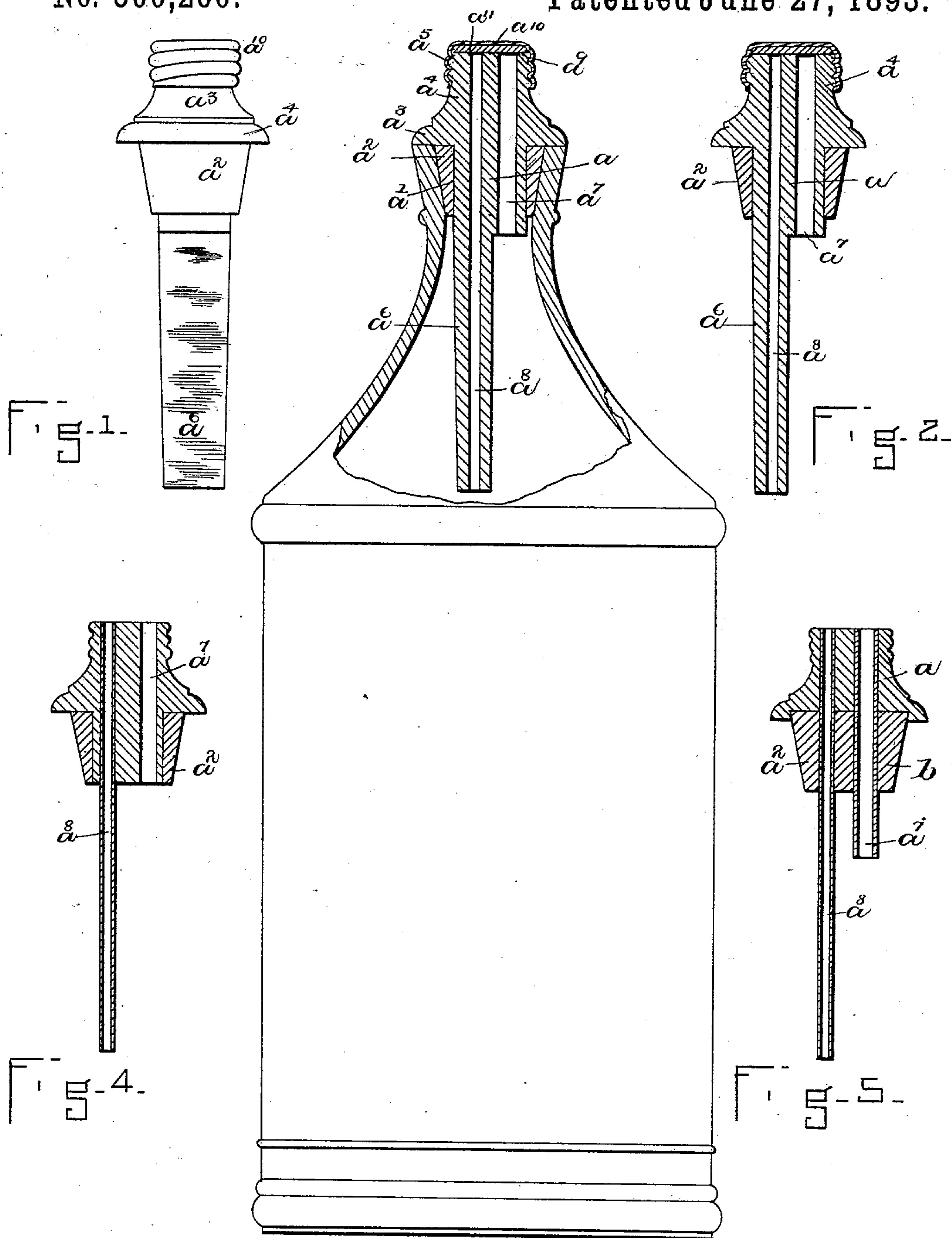


(No Model.)

J. W. CARTER.  
POUR-OUT OR DISCHARGER FOR BOTTLES.

No. 500,260.

Patented June 27, 1893.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JOHN W. CARTER, OF NEWTON, MASSACHUSETTS.

## POUR-OUT OR DISCHARGER FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 500,260, dated June 27, 1893.

Application filed June 16, 1890. Serial No. 355,541. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. CARTER, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Pour-Outs or Dischargers for Bottles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

It is desirable to provide bottles with a pour-out or discharger which will permit a regular or uninterrupted flow of the contents of a bottle from it. It is also desirable, especially for certain classes of liquids such as inks, that the pour-out or discharger be shipped with the goods, and therefore be constructed to act as a stopper as well.

My invention relates to a pour-out which may also act as a stopper used with a bottle in the transportation of liquids.

Referring to the drawings,—Figure 1 is a view in elevation of the pour-out. Fig. 2 is a view in vertical section of the pour-out. Fig. 3 is a view of a bottle with the pour-out closing the same, the neck of the bottle and the pour out being shown in section. Figs. 4 and 5 are views of modified forms of construction to which reference is hereinafter made.

