

R. S. REYNOLDS.
WRAPPER.
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1,421,027.

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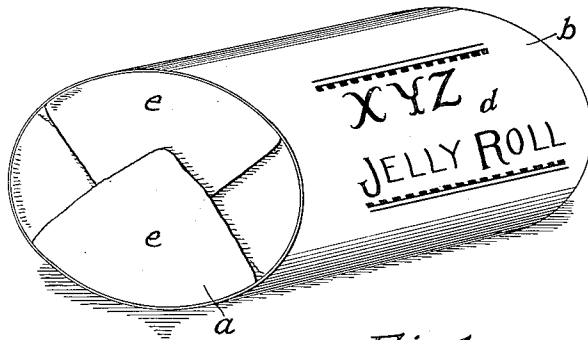


Fig. 1.

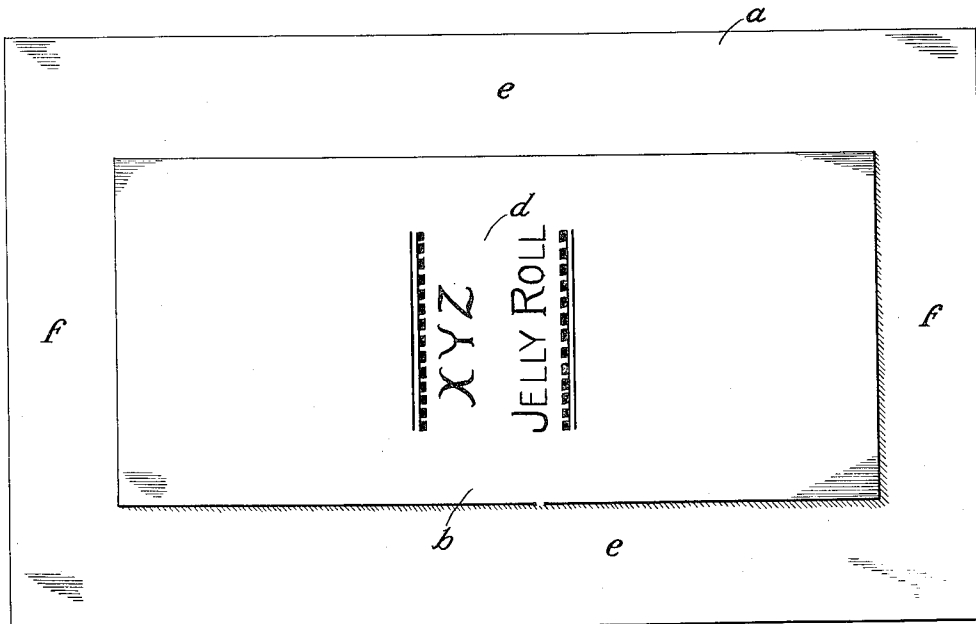


Fig. 2.

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WRAPPER.

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To all whom it may concern:

Be it known that I, RICHARD S. REYNOLDS, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Wrappers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to composite wrappers of metallic foil and paper, to packages enveloped in such wrappers and to a method of forming foil covered packages.

The desirability of metallic foil as an outer covering for packages, particularly of articles that lose their freshness and dry up if exposed to air, or are wrapped in paper or other absorbent wrappers, is well known. As thin metallic foil lacks the strength necessary to adapt it to serve by itself as a wrapper for most packages, it is customary to associate an outer sheet of foil with an inner sheet of paper of equal size for wrapping purposes. These composite wrappers, although having great durability and presenting the beauty of appearance imparted by foil and hence serving in a measure to achieve the desirable results for which foil wrappers are prized, yet cannot be conveniently sealed with inert, odorless and tasteless substances such as paraffine or wax because good adhesion is not possible of attainment with this class of substances and a metallic surface. By this invention a foil protected package may be readily sealed with paraffine or like waxy substances in a sanitary manner.

Objects of this invention are to enable an article or plurality of assembled articles to be sealed in a sanitary and convenient manner within a foil exterior, to economize in foil and to provide a handsome, sanitary, air-proof, foil-wrapped package, containing, for example, perishable materials designed for human consumption.

The invention consists in a composite wrapper comprising a sheet or layer of foil overlying and attached to a sheet or layer of paper, the paper sheet or layer having at least one marginal zone extending beyond the foil; more especially in a wrapper of this kind wherein the marginal zone is coated with an adhesive having the property of softening under heat, and still more

specifically in a wrapper of this kind wherein the entire paper sheet is coated or impregnated with paraffine, or other suitable waterproof coating adapted to be softened by heat so as to become adhesive, to which the foil adheres. It also consists in a package having a composite wrapper of foil and paper in which an extended marginal zone of the paper layer is sealed to the inner side of the composite wrapper enveloping one or more articles. It further consists in the method of wrapping one or more articles in a composite foil and paper wrapper of the kind described.

In the accompanying drawing:

Figure 1 is a perspective view of a package;

Figure 2 is a plan of one form of wrapper involving this invention.

