J. T. H. PATERSON.

BAG MOUTHPIECE.

APPLICATION FILED JAN. 21, 1919.

1,320,646.

Patented Nov. 4, 1919.

2 SHEETS—SHEET 1.

FIG. 1.

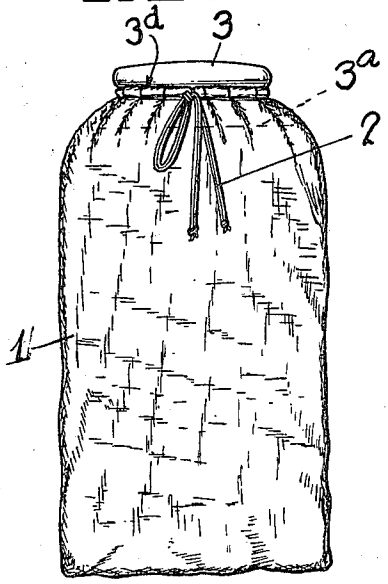


FIG. 3.

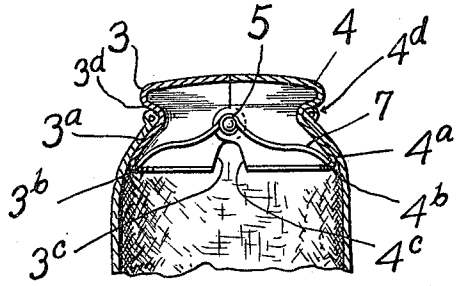


FIG. 4.

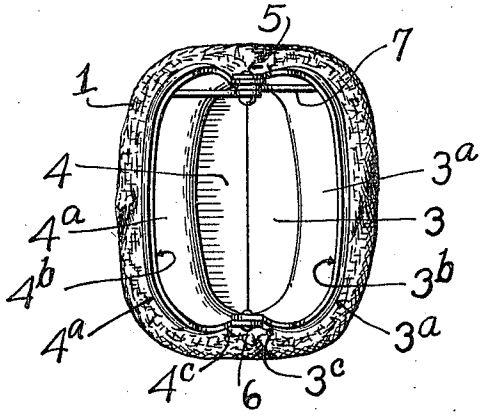


FIG. 2.

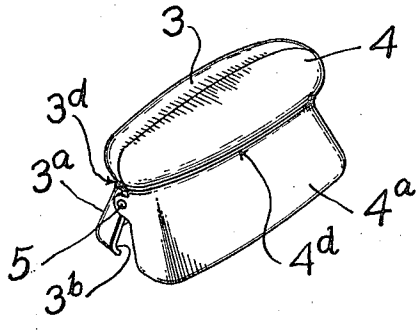


FIG. 5.

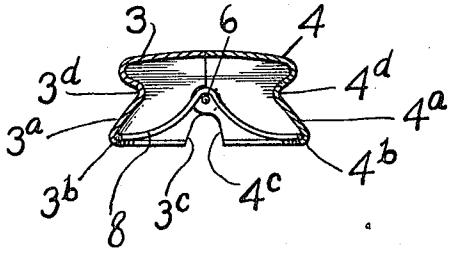
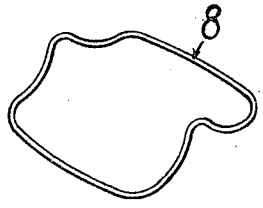


FIG. 6.



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2 SHEETS—SHEET 2.

FIG. 7.

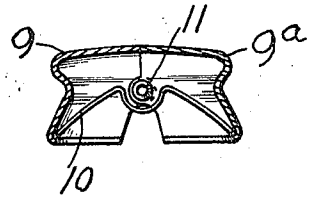


FIG. 9.

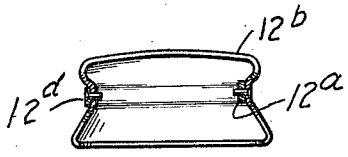


FIG. 8.

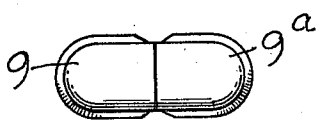


FIG. 10.

