

R. McF. SMITH.
Packages of Plug-Tobacco.

No. 208,342.

Patented Sept. 24, 1878.

Fig. 1.

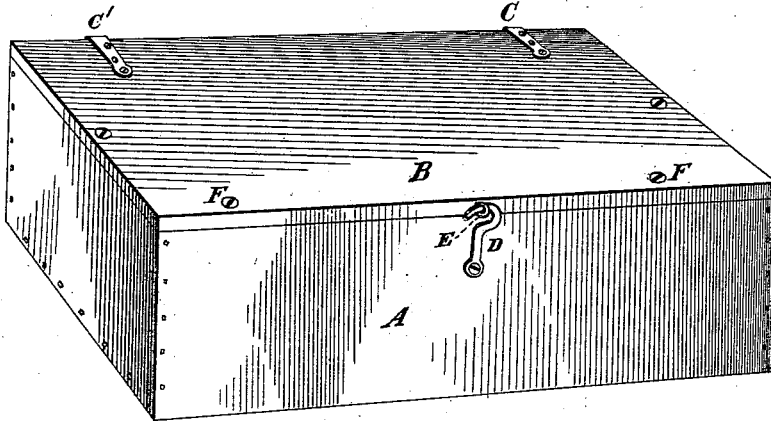
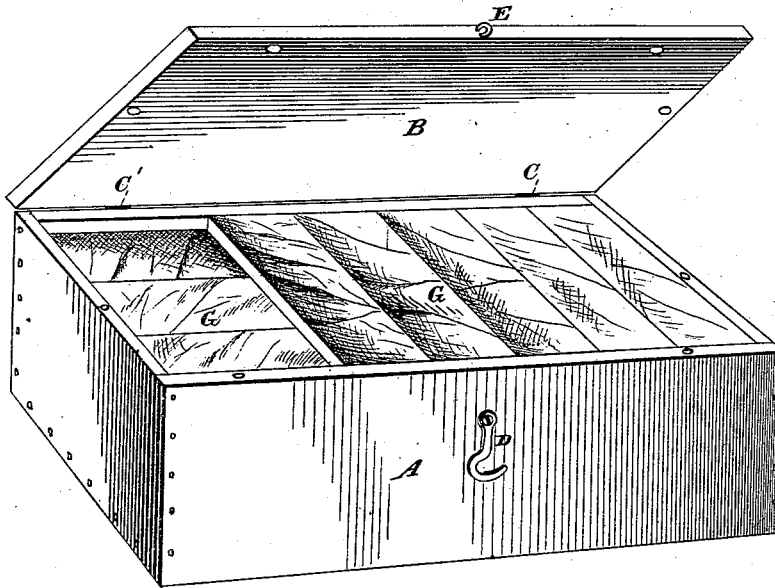


Fig. 2.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN PACKAGES OF PLUG-TOBACCO.

Specification forming part of Letters Patent No. 208,342, dated September 24, 1878; application filed January 29, 1878.

To all whom it may concern:

Be it known that I, ROBERT MCF. SMITH, of Ludlow, Kenton county, and State of Kentucky, have invented a certain new and Improved Package of Plug-Tobacco; and I do hereby declare the following to be a full, clear, and exact description of the same, which will enable others skilled in the art to which my invention relates to make and use it, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a tobacco-caddy containing plug-tobacco pressed and packed in accordance with my invention; and Fig. 2 is a similar view, showing the caddy opened upon one side to expose its contents.

Similar letters refer to similar parts.

In the manufacture of plug-tobacco it is the invariable custom, after the plugs are shaped and pressed, to first place them in layers within wooden boxes, and then subject the whole number of layers in each box to the action of a powerful press, by which they are pressed into a compact body. The pressure is then removed and the box headed up before the tobacco has time to react and expand.

The boxes are made either oblong or square, and have their heads inserted between the four sides, to which they are first nailed, and then secured by beveled strips of wood nailed around the projecting ends of the box in the angle formed by its four sides and the heads. These beveled strips form flanges on the sides of the box, to resist the outward pressure of the heads as the tobacco bears against them, and add to the resistance afforded by the nails driven through the sides into the edges of the heads.

Inasmuch as the greatest expansion of the tobacco is sidewise of the plugs, because the leaves are pressed together sidewise, it has always been considered necessary to so construct the caddies or boxes that their greatest strength or resistance shall be in the direction in which the tobacco expands, or, in other words, toward the ends of the boxes; hence the sides of the box are nailed together in the ordinary way, while the heads are applied and strengthened as above described.

