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DRAFTSMAN'S APPLIANCE.
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1,029,248.

Patented June 11, 1912.

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Fig. 1.

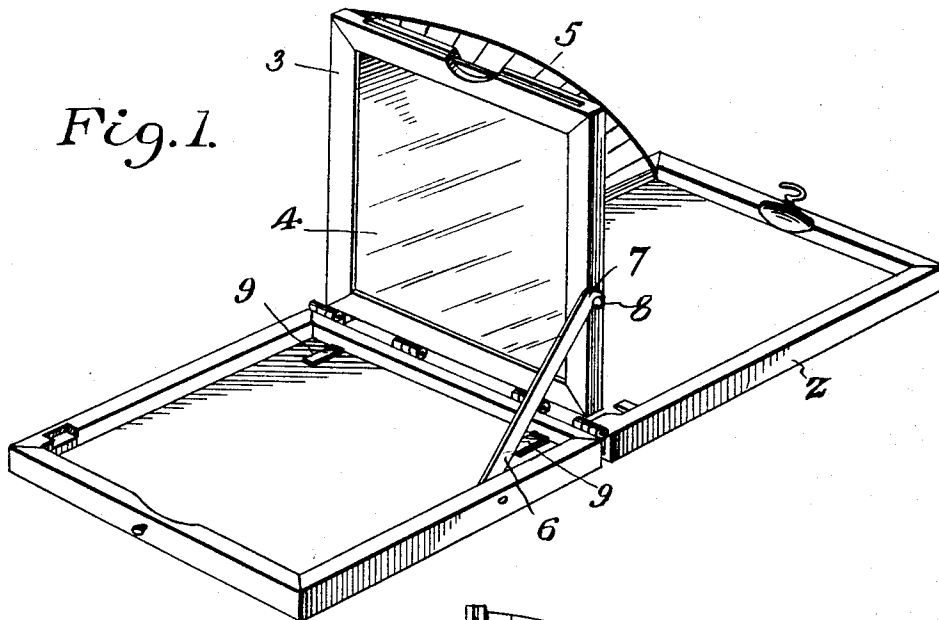


Fig. 3.

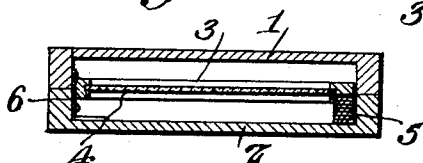
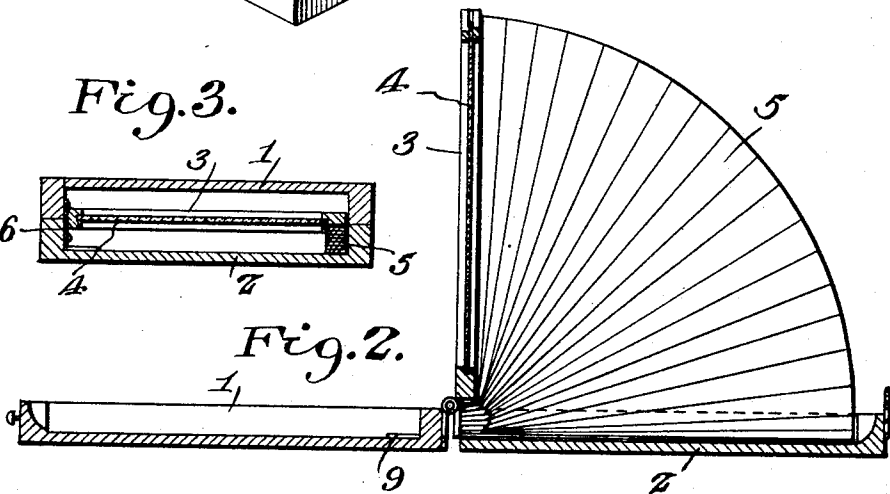


Fig. 2.



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DRAFTSMAN'S APPLIANCE.

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To all whom it may concern:

Be it known that I, ROBERT WILLIAMS, of Irondequoit, in the county of Monroe and State of New York, have invented a new and useful Improvement in Draftsmen's Appliances, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

The present invention relates to devices for copying or reproducing images of objects or pictures and the purpose of the invention is to provide a construction in which the image of the object will be projected upon paper or other material on which the object is to be copied or reproduced.

Another object of this invention is to provide a construction which may be folded into compact form in order that it may be carried about with ease or stored away until it is desired to use the same.

To these and other ends the invention consists in certain parts and combinations of parts all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a device constructed in accordance with this invention; Fig. 2 is a longitudinal section, looking toward the light shield; and Fig. 3 is a transverse section through the object support, the work support and transparent member, showing the parts folded together, with the light shield folded and in section.

