United States Patent

[11] **3,570,659**

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[45] Patented **Mar. 16, 1971**

[54] **COMBINED TOBACCO PIPE CHARGER AND TOBACCO POUCH**
3 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **206/41.1,** 220/60, 222/340, 222/383
[51] **Int. Cl.** **B65d 43/10,** B65d 83/06, B67d 5/42, G01b 11/00
[50] **Field of Search** ..... 206/41.1, 41.1 (G), 41 (F); 220/31 (S.R.), 60; 229/44; 222/340, 383

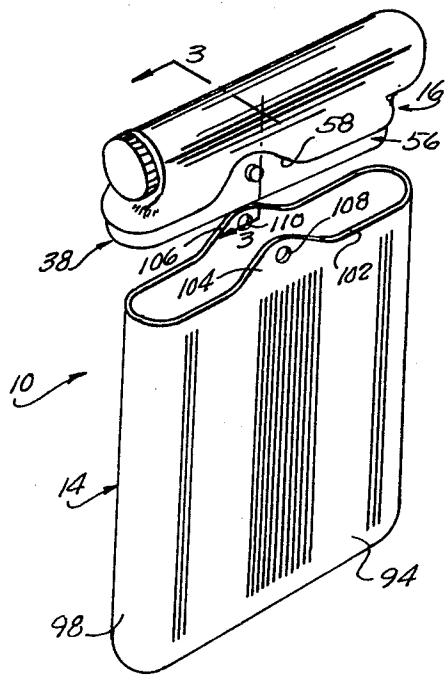
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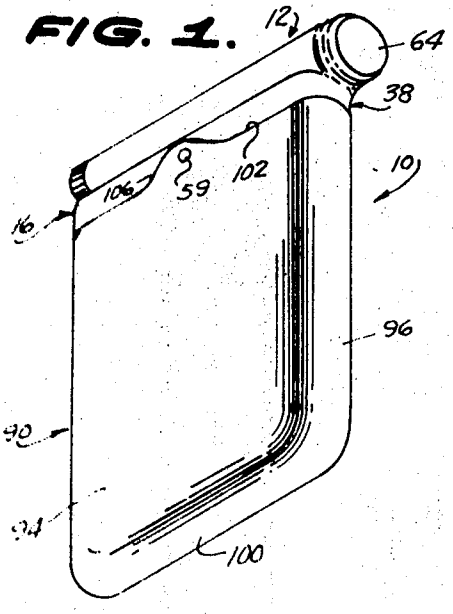
ABSTRACT: Loading means for a smoker's pipe including a tobacco pouch and quick releasable securing means for connecting said pouch on said loading means.



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FIG. 1.



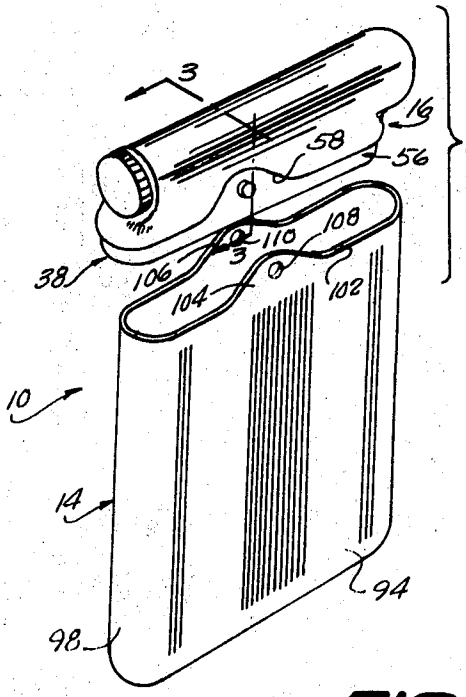


FIG. 2.

FIG. 3.

