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TOBACCO CARTRIDGE.

APPLICATION FILED NOV. 20, 1915.

1,165,000. Patented Dec. 21, 1915.

Fig. 1.

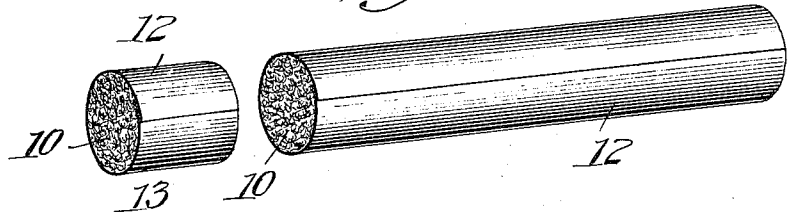


Fig. 2.

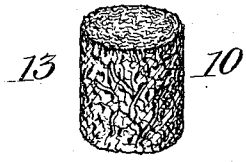


Fig. 3.

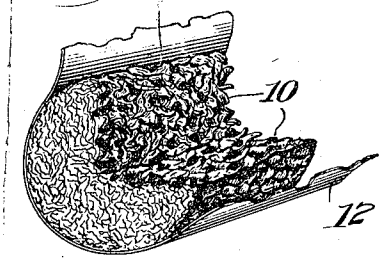


Fig. 4.

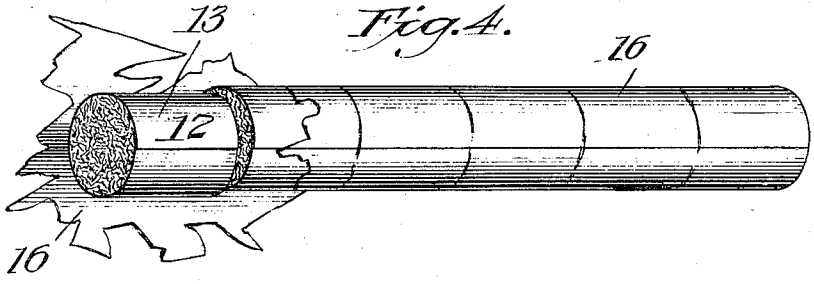
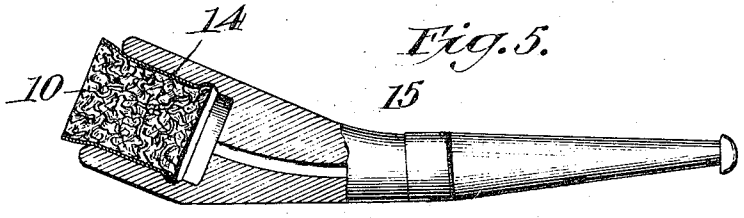


Fig. 5.



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TOBACCO CARTRIDGE.

1,165,000. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed November 20, 1915. Serial No. 62,520.

To all whom it may concern:

Be it known that I, CALEB C. DULA, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented new and useful Improvements in Tobacco Cartridges, of which the following is a specification.

My present invention relates generally to tobacco products and more particularly to a distinctly new tobacco charge or cartridge especially designed for use in smoking tubes or pipes, and is in the nature of an improvement upon the tobacco cartridge described and claimed in my prior Patent No. 1,144,824 dated June 29, 1915.

The cartridge of the present invention, in addition to having inherent therein the various advantageous attributes incident to the cartridge of my earlier patent, also possesses certain manifest and well defined features of novelty and utility which constitute, from a practical and commercial standpoint, a distinct advance over all prior art tobacco cartridges, including that of my own earlier patent aforesaid.

In the cartridge of my earlier patent, the filler was defined as being made up of tobacco leaves or portions of leaves of substantial area superposed and compacted into a roll, the said filler being inclosed in a binder of smokable material. While this prior cartridge in itself, in so far as its smoking qualities are concerned, satisfactorily fulfils all the purposes for which it was designed, the manufacture thereof in large quantities presented certain complex problems of a commercial nature involving among other factors, the maintenance of a minimum cost of production while attaining a maximum volume of output of the product. One of these problems resided in the difficulties encountered in providing reliable mechanical means for accurately handling and arranging the tobacco leaves or portions of leaves of substantial area so as to produce a uniformly compacted and free drawing roll in an expeditious, economical and practical way, especially when attempts were made to make the cartridges from a continuous filler rod of tobacco.

