(No Model.)

A. F. TEMPLE.

PACKING CASE.

No. 361,195. Patented Apr. 12, 1887.

Fig. 1.

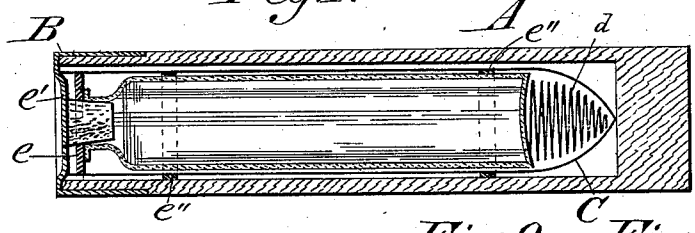


Fig. 9.

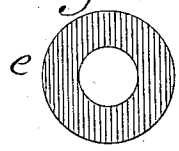


Fig. 8.

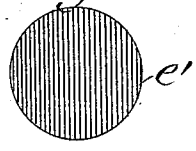


Fig. 3.

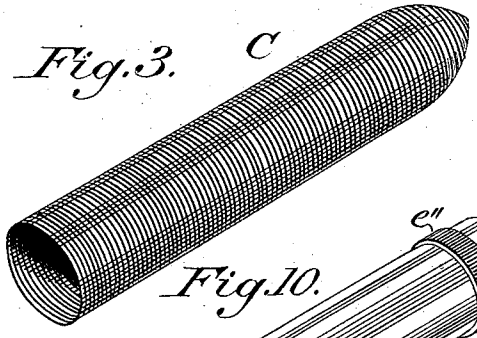


Fig. 10.

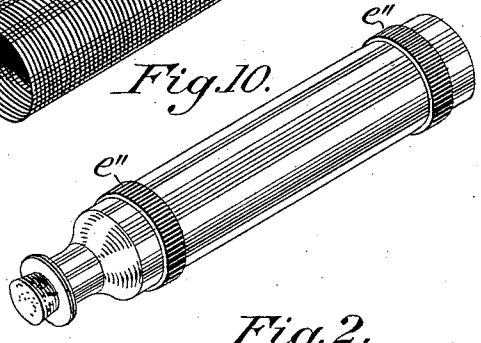


Fig. 4.

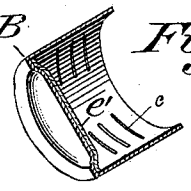


Fig. 5.

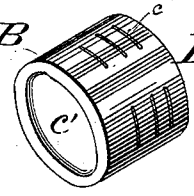


Fig. 2.

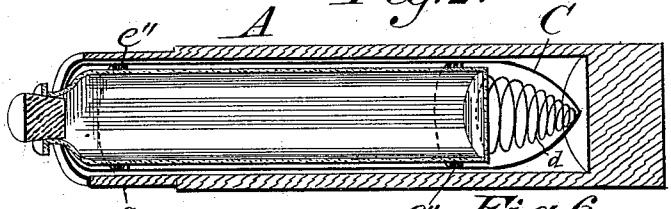


Fig. 6.

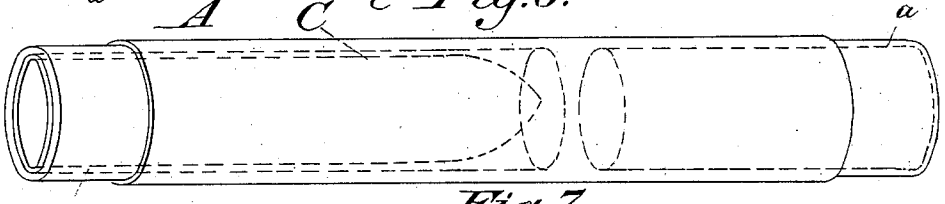
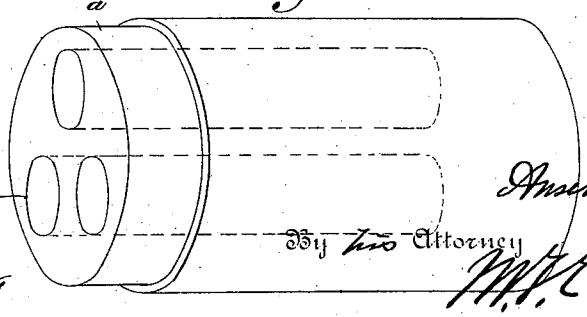


Fig. 7.



