

Le R. C. COOLEY.

Apparatus for Preserving Fruit.

No. 139,547.

Patented June 3, 1873.

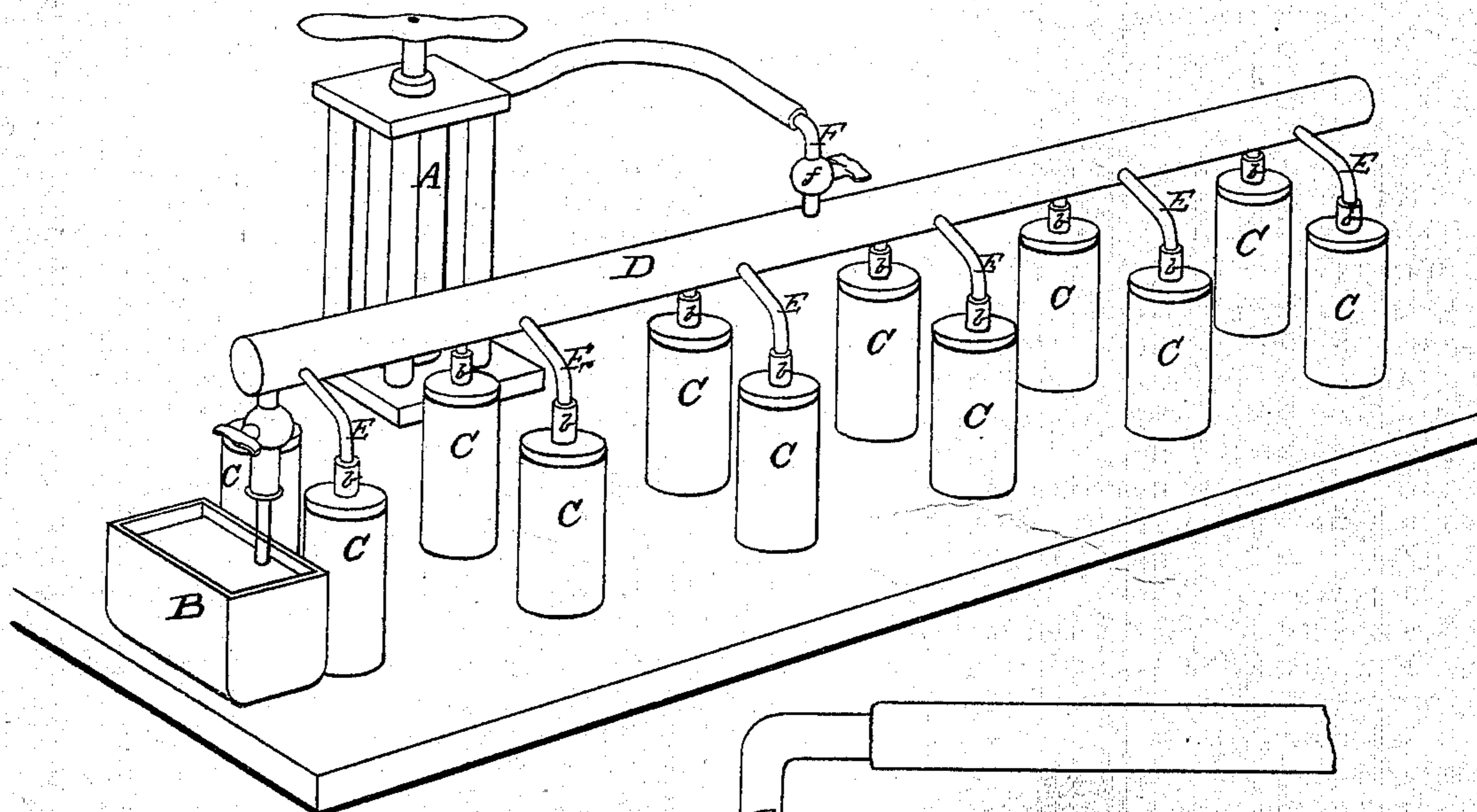


Fig. 1.

