Feb. 22, 1944. W. M. BROOKS 2,342,244

BAG SEAL

Filed March 7, 1942

Fig. 1

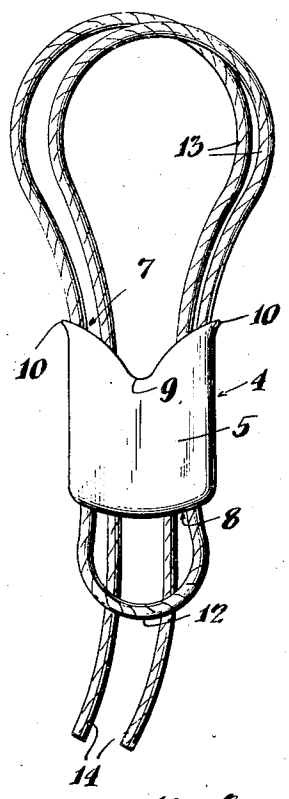


Fig. 2

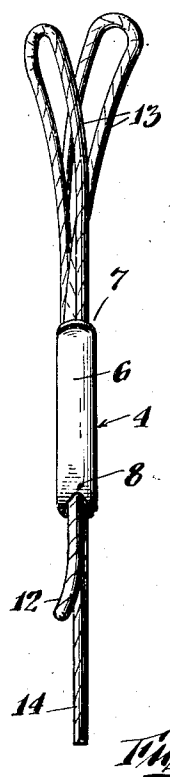


Fig. 5

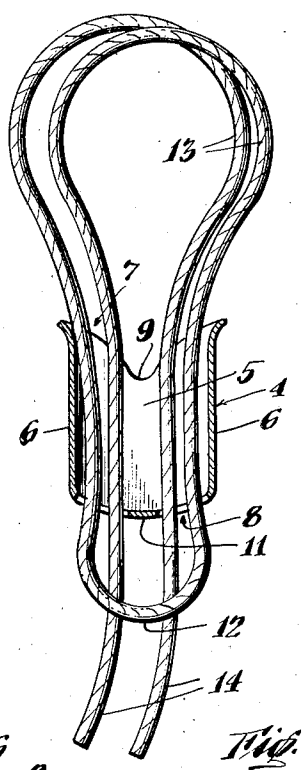


Fig. 3

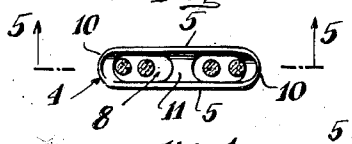


Fig. 4

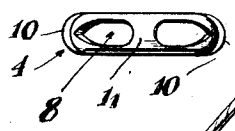


Fig. 6

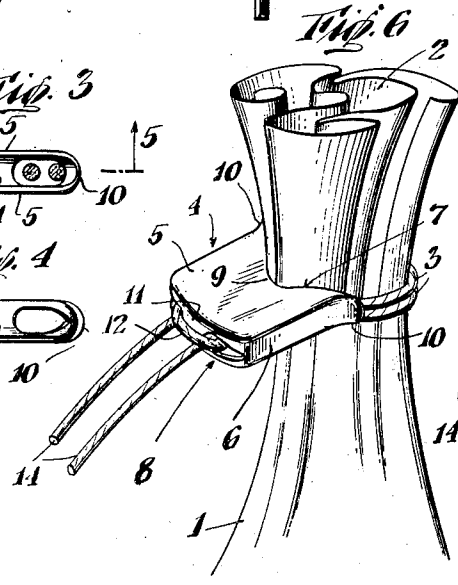
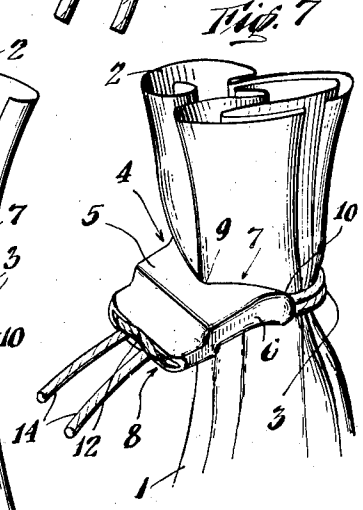


Fig. 7



INVENTOR.
Winfred M. Brooks
BY
ATTORNEY

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UNITED STATES PATENT OFFICE

2,342,244

BAG SEAL

Winfred M. Brooks, West Orange, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey

Application March 7, 1942, Serial No. 433,751

1 Claim. (Cl. 292—310)

The present invention relates to the type of bag seals in which a double-end flexible strand is threaded and rethreaded through a sealing member to form loops that are to be tightened around the constricted mouth of a flexible bag.