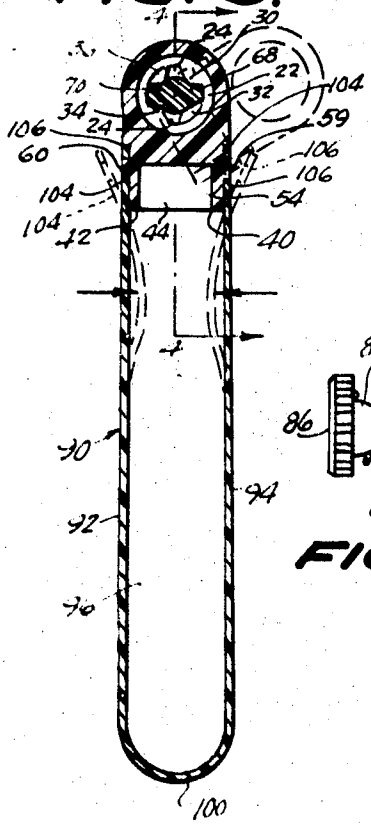
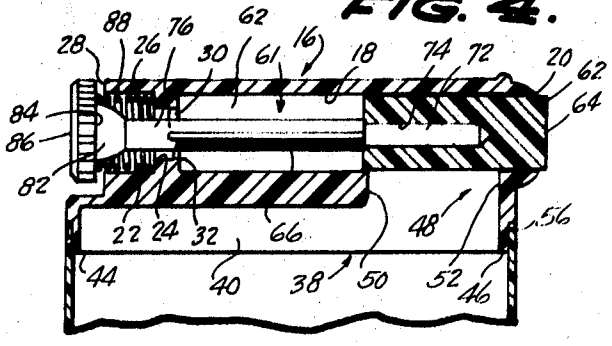


FIG. 4.



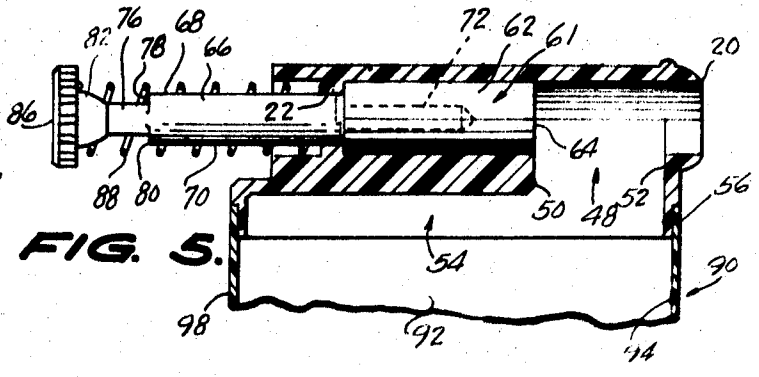


FIG. 5.

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COMBINED TOBACCO PIPE CHARGER AND TOBACCO POUCH

BACKGROUND OF THE INVENTION

1. Field of Invention

This invention relates to the general field of pipe smokers' accessories and, more specifically, to a pipe smoker's tobacco pouch in combination with loading and charging means for a smoker's pipe.

2. The Prior Art

It is believed that applicant's own U.S. Pat. No. 2,279,953 comprises the best known prior art with respect to the present invention, for in this reference patent is incorporated the general assembly of components over which the instant invention constitutes an improvement.

While the device of the patent (supra) admirably served its intended purposes and functions, modern techniques have led to more simplified and sophisticated modes of manufacture which, of course, make the accessory less expensive to manufacture without sacrificing any of its utilitarian functions. In this connection it should be pointed out that in all known prior art devices relative to the instant invention, one of the primary difficulties resides in the provision of a tobacco pouch in combination with a pipe loading and tamping means, which could be inexpensively manufactured while at the same time enabling the user to refill the pouch repeatedly and without appreciable wear and effort.

BRIEF SUMMARY OF THE INVENTION

One of the primary objects of this invention is to provide a pipe smoker's accessory which comprises, in combination, a pipe charging head including tobacco tamping means, together with a tobacco pouch, and quick detachable means for connecting the pouch on the head.

Another object of this invention is to provide, in an accessory as generally referred to above, a flexible tobacco pouch formed of a relatively soft plastic material, together with pressure operated means to effect separation between the injecting and tamping head and the tobacco pouch.

