J. G. GOODHUE.

DOOR CHECK AND CLOSER.

APPLICATION FILED OCT. 27, 1910.

1,066,600. Patented July 8, 1913.

Fig. 1.

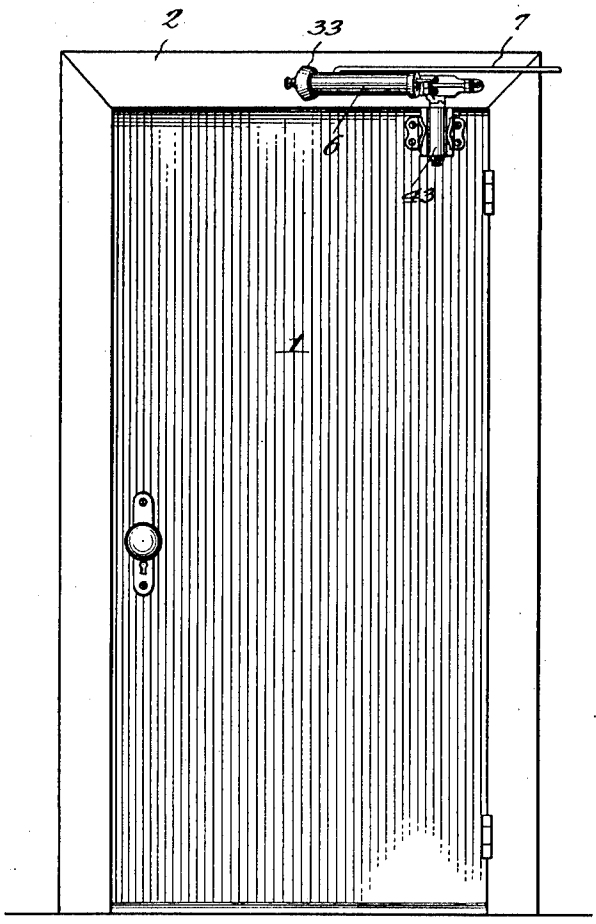
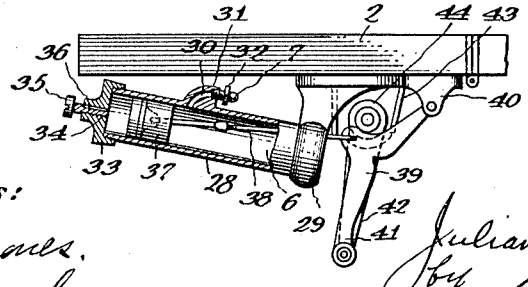


Fig. 2.



Witnesses:
A. Lyda Jones.
O. M. Kinnick

Inventor:
Julian G. Goodhue
by
E. Miller Duffield
Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JULIAN G. GOODHUE, OF CHICAGO, ILLINOIS.

DOOR CHECK AND CLOSER.

1,066,600. Specification of Letters Patent. Patented July 8, 1913.

Application filed October 27, 1910. Serial No. 589,320.

To all whom it may concern:

Be it known that I, JULIAN G. GOODHUE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Door Checks and Closers, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to door checks and closers and particularly to a type of the same especially adapted for use in connection with disinfectant apparatus used in lavatories.

The principal object of the invention is to provide an improved arrangement of door check by virtue of which the disinfectant apparatus may be periodically operated, and which apparatus at the same time serves as a door check for a door controlling the entrance to the lavatory.

My invention contemplates improved door check arrangements whereby the door check cylinder is stationarily mounted with respect to the door and whereby the movable portion of the door check, namely the piston, is operated by the door and in which the cylinder may thereby have a fixed or non-flexible connection with a tube leading from the compression chamber of the door check to the spraying apparatus. In this connection reference may be had to my applications Serial No. 545,390, filed Feb. 23, 1910, Serial No. 545,392, filed Feb. 23, 1910, Serial No. 545,393, filed Feb. 23, 1910, and Serial No. 545391, filed Feb. 23, 1910 in which other features of the arrangement set forth herein are claimed.

