Oct. 15, 1935. A. G. ROSE 2,017,704

BAG FASTENER

Filed May 5, 1934

Fig.1.

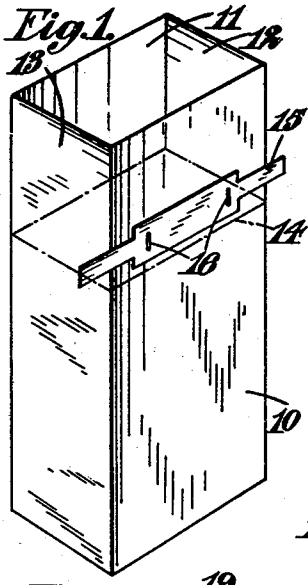



Fig.2.

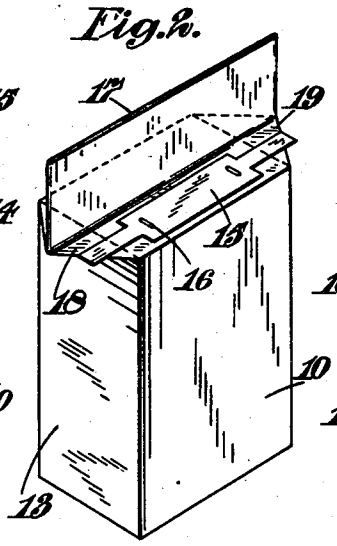



Fig.3.

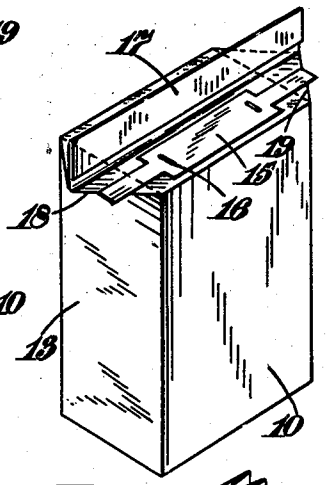



Fig.4.

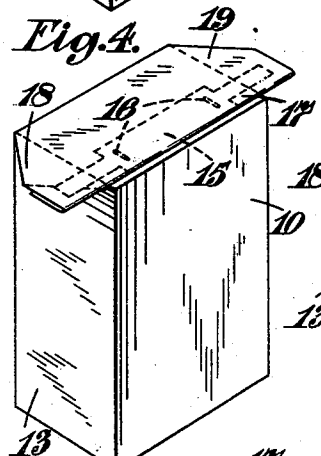



Fig.5.

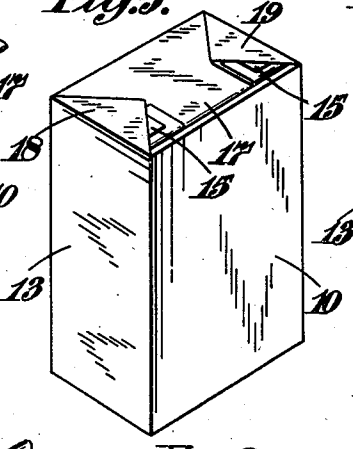



Fig.6.

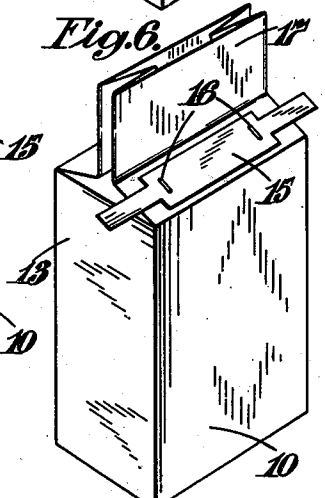



Fig.7.

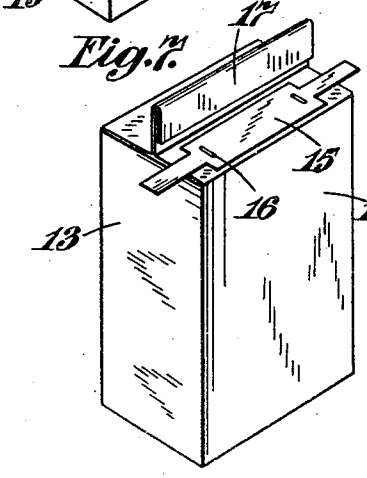
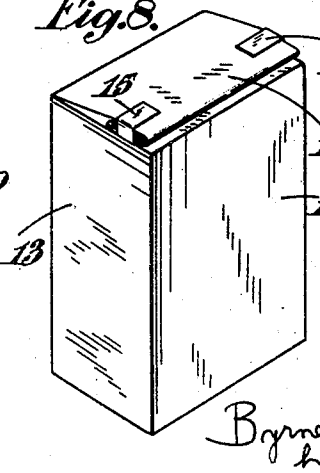



Fig.8.




INVENTOR
Alfred German Rose
by
Byrnes, Stebbins & Blenko
his attorneys

Patented Oct. 15, 1935 2,017,704

# UNITED STATES PATENT OFFICE

2,017,704

## BAG FASTENER

Alfred German Rose, Gainsborough, England, assignor to Rose Brothers (Gainsborough), Limited, Gainsborough, England, a British company

Application May 5, 1934, Serial No. 724,057
In Great Britain June 28, 1933

5 Claims. (Cl. 229—65)

The present invention relates to bags which are open at one end and are provided adjacent their open end with a strip of ductile metal. Hitherto, with such bags, the metal strip has been attached to the side of the bag immediately adjacent to the margin of the mouth of the bag. After such a bag has been filled it is closed by nipping together the open end of the bag to form a flat projecting fin of double or quadruple thickness and folding said fin around the middle part of the metal strip into the form of a coil and down towards the top of the contents of the bag. The projecting ends of the metal strip are then turned over on to the coiled end portion of the bag so as to retain that portion coiled and the bag closed.

