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APPARATUS FOR PACKAGING ARTICLES

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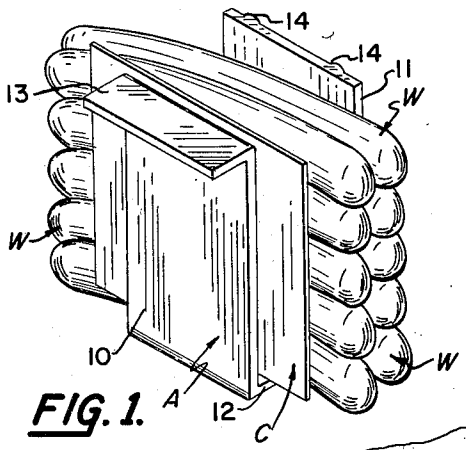


FIG. 1.

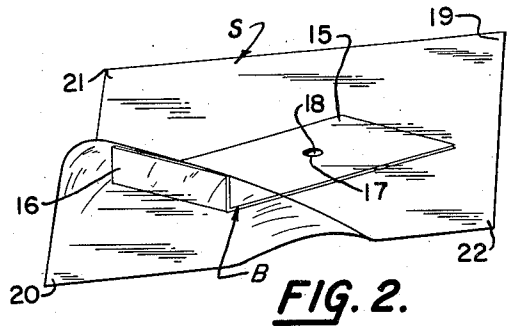


FIG. 2.

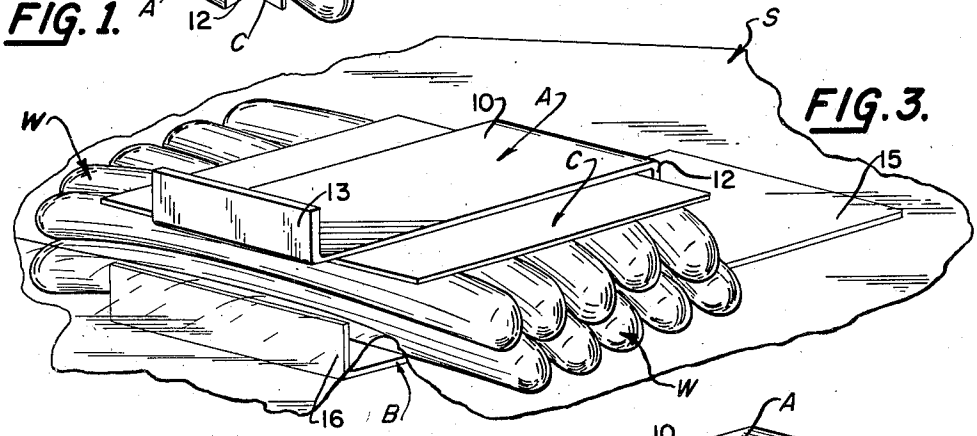


FIG. 3.

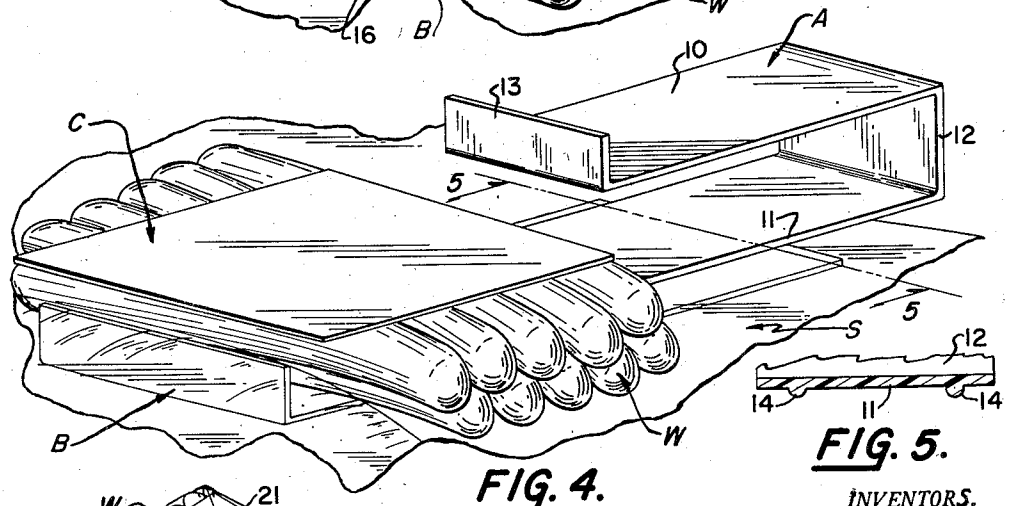


FIG. 4.

