

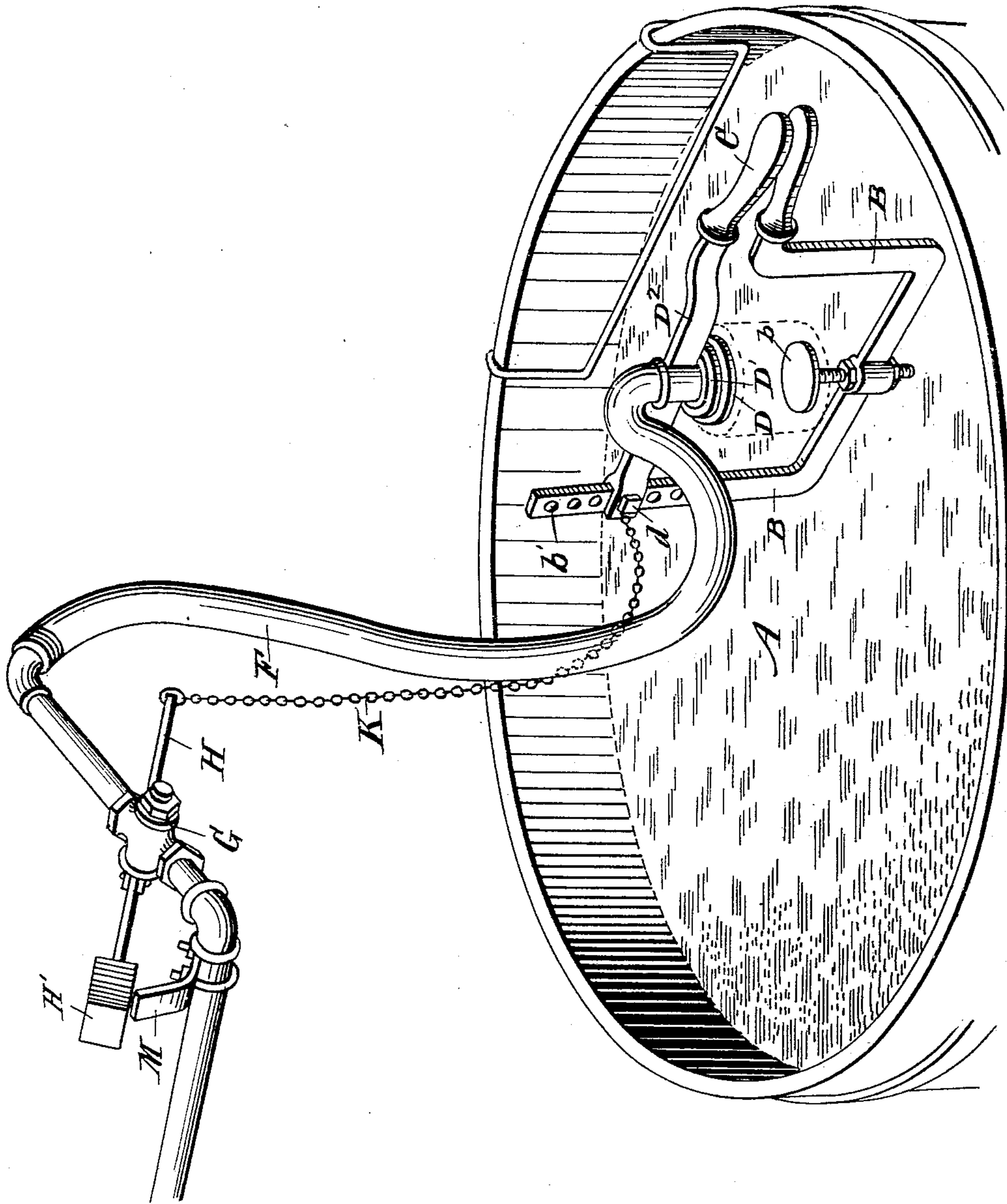
No. 704,267.

Patented July 8, 1902.

H. N. NORTON.
CAN TESTING MACHINE.

(Application filed Oct. 22, 1900.)

(No Model.)



WITNESSES:

J. B. Townsend.
H. W. Munday.

Horatio N. Norton
INVENTOR.

BY Munday, Evans & Adcock
Attorneys

UNITED STATES PATENT OFFICE.

HORATIO N. NORTON, OF MAYWOOD, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AMERICAN CAN COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CAN-TESTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 704,267, dated July 8, 1902.

