

March 2, 1948.

E. S. EDELHART

2,436,882

DOUBLE REVERSIBLE FILM DEVELOPING HANGER

Filed June 1, 1945

2 Sheets-Sheet 1

Fig. 1.

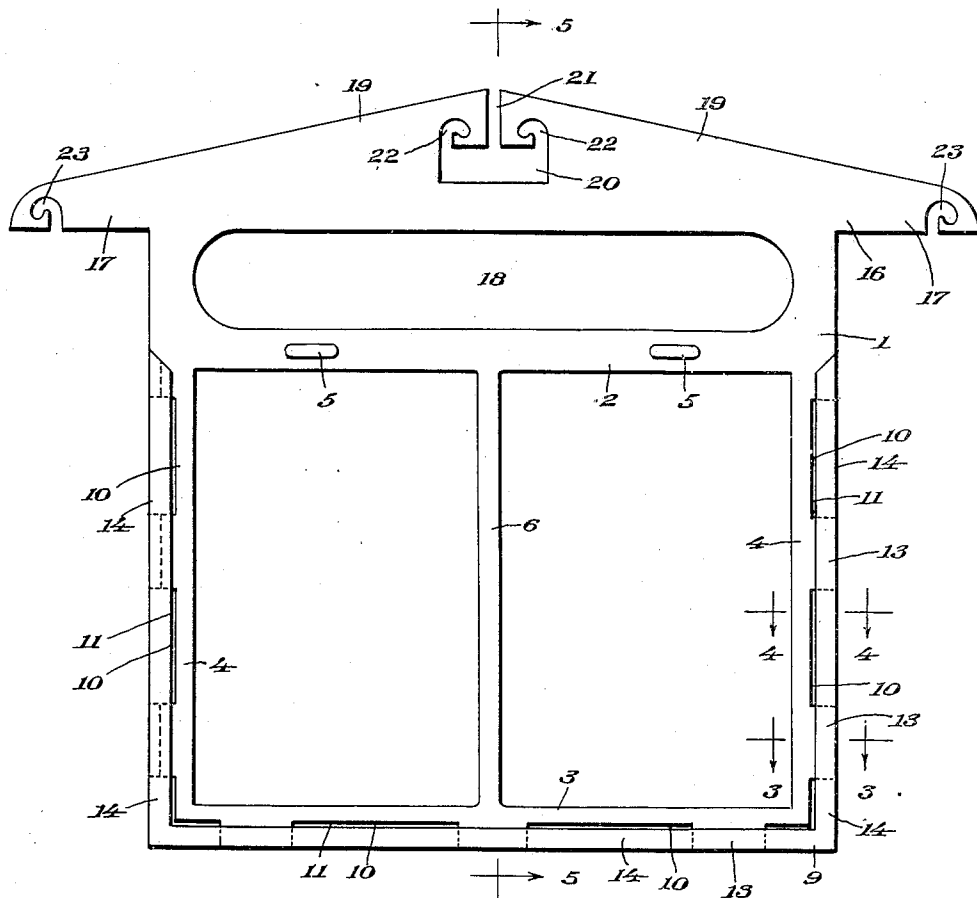


Fig. 2.

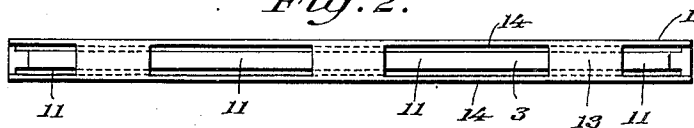
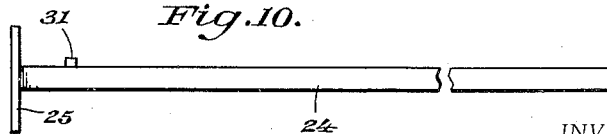


Fig. 10.



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Fig. 3.

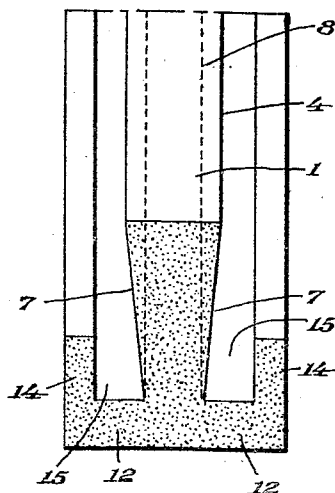


Fig. 4.