After much laborious and very expensive experimentation conducted on the lines of practical commercial manufacture of the product, I finally succeeded in accomplishing the solution of the difficult problems hereinbefore referred to, and am now able to produce in a thoroughly practical, expeditious and comparatively inexpensive way, a tobacco cartridge for smoking purposes that successfully fulfils the requirements of both the consumer and the manufacturer and wherein the tobacco filler is made up of tobacco particles or relatively small portions of tobacco, as distinguished from leaves or portions of substantial area. The filler of the present invention is inclosed and compactly retained within an open-ended wrapper preferably composed of a material prepared to be smoked or consumed along with the filler, the said tobacco particles being indiscriminately arranged and closely compacted into a roll, but not densely solidified, so that the said particles will be interlocked, so to speak, with the result that when the compacted filler is inclosed within its wrapper the particles will not readily sift from the ends thereof, yet will permit of a free draft through the cartridge.

One of the prime objects of the present invention is, therefore, to provide a smoking cartridge especially adapted for use in smoking tubes or ordinary pipes and wherein a sufficient quantity of relatively small particles of tobacco is compressed or compacted and inclosed and retained within a close-fitting open-ended wrapper so as to give to the consumer a substantially long smoke in a minimum length of cartridge, and wherein the tobacco particles will be so compacted within its wrapper that said particles will not readily sift out even should the particles become more or less dry, and wherein, during the act of smoking, the cartridges will burn slowly and uniformly.

I am aware that it has been proposed in numerous prior art patents to provide smoking cartridges wherein the tobacco filler is more or less loosely inclosed within wrappers of various kinds from which wrappers the tobacco is to be expelled into a pipe, a suitable tool, such as a plunger, being employed to force the tobacco from its wrapper into the pipe. It has also been proposed to densely compact or solidify tobacco in the form of cartridges with draft openings molded therein. It has also been proposed to solidly compress blended grades of tobacco into a stick or roll from which a section may be broken and then, after rolling in the hands to loosen up the tobacco particles of the broken-off section, the latter is packed into the pipe in the usual way. It has also

been proposed to make smoking cartridges wherein portions of tobacco are wrapped or inclosed in a tobacco leaf or other wrapper, with the ends of the wrapper folded over or gathered about the opposite ends of the cartridge to prevent the tobacco from spilling out of the ends of the wrapper. It has also been proposed to inclose a pipe charge of tobacco within a wire cage, which wire cage with its tobacco charge is adapted to be inserted bodily into the pipe; and other forms of cartridges and tobacco sticks have been proposed, but I lay claim to none of these, for, so far as I am aware, such prior forms of cartridges have never gone into general use, and have never met with favor, chiefly because they are either too costly to manufacture, too inconvenient for the smoker or absolutely impractical from both the standpoint of the manufacturer and the user.

My improved smoking cartridge is distinguished from all prior forms of which I am aware in that the tobacco filler is made up of relatively small particles of cut tobacco that are indiscriminately arranged and closely compacted so as to cause the said particles to interlock and thus form a substantially stable, but not densely solidified pipe-charge having sufficient porosity to permit of a draft therethrough, the said filler being confined and retained in a close-fitting open-ended wrapper. In its preferred form, the cartridge, while it is initially sufficiently closely compacted to maintain its shape against moderate pressure when standing alone, yet it may be slightly further compressed when forced into a pipe or smoking tube so as to form a snug fit therein and allow of a draft therethrough. The open-ended wrapper within which the tobacco filler is inclosed and retained is so applied as to have a sufficiently snug fit whereby to prevent displacement on the cartridge when the covered cartridge is forced into a pipe or smoking tube.