In former years the sealing member consisted of a body of compressible material such as lead but latterly, as shown by my U. S. Patent No. 2,163,660 of June 27, 1939, it has been customary to employ, in addition to said body of lead, a gripping member of sheet material, through which said strand passes and repasses, to be interposed between the body of lead and the constricted mouth of the bag.

Certain materials now being scarce and it being important to conserve, as much as possible, all materials, it is the object of this invention to obtain the advantages of the construction shown in my said patent by simpler and less expensive means than heretofore, and without the necessity of using lead.

In the accompanying drawing the invention is disclosed in a concrete and preferred form in which:

Fig. 1 is a view in front elevation of the combined sealing and gripping member of my invention, with the double-end strand threaded and rethreaded therethrough;

Fig. 2 is a view in side elevation of the member shown in Fig. 1;

Fig. 3 is a top plan view of Fig. 1, with the strand in section;

Fig. 4 is a bottom plan view of Fig. 1 with the strand removed;

Fig. 5 is a sectional view substantially on the plane of line 5—5 of Fig. 3;

Fig. 6 is a view in perspective of the combined sealing and gripping member and its strand shown tightened around the mouth of a bag but before compressing or reforming the seal; and

Fig. 7 is a view similar to Fig. 6 with the seal shown compressed or deformed.

1 indicates a bag, such as is employed by banks for the transportation of coin, having a mouth 2 of flexible material, such as canvas, and around which mouth, when the latter is constricted, a double-end strand 3 of flexible material, such as a fiber cord, is passed and sealed.

4 is the combined sealing and gripping member through which cord 3 is threaded and rethreaded to form loops that are to be tightened around the constricted mouth of the bag.

Member 4 comprises a one-piece flat sleeve of deformable sheet material such as sheet steel. Said sleeve has two spaced-apart main walls 5 and two connecting side walls 6, and said main walls are relatively wide as compared with the relatively narrow side walls, to admit of the elements of the double-end threaded and rethreaded strand sliding freely through said sleeve in side-by-side relation when the loops are tightened around the constricted mouth of the flexible bag. Sleeve member 4 is open at both ends 7 and 8. Main walls 5 are recessed as at 9 adjacent one open end 7 of member 4 to receive the material of the mouth of the bag when the strand is tightened about it. At said same end 7 of member 4, side walls 6 terminate in prongs 10 that extend outwardly beyond the recesses of the main walls to grip the material of the bag and the strand when the latter is tightened around the mouth of the bag. At the other open end 8 of member 4, there is provided a central bridge-portion 11 that connects the two main walls and which constitutes an abutment for a loop 12 of the strand. Member 4 is drawn from a single piece of sheet steel so that all its parts are integral.

It will now be understood that, the strand having been threaded and rethreaded through member 4 in a well understood manner, loops 13 are passed around the constricted mouth of the bag, and said loops are then tightened by pulling on free ends 14 of said strand, thereby compressing some of the material of the mouth of the bag into the space between prongs 10 and into recesses 9. It will be observed that prongs 10 flare or curve outwardly so as to prevent severance of the strand when tightening the loops around the mouth of the bag but that, nevertheless, these prongs grip the material of the mouth of the bag and the strands firmly. It will further be seen that loop 12, when it is tightened against abutment 11, presses against free ends 14 of the strand and thus prevents retrograde movement thereof before sealing. After the strand has been thus tightened, sleeve 4 is compressed or deformed, that is, all except prongs 10. It has been found that the sealing tool heretofore used in compressing the body of lead can be used effectively in deforming sleeve member 4.

I claim:

In a bag seal in which a double-end flexible strand is threaded and rethreaded through a sealing member to form loops that are to be tightened around the constricted mouth of a flexible bag, a combined sealing and gripping member comprising a one-piece flat sleeve of de-

formable sheet material, said sleeve having two spaced-apart main walls and two connecting side walls, the main walls being relatively wide as compared with the relatively narrow side walls, said sleeve being open at both ends, said main walls being recessed at one open end of the sleeve to receive the material of the mouth of the bag, and said side walls terminating, at the same open end of the sleeve, in prongs that extend outwardly beyond the recesses of the main walls to grip the material of the bag and the strand when the latter is tightened around the mouth of the bag, and a central bridge-portion connecting the two main walls at the other open end of the sleeve to form an abutment for a loop of the strand.

WINFRED M. BROOKS.