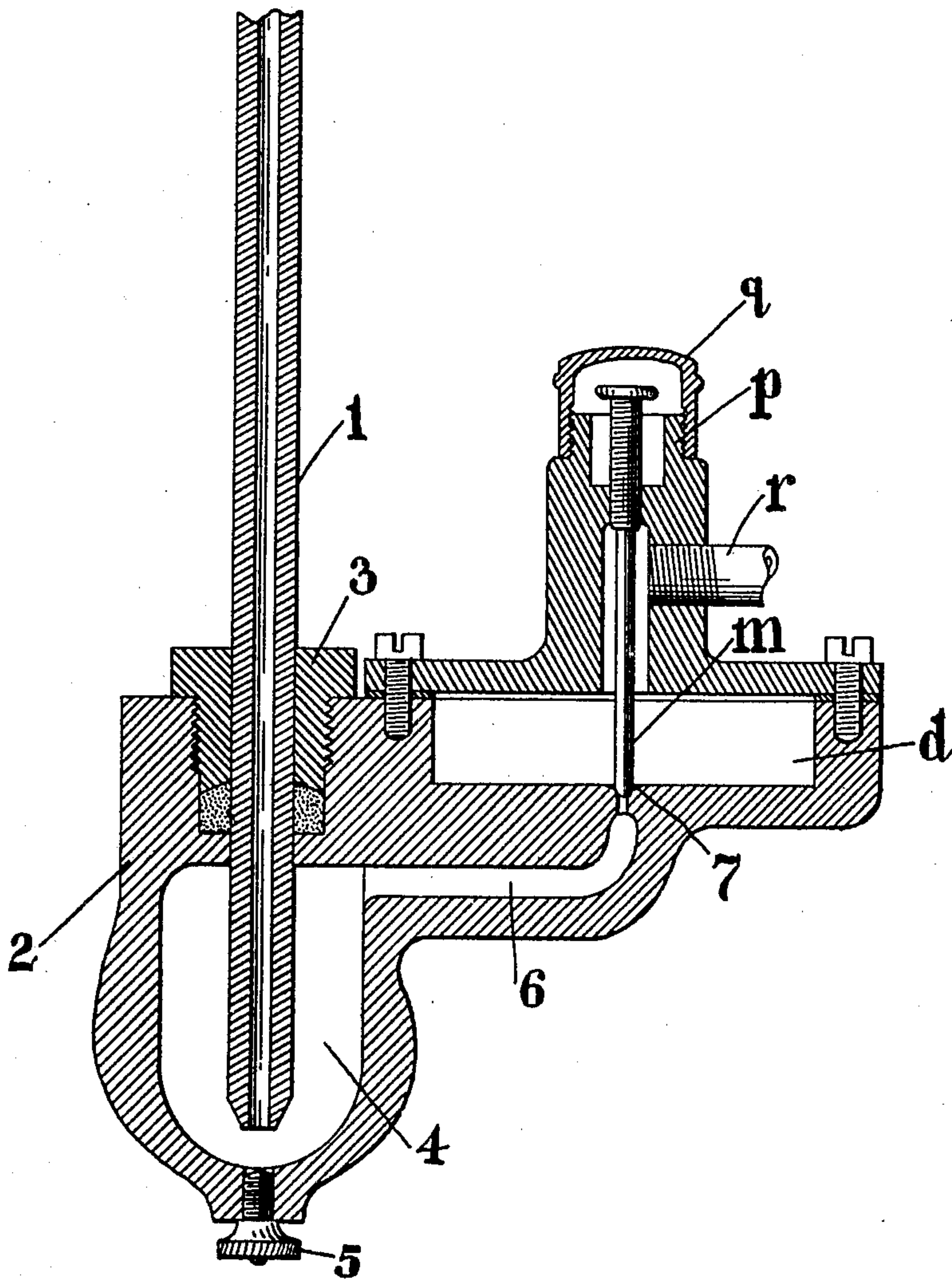


A. B. HOHMANN.
 MERCURY VACUUM GAGE.
 APPLICATION FILED JULY 18, 1903.

913,010.

Patented Feb. 23, 1909.



WITNESSES:

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MERCURY VACUUM-GAGE.

No. 913,010.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed July 18, 1903. Serial No. 166,168.

To all whom it may concern:

Be it known that I, AUGUST B. HOHMANN, a citizen of the United States, residing at Richmond Hill, county of Queens, and State of New York, have invented certain new and useful Improvements in Mercury Vacuum-Gages, of which the following is a specification.

My invention relates to mercury vacuum gages but it will be understood that this invention may be applied to other measuring instruments embodying the liquid column as part of their operative portions.

In the accompanying drawings, I have shown a mercury vacuum gage, in which one form of my invention is embodied.

My invention has for its primary object to produce a mercury vacuum gage or other liquid column instrument which can readily be transported without breaking the liquid column.

In this specification I will describe the preferred form of my invention which is illustrated in the accompanying drawing and will point out the salient features of the invention in the claims.

The drawing represents a sectional elevation of the preferred form of the instrument described.

As shown in the drawing 1 represents a separate tube, preferably of glass, secured in the case 2 by means of a stuffing box 3 so that the lower end of the tube may project into a mercury well 4 for a sufficient distance so that the opening in the tube will never be exposed when the vacuum is suddenly released. A screw 5 is provided for sealing the bottom of the well 4 the function of this closure being more fully hereinafter set forth.

A mercury chamber *d* communicates with the well 4 by the small channel 6 in the casting. The object of this channel is to prevent the inrush of air into the well 4, and at the same time keep out dirt, water, etc. from the well, because when used on condensers, water, rust or dirt are liable to enter the mercury chamber *d*, but cannot get into the well or channel, as the well and channel are filled solid with mercury at all times. In the bottom of the mercury chamber, I have provided a valve seat 7 which is closed by a valve *m* herein shown as of the screw variety, which valve is carried by a nipple *p*

upon which a cap *q* is screwed. The connection *r* is provided for connecting the gage with the condenser. In order to exclude the air from the glass tube in filling this form of gage the casing is inverted and the screw 5 removed and the gage filled from that point. The air in the tube will rise and the tube will be filled solid with mercury, also the entire well, channel and reservoir or mercury chamber so that there will remain only sufficient air space to accommodate the mercury drawn out of the tube when the instrument is in use. After it is entirely filled the screw 5 is screwed in tight making a perfect seal whereupon the gage can be turned upright again.

It is obvious that the construction of the apparatus may be considerably varied without departing from the spirit of my invention.

Having described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a mercury vacuum gage the combination of a mercury chamber, a mercury well, a channel between said well and said chamber, a mercury column projecting downwardly into said well to a point beneath said channel, a valve for controlling communication between the chamber and the well and means for preventing the valve from accidental displacement.

2. In a mercury vacuum gage the combination of a mercury chamber having an upwardly extending neck, a connection between said neck and a suitable exhaustor, a mercury well, a channel extending upwardly from said well to said chamber, a mercury column projecting downwardly into said well to a point beneath said channel and a valve for controlling communication between the chamber and the well.

3. In a mercury vacuum gage the combination of a mercury chamber, a mercury well, a channel connecting the top of said well with the bottom of said chamber, a mercury column projecting downwardly into said well to a point beneath said channel and a valve for closing the upper end of said channel.

AUGUST B. HOHMANN.

Witnesses:

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