Nov. 30, 1965 J. GENOUD 3,220,420

LIGHTER WITH A PIPE TAMPER

Filed Oct. 15, 1962

FIG.2

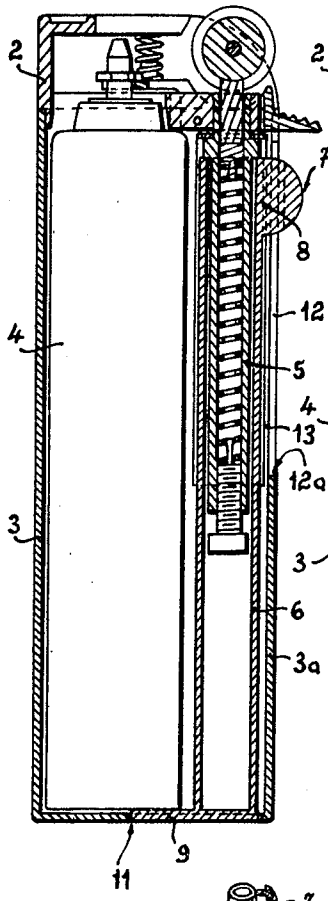


FIG.3

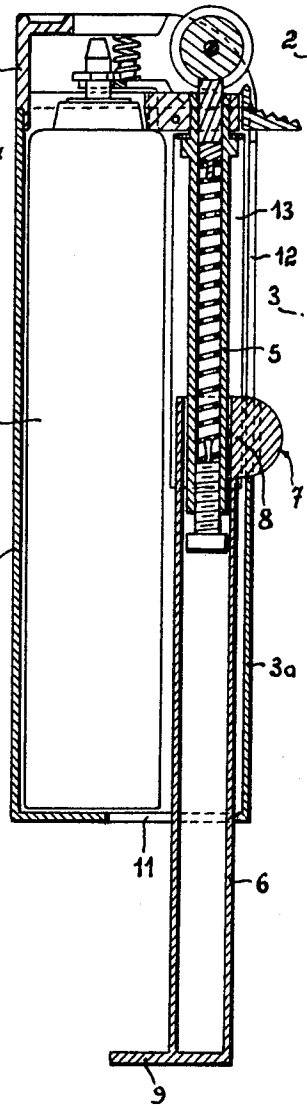


FIG.4

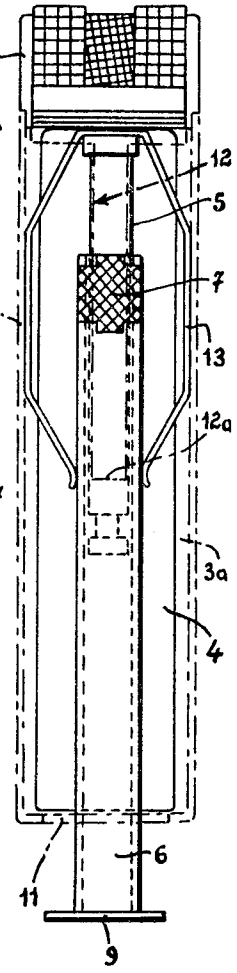
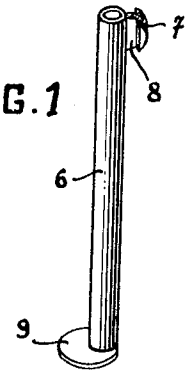


FIG.1



United States Patent Office 3,220,420 Patented Nov. 30, 1965

3,220,420

LIGHTER WITH A PIPE TAMPER

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Filed Oct. 15, 1962, Ser. No. 230,533
Claims priority, application France, Oct. 17, 1961, 41,947, Patent 1,303,862
6 Claims. (Cl. 131—247)

This invention relates to lighters for tobacco products with associated pipe tampers.

Lighters are well known in the art, which operate with liquid or gaseous fuel including a sliding pipe tamper adjacent the casing and incorporated therewith, said casing forming a guiding and securing member for the tamper.

Although such an arrangement is highly advantageous, it has a drawback consisting in that deformation of the casing following a shock or a fall may interfere with the sliding of the pipe tamper.

