(No Model.)

J. J. HICKS.

GRADUATED MEASURING VESSEL.

No. 320,784. Patented June 23, 1885.

Fig. 1.

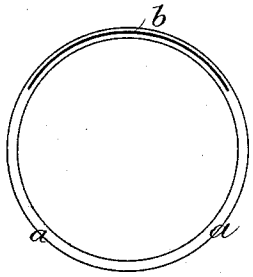


Fig. 2.

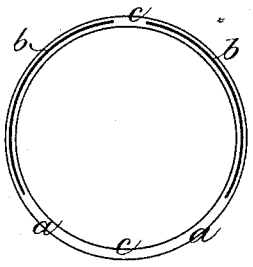


Fig. 3.

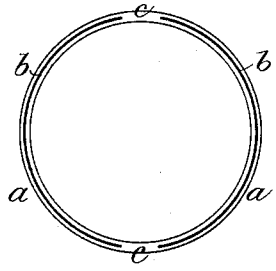


Fig. 4.

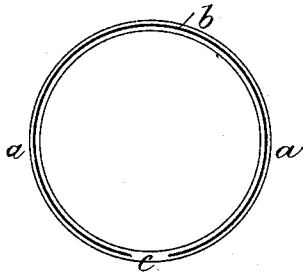
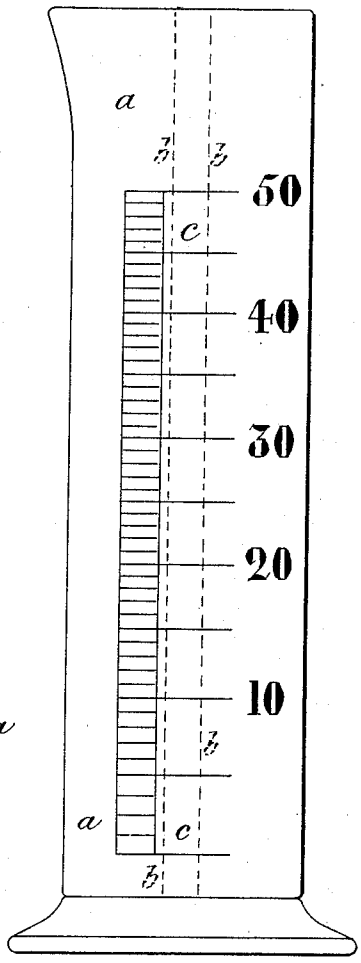


Fig. 5.



Attest

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UNITED STATES PATENT OFFICE.

JAMES J. HICKS, OF 8 HATTON GARDEN, COUNTY OF MIDDLESEX, ENGLAND.

GRADUATED MEASURING-VESSEL.

SPECIFICATION forming part of Letters Patent No. 320,784, dated June 23, 1885.

Application filed March 18, 1885. (No model.)

To all whom it may concern:

Be it known that I, JAMES JOSEPH HICKS, a subject of the Queen of Great Britain, residing at 8 Hatton Garden, in the county of Middlesex, England, meteorological instrument manufacturer, have invented certain new and useful improvements in graduated chemical, medical, and other liquid vessels, measures, or gages of capacity and pressure, and in levels and other graduated tubes, bottles, jars, syringes, and articles made of glass, of which the following is a specification.

In my Patent No. 317,783, dated May 12, 1885, I describe and claim a portion of my present invention applied to a temperature-measure, and particularly to a clinical thermometer.

My present invention relates to an improvement in vessels or measures for liquids or other materials.

Heretofore graduated chemical, medical, and other liquid measures, or gages of capacity and pressure, and levels and other graduated tubes, bottles, jars, syringes, and articles have been made of clear glass of one uniform color around their entire circumference, and in some cases they have had a longitudinal width of white or other colored enamel or glass at the back thereof, and the divisions and figures have been engraved, etched, or painted on the surface of clear glass; but by such method of manufacture the divisions and figures are not so readily visible as is desirable.

According to my present invention I render the divisions and figures readily visible, while the liquid contents can at the same time be clearly seen. For this purpose I apply to such descriptions of articles one or more longitudinal widths of white or colored enamel or glass, or I almost completely surround the articles with such white or colored enamel or glass, leaving a space of clear glass sufficiently wide between the edges of such white or colored enamel or glass to enable the contents of the article to be readily seen.

In the accompanying drawings, which represent articles constructed according to my invention, Figures 1, 2, 3, and 4 are cross-sections. Fig. 5 is an elevation of a vessel or jar.

a represents the body of clear glass, and *b* the longitudinal width or widths of white or colored enamel or glass. At Fig. 1 I have represented one width of enamel, *b*, embedded in the body of clear glass *a*. At Fig. 2 I have represented two of such widths, *b*. At Fig. 3 I have represented the article nearly completely surrounded by two widths, *b*, of enamel, leaving spaces *c* of clear glass, respectively, at the front and back of the article; and at Fig. 4 I have represented the article with one width or strip of enamel nearly surrounding the same, as in my patent referred to. If desired, the article may be provided with more than two widths of white or colored enamel or glass.

I engrave, etch, or paint the divisions and figures over the white or colored enamel or glass *b* as near the edge thereof as is necessary for ease in reading, as shown at Fig. 5, which represents an elevation of a rain-gage jar.

The white or colored enamel or glass may be on the exterior or interior surface of the article; or it may be, as shown in the drawings, embedded within the thickness thereof, and the divisions and figures, when engraved or cut, are filled in with black or other enamel of sufficient contrast to the longitudinal widths of white or colored enamel to render the divisions or figures clearly visible.

For articles which are to be used in a vertical position, or through which light can pass, I provide a space, *c*, of clear glass at the back thereof, as shown at Fig. 3, to permit the passage of light therethrough to enable the level of the liquid to be readily seen.

As I have already stated, I have claimed in another patent a glass body having a bore, an enamel strip extending around the back and sides of the body, concealing the bore, except along a narrow space forming the correct line of sight through which the bore is to be viewed.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is—

1. A glass vessel for measuring liquids or other materials, which comprises a body having a receptacle for the matter to be measured or gaged, an enamel strip extending on each side of a space at front to the rear, and an opening through which the liquid can be supplied to and removed from the vessel, substantially as set forth.

2. A glass vessel for measuring liquids or

other materials, having a body formed with a receptacle, an enamel strip extending around the back and sides of the body, concealing the receptacle, except along a narrow space forming the correct line of sight through which the matter is to be viewed, and an opening for the reception and removal of the matter, substantially as set forth.

3. A glass vessel or body having enamel strips *b* on each side thereof, leaving a narrow space, *c*, between the strips, through which the contents can be viewed, and graduations over one or more of the strips at the sides of the narrow space.

4. A glass body or containing-vessel, having enamel strips extending around the sides of the body, except along narrow spaces *c*, at front and rear, substantially as set forth.

JAS. J. HICKS.

Witnesses:

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