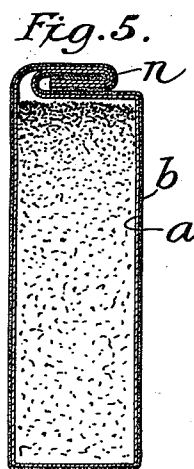
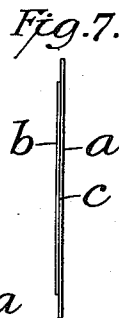
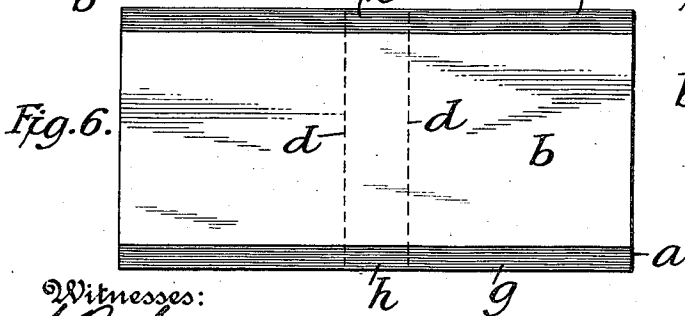
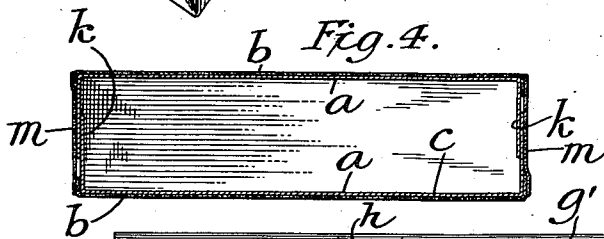
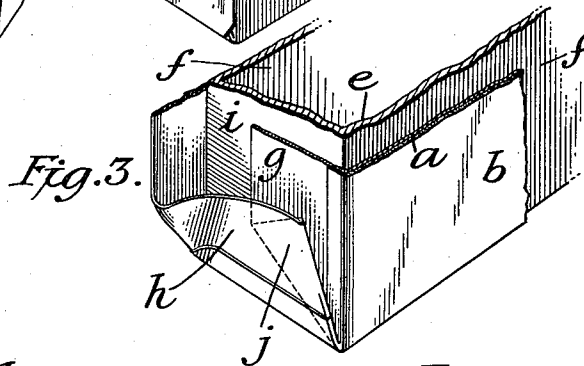
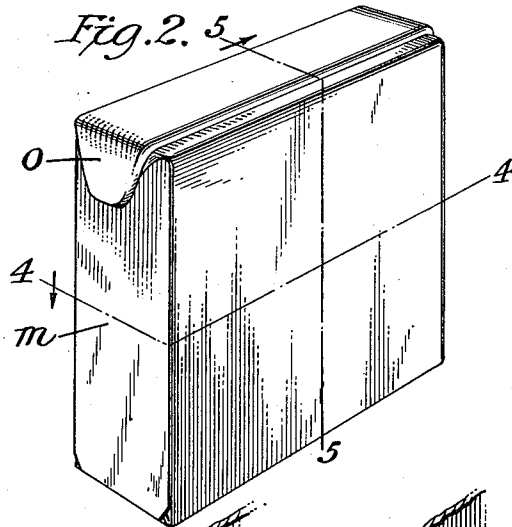
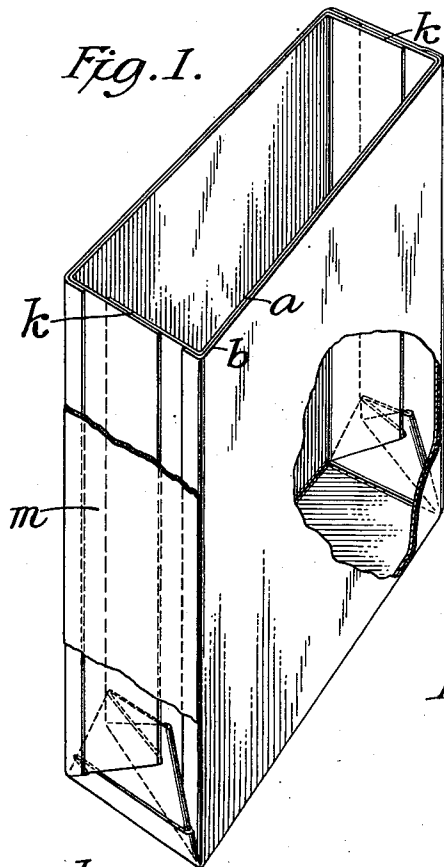


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 FOIL PACKAGE FOR TOBACCO AND OTHER SUBSTANCES.
 APPLICATION FILED APR. 11, 1913.