A further object of this invention is to provide in an accessory as generally described supra, a flexible tobacco pouch with a large opening at an end thereof to facilitate the filling of the pouch, and means adjacent the open end cooperating with means on the head to releasably connect the head and the pouch together.

Still another object of this invention is to provide an accessory of the type to which reference has been made above, with an improved tobacco dispensing head in combination with the tobacco pouch and including tobacco tamping means operable as a closure member for the tobacco pouch.

As another object of this invention, it is proposed to provide an accessory of the type generally described above, the accessory being noncomplex in construction and assembly, inexpensive to manufacture, and one which is rugged and durable in use.

Other and further objects and advantages of the instant invention will become more manifest from a consideration of the following specification when read in light of the annexed drawings.

IN THE DRAWINGS

FIG. 1 is a perspective view of an assembled tobacco pipe charger and its associated connected tobacco pouch;

FIG. 2 is an exploded perspective view of the major components of this invention, FIG. 2 illustrating the tobacco pipe charger head and the associated tobacco pouch separated from one another;

FIG. 3 is a vertical medial transverse cross-sectional view, FIG. 3 being taken substantially on the vertical plane of line 3–3 of FIG. 2, looking in the direction of the arrows, and illustrating in phantom or dotted lines a mode for effecting the separation of the injector head from its associated tobacco pouch;

FIG. 4 is a fragmentary detail cross-sectional view, FIG. 4 being taken substantially on the vertical plane of the line 4–4 of FIG. 3, looking in the direction of the arrows, and illustrating the pipe tamping and charging means in its inoperative position and seated in the head to close the tobacco access slot; and

FIG. 5 is a fragmentary detail cross-sectional view, FIG. 5 being similar to FIG. 4 but showing the tobacco charging and tamping means in its operative position opening the tobacco access slot between the head of the accessory and its connected tobacco pouch.

Referring now more specifically to the drawings, reference numeral 10 designates, in general, a pipe smoker's accessory constructed in accordance with the teachings of this invention. As is illustrated in the several FIGS. of the drawings, the accessory 10 is seen to comprise two major components, namely, an elongated tobacco injector and tamping head 12 and a tobacco pouch 14.

The head 12 comprises an elongated block 16 preferably formed of a transparent solid plastic or of other suitable materials and in which is provided an elongated bore 18 which extends inwardly from one open end 20 thereof. The bore 18 is partially closed by a transversely extending internal abutment 22 integrally formed with the block 16 and in which is provided an oval shaped transverse and axially extending guide opening 24. The guide opening 24 is in open communication at one of its ends with the bore 18, and at its other end, the guide opening 24 is in communication with the inner end of an elongated cylindrical socket 26 which opens outwardly of the other end 28 of the block 16. The bore 18 and the socket 24 have substantially the same inside diameter.

The abutment 22, on that side thereof facing the end 20, is formed with peripherally spaced and stepped shoulders 30, 32, 34 and 36 to serve a function to be described.

The block 16 further includes a downwardly extending continuous peripheral flange 38 integrally formed therewith and which comprises opposed pairs of side and end walls, 40, 42 and 44, 46 respectively. The block 16 is further provided with a normally downwardly opening axially extending cutout to provide an elongated slot, generally designated by reference numeral 48 and which is defined by confronting end walls 50, 52, and the adjacent portions of the sidewalls 40, 42 of the flange 38. As is seen in FIGS. 4 and 5, the slot 48 is in open communication with the bore 18 adjacent the block end 20 and with the compartment 54 defined by the continuous flange 38.

