

No. 629,571.

Patented July 25, 1899.

G. LAMBERT.
CAN FOR HOLDING LIQUIDS.

(Application filed May 10, 1898.)

(No Model.)

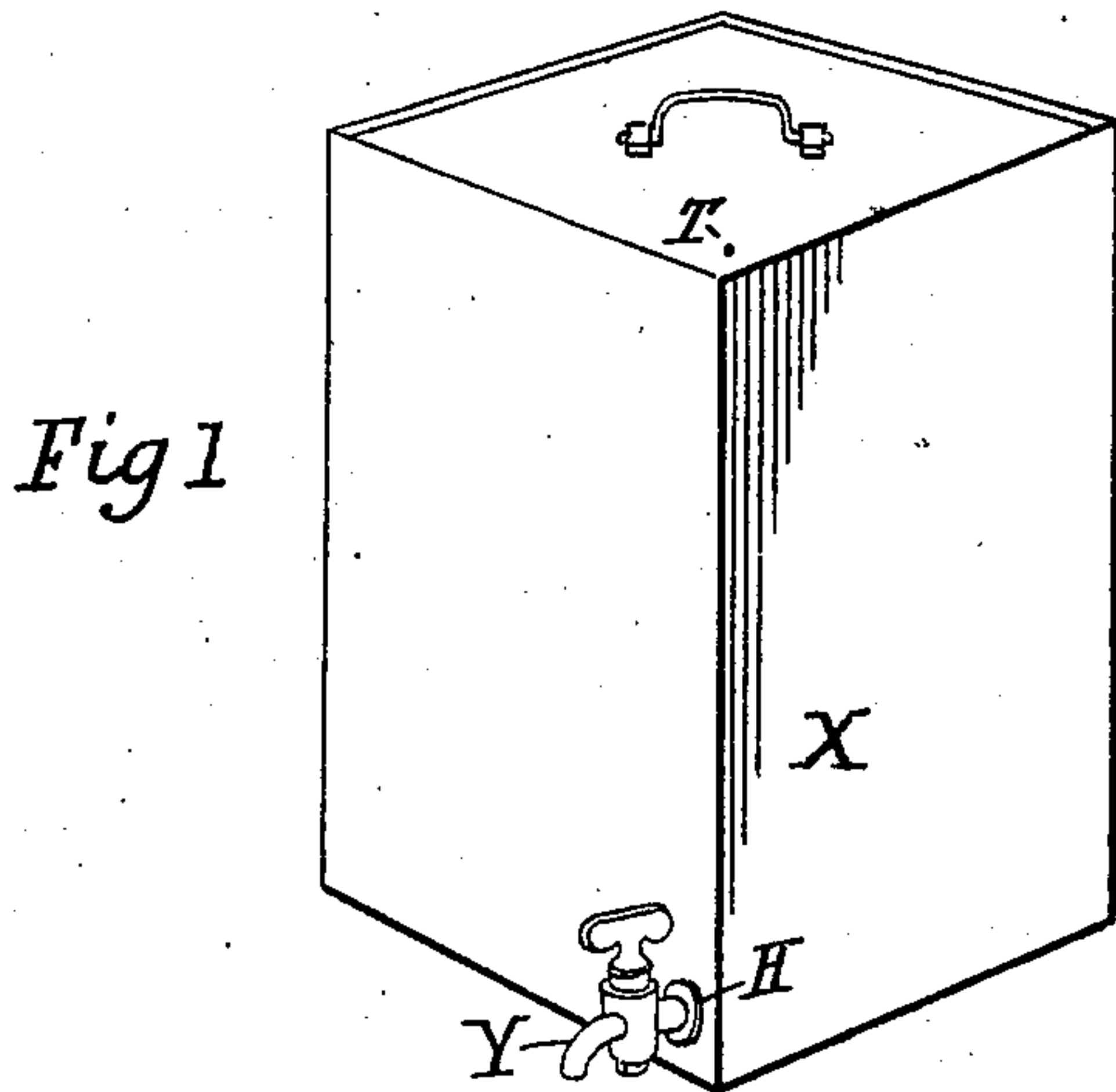


Fig 1

