April 9, 1935. J. S. SANTIAGO 1,997,434

SECTIONAL SHADE AWNING

Filed June 29, 1934 3 Sheets-Sheet 1

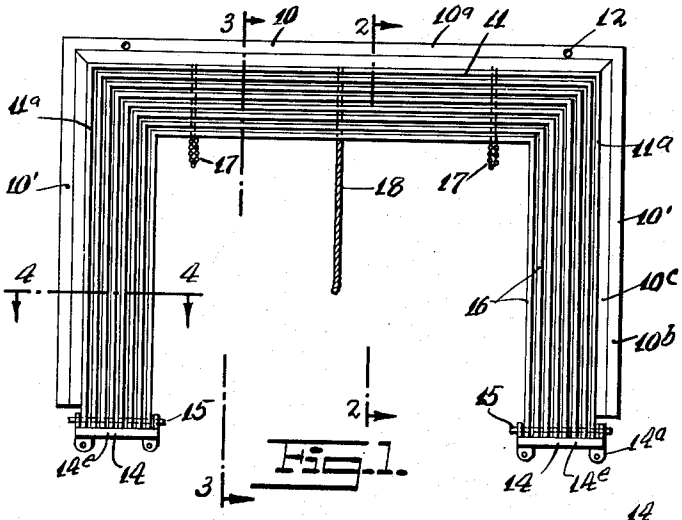


Fig. 1.

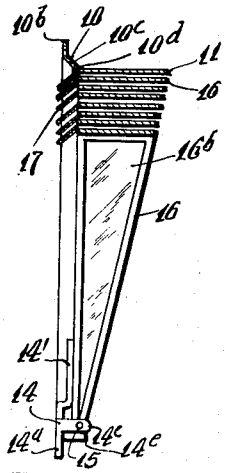


Fig. 2.

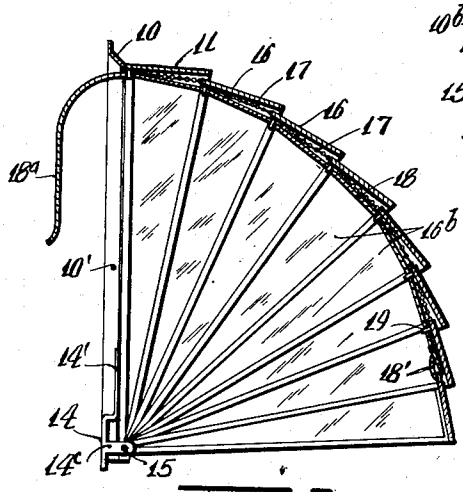


Fig. 3.

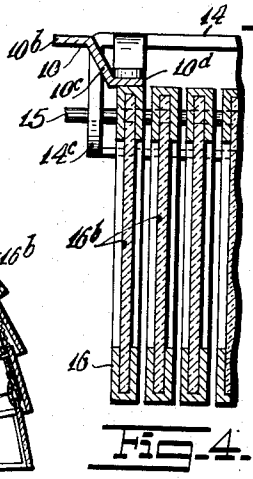


Fig. 4.

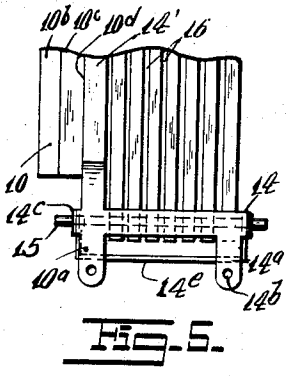


Fig. 5.

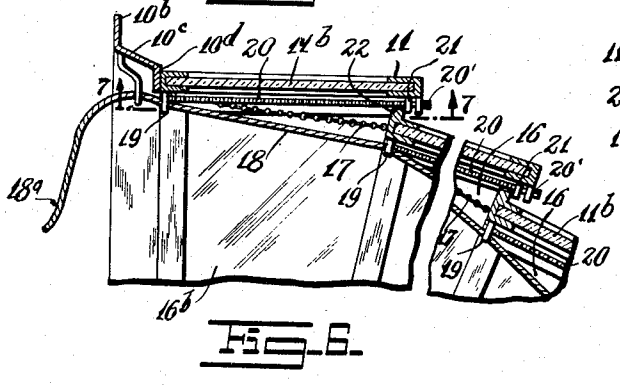


Fig. 6.

