Feb. 7, 1950 W. M. BROOKS 2,496,905

SEAL

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Fig. 1.

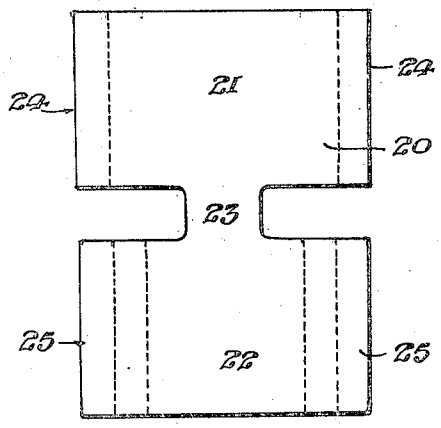


Fig. 2.

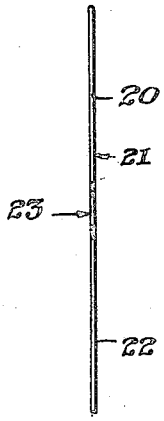


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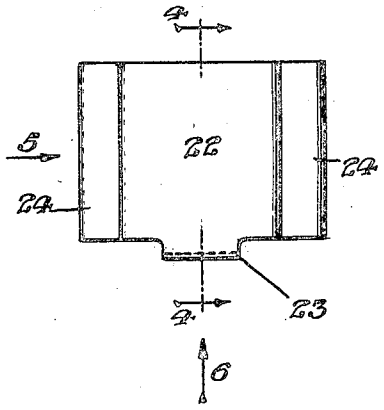


Fig. 4.

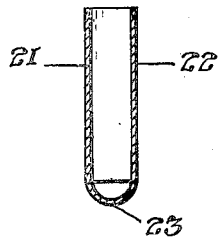


Fig. 5.

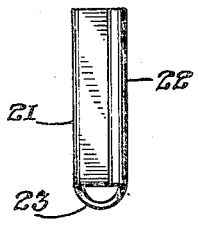


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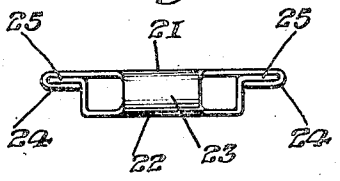


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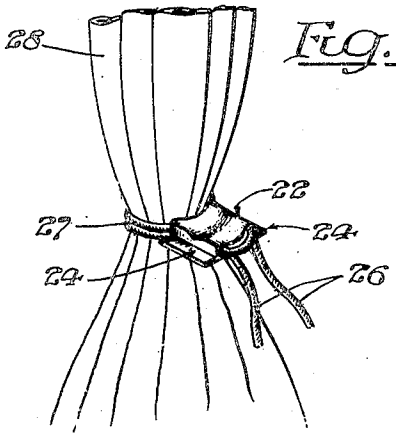
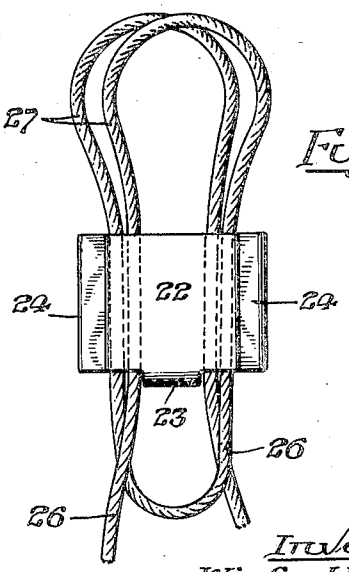


Fig. 7.



Inventor:
Winfred M. Brooks
by his Attorney

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Fig. 9.

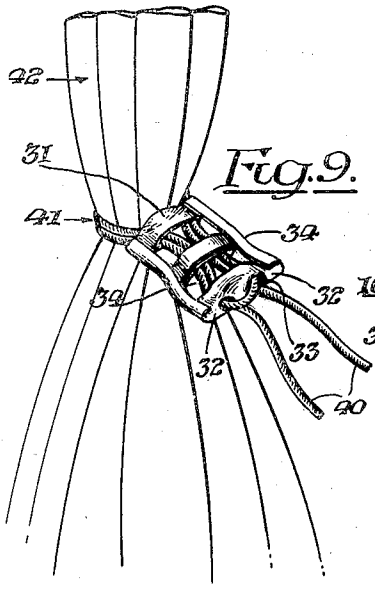


Fig. 10.