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Patented Apr. 27, 1915.



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UNITED STATES PATENT OFFICE.

JONATHAN PETERSON, OF BROOKLYN, NEW YORK.

FOIL PACKAGE FOR TOBACCO AND OTHER SUBSTANCES.

1,137,280.

Specification of Letters Patent.

Patented Apr. 27, 1915.

Application filed April 11, 1913. Serial No. 760,367.

To all whom it may concern:

Be it known that I, JONATHAN PETERSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful
5 Improvements in Foil Packages for Tobacco and other Substances, of which the following is a specification.

My present invention relates to a new and improved bag, pouch, package, or container, especially adapted as a receptacle for manufactured products of a perishable nature or such as are affected by atmospheric changes or conditions, as for instance various kinds
15 of tobacco products, including chewing and smoking tobacco, snuff and the like.

It is well understood that tobacco products are at their best, or are in a better condition for use when they contain a certain amount of the original moisture, (the degree of moisture depending somewhat upon the particular character of the product) and it is also well known that when exposed to the atmosphere such products soon dry out, lose
20 their flavor and aroma and otherwise deteriorate; and recognizing this peculiarity in the products named, tobacco manufacturers generally, with comparatively few exceptions, have adopted "tins" as containers for their products with a view to keeping the products in the best possible condition for use and for as long a time as possible. These "tins" now so generally found upon the market are made in various styles, shapes
25 and sizes and while they have proven to be fairly serviceable for the purpose, their use has been more a matter of necessity or compulsion than of choice or favor because of the absence of a satisfactory known substitute that will fully meet the requirements of both the manufacturer and the trade. The "tins" referred to while in a way serviceable for the purpose, are not entirely satisfactory or profitable in use because of their
30 great cost as compared to the selling price of the commodity they usually contain, and are objectionable because they are too bulky and stiff to be conveniently and comfortably carried in the pocket of the user of the commodity contained therein, it being understood, that to a large extent, these "tins" are made in so-called "pocket" sizes.

The object of the present invention is to provide a comparatively cheap, simple, durable and efficient bag, pouch, wrapper or re-

ceptacle especially adapted for use as an original package for such manufactured products as tobacco, snuff and the like, and to be employed as a substitute for the "tins" referred to, although it will be found to be
60 equally serviceable as a receptacle for other commodities; particularly those of a perishable or highly flavored nature and such as are affected by atmospheric changes or conditions.

To meet the requirements of the manufacturer of the products the bags, pouches, or receptacles are to contain, as well as the requirements of the trade, such bags or receptacles must be comparatively simple and
70 cheap to manufacture; they must be comparatively light, but sufficiently strong and durable to withstand the wear and tear to which such receptacles are naturally subjected, and this refers particularly to wear
75 and tear incident to carrying the receptacle in the pocket and frequent opening and closing thereof during removal of its contents; they should be sufficiently flexible or pliable to permit of their being flattened or
80 otherwise shaped to conform to the pocket of the user; and they must be air and moisture proof in order to retain the original moisture, flavor and aroma of the contained product and at the same time prevent the
85 product from absorbing moisture from the atmosphere or otherwise. The pouch, package, or receptacle forming the subject matter of the present invention has been devised with a view to meeting the above mentioned requirements, and these have been met partly by reason of the material from which the package or receptacle is made; partly by reason of the peculiar construction of blank from which the package is made,
90 and partly by reason of the particular way in which the blank is folded in pouch or package-form and otherwise constructed.

