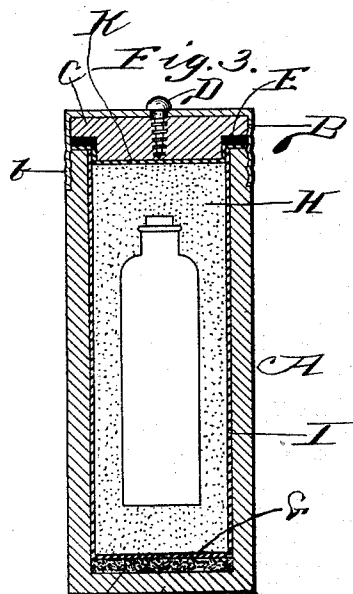
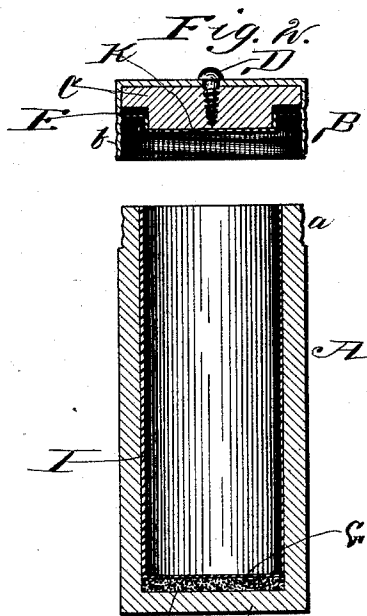
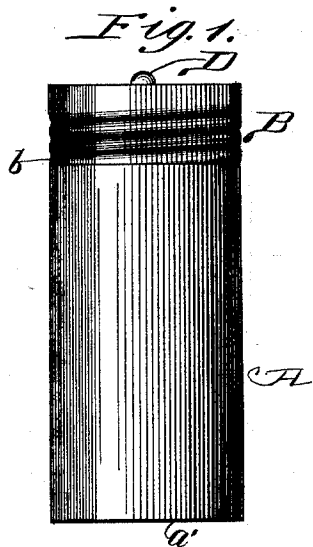


(No Model.)

G. J. JOHNSON.
MAILING CASE.

No. 483,287.

Patented Sept. 27, 1892.



Witnesses *F a*
M. H. Middleton
Reta M. Inaguer

F a Inventor
Gustavus J. Johnson
By Chas. S. Page
Atty

UNITED STATES PATENT OFFICE.

GUSTAVUS J. JOHNSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO MAILING CASE COMPANY, OF SAME PLACE.

MAILING-CASE.

SPECIFICATION forming part of Letters Patent No. 483,287, dated September 27, 1892.

Application filed May 16, 1892. Serial No. 433,169. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVUS J. JOHNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Mailing-Cases, of which the following is a specification.

My invention relates to cases designed for the transmission of liquids through the mails, and involves certain improvements upon the mailing-case patented to me January 5, 1892, by United States Letters Patent No. 466,688.

The objects of my present invention are to render the manufacture of the case more convenient and economical, to provide a lighter construction and more compact form of case, to guard against possibility of leakage as an incident to shrinkage of the case, and to further guard against the escape of acids should a defective vial containing an acid become broken within the mailing-case.

To the attainment of the foregoing and other useful ends I provide the case with a comparatively thin screw-cap of metal or analogous material, and provide a separately-formed plunger, which is secured to such cap, and which when thus secured subserves the purpose of the plunger embodied in my said Letters Patent. By this arrangement I can provide a cap which is much thinner, lighter, and less bulky than a wooden cap, and which can be applied to the wooden or analogous body so that its annular threaded flange portion shall be flush with the cylindric perimeter of the body of the case. The provision of a separately-made plunger also enables me to avoid the expense and difficulty attending the production of a wooden cap having the plunger integral therewith and having its annular flange portion threaded, so as to screw upon the body of the case, and also permits me to provide a thin metallic cap having a plunger of wood or analogous light material.

As a matter of further improvement, I provide upon the inner side of the bottom of the case a layer of some suitable tough pitchy composition which will not crack in the event of the cracking of the end of the case by reason of shrinkage, and hence while the interior of the finished case can be lined with a coating of paraffine, such lining can be ap-

plied after the pitchy composition has been put in place.

For general purposes I propose using within the case a packing of sawdust, as in my said patent; but as a matter of further improvement I substitute for the same a packing of powdered silicate of magnesia, where the vial to be mailed contains an acid, and hence should the vial become broken the packing of silicate of magnesia will not be attacked and destroyed, but will absorb and hold the acid.

