Nov. 29, 1949 S. JENKINS 2,489,892

HOLDER FOR PROCESSING PHOTOGRAPHIC PACK AND SHEET FILMS

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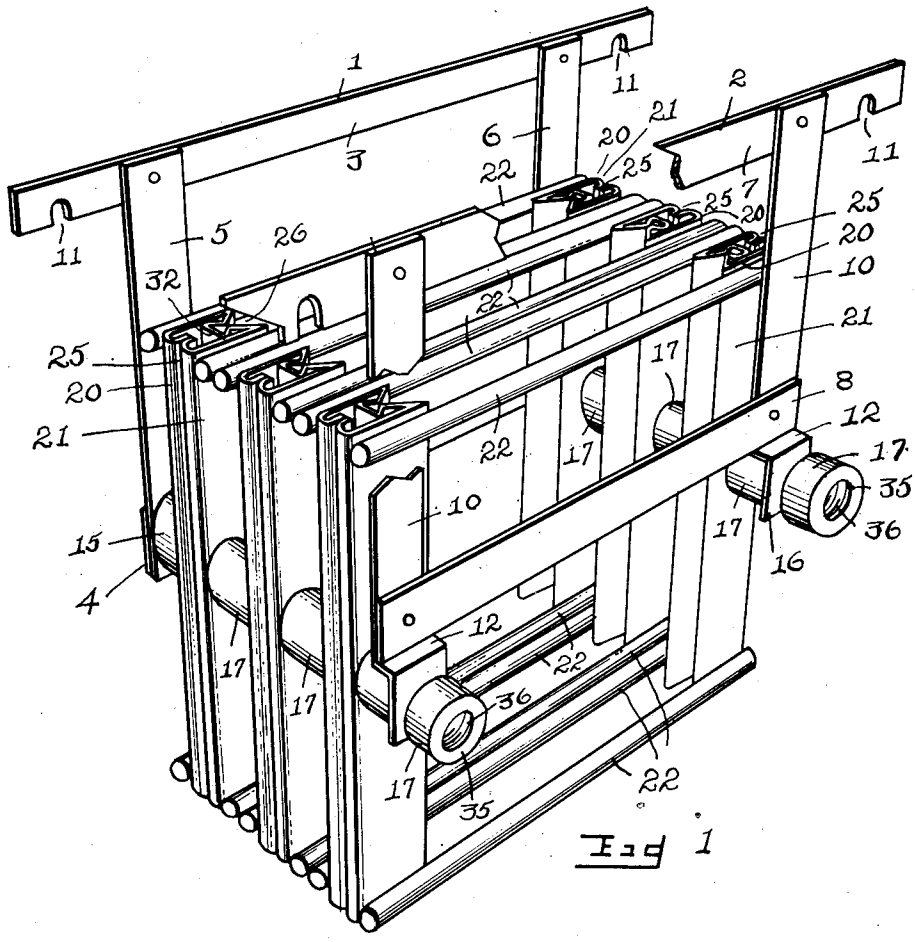



Fig 1

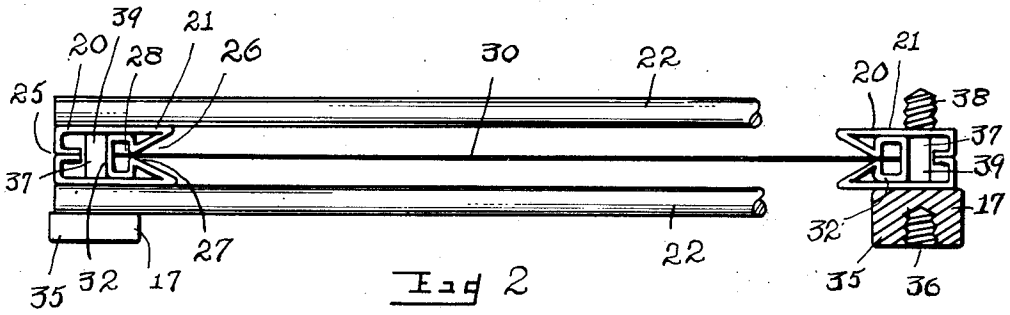



Fig 2

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## HOLDER FOR PROCESSING PHOTOGRAPHIC PACK AND SHEET FILMS

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3 Claims. (Cl. 95—100)

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My invention relates to a holder for processing photographic sheet and pack films, and I declare the following to be a full, clear, concise and exact description thereof sufficient to enable anyone skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings in which like characters refer to like parts throughout.

The object of the invention is to provide holders for photographic sheet and pack films, which can be quickly and firmly joined together for handling as a compact unit during the processing of the films.

The device permits the joining of as many individual holders as desired into a single unit and has provision for suspending said unit.

Furthermore, the device provides an individual holder which can be quickly and easily loaded in the dark and which when assembled will firmly grip and securely hold the films.

The open structure of the holders will permit unobstructed vertical flow of solutions over both surfaces of the films and aid in drying the films after immersion without removal therefrom as heretofore.

The object will be understood by referring to the drawings, in which

Fig. 1 is a perspective view of the holder, parts being broken away, to better illustrate the invention.

Fig. 2 is a detail view showing a plan of part of the holder.

