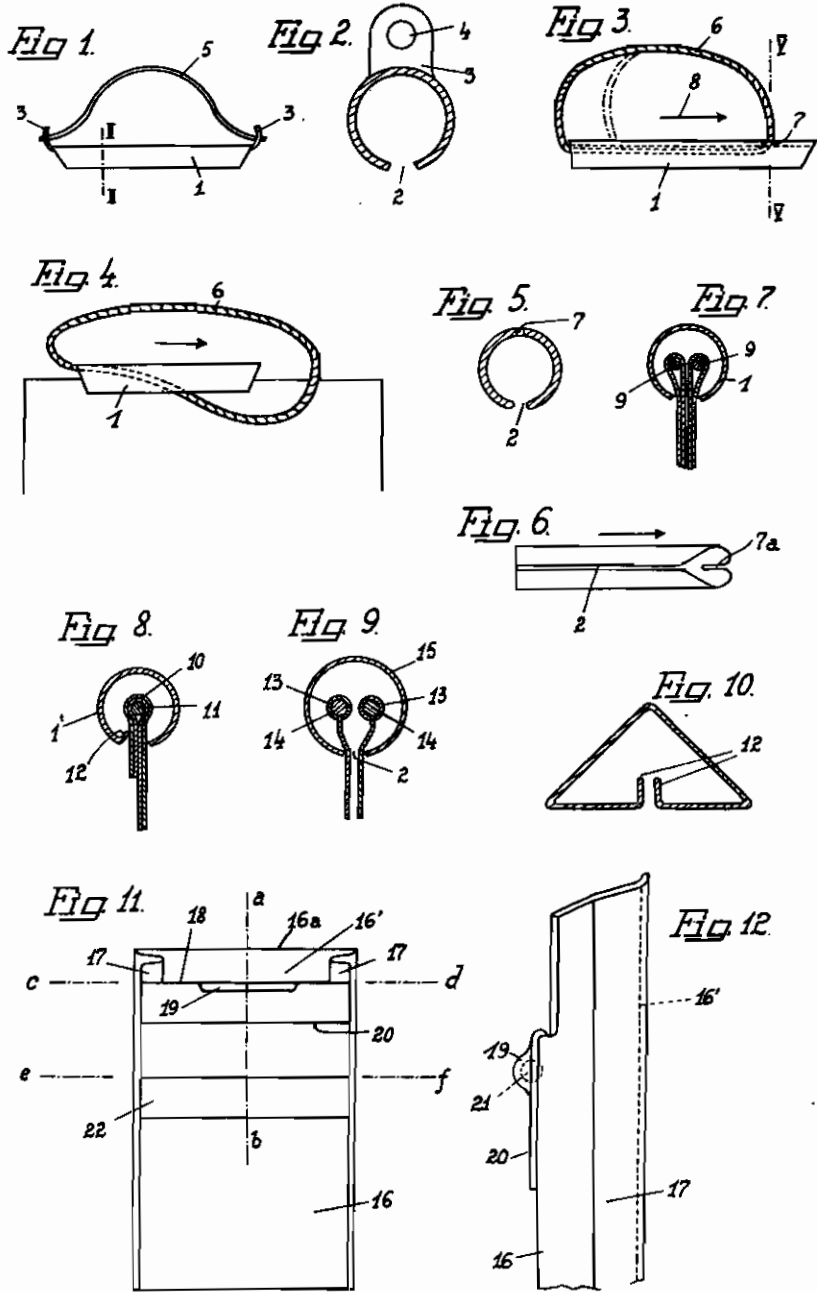


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CLOSING AND CLAMPING DEVICE  
Filed May 16, 1940

