

(No Model.)

R. C. ANDERSON.
APPARATUS FOR FILLING CANS.

No. 264,993.

Patented Sept. 26, 1882.

Fig. 1.

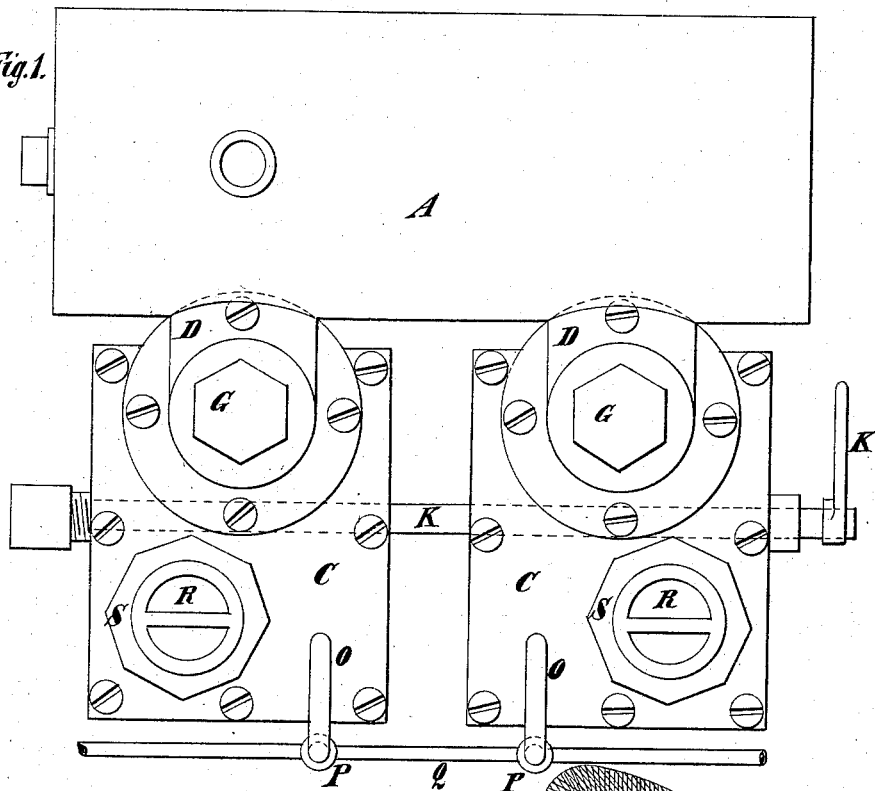
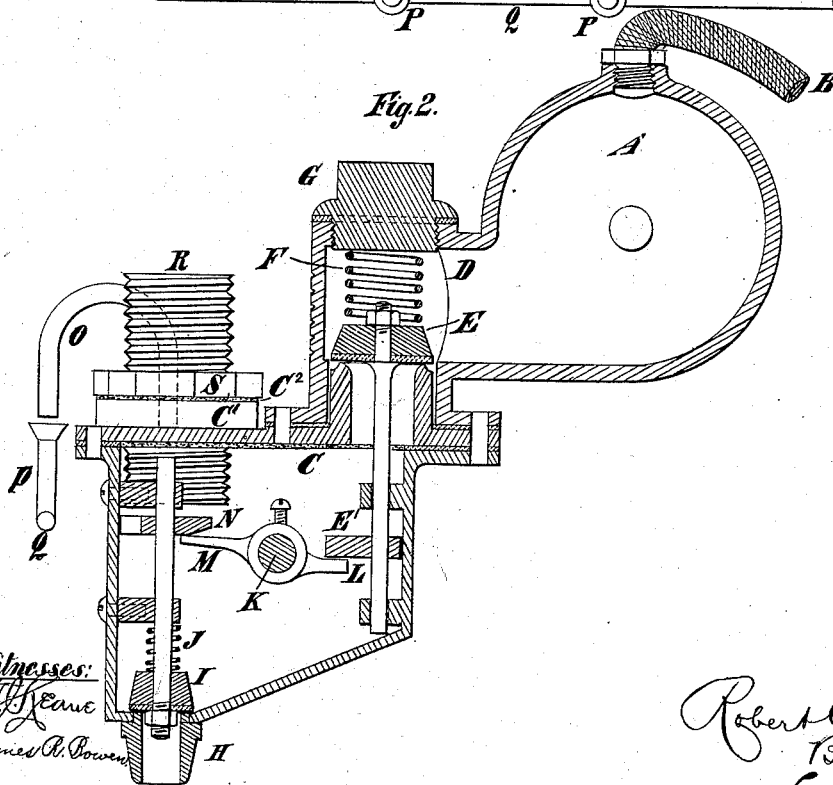


Fig. 2.



Witnesses:
J. H. Keane
James R. Bowen

Inventor:
Robert C. Anderson
By his atty
Edwin H. Brown

UNITED STATES PATENT OFFICE.

ROBERT C. ANDERSON, OF BAYONNE, NEW JERSEY.

APPARATUS FOR FILLING CANS.

SPECIFICATION forming part of Letters Patent No. 264,993, dated September 26, 1882.

Application filed May 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ANDERSON, of Bayonne, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Apparatus for Filling Cans and other Vessels, of which the following is a specification.