In the manufacture, sale, and use of the to-

bacco two things are essential: First, that when the packages are opened the sides of the plugs or layer of plugs shall be exposed to the view of the inspector and consumer, so that they can determine the quality and condition of the tobacco, and so that the plugs can be removed from the box; secondly, that when the boxes are opened the tobacco shall not be exposed to the action of the air for a longer time than is required to exhibit it, because, being easily influenced by atmospheric changes and the deposit of dust and dirt, it soon deteriorates, and oftentimes is damaged to such an extent as to render it unsalable and unfit for use.

In retail stores where the demand for plug-tobacco is very great it is not exposed long enough to materially injure it before a box is sold out; but in those stores where the trade is light the continued exposure results in serious damage to the tobacco.

To open a package thus made and packed, one side of the box is first forced off. This exposes the edges of the plugs, but does not admit of their being separately taken out, nor enable the inspector or consumer to determine the quality and condition of the tobacco.

In removing the side of a tobacco-caddy, even those persons most skilled in the work are liable to, and generally do, split such side or one or the other of the adjoining sides, and sometimes all three, because they are so securely nailed together to resist the expansive force of the tobacco that the brittle wood will split before the nails will draw out or break off.

To expose the sides of the plugs and remove them from the box separately, one head of the box must also be removed, or the tobacco shaken or knocked out of the box in a body.

By the first method the sides of the box are driven apart at one end, so as to loosen the head, which is then forced off with a suitable instrument after the nails are cut or broken. This, of course, practically destroys the box, because its several parts become disjointed, the beveled strips of one head split or broken, the head which is taken out split or broken at the nail-holes or through its body, and the side which is first removed generally split or broken, as also the adjoining sides. When,

however, the head is finally taken out one wide side of a layer of plugs is exposed for inspection as well as one end of all the layers, and the plugs can be separately removed. If, now, it is attempted to restore the side of the box and leave the head off, several difficulties are encountered: First, the box must be re-nailed all round, and if split or broken this cannot be done; secondly, if the sides are not split, the one removed cannot be again applied to give the box a neat appearance, because in its removal the labels and revenue-stamp were torn and defaced and the brands practically obliterated; thirdly, if the box be of oblong shape, with the ends of each plug bearing against its sides, the plugs cannot be removed separately, because they are so closely packed against such sides that access cannot be had to their ends to lift them up. It is absolutely necessary, therefore, when the boxes are opened, that one side and one end shall remain off. This meets one of the essential requisites above named, to wit, the exposure of the sides of the tobacco-plugs for inspection, but utterly fails to meet the other—to wit, protecting them from the action of the atmosphere and the accumulation of dust and dirt.

The second method of separating the plugs after one side of the box is removed consists in loosening one head and two opposite sides of the box, and then shaking or knocking out the whole body of the tobacco at once. This, of course, exposes the whole contents of the box; but to replace it requires the utmost care, because, having been pressed into the box, it conforms to its irregularities of surface, and must be returned in the exact position in which it was taken out. After having been handled somewhat this position is liable to be forgotten, unless both the tobacco and box are marked in some way before being separated. Sometimes it cannot be replaced at all, whether marked or not, particularly if the tobacco remain out of the box long enough to swell or expand by reaction from the pressure applied in forcing it into the box. In such event the whole body must be put into another box, in violation of the revenue laws, which require that the tobacco must be sold from the same box in which it was packed, or if removed therefrom must not be packed in another box without being restamped. Therefore, to save the expense of restamping, which is very considerable, the tobacco must be replaced in its box, or be left entirely exposed and unprotected from the atmosphere.

In no case within my experience of many years as a manufacturer has plug-tobacco been packed or the packages opened by any other methods than those above described. The injuries to the tobacco resulting from its exposure by either of these methods of packing and opening the boxes are as follows:

Plug-tobacco is very sensitive to atmospheric changes, which cause it to swell, thereby loosening the leaves and rendering the plugs soft, and therefore destroying the firmness and fla-

vor of the tobacco. When swelled, it absorbs moisture from the air more rapidly, and hence the tobacco becomes moldy and impure. This is of very frequent occurrence in certain grades of highly-flavored tobacco.

The plugs also "bleed" at the edges or ends, or, in other words, the flavoring substances absorb moisture from the atmosphere, and become so liquefied as to exude from the ends of the plugs, thereby making them moist and sticky, and very disagreeable to handle or carry in the pocket, besides giving them an impure appearance. In this condition they gather dust and dirt from the sweeping of the store, and are thereby rendered gritty and unpleasant to the taste.

The tobacco trade has long felt the necessity for some method of packing and protecting tobacco which shall prevent these injuries, and various attempts have been made to accomplish the result, but thus far without success.

