Oct. 20, 1936. W. P. KOELLER 2,058,158

POUCH

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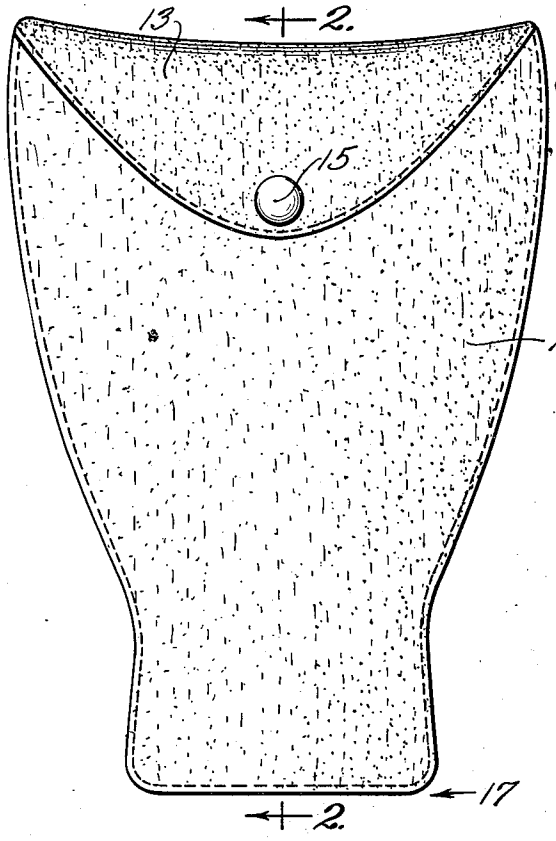



Fig. 1.

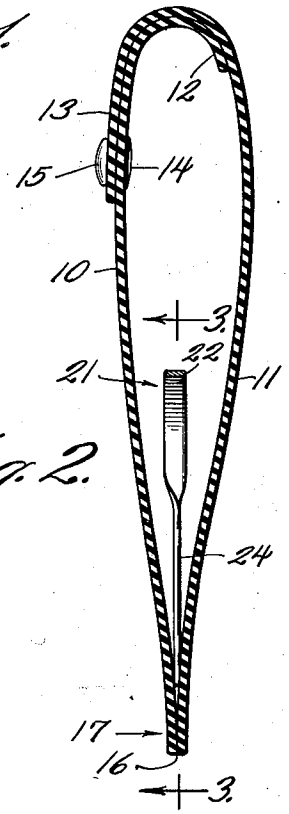



Fig. 2.

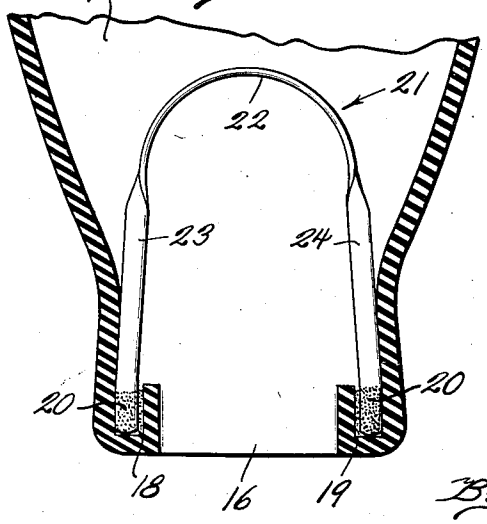



Fig. 3.




Fig. 4.

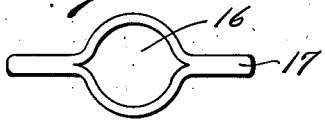



Fig. 5.

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# UNITED STATES PATENT OFFICE

2,058,158

## POUCH

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Application October 26, 1934, Serial No. 750,149

3 Claims. (Cl. 150—10)

The present invention relates to a self-closing, refillable pouch or envelope suitable for storing and dispensing powdered and granular materials.

Included in the objects of the invention, among others, are the provision of the following:

An unique structure suitable for pocket or purse use having openings, one to receive a material and the other to dispense such material;

An improved construction for a flexible pouch or envelope having a dispensing part that is spring closed;

A container or envelope possessing a discharge or dispensing opening that will be closed at all times that it is not forcibly held open; and

A novel combination of flexible material and spring means for producing a self closing aperture in a material containing pouch or the like.

These objects, and such other objects as may hereinafter appear, are obtained by the novel construction, improved arrangement, and unique combination of the several elements that constitute the invention, one embodiment of which is illustrated in the accompanying single sheet of drawings hereby made a part of this specification, and in which:

Figure 1 is a side elevation of a pouch embodying the subject matter of the present invention;

Figure 2 is a longitudinal section taken on the line 2—2 of Figure 1;

Figure 3 is a fragmentary transverse section taken on the line 3—3 of Figure 2;

Figure 4 is an elevation of the dispensing end of the pouch when in closed position; and

Figure 5 is a similar view of the end of the device when open for dispensing purposes.

Like reference characters are used to designate similar parts in the drawing and in the description of the invention that follows.

The pouch illustrated comprises flat parallel side members 10 and 11 of substantially the same size and pattern. The sides 10 and 11 may be integral if the pouch is made of rubber or any other moldable material. When other materials are used, these may be stitched together at their edges. The pouch illustrated is of rubber with the sides 10 and 11 integral at their edges, the outer faces of sides 10 and 11 being molded to imitate the grain of leather. The edges of sides 10 and 11 simulate stitching.

The pouch may be said to comprise a substantially coniform tube that has been flattened, the lower or discharge end of the tube being narrower than the upper or receiving end.

