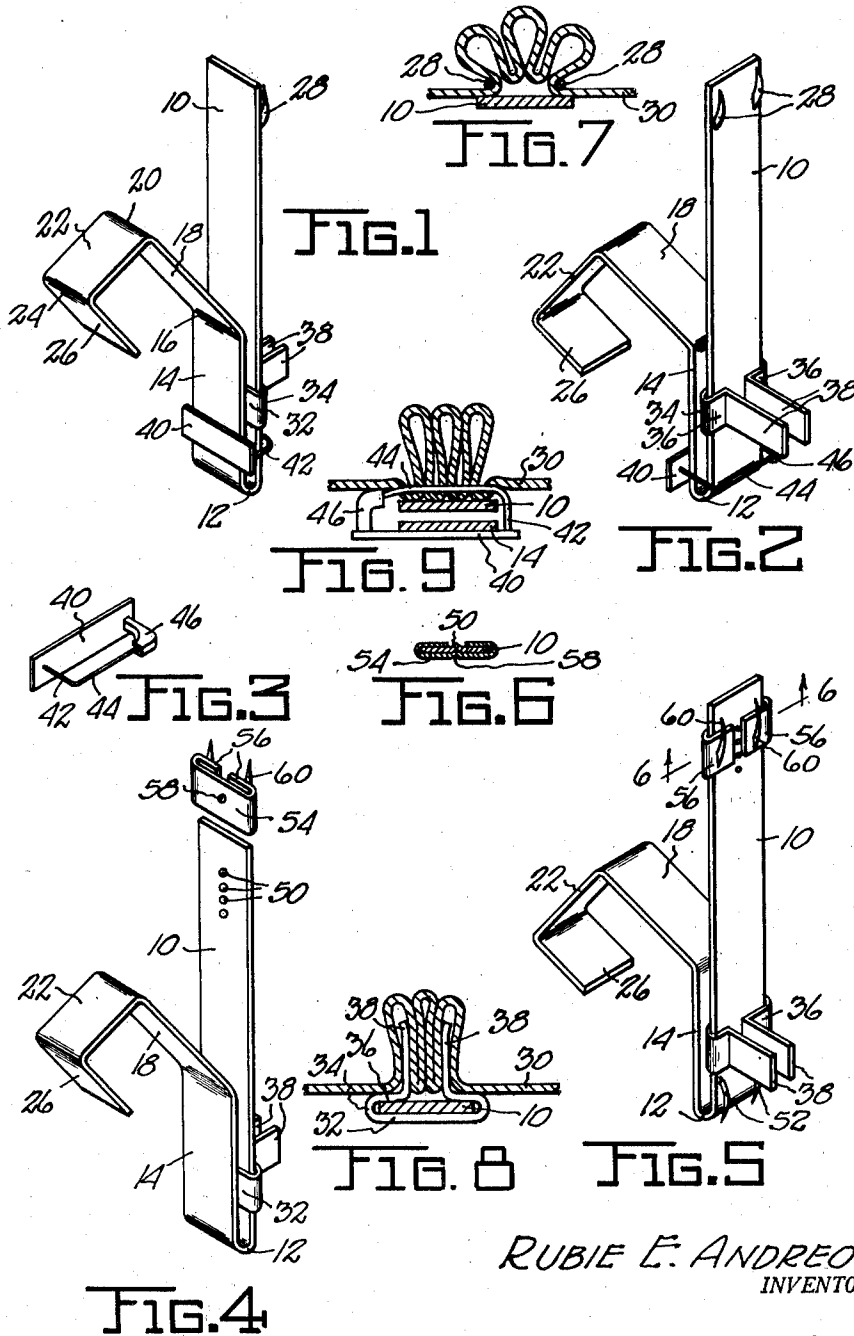


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PLEATER HOOK FOR DRAPES

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## PLEATER HOOK FOR DRAPES

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This invention relates to pleater hooks for drapes and particularly to a hook adapted to be mounted upon a traverse rod for movement therealong and cooperating with like hooks to support pull type drapes for adjustment between a closed position completely spanning a window or other opening and an open or partly open position relative to said window or opening.

The use of pull type drapes mounted upon traverse rods has become quite extensive. The common practice in the manufacture of such drapes is to use a number of pleater hooks on each drape, which hooks are attached to the drape at each pleated portion thereof by sewing or stitching. The drapes are usually lined, are of large size, and therefore are quite heavy. The full weight of the drape is usually sustained by the rod and is transmitted to the rod by the hooks. This necessitates a firm support and connection between the drape and the hooks. Furthermore, a proper decorative appearance can be secured only when the upper marginal portion of the drape is held substantially vertical so that drooping or sagging of the upper or header portion of the drape is avoided. This usually is accomplished by providing a hook with an elongated drape-engaging portion to which the drape is connected at vertically spaced points by stitching as above mentioned.