It is an object of the present invention to provide an improved bag of this kind having a more certain closure and a flatter top surface when closed than hitherto. In prior bags of this kind there has been a tendency for the closed end to expand in bellows-like fashion and it is found to be difficult to stack such closed and filled bags on top of one another in a neat and regular fashion.

Another object of the present invention is to provide a bag having a ductile strip which is preferably of metal so disposed on the bag that when the bag is closed the ductile strip will lie below the folded portions but will not become folded within them, and can be used to retain the folded portions at the top of the bag in folded position.

Other objects of the present invention will be clear from the following description of a specific example.

In the accompanying drawing:—

Figure 1 shows a bag constructed in accordance with the present invention;

Figures 2 to 5 show various stages in one method of closing the bag shown in Figure 1, and

Figures 6 to 8 show three stages in another method of closing the bag shown in Figure 1.

The bag has two side walls 10 and 11, and two end walls 12 and 13 and is closed at its lower end. The bag is open at its upper end and in the structures shown is intended to be filled with goods, such as coffee, to the level of the dotted line 14. A strip 15 of ductile material is secured by means of staples 16 or other fasteners, to one of the side walls such as 10 of the bag with its lower edge immediately above the level 14, to which the bag is to be filled and at a distance below the top edge of the side wall 10, at least equal to the width of the end walls 12 and 13. The strip 15 is preferably formed of ductile metal and where the bag is made of metal foil the strip may be formed integrally with the bag instead of being secured thereto by staples. The strip, which may conveniently be of zinc, is of such length that its ends extend beyond the side margins of the surface 10, and is so disposed and is of such width that the distance of its upper edge from the level 14 is less than one-half of the width of the end walls 12 and 13.

Referring now to Figures 2, 3, 4 and 5, one method of closing the bag will now be explained. The side surfaces 10 and 11 of the bag are nipped together, as shown in Figure 2 and also pressed down on the contents of the bag so as to form an upstanding vertical double-walled fin 17, and two triangular flaps 18 and 19. The fin 17 is then folded over on itself, as shown in Figure 3, and is next folded on to the top of the bag, as shown in Figure 4, so as to overlie the strip 15. The projecting flaps 18 and 19 are then folded over on to the top of the bag, together with the projecting ends of the ductile strip 15. The ends of this strip then lie over the top of the folded part 17 and serve to retain this part in closed position and also to retain the flaps 18 and 19 in position.

The method of folding shown in Figures 6, 7 and 8 differs from that described, in that the top portions of the side surfaces 12 and 13 are folded inwards between the top ends of the surfaces 10 and 11, as the latter are pressed together, so that the upstanding portion 17 is pleated and of four-fold composition. This portion 17 is then folded over on itself, as shown in Figure 7, and finally folded over to the top of the strip 15, the ends of which are bent up, as shown in Figure 8, to retain the bag closed.

It will be noted that with this construction, unlike the prior constructions referred to previously, the material of the bag is not folded around the strip 15. The present bag can be folded so as to produce a much neater and more certain closure than hitherto, and the filled and closed bag is more nearly flat on top, so that the bags can be stacked more neatly than with the prior construction of bags.

I claim:—

1. A method of closing the upper open end of a filled bag having a ductile strip secured to one outer side surface of the bag with its ends extending beyond the side margins of that surface, and spaced away from the upper margin of that surface, comprising the steps of folding the part of the bag carrying the strip and the corresponding part of the opposite side of the bag onto the contents of the bag and the upper parts of said

sides together to form a fin projecting centrally from the top of the bag and two flaps extending in the plane of the top of the contents of the bag, folding said projecting fin over against itself at least once, folding the folded fin over on top of the strip and folding the flaps and projecting ends of the strip over on top of the bag.

2. A method of closing the upper open end of a filled bag having a ductile strip secured to one outer side surface of the bag with its ends extending beyond the side margins of that surface and spaced away from the upper margin of that side surface, comprising the steps of folding the part of the bag carrying the strip and the corresponding part of the opposite side of the bag onto the contents of the bag and the upper parts of said sides together and concurrently folding the other two sides inwardly to lie between the first-mentioned sides, thus forming a four-fold fin extending upwardly, folding said fin at least once on itself, folding the folded fin over onto the top of the strip and folding the extending ends of the strip over on top of the folded fin.

3. A package including a bag having side and end walls, a ductile strip secured to the bag of greater length than the greatest width of the package, extensions of the side walls of the bag including that portion to which the strip is secured being pressed down upon the contents in the bag, the ends of the extensions of the sides beyond the pressed down portions being folded upon each other, all of the plys of said folded ends being clamped between the bent ends of the strips and the body of the strip.

4. A package including a bag having side and end walls, a ductile strip secured to the bag of greater length than the greatest width of the package, a portion of an extension of wall of the bag to which the strip is secured extends over the contents of the package toward the opposite side of the package and then extends in the reverse direction, a portion of an extension of the opposite wall of the bag extends over the contents of the package towards the opposite side, the ends of both extensions being folded upon each other, all of the plys of the folded ends of the extensions being clamped between the body of the strip and the turned ends thereof.

5. A method of closing the upper open end of a filled bag having a ductile strip secured to one outer side surface of the bag with its ends extending beyond the side margins of that surface, and spaced away from the upper margins of that surface, comprising the steps of folding the part of the bag carrying the strip and the corresponding part of the opposite side of the bag onto the contents of the bag and the upper parts of said sides together to form a fin projecting centrally from the top of the bag, folding said projecting fin over against itself at least once, folding the folded fin over on top of the strip and folding the projecting ends of the strip over on top of the folded fin.

ALFRED GERMAN ROSE.