No. 726,249. PATENTED APR. 28, 1903.

G. A. BRACHHAUSEN.

GAS CHECK.

APPLICATION FILED FEB. 12, 1903.

NO MODEL.

Fig. 1.

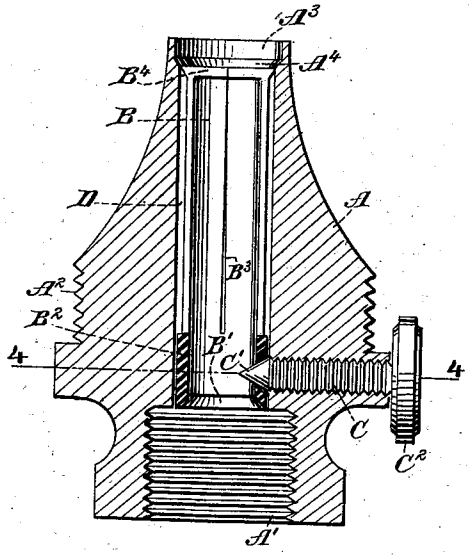


Fig. 2.

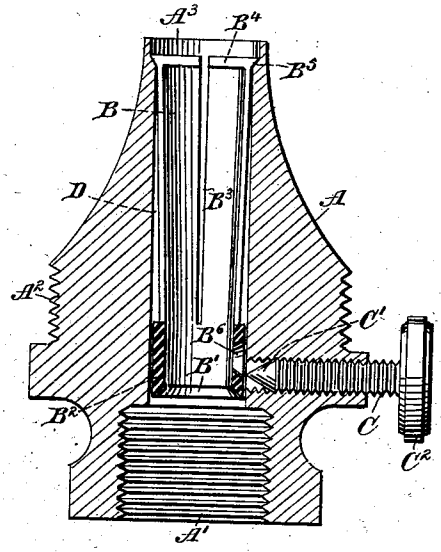


Fig. 3.

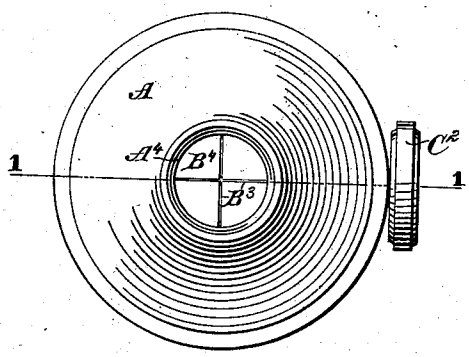
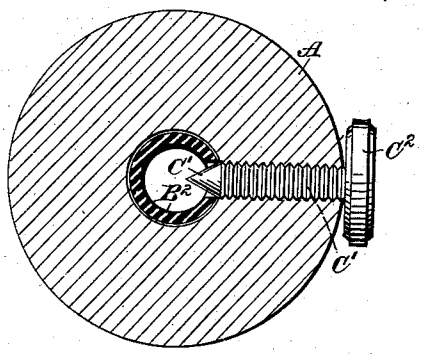


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GUSTAV A. BRACHHAUSEN, OF RAHWAY, NEW JERSEY, ASSIGNOR TO REGINA MUSIC BOX COMPANY, OF RAHWAY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

GAS-CHECK.

SPECIFICATION forming part of Letters Patent No. 726,249, dated April 28, 1903.

Application filed February 12, 1903. Serial No. 143,042. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV A. BRACHHAUSEN, a citizen of the United States, and a resident of Rahway, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Gas-Checks, of which the following is a specification.

My invention relates to improvements in gas-checks—that is, devices for regulating the flow of gas to burners.

The object of my invention is to produce an exceedingly simple device of the above-indicated class in which an adjustment of the flow can be obtained without deflecting the gas from its regular straight path, and a further object of the invention is to construct the device of very few parts, which are readily assembled and taken apart.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of my improved gas-check on line 1 1 of Fig. 3, showing the gas-check closed. Fig. 2 is a similar view showing the gas-check open fully. Fig. 3 is a plan, and Fig. 4 is a cross-section on line 4 4 of Fig. 1.

I desire it to be understood that the specific construction shown is but one example of the many forms in which my invention may be carried out.

