

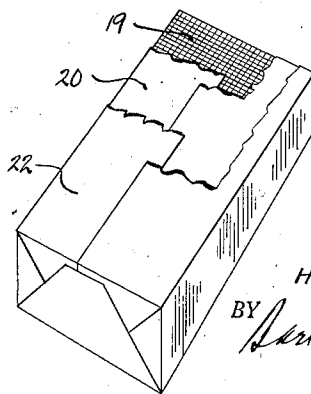
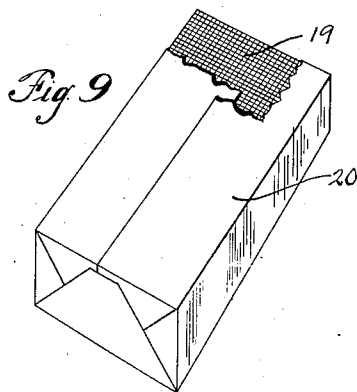
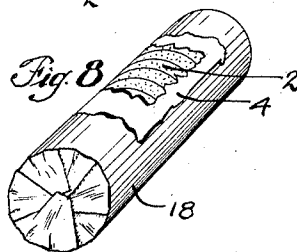
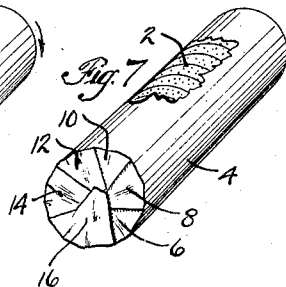
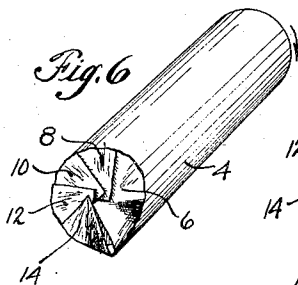
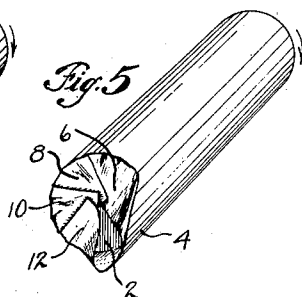
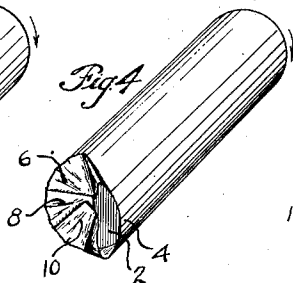
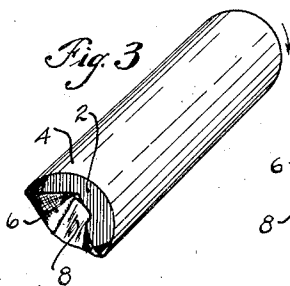
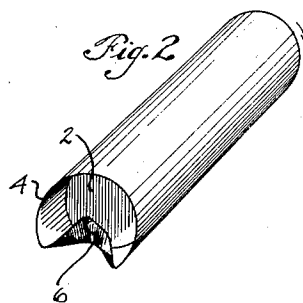
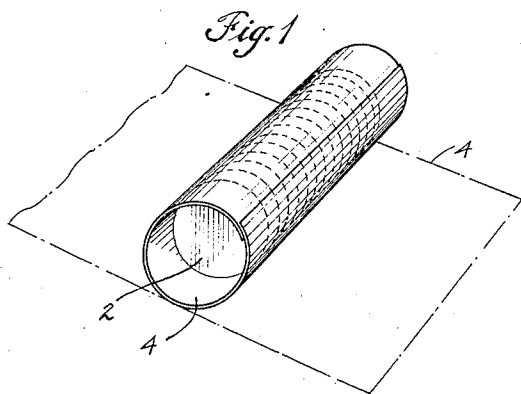
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H. E. TOWNSEND

1,719,405

PACKAGE AND METHOD OF PRODUCING THE SAME

Filed Dec. 9, 1925



INVENTOR.
H. E. TOWNSEND
BY *Hertlett & Hancock*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HARRY E. TOWNSEND, OF BROOKLYN, NEW YORK.

PACKAGE AND METHOD OF PRODUCING THE SAME.

Application filed December 9, 1925. Serial No. 74,294.

My invention relates to a method of wrapping articles, and to the package produced by carrying out the method.

It has been a serious problem to suitably wrap hard or cooked candies in stacks or rolls. These candies are frequently exposed for a considerable length of time in open booths in damp weather and unless they are well protected from moisture under such conditions, they rapidly grain or granulate, and under very severe conditions become merely a sticky mass.

Heretofore, it has been proposed to wrap the stack or roll of candies with paper-lined foil but it has been found that such a package affords but little protection, as the stiffness of the paper not only prevents the folds from being made so as to hug the ends of the package but also tends to cause the tucked-over portions to spring open after they have been bent down by the tucking operation. If waxed paper alone were wrapped around the stack or roll and tucked in at the ends without heat sealing, it would be open to the same objection as paper-lined foil,—that is the end folds would tend to spring open. If waxed paper as thus applied were heat sealed on the longitudinal seam and the end folds, such a wrapper would not afford adequate protection as the paper is porous and the wax would not always fill the pores and, furthermore, a considerable amount of the wax would be lost in the heat sealing operation.