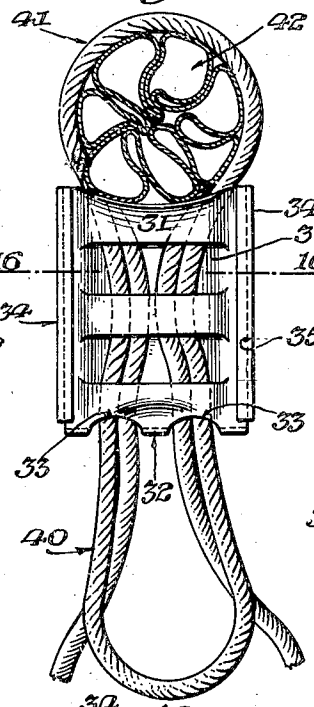


Fig. 11.

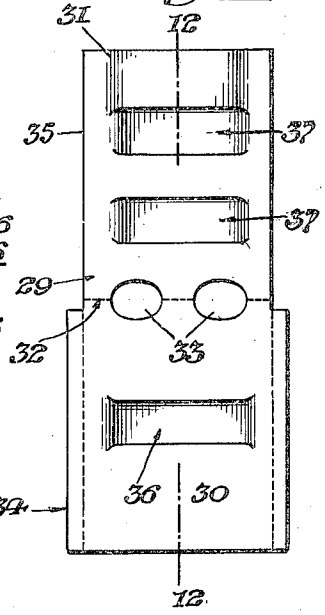


Fig. 12.

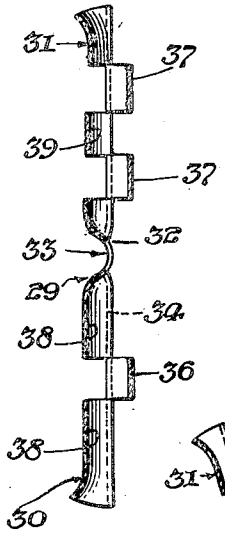


Fig. 13.

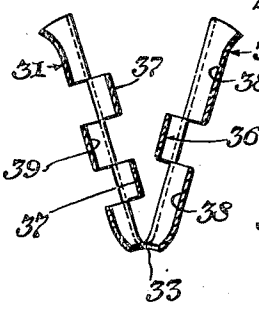


Fig. 14.

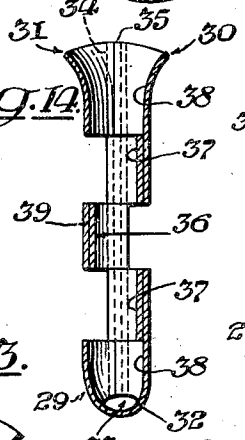


Fig. 15.

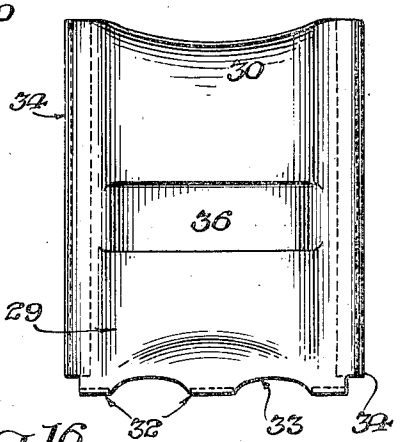
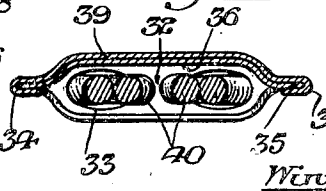


Fig. 16.



Inventor:
Winfred M. Brooks
by his Attorney
Arthur Becker

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UNITED STATES PATENT OFFICE

2,496,905

SEAL

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

Application February 3, 1948, Serial No. 5,934

1 Claim. (Cl. 292—310)

1

This invention relates to seals, more particularly to bag seals, and is an improvement on the seal shown in Letters Patent No. 2,342,244 of February 22, 1944.