Lighters have also been known wherein the pipe tamper requires the incorporation of further parts for securing and guiding the tamper, which parts are of a delicate construction, are bulky and increase the cost price of the whole arrangement.

The present invention has for an object an extremely simple and sturdy structure which requires no incorporation of further parts nor the assistance of the casing for the securing and guiding of the stopper, all without any increase in bulk.

To this end, there is provided in a lighter in which the flint-carrying tube is arranged laterally and outside the fuel container, a rod carrying the pipe tamper which is constituted by a hollow cylindrical element, the flint-carrying tube forming a male telescopic guiding member holding said pipe-stopper in position.

In the case of a lighter incorporating a spring blade holding frictionally the stopper assembled with the flint-carrying tube between the head of the lighter and the casing, it is of advantage to resort to said spring to make it act frictionally against said rod carrying the pipe-stopper with a view to braking its sliding movement.

The invention will be readily understood upon reading of the following description, reference being made to the accompanying diagrammatic drawings illustrating by way of example and by no means in a limiting sense a preferred embodiment of the invention. In said drawings:

FIG. 1 is a perspective view of the pipe tamper and rod carrying it,

FIG. 2 is a longitudinal sectional view of a lighter wherein the pipe tamper is shown in its retracted position.

FIG. 3 is a similar longitudinal view wherein the pipe tamper is shown in its projecting position,

FIG. 4 is an end view of the lighter looking at the pipe tamper, with the casing shown in outline.

The lighter illustrated is of the type wherein the flint-carrying tube is arranged laterally of the fuel container and outside the latter, but within the casing.

The lighter includes a cap or head 2, a casing 3 and a fuel container 4. The cap 2 serves as a support for a flint-carrying tube 5 which in turn constitutes a telescopic guide for a tubular pipe tamper rod 6. The cap 2 has a shoulder which rests on the casing 3 as seen in FIGS. 2–4. The cap is detachably secured with the casing, in a manner which will be explained hereinafter. Said rod 6 is provided at its upper end with a milled knob 7 carried by a lug 8 which is welded to said rod. The lower end of the rod 6 is closed by a small plate 9 forming the pipe tamper and which is welded to the rod 6 as illustrated in FIG. 1.

The assembly of elements 6–7–8–9 forms the complete pipe tamper. The rod 6 is adapted to slide longitudinally

over the tube 5 and extend through an opening 11 formed in the bottom of the casing 3. When the rod 6 is urged inwardly to a maximum extent, the stopper plate 9 is flush with the bottom wall of the casing as illustrated in FIG. 2. The knob 7 is located outside the casing 3 and its securing lug 8 extends freely through a slot 12 cut in the wall 3*a* of the casing 3. The lower end 12*a* of said groove serves as an abutment for the lug 8 and defines the lower limit of the sliding movement of the pipe tamper.

A spring 13 is bent into substantially inverted U-shape and is secured to the upper end of the flint-carrying tube 5. The spring 13 has depending leg portions which diverge, are parallel and then converge and terminate in lower end portions which in an unstressed condition, are spaced from each other a distance which is less than the outside diameter of the tamper rod 6, the divergence being such that the parallel portions of the legs are pressed inwardly toward each other by the internal walls of the casing and the inward pressure is transmitted to the portions of the spring which bear against opposite sides of the rod 6 as illustrated in FIG. 4. The parallel portions of the blade 13 therefore frictionally secure the casing 3 with cap 2 while the rod 6 is held on the tube 5 by the pressure of the portions of the spring which bear against the rod 6. To remove the cap 2 from the casing it is only necessary to lift the cap 2 with a force to overcome the pressure of the spring 13. Upon removal of the cap 2, the tube 5 is withdrawn from rod 6 which remains within the casing 3. Assembly is effected in reverse order by inserting tube 5 in rod 6 and fitting the ends of the legs of the spring over the rod 6.

Thus, to extend the pipe tamper to its operative projecting position from the lighter, it is sufficient to exert on the knob 7 a downwardly directed thrust to overcome the friction provided by the spring 13 whereas a pressure exerted in the opposite direction returns the pipe tamper to its retracted position.