Drapes mounted upon such hooks provide an attractive appearance and are securely supported; however, the stitching or sewing required consumes a large amount of time and must be done by hand, which makes such drapes quite expensive; also the sewing or stitching interferes with the cleaning of the drape. Thus if pleater hooks are not removed preparatory to cleaning the drapes, the drapes cannot be cleaned efficiently, effectively or uniformly. Proper cleaning of the drapes has required that they be extended to flat form, thus necessitating removal of hooks and ripping of the stitching which holds the pleats in shape and connects the hooks to the drape. The removal of the sewn connection of the hooks and of the pleat-forming stitches before cleaning and the resewing thereof after cleaning is laborious, time consuming and inconvenient.

Therefore, it is the primary object of this invention to provide a hook which will overcome these objections and eliminate the necessity for sewn connection of the hook with the drape.

A further object is to provide a hook which is readily attachable to and removable from a

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drape, which does not require sewn or stitched connection to the drape, and which serves to hold the drape in desired pleated shape and also serves to hold the header margin of the drape in erect, taut or stretched position.

A further object is to provide a pleater hook with means which pierce or penetrate the drape to effect a supporting and positioning connection therewith and which afford ready detachment of the hook from the drape and reapplication of the hook to the drape without damaging the drape.

Other objects will be apparent from the following specification.

In the drawing:

Fig. 1 is a rear perspective view illustrating the preferred embodiment of my invention.

Fig. 2 is a front perspective view of the hook.

Fig. 3 is a perspective view of a pin element forming a part of the embodiment illustrated in Figs. 1 and 2.

Fig. 4 is a rear perspective view of another embodiment of my invention.

Fig. 5 is a front perspective view of the embodiment illustrated in Fig. 4.

Fig. 6 is a transverse sectional view taken on line 6-6 of Fig. 5.

Fig. 7 is a transverse sectional view of a drape taken at the part thereof engaged by the upper prongs of the hooks.

Fig. 8 is a transverse sectional view of the drape at the part thereof engaged by the clamp.

Fig. 9 is a transverse sectional view illustrating the arrangement of the parts with respect to the drape at the part thereof engaged by the pin illustrated in Fig. 3.

Referring to the drawing which illustrates the preferred embodiments of the invention, and particularly to Figs. 1 to 3 which illustrate one embodiment, the numeral 10 designates an elongated flat plate-like portion of the hook which is formed from rigid metal strap material or from any other material found suitable, such as plastic material having the requisite strength. The portion 10 forms one end portion only of said strap which is return bent at 12, preferably with the bend of small radius as shown and with which merges an upwardly return bent portion 14 spaced rearwardly from the portion 10 and extending for only a portion of the height thereof. The strap is bent at 16 to provide a rearwardly upwardly inclined portion 18 and is again bent at 20 to provide a rearwardly downwardly inclined portion 22, and is again bent at 24 to pro-

vide a forwardly downwardly inclined terminal portion 26 whose terminal edge preferably terminates at substantially the same level as or opposite to and spaced from the bend 16. The hook portions 18, 22 and 26 conform with the shape of standard hooks now conventionally used and are constructed and adapted to engage and be connected with slide members (not shown) which are mounted upon a horizontal supporting rod or bar (not shown), said slide members being connected with cords or other means extending along the rod or bar which may be pulled to cause the slides to traverse the rod or bar.

Two or more prongs 28 are fixedly secured to the plate portion 10 adjacent its upper free end and project from the front surface thereof. These prongs 28 are connected to the plate in spaced relation below its upper edge and the prongs extend upwardly in a generally vertical direction and substantially parallel to the plate and terminate in sharp tips offset slightly from the front face of the plate portion 10 and terminating at a level substantially coinciding with the level of the upper edge of the plate portion 10. The prongs are arranged in laterally spaced relation, and the spacing of the tip portion thereof from the plate 10 is preferably equal to or slightly greater than the thickness of the drape at the header portion 30 thereof.

