

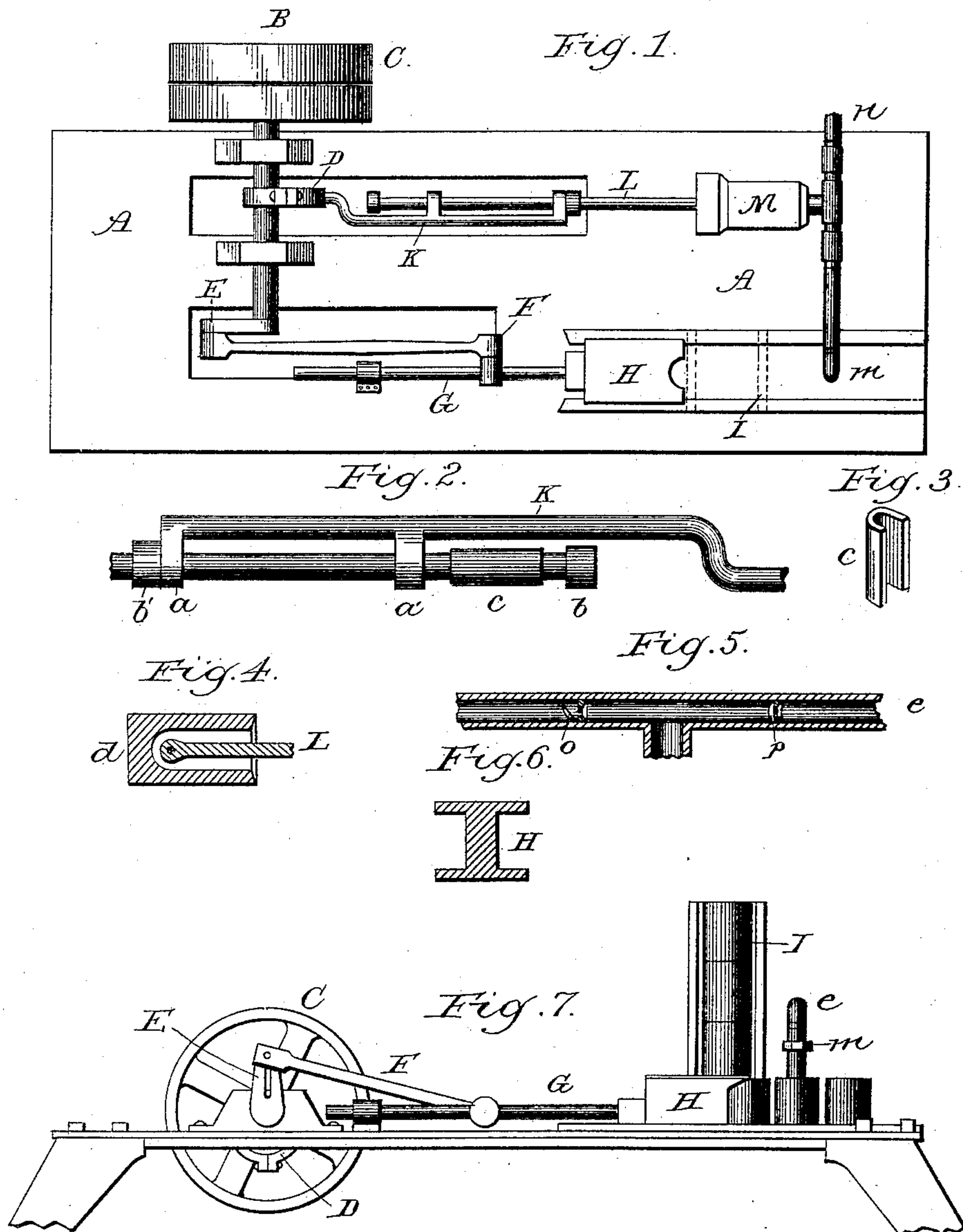
(No Model.)

A. R. MERRILL & D. LENNOX.

CAN WATERING MACHINE.

No. 354,206.

Patented Dec. 14, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT R. MERRELL AND DAVID LENNOX, OF MARSHALLTOWN, IOWA.

CAN-WATERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 354,206, dated December 14, 1886.

Application filed December 7, 1885. Serial No. 185,025. (No model.)