In the accompanying drawings, Figure 1 represents in side elevation a mailing-case constructed in accordance with my invention. Fig. 2 represents a section taken centrally and longitudinally through the case and its cap, the said two parts being separated for convenience of illustration. Fig. 3 represents a section taken centrally and longitudinally through the case containing a vial embedded in a packing of powdered silicate of magnesia.

The body A of the case may be of wood or analogous light material, although for the sake of strength and lightness the employment of wood as a material will be found desirable. It is obvious, however, that it could be molded of papier-maché or that it could be made of wood pulp suitably molded. The cap B is made of sheet metal, such as sheet-brass, zinc, or other metal or metallic composition or analogous substance, which when made into sheet form will possess substantially the strength of sheet metal. The flange portion b of the cap is threaded and adapted to screw upon the externally-threaded end portion a of the body of the case, and when so applied the said flange portion of the cap will lie flush with the perimeter of the body of the case, as illustrated in Figs. 1 and 3.

The plunger C can be made of wood or analogous light material and is made separate from the cap. The plunger is adapted to fit within the cap and can be secured thereto in any suitable way, a simple and preferred arrangement being to secure the plunger to the cap by a rivet or screw D. The plunger is provided with an offset, in which a packing-ring E can be fitted, so that when the cap is applied and the plunger brought within the body of the case the packing-ring can be

forced upon the end of the body of the case, as illustrated in Fig. 3. With reference to the construction thus far described it will be seen that the body of the case can be made
 5 of a suitably-light material—such as wood, wood pulp, or papier-maché—and of sufficient thickness to insure strength, and that the cover may be of thin sheet metal or metallic or equivalent composition, whereby it can be
 10 readily and economically formed and threaded; also, that the plunger can be easily and economically made and readily applied to the cap, and that when thus applied it will press and stiffen the cap.

15 Referring to Fig. 3 it will be seen that when the cap is screwed upon the body of the case the entire cap will be reinforced internally, the reinforcing portions being the body of the case, the compressed packing-ring, and
 20 the plunger, which latter entirely fills one end portion of the cap.

Where the case is made of wood it will sometimes crack at its end a' by reason of the shrinkage of the wood, and where such
 25 occurs a possible outlay for the escape of liquid from an accidentally-broken vial is afforded, notwithstanding the fact that the interior of the case may be coated with paraffine. In order, therefore, to guard against
 30 such accident, I provide within the bottom of the case a tough and pliable and ductile pitchy layer G, which will not crack should any crack occur in the bottom of the case. A good composition for such purpose can be
 35 made of pine pitch, two parts; beeswax, four parts; resin, eight parts, and oxide of iron one part. I do not confine myself, however, to these exact proportions, nor do I confine myself to these exact ingredients, although I
 40 consider such composition a matter of special improvement. This composition can be arranged to form a layer upon the bottom of the case, and the interior of the case can then be provided with a coating of paraffine or the
 45 like. The said layer G, however, is understood to consist of a body of tough and ductile or pliable pitchy material, which will not harden and contract and which in the event

of a crack occurring in the bottom of the case will yield and draw out, so as to keep the 50 crack well covered.

For general purposes of my invention I may use a packing of sawdust, as in my said patent; but where it is desired to transport a vial containing acid I propose to provide a 55 packing H, of powdered magnesia or equivalent silicate, which will hold and resist the attack of an acid, and hence should the vial break the acid will be absorbed and held by the packing. The portion of the plunger 60 which enters the body of the case and also one side of the packing-ring can also be coated with a paraffine coating, the paraffine within the body of the case being indicated by the letter I and the coating in the cap being indicated by the letter K.

It will be observed that where I use a packing H of a substance which will withstand the attack of an acid the vial can be arranged within the same, as in Fig. 3, and 70 that the packing can be compacted by the plunger when the cap is screwed upon the body of the case.

What I claim as my invention is—

1. A mailing-case comprising the thin cap 75 adapted to screw upon the body of the case and the separately-formed plunger arranged within and secured to the cap, substantially as set forth.

2. A mailing-case containing within its bottom a ductile layer of tough pitchy substance, substantially as and for the purpose set forth. 80

3. A mailing-case containing a body of packing of powdered silicate of magnesia or like silicate, said layer being filled within the case 85 about the vial or receptacle to be mailed, substantially as and for the purpose set forth.

4. A mailing-case comprising a wooden body A, a sheet-metal cap B, and a wooden plunger C, arranged within and secured to the cap, 90 substantially as described.

GUSTAVUS J. JOHNSON.

Witnesses:

W. D. MIDDLETON,
 CHAS. G. PAGE.