After many experiments, extending over a period of several years, and attended with considerable expense, I have discovered a method or process of packing plug-tobacco in boxes with hinged sides, which completely overcomes all the difficulties of the present methods, and effectually prevents the injuries attending their practice. This is evident from the increasing sales of the packages to retail dealers and the increasing demand of consumers for the tobacco.

I do not regard my invention as embraced in a caddy having one side hinged, so that it can be opened and closed; but I consider it as lying in the method or process of packing and pressing the tobacco in cases having one side adapted to swing open, for the purpose of overcoming or avoiding the objections above set forth.

In carrying out my invention I have been obliged to depart wholly from the principle of packing tobacco shown by the present state of the art, and, by a new disposition of the plugs within the caddies, adapt them to be better pressed for preserving their shape, and at the same time materially reduce the cost of constructing and packing the caddies.

These advantages, added to the protection of the tobacco from exposure while it is being retailed from the boxes, combined with the capability of displaying the sides of the plugs for inspection without injuring the box or removing the tobacco, constitute a very marked advance in the art.

Simple as the invention may appear to those unfamiliar with the difficulties at present encountered in packing tobacco, yet it is of much value, and to those skilled in the art its advantages will be readily appreciated.

Instead of constructing the box with the greatest strength at the ends to resist the pressure of the tobacco lengthwise of the box, which construction is expensive, I have found, by experiment and practice, that they can be made sufficiently strong by simply nailing the

ends and sides together like an ordinary packing-box, provided the tobacco is arranged and pressed in them as I propose, which is just the opposite of the usual method.

In the accompanying drawings, A represents the oblong body of the box, and B one of its sides, hinged thereto along one edge by strong hinges C C'. The opposite edge of the hinged side carries a hasp, D, adapted to fit over a staple, E, in one side of the box, and to be there secured by a padlock. Any other secure means for fastening may, however, be adopted.

The pressed and shaped tobacco-plugs are laid within the box with their wide sides parallel to its length instead of at right angles to it, and after the box is filled it is placed under a press and the layers of tobacco pressed firmly into it. The box is then removed from the press, the cover shut down and hasped, wood-screws F being also employed, as shown, to resist the pressure of the tobacco and retain it in place until set by time, when they may be removed.

By arranging the plugs within the box in this manner, their shape is preserved, whereas if they were packed crosswise of the box they would be bent or dished, because, in placing the first layers in the bottom through the end, they cannot be laid perfectly flat, as their ends bear against the sides of the box, and the workman cannot force them down by hand, on account of the distance he has to reach and the small space he has to work in. If, therefore, the bottom layers are not straight, the remainder will also be irregular, and the result is the formation of irregular and sometimes misshapen plugs.

By my improved method of packing and pressing, the plugs can be laid regularly and evenly, because of the shallowness of the box and the large surface the workman has to work over. The boxes can be much more rapidly filled, pressed, and closed than the ordinary ones.

I have found, by repeated trials, two packages can be completed by my invention while one is being completed by the method usually practiced, thereby effecting a very great saving in the cost of manufacture.

It will be readily seen that when the hinged cover of the package is opened it exposes the sides of the plugs to the view of the inspector and consumer, and that, when closed, it completely protects them from the action of the air and the deposit of dust and dirt.

To the manufacturer the invention is very important, as it preserves his boxes and their brands from mutilation and destruction in the hands of retailers.

To the wholesale dealer it is valuable, as it gives him the opportunity of conveniently opening a package and exhibiting a sample to his customer without injuring or destroying the box.

To the retail dealer it is also valuable, because it dispenses with the labor of forcing the boxes open on the sides and ends, and enables him to readily open the cover and close it again after a sale, thus completely protecting the tobacco remaining in the box, while the package presents a neat appearance upon his shelves.

To the consumer it is also of much importance, as it preserves the strength and flavor of the tobacco, and keeps it firm, compact, and free from grit.

I wish it borne in mind that I do not claim to have invented a packing-box, but an improvement in the art of packing and preserving plug-tobacco in boxes, to overcome certain difficulties and injurious results attending the present methods, and its extreme simplicity is one of the greatest arguments in its favor.

Having thus described my invention, what I claim is—

As an improvement in packages of plugs of tobacco pressed together and compacted in a rectangular box in the usual manner, the hinged or removable closing and opening lid or wall of the box, located on the side (not the end) of the box, and at that side at which, when unclosed, the flat sides of the plugs are exposed to view.

In testimony of which invention I hereunto set my hand.

ROBT. MCFARLAND SMITH.

Witnesses:

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