Witnesses

F. H. Schott

G. W. Chandler.

Inventor

Ansel F. Temple

By his Attorney

W. H. H. Chandler

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ANSEL F. TEMPLE, OF MUSKEGON, MICHIGAN.

PACKING-CASE.

SPECIFICATION forming part of Letters Patent No. 361,195, dated April 12, 1887.

Application filed February 23, 1887. Serial No. 228,633. (No model.)

To all whom it may concern:

Be it known that I, ANSEL F. TEMPLE, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Packing-Cases; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates, primarily, to the class of vessels or package-holders designed for the protection of liquids or other articles during transmission through the mails, although it may evidently be used for other purposes, if desired. The rules of the Post-Office Department require these package-holders, when their contents are not liquid, to be formed of wood or metal, with a sliding clasp or screw-lid, and when liquids are to be transported they must be placed in a glass or metallic holder inclosed in an outer case of wood or papier-maché, closed with a tightly-fitting screw-lid provided with an internal packing of rubber to secure a tight joint and prevent leakage in case of the breaking of the bottle or other vessel containing the liquid and hold them.

The object of my invention is, therefore, to form a package-holder that shall meet all these requirements, and at the same time be useful to the general public for various other purposes, among which may be enumerated the reception of small articles of hardware, such as twist-drills, taps, needles, small files, dental and surgical instruments, and other small articles liable to damage from rust when exposed in the ordinary manner, but which may be packed in these cases and placed upon the shelves in that condition for sale, the wood case with its impermeable lining affording perfect protection against the air or moisture, and they are always ready to be sent to customers through the mails without further preparation.

Other articles of merchandise may be packed in these cases and kept in stock ready for transmission to customers in the same manner, such as water-gage glasses, medicines, sewing-machine oils, and many other articles. They also furnish grocers and other dealers with a convenient means for sending samples of flour, tea, coffee, and the like through the mails.

The invention consists, essentially, in a cylindrical tubular case of wood closed at one end and made impermeable to liquids by an internal coating of india-rubber or its equivalent, said case being provided at its open end with a screw-cap of metal, the screw-thread of which is so constructed that the cap shall form its own thread upon the wood of the case as it is screwed thereon, a gasket or washer of rubber being placed in the top to form a tight joint, and, further, in a metallic case of peculiar construction to contain vials of liquids and hold them always in contact with the cap, the whole arranged as will be hereinafter fully described, and then specifically stated in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a longitudinal section through the case complete with a vial inclosed therein. Fig. 2 is a similar section with the screw-cap removed, showing the action of the cushioning-springs upon which the vial rests. Fig. 3 is a perspective view of the inner metallic case sometimes used to contain the vials of liquid. Fig. 4 is a perspective view in section of the metallic screw-cap. Fig. 5 is a perspective view showing the cap complete. Fig. 6 shows a double case in perspective intended for the reception of a screw-cap at each end and having a portion of the wood left to form a bottom for both receptacles. Fig. 7 shows a case with three receptacles to be closed by a single cover. Fig. 8 is a side view of one of the gaskets used to form a joint between the cover and end of the case. Fig. 9 is a similar view of an annulus used to suspend or prevent the inclosed vial from coming in contact with the metal case, and Fig. 10 shows a vial prepared for insertion into the case.

In carrying out my invention, I take cylinders of wood, A, of any desired length and diameter, bore them out from one end to form the receptacle, and leaving sufficient material at the other end for a substantial bottom. The open end is then preferably reduced in diameter, as at *a*, to form a seat for the screw-cap B. This reduction, however, is not absolutely necessary, as the caps may be made to go over the end of the cylinder without any reduction of the latter, if desired. This screw-cap B is of metal, and is formed with an interrupted screw-thread, as *c c*, by compressing the cap