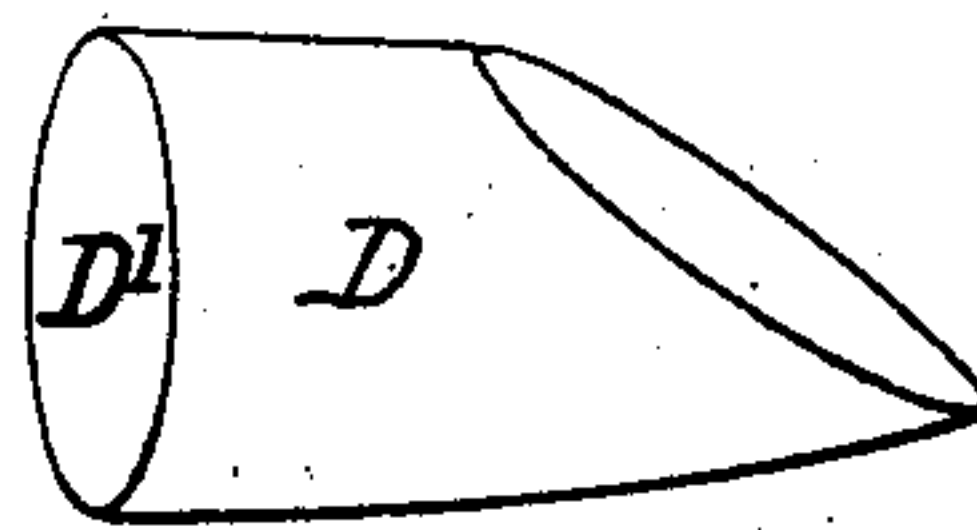


Fig 3

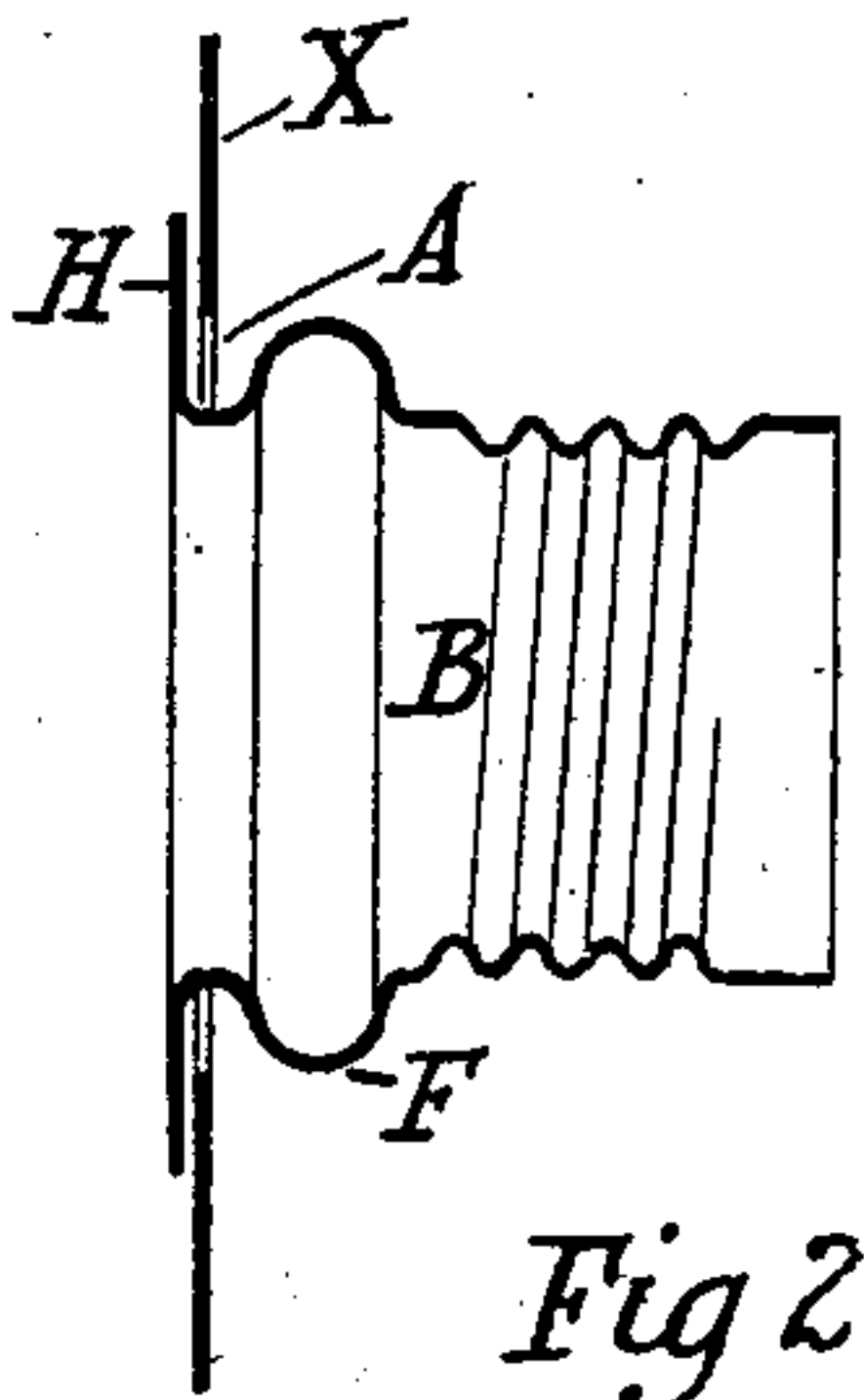


Fig 2