The block 16 is further characterized by the external continuous peripheral rabbet 56 formed on the lower marginal edge portions of the depending flanges 40, 42, 44 and 46. The rabbet 56 also includes an upwardly arcuate portion 58 on the flange sidewalls 40, 42 centrally of the end ends thereof, and in each arcuate portion there is located an external laterally projecting cylindrical lock tab 59, 60, respectively, serving a function to be described. Reference numeral 61 denotes, in general, means for loading, charging and tamping tobacco in the bowl of a smoker's pipe (not shown). This means comprises an elongated cylindrical piston 62 mounted for reciprocation within the bore 18. In its normal inoperative position as is illustrated in FIG. 4, the piston 62 extends across the inner end of the slot 48 to close the same. The outer or tamping end of the piston 62 is substantially planar as is shown at 64 (see FIGS. 4 and 5).

At 66 is designated the main body portion of an elongated plunger rod which is oval shaped in transverse cross section, the plunger rod 66 having its major transverse axis extending in the direction of the oppositely disposed longitudinally extending ribs 68, 70. One end of the main body portion 66 is extended and reduced to substantially a cylindrical configuration to form a connecting pin 72 which is fixedly connected with a pocket 74, the latter extending axially into the piston 62 from the inner end of the latter. Any conventional means may be utilized to effect the connection between these two elements.

The other end of the main body portion 66 is also reduced in its cross-sectional area as at 76 to provide an elongated substantially cylindrical neck projecting axially therefrom and to form abutment shoulders at 78, 80 at the adjacent ends of the ribs 68, 70, respectively.

The outer end of the neck 76 is integrally connected to the apex end of a frustoconical spring keeper 82 substantially in the plane of its frustum. The base end of the keeper 82 is centrally and integrally connected to the inner side 84 of a discoidal manually manipulative knob 86. The knob 86 also serves as a seat for one end of a helicoidal spring 88, the spring 88 surrounding the neck 76 and keeper 82 when under compression when the device is inoperative, all as is shown in FIG. 4. The other end of the spring 88 abuts the adjacent side of the abutment 22 whereby the piston 62 is constantly biased for movement from its inoperative position of FIG. 4 to its operative position of FIG. 5. In this position, the spring 88 expands to circumscribe a section of the main body portion 66.

The locking means for holding the piston 62 in its closed position across the slot 48 and against the tension of the spring 88 is similar to the means disclosed in my patent (supra). In this invention and when the components of the head 12 are in their respective inoperative positions shown in FIG. 4, the shoulders 78, 80 are engaged on that side of the abutment 22 facing the end 20 with the rib 68 loosely engaged between the shoulders 30, 32 and rib 70 loosely engaged between the shoulders 34, 36. The inner side of the knob 86 is seen (reference being made to FIG. 4) to be spaced outwardly from the adjacent end 28 whereby the user, upon grasping the knob 86 and pushing the same inwardly against the tension of the spring 88 forces the shoulders 78, 80 inwardly beyond the shoulders 30, 32, 34 and 36 to enable the knob 86 to turn substantially 90° from the position shown in FIG. 4 to align the ribs with the opening 24. Relaxation of the operating pressure on the knob 86 enables the tension of the spring 88 to push the assembly, including the knob 86, the spring keeper 82, the neck 76, main body portion 66, pin 72, and piston 62 to the left to assume their respective positions shown in FIG. 5. This opens the slot 48. In this position, the inner end of the piston 62 engages the abutment 22 to prevent further movement of these elements.

To close the slot 48, the knob 86 is pushed inwardly against the tension of the spring 88 until the ribs 78, 80 pass beyond the shoulders 30, 32, 34 and 36. A turn of the knob 86 thereafter, backwards through an arc of substantially 90° will position the shoulders 78, 80 between their respective associated cooperating shoulders 30, 32 and 34, 36, respectively, and the subsequent release of the knob 86 will release the shoulders 78, 80, under the influence of the tension generated by the spring 88, to reengage against the abutment 22, lodging between the immediately adjacent shoulders 30, 32 and 34, 36. This locks the piston 62 against inadvertent movement to open the slot 48 should the knob be inadvertently turned. With the closure of the slot 48, the other component elements are then returned to their respective inoperative positions.

It was above mentioned that the ribs 78, 80 were loosely received between the shoulders 30, 32 and 34, 36, respectively. This lost motion movement permits the ribs 78, 80 to seat in their locked positions without the necessity of making a fine adjustment and eliminates close tolerances between the cooperating elements.