FIG. 5.

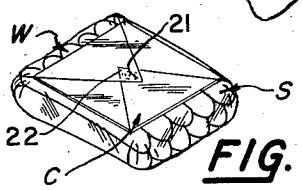


FIG. 6.

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APPARATUS FOR PACKAGING ARTICLES

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1 Claim. (Cl. 53—390)

This invention relates to the packaging of articles and more particularly elongated articles of so-called stick form such as, for example, wieners, frankfurters, bread sticks and the like. Although the example which is to be illustrated and described in connection with our invention relates to the packaging of wieners, it is to be understood that the invention is not so limited.

One of the objects of our invention is to produce an improved apparatus for aiding in the packaging by hand operation of a plurality of elongated articles.

Another object is to produce an apparatus for aiding in the packaging of elongated articles which will permit an operator to hand assemble the articles into the desired packaging group and maintain them in such a group until they are wrapped in a flexible containing sheet.

Yet another object of our invention is to provide an apparatus which can hold in assembled relation a plurality of elongated articles ready for packaging in a flexible sheet and permit the transfer thereof to a position on the sheet in such assembled relation that quick and efficient wrapping can be accomplished.

A further object is to produce an apparatus for and method of packaging elongated articles which will permit the articles to be preassembled in a device in the same relation as they will be wrapped so that time will be available for weighing or performing any other desirable operation prior to the accomplishing of the actual wrapping.

A further object is to produce apparatus for assisting in the hand packaging of elongated articles, such as wieners, in a flexible sheet of material, for example, transparent cellophane or plastic film.

Other objects will become apparent from the following description taken in connection with the accompanying drawings, shown by way of example as embodying our invention and illustrating certain steps in our improved hand operated method of packaging.

In the drawings:

Figure 1 is a view of an essential part of our apparatus showing elongated articles, illustrated as wieners, assembled prior to being wrapped in a flexible sheet;

Figure 2 is a view of another part of the preferred apparatus (not necessarily essential) for accomplishing efficient wrapping, said view showing the apparatus with the flexible wrapping sheet in position for receiving the assembled articles as illustrated in Figure 1;

Figure 3 is a view showing the assembled articles of Figure 1 and the part and sheet of Figure 2 in their relative positions at the beginning of the wrapping operations;

Figure 4 is a view similar to Figure 3, but illustrating the assembly part of the apparatus removed from the articles to be packaged;

Figure 5 is a sectional view taken on the line 5—5 of Figure 4 showing certain desirable construction details; and

Figure 6 is a view of the articles in packaged condition ready for marketing.

Our apparatus for accomplishing by rapid hand operations the wrapping of elongated articles in a flexible sheet of material comprises in its preferred form two parts indicated as A and B. Part A is employed in assembling the articles prior to being wrapped in the flexible sheet indicated as S, and part B is employed during the actual wrapping of the articles into the sheet. Part A is an essential element in carrying out our improved hand method, but part B is not essential but a preferred part because it aids in accomplishing the actual wrapping in a more rapid manner. The articles to be packed are illustrated as a plurality of wieners, indicated by the letters W, but as already mentioned, other similar articles can be packed with apparatus embodying our invention and by steps of our improved method.

The part A is U-shaped in form, having legs **10** and **11** joined by a base section **12**. One leg, such as **10**, has an out turned flange **13** to facilitate hand manipulation, as will become obvious. The other leg **11** has on its outer surface parallel ridges **14** which act as skids and aid in the sliding of part A during certain later described operations.

The part B is a simple elongated plate **15** with a turned up flange **16** at one of its ends. It has a hole **17** by which it can be attached by a screw **18** to a surface such as a table T. The top surface of the plate **15** of part B cooperates with the leg **11** during the wrapping operations. The parts A and B may be made from any suitable material such as metal, plastic, etc. If metal is used, the ridges **14** may not be necessary as the metal will permit easy sliding on the wrapping sheet. If plastic or like material is used, which may not be as frictionless as metal, the ridges will reduce the friction.

All the essential parts involved in our apparatus for and method of packaging have been referred to, except a cardboard sheet C which is preferred to be employed in packaging certain articles damaged by heat, as the illustrated wieners W, but may be eliminated when other articles are packaged which are not damaged by heat.

