

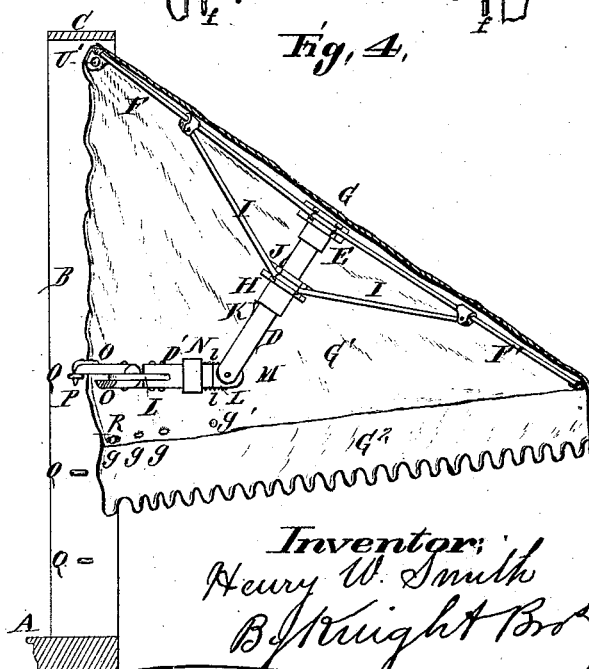
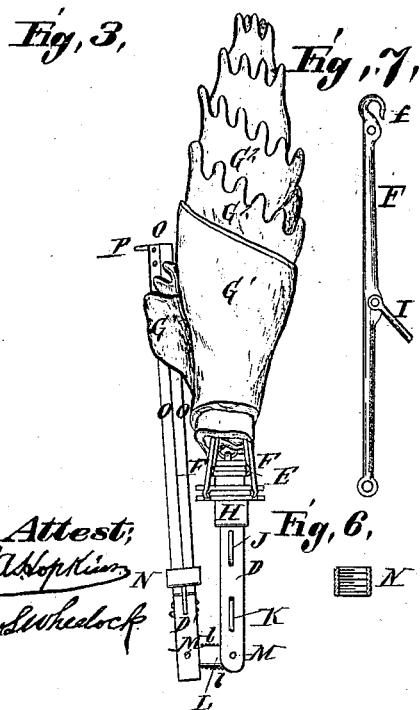
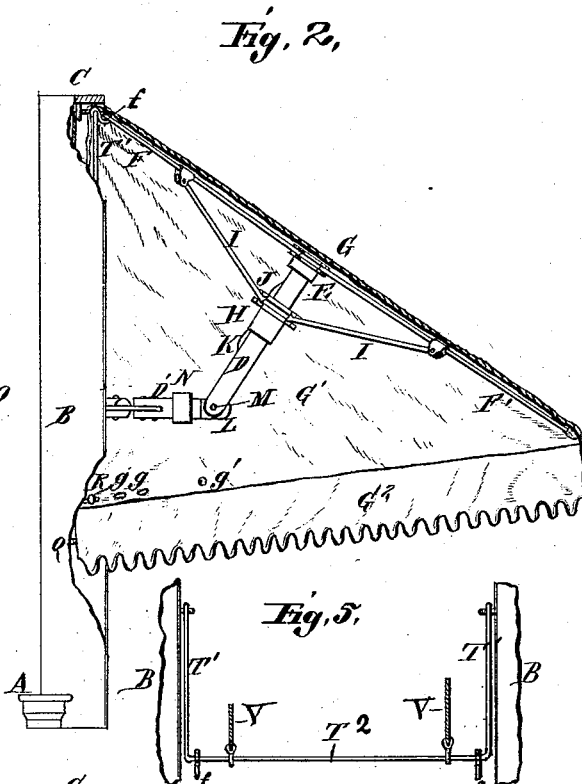
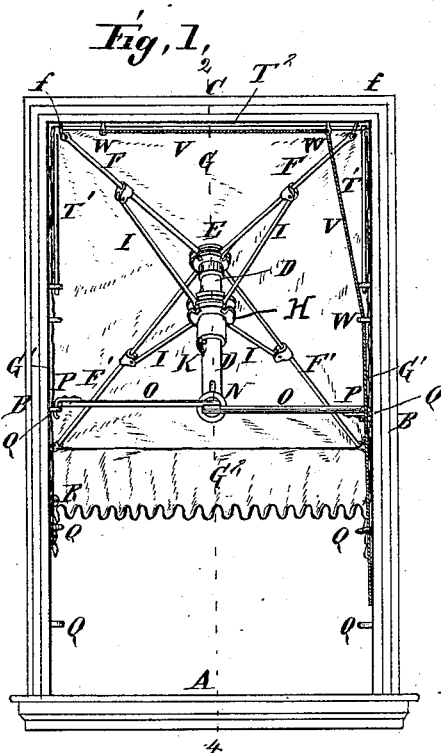
(No Model.)