I have illustrated a preferred embodiment of my invention in the accompanying drawing, wherein,

Figure 1, is a perspective view of a portion of a continuous filler-rod of tobacco inclosed within a wrapper, the view showing one of my improved cartridges cut therefrom. Fig. 2, is a perspective view showing the compacted filler charge standing alone the wrapper being removed. Fig. 3, is a perspective view of one of my improved cartridges cut or broken open to illustrate, in a way, how the tobacco particles are interlocked, the view being on a somewhat enlarged scale. Fig. 4, is a perspective view showing one manner of packing a plurality of cartridges to form a handy pocket-package, one end of the wrapper of the package being torn open to permit withdrawal of a cartridge. Fig. 5, is a longitudinal sectional view showing one form of smoking tube or implement with one of my improved cartridges inserted therein, one end of the cartridge being left slightly projected from the mouth or bore of the pipe to illustrate in a way, how that portion of the cartridge within the bore of the pipe has been further compressed.

In the accompanying drawing, wherein I have illustrated a preferred embodiment of the invention, the reference numeral 10 designates a filler-rod of tobacco inclosed within a close-fitting wrapper 12 which is preferably composed of a material prepared to be smoked along with the filler, the cartridge being smokable as a whole.

The reference numeral 13 designates generally one of my improved tobacco cartridges which has been cut from the tobacco filler-rod by severing the latter transversely of its length to provide, what I may term a "pipe-charge section," the ends of which preferably present plane surfaces. The said filler-rod together with its wrapper preferably has a cross-sectional shape and diameter substantially co-extensive with the shape and diameter of the bore 14 of the pipe or tube 15 in which the cartridge is to be smoked, yet being slightly compressible so as to fit snugly into the said bore.

The tobacco constituting the filler-rod 10 is made up of relatively small particles or portions of cut tobacco of any desired blend that are indiscriminately arranged. The said tobacco particles are, however, closely compacted, in a manner to cause the particles to interlock with one another, but are not densely solidified, the degree of compression exerted upon the tobacco mass constituting the filler being such as to cause the particles to interlock and form a substantially stable cartridge that will maintain its shape against moderate pressure when standing alone. The compression, however, is not so great as to destroy the porosity of the cartridge, the compactness being just sufficient to hold the tobacco particles together when in the cartridge form, yet permitting of a draft therethrough.

I prefer to make the cartridge in the form of a relatively short cylindrical roll, as shown in Fig. 1, having a diameter substantially co-extensive with the diameter of the bore of the pipe or tube in which it is to be smoked and preferably of such length that when the cartridge is inserted in the pipe a space may be maintained between one of the plane ends of the cartridge and the bottom of the pipe bowl, as more clearly illustrated in Fig. 5.

As hereinbefore stated, I prefer to inclose the compacted tobacco filler 10 within a wrapper 12 composed of a material prepared to be consumed in the pipe along with

the filler. This wrapper may consist of thin paper, such as now employed in the manufacture of cigarettes, or I may employ a composition wrapper made up of tobacco fibers in the form of a sheet or sheets like or resembling paper, or I may employ a paper wrapper saturated with tobacco juices or tobacco extract to simulate leaf tobacco.

The tobacco filler 10 of my improved cartridge may be said to be "ready tamped" in that it is inserted in the pipe in just the condition in which it is given to the consumer, except that it may be slightly further compressed in the act of inserting it in the pipe, and one of the peculiar characteristics of the cartridge is that when it is lighted and the tobacco begins to burn, the tobacco particles will not expand appreciably or fluff out and slough off as is the case with tobacco as ordinarily packed in a pipe by hand, and there is not present, therefore, in my improved cartridge, that objectionable feature universally experienced by pipe smokers generally of having the burning tobacco expand and crawl or slough out over the edge of the pipe and onto the clothes of the smoker, with the resultant annoyances and dangers.