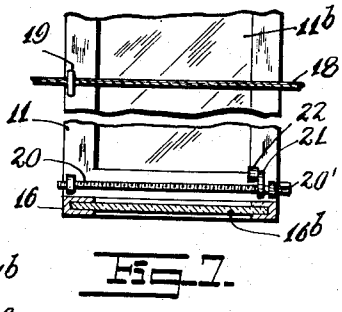


Fig. 7.

INVENTOR
JUAN SIERRA SANTIAGO
BY Gilbert H. Hobdey
ATTORNEY

April 9, 1935. J. S. SANTIAGO 1,997,434

SECTIONAL SHADE AWNING

Filed June 29, 1934 3 Sheets-Sheet 2

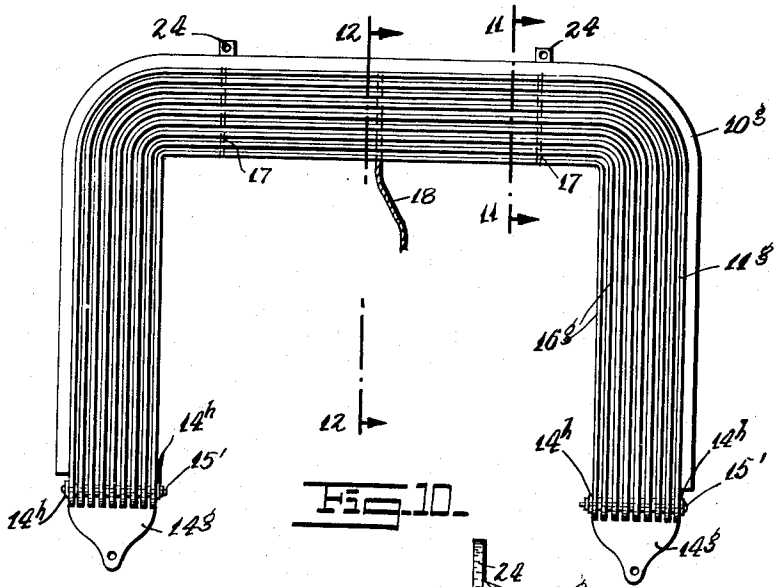


Fig. 10.

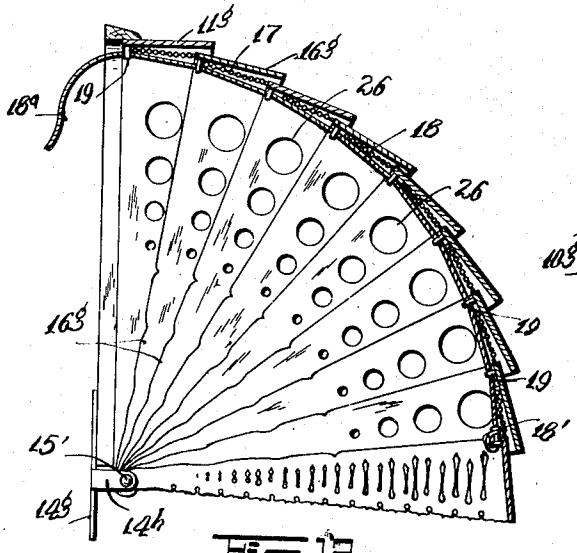


Fig. 12.

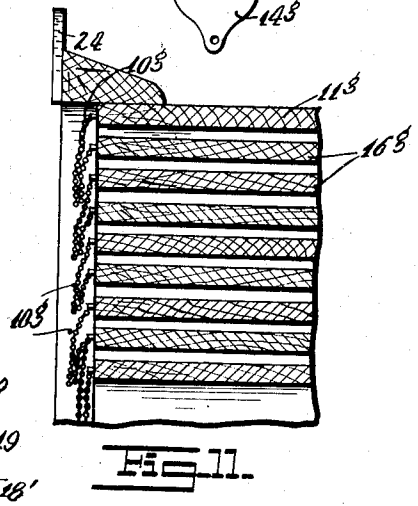


Fig. 11.