H. W. SMITH.

REMOVABLE AND ADJUSTABLE AWNING.

No. 345,183.

Patented July 6, 1886.



Attest;

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UNITED STATES PATENT OFFICE.

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REMOVABLE AND ADJUSTABLE AWNING.

SPECIFICATION forming part of Letters Patent No. 345,183, dated July 6, 1886.

Application filed October 26, 1885. Serial No. 180,975. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. SMITH, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Removable and Adjustable Awnings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is an inside view of the awning when up. Fig. 2 is a longitudinal section of same at 2 4, Fig. 1. Fig. 3 shows the awning detached from the window-frame and folded. Fig. 4 is a longitudinal section of the awning. Fig. 5 is a view of the lifting-frame, showing it in its lower position. Fig. 6 is a diametric section of a ring by which one member of the compound hinge of the stick is held rigid. Fig. 7 shows a modification of the upper ribs.

The device will be described as applied to a window. Of course it may be applied to a doorway in precisely the same manner. A single awning is shown in connection with a single window. Where the window is wide, two or more of the awnings may be applied, (side by side,) the awning sides being dispensed with, except at the sides of the window.

A is the window-sill, B the stiles, and C the top of the window-frame or transom.

D is a stick or stem to which is connected a frame, working on much the same principle as an umbrella-frame.

E is the head upon the stick, to which the ends of four ribs, F F', are hinged, in substantially the same manner as the ribs are hinged to the stick in an umbrella, the construction being such that the ribs may be expanded in a plane at right angles to the stick, as shown in Figs. 1, 2, and 4, or may be folded together in line with the stick, (in the reverse direction to that shown in Fig. 3.) When the ribs are expanded, the ends of the upper two ribs, F, are in position to fit the upper corners of the window-frame, where they may be supported in any suitable manner. The ribs F', which extend downwardly, span the width of the window, as shown. The ribs serve to give support to the awning-top G, which is stretched upon them and attached to them.

The ribs F F' are connected to the runner H by braces I, in the same manner as in an umbrella, and the slider works on the stick in

the same manner, except that in this case it works in both directions from the position shown in Figs. 1, 2, and 4, so that the ribs and awning-cloth can be folded down to the stem in the same manner as an umbrella-cover, or folded the other way, as before described, and to allow the necessary movement of the runner there are two spring-catches, J K, in place of a fixed stop and one spring-catch, as found in an umbrella. In this improvement the lower catch, K, forms the stop to limit the inward movement of the runner, while the upper catch, J, permits the outward movement of the runner, outward folding being desirable for an awning, and the lower spring non-essential. In the stem is a double joint made by means of a hinge-plate, L, whose ends work in saw-kerfs of the stem or stick D and a section, D', the plate being secured to these parts by pintle-pins M passing through the parts, as shown. The purpose of this double joint is to allow the parts D D' of the stick to be folded side by side, as seen in Fig. 3.

When the apparatus is in use, one member of the double hinge is made rigid by a slip-ring or screw-ring, N, which is made to surround the end of the section D' and the hinge-plate L, for the purpose set forth, as seen in Figs. 1, 2, and 4.

