Oct. 7, 1947. G. A. DRUCKER 2,428,558

FILM CLIP

Filed Nov. 9, 1944

Fig. 1.

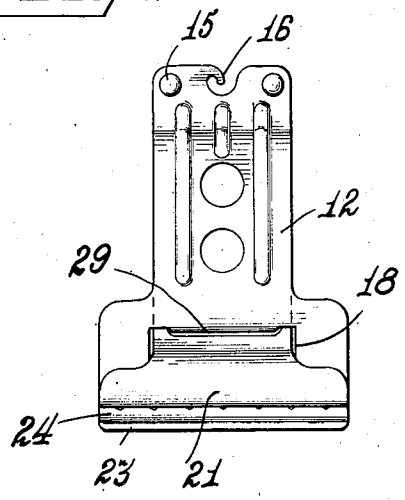


Fig. 2.

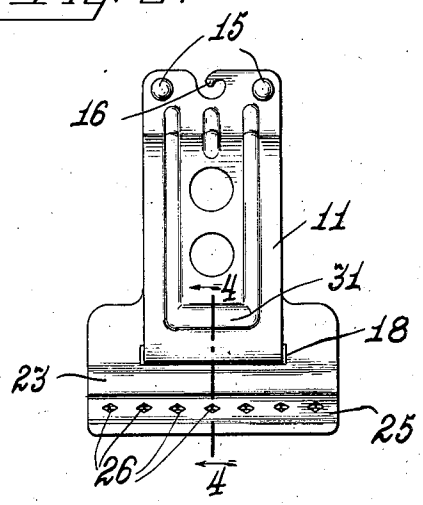


Fig. 4.

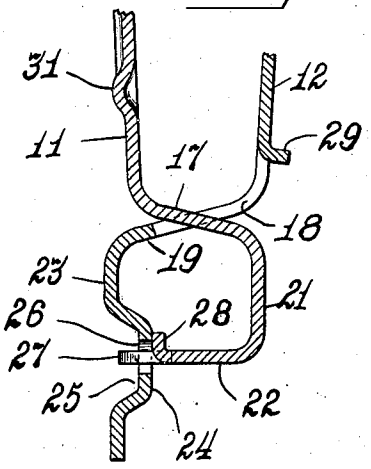


Fig. 3.

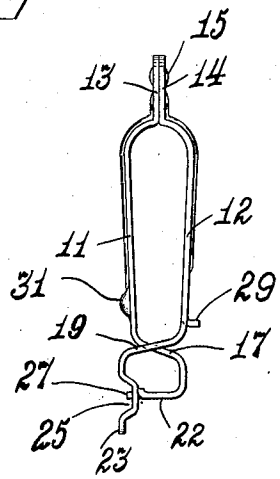
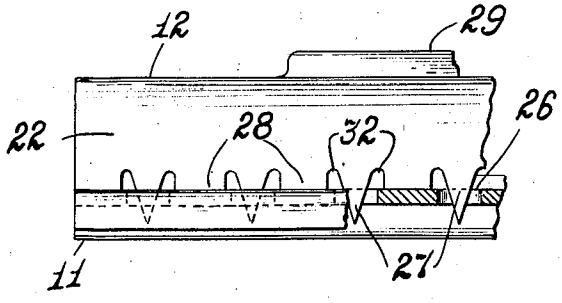


Fig. 5.



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FILM CLIP

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2 Claims. (Cl. 24—259)

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The invention relates to clips and more particularly to clips for holding photographic films and suspending them from a supporting line or wire while drying.

Heretofore, such clips have had a plurality of teeth or barbs on one of its jaws arranged to pierce the film when the latter is placed between said jaws and pass through tubular bosses provided on the other of its jaws. An objection to the use of such clips has been the tendency of the barbs to tear through the film while drying since the entire weight of the film is carried by the barbs. It is therefore an object of the present invention to provide means on one of the jaws of a clip to clamp the film firmly in the areas between the piercing barbs so as to prevent the film from tearing out.

Another object of the invention is to provide a film clip, of the character disclosed, with novel means to prevent the piercing barbs on one jaw from projecting into and beyond the plane of the outside surface of the complemental jaw when the clip is closed so as to thereby avoid the possibility of causing injury to the user.

Another object is to provide a film clip embodying the features of the invention, with novel means to prevent the accumulation of water within the clip while a film is suspended thereby for drying.

Another object is to provide a film clip which is not expensive to manufacture, is easy to manipulate and highly efficient in use.

Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawing which by way of illustration shows a preferred embodiment and the principle thereof and which is considered to be the best mode contemplated for applying that principle.

Other embodiments of the invention embodying the same or equivalent principle may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

In the drawing:

Fig. 1 is a view of one side of the clip embodying features of the present invention.

Fig. 2 is a view similar to Fig. 1 showing the other side of the clip.

Fig. 3 is an edge elevational view of the clip.

Fig. 4 is an enlarged sectional detail view taken on line 4—4 of Fig. 2.

