Aug. 31, 1937. L. M. GILLIAM 2,091,440

TOBACCO PIPE AND LOAD

Filed Dec. 5, 1936

Fig. 1.

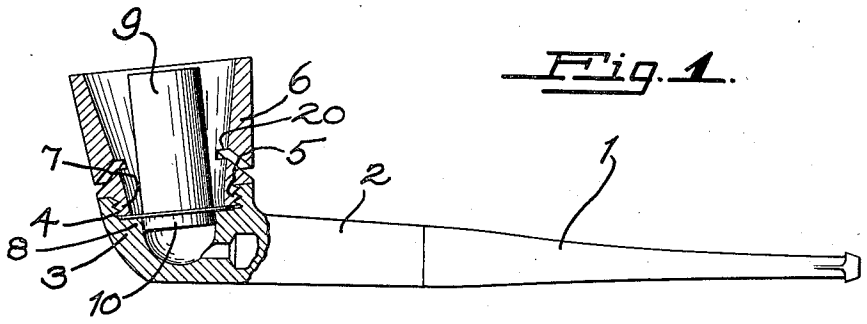


Fig. 2.

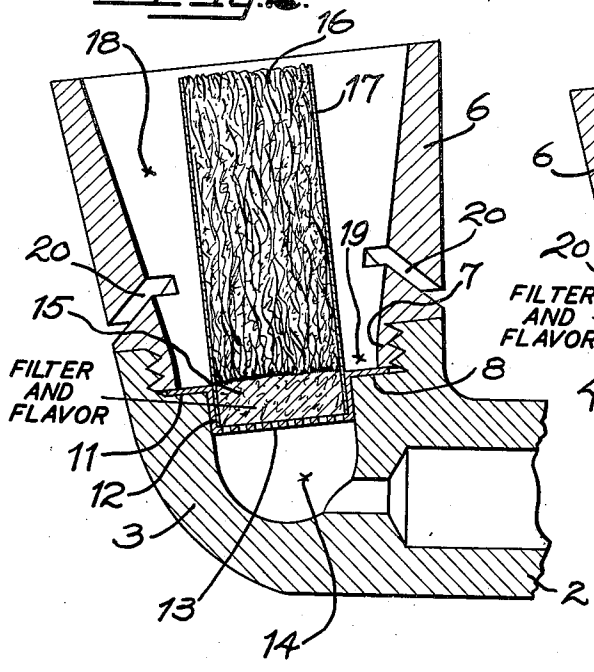
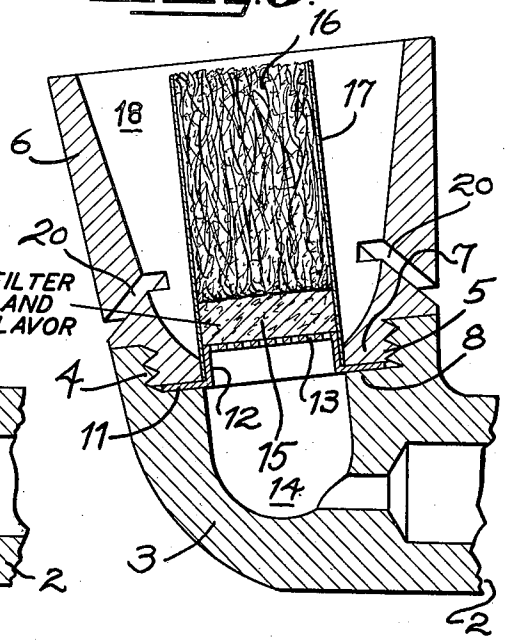


Fig. 3.



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Patented Aug. 31, 1937 2,091,440

UNITED STATES PATENT OFFICE

2,091,440

TOBACCO PIPE AND LOAD

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Application December 5, 1936, Serial No. 114,293

9 Claims. (Cl. 131—12)

My invention relates to tobacco pipes, and more particularly to a specific type of tobacco pipe in which may be utilized a pre-formed tobacco load or cartridge.

Among the objects of my invention are: To provide a pipe and load therefor whereby the load may be cooled during the smoking thereof; to provide a tobacco pipe designed to accurately position a pre-formed tobacco cartridge; to provide a pipe and cartridge therefor co-operating to provide an air space between the cartridge and the pipe bowl; to provide a tobacco cartridge containing a filter; to provide a means and method of flavoring tobacco; to provide a means for accurately positioning a tobacco cartridge in a smoking pipe; and to provide a pipe and cartridge therefor giving a cool smoke.

My invention possesses numerous other objects and features of advantage, some of which, together with the foregoing, will be set forth in the following description of specific apparatus embodying and utilizing my novel method. It is therefore to be understood that my method is applicable to other apparatus, and that I do not limit myself, in any way, to the apparatus of the present application, as I may adopt various other apparatus embodiments, utilizing the method, within the scope of the appended claims.