O O are braces which are hinged to the end of the stem-section D', and whose free ends carry downturned hooks P, made to engage in staples Q, which are driven into the sides of the stiles, so as to hold up the awning at the desired elevation. There may be any number of these staples required to hold the awning at different inclinations, according to circumstances. The sides of the awning are shown at G' and the fringe at G². The sides have button-holes g, which engage on pins or studs R of the window-stiles, there being two or more of these button-holes in each side for use when the awning is at various inclinations. g' is a button on the side G'. The edge of the side G' may be buttoned back when, owing to the low position of the awning, there is loose material extending inside the studs R.

To secure the upper ends of the upper ribs, F, at the upper corners of the window, I prefer to use a hinged bow or frame, T, whose ends are hinged to the stiles. The form of the

bow or frame is such that when it is elevated, as seen in Figs. 1 and 2, the sides T' extend up, close to the stiles, to the upper corners of the window-frame, and the cross-bar T² extends
 5 across from corner to corner, just beneath the lintel. At the ends of the ribs F are hooks f, which engage in the bar T² of the frame T or pins or staples at the sides of the window-frame.

10 V are cords which are attached to the cross-bar T² and carried through eyes W, fixed to the window-frame, and by which the bow or frame is drawn upward from the position shown in Fig. 5 to the position shown in Figs.
 15 1 and 2.

In securing the ends of the ribs F to the bow T, the bow may be let down into the position shown in Fig. 5, and when the ribs have been connected to the bow or frame it is drawn upward.
 20 The brace-hooks P are then engaged in the staples Q, and the hanging sides G' are buttoned fast to the window-stiles. Where it is desired to fix the awning low, the slack parts of the edges are buttoned back to the edges g',
 25 so as to hold the parts neatly folded.

The ring N may be plain and simply slide on the stick or stem D, or it may be screw-threaded within and work on the serrations at the edges of the plate L, the serrations forming practically screw-teeth, such serrations
 30 being shown at 1 in Fig. 3.

In Fig. 4 is a modification in which the bow or frame T is dispensed with and the hooks or eyes f at the ends of the ribs F made fast
 35 upon pins or staples U in the sides of the window-frame.

I have spoken of making the ribs F with hooks f to engage on the frame T or pins U. It is obvious that the ribs might be formed
 40 with eyes in place of the hooks, or with both hooks and eyes, as seen in Fig. 7, the hook and eye both being lettered f, as one is a substitution for the other, except that where the eyes are used with frame T, hooks must
 45 be used in addition to make connection be-

tween the ribs and the frame. These hooks are shown in Fig. 5 and lettered f.

The cover G G' G² would be secured to the frame by strings or in other usual manner, so as to be easily removable from the frame. 50

I claim as my invention—

1. In an awning-frame, the combination, with the central stick or staff, a runner, ribs, and braces connecting the ribs and runner, of a
 55 brace having two legs and secured to the stick or staff, the legs being hinged to the brace and formed with hooks engaging staples on the stiles, substantially as set forth.

2. In an awning-frame, the combination, with the central stick or staff, a runner, ribs, and
 60 braces connecting the ribs and runner, of a brace having two legs and hinged to the central stick or staff, the legs being hinged to the brace and engaging the stiles, substantially as set forth. 65

3. The combination, with an awning-frame, substantially as described, of the lifting-frame T, consisting of cross bar T² and side bars, T',
 70 cords for lifting and lowering the lifting-frame, and eyes for the passage of the cords, the side bars being hinged to the stiles, substantially as set forth. 75

4. The combination of the folding frame D E F F' H I and lifting-frame having its side
 75 arms, T', hinged to the window-stiles and connected to the ribs F of the folding frame, substantially as set forth.

5. The combination, with an awning-frame, substantially as described, of the spring-catch
 80 J, holding the runner down while permitting the outward movement of the runner when depressed, substantially as set forth.

6. The combination of the staff D, the adjustable brace-frame D' O O, with hooks P, and
 85 the staples Q Q upon the window-frame, substantially as and for the purpose set forth.

HENRY W. SMITH.

In presence of—

SAML. KNIGHT,

BENJN. A. KNIGHT.