My improved gas-check comprises three parts—to wit, the body A, the regulator B, and the adjusting member C. The body A is tubular and, as shown, is provided at its lower end with an interior screw-thread A′, adapted for connection with a suitable support which at the same time supplies the gas to the body A. An external screw-thread A^2 may be provided for the purpose of attaching to the said body parts of a burner or accessories, such as a carrier for an incandescent mantle. At its upper end the body has a flange with a cylindrical vertical inner surface A^3, and below this surface is located an annular inclined shoulder A^4, contracted downwardly. The regulator B is likewise tubular in construction and is open at its lower end and may there be provided with a downwardly-flaring portion B′, so as to properly guide the gas at its entrance into the regulator. The lower portion B^2 of the regulator fits tightly within the body A. From this portion B^2 upward the regulator is of reduced diameter, so as to form an annular chamber D between the regulator and the body A. This reduced portion of the regulator is slitted lengthwise, as indicated at B^3, and the slits are continued across a flat end plate B^4, which is located at the upper or discharge end of the regulator. Preferably two slits B^3 are provided, which cross each other centrally upon the plate B^4, so that the reduced portion of the regulator will have four longitudinal slits. By slitting the reduced portion of the regulator as described I give the upper portion of the regulator resiliency and a tendency to open or spring apart to the position illustrated by Fig. 2. The outer edge B^5 of the plate B^4 is beveled to correspond with the inclined shoulder A^4 of the body A, and by the coöperation of these surfaces in conjunction with the resiliency of the regulator the latter when released will automatically take the position shown in Fig. 2, the plate B^4 being raised to the lower end of the cylindrical surface A^3.

In order to adjust the regulator, I provide any suitable device for moving the regulator lengthwise of the body A. In the particular construction shown the adjusting member C consists of a screw extending transversely into the body A and having a beveled point C′, adapted to engage an opening or recess B^6 of the regulator, which recess preferably also has inclined walls. The screw has a head C^2, so that it may be readily turned.

When the screw is withdrawn from contact with the regulator, as shown in Fig. 2, the regulator is released and, as previously explained, slides upward to the open position. The slits B^3 are then fully opened, and a large amount of gas passes through the discharge end of the regulator. The point C′ of the screw C is in registry with the lower end of the socket B^6, and as soon as the screw is moved

inward it will enter said socket and begin to draw the regulator down, so as to reduce the width of the slits B^3. Finally, if the screw is turned far enough the regulator will reach the position shown in Fig. 1, where the slits B^3 are entirely closed. Even in this position the end of the screw projects but slightly into the path of the gas, so that the screw does not materially obstruct the flow of the gas even when the slits of the check or regulator are almost closed.

It will be seen that my invention provides very simple means of accurately adjusting the flow of the gas and that every part of the device is readily accessible and readily separable from the others.

What I claim as new, and desire to secure by Letters Patent, is—

1. A fluid-check comprising a tubular body having at its discharge end a bore of larger diameter than the main portion of the bore, in combination with a slitted tubular regulator movable lengthwise within said body and having an elastically-expansible discharge portion adapted to move in the enlarged bore of the body, and means for moving the regulator lengthwise of the body.

2. A fluid-check comprising a tubular body the bore of which is enlarged at its discharge end, in combination with a tubular regulator having a cross-plate at its discharge end and slitted from its discharge end so as to form an elastic discharge portion, the cross-plate of the regulator being arranged to lie within the enlarged bore of the body, and means for adjusting the regulator lengthwise of the body.

3. A fluid-check comprising a tubular body having a cylindrical enlargement at the discharge end of its bore, and an inclined surface adjacent to said enlargement, in combination with a tubular regulator provided at its discharge end with a cross-plate having a beveled surface adapted to engage the inclined surface of the body, the said regulator, including the cross-plate thereof, being slitted to give it resiliency, and means for moving the regulator lengthwise of the body.

4. A fluid-check comprising a tubular body, a tubular regulator having a slitted expansible discharge portion located within the body, and means for adjusting the regulator lengthwise of the body, said means being movably mounted on the body and arranged to engage the regulator.

5. A fluid-check comprising a tubular body, a tubular regulator having a cross-plate at its discharge end, located within the body, said cross-plate being provided with cross-slits which are continued lengthwise of the adjacent portion of the regulator, and means for adjusting the regulator lengthwise of the body, said means being movably mounted on the body and arranged to engage the regulator.

6. A fluid-check comprising a tubular body, a tubular regulator arranged within said body and having an expansible and compressible slitted discharge portion, and a screw extending transversely in the body and arranged to engage the regulator to adjust the latter lengthwise of the body.

7. A fluid-check comprising a tubular body, a tubular regulator arranged within said body and having an expansible and compressible slitted discharge portion, and an adjusting member movable transversely of the body and having a beveled portion arranged to engage the regulator and to move it lengthwise of the body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GUSTAV A. BRACHHAUSEN.

Witnesses:
JOHN LOTKA,
EUGENE EBLE.