A further characteristic of my improved compacted filler charge, which seems to be due to the manner in which the tobacco particles are compacted and interlocked, is, that the ash of the burning filler maintains its cartridge form during the smoking process and this ash more or less tenaciously clings to the burning charge until the cartridge is substantially consumed; and a still further characteristic is that the burning charge does not need to be tamped from time to time, during the smoking process, as is the usual custom in the case of pipes filled by hand with loose tobacco, since the tobacco particles when originally compacted, according to my invention, seem to become interlocked or interconnected in such a way that the cartridge maintains its original form until it is entirely consumed. Furthermore, the cartridge wrapper which is consumed along with the filler and which is interposed between the filler and the wall of the pipe-bore seems to prevent the usual accumulation of a charred incrustation within the bowl of the pipe, an objection so common in cases where tobacco is packed into the pipe in the ordinary way, so that with my improved cartridge the bore of the pipe does not materially decrease in diameter, through prolonged smoking thereof, hence the cartridges, which are of substantially uniform diameter, may be readily inserted within the pipe at all times, even after such prolonged smoking thereof.

Inasmuch as each individual pipe-charge section or cartridge contains a substantial quantity of tobacco, due to the fact that the tobacco particles are closely compacted, the said cartridges not only burn uniformly and slowly, but each cartridge will give the consumer a relatively long and cool smoke notwithstanding the fact that they are comparatively short, and, since the tobacco filler does not sift out of its wrapper when inserted in the pipe the usual objectionable "soggy heel", so common in pipe smoking, when the pipe is filled in the ordinary way, is entirely avoided.

In marketing the cartridges I may of course pack them in any suitable form of container, but I prefer to arrange a plurality of the cartridges end to end and inclose them in a wrapper or envelop 16, such as set forth in my hereinbefore mentioned prior patent, whereby to provide a handy pocket-package, which wrapper may be torn away somewhat as shown in Fig. 4, to permit withdrawal of the cartridges one at a time as desired.

What I claim is:

1. As a new article of manufacture, a tobacco cartridge of substantially cylindrical form to fit within a pipe bowl and a wrapper therefor of smokable material having both ends open, said cartridge being composed of tobacco particles compacted to interlock whereby the particles are maintained from sifting out and yet permitting of a draft therethrough, the ends of said cartridge forming a plane surface so that when forced into a pipe bowl a space may be maintained between one end of the cartridge and the bottom of the bowl.

2. As a new article of manufacture, a tobacco cartridge adapted to be smoked in a pipe or smoking tube, comprising a pipe-charge section of a tobacco filler-rod composed of relatively small indiscriminately arranged tobacco particles, closely compacted so as to cause the said particles to interlock and form a substantially stable, but not densely solidified charge having sufficient porosity to permit of a draft therethrough, the said charge-section being confined and retained in a close-fitting open-ended wrapper.

3. As a new article of manufacture, a tobacco cartridge adapted to be smoked in a pipe or smoking tube, comprising a pipe-charge section of a tobacco filler-rod composed of relatively small indiscriminately arranged tobacco particles, closely compacted so as to cause the said particles to interlock and form a substantially stable, but not densely solidified roll having sufficient porosity to permit of a draft therethrough, the said roll being confined and retained in a close-fitting open-ended wrapper composed of a material prepared to be consumed in the pipe along with the filler.

4. As a new article of manufacture, a to-

bacco cartridge adapted to be smoked in a pipe or smoking tube, comprising a pipe-charge section of a substantially cylindrical tobacco filler rod composed of relatively small indiscriminately arranged tobacco particles, closely compacted so as to cause the said particles to interlock and form a substantially stable, but not densely solidified roll, having sufficient porosity to permit of a draft therethrough, the said roll being confined and retained in a close-fitting open-ended wrapper composed of a material prepared to be consumed along with the tobacco filler, the said cartridge having a cross-sectional shape and diameter substantially coextensive with the shape and diameter of the bore of the pipe or tube in which it is to be smoked and being slightly compressible so as to fit snugly into the said bore.

5. A tobacco cartridge composed of tobacco particles indiscriminately arranged and sufficiently closely compacted to maintain its shape against moderate pressure when standing alone, but so packed as to permit of slight further compression when forced into a pipe or smoking tube and form a snug fit therein and allow of a draft therethrough, and an open-ended wrapper for the cartridge having a sufficiently snug fit to prevent displacement on the cartridge when the covered cartridge is forced into a pipe or smoking tube.

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

CALEB C. DULA.

Witnesses:
C. W. TOWN,
J. GRANVILLE MEYERS.