To all whom it may concern:

Be it known that we, ALBERT R. MERRELL and DAVID LENNOX, citizens of the United States, residing at Marshalltown, county of Marshall, and State of Iowa, have invented a new and useful Can-Watering Machine, of which the following is a specification.

Our invention relates to machines for canning fruits and vegetables, and is an improvement upon the machine for which a patent was granted to Albert Merrell, February 24, 1885, Serial No. 312,648.

It is customary to place a certain quantity of water or other liquid in the can before the fruit or vegetable is introduced. The object of our invention is to accomplish this result.

Our machine consists, essentially, of a table, a pipe to supply cans, a force-pump of ordinary construction, and a cross-head or plunger operated from the same shaft, and so adjusted as to push the cans successively under the force-pump at the moment of its discharge, together with suitable devices for communicating and regulating their motion. It differs from the machine before mentioned in the construction and operation of the force-pump and plunger and in the devices for communicating and regulating motion, it having been found preferable to dispense with standards at the end of the table for the operation of the force-pump, to change somewhat the construction of the pump and plunger, and to operate both horizontally by cranks or eccentrics, or both, from a shaft supported on the table.

The construction of our machine is fully shown by the accompanying drawings, in which Figure 1 is a top view. Fig. 2 is a top view of the eccentric and pump rods, showing their connection and the means of adjusting them. Fig. 3 is a view of the U-shaped washer used to regulate the stroke. Fig. 4 is a lateral section of the pump-plunger. Fig. 5 is a section of the water-pipe, showing the preferred arrangement of the valves. Fig. 6 is a transverse section of the cross-head used as a plunger. Fig. 7 is a side view of the machine, showing the manner of supplying and filling cans.

A is a table or frame-work. On it at one end are bearings supporting a shaft, B, which is rotated by the pulleys C C. Inside the first bearing is an eccentric, D, and beyond the second

bearing is a slotted crank, E, which extends from the shaft B in an opposite direction to that of the eccentric.

The crank E is connected by a pitman, F, with a rod, G, which has at its end a cross-head, H, moving preferably between guides or in a groove in the table A. Across the path of the cross-head is erected a supply-pipe, I, into which the cans are fed, forming by their weight a column whose base rests on the table in the path of the cross-head H, the latter moving back and forth at each revolution of the shaft B.

Opposite to the eccentric D, and attached to the table A, is a force-pump, M, supplied with pipes having ordinary valves, (shown in Fig. 5,) the supply-pipe being connected with a reservoir at *n*, and the discharge being downward over the plunger-track at *m*. The eccentric-rod K is bayonet-shaped, and has at its end, integral therewith, a ring, *a*, set out at its side, and near the middle a ring, *a'*, similarly set out.

The pump-rod L is hinged in the pump-plunger *d*, (see Fig. 4,) and passes through the rings *a* and *a'*. At its end is an adjustable annular flange, *b*, and outside the eccentric-rod is a similar flange, *b'*. Upon the pump-rod, between the ring *a'* and the flange *b*, may be placed a U-shaped washer, *c*, Fig. 3, which, by diminishing the loss of motion, regulates the length of stroke, and consequently the quantity of liquid forced through the orifice *m*.

The stroke of the cross-head H may be regulated by adjusting the pitman F in the slotted crank E.

In the operation of our machine, the flanges *b b'* are adjusted so that the rod K slides back and forth on the pump-rod without moving it. From a series of U-shaped washers one of the desired length is selected and placed upon the pump-rod between the flange *b* and the ring *a'*. The pitman F is adjusted upon the crank E and rod G, so that the cans are pushed successively from under the supply-pipe I directly under the orifice of discharge from the force-pump *m*. As the strokes of the cross-head and pump-rod are alternate, each can receives successively the contents of the discharge-pipe, and is pushed on by the can following. The quantity of liquid can be changed while the machine is in operation, by merely changing the size of the U-shaped washer.

We claim as our invention—

1. The combination of a table, a force-pump having a hinged pump-rod with two annular flanges, a bayonet-shaped eccentric-rod having
5 two rings for the reception of the said pump-rod, and a U-shaped washer, as shown.
2. In a can-watering machine, the combination of the shaft B, the eccentric D, the rod K,
the crank E, the pitman F, the plunger-rod G,
10 the cross-head H, the feed-pipe I, the pump-

rod L, the pump M, the rings *a a'*, the flanges *b b'*, the washer *c*, and the water-pipe *e*, substantially as and for the purposes shown and described.

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