The pour-out comprises a core  $a$  of wood. It has the round section  $a'$ , which is of less size than the area of the opening to the bottle and upon which is fitted a sleeve,  $a^2$ , of cork or other similar resilient or packing material. The core  $a$  also has the outward extending flange  $a^3$ , which is adapted to bear upon the top of the upper edge of the neck of the bottle, and against which the cork sleeve abuts, and the upper section or nozzle  $a^4$ , preferably reduced in size and having a screw thread  $a^5$  upon its outer surface extending from the top downward, and for certain uses the core also has the inward integral extension  $a^6$ . There is formed in the core the relatively large escape or outlet passage  $a^7$ , and which extends only through the main portion of the core, and in the core and the extension  $a^6$  the relatively small inlet passage  $a^8$ . These passages  $a^7$   $a^8$  are separate from each other, and the outlet passage  $a^7$  preferably is eccentric or

nearer one side of the core, but the two passages extend the full length of the core and of the nozzle or extension  $a^4$  to the flat end or top  $a^9$ , so that they may both be stopped or covered by the same stopping device. I prefer to use for this purpose a screw cap  $a^{10}$  of metal having a packing  $a^{11}$ , in the upper end of its cavity to screw upon the threaded end of the core and press the packing firmly against the head  $a^9$  and thus close at the same time the two holes  $a^7$   $a^8$ .

Instead of prolonging the core as represented in Figs. 1, 2, and 3 to form the inward extension  $a^6$ , I may provide such extension by means of a tube inserted in a hole in the core as represented in Fig. 4.

In Fig. 5 I have shown the core as made in two parts, the lower part  $b$  taking the place of the sections  $a'$   $a^2$  shown in the other figures, and is made preferably of cork or similar resilient material and is fastened to the upper section of the core by adhesive material, and preferably a section of its upper end fits into a pocket or recess in the lower section of the nozzle, and when this construction is employed I prefer to use tubes extending through the two holes of the core as represented. These tubes may be of metal where a non-corrosive liquid is to be passed through the discharge passage or where the liquid is not especially injured or affected by the corrosion, or they may be of glass or other non-corrosive material.

In the practical use of my combined stopper and pour-out, the body of which preferably is made of wood, it is essential that those portions of the same which are exposed to the liquid should be covered by a coating which is liquid proof, so that the liquid cannot penetrate the body of the stopper, and which is non-soluble or non-corrodible when exposed to acids. For this purpose the body of the stopper is finished by japanning, or with other equivalent substance, so as to cover the same with an enamel, and this enamel or lacquer finish is applied not only to the exterior of the stopper but to the interior of the tubes or passages thereof.

In transporting inks or other liquids the bottles or other receptacles are liable to be placed up-side-down or in such positions as would cause the liquid to seek to escape from



the nozzles of said bottles or other receptacles were they not properly closed, and thus the pour-out stoppers, the bodies of which are wood or equivalent absorbent material, would  
 5 become soaked with the liquid if the internal walls of the tubes or passages were not coated with some liquid-proof and non-soluble and non-corrodible material, and if the bodies of the stoppers be of metal or similar material  
 10 the coating prevents damage to the same by corrosion. Should the body of the stoppers, when of absorbent material, become soaked with the liquid from these interior passages the pour-out stoppers would be damaged by  
 15 reason of the swelling thereof, and thus the screw caps at their tops are liable to burst. It will therefore be seen that an essential feature of my invention consists in coating the bodies of the combined stoppers and pour-  
 20 outs with a liquid-proof enameling substance capable of resisting the action of the acid or other liquids to be transported in the receptacles in connection with which my stoppers and pour-outs are to be used; and it is also  
 25 important that this enamel coating should be applied to the interior passages of the tubes or openings as well as to such other parts of the device as are exposed to the acids or other liquids in the bottles; while the application  
 30 of the enamel to the exterior and top portions of the pour-out stoppers gives them a proper finish.

In use the pour-out may be employed both as a stopper for the sealing of a bottle during ship-  
 35 ment or until its contents are to be used, and then by the removal of the cap, as a pour-out; or it may be employed independently either with or without the closing cap after the opening of the bottle.

40 By employing the term bottle I do not mean to be understood as limiting the invention to using the bottle as it may be employed in con-

nection with jugs or other holding vessels having openings ordinarily closed by corks or stopples, bungs or other closing devices. 45

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A combined stopper and pour-out, consisting of a body provided with separated  
 50 pour-out and air-inlet passages, said body or such parts thereof as are exposed to the liquid being protected by a liquid proof, non-soluble, non-corrodible coating to prevent the liquid from being absorbed by or corroding  
 55 said body, substantially as described.

2. A combined stopper and pour-out for bottles, jugs, &c., comprising a wooden body or core  $a$  having a section  $a'$  of less size than the area of the opening in the said body, an out-  
 60 wardly extending flange  $a^3$  of greater size than the opening in the body, a short nozzle  $a^4$  having a screw-threaded portion  $a^5$ , the said core or body being provided with an outlet pas-  
 65 sage or hole  $a^7$  and an inlet passage or hole  $a^8$ , the latter being separated from the said outlet passage by a section of the said wooden core or body, the sleeve  $a^2$  of cork or other similar packing material applied to the sec-  
 70 tion  $a'$ , to abut against the flange  $a^3$ , said inlet hole or passage  $a^8$  being longer, so as to extend farther within the bottle, than the said outlet passage, and the screw cap  $a^{10}$  to screw upon the threaded end of the said core  
 75 or body and having the packing  $a^{11}$ , the said core or body and the interior of the said inlet and outlet passages being covered by a protecting liquid-proof and non-soluble, anti-corrosive coating or enamel, substantially as set forth.

JOHN W. CARTER.

Witnesses:

F. F. RAYMOND, 2d,  
 J. M. DOLAN.