this arrangement: the user of the sheath must operate the red lip-salve stick in both directions first to make it flush with the upper end of the sheath and then to make it go back into the sheath after she has used it. The stud operating the hollow socket within which one end of the stick has been fitted is sliding more or less conveniently in the slit which is cut along the length of the sheath and very often the owner of the sheath experiences some difficulty in making the stick go back into its sheath. She stains her fingers; the stick rubs against the upper edges of the sheath and leaves scraps around the end of the sheath which spoil the handkerchief in her bag, etc.

The aim of the present invention is to obviate such inconveniences by the use of my new type of casing for the red lip-salve stick whose operation is automatic, simple, convenient, clean and practical and which further permits the designing of more or less handsome and de luxe patterns whose external appearance is analogous to that of de luxe cigarette-lighters for smokers. The case for a red lip-salve stick which is the object of the present invention is characterized by the fact that the stick which is enclosed in the said case is capable of automatically coming out from the case and going back into it under the action of a pneumatic operating device.

This invention will be understood better by referring to the attached drawing showing a preferred, but non restrictive, embodiment of the invention.

On this drawing:

Fig. 1 is showing a side view of the outer appearance of the case for the lip-salve stick in its real size;

2

Fig. 2 is showing a vertical section of the case at a larger scale;

Fig. 3 is showing a plane view of the case shown on Figs. 1 and 2.

According to Fig. 2 the case for the red lip-salve stick consists of two tubes 1 and 2, made of brass or any other appropriate alloy, which are joined together at their lower ends 3, the ensemble being fixed on a plate 4 by means of two screws 5 and 5' with an intermediate packing 6.

Inside tube 2 the red lip-salve stick 7 is fitted in a socket 8 fixed upon a support 9 which acts as a piston within tube 2, support 9 being connected to an antagonistic spring 10 by means of an axle 11 provided with a nut tightening a washer 12 upon a packing 13.

At the upper end of tubes 1 and 2 a lid is provided, the said lid being made of two movable parts and which are distinct from one another. One of these parts 14 closing tube 2 is pivoted on an axle 15, the opening of this partial lid being operated by means of two spiral springs (see Fig. 3) whose object is counter-acted by that of a small cable 17 wound upon an axle 15, the extremity of cable 17 being attached to the base of support 9.

A push-button 18 is slidable into a first chamber at the upper end of tube 1 and operates a washer 19 which acts as a compression piston in cylinder 1 the push-button being connected to the washer by means of a screw 21 tightening the said washer upon the base of the push-button with an intermediate packing 20.

The other part 22 of the lid which as said above is distinct from part 14 and which closes tube 1 is movable with the push-button 18.

Tube 1 is divided into two chambers or compartments, to wit: an upper chamber, which communicates at the lower end of the tube with a lower chamber through a port, the lower chamber communicating with the lower end of tube 2 and being provided with a port for the escape of compressed air.

Slidable in the upper chamber and acting as a piston is provided a washer-like member 19 operated by means of a push-button 18 arranged on the top of the case, the said member 19 being secured to the under face of the push-button by means of a screw 21 tightened on a joint 20. When the push-button 18 is pressed downwards, washer 19 compresses the air in the upper chamber, its downward motion being opposed by a spring 23 housed in the said chamber underneath washer 19.

A push-button 29 can be operated on the underface of the case; the stem of the said push-button is slidable in a thrust 26, which is itself slidable in an opening provided in a threaded plug 30, which closes the lower chamber while the upper end of the stem is integral with a washer-like piece 25 carrying a gasket 27, when push-buttons 18 and 29 are at rest—the washer-like piece 25 is applied strongly by means of a spring 24 against the port which makes the upper chamber communicate with the lower chamber while at the same time the said spring 24 applies the thrust 26 which carries a gasket 28 against the port which makes the lower chamber communicate outside.

When push-button 18 is pressed downward, the air being compressed in the upper chamber passes through the upper port and pushes the washer-like piece 25 and its gasket 27 downward, applies thrust 26 and its gasket 28 against the lower port which is thus made air-tight and flows from the tube 1 into tube 2. When the user of the case releases her finger from button 18, the counter-action of spring 23 in the upper chamber allows piston 19 to come up and piece 25 and its gasket 27 are still applying against the upper port, this action being repeated as often as desired.