At 90 is designated, in general, a tobacco pouch constructed in accordance with this invention. The pouch comprises a hollow rectangular container including oppositely disposed sidewalls 92, 94, and oppositely positioned end walls 96, 98. A bottom closure wall is indicated by reference numeral 100, and the opposed upper end is open. The pouch 90 is formed of any suitable relatively soft flexible and resilient plastic or other materials capable of deformation upon the application of pressure and the return of the pouch to its original configuration upon release of the deforming pressure. It is also preferable that the material from which the pouch is made be transparent or translucent.

The open upper end of the pouch 100 provides a continuous circumferential marginal edge portion 102 which continues upwardly intermediate the ends of the sidewalls 92, 94 into arcuately shaped lips 104, 106, respectively. The latter are centrally apertured as at 108, 110.

In assembly, the upper marginal edge portion 102 of the pouch 90 is fitted snugly over the external side of the rabbet 56 with the lips 104, 106 engaging within the arcuate portions 58 of the rabbet 56. The tabs 59, 60 are received within the openings 108, 110, respectively, to lock the pouch 90 to the head 12. In this position, the adjacent lower and upper edges of the head 12 and pouch 90 abut one another to prevent any swinging movement of the pouch 90 about the tabs 59, 60.

To release the pouch 90 from the head 12 it is only necessary for the user to grasp the pouch 90 between his thumb and fingers to exert pressure on the opposed sidewalls 92, 94 of the pouch 90 adjacent the upper end thereof and in the direction of the arrows shown in FIG. 3. This will deform the sidewalls 92, 94 in such a manner as to take the general configuration as shown in dotted lines in the last mentioned FIG. .This pressure causes the upper marginal edge 102 of the sidewalls 92, 94 to pivot about the lower ends of the sidewalls 40, 42 using the same as a fulcrum. When this pressure is exerted, the arcuate lips 104, 106 will normally move outwardly from their respective rabbets 58 freeing the lips 104, 106 from their arcuately shaped rabbets 58 and lock tabs 59, 60. The head 12 may now be separated from the pouch 90 by drawing the same in opposite directions.

If for some reason one of the lips 104, 106 should fail to separate from its associated rabbet 58 and lock tab 59 or 60, the disassembly is accomplished by rolling the injector head 12 in the direction of the locked lip and tab, that is, in the direction away from the separated or disconnected lip 104 in the manner shown in dotted or phantom lines in FIG. 3 of the drawing.

The pouch 90 may be now filled through the open end thereof, and thereafter the injector and tamping head may be replaced through the simple expedient of again squeezing the pouch slightly to cause the lips 104, 106 to move in the direction of their dotted line positions shown in FIG. 3, and thereafter one end of the injector head 12 is inserted in one end of he the open end of the pouch 14. The operator then pushes downwardly on the injector head 12 to cause the marginal edge portions at the open end of the pouch 90 to enter the rabbet 56 and the lips 104, 106 to move into juxtaposition relative to the rabbet 58 with the openings 108, 110 substantially aligned with the lock tabs 59, 60. The operator then presses on the tabs 59, 60 to cause the lips 104, 106 to lock thereon.

To utilize the apparatus 10, and assuming that the pouch 90 has been filled with tobacco, and that the component elements of this invention are in their inoperative positions as is shown in FIG. 4, the user will first tap the sides of the pouch to loosen the tobacco, especially the tobacco which confronts the slot 48. The user will now invert the accessory 10 to permit the loosened tobacco to enter into the slot 48, and thereafter the knob 86 is operated to release or unlock the piston 62 for movement to the left, as has been described above, and to assume the position of FIG. 5. The slot 48 now being open, tobacco will pass into the bore 18 adjacent the end 20 of the head 12. The open end of the bowl of the user's pipe is now brought into confronting juxtaposition relative to the open end of the bore 18 at the end 20 of the head 12. Preferably, the open end 20 is brought into engagement with the open end of the pipe bowl, or if the bowl is large enough, the open end 20 may be slightly inserted in the open end of the pipe bowl.

