May 8, 1934. J. YATES 1,958,256

PACKAGE AND METHOD OF MAKING THE SAME

Filed Aug. 12, 1933

Fig. 1.

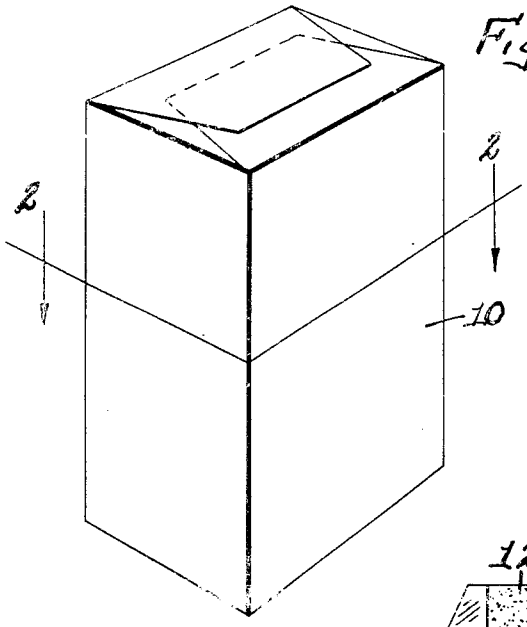
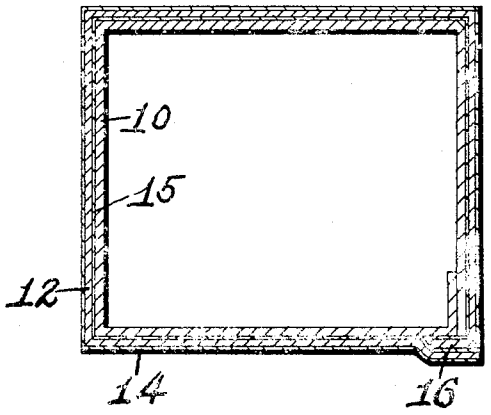


Fig. 2.



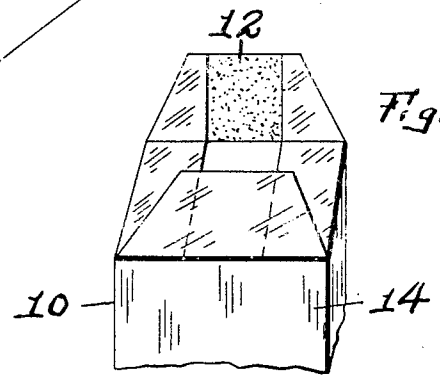


Fig. 3.

Fig. 4.

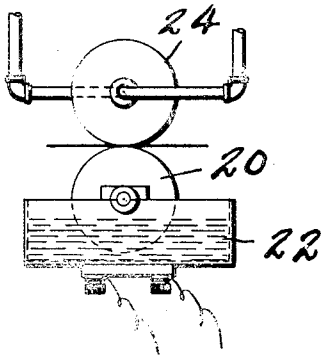


Fig. 5.

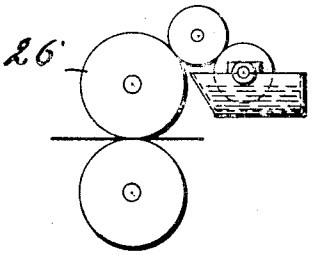
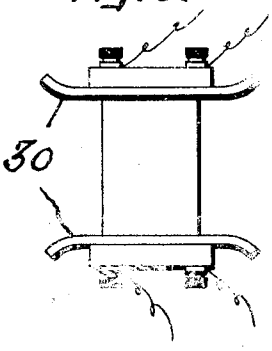


Fig. 6.



INVENTOR
John Yates
BY
J. Stanley Church
ATTORNEY

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PACKAGE AND METHOD OF MAKING THE SAME

John Yates, Quincy, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts

Application August 12, 1933, Serial No. 684,851

8 Claims. (Cl. 93—2)

This invention relates to a package and to a method of making the same.

One object of the invention is to provide a novel tight-wrapped package which may be economically manufactured and whose construction is such as to afford the contents of the package most efficient protection against moisture.

A further object of the invention is to provide a novel method of making the novel tight-wrapped package by which the package may be produced in a superior manner and at minimum cost.

With these general objects in view and such others as may hereinafter appear, the invention consists in the tight-wrapped package and in the method of making the same hereinafter described and particularly defined in the claims at the end of this specification.