In order to enable others skilled in the art to understand and practice the said invention I will now proceed to describe the same in detail, reference being made for this purpose to the accompanying drawing, wherein:

Figure 1 is a perspective view of a bag or receptacle made in accordance with the invention, certain parts being broken away and shown in section for clearness of illustration. Fig. 2 is a perspective view of the complete package as it will appear when
105 110

filled ready for the trade. Fig. 3 is an enlarged sectional view showing one manner in which the blank may be folded to form the lower corner-joints at the opposite ends of the bag or package and foil to foil side joints or seams. Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 2. Fig. 5 is a vertical section taken on the line 5—5 of Fig. 2. Fig. 6 is a plan view of the blank from which the package is formed and, Fig. 7 is an end view of the blank.

My improved bag, pouch or package in the embodiment here shown, is made from the form of blank illustrated in Figs. 6 and 7, of the accompanying drawing, the said blank comprising a soft, flexible, metallized or composite foil-sheet consisting of a thin sheet of tin-foil *a*, having a backing sheet *b*, of soft flexible fibrous material having great tensile strength, and by preference I employ for this purpose a tissue sheet of long-fibered rope paper that is soft in texture, but has great tensile strength, and the surface or surfaces of which are unglazed or uncalendered. The tin-foil sheet *a*, and its backing *b*, are united together face to face by means of a yieldable binding medium consisting of a thin film of rubber compound that is applied to either the backing *b* or the foil-sheet *a*, or both, the said compound being lightly or thinly applied over the entire contacting surface or surfaces of the sheet or sheets, in a fluid or semi-fluid state, and when the compound has become sufficiently "tacky" or sticky, as it does when exposed to the atmosphere for a brief period to permit the contained hydrocarbon solvent to evaporate, the coated surface or surfaces of the sheets are brought together under pressure and heat sufficient to vulcanize the rubber compound and bring about an intimate union of the superposed sheets throughout their contacting faces.

It should be understood that the foil-sheet as well as its backing and the interposed film of rubber are each very thin and flexible, so that the resultant composite sheet in its finished state is likewise very thin, soft and flexible and has great tensile strength; the backing sheet, together with the interposed rubber-film serving to give the necessary stability to the otherwise frail and unstable foil-sheet. The interposed film of rubber compound being in itself soft and flexible does not in any way stiffen the resultant composite sheet, but to the contrary it has a tendency to and actually does lend further softness and flexibility to the finished product and the pouch or package made therefrom, and since the film is applied in a fluid or semi-fluid state, the compound enters the pores or interstices of the somewhat porous fibrous backing sheet and effects a firmer union between the parts. Furthermore, since the film of rubber compound has a

great affinity for tin-foil the resulting cohesion between the several layers will render them practically inseparable when once united, thus preventing peeling or flaking of the foil-sheet from its backing, which is a most serious objection present in other composite foil sheets of known construction. The interposed film of rubber compound also seems to take care of the unequal expansion and contraction of the foil and backing sheets respectively, which expansion and contraction take place during atmospheric changes, and it also permits of the composite sheet being bent or folded without breaking through.

In the form of blank or wrapper illustrated in Figs. 6 and 7, the foil-sheet *a*, is made wider than the width of the backing sheets *b*, the said backing sheet being arranged centrally and longitudinally of the foil-sheet so as to leave exposed or unbacked portions of the foil-sheet along the opposite longitudinal edges of the blank or wrapper and which exposed or unbacked portions are arranged and adapted to overlap one another in the finished pouch or package in order to make an air and moisture-proof joint, this being brought about by reason of the fact that the overlapping and joined portions of the blank or wrapper are arranged foil to foil, all as will more presently appear.

In making the form or construction of pouch or package illustrated in Figs. 1 to 5, inclusive, from the blank illustrated in Figs. 6 and 7, the said blank is first bent or folded transversely along the dotted lines *d—d*, Fig. 6, this being accomplished by bringing the face of the blank up against the end of a form-block or shell *e*, Fig. 3, (which block or shell corresponds in shape and size to the interior dimensions of the pouch or package) and then folding the free portions of the blank flat against the opposite faces *f*, of the block or shell as more clearly shown in Fig. 3, wherein one manner of folding the blank to form the bottom and ends of the package is illustrated.