In using our apparatus and practicing the steps of our method of packaging, the U-shaped part A is first taken and set on its base section **12** at an assembly station such as a weighing station for the wieners. The cardboard sheet C is inserted in the part A along side of leg **10** having the flange **13**, all as shown in Figure 1. The wieners W or other articles are now packed into the part A between the legs **10** and **11**, all as illustrated. If this is done at a weighing station, the minimum weight for the package will be properly determined by the use of scales.

The assembled articles will now be moved along an assembly line to the wrapping station where the part B will be placed. Over this part B will be laid the sheet of flexible material S in which the articles are to be wrapped. As shown in Figure 2, the sheet is square or nearly so in shape and in the illustrated method the sheet is transparent, being made of a thin film of cellophane, plastic, etc., so the wieners will be visible therethrough. The sheet S is laid on the part B, as illustrated in Figure 2, with two diagonal corners lying on or approximately on the longitudinal axis of the plate **15** of the part B.

The next step in the packaging is the placing of the part A on the top of sheet S and part B, all as illustrated in Figure 3. The part A will have assembled therein the desired number of wieners and the cardboard sheet as shown in Figure 1. This assembly, with the operator standing in front of flange **16** of part B, is positioned on the sheet S which is already on the part B and the positioning is such that leg **11** will be down and the

leg **10** with flange **13** up, thus also placing the cardboard up. The assembly will also have a position where at least a wiener at the open end of the U-shaped part A is at and against the upturned flange **16** on the part B so that it will not be necessary to hold the wieners from slipping on the sheet S toward the operator.

The operator now, if right handed, grasps the flange **13** of part A with his right hand and places his left hand on the cardboard sheet C along the left side of leg **10**, with some fingers of this hand extending over the wieners at the bottom of U-shaped part A and farthest from the operator. The part A is now removed by the right hand sliding said part in a direction away from the operator to the position shown in Figure 4, all while the wieners are being held by the left hand with a slight force acting on the wieners to force them toward the flange **16** of part B.

All that is now needed to complete the packaging is to fold the two diagonal corners of the transparent sheet indicated at **19** and **20** in Figure 2, over the cardboard sheet C with one corner overlapping the other and seal the ends together by application of a hot plate. Next, the other diagonal corners indicated at **21** and **22** are folded over the other and sealed together by a hot plate. The heat from the hot plate will not damage the wieners because the cardboard sheet C is in superposed position. Any suitable hot plate can be used. The packaging is now complete and the wieners are packaged, ready for marketing in the condition shown in Figure 6.

Our new device permits rapid hand packaging of wieners and like articles, particularly where weighing is necessary. A large number of the parts A can be used and as quickly as each is loaded at a weighing station it can be moved by a conveyor to the wrapping station. When each part A is empty, it can be placed on a return conveyor to go back to the loading and weighing station to be reloaded with at least the minimum proper weight. As already mentioned, part B could be eliminated, but as shown it does aid in holding the wieners during unloading of part A to place the wieners on the wrapping sheet S. If part B were not present, or at least its flange **16** or the equivalent, then the whole load of wieners would have to be grasped by the left hand during unloading by sliding part A. The operation of the device and steps of the method have been described for a right handed operator, but it is believed to be obvious how a left handed person would perform all the operations.

Being aware of the possibility of modifications in the structure disclosed as embodying our invention and variations in the method steps involved, all without departing from the fundamental principles of the invention, we desire it to be understood that the scope of the invention is not to be limited except in accordance with the terms of the appended claim.

What is claimed is:

A device for aiding in the hand wrapping in a flexible sheet of a plurality of similar elongated articles comprising a member having spaced apart parallel elements connected together at like ends and unconnected at their other ends, said spacing of the members being such that a plurality of the articles to be wrapped can be arranged therebetween in side by side relation with their length extending in a direction transverse to the length of the spaced apart parallel elements of the member, one of the spaced apart elements being provided with means at the unconnected end extending substantially laterally outwardly therefrom to provide a hand grasping means for aiding in moving the member from around the elongated articles when the other parallel element is placed on a wrapping sheet of flexible material and the articles are held from movement, and a second member for securement to a surface and upon which the sheet of wrapping material can be placed, said second member having an upstanding shoulder means against which an elongated article at the open end of the first member can be pressed and all the articles firmly held against movement when the first member is moved in a direction away from the shoulder means.

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