A. M. PARKS.

COLORIMETER.

APPLICATION FILED JUNE 10, 1909.

977,964.

Patented Dec. 6, 1910.

Fig. 1.

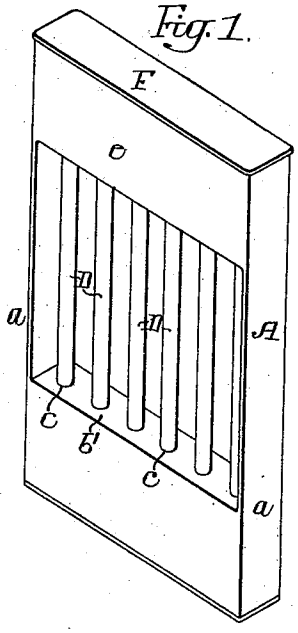


Fig. 5.

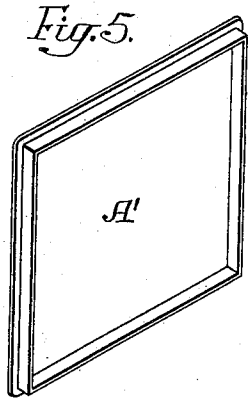


Fig. 3.

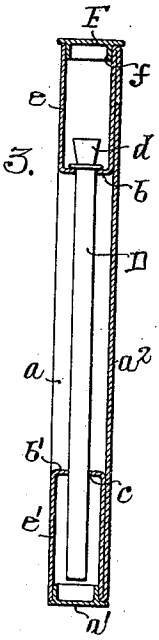


Fig. 2.

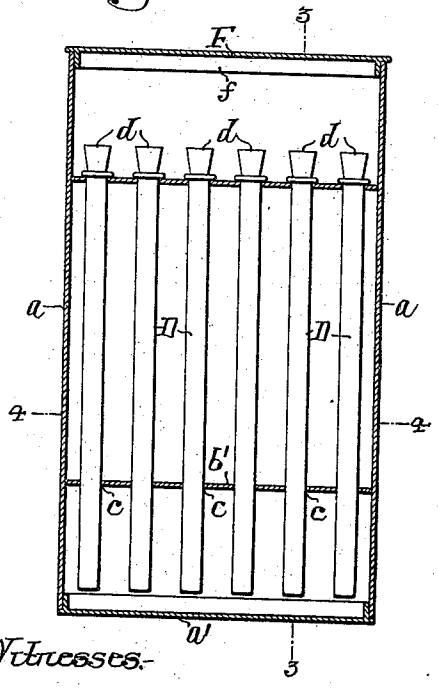


Fig. 4.

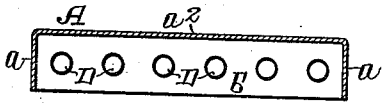


Fig. 6.

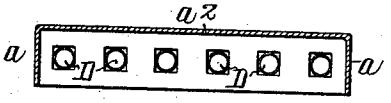
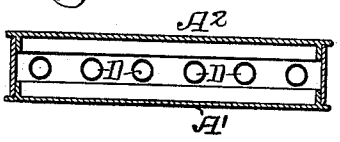


Fig. 7.



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UNITED STATES PATENT OFFICE.

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COLORIMETER.

977,964. Specification of Letters Patent. Patented Dec. 6, 1910.

Application filed June 10, 1909. Serial No. 501,358.

To all whom it may concern:

Be it known that I, ALFRED M. PARKS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Colorimeters, of which the following is a specification.

The object of my invention is to construct an effective and cheap colorimeter for testing the colors of liquid or granular material, the density of liquid material and the viscosity of fluids.

The invention is particularly adapted for use of salesmen so that the samples of material can be readily carried, and it is also particularly adapted for mailing purposes, although it will be understood that the invention can be made in large sizes for use in laboratories.

In the accompanying drawing:—Figure 1, is a perspective view of my improved colorimeter; Fig. 2, is a sectional elevation; Fig. 3, is a sectional view on the line 3—3, Fig. 2; Fig. 4, is a sectional view on the line 4—4, Fig. 2; Fig. 5, is a perspective view of a lid or cover which may be used to inclose the tubes when the device is to be mailed; and Figs. 6 and 7, are sectional views illustrating modifications of the invention.

A is the case, made preferably of cardboard or thin wood, having sides *a*, *a* and a closed bottom *a'*. The back a^2 of the case is solid.

b, *b'* are two transverse partitions extending across the case from one side to the other and in these partitions are holes *c* for the tubes D, the holes are preferably round as shown, to fit the tubes, and the tubes are provided with corks *d*. The space above the partitions *b* is closed by a strip *e* of cardboard or thin wood, and the space below the partition *b'* is also closed by a piece of cardboard or other material, so that both ends of the tubes are inclosed and only the center portion of the tubes exposed to view.

F is a cap having a flange *f* which fits snugly in the case A. The bottles or tubes D may be of such length that there will be very little space between the ends of the cork and the cap, thus preventing the accidental loosening of the cork, although the cork may be fastened, if desired, directly to the tube or bottle by any suitable means.

In Fig. 5, I have shown a flanged cover A' which may be applied to the face of the box A so as to inclose the tubes and protect them when it is desired to mail the device, or when carried in the pocket.

In Fig. 6, I have shown a partition with square holes to accommodate the bottles or tubes, and in Fig. 7, I have shown the box open at both front and back, having both a removable cover A' and a removable back A^2, so that when it is desired to dispense with the back it can be readily detached. The exposed space between the sides and the transverse partitions is preferably of a contrasting color with the material in the tubes, in the case of oils, for instance, I preferably make the background a pure white, so that the different shades of color can be readily distinguished. In the construction shown in Fig. 7, for instance, the back A^2 is made of one color and the inner portion of the cover A' made of another color, so that either one can be used, as desired. It will be understood that these covers may be hinged instead of being entirely detachable, as shown, and that the number of bottles may be increased or diminished without departing from the essential features of the invention.

It will be seen by the above construction that I am able to provide a very practical and cheap colorimeter, which can be carried in the pocket or mailed to customers without liability of the tubes being broken and in which the test as to color and viscosity can be readily made.

I claim:—

1. The combination in a colorimeter, of a box having two transverse partitions spaced apart, said partitions being perforated, and a single series of tubes extending through the perforations in the partition, the center portion of the tubes being exposed and the back of the box being of a contrasting color with the material in the tubes.

2. The combination in a colorimeter, of a box having a back and two transverse perforated partitions spaced apart, the space above and below the said partitions being closed, leaving the central portion of the tubes exposed, and the portion of the back between the partitions and back of the tubes being of a contrasting color with the material in the tubes.

3. The combination in a colorimeter, of a box having sides and a solid back, two transverse partitions spaced apart and perforated for the reception of tubes, the upper and lower portions of the box, beyond

the partitions, being closed, a removable lid at one end of the box for the removal of the tubes, and a cover adapted to inclose the portion of the box between the partitions, the body of the box back of the tubes being of a contrasting color with the material in the tubes.

4. The combination in a colorimeter, of a box having transverse partitions perforated for the reception of tubes, the space above and below the said partitions being closed, with a removable back and cover for the space between the partitions, the inner surface of the back and cover being of a contrasting color with the material in the tubes.

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

ALFRED M. PARKS.

Witnesses:
WM. E. SHUPE,
WM. A. BARR.