

W. Y. GILL.
AIR PUMP FOR FRUIT CANS OR JARS.

No. 29,582.

Patented Aug. 14, 1860.

Fig. 1.

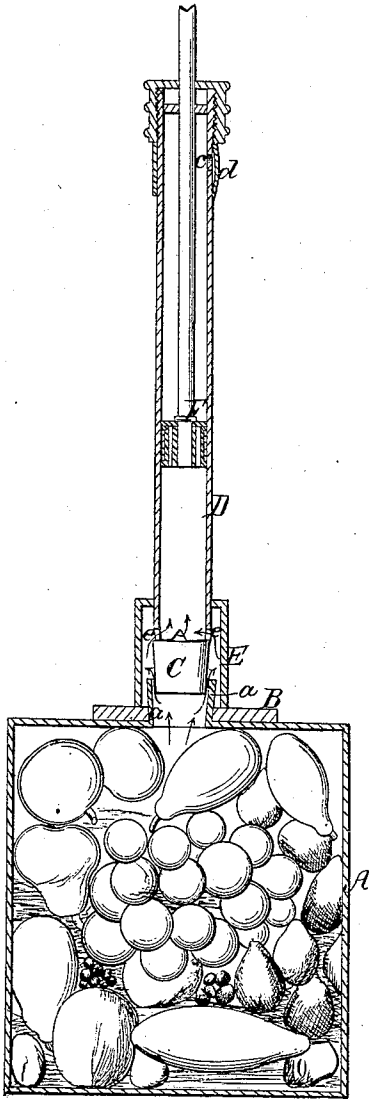


Fig. 2.

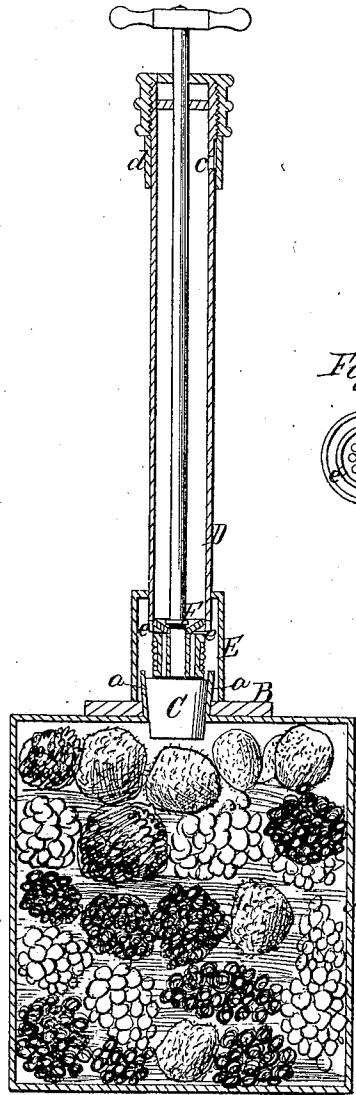
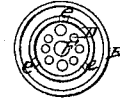


Fig. 3.



Witnesses;
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UNITED STATES PATENT OFFICE.

W. Y. GILL, OF HENDERSON, KENTUCKY.

IMPROVEMENT IN AIR-PUMPS FOR EXHAUSTING AND SEALING CANS.

Specification forming part of Letters Patent No. 29,582, dated August 14, 1860.

To all whom it may concern:

Be it known that I, W. Y. GILL, of Henderson, in the county of Henderson and State of Kentucky, have invented a new and useful Improvement in Air-Pumps for Exhausting Air from Fruit Cans or Jars and Sealing the Same; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical section of my improved air-pump and a fruit-can, the parts being in the position they occupy while the air is being exhausted. Fig. 2 is a similar section of the same things, the parts being in the position they occupy when the sealing of the can or jar has been completed. Fig. 3 is an inverted plan of the pump.

Similar letters of reference in each of the several figures indicate corresponding parts.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents a preserve can or jar with a raised flaring mouth, *a*.

B is an annular rubber or leather gasket placed round the neck *a* and resting on the top of the can or jar.

C is a conical cork stopper set loosely in the mouth of the can or jar at the commencement of the operation. This stopper is to be coated on top with a substance which is impervious to air or moisture. Its edges may also be coated with a sealing-cement just before it is placed in the mouth of the can or jar.

D is the main cylinder of the air-pump.

E is a cylindrical cap of greater diameter than the cylinder D, attached to the lower end of the cylinder.

F is the piston or plunger of the air-pump. It is of ordinary construction, simply having its passages through it, and said passages covered by a disk-valve.

The cylinder D has a valve-opening, *c*, near its upper end. This opening is covered by a flexible ring-valve, *d*, which expands with the pressure of the air raised by the piston, and thus allows a free escape around its upper and lower edges. A series of small notches, *e*, are cut in and around the lower edge of the cy-

linder D, for a purpose presently to be stated. The main cylinder D, it will be seen, is held suspended at such a height above the mouth of the can by means of the cap E that it allows the cork to play up and down a certain distance as the piston is operated, and at the same time prevents the cork having a movement great enough to allow it to get out of the mouth of the can or jar. The notches at the bottom of the main cylinder allow the air which rises out of the can when the piston is raised to pass into the cylinder when the cork has risen so high as to come in contact with the end of said cylinder, as represented in Fig. 1.

The operation of my invention is as follows: Place fruit into the can, prepare the cork as described, and place it loosely into the mouth of the can, next place the rubber or leather gasket B round the neck of the can. All being ready, set the air-pump over the mouth of the can and force the lower edge of the cylindrical cap E down onto the gasket B, so as to make an air-tight joint, and while so doing raise and lower the piston until the air is exhausted from the can, and then suddenly force the piston down upon the cork (as shown in Fig. 2) with a force sufficient to drive it firmly into the mouth of the can. After this operation, it will be found that the can is perfectly exhausted of its air and sealed air-tight.

My invention is simple, cheap, convenient, and effective, and with it I believe fruit can with safety be put up without cooking.

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

1. Constructing and combining the plunger and air-pump, substantially as herein described, so that the one plunger may be used for the double purpose of exhausting the air and driving the stopper firmly into the mouth of the can or jar, as set forth.

2. Suspending the lower end of the main cylinder a suitable distance above the mouth of the can or jar by means of an enlarged cylindrical cup attached to said end of the main cylinder, substantially as and for the purposes set forth.

W. Y. GILL.

Witnesses:

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