Referring to the drawing:

Figure 1 is a view partly in section and partly in elevation of one form of my invention.

Figure 2 is a sectional view of one form of pipe and cartridge.

Figure 3 is a sectional view of another form of pipe and cartridge.

I am well aware of the fact that cartridges containing tobacco in a combustible wrapper have been used in the past, but in most cases such cartridges have simply been used as a convenient means for loading a pipe. I am also aware that under certain circumstances cartridges have been inserted in pipes in such a manner that the bottom portion of the cartridge frictionally engages the lumen of the pipe at its lower end only, presumably leaving an air space between a short portion of the charge and the bowl of the pipe.

This latter form of cartridge, however, has not proved satisfactory in use, inasmuch as it is necessary to press on the outer end of the charge in order to force the lower portion into supporting contact with the pipe bowl. The force necessarily used almost invariably splits the wrapper and the tobacco completely fills the bowl, eliminating any air space.

I have, however, invented a unitary charge for insertion within a pipe bowl in such a manner that when the pipe is properly made no force is necessary to position the charge, and there will at all times be a complete air space between the burning charge and the wall of the pipe. This air space allows air to circulate around the burning charge, prevents the bowl of the pipe from heating, and makes for a much cooler smoke than can be obtained in the ordinary pipe. Inasmuch as no pressure is placed upon the wrapper of the cartridge it does not break, but maintains its relative position until the charge is consumed.

My invention also utilizes a filter in connection with the cartridge, and if the tobacco is to be flavored I place the flavor in the filter, not in the tobacco. In this latter manner I am able to utilize the same tobacco for a large number of cartridges carrying different flavors, thus making for cheapness of assembly. My pipe construction insures proper alignment of the cartridge.

Other advantages of my invention may be more readily understood by direct reference to the drawing.

Figure 1 shows one preferred form of pipe embodying my invention. The pipe has the customary mouthpiece 1 fastened to a stem 2 in the usual manner, and it is of course obvious that any of the saliva collecting devices may be used between the mouthpiece and stem.

I prefer to form my pipe with a split between bowl and stem, stem portion 3 being provided with threads 4 co-operating with bowl threads 5 cut into a bowl 6, the outside of the pipe being smooth when assembled.

Thus, I have provided a pipe which carries two shoulders within the smoking chamber; a bowl shoulder 7 and a stem shoulder 8, which may be utilized to clamp and position the periphery of a charge supporting flange, extending laterally from tobacco cartridge 9. This cartridge is well illustrated in two modifications in Figures 2 and 3.

In Figure 2, a cup 10 is provided with the peripheral supporting flange 11, and a body portion 12 provided with perforations 13 at the bottom thereof, the latter perforations opening into stem chamber 14. In this case the cup extends downwardly into the stem chamber 14, and the cup is filled with filter material 15. The cup itself is preferably formed from an asbestos or other non-burning material, and likewise the filter material 15 may be of finely divided asbestos fiber or similar material so that it also will not burn.

A charge of pipe tobacco 16 is surrounded by

a combustible wrapper 17, the latter extending into the cup and preferably cemented thereto so that the charge 16 is supported by the cup in upright position.

To insert the cartridge 9 in the pipe all that is necessary to do is to unscrew the bowl from the stem, drop the charge in with the cup end down, and re-screw the bowl on the stem. The periphery 11 of the cup is thus clamped tightly, holding the charge upright, and inasmuch as the cup side wall contacts the shoulder 8 it is obvious that the charge is always centered. I prefer to make the charge of substantially lesser diameter than the bowl interior, so that an air space 18 is provided between the bowl and the charge; and I prefer that this air space become increasingly large as the end of the charge is approached although this is not necessary, but increases the cooling effect. I also prefer that no bowl material shall touch the burning tobacco, and therefore in this particular modification I have provided an air gap 19 between the lower level of the charge 16 and the upper shoulder 7.

Another modification is shown in Figure 3. Here, the cup body is turned upwardly, and instead of projecting into chamber 14 it projects away from chamber 14 and enlarges this chamber. In this case I omit the air space 19 between the cartridge and the upper shoulder 7; and the upper shoulder 7, itself, serves to position the charge in a central position. In this case the filter material is not placed in the cup, but is placed between the bottom of the cup and the bottom of the charge, and is surrounded by the combustible wrapper 17 instead of by the cup material. In this instance the tobacco charge 16 does not approach close to the bowl walls at any point, and therefore at no time during the smoking of the charge will the bowl be in contact with the burning tobacco.

