No. 813,111. PATENTED FEB. 20, 1906.

C. I. PARKER & P. PAPENFOTH.

DOOR CHECK.

APPLICATION FILED MAR. 9, 1905.

Fig. 1.

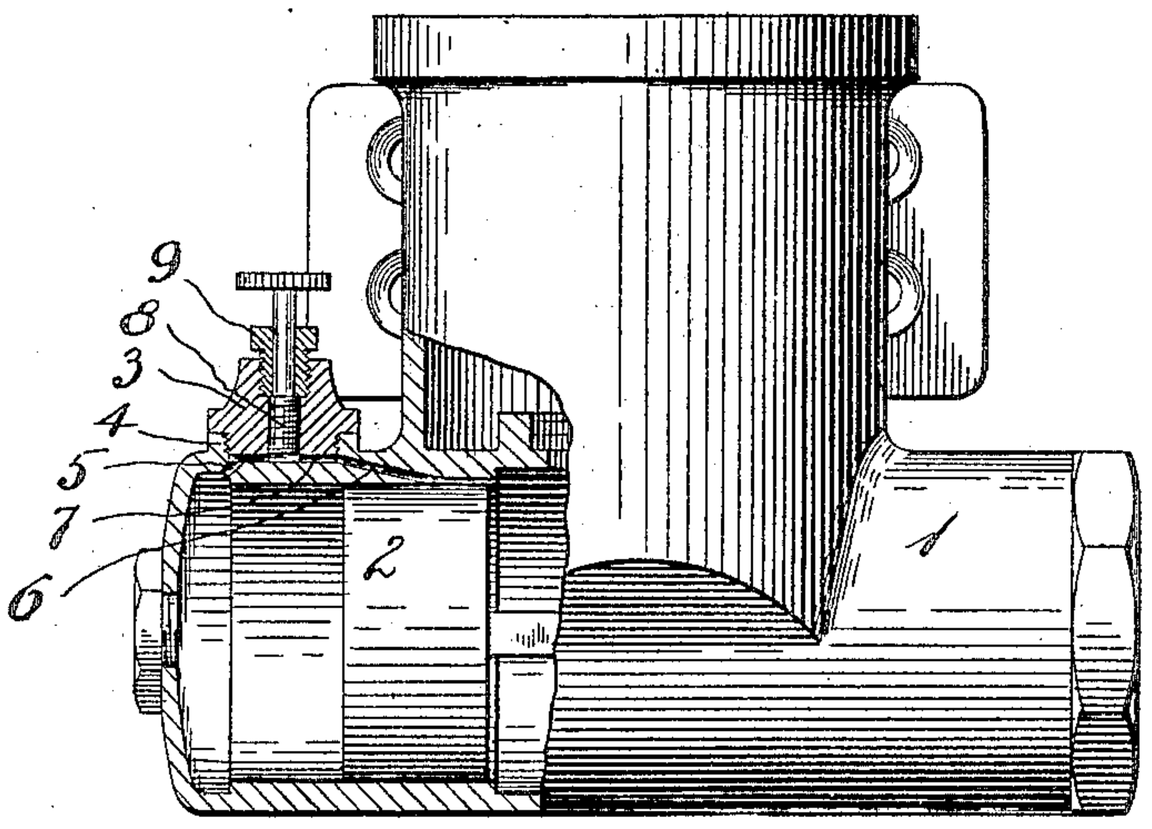
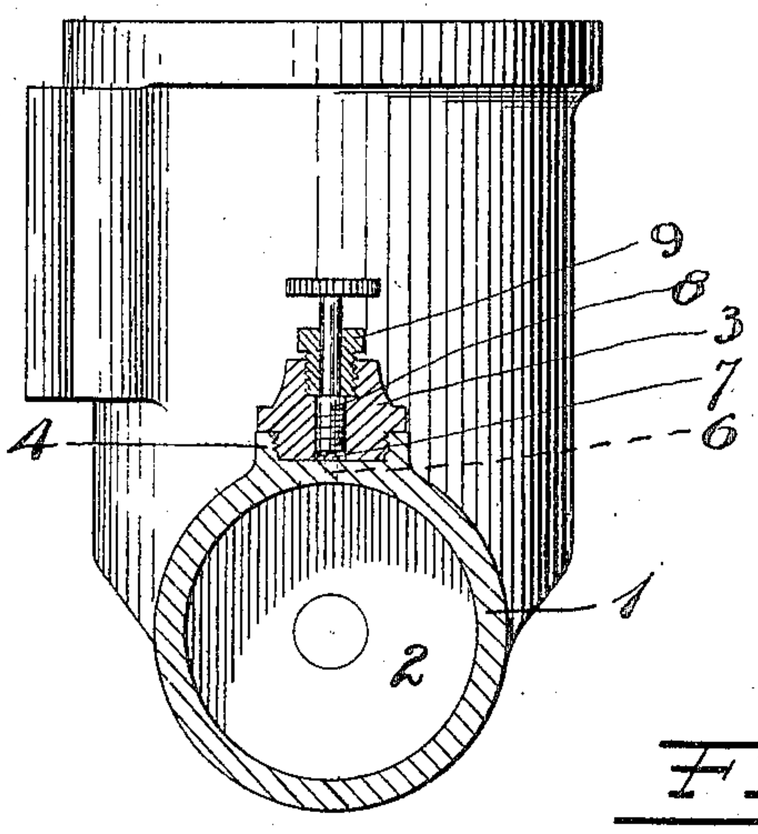