A clamp member is mounted upon the hook part 10 to slide lengthwise thereof. This clamp member is preferably formed from a metal bar whose central portion 32 has a sliding face engagement with the rear face of the member 10. From the opposite ends of this central portion 32 the bar is return bent at 34 to provide short flat plate portions 36 which bear against or lie substantially parallel to the front face of the member 10. The inner ends of the members 36 terminate in spaced relation to each other, and the terminal portions or jaws 38 of the clamp project horizontally forwardly in substantially parallel relation and lie in substantially vertical planes. The spacing of the clamp jaws 38 is preferably slightly less than the thickness of a predetermined number of folds or thicknesses of the drape header, as will be explained more fully hereinafter.

For use in conjunction with the hook and forming a part of the hook unit or assembly in usage is provided a pin, for example, a pin of the character illustrated in Fig. 3. This pin preferably comprises a base in the nature of a flat plate 40 to which is fixedly secured at one end an elongated resilient pin portion 42 having a run 44 substantially parallel to and spaced from the plate 40 and pointed at its free end. A socket 46 is carried by the plate 40 at the end thereof opposite that to which the pin portion 42 is secured, and this socket is adapted to releasably secure or retain the free pointed end of the portion 44 of the pin. The device in effect thus constitutes a unit somewhat similar to a conventional safety pin which can be locked by engagement of the free end of the pin portion 44 within the socket 46 and which can be released by flexing the pin portion 44 to disengage the socket 46.

In the use of the pleater hook the header portion 30 of the drape is folded to the desired pleated form, for example as illustrated in Figs. 7, 8 and 9, wherein three pleats are shown. After these pleats have been formed, the pin 40, 46 is first secured to the drape at the lower end of the header portion thereof as shown in Fig. 9, spaced below the top edge of the drape, the pin 40 being

passed through the drape from the rear and through the various folds of the pleats adjacent the plane of the drape and in such manner that only small portions of the pin, if any portions at all, are visible when the drape is viewed from the front. The pin thus serves as a releasable means for holding together the folds of the pleat adjacent the plane of the drape in an inconspicuous manner, permitting the forwardly projecting portions of the pleats to assume a natural pleated shape. Thereupon the lower portion of the hook member, i. e., parts 10 and 14, is inserted and slid into position between the backing plate 40 and the drape material impaled by the pin 44 to a position with the top edge of the portion 10 of the hook spaced below the top edge of the drape a distance slightly greater than the spacing between the top edge of the portion 10 and the lower terminal portions of the pins 28 at which said pins are secured to said plate. The clamp 32, 38 is then slid along the part 10 of the hook to a position with its bottom edge adjacent to or substantially bearing upon the pin 44, and the jaws 38 of the clamp are then engaged with the pleated portion of the drape. In instances where three pleats have been folded, as illustrated in Fig. 8, the jaws 38 will enter the outermost folds from the rear thereof to clamp between them both thicknesses of the center fold or pleat and the inner thickness of the two outer pleats. This serves to pinch the pleats together in a manner to hold them substantially in parallel planes projecting perpendicular to the plane of the drape and of the hook portion 10. It will thus be seen that the pin 40, 46 holds the inner parts of the pleats together, preferably at the lower part of the header portion of the drape, while the adjacent clamp jaws 38 shape the pleats and cause them to be pinched together spaced below their top edges. Thereupon the points of the prongs 28 are caused to impale the drape material adjacent its upper edge at points spaced laterally outwardly from the pleats and lying close to the inner parts of the pleats, and the hook unit as a whole, including plate portion 10, is then moved upwardly relative to the pin 40—46 and to the clamp 32—38 to effect a firm connection of the hook with the upper edge portion of the drape. It will be observed that the prongs are exposed at the front surface of the drape extending parallel to the pleats thereof and serve as the primary means for supporting the weight of the drape. Inasmuch as the prongs are of short length and extend parallel to the pleats alongside the folds thereof, the pleats are held at their inner portions in substantially the plane of the drape, but at their forward projecting portions the pleats are free to assume a natural draped shape, unpinched, and therefore free to flare somewhat in a lateral direction in such a manner that the small portions of the prongs which are exposed are substantially concealed by the laterally flaring portions of the drape pleats.