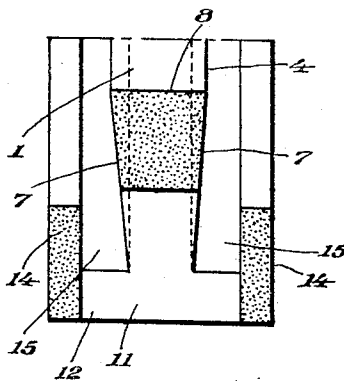


Fig. 5.

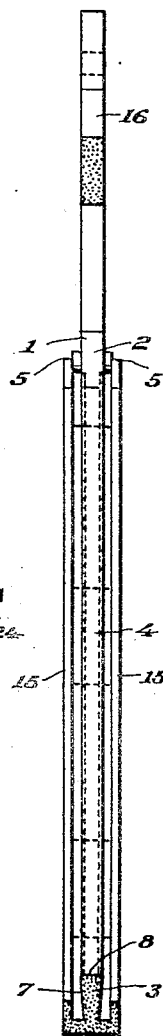


Fig. 6.

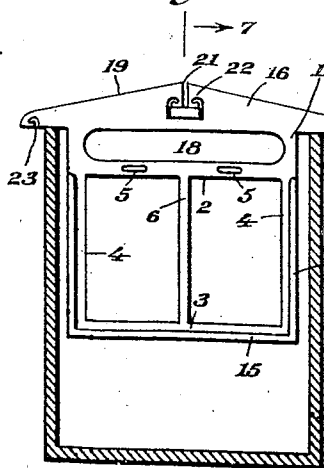


Fig. 7.

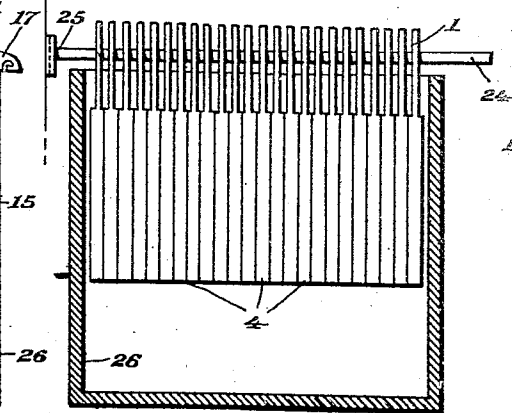


Fig. 8.

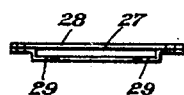
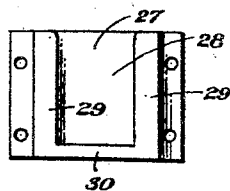


Fig. 9.



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UNITED STATES PATENT OFFICE

2,436,882

DOUBLE REVERSIBLE FILM DEVELOPING HANGER

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Application June 1, 1945, Serial No. 597,069

3 Claims. (Cl. 95—100)

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My present invention, in its broad aspect, has to do with improvements in reversible, rigid, acid and alkali proof, double film developing hangers, and may be formed of any suitable plastic having rigidity and resistance to solutions used in photographic developing processes. More particularly, my hangers are so formed that the films therein will be thoroughly, completely and instantly in contact with the developing solution, and to permit prompt and thorough drainage of such solution when the hanger and films are removed from the solution, and the hanger and films may be washed and placed in another solution without removing the films. In my hanger the film may be mounted and immersed in a dark room, and means are provided whereby the films are supported by a hanger and cannot rub, stick, or contact each other. Many hangers may be placed on a hanger rod and processed simultaneously, and may be handled in the dark, and each hanger is so designed that it may be suspended by any one of four hooks, thus attaining easier draining and drying. The support for the hangers is so formed that free action, and proper placing of hangers on the same is assured, and an operator may hold films together in one hand and remove the support and an entire assembly of hangers from an attaching bracket at one time for different steps in processing. My hanger is made in one piece, is sturdy, durable and practical and may be made up in assorted sizes for films of different dimensions.