Each of the side members 10 and 11 has an upwardly extending arcuate flap, 12 and 13. The flap 12 on side 10 is turned downwardly over the contents of the pouch. The outermost flap 13 on side 11 is pulled over the innermost flap 12 and fastened in closed position by a snap fastener, the base 14 of which is secured to side 10 and the snap part 15 of which is attached to flap 13. The pouch illustrated in Figure 1 is satisfactory for pocket use and is adapted to be charged with tobacco, but the invention is in no way limited to a pouch of the shape illustrated or to one for holding tobacco. Face powder, tooth powder, and a number of other items may be stored in and dispensed from other styles and sizes of pouches made in accord with the present invention.

At the lower end of the pouch, there is a narrow slot 16 that extends approximately half way across the lower end 17 of the pouch and which is centered in respect to the opposed edges and the opposed faces of the pouch. The slit 17 is parallel to the outer faces of sides 10 and 11 of the pouch.

At the interior corners of the lower end of the pouch are relatively deep pockets 18 and 19, best illustrated in Figure 3. Seated in the pockets and secured therein by suitable cement 20 are the ends of a metal spring 21 of U-shape. Spring 21 comprises a closed end 22 and two legs 23 and 24, the free ends of the legs 23 and 24 fitting into pockets 18 and 19 just described and being secured against displacement therefrom by adhesive 20.

The spring 21 is of flat resilient stock. Its closed section 22 is formed with the flat faces of the spring extending transversely of the pouch from side 10 to side 11. Each of the legs 23 and 24 preferably is formed with one edge of the flat material in alignment with a lateral edge of the pouch. The spring 21 is so shaped that when pressure is applied to the legs 23 and 24 which are slightly turned in adjacent the lower end of the pouch, the legs of the spring will be forced inwardly in a uniform manner with their outer edges in substantial parallelism and thus insure a symmetrical opening of the slot or slit 16. Such an arrangement also insures that the metal of the spring 21 will not bite into the material of the pouch unevenly at any one or more points along the line of spring contact with the material forming the lateral edges of the pouch.

The spring 21 and the pouch material engaged thereby are in contact but a limited length of the legs 23 and 24. This limited contact is for the purpose of preventing the pouch from being opened unless it is grasped closely adjacent its

extreme end 17. A pressing of the spring at points remote from end 17 will not force the ends of the spring together to spread the sides 10 and 11 apart at slit 16. The twisting of the spring adds to its strength and produces a slight separation between the sides 10 and 11.

The lower end or discharge end of the pouch is normally closed by the tension of the spring 21. Such tension tends to stretch the bottom of the pouch and thus draws the sides 10 and 11 together at end 17. With the pouch closed at its lower end, tobacco or other material is loaded into the pouch through the wide mouth thereof obtained by separating the clasp fastener 14 and 15 and spreading the two flaps 12 and 13 upwardly into a funnel shape. After sufficient tobacco has been loaded in the pouch, the flap 12 is turned inwardly and downwardly and the outer flap is then drawn thereover. The fastener parts 14 and 15 are snapped into position. The pouch is then ready for use. It may be carried in the pocket in the case of tobacco and in the purse in the case of face powder.

For use, the pouch is grasped adjacent its lower end 17, generally between the palm of the hand and one or more fingers, or by the thumb and fingers. The ends of the spring 21 are pressed inwardly. This produces a symmetrical opening of the slit 16 from its closed position illustrated in Figure 4 to its open position shown in Figure 5.

The opening of the pouch permits a free discharge of the contents of the pouch. The rate of flow will be determined by the size of the opening, and the size of the opening is regulated by the pressure upon the spring ends. To arrest the flow of material from the pouch, the pressure upon the spring is reduced to a minimum and the slit or slot 16 automatically closes. The shape and size of the aperture in the illustrated embodiment of the invention is such that the opening fits readily over a pipe bowl so that tobacco may be poured into such pipe without any loss by spilling. For face powder or other materials, the slit may be much smaller and the entire pouch may be of reduced size.

The spring 21 may be of any suitable metal and may be plated with a material which is not affected by the contents of the pouch. Such platings as cadmium, nickel and chromium have their particular utilities.

What is claimed as new and is desired to be secured by Letters Patent of the United States is:

1. A pouch comprising a flattened tube of elastic material having a large top end and a small bottom end having a slit therein, closing flaps at the top end, moulded spring retaining pockets at each side of the slit in the bottom end, and a U-shaped spring of strap material within the pouch and having its ends cemented into said pockets, the legs of the spring being in contact with the insides of the edges of said flattened tube above said pockets, and such slit being openable upon compression of the legs of said spring inwardly.

2. A pouch comprising a flattened tube of elastic material having a large open top end and a small bottom end having a slit therein, overlapping closing flaps at the top end, fastening means for said flaps, moulded spring retaining pockets at each side of the slit in the bottom end, and a U-shaped spring of strap material having its closed end twisted to an angle with its legs, said spring having the ends of its legs cemented into said pockets, said legs being in contact with the insides of the edges of said flattened tube for a short distance above the bottom end thereof, said spring maintaining such slit in closed position, and such slit being openable by pressing the edges of said flattened tube inwardly against the resistance of said spring.

3. A pouch comprising a flattened tube of elastic material having a large open top end and a small bottom end having a slit therein and having roughly parallel edges extending a short distance above the bottom, overlapping closing flaps for the top end, moulded spring retaining pockets at each side of the slit in the bottom end, and a flat U-shaped spring having its legs twisted into a common plane for a distance above the ends greater than the length of such parallel edges, the ends of said legs being cemented into said pockets, and the twisted portions of said legs being in contact with the insides of said roughly parallel edges, said spring maintaining such slit in closed position and being compressible to open such slit.

WALTER P. KOELLER.