In order to replace a flint, the cap 2 is removed from the upper end of the assembly by sliding the same upwardly with respect to the casing 3 as seen in FIGS. 2, 3 and 4. Upward pressure on cap, adjacent to the striker wheel which is mounted in the upper portion of the cap above the flint tube 5, will result in the removal from the assembly with the cap 2 as a subassembly, of the spring 13, the tube 5 and the horizontally disposed partial wall which is apertured to receive and support the upper end of the tube 5 and which also serves to position and retain the upper end of the fuel container as shown. A new flint may be inserted in the tube 5 after removing the screw shown at the lower end thereof and the compression spring thereabove, after which the compression spring and the screw are replaced. As shown, the partial wall is frictionally fitted on the upper end of the tube 5 after the upper bight portion of the spring member 13 is placed thereon, the member 13 being apertured for that purpose. The tube 5 has a collar on the upper end portion such that the spring member 13 is restrained and supported thereby. The operation is completed by inserting the tube 5 within the hollow rod 6, spreading the lower end portions of the spring member 13 so that they may engage the same, and by positioning said partial wall in the assembly adjacent the fuel container and replacing the cap 2 on its seat. The member 4 contains a gaseous fuel which is dispensed by a valve member including a finger engaging element shown extending laterally from the upper end of the assembly in FIGS. 2 and 3, which valve member is biased to a closed position by a spring which bears downwardly on the opposite end of said element as illustrated.

The incorporation of said pipe tamper with the lighter requires no auxiliary means and, furthermore, its opera-

tion is not influenced by the deformations to which the casing may be subjected. Consequently its cost price is extremely low and its continued operation insured.

Obviously, the invention is by no means limited to the sole embodiment illustrated and it covers all the modifications thereof falling within the scope of the accompanying claims:

What I claim is:

1. A pipe tamper for a lighter having a casing member, a cap member on the casing member supporting a flint tube within the casing member, and a spring secured to one of the members and in contact with the other of the members to frictionally hold the members together, said tamper comprising a hollow tube having an internal wall in telescopic contact with the external wall of the flint tube, the external wall of the hollow tube being frictionally engaged by portions of said spring to releasably restrain said hollow tube for sliding movement on said flint tube between retracted and extended positions relative to said casing member and a plate on the hollow tube extending from the casing member with the hollow tube in extended position.

2. A pipe tamper as claimed in claim 1 comprising a knob on the hollow tube extending externally of the casing member through an elongated slot formed in a wall portion thereof for moving the hollow tube between the extended and retracted positions.

3. A pipe tamper as claimed in claim 1 wherein said spring is a blade of inverted U-shape having depending legs each with an intermediate portion in contact with said other of the members and ends in contact with the hollow tube.

4. A tamper for a lighter having a casing provided with a lateral slot and a bottom having a perforation, the lighter further having a flint-carrying tube supported within the casing, said tamper comprising a tubular member fitted slidingly over said tube, and having an end remote from said tube, a tamper plate on the remote end of the tubular member and having a shape corresponding to that of the perforation in the bottom of the casing and

hand operable means extending externally of the casing and projecting through the lateral slot in the casing, said hand operable means being rigid with the tubular member for displacing the same and the tamper therewith between first and second positions in which the tamper respectively projects outside the casing and is retracted and closes the perforation in the bottom of the casing.

5. In a lighter as claimed in claim 4 comprising a spring blade rigid with the flint carrying tube and in frictional engagement with the tubular member whereby the latter is movable only after the frictional engagement of the spring blade is overcome.

6. Apparatus constituting a tamping member supported in a lighter for movement between extended and retracted positions, the lighter having a cap, a casing, and a flint tube supported by the cap within the casing, said apparatus comprising a hollow tube telescopically supported on the flint tube, a tamping plate on the hollow tube, a knob on the hollow tube projecting externally of the casing for moving the hollow tube and the tamping plate therewith between extended and retracted positions, and a spring blade secured to the cap and in engagement with the casing to secure the cap and casing together, said spring blade having ends in frictional contact with the hollow tube.

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