



## UNITED STATES PATENT OFFICE

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## SEALING AND CARRYING DEVICE

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1

This invention refers to improvements in or relating to combined sealing and carrying devices for use in connection with packages, parcels, bags and the like.

It is well known in the art to employ adhesive paper tape or band for sealing and closing containers, which tape includes a handle structure in form of a ribbon for carrying the container upon sealing thereof. These structures have certain mechanical and economical drawbacks which generally exclude their speedy application to a great number of packages or container shapes, and in particular to heavy weight packages.

It is, therefore, one of the main objects of the present invention to provide means affording a strong and durable connection between the sealing device and the walls of a container or like receptacle.

It is another object of this invention to provide means facilitating rapid and ready engagement of the sealing device with more than two locations of the container wall or walls.

It is a further object of this invention to provide means which may be used either separately or coupled with each other to bring about an effective and speedy packing operation for parcels and like containers.

Still another object of this invention is to provide means for more evenly distributing over the container wall or walls the pulling forces acting on the sealing and carrying device.

Yet, a further object of this invention is to provide means permitting a simple and inexpensive manufacture of the sealing and carrying device by means of conventional machines, allowing the convenient storage of said sealing device in the form of a roll of an elongated, endless strip member or members and the ready supply thereof from a suitable dispensing apparatus.

A still further object of the present invention resides in the provision of means rendering the consumption of the sealing member and its parts very economical and substantially commensurate with the weight of the package to which it is to be attached.

Still a further object of this invention is the provision of means resulting in an improved and reinforced sealing and carrying device which, when in its assembled condition is markedly strengthened and enabled to overcome considerable mechanical strains exerted on the carrying handle of the device during use.

A still further object of the invention is to provide a combined sealing and carrying device of the aforesaid nature which device includes a car-

2

rying handle adapted to be associated with more than one adhesive strip member, the latter being displaceable, preferably in angular relation, with respect to the handle before said strip member or strip members are adhesively attached to the package, parcel, article and the like for sealing purposes.

Yet, another object of the present invention is to provide a combination reinforced tape structure for sealing and carrying purposes which tape structure includes a flexible handle engageable with tape portion or tape portions which may be selectively attached in superposed and coinciding position or in angular relationship to a base tape portion on which said handle is anchored.

Other objects, features and advantages will appear from the ensuing description of the invention and the accompanying drawings showing some embodiments of the invention, but it is understood that the latter is not confined to the exact characteristics shown, as various changes may be made within the scope of the appended claims.

In the drawings:

Fig. 1 is a side-elevation view of a dispensing apparatus supplying the unitary sealing and carrying device made in accordance with the invention.

Fig. 2 is a top plan view of a portion of the sealing and carrying device embodying the invention.

Fig. 3 is a fragmentary bottom plan view of the device as exemplified in Fig. 2.

Fig. 4 shows a perspective view of the device in assembled condition and cut for engagement with a package.

Fig. 5 illustrates the device of Fig. 4 in the state of application to a package.

Fig. 6 illustrates the device of Fig. 5 in its applied condition.

Referring now more especially to the drawings, there is disclosed in Fig. 1 a dispensing apparatus 20 having a base including a compartment 21 for receiving a liquid (not shown). Compartment 21 communicates with a sleeve 22 carrying a brush 23 for moistening the adhesive layer of sealing and carrying means 25 supplied from a roll 24 of endless strip.

Roll 24 is supported by the horizontal shaft 26 journaled on bracket 27. Sealing and carrying means 25 are guided by means of a roller 28 past brush 23, which roller is rotatably supported by shaft 29 on bracket 30. As indicated in Fig. 1, a spring or pressure exerting element 31 urges portion 24b of the combined sealing and carry-

3

ing means 25 against roller 28 so as to effectuate the moistening of the adhesive layer 24a by means of said brush 23.

The sealing and carrying means 25 consists of juxtapositioned endless strips 35, 36 which are coextensive with each other and are both provided at the underface thereof with an adhesive layer 24a.

As can be seen from Figs. 2 and 3, strip 35 is provided with a perforation 37 through which extends a handle 40 in form of a ribbon or tape having the ends 38 and 39. Ends 38 and 39 are joined to the adhesive layer 24a of strip 35, and perforation 37 is preferably reinforced by a washer 41 simultaneously retaining ends 38, 39 of tape 40 in their position on strip 35.

Handle 40 comprises a loop 42 which is threaded through perforation 43 provided in strip 36 and positioned approximately at the same level as perforation 37. The wall of perforation 43 is reinforced by a washer 44.

Formations 25a, 25b, 25c, each comprising handle 40, strip means 35, 36 and perforations 37, 43, are arranged to form the continuously extending sealing and carrying means 25, as can be seen in Fig. 2. Between two adjacent of said formations there are provided in strip 35, as well as in strip 36, respective score means 45, 46 which permit severance of strips 35, 36 from the remainder of the sealing and carrying means 25.

