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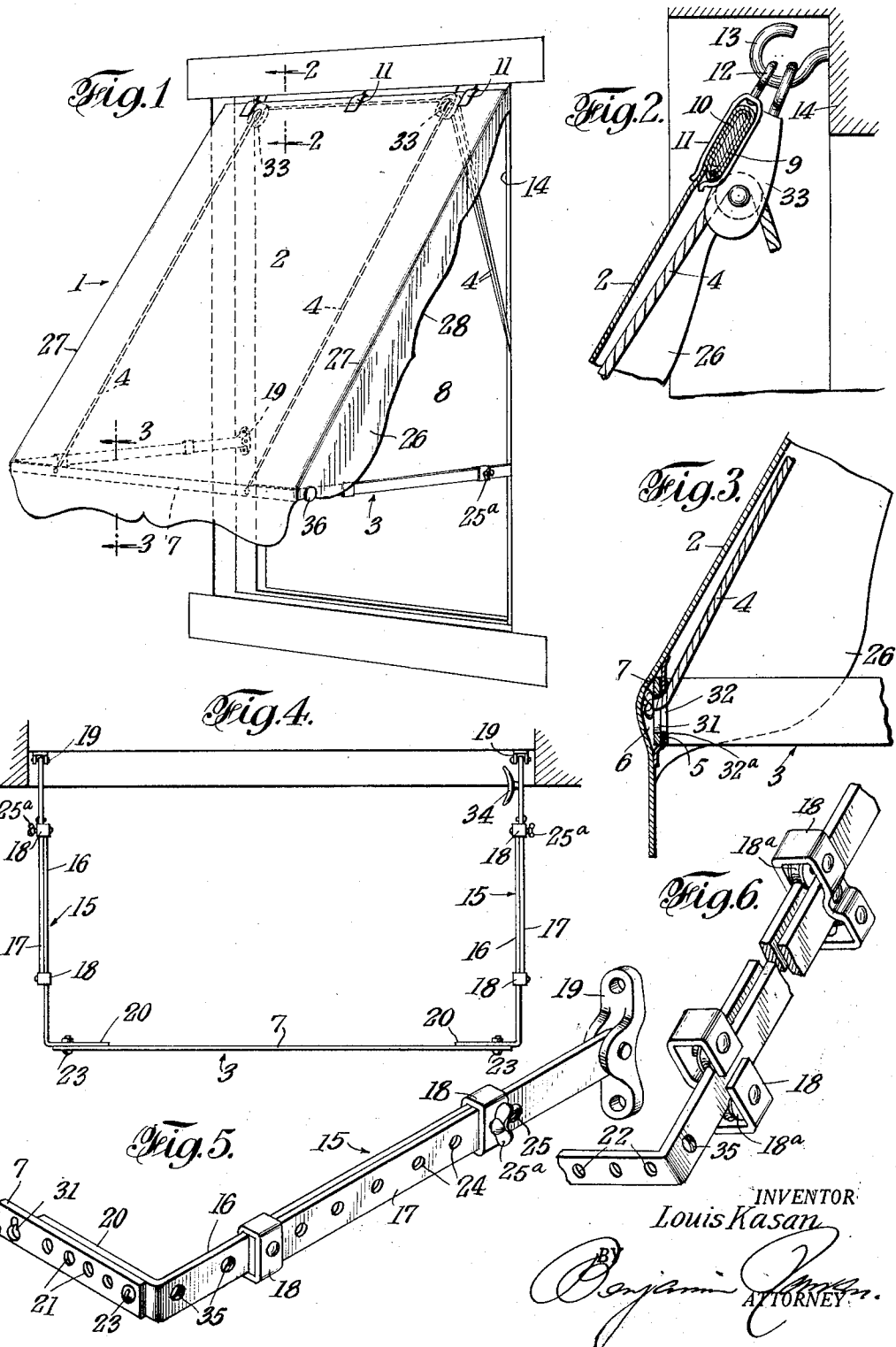
L. KASAN

1,882,425

AWNING

Filed Nov. 24, 1931.