In the drawing illustrating the preferred embodiment of the invention, Fig. 1 is a perspective of a tight-wrapped package embodying the present invention; Fig. 2 is a cross section on line 2—2 of Fig. 1; Fig. 3 is a perspective illustrating the preferred form of seal for the ends of the package; and Figs. 4, 5 and 6 are diagrammatic views illustrating the successive steps preferably practiced in the manufacture of the present package.

In the art of wrapping various commercial packages it has heretofore been the general practice when seeking protection against moisture to enclose the package within a so-called wax wrapper comprising a paper sheet saturated with paraffin and having a substantial coating of paraffin upon both surfaces thereof. Because of the lack of adhesiveness possessed by the paraffin coating upon the inner surface of the wrapper, so-called wax wrapped packages heretofore produced have necessarily been "loose"-wrapped as distinguished from "tight"-wrapped, and in the packaging art the term "loose"-wrapped has come to mean a package having a wrapper loosely wrapped about the same. The wrapper is not adhesively affixed to the surface of the package, while in a "tight"-wrapped package the wrapper is tightly and adhesively secured to the entire surface of the package.

The problem of producing a wrapped package of the type known in the art as a tight-wrapped package utilizing a wax wrapper has heretofore been unsolved. The advantages of a tight-wrapped package have long been recognized including the retention of the wrapper upon the package after the package has been opened and the additional strength imparted to the package by the wrapper tightly secured to the package. These advantages cannot be obtained with the loose wrapper of a wax wrapped package as heretofore constructed. Of the various commercial waxes, paraffin is the one most extensively used in the production of wax wrappers, and experience over a long period of time has demonstrated that even with the aid of heat, paraffin possesses little or no adhesive quality, and when the attempt is made to cause the adherence of a paraffin coated wrapper to the entire surface of a package solely by the paraffin itself, the result has been entirely unsatisfactory from a commercial point of view. Various attempts have also been made to increase the adhesiveness of the paraffin coating upon the wax wrapper, but these have not met with commercial success.

As above stated, the present invention aims to produce a package having all of the desirable characteristics of a wax wrapped package, and in addition to provide one in which the wax wrapper is caused to firmly adhere to the entire surface of the package so that in effect a tight-wrapped wax coated package is produced, a result which has been commercially sought for a long period of time. In addition, in the present wrapped package the overlapping end folds may be heat sealed to effectively close the same, a result which is new in a tight-wrapped package.

In accordance with the present invention, a wrapper, which may if desired be printed, is first coated with a wax such as paraffin upon the outer surface only thereof and in a manner such as to prevent the wax from striking through or penetrating through the wrapper to thereby preserve the inner surface of the wrapper in an uncoated condition. This may be conveniently accomplished by chilling the uncoated and inner surface of the wrapper while the outer surface thereof is being coated with the molten paraffin. After the wrapper has been thus coated upon one surface, the coated wrapper is wrapped around the package with the uncoated surface adjacent the package and with the wax coated surface upon the outside and glue or other suitable adhesive is utilized to cause the adherence of the uncoated paper surface of the wrapper to the surface of the package, thereby producing a tight-wrapped package. The overlapping portions of the wrapper may and preferably will be subjected to heating to additionally seal the wrapper at these points.

Referring to the drawing, 10 represents the package which may comprise any usual or preferred form of package and which in accordance with the present invention is tightly wrapped with a wrapper 12. The wrapper 12 comprises a paper sheet preferably printed in the usual manner and having a coating of wax such as paraffin covering the outer surface thereof to thereby provide the package with a moisture resisting layer 14. The inner surface of the wrapper is wax-free and is secured to the surface of the package by any usual form of adhesive such as a layer 15 of glue which may be used to secure the paper surface of the wrapper to the body of the package to thereby produce the type of wrapped package known in the art as a tight-

wrapped package. I prefer in coating the outer surface of the wrapper with a wax, such as paraffin, to leave one marginal side edge 16 of the wrapper uncoated so as to expose a strip of the paper surface in its natural and uncoated condition, so that when the wrapper is folded around the package a paper to paper contact may be obtained along this edge in order to permit the overlapping parts to be successfully glued together.