Fig. 2.

Fig. 3.



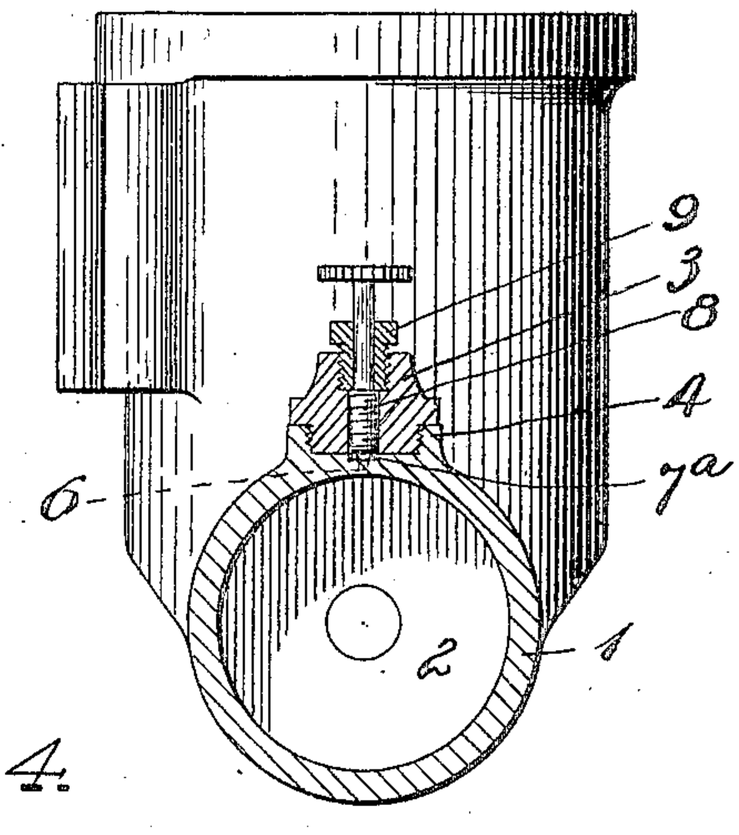
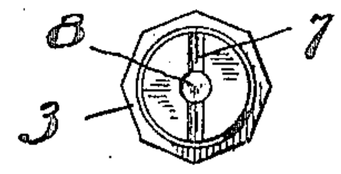


Fig. 4.



Witnesses
Chas. A. Peard
R. F. Allyn.

Charles I. Parker Inventors
Paul Papenfoth
By their Attorneys.
Baxter Brownell & Mitchell.