Fig. 5 is an enlarged fragmentary elevational view, partly in section, of the end of the clip.

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Referring particularly to the drawing, the clip consists of two related jaw members 11 and 12, each of which is fashioned from substantially stiff resilient sheet material. The two jaw members 11 and 12 are each suitably formed at an end to dispose complemental end portions 13 and 14 in face to face abutment and rivets 15 or other suitable means is provided to firmly secure the two portions 13 and 14 together. The abutted and joined ends 13 and 14 of the clip may be provided on their common end edges with a hook-like portion 16 to thereby afford means whereby the clip may be easily and quickly mounted upon a line for suspension in the usual manner while drying a film. The free ends of the complemental jaw members 11 and 12 are suitably shaped to firmly grip a film or other sheet of material to be associated therewith.

As best illustrated in Fig. 4, the lower or free end portions of the jaw members 11 and 12 are inclined inwardly downwardly towards each other, and they are so shaped as to enable one portion 17 to extend through an opening 18 in the other inwardly turned portion 19. The inwardly turned portion 17 terminates in a portion 21, turned downwardly at substantially right angles thereto, which has its marginal edge portion 22 bent inwardly substantially at right angles to the portion 21 to thereby provide a jaw element disposed in a plane at right angles to the jaw members 11 and 12. The other inwardly inclined portion 19 has its free marginal edge portion 23 turned downwardly to lie substantially in the plane of the portion 21 on the other jaw member 11. The portion 23 is suitably formed with a rib 24, parallel with its edge and coextensive with its width, which rib defines a channel 25 on the outwardly disposed face of the portion 23.

A plurality of spaced apertures 26 are provided in the bottom wall of the channel 25. These apertures may be of any suitable shape, but preferably are formed substantially diamond shaped as shown. The free edge of the portion 22 on the jaw member 11 is provided with a plurality of barbs or teeth 27 spaced apart distances corresponding to the spacing of the apertures 26, so that when the clip is in its closed position, said barbs will enter the correspoding apertures 26. When a film or other piece of sheet material be located between the complemental jaw members 11 and 12, said sheet material or film will be pierced by the barbs and held suspended from the clip thereby. It has been found, however, in certain instance of use, that the film or other

sheet material tends to tear and pull out of the clip.

Such tearing and pulling out of the film is avoided when using the clip of the present invention by the provision of suitable means in the region of the barbs 27 to firmly clamp the film against the rib 24. To this end, inwardly turned lips 28 are formed on the free edge of the portion 22, one between each pair of the barbs 27. When the clip is in clamping position, over a film, the film is firmly clamped between the lips 28 and the rib 24. The lips 28 also function to restrict entry of the barbs 27 into the channel 25, so that in all clamping positions the pointed ends of the barbs 27 are retained below the plane of the open face of the channel 25. Thus the pointed ends of the barbs are at no time exposed to such degree as to be likely to cause injury to the user.

The clip also embodies means to prevent the fingers of the user from slipping off of the jaw members 11 and 12 while the clip is being held in open position. As best shown in Figures 1 and 4, a marginal portion of the jaw member 12, on one edge of its opening 18, is bent outwardly to provide a lip 29 against which the finger of the user may bear when pressure is exerted to open said jaw members. The other jaw member 11 may be provided with a like protuberance to likewise prevent slippage of the finger thereon. In the present instance, this protuberance is in the form of a rib 31 located closely adjacent to the inwardly bent portion.

It has been found that clips of this character tend to accumulate water between the jaws when the clip is suspended in the usual manner while drying a film. Such an accumulation of water is objectionable because when the clip is opened after the film is dried the accumulated water runs down upon the dried film and frequently results in spoilage. Accordingly, the clip is provided with means to prevent such accumulation of water. Such means may be in the form of openings 32, formed between adjacent barbs 27 and clamping lips 28. The presence of these openings 32 allows the water to drain from the clip during the drying of the film.

Although a preferred embodiment of the invention has been disclosed in the accompanying drawings and described in detail in the foregoing description, it should be understood that the invention is capable of embodying a variety of modifications in detailed structure without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A clip comprising cooperating jaws, a continuous rib on one of said jaws substantially rectangular in section having apertures in its top wall, spaced barbs on the other jaw adapted to pierce material carried between said jaws and pass through said apertures, and lips formed on the jaw having the barbs and extending substantially at right angles thereto one between each pair of barbs to clamp the material against said rib.

2. A clip comprising cooperating jaws, a rib on one face of one of the jaws providing a channel on its opposite face, said rib having a wall spaced from and substantially parallel to its jaw and spaced substantially diamond shaped apertures in said wall, and spaced barbs on the other jaw adapted to enter said apertures and have their ends wholly disposed within said channel, and means on the jaw having the barbs spaced between said barbs to clamp the material against said wall portion, said means consisting of additional projections having flat surfaces adapted to contact said wall, said jaw having the projections and barbs having open areas between adjacent projections and barbs to permit drainage from between the jaws.

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