

No. 893,521.

PATENTED JULY 14, 1908.

C. P. KENTON.
MERCURY SEAL FOR GAS REGULATORS.
APPLICATION FILED SEPT. 26, 1907.

Fig. 1.

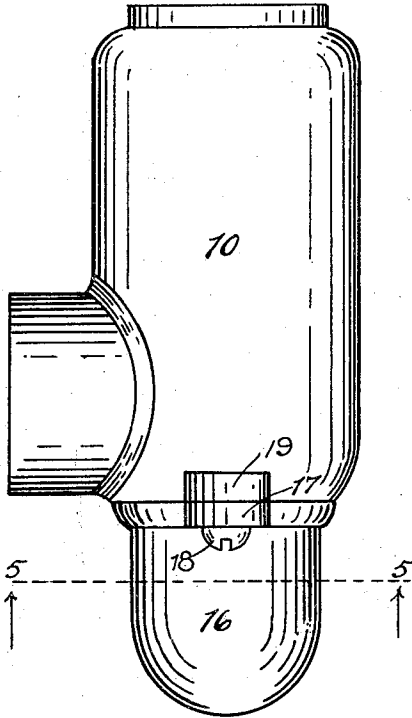


Fig. 2.

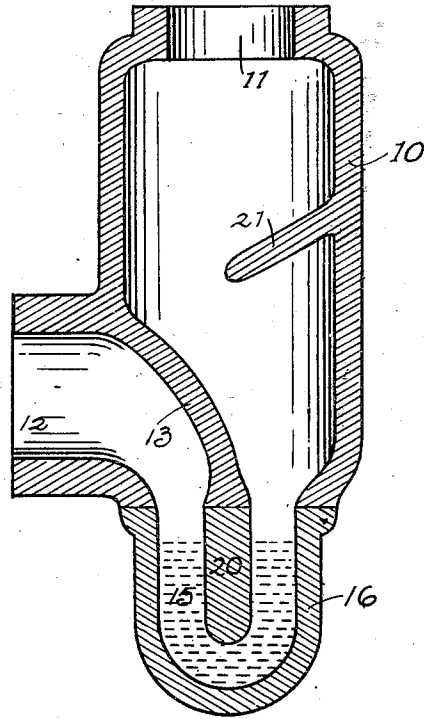


Fig. 3.

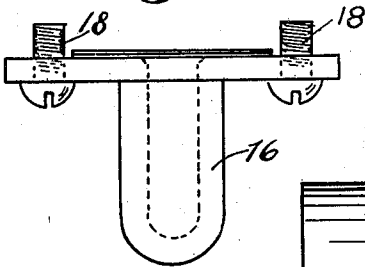


Fig. 4.

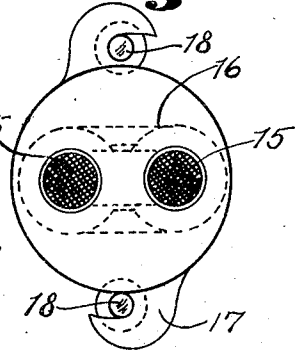
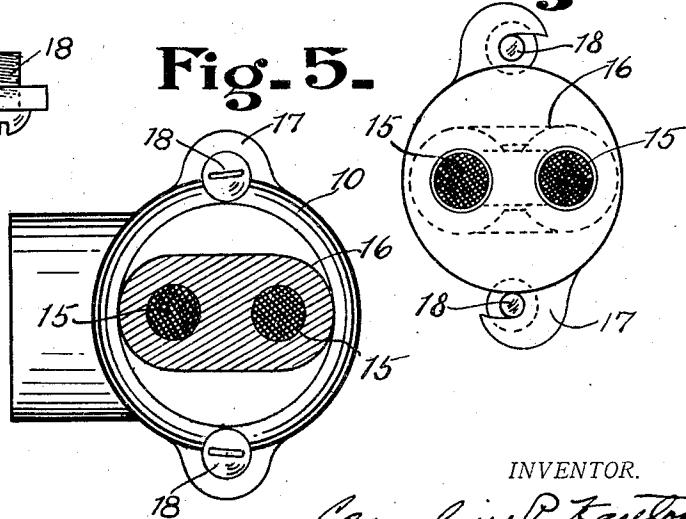


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CORNELIUS P. KENTON, OF ANDERSON, INDIANA, ASSIGNOR TO KENTON REGULATOR COMPANY, OF ANDERSON, INDIANA, A COPARTNERSHIP.

MERCURY SEAL FOR GAS-REGULATORS.

No. 893,521.

Specification of Letters Patent.

Patented July 14, 1908.

Application filed September 26, 1907. Serial No. 394,741.

To all whom it may concern:

Be it known that I, CORNELIUS P. KENTON, of Anderson, county of Madison, and State of Indiana, have invented a certain new and useful Mercury Seal for Gas-Regulators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to improve the construction of mercury seals for high pressure service gas regulators and the like.

The construction relates chiefly to the construction and form of the mercury chamber. To that end a partition separates the gas pressure from the atmospheric pressure and the mercury is contained in a U-shaped receptacle that is readily detachable from or attachable to the body of the seal. There is also a shield in the main chamber of the seal to keep particles of mercury from below from blowing out with the body of the gas. This and the other features of my invention will be understood from the accompanying drawings and the following description and claims:

In the drawings Figure 1 is a side elevation of the device. Fig. 2 is a central vertical section through the same. Fig. 3 is an elevation of the mercury receptacle viewed at a right angle as compared with the section in Fig. 2, the mercury chamber being shown by dotted lines. Fig. 4 is a plan view of the detachable mercury receptacle, parts being shown by dotted lines. Fig. 5 is a section on the line 5—5 of Fig. 1, looking upward.

The top 10 of the seal has an outlet 11 at its upper end, a horizontal inlet 12 at one side near its lower end and a partition 13 between the inlet chamber 12 and the main chamber in the top of the seal, said partition extending down to a point about midway transversely of the lower end of the body of the seal. This partition separates the air pressure from the gas pressure and also de-

flects the incoming gas down through the mercury 15.

The mercury chamber 16 is attached to the lower end of the body of the seal by the hooks 17 on each side thereof engaging the headed screws 18 that screw up into the ears 19 on the body of the seal. This mercury attachment 16 has a U-shaped passageway through it that registers with the lower ends of the inlet chamber 12 and main chamber 10. Hence, this leaves a sort of partition 20 that registers with the lower end of the partition 10, as seen in Fig. 2, although the mercury chamber 15 is merely a round U-shaped passageway, as shown in Fig. 5.

In the main chamber there is a shield 21 projecting from one side of the wall thereof over the outlet of the mercury chamber 15. The function of this shield is to obstruct the passage of any mercury with the gas and causes it to fall back into the mercury chamber. For the better operation of this device, the capacity of the main outlet chamber should be substantially sixteen to twenty times greater than the capacity of the mercury chamber.

What I claim as my invention and desire to secure by Letters Patent is:

A mercury seal for gas regulators including a main chamber with an outlet, an inlet chamber, a downwardly curved partition between said chambers, and a mercury receptacle attached to the body of said device with a U-shaped mercury chamber therein leading from said inlet chamber to said outlet chamber, there being a partition between the two sides of said U-shaped mercury chamber that registers with the lower part of said first mentioned partition.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

CORNELIUS P. KENTON.

Witnesses:

B. D. L. MANUEL,
J. D. HOPPER.