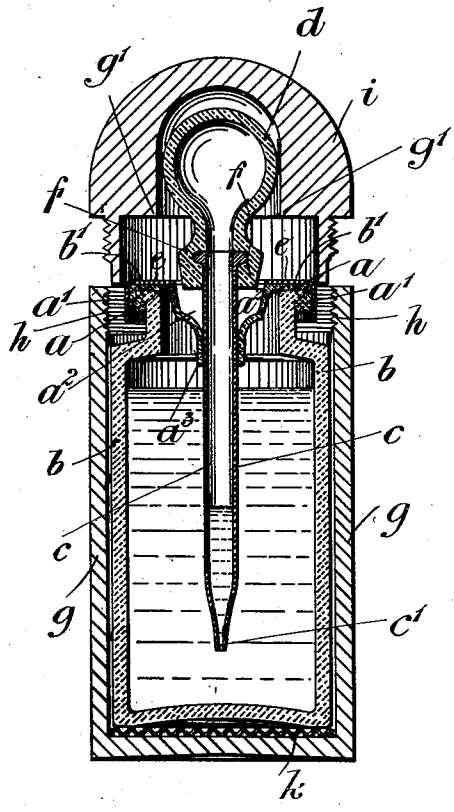
No. 726,038. PATENTED APR. 21, 1903.

J. F. FITZSIMMONS.

FITTING AND CASE FOR INK OR LIKE BOTTLES OR VESSELS.

APPLICATION FILED JULY 12, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN FRANKLIN FITZSIMMONS, OF HILLSDALE, MICHIGAN, ASSIGNOR OF ONE-HALF TO P. & J. ARNOLD, OF LONDON, ENGLAND.

FITTING AND CASE FOR INK OR LIKE BOTTLES OR VESSELS.

SPECIFICATION forming part of Letters Patent No. 726,038, dated April 21, 1903.

Application filed July 12, 1902. Serial No. 115,307. (No model.)

To all whom it may concern:

Be it known that I, JOHN FRANKLIN FITZSIMMONS, a citizen of the United States of America, residing at Hillsdale, Michigan, have invented certain new and useful Improvements in Connection with Fittings and Cases for Ink or Like Bottles or Vessels, (for which I have made application for Letters Patent in Great Britain, No. 2,661, dated February 1, 1902,) of which the following is a specification.

This invention relates to improvements in connection with fittings for use upon ink-containing bottles and vessels and the casing in which such vessels and the attached fittings are to be carried, the object being to provide, in connection with an ink-bottle, a device for filling fountain and like pens and for other similar purposes by means of a stopper which seals the contents of the vessel when not in use and which can be held within the casing in such a manner as to prevent injury to the vessel and the fittings when in transit or when being carried about for occasional use.

The accompanying drawing shows a sectional elevation of one convenient form of my invention.

In carrying my invention into effect in one convenient manner, as illustrated, I form a cover *a* for attachment to the mouth of the neck of the bottle or vessel *b*, which is to contain the ink, and I make such cover *a* of india-rubber or like suitable elastic material, the outer flange *a'* of such cover being of a form that will spring over the neck projection *b'* upon the bottle *b*. The inner portion of such flange or cover I make as a central depressed hollow plug or chamber a^2, through the inner end of which I pass a tube *c*, which is secured to a globular-ended elastic manipulating-head *d*.

The inner portion or chamber a^2 of the india-rubber cover *a* I make with its lower end a^3 pierced with suitable slits (not shown) or provided with a hole through which the tube *c* of the filling device can pass, the elastic nature of the material of such inner portion or inner chamber a^3 enabling the contents of the vessel to be sealed when the tube or filling device is in its closed position.

