No. 744,964 PATENTED NOV. 24, 1903.

J. HANCOCK.

FLUID PRESSURE REGULATOR.

APPLICATION FILED MAR. 9, 1903.

NO MODEL.

Fig. 1.

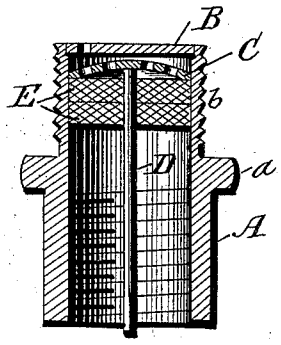
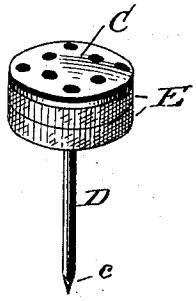


Fig. 2.



Witnesses

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No. 744,964. Patented November 24, 1903.

UNITED STATES PATENT OFFICE.

JOHN HANCOCK, OF ALTON, ILLINOIS.

FLUID-PRESSURE REGULATOR.

SPECIFICATION forming part of Letters Patent No. 744,964, dated November 24, 1903.

Application filed March 9, 1903. Serial No. 146,921. (No model.)

To all whom it may concern:

Be it known that I, JOHN HANCOCK, a citizen of the United States, residing at Alton, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Fluid-Pressure Regulators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple and effective means for controlling the pressure of the gas in gas-burners or gas-stoves, and which is especially applicable to the gas-burners employing the usual mantles, which are liable to breakage caused by the pressure of gas when lighting the same.

The invention therefore consists in a fluid-pressure regulator constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a sectional view showing the application of my invention to the tube of a gas-burner; Fig. 2, a perspective view of the device detached from the tube.

In the accompanying drawings, A represents the tube of a gas-burner, which may be of any of the usual forms and has the shoulder *a* and screw-threaded extension *b* to connect it with the burner, said tube, as herein shown, being one of many forms to which my invention is applicable, the screw-threaded extension having connected to its upper end the perforated diaphragm B, through which the gas or other fluid passes to the burner.

Within the tube A or extension thereof is located a perforated plate C, which is preferably concavo-convex and of circular form to correspond in size to the interior circumference of the tube or extension and is located in near proximity to the perforated diaphragm B. The perforated plate C is connected to the upper end of a guide-rod D, which is of sufficient length to project below the end of the tube, so as to enable the fingers to grasp the end of the rod in withdrawing or inserting the same in the tube, and, if preferred, the rod may be pointed at its end, as shown at *c* in Fig. 2 of the drawings, to facilitate placing thereon the disks E. These disks are of felt or other similar fibrous material and may be of any suitable thickness, and one or more disks may be used, as found desirable, said disks being of a circumference corresponding to that of the interior of the tube or extension thereof. The concavity of the perforated plate C prevents the upper face or surface of the disk E from coming in contact therewith and closing the perforations, while the rod D enables the disks to be removed when filled with dirt, dust, or other sediment and replaced by new ones. The disks may also be adjusted along the rod to increase or diminish the space between the disk and the perforated plate, the disks fitting sufficiently tight upon the rod to resist the pressure of the inflowing gas. This is not absolutely essential, however, and it is preferred that the disks be in position with relation to the perforated plate as indicated in Fig. 1 of the drawings; but should such adjustment of the disks be deemed necessary provision is made therefor. The perforated plate C and the fibrous disks E control the pressure of the inflowing gas, and where a mantle is used with a gas-burner it prevents injury thereto by the pressure of the gas when lighting it. The fibrous disks E check the pressure of the gas and allow it to feed through the perforations in the plate C and through the perforations in the diaphragm B to the burner, thereby regulating the pressure of the gas whether strong or weak and rendering it uniform in its supply to the burner.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fluid-pressure regulator, a suitable tube through which the gas passes to the burner, a perforated plate located therein and a rod connecting therewith, said plate and rod removable from the tube, and a fibrous disk upon the rod below the perforated plate, substantially as and for the purpose described.

2. In a fluid-pressure regulator, a suitable tube through which the gas passes to the burner, a perforated diaphragm upon the upper end of the tube, a perforated disk and rod connected thereto and removable from the

tube, and a disk of fibrous material adjustably and removably supported upon the rod, substantially as and for the purpose specified.

3. In a fluid-pressure regulator, a suitable tube through which the gas passes to the burner provided at its end with a perforated diaphragm, a perforated concavo-convex plate removably supported within the tube, a rod depending from the plate and removable therewith, and a disk of fibrous material supported upon the rod, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HANCOCK.

Witnesses:
OTTO C. HEIDE,
OSCAR KOCH.