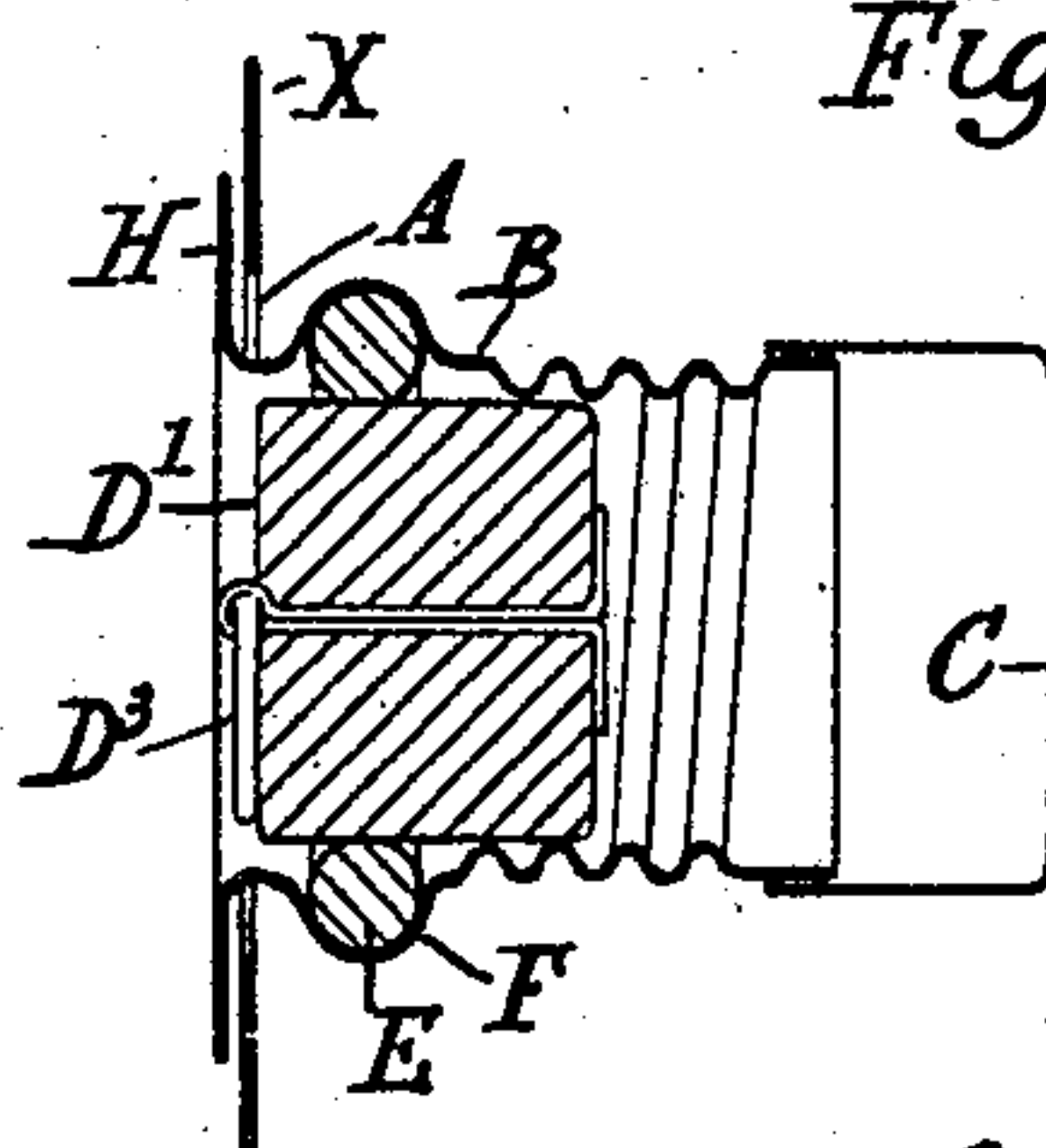


Fig 4

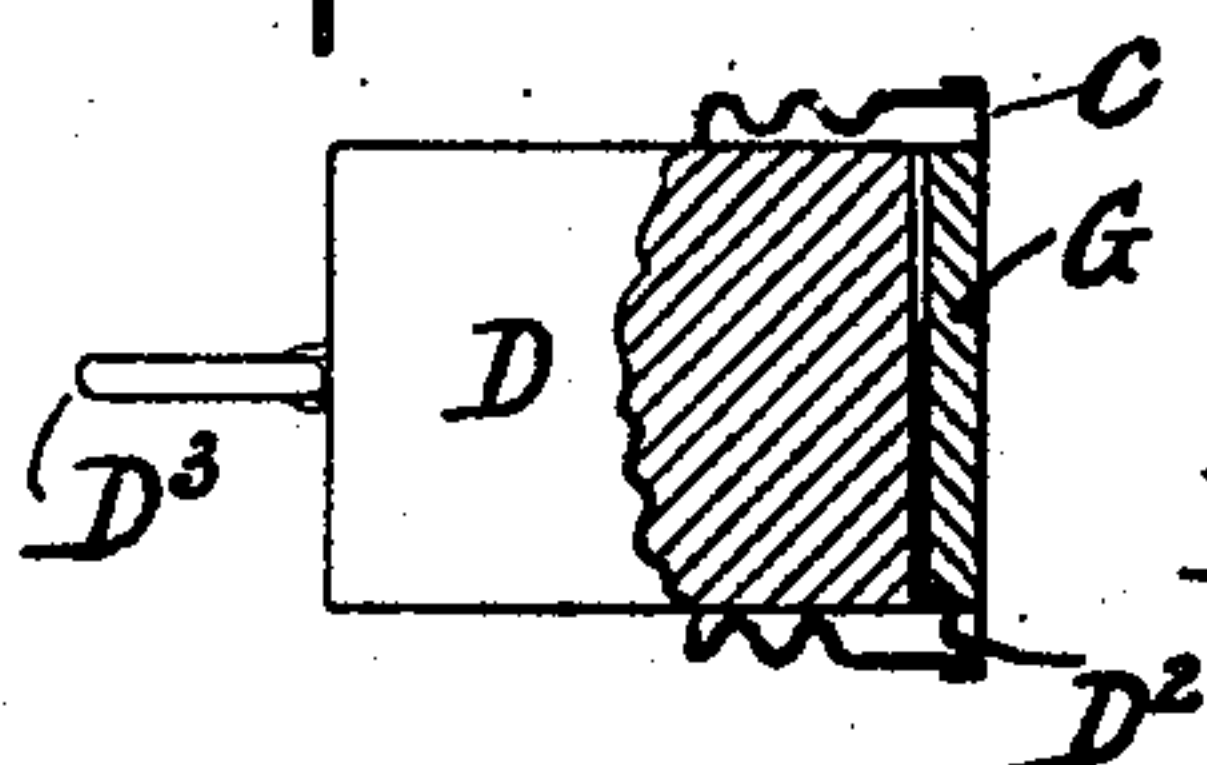


Fig 6

