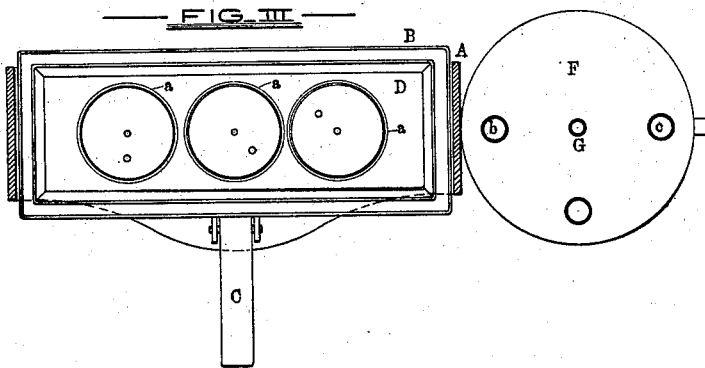
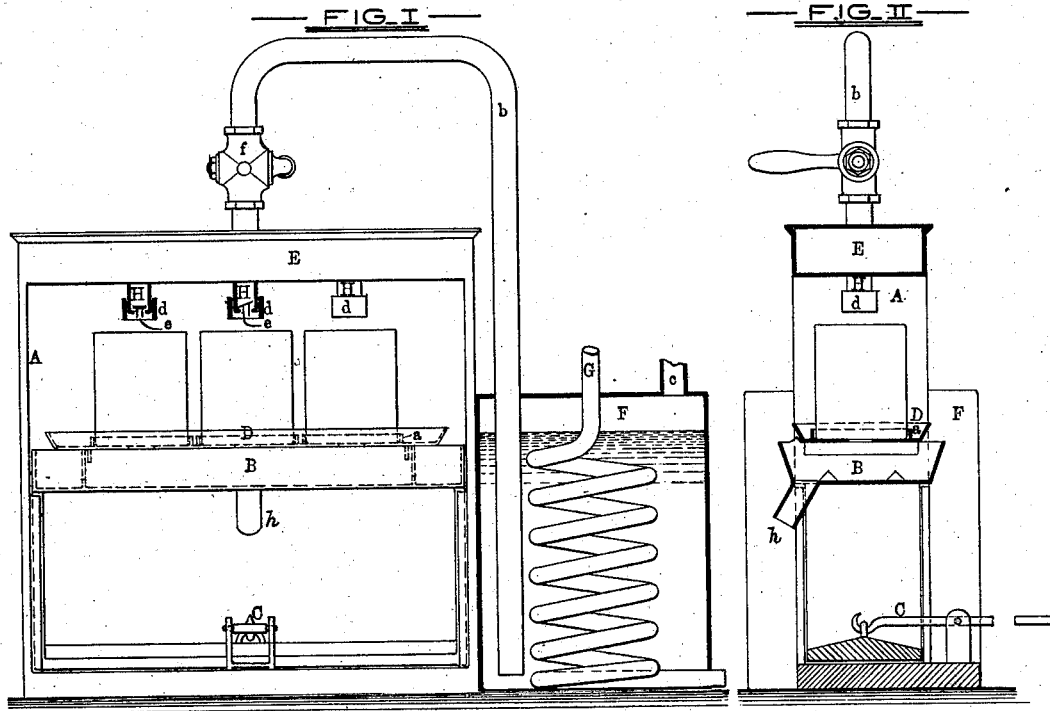


**W. A. WICKS.**  
**PROCESS AND APPARATUS FOR CANNING FRUITS,**  
**VEGETABLES, &c.**

No. 192,803.

Patented July 3, 1877.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM A. WICKS, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PROCESSES AND APPARATUS FOR CANNING FRUITS, VEGETABLES, &c.

Specification forming part of Letters Patent No. 192,803, dated July 3, 1877; application filed April 12, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM A. WICKS, of the city of Baltimore and State of Maryland, have invented a certain new and useful Process for Canning Fruits, Vegetables, &c., together with the apparatus for carrying out the same, of which process and apparatus the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates, first, to an improved method or process of introducing into cans containing meats, fruits, vegetables, &c., the liquids which are usually employed to accompany them, and fill the spaces existing between the pieces or integral parts of the same; and, secondly, to the apparatus used in the said process, as hereinafter fully described.