Other and equally important objects and advantages of my invention will be apparent from the following description and drawings, but it is pointed out that changes in form, size, shape, materials, and construction and arrangement of parts are permissible and within the purview of my broad inventive concept, and the scope of the appended claims.

In the drawings, wherein I have illustrated a preferred form of my invention—

Figure 1 is a side elevation;

Figure 2 is a view looking down toward the bottom edge;

Figure 3 is a transverse section on the line 3—3 of Figure 1;

Figure 4 is a section on the line 4—4 of Figure 1;

Figure 5 is a vertical section on the line 5—5 of Figure 1;

Figure 6 is a front elevation of a hanger in a hanger unit, suspended in a developer tank;

Figure 7 is a section on the line 7—7 of Figure 6;

Figure 8 is a top view of the support bracket;

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Figure 9 is a front elevation of a support bracket; and

Figure 10 is a view of my hanger supporting rod.

In the drawings, wherein like characters of reference are used to designate like or similar parts—

The numeral 1 designates the rectangular open supporting frame of my hanger which has a top bar 2, a bottom bar 3, and side bars 4. The top bar has lugs 5 forming film stops, and the top and bottom bars 2 and 3 are joined medially between their ends by an intermediate bar 6. As shown in the sectional views of Figures 3 and 4, the side bars 4 and bottom bar 3 increase in thickness inwardly, so that the side faces 7 are inclined away from each other from a center line to the inner wall or face 8. At the lower corners 9 and at equally spaced intervals 10, the side and bottom bars are formed with rectangular recesses 11 extending in from their outside edges and at the lower corners to permit free circulation of developing fluid. Bridging the recesses on each side of this frame, and connected by webs 12 to the remaining parts 13 of the side and bottom bars and lower corners are outwardly and inwardly extending flanges 14 which form pockets 15 on each side of the frame around both sides, the bottom, and the lower corners. These flanges pocket the edges of two films (not shown) one on each side of the hanger and held in proper position by the inclined faces of the side and bottom bars and assured of proper circulation of fluid and drainage by the recesses 11. The frame has a head 16 with outwardly extending arms 17 and a center elongated opening 18 above the top bar. The top part of the head has outwardly and downwardly inclined edges 19 from a center point. At the center point is a horizontal slot 20 communicating with a vertical slot 21, and hook shaped recesses 22 extend upwardly from the ends of the horizontal recess. Hook shaped recesses 23 are formed in the arms 17; these hook shaped recesses may be used either together or selectively for supporting my hangers for drying and the like.

A flat elongated bar 24 with an end transversely disposed foot 25 extends through the horizontal slots 20 of a unit of any number of hangers to support the same in a developer tank 26, as shown in Figures 6 and 7, and a wall bracket 27 having a base plate 28 parallel side flanges 29, and a base flange 30 receives the foot 25 to detachably mount the supporting bar 24. The bar 24 preferably has a lug 31 forming a limiting stop for the unit of hangers.

From the foregoing it is believed that the op-

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eration and advantages of my invention will be apparent, but it is again emphasized that interpretation of the scope of my invention should only be conclusive when made in the light of the subjoined claims.

I claim:

1. A one piece hanger for photographic films, comprising parallel and spaced top and bottom bars, parallel and spaced side bars extending at right angles to and rigidly secured to the top and bottom bars to form a substantially rectangular frame portion, the side faces of the side and bottom bars being tapered toward their respective outer edges, the ends and the intermediate portions of the side and bottom bars having cut-out portions, said cut-out portions extending from the outer edges of the side and bottom bars, whereby a plurality of tongue portions are formed on the side and bottom bars, side and bottom flanges extending spaced from and parallel to the side and bottom bars, respectively, on each side thereof, web portions securing said flanges to said tongues whereby a film supporting pocket is formed between each said tongue and adjacent side flanges and a rectangular circulation recess is formed by each cut-out portion and adjacent flanges, and a head on the frame formed with attaching openings.

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2. The invention as defined in claim 1 wherein the flanges are continuous about the sides, bottom and corners on both sides of the frame.

3. The invention as defined in claim 1 wherein the tongues on the side and bottom bars and the flanges form film pockets on each side of the frame and which have inclined inner walls, and the recesses forming fluid circulation and drainage channels for the film pockets.

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