Referring more particularly to the drawings, the device embodies hangers 1 and 2. Hanger 1 comprises cross bars 3 and 4 and vertical bars 5 and 6. Vertical bars 5 and 6 are spaced from each other and attached at the ends of bar 4. They are attached near the ends of the upper bar 3. The extended ends of upper bar 3 are provided with open notches 11 on the under side thereof for suspending the holder from tank rods, not shown. Hanger 2 has cross bars 7 and 8. Cross bar 7 is in parallel relation to cross bar 3 of hanger 1. Its ends extend beyond vertical rods 10, 10 and are provided with open recesses 11 for suspension from tank rods, not shown. Vertical rods 10, 10 are offset at 12 to allow for clearance of headed screws 17, hereinafter mentioned. Furthermore, cross bar 8 is attached to vertical rods 10, whereby its under edge rests upon the offset portions 12, 12 of said vertical rods 10.

Each of the vertical bars 5 and 6 of hanger 1 has welded to its lower end thereof a screw head 15 with a threaded recess therein. The lower parts 16 of vertical members 10, 10 of hanger 2

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are provided with apertures for the projection of screws 17, hereinafter mentioned.

Between hangers 1 and 2 is disposed in parallel relation film holders 20. Each of the holders 20 comprises two similar members 21, 21 held in spaced longitudinal relation by rods 22, 22 welded on either side adjacent the upper and lower lateral surfaces of each of the holders 20. Said rods 22 also serve to separate holders 20 from each other and to hold them in parallel relation to each other.

Each of the members 21 is formed from a single piece of metal which is bent double with its free ends welded or otherwise secured at the junction 25. The intermediate portions of members 21 are bent inward to form a reentrant open V-shaped recess 26. The longitudinal contiguous edges 27, 27 of the V recess form jaws 28, 28 for holding one end of film 30. Said edges 27, 27 are spaced from each other sufficiently to allow for the insertion of a film 30 edgewise. The closed part of members 32 of intermediate part 21 forms a reverse V-shaped enclosure or rectangle in which is housed the free end of the film 30 when assembled. The jaws 28, 28 will spring together to hold the film 30 when screws 17 are applied as hereinafter explained.

The means for securing the holders 20 in assembled position as shown in Fig. 1 embodies the aforesaid male and female thumb screws 17. Each of the screws 17 has a head 35 with a threaded socket 36 formed therein and a shank 37 threaded adjacent its outer end at 38. Shank 37 is formed integral with head 35. The portion 39 of shank 37 is free from threads where it passes through holder 20, whereby it is held in and free to turn in a suitable aperture in said holder 20. Threads 38 on the other end of shank 37 will thread through said aperture in holder 20 when applying the same thereto, whereby said screws 17, 17 will be held normally in said holders 20 but free to turn therein.

The means for binding the holders 20 together into a solid mass or unit contemplates the said screws 17. The holder 20 adjacent the hanger 1 will be attached to said hanger by turning screws 17, 17 in their bearings in holders 20, 20 to engage threaded sockets in members 15, 15 welded to hanger 1. The succeeding holder 20 will likewise be engaged to the aforementioned holder 20 by turning said screws 17, 17 into the threaded sockets 36, 36 formed in heads 35, 35 of the foregoing screws 17, 17. This manner of assembling the holders will be repeated until the unit has the required number of holders 20 to accommodate

the number of films 30 to be processed. Hanger 2 will be assembled by turning screws 17, 17 in their bearings in the lower ends 12, 12 of vertical rods 10, 10 of hanger 2.

In operation the photographer builds up the unit with a plurality of film holders 20 in accordance with the number of films 30 he wishes to process. He does this by joining together the individual holders 20 in laminated or parallel position by turning the screws 17 successively as the holders 20 are added. Each holder 20 is loaded with a film 30 prior to its assembly in the unit. As screws 17 are turned the jaws 28, 28 of each of the holders 20 are forced together to pinch and hold the contiguous parts of the films 30 in a secure manner.

When the holders 20 are thus assembled together with the hangers 1 and 2 attached as aforesaid, the unit can be progressively immersed in prepared solutions for processing the films. The open structure of the holder will allow for an unobstructed flow of solutions on both sides of the film. After the unit is removed from the solution it can be suspended in the drying cabinet, not shown, by means of cross bars 3 and 7 without disassembling the films 30 as heretofore.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. In a holder for processing photographic pack and sheet films, a plurality of film holders, each of said film holders comprising members bent double, the intermediate portion of said last named members bent to form V-shaped jaws for engaging said films, said jaws made of yielding material, whereby to cause them to clamp said films, screws for engaging said film holders, heads having threaded sockets formed on said screws, other screws having threaded sockets for engagement with said first named threaded socket heads for clamping said jaws together and for holding said film holders in assembled position.

2. In a holder for processing photographic pack and sheet films, a plurality of film holders, each of said film holders comprising members bent double, the intermediate portion of said last named members bent to form V-shaped jaws for engaging said films, said jaws made of yielding material, whereby to allow them to clamp said films, screws for engaging said film holders, heads having threaded sockets formed on said screws, other screws having threaded sockets for engagement with said first named threaded sockets for clamping said jaws together and for holding said film holders in assembled position, and rods attached to said film holders, whereby to hold them in spaced relation to each other.

3. In a holder for processing photographic pack and sheet films, a plurality of film holders, each of said film holders comprising members bent double, the intermediate portion of said last named members bent to form V-shaped jaws for engaging said films, said jaws made of yielding material, whereby to allow them to clamp said films, screws for engaging said film holders, heads having threaded sockets formed on said screws, other screws having threaded sockets for engagement with said first named threaded sockets for clamping said jaws together and for holding said film holders in assembled position, rods attached to said film holders, whereby to hold them in spaced relation, and hangers attached to said film holders for suspending the same.

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