The claims in this application are directed to the features set forth in the above introductory remarks.

I will describe my invention more in detail by reference to the accompanying drawings illustrating the preferred embodiment thereof in which:

Figure 1 sets forth my improved door check arrangement in connection with a door. Fig. 2 is a detailed cross-sectional view of the door check embodying my invention.

I use as part of the combination a door 1 with which the door check and closer 6 is to be used, which door is provided with a suitable framework 2. A tube 7 leads from the door check.

In operating a device of this kind it is of prime importance that suitable air tight connection be established between the door check 6 and the sprayer so that positive currents of air are supplied to the sprayer. It is therefore of prime necessity that permanent and non-flexible connections be made between the door check and the spraying device, and to this end my invention contemplates the mounting of the door check cylinder primarily upon the door casing or wall, the door itself operating the piston or movable part of the door check. In accordance with my invention therefore, the door check cylinder 28 is fastened in a suitable bracket 29 Fig. 2 and mounted upon the door casing 2. A port 30 is provided in the door check cylinder and leads through the projection 31 to the tube 7, and suitable connection 32 being provided to insure air tight connection. The door check cylinder is thus fixedly mounted and the tube 7 need not be of a flexible character as it leads directly to a stationarily mounted portion of the door check. The door check cylinder has a head 33 to close one end thereof and is provided with a screw threaded aperture 34 within which a screw 35 is mounted, which screw 35 has a slot 36 longitudinally therein to permit exit of air from the left hand side of the piston 37 to allow door to close slowly. The piston 37 has an adjustable piston rod 38 which is fixedly secured to a lever 39, which lever is pivotally mounted at one of its extremities in a bracket 40 secured to the frame of the door. The free end 41 of the lever 39 is pivotally secured to a lever 42, which lever is rotatably mounted within a housing 43 and connected to a spring 44, the tendency of which spring is to draw the door shut when it is open. The spring 44 of course, is strong enough to close the door. The spring together with the housing 43 are mounted on the door 1 as shown more clearly in Fig. 1. In accordance with my invention furthermore, I arrange the port 30 at such a place within the wall of the cylinder 28 that said port is closed to the operative end of the cylinder before the door is closed so that an air cushion is provided between the piston 37 and the head 33 to thereby prevent slamming of the door. By mak-

ing the piston rod 38 adjustable in length I am able to control the amount of air discharged from the side port 30, so as to secure a larger or smaller, or relatively strong or weak discharge or blast.

The novel features of my invention will be understood as they are applied in connection with an apparatus as herein fully described.

I do not of course, limit myself to the precise construction and arrangement as set forth in this description, but

Having pointed out the novel features of my invention what I claim as new and desire to secure by Letters Patent is:

1. A device of the character described comprising a door and casing, a door check cylinder stationarily mounted on the casing, a piston therefor controlled by the door, means for admitting air to the operative side of said cylinder, and a port in said cylinder through which air is blown from the operative side of said cylinder as the piston is moved, said port being closed before the piston has reached its limiting position.

2. A door check, comprising a cylinder provided with side and end ports, means for rigidly mounting said cylinder, a piston, means adapted for connection with a door for operating said piston while the cylinder is stationary, and a tube extending from the side port of the cylinder, said tube remaining always in the same position because of the stationary mounting of said cylinder.

3. A device of the class described, comprising a cylinder having side and end ports, a piston, a piston rod, means for adjusting the length of said rod to change the amount of air forced through said side port and means for operating said rod.

4. A device of the class described, comprising a cylinder having both side and end ports, a piston adapted to overrun said side port, a rod pivotally connected to said piston, means for adjusting the length of said rod, comprising threaded parts on said rod, and means for operating said rod.

In witness whereof, I hereunto subscribe my name this 22nd day of October A. D., 1910.

JULIAN G. GOODHUE.

Witnesses:
A. LYDA JONES,
HAZEL JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."