Although the characteristic principles of my invention and its essential utilities inhere in a wrapper composed of an inner layer of paper or equivalent fibrous somewhat absorbent sheet and an outer layer of foil overlying the fibrous layer so as to expose a marginal zone of the latter, whereby in sealing a package paper may be caused to adhere to paper, I have illustrated the invention as embodied in a composite wrapper of the class referred to wherein a sheet of foil is superimposed on and adheres to a larger sheet of paper so as to expose four marginal zones or a completely surrounding zone of the paper. The paper or other fibrous sheet *a* is preferably impregnated and coated with paraffin or equivalent waxy, water-insoluble, odorless and tasteless substance, which although hard at ordinary temperatures, has the property of softening under heat; so that two coated surfaces pressed together and heated will adhere when cold, or a coated surface pressed into contact with an absorbent or bibulous surface such as that of paper, and heated, will adhere by reason of the penetration of the waxy substance into the surface. Superposed upon the coated paper sheet *a* is a sheet of metallic foil *b*, which may be caused to adhere to the coated paper sheet to such an extent as to permit the composite sheet to be handled without material danger of relative displacement of the layers. Sufficient adhesion for the purpose may be obtained by pressing the two together. The outer exposed face of the foil may be decorated as desired and any desirable label, trade mark, legend or design

may be imprinted thereon as at *d* to identify or advertise material or articles to be inclosed within the wrapper. In the wrapper illustrated the layer of foil *b* is similar in shape to the layer of paper *a* but sufficiently smaller to expose four marginal zones *e*, *e*, *f*, *f*, of paraffin-coated paper. It will be understood that, whether one or more than one marginal zone of paper, uncovered by the layer of foil, is provided in the wrapper, will be governed by the nature of the article to be wrapped and the manner in which it is to be wrapped; and of course the dimensions of the foil and paper will be governed by the dimensions of the package.

In Figure 1 a piece of cake is shown enveloped in a composite foil and paper wrapper, the foil covering the exposed surface of the cake except the under side, which is not visible, and the ends. The paraffined zones *f*, *f* are sealed together, as by applications of moderate heat and pressure, and the coated marginal zones *e*, *e* are folded over the ends and sealed in a similar manner. Were it desired to have the foil completely surround the article, only one paraffined marginal zone *f* would be exposed beyond the overlying foil. Also, if it were not deemed necessary to seal the ends, the foil layer *b* would be extended to cover the marginal zones *e*.

In wrapping an article with the improved wrapper the inner or paper side is placed next to the article, one paraffined marginal zone of the paper laid against the article, the wrapper folded about it and the paper surface at the opposite edge of the wrapper lapped over the exposed paraffined marginal zone and lightly pressed in contact therewith by a surface heated sufficiently to fuse the coating thus causing the overlapped portions to adhere.

The wrapper is not only susceptible of being effectively sealed by reason of the fact that both overlapped surfaces are of non-metallic fibrous material congenial to cementation by such substances as paraffin and the like, but requires a smaller sheet of the relatively expensive metallic foil than the ordinary foil or composite foil and paper wrapper heretofore described. It therefore creates a wider field of usefulness for foil wrappers and makes it possible to preserve wrapped articles of food in attractive packages and keep them for a longer period in a fresh condition. It also renders unnecessary the outer bands of cord, ribbon or paper or partial coverings of paper commonly used on foil wrapped packages of cigarettes and other articles now inclosed in foil wrappers

and enables them to be displayed and handled in the full beauty of an exposed covering of decorated foil.

I wish it to be understood that this invention is not limited to the specific form of wrapper illustrated and particularly described hereinbefore, but may be embodied in other forms within the definition of the appended claims.

Having described my invention what I claim and desire to secure by Letters Patent is:

1. A composite wrapper consisting of a sheet of foil overlying and attached to a sheet of paper, the sheet of paper having an exposed marginal zone extending beyond the foil and coated with an adhesive material having the property of softening under heat whereby in wrapping packages portions of the paper layer of the composite wrapper may be brought into lapped contact and sealed by heat and pressure.

2. A composite wrapper consisting of a sheet of foil overlying and adhering to a sheet of paper that is completely coated with an adhesive material having the property of softening under heat, said coated paper sheet having an exposed marginal zone extending beyond the foil whereby in wrapping packages portions of the paper layer of the composite wrapper may be brought into lapped contact and sealed by heat and pressure.

3. A package comprising an article encased in a composite wrapper consisting of an outer layer of foil overlying and adhering to an inner layer of paper completely coated with a water insoluble adhesive material having the property of softening under heat, the layer of paper having a marginal zone not covered by the foil adhering to the inner paper surface of the wrapper and securing said wrapper about the article.

4. The method of forming a package, which consists in taking a composite wrapper consisting of a sheet of foil overlying a sheet of paper, the paper having a marginal zone coated with an adhesive material having the property of softening under heat, enfolding the article within the wrapper with the paper sheet on the inside and a portion of the wrapper overlying said marginal zone with the paper edge in contact therewith, and securing the wrapper by heat applied to said overlapping portion while held in contact with the said zone.

In testimony whereof I affix my signature.

RICHARD SAMUEL REYNOLDS.