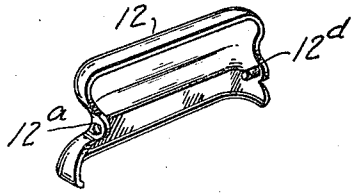
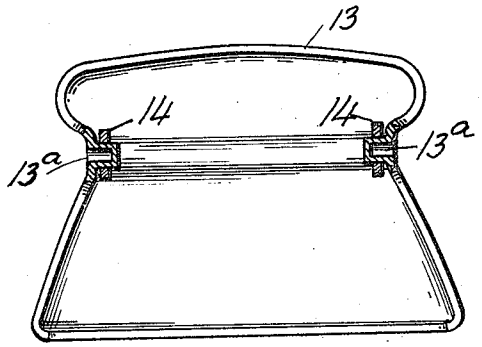


FIG. 11.



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BAG-MOUTHPIECE.

1,320,646. Specification of Letters Patent. Patented Nov. 4, 1919.

Application filed January 21, 1919. Serial No. 272,301.

To all whom it may concern:

Be it known that I, JOHN T. H. PATERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Bag-Mouthpieces, of which the following is a specification.

This invention has relation to a device mountable in the mouth of a bag for the purpose of normally holding the bag closed, and which will afford a convenient means of opening the bag when desired. Much and expensive machinery has been developed for the purpose of holding a bag or sack, particularly a large one, while filling it, in such a manner as to avoid waste. An object of my invention is the provision of a simple and inexpensive apparatus for holding a bag while filling it. A further object is the provision of a bag closing mouthpiece so constructed that internal pressure will not operate to open it.

In the following description is set forth clearly and fully the construction and the advantages of my invention, and its adaptability to various conditions. Attention is also invited to the appended drawings in which the features of my invention are illustrated.

In the drawings:

Figure 1 shows a mouthpiece, embodying my invention, mounted in a bag as it appears in practice,

Fig. 2 is a perspective view of the mouthpiece removed from the bag,

Fig. 3 is a sectional side elevation of the upper portion of the bag with mouthpiece and is taken at right angles to Fig. 1,

Fig. 4 illustrates the inverted mouthpiece mounted in a bag for refilling purposes,

Figs. 5 and 6 illustrate an improved form of spring applied to my device, and

Figs. 7 to 11 show modified forms the importance of which are hereinafter explained.

The numeral 1 denotes a bag having a drawstring 2. I wish it understood that any kind of bag or sack may be considered in connection with my device. The mouthpiece comprises two jaws 3 and 4, both exactly alike and hinged together by suitable rivets 5 and 6. The rivet 5 extends far enough inward to support a spring 7, and the ends of the latter bear against the lower wings 3^a, 4^a of the jaws. The lower edges of these wings are preferably curled inward and the ends of the spring terminate within the grooves 3^b, 4^b thus formed. The function of this spring is to keep the jaws normally closed, as readily appears upon examining the drawings, and it is equally clear that the jaws are opened against the tension of the spring by pressing their lower wings 3^a, 4^a together. The side edges 3^c, 4^c of the said wings are cut back somewhat, and the shape is such that these side edges come together when the jaws are sufficiently opened.

The jaws are contracted substantially in line with the hinges so as to form a groove 3^d, 4^d, in which the mouth of the bag is seated and held by the string 2. As best shown in Fig. 4 even the hinged portions are recessed so as to insure a continuation of the said groove around the entire device.

Upon examination it is found that the jaw tops form an almost flat surface, and that this top surface sets very low on the hinges. This feature is both advantageous and important. Advantageous because it reduces the projection of the mouthpiece beyond the bag to a minimum, a feature which will appeal to any tobacco user, for example. Important because pressure from within has practically no tendency to open the jaws. Devices have been attempted with long, bill-shaped jaws, but such devices have not been found leak proof. It is found that enough of the contents is in the jaws to prevent their closing, and in inverting such device in order that this matter may drop back into the bag, a quantity is wasted. The jaws of my device open and close substantially at right angles to the passage through the mouthpiece, and the cutting off of the flow through the mouthpiece is thereby made instantaneous and positive.