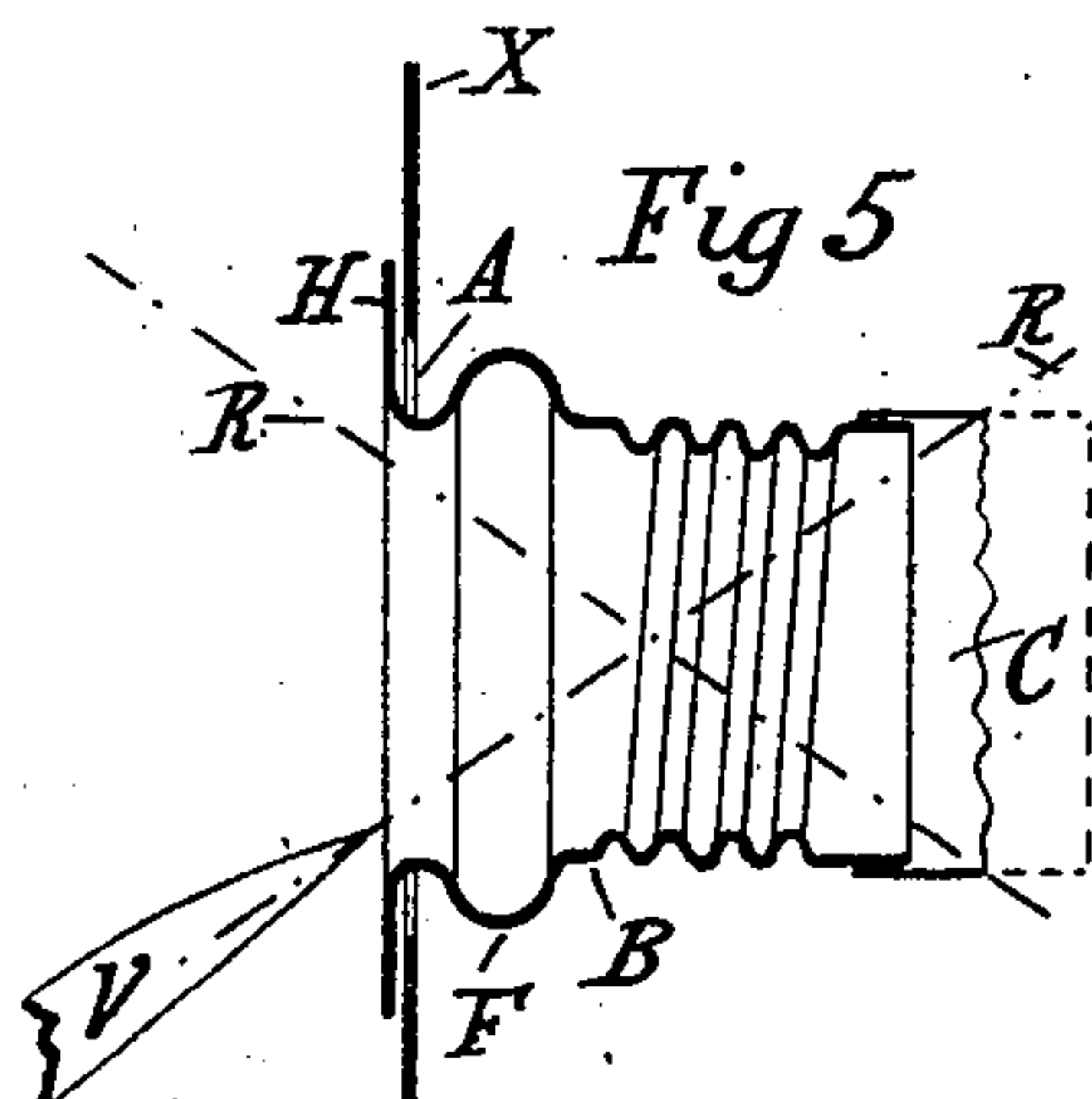


Fig 5

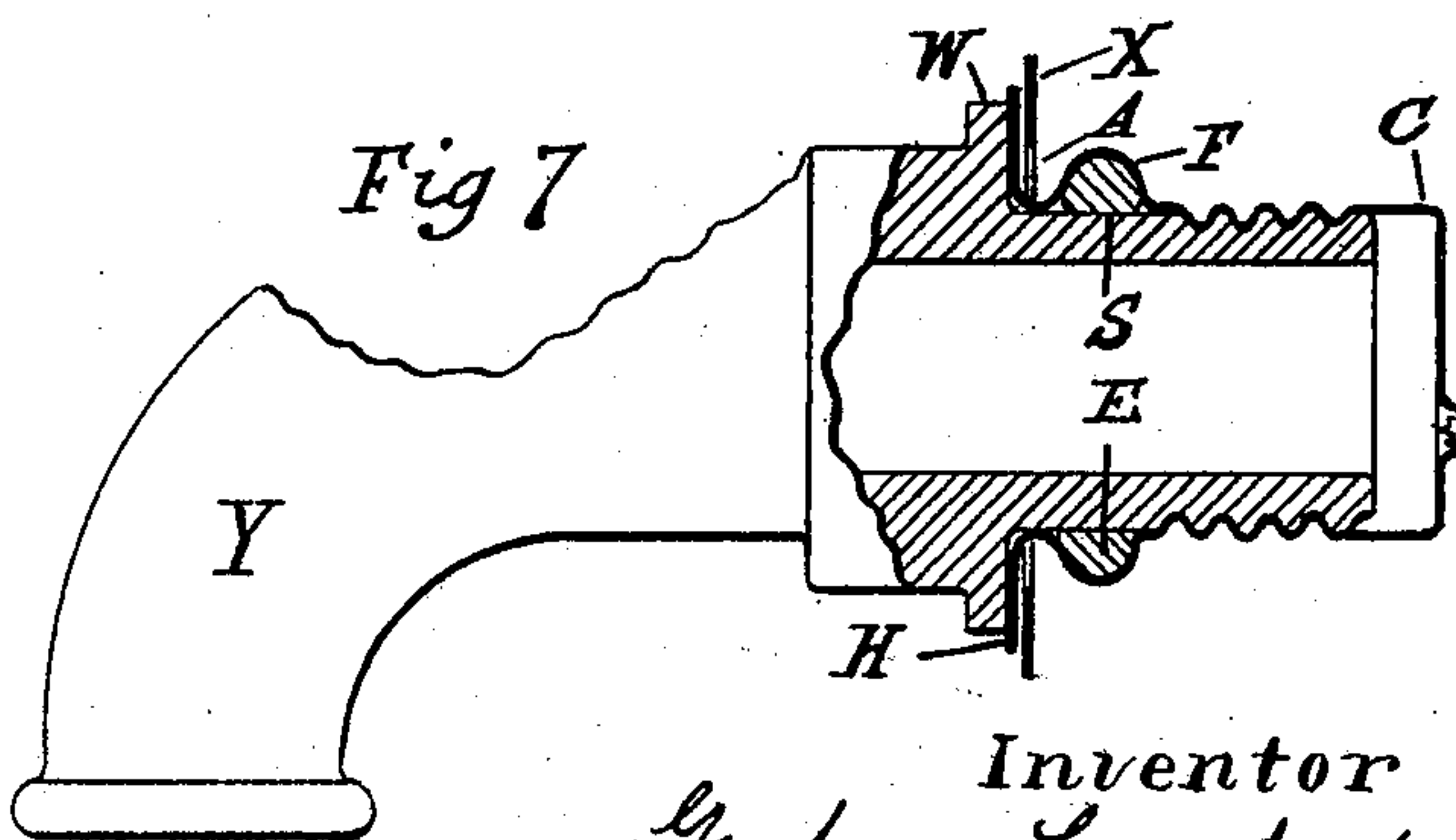


Fig 7

Witnesses
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UNITED STATES PATENT OFFICE.