The three point connection of this hook unit with the drape serves the combined functions of fully and effectively supporting the weight of the drape and of permitting the pleats thereof to assume attractive and desirable shapes. At points spaced below their upper edges the pleats are held together against lateral displacement and are pinched together as effectively as if a line of stitching was employed extending transversely of the pleats from their base to a point adjacent their outer edge or crown. Above and below this pinched point the pleats are permitted to taper

or flare laterally. Therefore the pleats at the header portion of the drape assume a graceful and attractive shape. The lower portion of the drape is free to fall in graceful natural folds from each pleat. The header portion of the drape is thus held erect and in a stretched or tensioned condition because of the fact that the weight of the drape is taken by the prongs 28. A friction fit exists between the parts 10-14 of the hooks and the pin structure 40-46 which fits around the hook. Furthermore, it will be evident that if the clamp portion 32-38 is positioned to bear against the pin portion 44, the clamp engagement of the jaws 38 with the cloth of the drape will hold the drape header against creeping upwardly upon the hook. In other words, the clamping action of the jaw 38 gripping the cloth will be sufficient to constitute such clamp a stop which, when engaged by the pin 40-46, will limit any tendency of the portion of the drape between the prongs 28 and the pin 40-46 to wrinkle or creep upwardly. This prevents a loose sagging appearance of the drape header portion.

It will be understood that the hook will be supported by the conventional slides mounted upon a traverse rod or bar in the conventional manner to transmit to said bar the weight of the portions of the drape engaged thereby. The engagement of the hooks and the drape is not fixed, as will be evident, and may readily be released. Thus when it is desired to remove the hooks from the drape for the purpose of cleaning or repairing the drape, it is merely necessary to disconnect the hooks from the slides upon the traverse rod and then manipulate the hooks with reference to the drape to free the prongs 28 from the drape to pull the drape from engagement with the clamp jaws 28 and to release the pin 40-46. Thereupon the drape material may be laid flat for cleaning and pressing purposes. Reassembly of the parts can then be effected in the same manner of original assembly mentioned above.

While the use of the pin unit 40-46 is preferred, in order to insure the stretched or tensioned portion of the header portion of the drape in the vertical direction and to insure that the inner portions of the pleats are held together below the clamp, there may be instances in which the weight of the drape suspended from the upper prongs 28 is sufficient to insure a tensioned or taut header and wherein the pinched or indrawn arrangement of all of the pleats adjacent and below the clamp is not desired. In such cases it will be understood that the use of the pin 40-46 may be dispensed with and entire reliance placed upon the prongs 28 and the clamp 32-38 for the purpose of both supporting and positioning or controlling the folds of the pleats. This would be particularly true in cases where it is desired to have the pleats assume a rearwardly projecting position with respect to the general plane of the drape between the adjacent sets of pleats as distinguished from the form as illustrated in these figures which will cause the pleats to project forwardly from the general plane of the drape as will be apparent.

Another embodiment of the invention is illustrated in Figs. 4, 5 and 6 wherein the hook construction is substantially the same as that described above and similar parts bear the same reference numerals. The essential difference in this form of the hook resides in the fact that the prongs 28 of the preceding embodiment are omitted. In this form, however, an aligned series of longitudinally spaced offsets, apertures or in-

dentations 50 is formed in the upper end portion of the hook part 10 as illustrated. Adjacent the lower end of the hook portion 10 are fixedly secured two or more impaling members 52 which project forwardly and downwardly with their pointed end portions spaced from the adjacent face of the part 10 and preferably terminating at or adjacent the level of the bend 12. A bracket, preferably comprising a rigid plate bent to the shape illustrated, is slidable longitudinally upon the part 10. This bracket has a back plate 54 and a pair of forwardly return bent face portions 56 which are preferably spaced apart at their inner edges so as to pass clear of the indentations 50 of the member 10 as the bracket is slid longitudinally upon the part 10. An indentation or projection 58 is formed in the plate portion 54 in a position to register with and seat in any selected one of the longitudinally aligned indentations 50, thereby permitting accurate positioning of this bracket lengthwise of the part 10. Each of the front plates 56 of the bracket fixedly mounts a pin or impaling member 60 which is fixedly anchored thereto at one end and projects upwardly therefrom with its pointed end portion spaced forwardly from the flat plates 56.

This embodiment of the invention also includes the clamp 32-38 similar to that utilized in the Fig. 1 embodiment. In the mounting or application of this embodiment of the invention to or upon a drape, the prongs 52 are first caused to pierce the drape material adjacent and alongside the outermost folds or pleats thereof at a level spaced below the upper margin thereof. Thereupon the bracket 54-60 is slid along the member 10 to a position slightly below the upper margin of the drape at which it is desired that the upper part of the drape shall be supported and the prongs 60 are caused to pierce the drape adjacent and alongside the outermost folds or pleats thereof. Thereupon the bracket as a whole is urged upwardly until the same reaches a position at which the drape material bears against the base of the pin and the header portion of the drape is stretched vertically. At this position the upward movement of the bracket is stopped at a point where the projection 58 seats within one of the indentations 50 and thereby serves to lock the bracket against downward movement. The clamp 32-38 is applied to the drape to pinch the folds thereof together, as shown in Fig. 8, slightly above the portion of the drape engaged by the impaling pins 52. Clamp 32-38 may be applied to its desired clamping or pinching position prior to the manipulation of the bracket 54-60 to impale the upper margin of the drape.