A typical combinational structure made in accordance with this invention consists of superposed flexible tape portions or strips 35a, 36a of predetermined lengths, each provided with a perforation, coupling means including a flexible handle 40a, which is permanently anchored on and projects from the lower of said tape portions through the perforation of the latter, as shown in Fig. 4.

In order to seal a package 50, as exemplified in Figs. 5 and 6, strips 35a, 36a, after being displaced in crosswise relation and preferably subsequently moistened, are applied to the surface 51 of the package 50, so that the respective depending legs 35b, 35c and 36b, 36c may engage the adjacent sidewalls of package 50, as indicated by arrows A, B, C, D.

Fig. 6 illustrates strips 35a, 36a as applied in crosswise formation to the package 50, handle loop 40a extending in upward direction to be grasped by the fingers of the hand of a person.

Thus it will be seen that on a relatively small area a combination sealing and carrying structure may be placed and affixed which is susceptible of taking up considerable strain and stresses and the pulling forces due to the weight of the package or article to be carried. The flexible strip heretofore mentioned may be made from paper or any other reinforced yieldable material which conforms easily to the shape and dimensions of the walls of the container or article to be carried.

If the weight of the package is not evenly distributed throughout the size of the package in view of its carrying capacity, the container or article may be easily balanced when being carried taking into consideration any unevenly distributed weight therein. To this end, the aforesaid strip portions 35a and 36a may be arranged on the package or container relative to each other and coupled with respect to strip portion 35a carrying handle 40a in such a manner that the aforesaid result and a strong and endurable connection will be achieved.

As many possible embodiments may be made of the above invention, and as many changes

4

might be made in the embodiments above set forth, it is to be understood that all matters hereinbefore disclosed or shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A device for sealing and carrying packages, parcels and like articles comprising two endless tapes, flexible handle means equidistantly arranged on and fixed to one of said tapes, the other of said tapes being provided with a plurality of perforations disposed adjacent said handle means of said one tape, said handle means extending partly through said perforations, respectively whereby said two tapes are coupled with each other, predetermined portions of said tapes being severable from the remainder of said tapes, so that the tape portion with perforation comes to lie on top of the tape portion provided with said handle and for rotatable movement about said handle prior to the application of said tape portions to a package to be sealed.

2. A device for sealing and carrying packages, parcels and like articles comprising an endless tape, one portion of said tape including a flexible handle, portions adjacent said one portion of said tape being provided with circular perforations, said handle carrying portion and said portion provided with said perforations being engageable with each other by threading said handle through said perforations of said tape portions, whereby said latter tape portions are superpositioned on said tape portion carrying said handle and being turnable about said handle, and adhesive means provided on the underface of said tape, whereby a reinforced tape structure is obtained for adhesive application to the walls of a package.

3. A unitary sealing and carrying device for a package, parcel and like article comprising a plurality of superposed, flexible tape portions of predetermined lengths and each provided with a perforation, coupling means loosely connecting said tape portions to each other through said perforations, said coupling means including a flexible handle permanently anchored on and projecting from the lower of said tape portions through the perforation thereof, the perforation of said lower tape portion and the perforation of the other tape portion coinciding with each other at the location of the projection of said handle from the lower of said tape portions, said projecting handle being threaded through said perforations so as to project beyond said lower tape portion and said other tape portion, said tape portions being rotatable with respect to each other about said coupling means prior to the application of said portions to a wall of said article to be sealed.

4. A device for sealing and carrying a package, parcel and like article comprising two juxtapositioned endless tapes, coupling means loosely connecting said endless tapes to each other, said coupling means including a flexible loop fixed to one of said tapes and at least one perforation passing through the other of said tapes, said loop being threaded through said perforation, and respective score means provided on said tapes and spaced from said coupling means to facilitate a severance of a portion of each of said tapes from the remainder of said tapes, whereby upon severance of said portions from said tapes said perforated tape portion is carried in superposed position to and by said one tape portion to which said loop is fixed, to thereby provide a unitary

5

tape structure for application to the walls of said package.

5. A device for sealing and carrying a package, parcel and like article comprising two juxtapositioned endless tapes, coupling means loosely and at intervals connecting said endless tapes to each other, said coupling means including spaced flexible loops fixed to one of said tapes and spaced perforations passing through the other of said tapes, a portion of said loops projecting through said perforations, respectively, a washer reinforcing each perforation, and respective score means provided on said tapes and spaced from said coupling means to facilitate severance of a portion of each of said tapes from the remainder of said tapes, whereby upon severance of said portions from said tapes the perforated tape portion is pivotally arranged by means of the respective washer and placed in superposed position

6

tion on the tape portion to which said loop is fixed, to thereby provide a unitary tape structure for application to the walls of said package.

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