The principal object of the present invention is to wrap a stack or roll of hard candies or similar articles in such a manner as to overcome the disadvantages of prior methods of wrapping above referred to.

In the preferred embodiment of my invention a sheet of waxed paper is wrapped around the stack or roll and its ends are tucked in over the ends of the roll. After the roll has thus been completely wrapped with the waxed paper, a sheet of foil is similarly wrapped about the paper wrapper and its ends tightly tucked in over the ends thereof. Suitable degrees of heat and pressure are then applied over the entire cylindrical surface and ends of the foil wrapper so as to cause the wax of the paper wrapper to melt and when allowed to cool tightly seal the longitudinal seam and the end folds of the paper wrapper, and to cause the paper and foil wrappers to adhere firmly together throughout their contacting surfaces. By

thus applying sealing heat after the foil wrapper has been wrapped about the waxed paper wrapper all of the melted wax is confined within the foil and thus is made available for sealing purposes, and also there is no danger of the wax coming in contact with parts of the wrapping machine. Preferably, the waxed paper is wrapped twice around the roll so that the inner layer thereof may prevent the wax of the outer layer from reaching the candies, the heat applied to the foil wrapper being only sufficient to melt the wax of the outer layer of paper.

While to obtain the best results it is obviously necessary to apply the sealing heat to the entire cylindrical surface of the foil wrapper, in some instances the heat may be applied merely to the longitudinal seam of the foil wrapper in addition to the tucked in ends thereof. In fact, when the candies are to be shipped to the cooler climates, it may be possible to dispense with the heat sealing operation entirely. The reason for this is that foil being a metallic substance has no tendency to spring back when tucked in over the previously tucked in ends of the paper wrapper and will effectively prevent the folds of the tucked in ends of the paper wrapper from opening up. It has been found by actual tests that hard candies wrapped in accordance with my invention, even without heat sealing, will keep at least twice as long under moist conditions as when wrapped with paper-lined foil as above described; and when my improved package is heat sealed as described, the candies will keep indefinitely under the most severe conditions.

Other features of the invention, whereby the above mentioned and other objects may be attained, will be clearly understood from the following description and accompanying drawings, in which:

Figure 1 is a view in perspective of a stack or roll of hard candies or similar articles with a sheet of waxed paper wrapped about the peripheral surface thereof to illustrate the first step in carrying out my improved method, the sheet of waxed paper before being wrapped about the article being indicated by broken lines;

Figs. 2 to 6, inclusive, are views in perspective of one end portion of the roll of articles and illustrating successive steps in tucking in the ends of the waxed paper over one end of the roll;

Fig. 7 is a view in perspective showing the

waxed paper completely wrapped about the roll, the paper being partly broken away to show a portion of the roll;

Fig. 8 is a view in perspective corresponding to Fig. 7 but showing the roll after a second wrapper has been applied thereto; and

Figs. 9 and 10 are views corresponding to Figs. 7 and 8, respectively, but illustrating the manner of wrapping a six sided article such as a square box in accordance with my improved method.

In wrapping a stack or roll of articles 2, such as hard candies that are in the form of circular disks, in accordance with my improved method, a sheet of waxed paper 4 of suitable size is first tightly wrapped about the peripheral surface of the roll with the ends of the paper projecting a distance beyond the ends of the roll (Fig. 1). The paper preferably is wrapped slightly more than two complete turns around the roll so that its edges overlap slightly. The ends of the paper are then tucked inwardly over the projecting ends of the roll. In tucking in each end of the paper, first one portion 6 is tucked in radially toward the center of the end of the roll (Fig. 2). Then the portion 8 (Fig. 3) adjacent to the tucked portion 6 is similarly tucked in with one edge thereof overlying the adjacent edge of the tucked portion 6. The portion 10 (Fig. 4) adjacent to the tucked in, the edge of said portion overlying the forward edge of the portion 8. In a similar manner the next succeeding tucks 12, 14 and 16 are successively tucked in, the rear edge of each tuck overlying the adjacent edge of the next preceding tuck, and the final tuck 16 overlying both of the adjacent tucks and the inner end portions of all of the tucks.

A sheet 18 of foil, such as tin-foil is then first wrapped about the peripheral surface of the paper wrapper, and then its ends are tucked in over the tucked in ends of the paper wrapper preferably in the same manner as the paper wrapper was applied, as above described. To save material, the foil wrapper instead of being wrapped twice around the article, as is preferably the case with the paper wrapper as above mentioned, is wrapped approximately one and one-quarter turns around the roll, and the overlapping portion of the foil wrapper is arranged so as to overlie the outer longitudinal edge of the paper wrapper.

