Feb. 16, 1937. B. A. E. JOHNSON 2,070,736

METHOD OF COVERING ARTICLES WITH WRAPPERS

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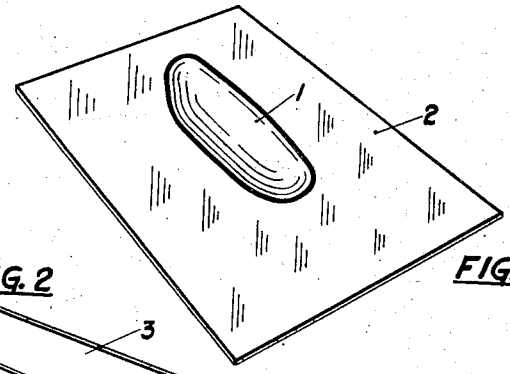
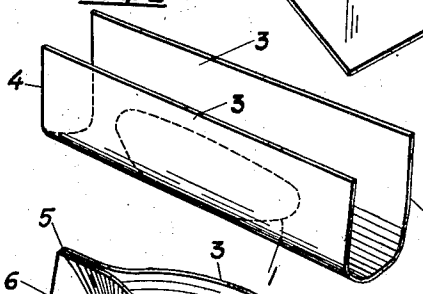


FIG. 1

FIG. 2



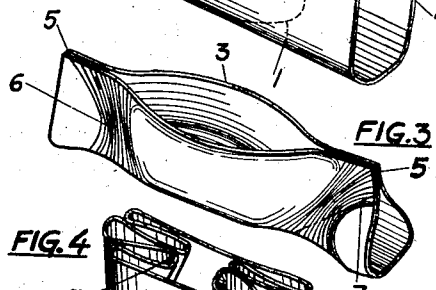
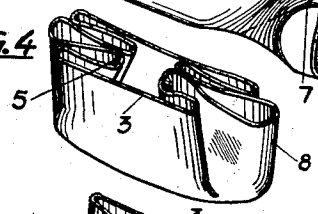


FIG. 3

FIG. 4



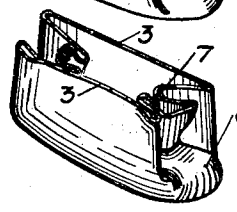


FIG. 5

FIG. 6

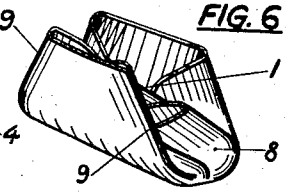


FIG. 7

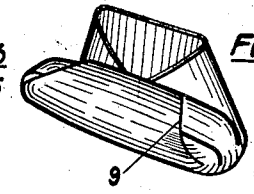
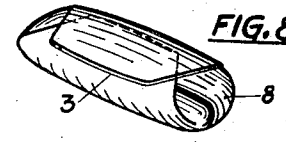