When the user wishes to make the lip-salve come down in tube 2, she presses in push-button 29, thereby applying the washer-like piece 25 and its gasket 27 against the port at the bottom of the upper chamber and lifting up thrust 26 and its gasket 28 uncovering the port at the bottom of the lower chamber thus allowing the compressed air to escape and the lip-salve stick to come down in tube 2.

Tube 2 is also closed at its lower end by a plug 31 which makes it air-tight, the extremity of spring 10 being attached to plug 31.

The ensemble described above is enclosed in a casing 32 which leans against base 3 and which can be made of brass or of any other appropriate alloy or of plastic material and decorated or covered with a pattern, etc. in order to give the said casing any desired finish and artistic appearance.

This casing operates as follows:

Holding the case with one hand only the user presses one finger on the movable part 22 of the lid, thus displacing piston 19 downward and compressing the air in the upper chamber of tube 1; this air then lowers the valve 25 and passes in the lower chamber of tube 1 and thence in tube 2 where it acts upon piston 12, pushing it upward and thereby making the red lip-salve stick 7 come up while at the same time the other movable part 14 of the cover automatically opens owing to the fact that cable 17 is no longer opposing the said opening action of the partial lid 14 on account of the upward movement of piston 12.

By repeating this action a limited number of times the user will make the red lip-salve stick rise to the desired level where it will stay while she uses it.

After it has been used she presses on button 29 thus lifting thrust 26 the effect being that the compressed air within tube 2 is free to escape and the stick 7 being urged by the antagonistic spring 10 acting upon its support 9 will return to its first position, lid 14 closing itself as piston 12 moves downward.

What I claim is:

1. A case for a red lip-salve stick comprising

a chamber divided into two compartments, a lip-salve stick movable axially in one of the said compartments, means movable axially in the said first compartment and adapted to support the said stick, means movable in the second compartment for producing compressed air, an intermediate chamber communicating with said first and second compartments, a normally closed valve provided within said intermediate chamber, said valve adapted to be opened under the pressure of the compressed air to allow the compressed air produced in the second compartment to flow therefrom into the first compartment under the supporting means movable in the first compartment, the said movable supporting means being adapted to make the stick come out in response to the action of the compressed air; a discharge outlet provided on the case for the escape of the compressed air; means adapted to pull the stick back in the first compartment in response to the escape of compressed air.

2. A case for a red lip-salve stick comprising a chamber divided into two compartments, a lip-salve stick movable axially in one of the said compartments, means movable axially in the said first compartment and supporting the said stick, a hand-controlled piston movable axially within the second compartment, means to operate the said piston for producing compressed air under the same, an intermediate chamber communicating with both first and second compartments, a normally closed valve provided within said intermediate chamber, said valve opening under the pressure of the compressed air produced within the second compartment so as to allow the flow of said compressed air from said second compartment into said first compartment under he supporting means movable in the first compartment, the said movable means being adapted to make the stick come out of the case in response to the action of compressed air, a discharge outlet provided on the case for the escape of the compressed air, valve means normally closing said outlet, hand controlled means carried by said case and adapted to open said valve and to uncover the said discharge outlet, means adapted to pull the stick back into the first compartment in response to the escape of compressed air.

3. A case for a red lip-salve stick comprising a chamber divided into two juxtaposed tubular compartments, a lip-salve stick movable axially in one of the said tubes, a piston movable axially in the said first tube and adapted to support the said stick, a piston movable axially in the second tube, a push-button mounted on the case adapted to operate the said piston in the second tube and to produce compressed air thereunder, an intermediate chamber communicating with both the first and second tubes, a valve provided within said intermediate chamber, a spring normally urging said valve to closed position, said valve opening under the action of the compressed air produced in said second tube by action of the piston sliding therein, so as to provide for the displacement of said compressed air from said second tube into said first tube under the piston movable in the first tube and supporting the said stick, the said piston being adapted to come out of the case in response to the action of compressed air, a discharge outlet provided on the case for the escape of the compressed air, a hand-controlled push-button adapted to uncover the said discharge outlet, means adapted

to pull the stick back in the first compartment in response to the escape of compressed air.