After the roll has been thus wrapped with both the paper and foil wrappers, a sufficient degree of heat is applied, preferably to the entire area of the peripheral surface and tucked in ends of the foil wrapper to melt the wax of the paper wrapper. The roll is then subjected to a rolling and pressing action and the ends of the roll are subjected to

pressure, and such operations are preferably continued until the wax has become thoroughly cool or set. Said rolling and pressing action is preferably of such a nature as to tend to cause the wrappers to more tightly engage or grip the roll and to ensure that the overlapping peripheral portions of the paper wrapper shall become thoroughly sealed and the foil wrapper sealed or affixed to the waxed paper wrapper throughout the peripheral area thereof. The pressing operation applied to the ends of the roll is preferably such as to ensure that the tucked in ends of both wrappers are tightly squeezed or ironed flat against the ends of the roll, which ensures that the successively overlapping tucks of the paper wrapper are securely and tightly sealed together, and that the end tucks of the foil wrapper are securely sealed or affixed to the end tucks of the paper wrapper.

It will be apparent that the several wrapping and sealing operations of my improved method may be performed either by hand or by machinery.

One advantage of applying heat to the package to melt the wax of the paper wrapper after the foil wrapper has been put on, is that as the foil wrapper completely encloses the waxed paper wrapper, all of the wax on the waxed paper wrapper is confined within the foil wrapper and thus is made available for sealing purposes. If, however, heat were applied before the foil wrapper was put on, a considerable portion of this wax would be melted off and lost for sealing purposes, and in cases where machines are employed to seal the package, this wax collecting on operating parts of the machine would interfere with its operation. Also where such machines are employed, in carrying out my improved method only one set of heating and cooling devices are necessary.

It will be apparent that by tucking in the ends of each wrapper by means of a plurality of successively overlapping and radially extending tucks, that the most effective enclosing and sealing of the package is ensured, and that there is no danger of the tucks of either wrapper working loose and permitting the package to open up.

In carrying out my improved method to wrap a six sided article, such as the box 19 (Figs. 9 and 10) a sheet of waxed paper 20 of suitable size is first wrapped about the box with the longitudinal edges thereof overlapping and with the ends thereof tucked in over the ends of the box. A second wrapper 22 is then similarly put on over the first wrapper. Suitable degrees of heat and pressure may be applied throughout the area of the second wrapper to melt the wax of the first wrapper to seal together its overlapping edges and end folds, and to seal the outer wrapper to the inner wrapper. In

cases, however, where the box or other article is of considerable size it may be desirable to melt the wax of the inner wrapper only along its longitudinal seam and its end folds, and in such a case it is preferable that the longitudinal seam of the outer wrapper should overlie that of the inner wrapper in order that when the wax of the inner wrapper is melted along its longitudinal seam by the application of heat to the outer wrapper, the portions of the outer wrapper adjacent to its seam may be sealed to the inner wrapper, and thus the longitudinal seams of both wrappers may be securely sealed.

As will be evident to those skilled in the art, my invention permits various modifications without departing from the spirit thereof or the scope of the appended claims.

What I claim is:

1. The combination of an article of cylindrical form, a wrapper of waxed paper wrapped about the peripheral surface of the article with portions thereof overlapping, and its ends tucked in over the ends of the article, and a second wrapper of foil similarly wrapped about the paper wrapper as thus applied with the wax of the paper wrapper sealing together the overlapping portions and said end tucks of the paper wrapper, and the two wrappers substantially throughout their area, the foil wrapper completely enclosing the peripheral surface and tucked in ends of the paper wrapper.

2. The method of wrapping an article which comprises applying a wrapper of waxed paper to the article to completely envelope the same, similarly applying a second wrapper of foil over the first wrapper, and then causing the wax of the first wrapper to seal the two wrappers together substantially throughout their area.

3. The method of wrapping an article of

cylindrical form which comprises wrapping a sheet of waxed paper about the peripheral surface of the article with peripheral portions thereof overlapping, tucking in the ends of the wrapper over the ends of the article so as to completely enclose the article, similarly wrapping a sheet of foil over the paper wrapper so as to completely enclose the paper wrapper, and applying suitable degrees of heat and pressure to the foil wrapper to cause the wax of the paper wrapper to seal together said overlapping peripheral portions throughout the length of the article and the end tucks of the paper wrapper.

4. The combination of an article of cylindrical form, a wrapper of waxed paper wrapped about the peripheral surface of the article with its ends tucked in over the ends of the article so as to completely enclose the article, and a second wrapper of foil wrapped about the peripheral portion of the paper wrapper with its ends tucked in over the tucked in ends of the paper wrapper and pressed flat against the ends of the article so as to completely enclose the paper wrapper and cause the tucked in ends thereof to tend to hold the tucked in ends of the paper wrapper from opening.

5. The combination of an article having opposed ends, a sheet of waxed paper wrapped about the article with edge portions thereof overlapping and with its ends tucked in over the ends of the article, and a second wrapper of foil similarly wrapped about the paper wrapper as thus applied so as to completely enclose the paper wrapper, the wax of the paper wrapper sealing together said overlapping portions and the end tucks of the paper wrapper.

In testimony whereof, I have signed my name to this specification this 8th day of December, 1925.

HARRY E. TOWNSEND.