This invention is based on the principle that if one looks at a transparent glass from the light receiving side thereof an image will appear to lie on the opposite side of said glass. It is apparent that if a sheet of paper or other writing material be placed on the darker side of the transparent material, the image will appear to lie on the writing material and may therefore be copied or delineated upon the writing material if the action of the hand in copying be viewed from the light receiving side of the transparent glass. To utilize this principle, there is employed a transparent sheet of glass or similar material 4 which preferably is protected at its edges by a sash or frame 3, the transparent sheet being slidably removable from the frame or sash in order that another piece may be substituted therefor when it becomes broken.

For supporting the transparent sheet in upright position, there may be provided a

base comprising two members 1 and 2 which lie in alinement on opposite sides of the transparent sheet 4. Preferably these members are hinged or pivoted together at their adjacent edges and the frame 3 is hinged or pivoted to them, the opposed faces of said members 1 and 2 being pocketed or recessed in order that the frame 3 and the transparent member 4 may be housed within them, when said members 1 and 2 are folded into parallel relation. In order that the transparent member 4 may be held in an upright position, there may be employed a brace 6 pivoted to one of the members 1 or 2, in this instance, to the member 1 and having a hook 7 at its free end to engage a headed projection 8 on the side of the sash 3.

If either side of the transparent sheet 4 be held toward the light and a picture or other object is placed upon the member 1 or 2 arranged on the light receiving side of the transparent sheet 4, an image of said picture or object will appear to lie upon the other member 1 or 2 when looking through the light receiving side of the transparent member, so that on a sheet of paper placed upon the darker member, the picture may be traced or copied, merely by following the lines of the image.

It is preferable to shade the darker side of the transparent member as this will make the image clearer. Any suitable shade may be provided but it is preferred to use a shield 5 connecting one edge of the transparent member with one edge of the base member 2 which thus acts at all times as the work support. In this instance, the shield is plaited to provide a fan like structure which will collapse when the sash 3 and member 2 are folded together, and will thereby become housed within the member 2. Of course, the base member 1 in the illustrated embodiment will be used as the picture support, and both the members may be provided with spring clips 9 which will engage the picture or object and the work piece for holding said parts against movement.

In the use of the invention, the device is opened from the position shown in Fig. 3, to that shown in Fig. 1, the brace being connected to the frame of the transparent member and holding the latter upright, and the fan like shield or guard 5 automatically opening with the separation of the members 1 and 2. A picture is now placed upon the

support 1 under the clips 9, and a sheet of paper or other writing material is placed upon the work support beneath the clips

9. The side of the transparent glass 4 which is in proximity to the picture support 1 is turned toward a suitable light source so that one looking through the light-receiving side of the transparent glass 4 will see an image of said picture upon the writing material on the work support 2 and this image may be directly traced or copied by following the lines thereof with a pencil, pen or other writing implement.

From the foregoing it will be seen that there has been provided a device through which the copying or reproduction of pictures or other objects is greatly facilitated.

The device may be used for amusing the young and the old or for teaching drawing and it also may be employed for copying or reproducing pictures for commercial or other purposes.

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

1. A device of the class described comprising an upright transparent sheet, a horizontal work support located on one side of the sheet and pivotally connected thereto, means for supporting said sheet in an upright position, and a foldable light shield connecting one side of the sheet and one side of the support.

2. A device of the class described comprising an upright transparent sheet, a picture support on one side of the sheet, a work support on the opposite side of the sheet, and a light shield connecting one side of a

transparent sheet and one side of the work support.

3. A device of the class described comprising a work support, a picture support alined with the work support and adapted to fold in parallel relation thereto, a transparent member pivotally connected to the work support and to the picture support and adapted to lie in parallel relation therewith, and means for holding said transparent member upright when the picture support and the work support are alined.

4. A device of the class described comprising a pair of supports hinged together to swing into alinement or into parallel relation, the faces of said supports which are opposed when the supports are arranged parallel being pocketed, a transparent sheet adapted to be housed by said support, and means for supporting said transparent sheet in an upright position when the pair of supports are alined.

5. A device of the class described comprising a pair of alined supports hinged together to swing into parallel relation, an upright transparent sheet also hinged to swing into parallel relation with the supports, and a plaited collapsible light shield secured to one edge of the transparent sheet and to one edge of one of the supports.

In testimony whereof, I affix my signature in presence of two witnesses.

ROBERT WILLIAMS.

Witnesses:

JABEZ F. IRONS,
FRED C. SCHAEFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."