FIG. 8



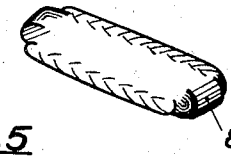


FIG. 9

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FIG. 10

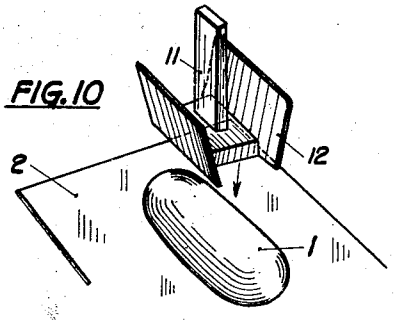


FIG. 11

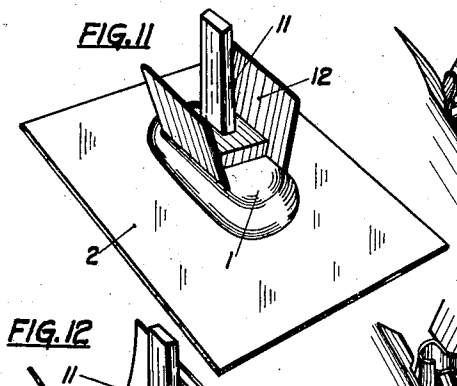


FIG. 14

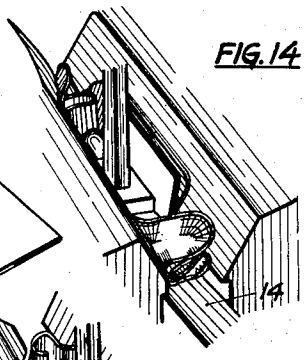


FIG. 12

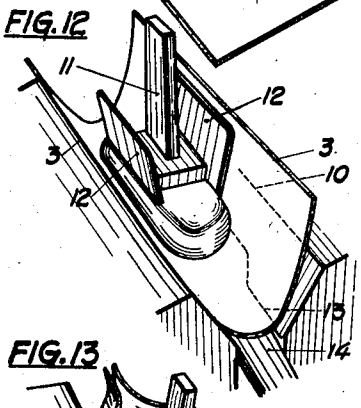


FIG. 15

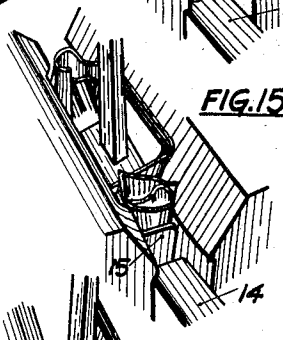


FIG. 13

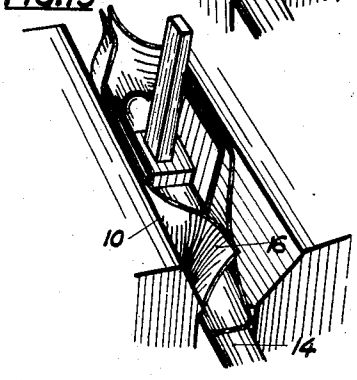
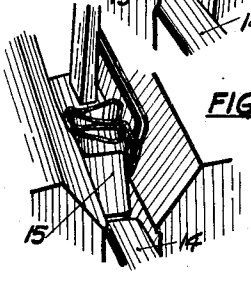


FIG. 16



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METHOD OF COVERING ARTICLES WITH WRAPPERS

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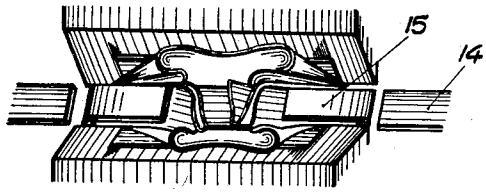


FIG. 17

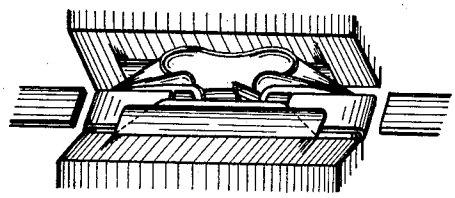


FIG. 18

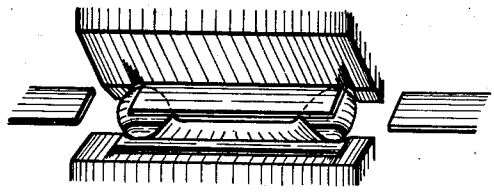


FIG. 19



FIG. 20

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Patented Feb. 16, 1937

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UNITED STATES PATENT OFFICE

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METHOD OF COVERING ARTICLES WITH WRAPPERS

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Application January 23, 1935, Serial No. 3,151
In Sweden January 29, 1934

2 Claims. (Cl. 93—2)

This invention relates to an improved method of covering articles with wrapper, particularly a method of folding a paper wrapper or wrapper of other flexible material to envelop articles of comparatively irregular shape, as for instance loaves of bread.

The invention has for its object to provide a method of tightly and smoothly covering even irregularly shaped articles with wrapper, giving the envelope thus obtained a tidy appearance and preventing moisture from gaining access to the wrapped article.

Further, the invention has for its object to provide a method of covering irregularly shaped articles with wrapper, which method may be carried out with convenient means and for wrapping articles as for instance loaves of several different sizes without adjusting said means.

In the accompanying drawings:

Figs. 1 to 8 are perspective views showing different stages of a wrapping process according to the invention;

Fig. 9 is a perspective view reversed to that in Fig. 8 of a side of the wrapped article;

Figs. 10 to 19 are perspective views showing different stages of a modified process according to the invention; and

Fig. 20 is a perspective view of an article wrapped in the manner illustrated in Figs. 10 to 19.