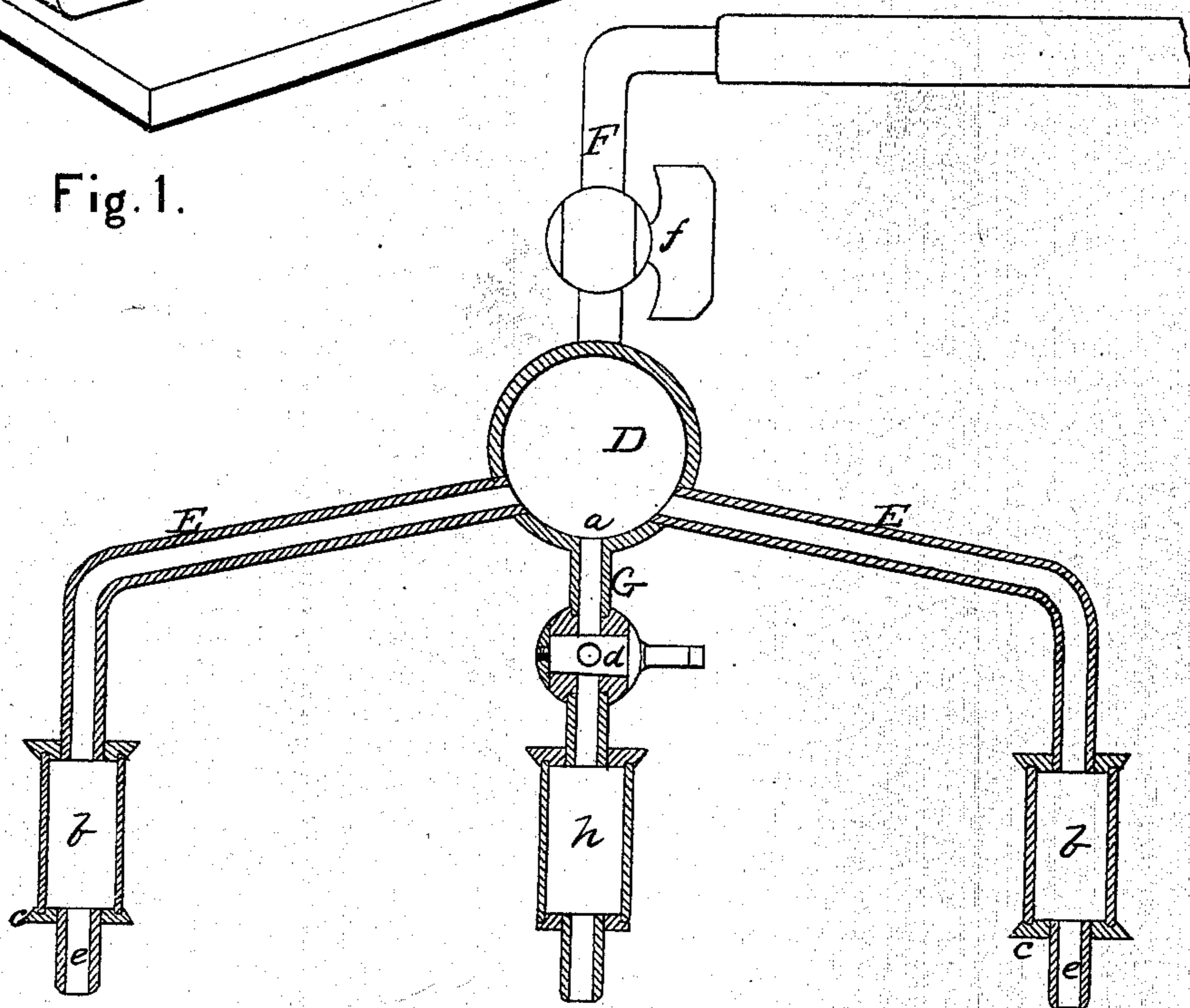


Fig. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN APPARATUS FOR PRESERVING FRUIT.

Specification forming part of Letters Patent No. 139,547, dated June 3, 1873; application filed  
March 1, 1873.

*To all whom it may concern:*

Be it known that I, LE ROY C. COOLEY, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in Preserving Fruit; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my apparatus. Fig. 2 is a sectional view of the same.

This invention has relation to preserving fruit; and it consists in the construction and novel arrangement of devices constituting an apparatus by means of which an air-pump and a tank of liquid on the one hand, and any number of preserving-vessels or fruit-cans on the other hand, may be so connected that the air can be exhausted from the vessels and the fluid conveyed into them without admitting the outside atmosphere.

In the accompanying drawings, the letter A indicates an air-pump. B represents a tank or vessel filled with a preserving-liquid, as, for instance, sirup. C C indicate preserving vessels or jars, each provided with an air-tight cover having a small opening in the center. D represents the main tube or longitudinal chambers of my apparatus, of proper diameter and sufficient length for the attachment of any desired number of conducting-tubes, E, leading to the vessels C C. These conducting tubes branch from the main tube D on each side, a little above its lowest line, leaving, therefore, within the main tube, a channel, *a*, between and below the mouths of these branch tubes. The other ends of these branch tubes are provided with short sections *b* of glass, through which the character of the operation going on within may be distinguished. At the lower end of each glass section a flange, *c*, may be formed, serving as a shoulder to receive an annular packing which may be placed around the end *e* of the tube, which is designed

to be inserted into the opening in the center of the cover of the vessel C, thus making the joint air-tight. F designates a tube opening into the top of the main tube, and reaching away to make connection with the air-pump. In this tube is a valve or stop-cock, *f*, by means of which it may be opened or closed at pleasure. G indicates a tube opening into the channel portion *a* at the bottom of the main tube, and reaching away to make connection with the sirup-tank or liquid-vessel. In this tube another valve or stop-cock, *d*, is located. This tube is also provided with a glass section or sight, *h*.

The operation is as follows: The small branch tubes being properly packed with rubber, are introduced into the central apertures of the covers of the jars or vessels, which have been filled with the fruit properly cleaned and prepared in the usual manner. The main tube is then connected with the tube of the air-pump, and both stop-cocks are opened. The air-pump is then put in operation, and when the sirup or preserving-fluid has risen in the tube G to the height of the stop-cock *d* the latter is closed until such time as it may be required to pour the liquid upon the fruit or substance to be preserved. The operation of the air-pump is then continued until the air is exhausted from the fruit, when, if it be necessary, both stop-cocks may remain closed for some time in order to allow the air to escape from the pores of the fruit. When the sirup or preserving-fluid is to be introduced, the air being properly exhausted, the stop-cock *f* is closed and the stop-cock *d* opened, allowing the fluid from the tank to rise in the channel *a* of the main tube, and to pass down through the branch tubes E into the jars C. These branch tubes are inclined slightly from the points where they are set into the main tube, to allow of a freer passage of the fluid. When the fluid ceases to run into the jars the lower stop-cock *d* is again closed and the upper one *f* opened for the renewed operation of the air-pump, exhausting the air and vapor again, when the preserving-fluid is again allowed to

run into the jars until, by means of these alternate operations, they are filled. They may be then disconnected and sealed.

What I claim as new, and desire to secure by Letters Patent, is—

The apparatus herein described, for conveying air and vapor from the preserving jars or vessels and conducting the liquid into said jars after exhaustion, without disconnecting, as specified and shown.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LE ROY C. COOLEY.

Witnesses:

S. B. GRISWOLD,  
JAMES R. BOYNTON.