In the aforesaid patent, the seal is made of sheet material but, as there shown, the production of the seal involves a deep drawing operation which slows down the time required for its production in order to avoid generation of excessive heat.

The main object and feature of the present invention is the production of a seal that avoids the deep drawing operation aforesaid.

Figure 1 is a plan view of a blank from which the seal is made;

Figure 2 is an edge view of Figure 1;

Figure 3 is a view similar to Figure 1, but shows the sections folded toward one another and the longitudinally extending marginal flanges of one section overlying and connected to the longitudinally extending marginal ledges of the other section;

Figure 4 is a vertical section substantially on the plane of line 4—4 of Figure 3;

Figure 5 is an edge view looking in the direction of arrow 5 of Figure 3;

Figure 6 is a bottom view looking in the direction of arrow 6 of Figure 3;

Figure 7 is a view similar to Figure 3 but with the element to be sealed inserted in the seal;

Figure 8 is a perspective view of the seal applied to the bag and deformed to complete the sealing operation;

Figures 9 to 16 show a modified form of the invention;

Figure 9 is a perspective view of the seal applied to the bag and deformed to complete the sealing operation;

Figure 10 is a sectional view through the bag, showing the seal before it has been deformed;

Figure 11 is a plan view of a blank from which the seal is made;

Figure 12 is a sectional view substantially on the plane of line 12—12 of Figure 11;

Figure 13 is a view like Figure 12 but showing the bending operation to bring the sections together partially performed;

Figure 14 is a view similar to Figure 13 but showing the bending operation completed;

Figure 15 is a view similar to that of the seal shown in Figure 10 but looking at the reverse side of the seal from that shown in Figure 10; and

Figure 16 is a transverse sectional view substantially on the plane of line 16—16 of Figure 10.

2

Referring first to the constructions shown in Figures 1 to 8, 20 indicates a blank of sheet material composed of two sections 21 and 22, connected by a neck 23. Sections 21 and 22 are brought adjacent to each other, but in spaced relation, bending neck 23 transversely. 24 indicates longitudinally extending marginal flanges on section 21, and 25 indicates longitudinally extending marginal ledges on section 22. After sections 21 and 22 have been brought adjacent to each other by bending neck 23, marginal flanges 24 are bent to overlie longitudinally extending marginal ledges 25 of section 22 and are secured thereto by firmly pressing said flanges 24 against ledges 25. The seal thus produced is a deformable hollow body open at both ends, neck 23 constituting a bridge at one open end.

The element to be sealed, which is here a double-end strand 26, is threaded and rethreaded through the seal in a familiar manner to produce loops 27. Said loops are tightened around the mouth of bag 28, after which the seal is deformed in a well-known way by a pressing operation.

Referring now to Figures 9 to 16, 29 indicates a blank of sheet material consisting of two sections 30 and 31 connected by a neck 32 having openings 33. Section 30 is provided with longitudinally extending marginal flanges 34, and section 31 has longitudinally extending marginal ledges 35. In addition, each of said sections 30 and 31 is provided with one or more transverse slats 36 and 37 and complementary engaging surfaces 38 and 39. It will now be seen that, when sections 30 and 31 are brought toward each other by bending neck 32, and flanges 34 are secured to ledges 35, said slats 36 and 37 will come in contact with complementary inner engaging surfaces 38 and 39 so that, when cord 40 is threaded and rethreaded through the hollow body of the seal, said cord 40 will be surrounded by said slats to thereby oppose separation of sections 30 and 31.

Loops 41 of cord 40 are passed around the mouth of bag 42 in the usual manner and, after they are tightened, the seal is deformed by a compressing action.

I claim:

A preformed sheet-material seal consisting of a hollow deformable body open at both ends to admit of the threading and rethreading of a strand therethrough after said hollow body has been preformed and before it is deformed, said

hollow body consisting of two sections connected by a neck, said sections constituting complementary spaced-apart side walls and said neck constituting a bent bridge at one open end of said hollow body, one of said sections having longitudinally extending marginal flanges, exteriorly of said hollow body, that overlie and embrace longitudinally extending marginal ledges, exteriorly of said body, of said other section.

WINFRED M. BROOKS.

REFERENCES CITED

The following references are of record in the file of this patent:

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