My improvement relates particularly to apparatus for filling cans with oil; but it may be applicable to apparatus for filling cans and other vessels with various liquids.

The improvement consists in the combination of a tank, one or more measuring-chambers, a valve or valves for controlling communication between the same and the tank, a valve or valves for controlling the flow of liquid from the chamber or chambers, all of said valves being adapted to open upward, collars or projections on the stems of said valves, a rock-shaft entering said measuring chamber or chambers, and provided within the same with toes which are adapted to engage with said collars or projections, as the shaft is turned, for opening said valves, and springs for closing said valves, all as more fully hereinafter described.

The improvement also consists in other features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan of an apparatus embodying my improvement, and Fig. 2 is a transverse section of the same.

Similar letters of reference designate corresponding parts in both figures.

A designates a tank or chamber, which, though shown as of cylindrical form, may be of any other desirable shape, and may be made of iron or any other suitable material. It is connected by a pipe or hose, B, with any source of supply of oil—such, for instance, as an oil-car.

C designates a number of chambers which constitute measures. They may be of metal or other suitable material, and internally are severally of a size to contain a given quantity of oil—say, for instance, five gallons. There may be any number of these measuring-chambers. Their number will correspond with the number of cans or vessels which the apparatus is intended to fill at one operation. These

chambers are connected to throat-pieces D, which extend from the tank or chamber A. In these throat-pieces are valves E, adapted to open upwardly, and serving to control the passage of oil from the tank A to these several chambers C. These valves are closed and held to their seats by means of springs F. Access may be had to them at any time by merely removing screw-plugs G, which are fitted to the throat-pieces. They are provided with stems extending down into the chambers C. At the bottom of the chambers C, near the front, are nozzles H, from which the oil in the chambers passes to the cans or other vessels to be filled. Preferably the bottoms of the said chambers C slant toward the part from which the nozzles extend, so that all the oil within the chambers will flow out.

I designates valves which control the escape of oil from the nozzles H. They are provided with stems that work in bearings extending from one of the walls of the chambers C, and have applied to them springs J, whereby the valves are closed.

K designates a rock-shaft extending through the chambers C, and supported in bearings therein. Affixed to this shaft within the several chambers C are toes L, which, when the rock-shaft is turned in one direction, are adapted to impinge against collars or projections E' on the stems of the valves E and raise the latter against the resistance of the springs F, so as to permit the flow of oil from the tank A to the said chambers C. There are also affixed to the rock-shaft within the chambers C toes M, which, when the rock-shaft is turned in the other direction, impinge against the under side of collars or projections N, extending from the stems of the valves I, and raise these valves against the resistance of the springs J, and permit the oil to flow from the said chambers.

O designates tubes extending from the tops of the chambers C. They afford provision for the exit of air from the chambers when oil flows into them from the tank A, as also for the entrance of air into the chambers when oil flows from them into the cans or other vessels to be filled. These tubes O also serve as indicators that the chambers are full, because as

soon as they are filled oil will flow from the said tubes. Any oil which flows from these tubes is caught in funnels P and carried off by a pipe, Q, to any suitable receptacle.

5 The operation of the apparatus is as follows:

After the cans or other vessels to be filled are arranged under the nozzles H the rock-shaft is turned by means of a handle or lever, K', with which it is furnished, so as to open the valves E and permit oil to flow from the tank A into the chambers C. When the chambers are filled the rock-shaft is turned in the other direction, so as to permit the valves E to close, and so as to open the valves I, whereupon the contents of the chambers flow into the cans or vessels to be filled.

It will readily be appreciated that this apparatus may be operated very quickly and with but little labor, and hence that a very large number of cans or other vessels may be filled with it in a given time.

R designates plugs with which the chambers C are provided. They are externally screw-threaded, and fit in screw-sockets C', arranged in the tops of the said chambers. On the exterior of these plugs are nuts S, which may be run up or down the plugs, and between these nuts and the sockets C' packings C² are preferably employed to prevent leakage. These plugs may be hollow; but they will be closed at the bottom. By screwing them into the chambers more or less the capacity of the chambers may be varied. They may be adjusted with reference to gages or scales, and these gages or scales may be arranged on the throat-

pieces, as shown. When the plugs are adjusted to any position the nuts S are screwed down against the sockets C'.

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

1. The combination of a tank, one or more measuring-chambers, a valve or valves for controlling communication between the same and the tank, a valve or valves for controlling the flow of liquid from the chamber or chambers, all of said valves being adapted to open upward, collars or projections on the stems of said valves, a rock-shaft entering said chamber or chambers, and provided within the same with toes which are adapted to engage with said collars or projections as the shaft is turned, for opening said valves, and springs for closing said valves, substantially as specified.

2. The combination of a chamber, C, a socket, C', a plug, R, and a nut, S, substantially as specified.

3. The combination of the tank A, one or more measuring-chambers, C, one or more valves, E, the throat piece or pieces D, and one or more plugs, G, substantially as specified.

4. The combination of the tank A, one or more measuring-chambers, C, one or more valves, E, one or more throat-pieces, D, one or more plugs, G, and one or more springs, F, substantially as specified.

ROBT. C. ANDERSON.

Witnesses:

T. J. KEANE,

FREDK. HAYNES.