I preferably secure and protect the edges of the elastic cover *a* and prevent them from being removed or accidentally springing from contact with the neck of the bottle by means of a metal or other cap *e*, having a ring-like band which passes around the cover, and an upper flange formed thereon, which presses upon the outer portion of the cover. The filling device I make as a tube *c*, with its lower end pointed in the ordinary manner, as at *c'*, while the upper end of such tube I connect to a rubber air-bulb *d*. Upon the elastic compressible bulb *d* thus attached to the tube *c* I form a projecting collar or shoulder *f*, which fits within the interior of the elastic cover *a*, so that should any ink escape from the lower portion a^3 of the cover *a* the shoulder-like portion *f* of the bulb *d* would prevent its escape into the case *g*, in which the bottle *b* and the filling device are carried, and the central depressed hollow plug, when the tube *c* is inserted therethrough, draws closely around the tube, producing an effectual sealing between the cover and the filling-tube by the impingement of the depressed portion of the cover against the tube. The projecting collar or shoulder of the compressible bulb fits closely within the upper portion or chamber of the cover, making a close fit between the two parts and forming a tight joint and a seal between the collar or shoulder and the depressed wall of the cover, so that when the parts are assembled and the bottle closed the contents are sealed against escape by the impingement of the depressed portion of the cover around the filling-tube and by the engagement between the collar or shoulder of the bulb and the depressed wall of the cover, thus effectually closing the bottle against the escape of the contents.

I fill the tube *c* with ink by pressing the bulb *d*, and thus excluding the air in the usual ordinary manner, and remove such tube and combined stopper and bulb for filling the pen.

I inclose my ink-containing vessel, with its stopper and filler, within a casing *g*, made of xylonite, wood, or other suitable material and having an internal screw-thread *h* formed at its upper end. The cap *i* for screwing within such end I make with its interior of

such a form that the plug-bulb *d* is prevented from moving out of the bottle *b*, and the bottle and cap *e* also are engaged with or pressed upon by a projection or projections *g'*, formed within the cap *i*, so as to prevent the bottle from moving about within the case when in transit.

I may in some cases use a layer *k*, of corrugated paper or other suitable substance, placed in the bottom of the casing *g* to form a bed or pad for the bottle *b*.

I do not limit the application of my invention to any particular shape of bulb and sealing-ring or to any special method of mounting and securing the rubber cover and its cap to the neck of the bottle or vessel, and I vary the form of casing and the manner of preventing the movement of the bottle and filler when in position to suit the shape of the bottle or vessel which is to be employed and the materials from which the casing and the fittings are to be constructed.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with an ink-bottle, of a recessed rubber stopper having an aperture within the depressed portion thereof an ink-filler the tube of which is passed through said aperture and a plug encircling the filler and adapted to fit within the depressed portion of the stopper, substantially as described.

2. The combination with an ink-bottle, provided with a recessed rubber stopper having an aperture in the depressed portion thereof, of a pen-filler the tube of which is inserted through the said aperture and the bulb of which is formed with a plug to fit within the recess in the stopper, substantially as described.

3. In combination, an ink-bottle provided with a recessed rubber stopper having an opening in the depressed portion thereof, a pen-filler the tube of which is inserted through the said opening and the bulb of which is formed with a plug to fit within the recess in the stopper, an exterior casing for the bottle, a screwed cap for the casing recessed to receive the filler-bulb and to hold the filler-plug within the stopper, and a shoulder on the cap for engaging the bottle to prevent movement of the same during transit, substantially as described.

4. The combination with an ink-bottle, of a recessed rubber cover or stopper having a depressed portion a filling-tube passing through the depressed portion of the cover or stopper and sealed by the impingement of the wall of the depressed portion of the cover or stopper around the body of the tube and a plug encircling the filling-tube and adapted to fit within the depressed portion of the stopper, substantially as described.

5. The combination with an ink-bottle, of a recessed rubber cover or stopper having a depressed portion, a filling-tube passed through the depressed portion of the cover or stopper and sealed thereby, and a closing-plug on the filling-tube entering into the chamber of the rubber cover or stopper and thereby forming a seal between the cover or stopper and the plug, substantially as described.

6. The combination with an ink-bottle, of a recessed cover or stopper having a depressed portion, a filling-tube passed through the depressed portion of the cover or stopper and a closing-plug on the filling-tube fitting within the chamber of the cover or stopper and forming a seal between the cover or stopper and the plug, substantially as described.

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

JOHN FRANKLIN FITZSIMMONS.

Witnesses:
THOMAS A. BANNING,
OSCAR W. BOND.