UNITED STATES PATENT OFFICE.

CHARLES IRVING PARKER AND PAUL PAPENFOTH, OF NEW BRITAIN, CONNECTICUT, ASSIGNORS TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

DOOR-CHECK.

No. 813,111. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed March 9, 1905. Serial No. 249,155.

To all whom it may concern:

Be it known that we, CHARLES IRVING PARKER and PAUL PAPENFOTH, citizens of the United States, residing at New Britain, county of Hartford, and State of Connecticut, have invented certain new and useful Improvements in Door-Checks, of which the following is a full, clear, and exact description.

Our invention relates to new and useful improvements in liquid door-checks, and particularly to a controlling-valve therefor.

The objects include simplicity and economy of construction and effectiveness of operation.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a liquid door-check, parts of the same being shown in section to illustrate our invention. Fig. 2 is a cross-section. Fig. 3 is a similar cross-section illustrating a modification. Fig. 4 is a view of the under side of the valve shown in Fig. 1.

1 represents the cylinder of a door-check, in which is contained a suitable piston 2, which operates in the usual well-known manner unnecessary to describe herein. In devices of this kind it is common to provide a suitable by-pass, whereby the operation of the piston will be cushioned as it approaches the limit of its excursion. The purpose of this is to prevent the door with which the check is engaged from slamming. In the present case we have provided a by-pass, but have formed the same in a unique manner and have provided it with a special valve, which we find most effective, may be easily and cheaply produced, and may be readily adjusted. In the preferred form the by-pass is formed partly in the walls of the cylinder and partly in a removable piece or plug, which plug carries the valve.

3 is the plug, screw-threaded at its lower end and arranged to take into a screw-threaded seat 4 in the outer side of the cylinder 1. This screw-threaded seat is preferably flat-bottomed, so that when the plug is screwed down into place its flat end will entirely occupy the space within said seat 4.

5 is a passage leading from the end of the cylinder 1 into the seat 4, so as to communicate with the under side of the plug 3.

6 is a passage leading from an intermediate part of the cylinder 1 into the space within the seat 4, preferably diametrically opposite the opening of the passage 5 therein.

7 is a groove in the under side of the plug 3, which connects the passages 5 6 when said plug 3 is set down to its proper position.

It will thus be seen that the by-pass is formed partly by the passage 5, partly by the groove 7, and partly by the passage 6.

8 is a valve mounted in the plug, capable of adjustment up and down and arranged to intersect the groove 7.

9 is a gland in the plug 3.

From the foregoing it will be seen that the size of the by-pass may be varied by adjusting the valve 8 to the desired extent to increase or diminish, as desired, the cross-section area of the groove 7. It will be seen that the passages 5 6 are readily formed and are most accessible in case there should be any need to clean the same.

Instead of forming the groove 7 in the removable plug 3 it might be formed in the bottom of the seat 4 and in line with the valve 8. This is shown in Fig. 3, in which 7^a represents said groove in said seat, the groove being suitably shaped to receive the end of valve 8, the form of which need not be modified from that previously described. In this case the passages 5 6 will be formed as before and will communicate with the groove 7^a.

What we claim is—

1. In a door-check, a cylinder, a piston therein, a by-pass in the wall of said cylinder, a threaded opening intersecting said by-pass the latter entering said opening at one side and leaving the same at the other side, a plug adapted to fill said threaded opening, said opening having an imperforate bottom, one of said parts being grooved to connect the two ends of said by-pass, and a valve carried by said plug and arranged to regulate the size of said groove.

2. In a door-check, a cylinder, a piston therein, a by-pass in the wall of said cylinder, a threaded opening intersecting said by-pass the latter entering said opening at one side and leaving the same at the other side, a plug adapted to fill said threaded opening, said opening having an imperforate bottom, said plug being grooved to connect the two ends of said by-pass and a valve arranged to regulate the size of said groove.

CHAS. IRVING PARKER.
PAUL PAPENFOTH.

Witnesses:
M. S. WIARD,
F. E. SUNBURN.