GORHAM LAMBERT, OF TIMARU, NEW ZEALAND, ASSIGNOR TO JAMES STEWART, OF PLEASANT POINT, NEW ZEALAND.

CAN FOR HOLDING LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 629,571, dated July 25, 1899.

Application filed May 10, 1898. Serial No. 680,316. (No model.)

To all whom it may concern:

Be it known that I, GORHAM LAMBERT, chemist, a subject of the Queen of the United Kingdom of Great Britain and Ireland, residing at Timaru, in the Colony of New Zealand, have invented certain new and useful Improvements in Cans for Holding Liquids, such as Kerosene, to Facilitate Discharges Therefrom; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to make certain improvements in cans for fluids, especially kerosene and like fluids, which are very penetrative and are generally put up for domestic use in large tins containing several gallons. The improvements comprehend a simple and effective leak-proof socket, which is attached to the can and adapted to be engaged and fitted by an ordinary draw-off or bib cock, so as to enable the fluid to be discharged without trouble and without leakage at the said socket after the cock is inserted.

A further object is that the socket shall be easily punctured or cut to allow the fluid to reach said cock and yet shall be so located that it cannot be damaged in transportation before use.

A further object of this invention is to so arrange the parts that a socket after use can be repaired or be removed and a new socket inserted, so that the same can may be used over and over again, whereby a considerable amount of expense in manufacturing new cans will be obviated.

Referring now to the accompanying drawings, which illustrate forms in which it is preferred to embody this invention, without wishing it understood that the latter is limited thereto, Figure 1 shows a diagram in perspective on a smaller scale than natural size. Fig. 2 represents a sectional view, enlarged, of one form of the soft metallic shell for receiving the tap of the vessel. Fig. 3 represents a perspective view of one form of plug for fitting the said shell. Fig. 4 represents a sectional view of the shell shown in Fig. 2 fitted with a removable cap upon its

inner end and fitted interiorly with a plug and compressible ring. Fig. 5 represents a view similar to Fig. 2, illustrating the manner in which the cap inclosing the inner end of the shell may be cut by bladed instruments. Fig. 6 represents a detail sectional view of a modified form of plug provided with a cutter for severing the cap; and Fig. 7 represents a sectional view showing a tap fitted into the said shell, the latter having been perforated for allowing the discharge of the liquid from the vessel.

Fig. 2 shows the can X, an aperture A therein, and shell B, which serves as a nut or socket for the cock Y. (Shown in Figs. 1 and 7.)

Fig. 3 shows a plug D, of wood or other suitable material, which is kept in the socket until such time as it is required to insert the cock. The plug in any form used prevents admission of dirt, and as its face D' does not project outwardly beyond the can-surface (usually it is approximately flush with the plane of the aperture A) it serves to keep the can rigid and free from distortion at that part, and further utility of the plug is explained hereinafter. In Fig. 4 a simpler plug is exhibited held tightly in place by a washer E, which is compressively held in a corrugation, expansion, or groove F in the shell B, the rear of said shell having a means of closure C, consisting either of an end integral with B (*vide* Fig. 7) or an attached cap, (soldered on,) said end or cap being made thinner or of softer metal than the front part of B, or at least sufficiently thin or soft that it may be easily cut or perforated. In Fig. 5 the lines R indicate how a blade V may be inserted to cut off the back end of the means of closure C after the plug is extracted, and in Fig. 6 the plug is shown provided with a cutter or blade D² in its back end, so that on removing the plug, to begin with, and taking out the wad G (which is thick enough to keep the cutter away from the rear of part C during transportation prior to the opening of the can) and then reinserting the plug with pressure and rotating it the cutter D² will first pierce and then cut out a disk or piece at the rear of cap C. D³ is a ring which is one form