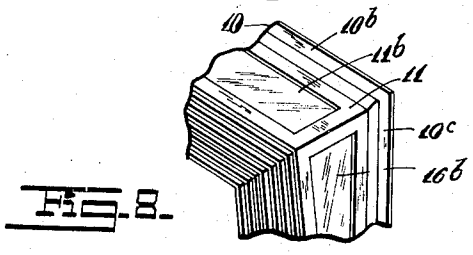


Fig. 8.

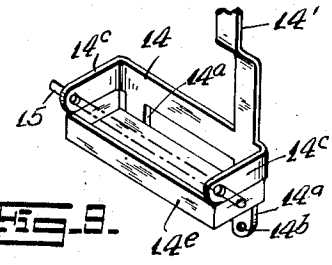


Fig. 8.

INVENTOR
JUAN SIERRA SANTIAGO
BY Zoltan A. Polachek
ATTORNEY

April 9, 1935. J. S. SANTIAGO 1,997,434

SECTIONAL SHADE AWNING

Filed June 29, 1934 3 Sheets-Sheet 3

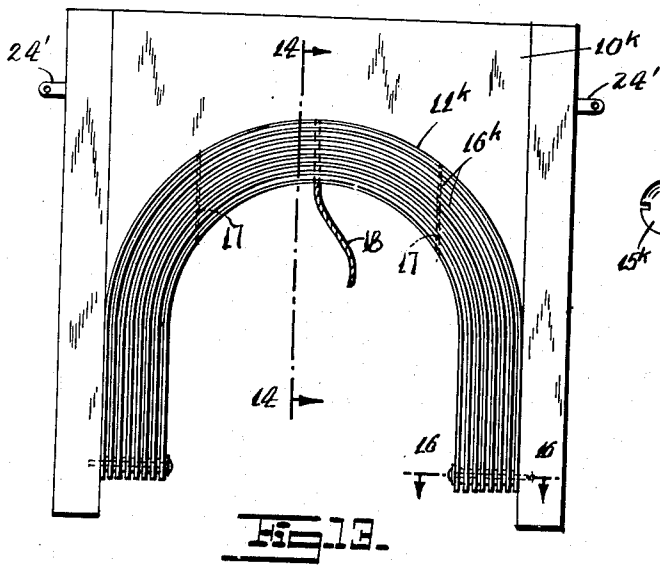


Fig. 13.

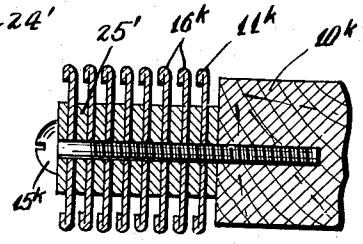


Fig. 16.

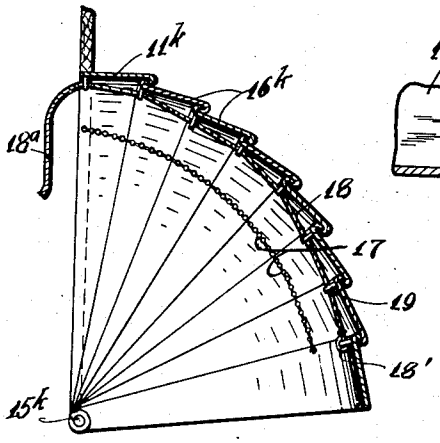


Fig. 14.

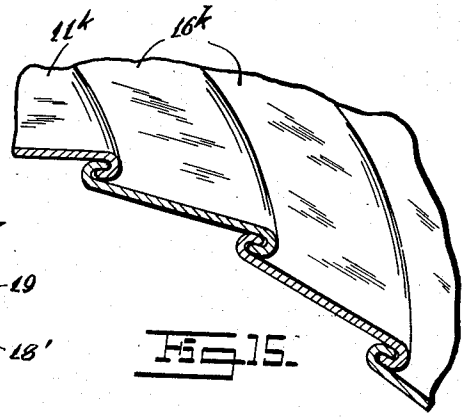


Fig. 15.