in suitable dies during the process of forming the same. It will be seen that the thread thus formed upon the cap is the male thread, the female thread being formed upon the end of the wooden cylinder by the male threads of the cap in the act of screwing the cap upon said cylinder, the wood being compressed by the metallic screw-threads of the cap in the line of said threads. Their interrupted position allows the cap to be readily started and make its way over the end of the cylinder without the application of any great force. It will be seen that as no thread is previously cut upon the end of the wooden cylinder, the thread formed by the cap will surely be a perfect fit, and not likely to leak, and, further, that should the inclosed bottle be broken, the expansion of the wood within the cap will continually increase, thus tightening the joint between said cap and the cylinder. It will also be observed that the closed end of the cap, as at *c'*, is depressed, thus forming an annular recess in its bottom, which receives the end of the cylinder and insures a tight joint, whether a rubber gasket, as *c'*, is interposed between them or not. The gasket, however, being required by the rules of the Post-Office Department, is supplied to all packages intended for transmission through the mails.

In order to make the wood composing the cylinder impermeable to liquids, I coat the same upon the inside with a solution of caoutchouc, which fills the pores of the wood and is unaffected by any acids, except sulphurous acid, which only hardens or vulcanizes it, without detracting from its effectiveness as a protection against infiltration. Heretofore paraffine has been generally used as a lining for wooden vessels, but has been found objectionable, as it is affected by many liquids, as well as various other substances.

When it is desired to use extra precaution, I place within the wooden case a metallic tube, C, which is formed by winding a small wire around a core or former, having the shape of the interior of said case—namely, a plain cylinder with a conical end, as shown in the perspective view of the same in Fig. 3 of the drawings. The wires of which this case C is formed are wound close, and the adjacent coils united by dipping the case into melted solder, which firmly unites them, thus forming a strong cylindrical case, open at one end and with a conical bottom at the other. This wire case is made of the proper diameter to slip easily into the receptacle in the wooden case A, and is provided with the spirally-coiled conical wire spring *d*. This spring is placed in the bottom of the tube C, filling its cone and projecting in its expanded condition upward into the cylindrical part, and forms the seat upon which the bottom of the vial D rests, its compressibility allowing vials of different lengths to be inserted in the tube C, and at the same time keep their necks at the same point with relation to the mouth of the tube. This spring *d* also acts as a cushion to prevent the force of blows to which the case may be subjected from breaking the inclosed vial. If desired, rubber bands, as *e'' e''*, may be placed around the vial, near its bottom and top, and after inserting the vial into the case a washer, *e*, of rubber or other suitable material, having an opening in its center, may be placed over the cork, its periphery coming in contact with the internal surface of the outer case, so as to keep said vial suspended between said washer and the cushion-spring and out of direct contact with the metallic case, or the inner walls of the wooden case, when the use of the metallic case is dispensed with, thus rendering it almost impossible to break the vial unless the package meets with such an accident as to crush it wholly.

It will be evident that the wire case for holding the vial containing the liquids or other matter for transmission may in certain cases be dispensed with, the cushioning-springs being placed directly on the bottom of the wooden case and the vial provided with the elastic encircling bands seated directly thereon. By this arrangement the cost of the inner case is avoided; but in order to comply with the rules of the Post-Office Department it is necessary to use it when matters of a peculiarly destructive nature are to be mailed.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following:

1. As an improvement in packing-cases, a cylindrical-bottomed tube of wood, in combination with a metallic cap or cover provided with an interrupted screw-thread adapted to form its own thread upon the tube when screwed upon the latter, substantially as set forth.

2. As an improvement in packing-cases, the cap B, provided with an interrupted screw-thread and having its top depressed, as at *c'*, to form a channel for the reception of a gasket and compress the end of the wooden case to which it is applied, as specified.

3. As an improvement in packing-cases, the cylindrical and conical ended wire case adapted to receive a vial and protect the same in transmission through the mails, substantially as set forth.

4. As an improvement in packing-cases, the rubber-lined cylinder A, in combination with the metallic screw-cap B, the metallic inner case, and cushioning-springs, all arranged and operating substantially as specified.

5. As an improvement in packing-cases, the annular washer surrounding the cork of the vial and the elastic bands surrounding said vial, in combination with the cushioning-spring, outer case, and screw-cap adapted to secure the vial and prevent breakage, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ANSEL F. TEMPLE.

Witnesses:
M. T. E. CHANDLER,
ROBERT E. MORRIS.