Serial No.  
335,634  
2 Sheets—Sheet 1

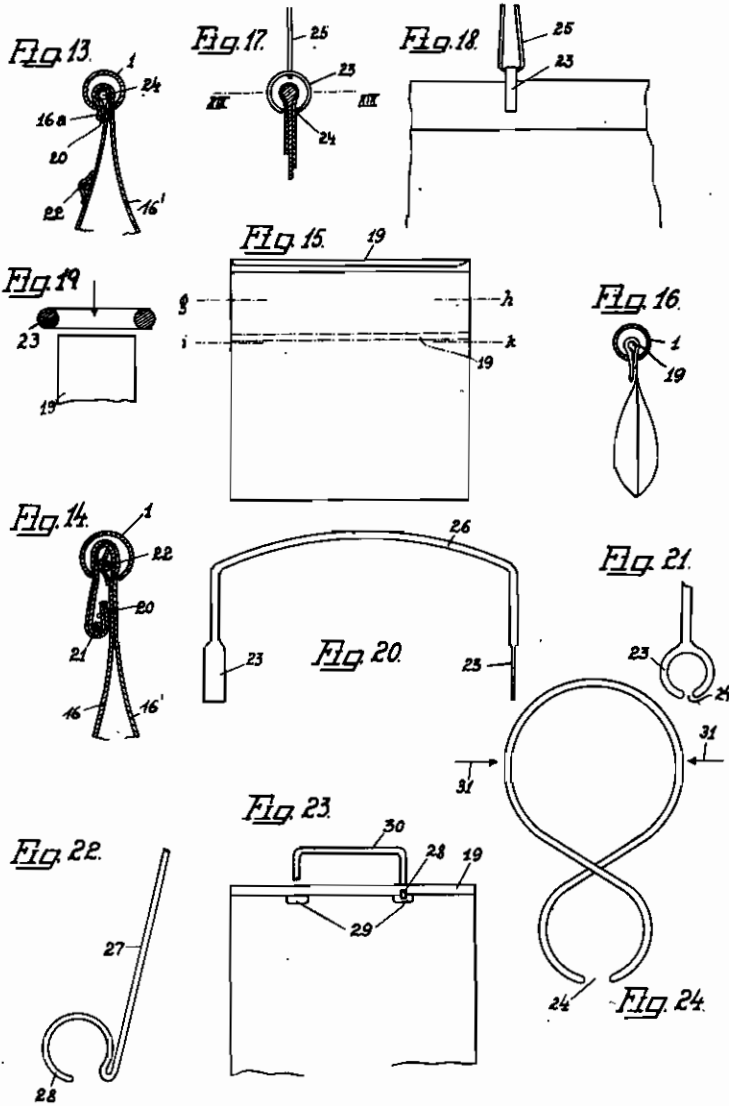


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# ALIEN PROPERTY CUSTODIAN

## CLOSING AND CLAMPING DEVICE

Miksa Gerendas, Budapest, Hungary; vested in  
the Alien Property Custodian

Application filed May 16, 1940

The present invention relates to a clamping or fastening means for holding together flexible sheets, particularly paper sheets. In my co-pending application serial number 322,241 filed March 4, 1940, such a device is described, many variations being duly explained in this applica- 5

tion. The present invention relates to further modifications and perfections of the clamp. In the enclosed drawings these new forms of the clamp are shown, but it is understood that the drawings only illustrate embodiments shown by way of example.

Fig. 1 is a side view of the first form of the closing sleeve and Fig. 2 is a cross section in larger scale taken on line II—II.

Fig. 3 is the side view of another form and Fig. 4 is an explanation belonging to Fig. 3. Fig. 5 is an enlarged cross section on line V—V of Fig. 3.

Fig. 6 shows a somewhat modified form of the closing sleeve viewed from below.

Figs. 7 and 8 show two further embodiments in cross section.

Figs. 9 and 10 are similarly cross sections of two other forms of the invention;

Fig. 11 is the front view and Fig. 12 the side view in a larger scale of a paper bag fitted with the closure according to the invention.

Figs. 13 and 14 are cross section taken on line a—b of Fig. 11 and showing the bag in two different closed positions.

Figs. 15 and 16 are two views of another paper bag.

Figs. 17, 18 and 19 are three views, partly in section, of a further embodiment of the closure according to the invention and

Figs. 20 and 21 illustrates another form.

Fig. 22 illustrates a still further form and Fig. 23 a parcel (a part being broken away) belonging thereto. Finally,

Fig. 24 shows the last form illustrated by way of example.

In the said co-pending application it is set forth that the elastic sleeve having a fissure with a divergence at the ends and serving to press together the sheets to be united, may be provided with a handle for making possible a convenient transport of the parcel closed by the new clamping device. It is also stated that this handle may have the shape of a frame and that it may be put into the inside of the sleeve. According to Figs. 1 and 2 of this application the handle is not inserted in the sleeve, but the sleeve 1 is provided on its upper part that is to say opposite the fissure 2 with two lips or elongations 3 each hav- 55

ing a hole 4 and the handle 5 made of metal, celluloid, or the like is inserted in these holes. In such a way somewhat less metal is needed for the production of the device than if a frame-like handle is used and this fact may be important if a very great quantity of the closure is manufactured.