The knob 86 is thereafter operated to effect one or two strokes of the piston 62, this generally being sufficient to fill an ordinary pipe bowl with fresh tobacco. It will be understood, of course, that as the piston 62 is reciprocated, tobacco will fall into the barrel 18 as the same moves to its position shown in FIG. 5.

With the pipe bowl now being filled and simultaneously tamped in place through the operation of the piston **62**, the operator then returns the piston **62** to its closed position of FIG. **4**, turning the knob **86** to lock the assembly in its position as is illustrated in FIG. **4**, all in the manner heretofore described above. It should here be noted, however, that the piston assembly is of such length as to provide a portion thereof that extends beyond the open end **20** of the head **12**. This is to insure that the bore **18** is fully cleared of tobacco and is of such length as to properly tamp the extruded tobacco in the user's pipe bowl.

While several objects and advantages of using he the invention in accordance with this disclosure have been set forth above, certain other features of this invention should be here mentioned. For example, this accessory **10** may be kept in clean and sanitary condition at all times. To this end it is so constructed as to permit it to be washed frequently. In order to clean the accessory **10**, it is only necessary to separate the injector head **12** from the pouch **90** and hold the pouch **90** under running water until all particles of tobacco are removed. The same is done with the injector head **12**. However, in the latter case, the piston **62** should be reciprocated in the barrel **18** until all of the parts are thoroughly clean. Excess water is shaken of and the accessory **10** is permitted to dry overnight. Caution should be used not to refill the pouch **90** until all components of the accessory **10** are completely dry.

Other advantages of this device **10** reside in the fact that the pipe may be filled without opening the pouch, and the pouch is so constructed to cooperate with the head so as not to permit excess moisture from the tobacco to be drawn off into the ambient atmosphere. Obviously, the accessory **10** will fill and tamp the bowl of a smoker's pipe with the desired amount of tobacco, and without finger tamping which is messy as well as causing tobacco stains on the fingers. Manifestly the accessory **10** may be used with any brand of fine-cut tobacco, and a pipe may be filled and tamped with the accessory **10** in wind or rain.

Still further, the accessory is ideal for sportsmen for it may be operated when the hands are covered with gloves or mittens. Again, the accessory **10** will cleanly fill a pipe bowl even though the user's hands are wet or soiled.

Assuming that the user fills his pipe bowl in the manner described above, there can be no resulting spill of tobacco and, consequently, no tobacco mess, and this in turn leads to a tobacco saving. Additionally, the tobacco supply is visible to the user at all times, and the pouch is of such size as to hold a full day's supply of tobacco. The entire accessory is of light weight and of a minimum bulk whereby the same may be carried in a vest or shirt pocket if desired.

Having described and illustrated one embodiment of this invention in detail, the inventive concept is defined in the appended claims.

I claim:

1. In a pipe smoker's accessory comprising a head having a longitudinally extending bore formed therein, a pouch associated with the head, a piston mounted for reciprocation in said bore, the head having a slot therein, the piston normally closing the slot in the head at one extreme direction of its reciprocal movement and opening said slot at its other direction of movement to enable passage of tobacco from the pouch into the bore of the head and whereby return of the piston to said extreme direction of reciprocation effects discharge of the tobacco from the bore, that improvement which comprises:

means for detachably connecting the pouch to the head including means depending from the head about the slot for engagement with the pouch, said means including a continuous flange;

a series of tabs projecting outwardly from the flange;

the pouch having an upper peripheral edge slidably engaging the flange throughout substantially the full extent thereof,; and

means on the pouch peripheral edge releasably engaged with said tabs.

2. The improvement of claim **1**, wherein:

the flange has areas of increased dimension from which the tabs extend; and

the pouch peripheral edge is shaped to conform with the flange.

3. The improvement of claim **2**, wherein:

the tabs comprise outwardly extended cylindrical elements; and

the means on the pouch peripheral edge comprise lips with openings formed therein to receive the tabs.