The article 1 to be wrapped, which is by way of example supposed to be a bread loaf, is according to Fig. 1 placed upon a wrapping sheet 2, two opposite edge portions 3 of which are, as shown in Fig. 2, bent upwards to embrace the loaf, leaving its end portions 4 open. Thereafter, the oppositely disposed ends 5 of the edge portion 3 are moved together, for instance by means of pinchers exerting upon them oppositely and obliquely upwardly directed tension pulls, so that, as will be clearly understood from Fig. 3, the wrapper is caused to smoothly engage the rounded under side of the loaf. Thereby, the intermediate parts of the edge portions 3 are bent somewhat outwards, as will be seen from Fig. 3, whilst the wrapper portions at 6 are stretched and contracted. The contracting thus obtained will cause the wrapper end portions to form somewhat diverging openings. On the succeeding folding a fold, indicated at 7, will ensue on the contraction at 6. Then the ends 5 are bent inwards between the edge portions 3 to obtain the folding shown in Fig. 4, and during this folding the tension pull above indicated is maintained. Then the end portions 8 are tucked in between the edge portions 3, as shown in Fig. 5, and smoothed out about the upper side of the loaf so that the foldings shown in Fig. 6 will be obtained. From Figs. 4 and 5 it will be apparent that at the sides of the tucked portions S-shaped folds are obtained. Said folds will render a very regular folding and smooth engagement with the ends and upper side of the loaf. Therefore, it is of no importance whether the length of the loaf or the shape of its ends might vary within reasonable limits, provided the means for bending or tucking is yielding. In the folding above described the folds 9 obtained according to Fig. 6 will converge upwards. Thereafter, the edge portions 3 are folded down into overlapping relation over the article about the tucked portions, as shown in Figs. 7 and 8, and as the folds 9 converge according to Fig. 6 they will extend in a direction from the ends of the loaf of bread after completion of the folding, so that the folding of the edge portions 3 will not cause any wrinkling of the wrapper material at the ends of the loaf. Conveniently, the envelope thus obtained is sealed. Fig. 9 shows the rounded but nevertheless smoothly covered under side (as seen in Figs. 1 and 2) of the wrapped loaf.

According to Fig. 10, the wrapping is likewise commenced by placing the loaf 1 onto a wrapping sheet 2. For bending the edge portions 3 of the wrapper a plunger 11 moves the loaf and the underlying wrapper sheet down into a mould having upwardly diverging side walls 10 and the lower part of which merges into an opening with narrowed ends 13, at which are arranged plates 14 and inwardly turnable flaps 15. The plunger 11 has upwardly diverging side walls 12. On moving the loaf into the mould the wrapper is primarily bent into the shape shown in Fig. 12, and on further moving the loaf into the underlying opening the narrow side ends of the latter move oppositely disposed end portions 16 of the bent wrapper together, as shown in Fig. 13, and on continued downward movement end portions of the wrapper engage the inner edges of the plates 14 which thus bend said portions upwards, as shown in Fig. 14, whereafter, according to Figs. 15 to 17, the flaps 15 tuck the end portions between the intermediate parts of the edge portions 3 of the wrapper about the loaf of bread. Thereby, said intermediary parts are held between the plunger walls 12 and the mould walls 10 until the plunger 11 is retracted. Then the edge portions 3 are folded to overlap about the tucked portions, as shown in Figs. 18 and 19, and

the envelope shown in Fig. 20 will be obtained. Instead of being moved downwards, as previously described, the loaf and wrapper sheet may also conveniently be moved upwards into an opening.

I claim:

1. A method of covering articles with wrapper, which includes bending opposite edge portions of a sheet wrapper to a trough shape embracing the article, leaving said edge portions extending and spaced apart, and the end portions of the bent wrapper open, thereupon pinching said end portions to collapse them and tucking them in between the extending edge portions about the article, and subsequently bending said edge portions over the article about the tucked end portions.

2. A method of covering articles with wrapper, which includes bending opposite edge portions of a sheet wrapper to a trough shape embracing the article, leaving said edge portions extending and spaced apart, and the end portions of the bent wrapper open, thereupon pinching said end portions to collapse them and subject them to tension on tucking them in between the extending edge portions about the article, and subsequently bending said edge portions over the article about the tucked end portions.

BROR ANDERS EMIL JOHNSON.