of handle that might be used to turn the plug around. The plug need not be turned around to make an opening. It could (if pointed, as in Fig. 3) be simply driven in until it fell inside the can; but in practice the latter system is not preferable. The object of cutting away part of the closure C is to allow room for the rear of the tap to pass into the can for any distance until the shoulder of the tap W is "home" against the socket-flange H or any interposed washer; but the cap or socket is (in connection with this invention) often specially made extra long, as in Fig. 7, so that no cutting away is then required. In practice a mere piercing of the end with any convenient instrument suffices to establish communication between the tap and the fluid in the can. The reason this piercing is usually done is that when after emptying it is desired to make the can leak-proof, so that it may be used as a bucket (by cutting away the top, &c.) or otherwise, a few drops of solder will serve for that purpose.

It is to be understood that while a screw-thread on the socket has advantages, (chiefly in that by preserving uniform threads one tap will do for innumerable cans,) yet such threads are by no means essential, as any suitable surface may be provided against which the tap-shank will fit true and firmly, so that a conical surface would do; but in any case one part of the tap—viz., S (that part which contacts with the washer E)—is smooth, so as to prevent leakage beyond the same. The washer E is compressed by (and therefore serves to firmly grip) the tap-shank, and so keeps it in place. It will be observed that the flanged edge H of the socket is located outside the can, being soldered on around the edges of aperture A. This arrangement has peculiar advantages. Thus the greater the pressure of the tap-shoulder W or any other external article (as a washer) on the flange H the more firmly the socket will be held in place undisturbed. Then, also, the hole A is larger than the largest diameter of the corrugation F in the socket, so that the manufacturing process of attaching the socket to the tin (after the can is made) is an exceedingly easy one, and yet a loose socket cannot get inside the can. Furthermore, it is easy after the contents of a can have been used to remove the old socket and any scrap metal from within the can and substitute a new socket. The can may be filled through the aperture A, which may be located in any position in the can and preferably at T, Fig. 1—i. e., at a top corner—there being no necessity for any other aperture. An aperture is always necessary at present for filling, so that one hole may serve both purposes.

In Fig. 7 the cock is shown inserted.

Minor changes might be made in details while still in spirit adhering to the invention here claimed.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination with the vessel X having an opening through its side wall at or near the bottom thereof, of the hollow cylindrical shell B having a neck of soft metal closed at its inner end, and provided near its inner end with shallow spiral corrugations forming screw-threads, and near its outer end with a deeper annular corrugation F slightly smaller in exterior diameter than the opening in said vessel, and said shell having an integral flange H upon its outer end larger in diameter than the diameter in said opening, the neck of said shell extending through said opening into the interior of the vessel, and the said flange being closely fitted and secured upon the exterior of the vessel around said opening; a compressible annular ring E fitting in the said deeper corrugation of said neck, a removable cylindrical plug fitting the interior of the neck of said shell, said plug having a cutting-blade extending beyond its inner end arranged to have a circular travel about the axis of said plug when the latter is turned; and the said shell being designed upon removal of said plug, to receive a tap having a screw-threaded shank for discharging the contents of the vessel, substantially as described.

2. The combination with the vessel X having an opening through its side wall at or near the bottom thereof, of the hollow cylindrical shell B having a neck of soft metal closed at its inner end, and provided near its inner end with shallow spiral corrugations forming screw-threads, and near its outer end with a deeper annular corrugation F slightly smaller in exterior diameter than the opening in said vessel, and said shell having an integral flange H upon its outer end larger in diameter than the diameter in said opening, the neck of said shell extending through said opening into the interior of the vessel, and the said flange being closely fitted and secured upon the exterior of the vessel around said opening, a compressible annular ring E fitting in the said deeper corrugation of said neck, a removable cylindrical plug fitting the interior of the neck of said shell, said plug having a cutting-blade extending beyond its inner end arranged to have a circular travel about the axis of said plug when the latter is turned, a protective disk over the bladed end of said plug; and a handle for manipulating the plug from the exterior of the shell, substantially as described.

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

GORHAM LAMBERT.

Witnesses:

S. GEO. RAYMOND,
WALTER RAYMOND.