When it is desired to use my device for filling a bag it is only necessary to invert the mouthpiece and insert it in the bag, as shown in Fig. 4. Then press on the wings 3^a, 4^a until the side edges 3^c, 4^c come together, as before described, and a perfect hopper is provided, into which the filling material is poured with perfect ease.

It is noticed that a practically unobstructed passage through the mouthpiece is obtained by using the short rivets and the narrow spring 7. And if a spring 8 is substituted, as illustrated in Figs. 5 and 6, then the said passage is indeed unobstructed. This latter spring, as shown, rides in the

grooves 3^b, 4^b and lies close to the walls of the wings the entire distance.

My invention contemplates a wide range of sizes from a large sack mouthpiece to a structure suitable for a small tobacco bag or the like, and various kinds of material may be used for the different sizes. For large sizes and hard wear strong metals, such as steel or brass will be required, while for smaller sizes aluminum, fiber, hard rubber, bakelite, pressed paper or similar light and inexpensive materials may be found more advantageous.

In Figs. 7 and 8 a structure is shown made of pressed paper or similar frail material, which would not support ordinary solid metal rivets without cracking, and for this reason I may conveniently utilize light metal eyelets, 11, such as are commonly employed in fastening papers together. When the material permits of drawing I may conveniently form the rivets as illustrated in Figs. 9 and 10. Each jaw, in these views, has a perforated ear 12^a and is made with an extruded stud 12^d projecting from the other ear. After the jaws are assembled, the studs are lightly riveted over, so as to hold the jaws from slipping apart sidewise. Again, if the material is very elastic, one jaw 13 (see Fig. 11) may have a stud extruded from each ear, while the other jaw 14 has both ears perforated. In this case it is only necessary to snap the two jaws together, and no riveting is required.

In the drawings I have illustrated oblong jaws, parted either lengthwise or crosswise, but I wish it understood that the mouthpiece may be circular in outline or otherwise modified is various ways, without departing from the principle of my invention.

I claim:

1. A bag-mouthpiece comprising identically shaped jaws, said jaws having perforated ears, hinge rivets fixed in the said ears, and an internal spring for closing the jaws, said spring mounted close to the walls of the jaws so as not to obstruct the passage through the mouthpiece, while the jaws are open.

2. A bag-mouthpiece comprising two jaws hinged together and so shaped as to form a substantially flat head, said head having parallel abutting edges set close to the axial hinge-line, whereby the jaws open substantially at right angles to the passage through the mouthpiece, and an internal spring for yieldingly closing the jaws.

3. A bag and a mouthpiece in combination, the mouthpiece formed with a flattened head and made in two parts hinged together, each part contracted directly beneath the flattened surface substantially on the hinge-line so as to form a continuous annular groove in which the bag is fastened, wings projecting from the hinge-line and having registering side-edges for limiting the opening of the jaws, and a closing spring within the mouthpiece, said spring shaped to hug the said wings so as not to obstruct the passage through the mouthpiece.

4. A bag-mouthpiece comprising a pair of jaws hinged together to form a low oval-shaped head and having an annular contraction on the hinge-line, wings extending from the jaws, said wings having inwardly curving edges, and a saddle-shaped spring seated in the said curved edges and hugging the inner walls of the said wings so as not to obstruct the passage through the mouthpiece.

5. A bag mouth-piece made from two identical pieces of sheet material drawn up to form a pair of jaws pivotally combined, said mouthpiece made with a substantially flat head set close on the pivotal line, flaring wings having registering edges for limiting the opening of the jaws and shaped to form a tight hopper when open, and an annular contraction substantially on the pivotal line for bag fastening purposes, and resilient devices for normally holding the mouthpiece closed.

6. A bag mouth-piece comprising a pair of jaws hinged together, non-obstructing resilient closing devices placed within the jaws, the said jaws forming a flattened head set low on the hinges and opening substantially at right angles to the passage through the jaws, and having an annular contraction for mounting a bag.

In testimony whereof I have hereunto affixed my signature.

J. T. H. PATERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."