The cans generally employed in the packing and preserving of hermetically-sealed goods are of two kinds, known as "closed-top" and "open-top" cans, the former having central filling-apertures which are closed with caps, and the latter being those in which the goods are packed before the insertion of the head and the fastening of the same to the body of the can. In the latter case vents are formed in the heads to admit of the introduction of the liquid to the cans, and to allow of the escape of steam or air during the filling process.

The difficulty experienced in packing goods in open-top cans consists, principally, in securing the heads in a perfectly air and water tight manner after the liquid is added to the solid portions of the filling, as in the handling of the filled cans the edges thereof, to which the heads are to be soldered, become besmeared with the liquid from the inside.

This objection to the employment of open-top cans is obviated by my improved process, which is as follows: The cans are first filled with the solid portions of the goods to be packed, and the heads which are vented, soldered to the bodies. The cans are then placed in suitable apparatus, hereinafter described, and the liquid admitted thereto under pressure by means of the central vent, a

side vent allowing the escape of steam and air as the can is filled.

The completion of the filling process is indicated by the overflow of the liquid through the side vent, at which time the cans are removed, and may now be subjected to the usual preserving process.

When capped or closed-top cans are used the process of filling is the same; but the advantages resulting therefrom are not as apparent.

In the following description of the apparatus used in the foregoing process, and which embodies the second part of my invention, due reference should be had to the accompanying drawing, in which—

Figure 1 is a side view of my improved apparatus, parts thereof being shown in sections; Fig. 2, a vertical cross-section of the same, and Fig. 3 a plan of the invention, also partly in section.

Similar letters of reference indicate similar parts of the invention in all the views.

A is a frame, between the sides of which is adapted to slide vertically a drip-pan, B, having a spout, *h*, and operated, preferably, by means of a treadle, C. The upper part of the drip-pan is constructed to receive and hold securely the tray D, in which the cans to be filled are placed.

The proper spacing of the cans in the tray is secured by means of projecting rings *a*, in which the cans rest.

E is a reservoir for the liquid, located at the upper part of the frame A, and connected, by the pipe *b*, to a tank, F, situated either above or below the reservoir. When the tank is placed above the reservoir, the column of liquid may give the desired pressure within the reservoir; but when located below the reservoir, compressed air, steam, or other elastic fluid at a moderate tension, is employed, and admitted to the upper portion of the tank through the pipe *c*. In the latter case the pipe *b* extends to near the bottom of the tank, in order that the said tank may be completely emptied of its contents. When it is desired to heat the liquid in the tank F, steam is admitted from a boiler to the coil G.

The reservoir E is provided with a series of discharge-pipes, H, equal in number to that

of the cans to be filled at one operation, which pipes are provided with flexible ends or gaskets *d*, to form a close joint when the can-heads are brought in contact therewith. The pipes are also provided with valves *e* at their lower ends, with projections extending downwardly therefrom, which come in contact with the can-heads as they are elevated, and thereby cause the valves to open and allow the liquid to flow. A stop-cock, *f*, is placed in some part of the apparatus, between the tank and the cans, by means of which the flow of the liquid is mainly regulated, the valves before described being principally designed to prevent the emptying, or partial emptying, of the reservoir after the closing of the stop-cock and the withdrawal of the cans from contact with the pipes H.

The advantages derived from the use of my invention are apparent, when it is considered that the loss of material by punching out the cap-openings, and supplying the caps from other sheets of tin, is avoided, as in my invention the minute opening through which the liquid is forced under pressure into the can is readily closed with a drop of solder, which bridges the hole without the intervention of a piece of tin.

The saving of solder usually required in soldering in the cap is therefore seen to be effected by the use of my invention, together with the time ordinarily required in uniting the cap and can.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. In the filling of food-cans, the process of supplying the liquid accompanying the solid portion of the food to the cans by forcing the said liquid, under pressure, into the can through a minute opening, which is afterward closed by a drop of solder, substantially as described.

2. The combination of the pipe *b*, through which the liquid is forced under pressure, cock *f*, reservoir E, series of discharge-pipes H; and flexible ends or gaskets *d*, substantially as and for the purpose herein specified.

3. The discharge-pipes H, combined with flexible ends or gaskets *d*, and stop-valves *e*, substantially as and for the purpose described.

4. The frame A and vertically-sliding drip-pan B, provided with the spout *h*, combined with the tray D, having seats to receive the cans, substantially as and for the purposes specified.

In testimony whereof I have hereunto subscribed my name this 27th day of March, in the year of our Lord 1876.

WILLIAM A. WICKS.

Witnesses:

W. W. WHARTON,  
LLOYD SLEMMER.