Owing to the elasticity of the handle 5 it is very easy to insert it into the holes 4 of the lips 3 and after the insertion the handle is held firmly at its place.

According to Fig. 3 the handle is constituted by a cord, twine, thread or the like member 6, which is inserted into the inside of the sleeve 1 and may be closed in itself like a ring. In the upper part of this sleeve that is to say in the part opposite the fissure 2 there is a bore 7 and the cord or the like (not shown in Fig. 5) enters this bore. Of course, it would be possible to employ two bores 7 at both ends of the sleeve and to let the thread enter the sleeve through one of these bores and to leave it through the other one, as shown in dot-and-dash lines in Fig. 3; alternatively, both bores may be dispensed with and the thread may enter through one of the ends of the sleeve and leave it through the other. However, the first mentioned form (i. e. two bores 7) has the disadvantage that it is dear as the insertion of the thread in two little bores lasts long, and the second mentioned embodiment (no bores) is disadvantageous as the putting of the sleeve onto the sheets is difficult. Namely, when pushing this sleeve onto the edges to be clamped, the cord is pressed out from the sleeve through the fissure, as shown in Fig. 4.

The device shown in Fig. 3 is put to its place always in the direction of the arrow 8 and so the cord cannot leave its place, however, the production of the device is cheap, what is proved by experience.

Instead of the bore 7 a hole of different shape may be employed. Fig. 6 shows a sleeve having a recess 1a at one of its ends and the cord may enter this recess in the same way as it enters the bore 7. As the sleeve shown in Fig. 6 is always pushed to its place in the direction of the arrow, the divergence of the fissure 2 particularly described in my said co-pending application, is only applied at the end of the sleeve provided with the recess 1a.

The cord or thread handle can be employed in the embodiment shown in Figure 1 too, in such a way that the cord enters the holes 4.

According to Fig. 7 the edges of the sheets to be fastened or clamped together are reinforced,

for instance in such a way that the upper parts of the sheets are folded and in the pocket thus formed a little rod 9 is put, which is made of hard paper, wood, or the like. Instead of this rod a wire, or any other strengthening or thickening may be employed, which is adapted to guide the sleeve and to hold relatively great forces. It is advantageous if the thick edge is of such a diameter that it fills out the sleeve, but this is not necessary, as the little rods 9 proved to be always useful for preventing an unintended disengagement of the closure. For this purpose it is only important that the edge be thicker than the width of the fissure 2.

The strengthened parts need not to be employed on both edges that is to say on both sheets to be fastened together, it is enough if one of the sheets is provided with a thick, rod-like part. In this case the best way to follow is to bend the not strengthened sheet onto the other sheet, as shown in Fig. 8. In this form the not strengthened or stiffened part 10 is folded around the thick edge 11 of the other sheet and so after putting the sleeve 1' to its place the closure is perfect. In Fig. 8 a sleeve is shown which is provided with an inwardly bent flange 12 which may be advantageous for stiffening the sleeve. The manufacture of this sleeve is very easy and cheap, as this sleeve can be made by simply rolling a little metal sheet.

It is understood that the sleeve may have any other shape in cross section and in Fig. 10 a closing or clamping sleeve is shown having triangular cross section and provided with two inwardly bent flanges 12.

Fig. 9 shows an embodiment of the invention in which both edges of the sheets to be fixed are fitted with a strengthened edge and this strengthening is made in such a way that a small sleeve 13 is put on each edge of the sheets, this edges being made somewhat thicker than the sheet itself, as shown at 14 in the drawing. The two small sleeves 13 are united by a larger sleeve 15 and so a closure is provided, which may be well used for closing heavy bags or the like.

Figs. 11 to 14 show the application of the form shown in Fig. 8 on a paper bag adapted to be used in a grocer's shop, fancy-shop, or the like. This bag substantially consists of two larger side sheets 16 and 16' united by two small side sheets 17 acting like a bellows and allowing the pressing of the bag to a flat shape in a well known manner. Fig. 12 does not illustrate the bag in this flat form, but in a state in which the side sheets are somewhat remote from one another.