The blank being wider than the width of the form-block or shell, the operations just described of folding the free portions of the blank flat against the opposite faces *f*, of the form will leave the unbacked or marginal foil portions *g*, *g'*, projecting outward beyond the opposite ends *i*, of the form and in the planes of the opposite faces *f* thereof, while the intermediate foil portions *h*, will project at right angles to the folded portions *g*, *g'* and in the plane of the bottom end of the form. The two foil portions *g*, (one at each end of the block) are then folded inward against the ends *i*, of the form in such a way, as illustrated in Fig. 3, to form triangular gusset-folds *j*, as shown in dotted lines in said figure, the apex of each of the

triangular folds being positioned or pointing to a corner of the form at the bottom end thereof. The intermediate foil portions *h*, at opposite ends of the form are then folded up flat against the ends *i*, as shown in Fig. 3, and finally the projecting foil portions *g*, are folded over flat against the ends *i*, of the form and in overlapping engagement with the previously folded foil portions *g*, meeting said portions foil to foil to provide foil joints *k*, Figs. 1 and 4, at opposite ends of the package, it being understood that the contacting or overlapping portions of the blank have had previously applied thereto a thin coating or film of rubber compound which serves to unite the said portions and form close air and moisture-proof joints.

As will be understood from the foregoing, the pouch or package is made over or upon the form-block or shell *e*, which may be either solid or hollow, and when formed as above set forth, the said form with its pouch or package thereon is passed between pressure rollers to more closely and firmly unite the overlapped portions or joints, and the pouch or package is then subjected to heat in order to vulcanize the rubber compound between the said overlapping portions of the blank.

In making the pouch or wrapper, I prefer to arrange the composite foil sheet upon the form-block or shell so that the foil side thereof will be upon the inside of the pouch or package and the fibrous backing upon the outside, and in this way I am able to produce a pouch that will be lined throughout with foil and all joints of which will be made foil to foil.

I do not wish to be understood as limiting myself to the particular manner of folding the blank as herein shown and described, as I am aware that the blank may be folded in other ways and substantially the same or equivalent foil to foil joints secured, the showing here made being only by way of example.

In order to protect and give proper strength to the foil-joints *k*, and folded foil portions of the blank at the opposite ends of the pouch or package, I apply to each end thereof a protecting and strengthening strip *m*, of soft, flexible fibrous material, said strips being united to the ends of the pouch or package by means of a film of rubber compound and overlying all the foil joints thereof. These strips will give the necessary strength to the pouch or package along the jointed portions thereof to withstand the strains imparted thereto by reason of the bulging of the ends due to the pouch or package becoming flattened when carried in the pocket.

After it has been filled, the pouch is closed by bringing together or collapsing the opposite side walls at the open end thereof, which

will cause an outward bulging of the end walls. This collapsing of the open end of the pouch will bring the opposite inner foil walls into facial contact in order to make a close foil joint, and the flattened end is then folded upon itself as shown at *n*, Fig. 5, and the projecting ends *o*, of the folded portion are then bent or folded down against the ends of the pouch or package as shown in Fig. 2. When it is desired to remove some of the contents from the package, as for instance a chew or pipe full of tobacco, the folded over portion at the top thereof is unfolded and the package opened up, after which the opened end is folded as before except that additional folds *n*, are made as fast as permitted by the removal of the contents, and in this way the contents will retain its original flavor and moisture for a considerable period after the package has been opened for the first time, because the continued folding over of the upper end of the pouch, as the contents are removed from time to time, will maintain a close air and moisture-proof joint.

A pouch or package made in accordance with the present invention will be found to be sufficiently soft and pliable to be conveniently and comfortably carried in the pocket; it will be found to be light in weight, yet sufficiently strong and durable to withstand the wear and tear to which pouches of this class are usually subjected; it is air and moisture-proof, thus affording ample protection to its contents from atmospheric influences; and it is simple and comparatively cheap to manufacture. For these reasons pouches or packages made according to the invention will be found to be worthy substitutes for the stiff, heavy, less handy and more expensive "tins" now so generally used as containers for certain manufactured products.