INVENTOR
JUAN SIERRA SANTIAGO
BY Gottlieb Holachek
ATTORNEY

Patented Apr. 9, 1935

1,997,434

UNITED STATES PATENT OFFICE

1,997,434

SECTIONAL SHADE AWNING

Juan Sierra Santiago, San Turce, Puerto Rico

Application June 29, 1934, Serial No. 732,973

7 Claims. (Cl. 156—43)

This invention relates to new and useful improvements in a sectional shade adapted to be used as an awning.

The invention has for an object the construction of a sectional shade which is characterized by a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and the sides of a window, and associated with a pair of brackets attached on the bottom ends of said base member and extending inwards and pivotally supporting a plurality of shade sections set one within the other and set within a stationary shade section extending along the shape of said base member and fixedly attached thereon.

Still further the invention proposes a particular construction of each of the same shade sections, relating particularly to shape.

Still further the invention proposes an arrangement wherein means is provided for limiting the extension of the sections one relative to the other in a manner so as to limit moving of the sections to positions in which the shade is in operative position.

Still further the invention also proposes the arrangement whereby the sections may be drawn inwards when desired to move the shade into an inoperative position.

Another one of the objects of this invention is the arrangement of stops adjustably mounted on the sections and engageable with stops on adjacent sections in such a manner that the relative opening of each section relative to an adjacent section may be adjusted and controlled for the purpose of limiting or controlling the opening of the shade.

Still further the invention proposes an arrangement wherein the base member and the sectional shade members may be constructed of various shapes depending upon the shapes of windows to which the device is to be attached.

Still further the invention also proposes the construction of a device as mentioned which is simple and durable and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing, forming a material part of this disclosure:—

Fig. 1 is a rear elevational view of a sectional shade constructed according to this invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1 but illustrating the shade in a fully opened position.

Fig. 4 is a fragmentary horizontal sectional view taken on the line 4—4 of Fig. 1.

Fig. 5 is a fragmentary enlarged detailed view of the lower left hand end of Fig. 1.

Fig. 6 is a fragmentary enlarged detailed view similar to a portion of Fig. 3 but illustrating details of the invention.

Fig. 7 is a fragmentary sectional view taken on the line 7—7 of Fig. 6.

Fig. 8 is a fragmentary perspective view of a portion of Fig. 1, but looking from the front.

Fig. 9 is a perspective view of the bracket used in this invention.

Fig. 10 is a view similar to Fig. 1 but illustrating the device constructed according to another embodiment of this invention.

Fig. 11 is a fragmentary sectional view taken on the line 11—11 of Fig. 10.

Fig. 12 is a sectional view as though taken on the line 12—12 of Fig. 10 but illustrating the device in an open position.

Fig. 13 is another view similar to Fig. 1 but illustrating a still fruther embodiment of the invention.

Fig. 14 is a fragmentary sectional view as though taken on the line 14—14 of Fig. 13 but illustrating the device in an open position.

Fig. 15 is a fragmentary enlarged detailed view of a portion of Fig. 14 but showing a perspective.

Fig. 16 is a fragmentary sectional view taken on the line 16—16 of Fig. 13.

The sectional shade according to this invention comprises a base member 10 for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window to which the sectional shade is applied. The U-shape is identified by arms 10′ connected with an intermediate portion 10^a. The base member, in transverse section, comprises an outer vertical wall 10^b joining with an intermediate outward inclined continuation 10^c joining with a right angle outward continuation 10^d. A stationary shade section 11 extends along the shape of the base member 10 and is fixedly mounted thereon. More particularly the stationary shade section 11 is of corresponding shape as the base member and has its rear edge engaging against the inner side of the right angle continuation 10^d. The stationary frame section 11 is formed with a top portion 11′ extending along the por-

tion 10^a of the base member, and side portions 11^a extending along the sides 10' of the base member. The attachment between these parts may be accomplished by screws, rivets, solder or welding, or any other similar arrangement. The portion 10^b of the base member is formed with openings 12 for screws or other fastening means by which the device may be attached upon a wall. The shade section 11 is substantially of triangular shape in side view with the top constituting the base and the apex arranged at the bottom. This may be distinctly seen in Fig. 3.