In this device it will be apparent that the same advantages are achieved as in the preferred embodiment. The adjustability of the bracket 54-60 in this case, however, permits the positive application of stretching tension to the header portion of the drape to assure that said header portion will be stretched effectively to maintain a trim and erect position. The impaling members 52 and 60 of this form lie alongside the inner portions of the outermost pleats or folds, and said pleats are free to expand laterally to conceal said impaling members. The clamping members 32-38, being applied from the rear, are completely concealed. This embodiment of the invention also possesses the same advantage of ready disconnection of the hooks from the drape for cleaning or repairing of the drape which characterizes the other embodiment of the inven-

tion, and the same ready reattachment of the hooks to the drape.

While the preferred embodiments of the invention have been illustrated and described herein, it will be understood that changes may be made in the construction thereof within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. A pleater hook adapted to suspend a drape at a header portion thereof having multiple vertical pleats, comprising a rigid member having a support-engaging hook portion and an elongated upright portion, the hook portion of said rigid member including a substantially upright portion projecting upwardly from the lower end of said first named upright portion in adjacent rearwardly spaced relation thereto, a clamp carried by said upright portion and including a pair of jaws adapted to be inserted in said pleats at the rear of the drape to grip the same and hold said pleats in face engagement, and impaling means carried by said upright portion spaced above said clamp and adapted to pierce and support the upper marginal portion of said drape adjacent and alongside said pleats, said impaling means including a base portion, a resiliently elongated pin portion carried by one end of said base portion, and a pin-retaining socket carried by the other end of said base portion, said pin being adapted to pierce the inner portions of the pleats of a drape and to hold the same gathered together when said pin portion is seated in said socket, said upright portions of said rigid member being insertable between the base and pin portions of said impaling means.

2. A pleater hook adapted to suspend a drape at a header portion thereof having multiple vertical pleats, comprising a rigid member having a support-engaging hook portion terminating in a substantially vertical shank from which an upwardly extending substantially vertical return bent upright portion projects, a clasp adapted to detachably secure together the inner parts of said drape pleats at a level spaced below the upper edge of said drape, said clasp having a pair of spaced parts and adapted to embrace said shank and upwardly projecting portions of said rigid member, impaling prongs carried by the upper end portion of said upright portion and adapted to pierce and support said drape at the upper margin thereof alongside said pleats and a clamp carried by said upright portion and including a pair of jaws adapted to grip portions of said pleats at the rear thereof, said clamp forming a stop above said clasp and engaged thereby to limit upward creeping and wrinkling of the portion of said drape between said clasp and prongs.

3. A pleater hook adapted to suspend a drape at a header portion thereof having multiple vertical pleats, comprising a rigid member having a support-engaging hook portion terminating in a substantially vertical shank from which an upwardly extending substantially vertical return bent upright portion projects, prongs carried by and projecting upwardly from the upper end portion of said upright portion adapted to supportingly impale the upper margin of a drape alongside said pleats, a clamp carried by said upright portion and including jaws adapted to be inserted into said pleats from the rear thereof to clamp the same together, and impaling means below said clamp adapted to transversely pierce and draw together the inner portions of said pleats, said impaling means including a pair of spaced parts receiving therebetween the shank portion and upright portion of said rigid member.

4. A pleater hook adapted to suspend a drape at a header portion thereof having multiple vertical pleats, comprising a rigid member having a support-engaging hook portion and an elongated upright portion rearwardly upwardly return bent from the lower end of said hook portion, a clamp carried by said upright portion and including a pair of jaws adapted to be inserted in said pleats at the rear of said drape to grip the same and hold said pleats in face engagement, impaling means carried by said upright portion spaced above said clamp and adapted to pierce and support the upper marginal portion of said drape adjacent and alongside said pleats, and a safety pin including spaced portions and a locking socket, said safety pin being adapted to gather the inner portions of the pleats of a drape and to receive the upright and return bent portions of said rigid member between its spaced portions.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
1,414,601	Taylor	May 2, 1922
1,478,820	Duyer	Dec. 25, 1923
1,868,944	Jones	July 26, 1932
2,113,953	Steinberger	Apr. 12, 1938
2,245,510	Turley	June 10, 1941

#### FOREIGN PATENTS

Number	Country	Date
2,467	Great Britain	1890