According to the invention, the edge 18 of the side sheets 16 is provided with a strengthening 19 which may be made by bending the upper part 20 of the sheet 16 and securing a little rod 21 in the folded part, as mentioned in connection with Fig. 8. The other, not strengthened side sheet 16' is made somewhat longer than sheets 16. When the bag is filled with ware, the upper part of the bag is pressed to be flat and the upper part 16a of sheet 16' is folded around line c—d (Fig. 11) to bear on the thick part 19 (Fig. 13) and then the sleeve 1 is put to the edge to complete closure. As shown in Fig. 11, it is enough if the thick part 19 is in the middle of the sheet only, however, it can be employed on the whole width of the sheet.

The sleeve 1 may be provided with a handle of any description.

On the sheet 16 there is another thick part 22 which is shown by way of example on the whole

width of the sheet and is employed at a certain distance from the opening of the bag. If the bag is not totally filled, it is advantageous if this strengthening 22 is used and so the closure shown in Fig. 14 is employed, according to which the side walls of the bag are bent around line e—f (Fig. 11) and then the closing sleeve is applied.

It is understood that both upper edges of the side sheets 16 and 16' may be provided with thicker part and so the closure of the type shown in Fig. 7 or 9 may be used in connection with the bag. Of course, in this case the two sheets 16 and 16' are of equal length.

Fig. 15 shows a simple paper bag, on which the thick edge 19 is employed on the longer side sheet, and not on the shorter, as shown in Fig. 11. This bag is closed in such a way that the upper part of the bag is folded around line g—h, so that the edge 19 comes to the place marked in dash-and-dot lines in Fig. 15, and then the upper part is bent down along line i—k. Now the closing sleeve may be put onto edge, as clearly shown in Fig. 16. The line g—h is higher or lower according to the quantity of ware put in the bag. If the bag is almost filled, this line is as high as possible.

In the foregoing always a sleeve or a little pipe was mentioned. However, this sleeve or pipe may be made so short that it constitutes an open ring only. This form of the invention is shown in Figs. 17 to 19 according to which the substantial part of the closure is a ring 23 having an opening 24. The ring may be provided with a handle of any desired shape and material; in Figs. 17 and 18 a handle is shown which is constituted by a thread 25. The closure is made in such a way that one of the sheets are bent around the thick edge of the other sheet as described above, and then the ring is pushed to its place in the direction of the arrow shown in Fig. 19, which is an enlarged section taken on line XIX—XIX of Fig. 17. In this figure 19 it is shown that the ring is made of wire having circular cross section, which is advantageous if the ring is pushed onto an edge 19 almost as thick, as the inner hole of the ring. The rotundity of the ring in this case substitutes the divergence of the figure described in my said co-pending application and shown in Fig. 6 of the drawings of this application.

It is obvious that the open ring may be employed as well as the open sleeve at every type of closure described in this application and in the said co-pending application, if the forces are not so great that the ring cannot withstand. If the forces are great, two or more rings may be employed and Fig. 20 shows an embodiment in which a handle 26 is provided at both ends with a ring 23, which is to be seen in Fig. 21 too. The width of the ring varies with the forces applied to it and on the left side of Fig. 20 a ring is shown which is wider than the handle 26, while the other ring is narrower than the handle.

It is possible to employ at the end of the handle more than one ring if necessary.

Fig. 22 shows an embodiment made of a piece of wire and functioning like a hook. The straight part 27 is the handle and the lower part 28 is the hook which is adapted to engage a rod 9 or 11 shown in Figs. 7 and 8. For this purpose a hole is to be made adjacent the rod, as shown in Fig. 23. According to this figure the sheet (which may be the side part of a bag) is provided at its edge with a stiffening 19 already set forth above, and just underneath this thick edge there are

two holes 29. In each of these holes a hook 28 may be inserted, only one of these hooks being shown in Fig. 23. The two hooks are united by a handle 30. In this case the stiffening 19 must be so strong that the load could be suspended on the handle 30.

In the form shown in Fig. 24 the whole device is made of piece of steel wire in the shape of a number 8. The under part of this device,

which is open at its lower part, is the ring as described in connection with Figs. 17 and 18, and the upper part is the handle; if this handle is pressed according to the arrows 31, the opening 24 of the lower part becomes wider and the device can be put to its place, thereupon it elastically returns to its original shape.

MIKSA GERENDAS.