Application filed October 22, 1900. Serial No. 33,929. (No model.)

To all whom it may concern:

Be it known that I, HORATIO N. NORTON, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Can-Testing Machines, of which the following is a specification.

My invention relates to what are commonly known as "hand can-testing machines."

Heretofore in hand-operated can-testing machines the can is placed by hand in a holder having a clamp which closes the stud-hole or mouth of the can, and the can is then tested as to the tightness of its seams by immersing it in a bath of water, air being admitted under pressure into the can at the time through an air-pipe which extends through the clamp that closes the stud-hole or mouth of the can by the operator turning a valve in the air-connecting pipe, which valve must be again turned by the operator when the can-holder is lifted from the water. This requires three manipulations by the operator—one to place the can in the holder and clamp it therein, another to turn the air-valve to admit compressed air to the can, and still another to close the valve when the can-holder is lifted from the water—and this tends to distract the operator's attention from watching the surface of the water to detect whether the cans are perfect by bubbles of air escaping from the imperfect ones.

The object of my invention is to provide a hand can-testing machine in which the air-valve will be automatically opened when the can is immersed in the water and which will be automatically closed again when the can-holder is lifted from the water.

To this end my invention consists, in connection with the water-bath, can-holder, clamp, and compressed-air pipe, of a hand can-testing apparatus, of a valve in the air-pipe having an operating-lever connecting with the movable can-holder, so that when the holder is immersed in the water the valve will be automatically turned to open the same and admit compressed air to the can, and which operating-lever of the valve is likewise automatically operated, preferably by a

weight, to again close the air-valve when the holder is lifted from the water.

In the accompanying drawing, forming a part of this specification, I have shown a perspective view of a hand can-testing apparatus embodying my invention.

In said drawing, A represents the water bath or vessel in which the cans to be tested are to be immersed.

B is the can-holder, the same being provided with a handle C and with an adjustable plate or disk *b* for the bottom of the can to rest upon.

D is the clamp by which the stud-hole or mouth of the can is closed, the same preferably consisting of a rubber pad secured to a plate or disk *D'*, which is attached to the clamping-lever *D*², that is pivoted by the pin *d* to the holder B, the holder B having a series of pivot-holes *b'* in order to adapt the holder to accommodate cans of different heights or lengths.

F is the compressed-air pipe leading from an air-pump or other source of compressed air and connecting with the interior of the can through the clamp D and its disk *D'*. The air-pipe F is provided with a valve G for opening and closing the same. This valve is operated by a lever H, having at one end a weight *H'*, which normally holds the valve closed. The opposite end of the lever H is connected by a flexible connection, preferably a chain K, with the can-holder B, the length of which is such that when the can-holder is properly immersed in the water the valve-lever will be automatically turned to open the valve, and when the can-holder is lifted from the water the valve automatically closes under action of the weight *H'*. A stop M on the air-pipe limits the turning movement of the valve-operating lever under action of the weight.

I claim—

1. In a hand can-testing apparatus the combination with a water-bath, of a movable can-holder having a handle, a clamp having a handle and an air-pipe, of a valve connected with the can-holder and automatically operated to open and close as the can-holder is immersed

in and taken out of the water, the handles of said holder and clamp being adapted to be grasped by the hand for moving the can in the holder and clamp into and out of the bath, substantially as specified.

2. The combination with a bath, of a can-holder having a handle, a clamp having a handle, an air-pipe and valve connected with the holder and automatically operated by its movement, the handles of said holder and clamp being adapted to be grasped by the hand for moving the can in the holder and clamp into and out of the bath, substantially as specified.

3. The combination with a bath, of a can-holder having a handle, a clamp having a handle and air-pipe, of a valve, a lever for operating the same, a connection between the lever and the can-holder and a weight connected

with the valve, the handles of said holder and clamp being adapted to be grasped by the hand for moving the can in the holder and clamp into and out of the bath, substantially as specified.

4. The combination with a bath, of a movable can-holder having a handle, a clamp having a handle, an air-pipe and an automatically-operated valve in the air-pipe, the handles of said holder and clamp being adapted to be grasped by the hand for moving the can in the holder and clamp into and out of the bath and means for automatically operating said valve, substantially as specified.

HORATIO N. NORTON.

Witnesses:

H. M. MUNDAY,
EDMUND ADCOCK.