Referring now to Figs. 4, 5 and 6, I have therein illustrated diagrammatically the successive steps which I prefer to follow in producing the present wrapped package, wherein 20 represents a coating roll running in a bath 22 of molten paraffin and the outer surface of the wrapper is passed over the coating roll 20 and between it and a cooling roll 24 which may be maintained in a chilled condition by brine or other refrigerating means circulating therethrough. The inner or uncoated surface of the wrapper is thus cooled by the cooling roll and the molten paraffin is prevented from striking through the paper of the wrapper, thus preserving the inner surface of the wrapper in a wax-free and uncoated condition. After the coated wrapper has been thus produced the inner or uncoated surface thereof is passed in contact with the gluing roll 26 of any usual or preferred form of gluing device and then the wrapper is applied to the package and wrapped about the same in accordance with the procedure followed in producing an ordinary tight-wrapped package. When the wrapper has been completely wrapped about the package, I prefer to heat seal the overlapping end of the folds of the wrapper, as by the heating plates 30, thus causing the paraffin upon contiguous surfaces to fuse together to completely close the spaces between the end folds of the wrapped package.

From the description thus far it will be observed that in accordance with the present invention a wax coated tight-wrapped package is produced preserving all of the advantages of the loose-wrapped wax package of the prior art and also embodying the desirable characteristics of the tight-wrapped package of the prior art, and this product finds particular use in the economical protection of commodities from moisture conditions.

While the preferred embodiment of the present invention has been herein illustrated and described, it will be understood that the invention may be embodied in other forms within the scope of the following claims.

Having thus described the invention, what is claimed is:—

1. The method of making a wax coated tight-wrapped package, which consists in applying a coating of wax to one surface of the wrapper while chilling the other surface, applying the adhesive to the wax-free surface of the wrapper, and then wrapping the package with the wrapper thus produced to adhesively affix the wrapper to the package and form a tight-wrapped package.

2. The method of making a wax-coated, tight-wrapped package which comprises the steps of applying a coating of wax to the exterior surface only of a printed wrapper while preventing the penetration of wax through the paper, applying adhesive to the wax-free interior surface of the wrapper and then wrapping the package with the thus pre-fabricated wrapper to adhesively affix the wrapper to the package and form a tight-wrapped package.

3. The method of making a wax-coated tight-wrapped package comprising the steps of applying a coating of wax to the exterior surface only of the wrapper, treating the interior surface thereof to prevent the penetration of wax through the wrapper, applying adhesive to the wax-free inner surface of the wrapper and then wrapping the package with the thus pre-fabricated wrapper to adhesively affix the wrapper to the package and form a tight-wrapped package.

4. The method of making a wax-coated tight-wrapped package which comprises the steps of providing a coating of wax for the exterior surface only of the wrapper, over printing provided thereon without permitting the wax to penetrate to the inner surface thereof, whereby the inner surface is substantially wax-free, applying adhesive to said inner wax-free surface of the wrapper and thereafter wrapping the package with the thus pre-fabricated wrapper to adhesively affix the wrapper to substantially all surfaces thereof and to form a tight-wrapped package.

5. The method of making a wax-coated tight-wrapped package which consists of applying a coating of wax to the outer surface of the wrapper while preventing the penetration of the wax through said wrapper, applying adhesive to the wax-free inner surface of the wrapper, wrapping the wrapper about the body of the package and then folding the end portions of the wrapper against the ends of the package with portions thereof in over-folded relation and with wax surfaces in contact, and subsequently heat sealing said contacting portions of the wrapper to seal the same.

6. The method of making a wax-coated, tight-wrapped package which consists of applying a coating of wax to the outer surface of the wrapper leaving a wax-free strip along one marginal longitudinal edge thereof while preventing the penetration of the wax through said wrapper, then applying adhesive to the wax-free inner surface of the wrapper, wrapping the wrapper about the package to adhesively affix the same to the package and to adhesively secure one marginal edge thereof to the aforesaid wax-free strip, folding the end portions of the wrapper against the ends of the package to adhesively affix the same thereto.

7. A wax-coated tight-wrapped package comprising a package, a wrapper for the package having its outer surface only coated with a layer of wax and having its inner surface substantially wax-free and adhesively affixed to substantially the entire surface of the package whereby to form a tight-wrapped package with the end portions of the wrapper folded against the ends of the package with portions thereof in overlapping relation, said portions being secured together by the wax on the contacting surfaces.

8. A wax-coated tight-wrapped package comprising a package, a wrapper for the package having its outer surface only coated with a layer of wax and having its inner surface substantially wax-free and adhesively affixed to substantially the entire surface of the package with portions of the wrapper folded against the package in overlapping relation, and whereby the entire outer surface of the wrapped package, together with the contacting surfaces of at least some of the overlapping portions, are provided with a coating of paraffine.

JOHN YATES.