What I claim is:—

1. A pouch formed from a flexible composite foil blank consisting of frail foil and a backing sheet therefor, said blank being folded transversely of its length to form the bottom and two opposite side walls of the pouch and said pouch also having overlapping foil portions at the opposite ends thereof, said overlapping foil portions being facially united by an intermediate film of rubber compound and constituting portions of the opposite longitudinal end walls of the pouch.

2. A pouch or package formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft flexible fibrous material of less width than the foil sheet, arranged substantially centrally and longitudinally thereof and facially united thereto throughout its entire area by means of a thin film of rubber compound, said blank being folded transversely

of its length to form the bottom and two sides of the pouch or package, the free or unbacked foil portions of the blank at the opposite longitudinal edges thereof being overlapped and joined foil to foil along the opposite longitudinal ends of the pouch or package.

3. A foil-lined pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft fibrous material of less width than the foil sheet, arranged substantially centrally and longitudinally thereof, and facially united thereto throughout its entire area by means of a thin film of rubber compound, said blank being folded transversely of its length to form the bottom and two sides of the pouch, and the oppositely disposed unbacked foil portions of the blank being folded inward toward each other and overlapped and joined foil to foil by an interposed film of rubber compound to form the opposite ends of the pouch.

4. A pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft flexible fibrous material of less width than the foil-sheet, arranged centrally and longitudinally thereof and facially united thereto throughout its entire area by means of a film of rubber compound, said blank being folded along parallel lines transversely of its length to form the bottom and two sides of the pouch, the free or unbacked foil portions of the blank being overlapped and joined foil to foil along the opposite longitudinal ends of the pouch, and flexible strengthening strips overlying and united to the said lapped and joined foil portions.

5. As a new article of manufacture, an air and moisture-proof foil-lined pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a soft, flexible backing of fibrous material facially joined thereto throughout its contacting face through the medium of a film of rubber compound, said blank being folded in the form of a pouch having foil to foil joints or seams at its opposite ends only, the sides and bottom of the pouch being free from joints or seams.

6. As a new article of manufacture, an air and moisture proof foil-lined pouch formed from a flexible composite blank, consisting of a sheet of tin foil having a soft, flexible backing of thin fibrous material facially joined thereto throughout its contacting face by means of an interposed film of rubber compound, said blank being folded to pouch form and having overlapping foil to foil joints along its opposite ends only, and flexi-

ble strengthening overlying and united to the said overlapping joints.

7. A pouch or package having composite walls made of a layer of thin flexible paper and a thin-sheet of metal foil facially united thereto throughout its entire area by a thin film of vulcanized rubber compound, said pouch having foil to foil joints at the opposite ends thereof.

8. A pouch or package consisting of a wrapper shaped into box form, said wrapper consisting of a sheet of metal foil and a backing sheet attached thereto throughout its entire area and forming the bottom and two side walls of the pouch, two opposite edges of said foil sheet extending beyond the opposite edges of said backing sheet and forming overlapping unbacked edges of foil sealed to foil by means of an interposed film of rubber compound, said overlapping foil edges constituting portions of the opposite end walls of the pouch.

9. A pouch or package consisting of a wrapper shaped into box form, said wrapper consisting of a sheet of metal foil and a flexible backing sheet attached thereto throughout its entire area and forming the bottom and two sides of the pouch, two opposite edges of said foil sheet extending beyond said backing sheet at the opposite longitudinal edges thereof and forming overlapping unbacked edges of foil surface directly against foil surface, and a coating of rubber compound sealing the contacting foil surfaces.

10. A pouch formed from a flexible composite foil blank having unbacked foil portions along opposite edges thereof, said blank being folded transversely of its length and across said unbacked foil portions to form the bottom and two side walls of the pouch, and the said foil portions at opposite ends of the side walls being folded inward toward each other and overlapped to form the two end walls of the pouch, a film of rubber compound interposed between and uniting the said overlapping foil portions, and the said foil portions of the blank between the side walls at the bottom of the pouch being folded upward and joined to the overlapping foil end walls whereby to provide a foil-lined pouch having air tight foil to foil joints.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JONATHAN PETERSON.

Witnesses:

J. GRANVILLE MEYERS,
L. A. HAMMERSLEY.