A pair of brackets 14 are attached upon the bottom ends of the base member 10 and extend inwards towards each other. Each of the brackets 14 has an arm portion 14' which extends along the rear edge of the stationary shade section 11 and is attached thereon to accomplish the attachment of the bracket upon the shade section. The bracket 14 is formed with a pair of lugs 14^a having apertures 14^b by which the bracket may be attached upon the wall and in this manner supplement the attachment of the sectional shade upon the wall. The bracket 14 is also formed with a pair of outward directed lugs 14^c which supports a rod 15. This rod 15 constitutes a pintle rod and pivotally supports a plurality of shade sections 16 set one within the other and arranged within the stationary shade section. Each bracket 14 has a bottom closure 14^e. Each of the shade sections 16 is also of triangular shape with the large or base side at the top and the apex at the bottom. It is the apexes of these shade sections which are pivotally arranged upon the rods 15.

The shade sections 11 and 16 are in the form of frame members which support flat material 11^b and 16^b respectively. This flat material 11^b and 16^b preferably should be glass or other transparent or translucent material. The object is to so construct the shade that some light may pass through so that all of the light is not shut out of a room.

A means is provided for limiting extension of the shade sections one relative to the other and comprises a chain 17 extended transversely across the shade sections and attached upon the rear edges thereof. In Fig. 2 the position of the chain will be seen in the inoperative position in which the shade is closed. In Fig. 3 the shade is shown in the open position and it should be noticed that now the chains 17 are stretched tight and the chains support the shade sections relative to each other limiting them to the open position only.

A means is provided for moving the shade sections from the open to the closed position and comprises a cord or cable 18 which is attached at one end 18' to the outermost shade section (the section in the extreme position when the shade is open) and extends through loops 19 arranged upon the rear edges of the other sections in a manner so that the inner end 18^a of the cable may be drawn for drawing all of the sections into their open positions.

In addition to the chains 17 for limiting opening of the sections one relative to the other, there is provided a means which may be adjusted which will limit the opening of the sections one relative to the other to any desirable amount. This means comprises screws 20 extended transversely on the sections and rotatively mounted at their ends upon the sections and having extended ends 20' by which they may be turned.

A follower 21 is threadedly engaged upon each screw and arranged in such a manner that when the screw is rotated the follower moves. The adjacent shade sections are provided with stationary lugs 22 adapted to engage the followers 21 and in a manner so that the relative opening of the sections are controlled. With this arrangement any pair of sections, or any group of sections, or all of the sections may be limited in their opening to fully open, or partially open position as desired for artistic or practical use during the use of the shade.

In Figs. 10–12 inclusive another embodiment of the invention has been disclosed which is very similar to the preferred form except for the fact that it is provided with a base member 10^g substantially of inverted U-shape but having the corners rounded as distinguished from the previous form in which the corners are pointed. The base member is provided with lugs 24 by which it may be attached upon a wall.

A stationary shade section 11^g of triangular shape similar to that previously described is fixedly mounted upon the base member 10^g at its rear edge as clearly illustrated in Fig. 12. A plurality of shade sections 16^g are set one in the other and the entire group set within the stationary shade section 11^g and all of these shade sections are pivotally connected at their lower ends.

The pivotal connection comprises a bolt 15' which extends through the lower ends of the shade sections, and washers 25 are arranged upon the bolt between the shade sections so as to hold the shade sections properly spaced from each other. The bolt 15 is mounted upon a bracket 14^g which is adapted to be attached upon a wall.

It should be noticed that the bolt 15' also engages through the stationary shade section 11^g and in addition is mounted upon the bracket so that the parts are connected as a unit.