4. A case for a red lip-salve stick comprising a chamber divided into two juxtaposed tubular compartments, a lip-salve stick movable axially in one of the said tubes, a piston movable axially in the said first tube and adapted to support the said stick, a piston movable axially in the second tube, a push-button mounted on the case, adapted to operate the said piston in the second tube and to produce compressed air, a compartment provided between the said juxtaposed tubes and communicating with them, a check valve in the said compartment adapted to allow the compressed air under the piston movable in the first tube supporting the said stick, the said piston being adapted to come out of the case in response to the action of compressed air, a discharge outlet provided in the case for the escape of the compressed air, a hand-controlled push-button adapted to uncover the said discharge outlet, an antagonistic spring, one end of which is attached to the said piston in the first tube, the other end being attached to the bottom of this tube and adapted to bring the said piston to its initial position in response to the escape of compressed air, a lid on the first tube containing the lip-salve stick, means for opening and closing the said lid as the stick comes out of the case and goes back into the case.

5. A case for a red lip-salve stick comprising a chamber divided into two juxtaposed tubular compartments, a lip-salve stick movable axially in one of the said tubes, a piston movable axially in the said first tube and adapted to support the said stick, a hand-controlled piston movable axially in the second tube, a push-button mounted on the case adapted to operate the said piston in the second tube and to compress the air in the said tube, an antagonistic spring in the said second tube adapted to return the piston in the second tube back to its initial position when the push-button is released, a compartment provided between the said juxtaposed tubes communicating with them, a check valve in the said compartment adapted to allow the compressed air under the piston movable in the first tube supporting the said stick, the said stick being adapted to come out of the case in response to the action of compressed air, a discharge outlet provided on the case for the escape of compressed air, a hand-controlled push-button adapted to uncover the said discharge outlet, an antagonistic spring, one end of which is attached to the said piston in the first tube, the other end being attached to the bottom of this tube and adapted to bring the said piston back to its initial position in response to the escape of compressed air, a lid pivotably mounted upon an axle provided on the edge of the upper end of the said first tube, a spiral spring wound upon the aforesaid axle and adapted to cause the opening of the said lid, a small cable wound

at the end upon the said axle, and attached at the other end to the piston moving in the first tube, thus arrangement being adapted to keep the lid shut when the stick has returned to its initial position.

6. A case for a red lip-salve stick comprising two cylinders, a lip-salve stick, a piston supporting said stick, said stick and said supporting piston both being positioned within one of said cylinders and axially slidable therein, the second cylinder enclosing a piston movable axially therein, a hand-controlled push-button mounted on the said second cylinder adapted to operate the said piston in the second cylinder and to compress the air in the said tube, a compartment provided between the two cylinders and communicating with them, a check valve in the said compartment adapted to allow the compressed air under the piston movable in the first tube, a discharge outlet for the escape of compressed air, a hand controlled push-button adapted to uncover the said outlet, means adapted to restore the piston movable in the first tube to its initial position in response to the discharge of compressed air, a sheath of rectangular shape housing the two cylinders, a lid made of two parts, means adapted to make one of the said parts open or close itself when the stick comes out of the first cylinder or when it comes back into the case, the other part forming a push-button mounted on the second cylinder adapted to operate the piston in the said second cylinder.

7. A case for a lip-salve stick comprising a chamber, a compartment within said chamber, a lip-salve stick movable therein, a piston adapted to support the said stick and movable axially in said compartment, an air pump housed within said chamber and positioned exteriorly of said compartment for producing compressed air within said chamber, means including valve means for permitting the air compressed by said pump to flow into said compartment against the under surface of said piston to force said piston upward in said compartment and to thereby move the end of said stick out of the case, a discharge outlet provided on the case for the escape of the compressed air, and means adapted to retract the stick into the said compartment in response to the escape of the compressed air.

NOUCHEN ZAKARIAN.

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