It is to be noted that my improved cartridge and co-operating pipe assure the fact that a comparatively large air space shall always be left between the burning charge and the bowl of the pipe; no pressure is needed to force the cartridge in place, the charge being held solely by shoulders 7 and 8. No pressure is necessary on the outer end of the charge, and therefore the combustible wrapper is never broken and the charge is maintained in position until entirely smoked. After it is completely smoked the bowl is unscrewed, the cup and ash knocked out, and a new charge inserted.

Many smokers desire different flavors in their tobacco, and in most cases such flavors are combined within the tobacco itself. If a large number of flavors is desired, different lots of tobacco have to be treated, making the flavored tobacco expensive. With my improved cartridge, however, I am able to utilize the same basic tobacco mixture in different cartridges, but I put the flavor to be given to the tobacco into filter 15. Tobacco readily takes up flavor, and during shipment of the tobacco, the tobacco in each charge is permeated with the flavor in the filter, and, in addition, during the smoking of the charge the smoke is drawn through the filter and becomes impregnated with the flavoring material. I am thus able to supply the smoker with a large number of flavors at a minimum cost, and I have successfully flavored tobacco in this manner with anise, menthol, walnut, maple, rose, apple etc. The flavors, of course, may be used alone or in combination to suit the smoker.

Summarizing, I have provided a compact cartridge comprising tobacco, wrapper, filter and flavoring material, together with a firm and solid means for supporting the cartridge in conjunction with clamping shoulders in a split bowl pipe. The charge is centered and held in the pipe by a special shoulder so that there is a complete air space around the entire charge during the entire time of smoking. No pressure is necessary to place the charge in the pipe, and the combustible wrapper of the cartridge is therefore never broken. A cool and flavored smoke is therefore obtained with no chance of the burning tobacco ever touching the bowl.

I may, however, desire to still further improve the coolness of the smoke by providing in the bowl of the pipe adjacent the lower portion of the charge, air inlet apertures 20. The size and number of these apertures are not important to my invention but they should be sufficient so that a draft is provided between the lower and upper portion of the bowl, and in order to equalize the draft, I prefer to position these apertures circumferentially around the bowl. Furthermore, I increase the flow of air through the space 19 by directing the aperture bores at an angle so that any downward motion of the pipe causes air to pass along the sides of the burning charge. Inasmuch as the pipe is usually in more or less continual motion, such motion aids the cooling by forcing the air past the charge in addition to the natural draft created by the heat of the charge.

I claim:

1. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, and a cylindrical cartridge containing tobacco positioned in said bowl and having a laterally extending flange thereon extending between said clamping shoulders, one of said shoulders extending inwardly to contact the wall of said cartridge to position said cartridge.

2. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, and a cylindrical cartridge containing tobacco positioned in said bowl and having a laterally extending flange thereon extending between said clamping shoulders, one of said shoulders extending inwardly to contact the wall of said cartridge to position the greater portion of said cartridge out of contact with the inner wall of said bowl.

3. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, and a cylindrical cartridge containing tobacco positioned in said bowl and having a laterally extending flange thereon extending from the bottom thereof between said clamping shoulders, the shoulder extending from said bowl being extended inwardly to contact the wall of said cartridge to position said cartridge away from the walls of said bowl.

4. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, and a cylindrical cartridge containing tobacco positioned in said bowl and having a laterally extending flange thereon extending from the bottom thereof between said clamping shoulders, the shoulder extending from said bowl being extended inwardly to contact the wall of said cartridge to position said cartridge away from the walls of said bowl, the tobacco in said cartridge being terminated above said shoulder to prevent burning thereof.

5. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, one of said shoulders extending inwardly to form a cartridge positioning lumen of lesser diameter than the inner diameter of said bowl.

6. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, the upper shoulder extending inwardly to form a cartridge positioning lumen of lesser diameter than the inner diameter of said bowl.

7. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, a cup having a laterally extending peripheral portion positioned between said shoulders, one of said shoulders contacting the side wall of said cup, and a charge of tobacco supported solely by said cup, the bottom of said cup being perforated.

8. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, a cup having a laterally extending peripheral portion positioned between said shoulders, one of said shoulders contacting the side wall of said cup, a charge of tobacco supported solely by said cup, the bottom of said cup being perforated, and a layer of filter material covering the perforations in said cup.

9. In combination, a pipe body, a detachable bowl, said detachable bowl being threaded to said body to provide clamping shoulders, a cup having a laterally extending peripheral portion positioned between said shoulders, one of said shoulders contacting the side wall of said cup, a charge of tobacco supported solely by said cup, the bottom of said cup being perforated, a layer of filter material covering the perforations in said cup, and a flavoring material associated with said filter material.

LAWRENCE M. GILLIAM.