The shade sections 11^g and 16^g are shown constructed of wood and are formed with a plurality of apertures 26 for the passage of air and light. The lower ends of the shade sections are arranged between a pair of lugs 14^h extended at right angles from the base portion of the bracket 14^g. A chain 17 is connected between the rear edges of each of the shade sections for the purpose of limiting motion of these shade sections to their open positions. A cable 18 is attached at one of its ends 18' to the outermost shade section and extends through a plurality of loops 19 arranged upon the rear edges of the shade sections in a manner so that the shade may be opened and drawn closed as described relative to the previous form.

In Figs. 13–16 inclusive another embodiment of the invention has been disclosed wherein the sectional shade comprises a base member 10^k formed with lugs 24' by which it may be attached upon a wall. This base member 10^k is formed with an arched shape opening into which is set a stationary shade section 11^k. The stationary shade section is permanently attached upon the base member. A plurality of shade sections 16^k are set one within the other and the entire group set within the shade section 10^k. These shade sections are pivotally connected with each other by a screw 15^k. A plurality of washers 25' are arranged upon the screws 15^k and serve to hold the ends of the shade sections properly spaced from each other.

The shade sections are of substantially triangular form when viewed from the side, as clearly seen in Fig. 4, are limited to open positions by reason of having the front and rear edges bent

towards each other and adapted to grip with each other as clearly illustrated in Fig. 15. The arrangement allows the shade to be drawn into the closed position but limits the opening of the shade to the fully opened position and prevents disengagement of the shade sections from each other.

Supplementing the limiting action of the opposed edges of the shade sections, there is a chain 17 which is attached upon the rear edges of the shade sections. A cord or cable 18 is attached at one of its ends 18' upon the outermost shade section and extends through loops 19 upon the inner edges of the shade sections in such a manner that the cable may be drawn for the purpose of closing the shade when desired similar to the constructions previously described.

While I have shown and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, and means for moving said shade sections from an open position, said base member being shaped transversely with a vertical portion for intimate engagement with a vertical wall and having an inclined continuation terminating in a portion extending at right angles to the vertical portion.

2. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, and means for moving said shade sections from an open position, said base member being shaped transversely with a vertical portion for intimate engagement with a vertical wall and having an inclined continuation terminating in a portion extending at right angles to the vertical portion, and said stationary shade section being within said right angle extending portion and attached thereon.

3. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, and means for moving said shade sections from an open position, each of said brackets having a portion attached upon the rear edge of said stationary shade section and formed with lugs for attachment upon said wall and having opposed lugs supporting a rod engaged through the ends of said shade sections and constituting the pivotal supporting thereof.

4. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, and means for moving said shade sections from an open position, each of said shade sections being of substantially triangular shape when viewed from the side, and each of said shade sections being composed of frame sections supporting window material.

5. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, means for moving said shade sections from an open position, and stops adjustably mounted on said shade sections and engageable with stops on adjacent sections for limiting the relative extension of one section to the other.

6. A sectional shade as an awning, comprising a base member for attachment on a wall and of substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, means for moving said shade sections from an open position, and stops adjustably mounted on said shade sections and engageable with stops on adjacent sections for limiting the relative extension of one section to the other, said adjustable stops being threadedly mounted upon screws rotatively mounted on said sections.

7. A sectional shade as an awning, comprising a base member for attachment on a wall and of

substantially inverted U-shape to extend across the top and along the sides of a window, a stationary shade section extending along the shape of the base member and fixedly attached thereon, each bottom end of said stationary shade section being adapted to be attached to a bracket, said bracket extending inwards, a plurality of shade sections set one within the other and set within said stationary shade section and pivotally supported on said brackets, means for limiting extension of the shade sections one relative to the other, means for moving said shade sections from an open position, and stops adjustably mounted on said shade sections and engageable with cooperating stops on adjacent sections for limiting the relative extension of one section to the other, said adjustable stops being threadedly mounted upon screws rotatively mounted on said sections, and said cooperating stops on the adjacent sections being fixed stops.

JUAN SIERRA SANTIAGO.