2 Sheets-Sheet 1



INVENTOR
Louis Kasan
BY Benjamin J. [Signature]
ATTORNEY

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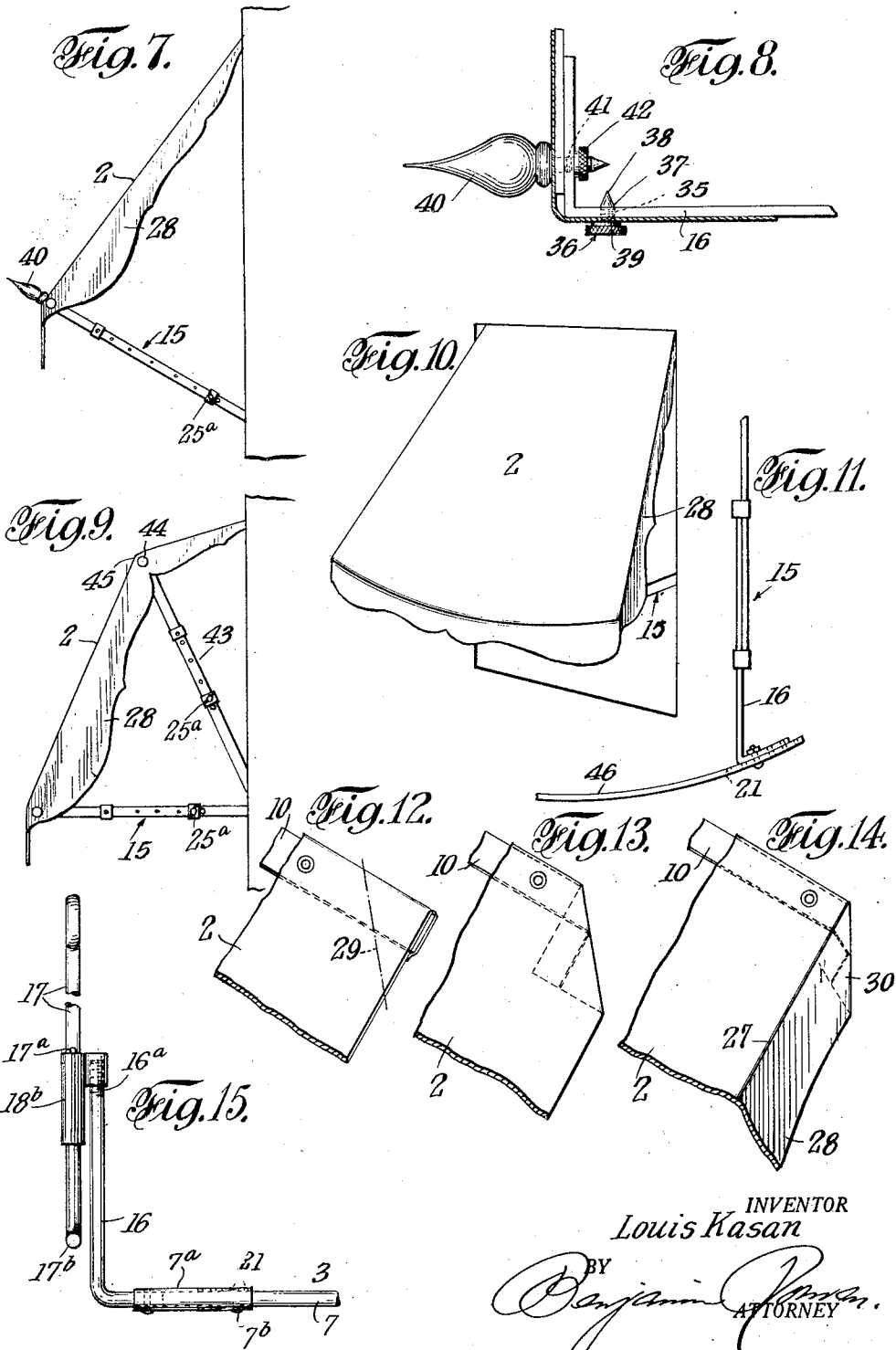
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INVENTOR
Louis Kasan

BY *Benjamin Kasan*
ATTORNEY

UNITED STATES PATENT OFFICE

LOUIS KASAN, OF NEW YORK, N. Y.

AWNING

Application filed November 24, 1931. Serial No. 577,027.

This invention relates to awnings, and its principal object is to provide an economical-ly manufacturable awning, of low cost to the consumer, having simplified, efficient, and improved means for fitting it interchange-ably to windows of various widths and heights.

Another object is to provide an awning having simplified, efficient, and improved means for rapidly and conveniently assembling and installing the awning.

Other objects and advantages will hereinafter appear.

In the accompanying drawings,—

Fig. 1 is a general perspective view of the awning of the invention.

Fig. 2 is a transverse-sectional side elevation, in an enlarged scale, showing the upper portion of the awning.

Fig. 3 is a similar elevation showing the lower portion of the awning.

Fig. 4 is a plan view of the awning frame.

Fig. 5 is a perspective view, in an enlarged scale, showing the end portion of the frame illustrated in Fig. 4.

Fig. 6 is a perspective view showing a modification of the frame shown in Fig. 5.

Fig. 7 shows a side elevation of the awning as it appears when equipped with spears.

Fig. 8 is a plan view showing a detail of the awning.

Fig. 9 shows a side elevation of the awning as it appears when set up to accommodate a casement window.

Fig. 10 is a perspective view of an awning showing a modification of the invention.

Fig. 11 is a plan view of a frame of the awning shown in Fig. 10.

Figs. 12, 13, and 14 are perspective views showing a detail of the invention.

Fig. 15 is a plan view showing a modification of the awning frame.

The awning 1 proper comprises a top-cloth 2, a hinged lifting frame 3, and elevating ropes 4. Said cloth is secured to the frame by means of a tape 5, Fig. 3, secured along its edges to the underside thereof and thereby forming therewith a pocket 6 which receives the front rod 7 of the frame 3. The

upper end of the cloth 2 is secured in place in the window 8 by having its extremity 9 fastened to a pliable metallic flat bar 10, Fig. 2, and being folded around said bar once or several times, which bar is in turn suspended in place by spring-vises 11 gripping it in the manner shown and having eyes 12 that hang over hooks 13 supported in the building wall 14. The frame 3 comprises the front rod 7 and side arms 15 each of which in turn consists of bars 16, 17 having secured to their extremities sockets 18, in which said bars slide, whereby the said arms may be extended to various lengths away from the window 14 or collapsed toward the window. The bars 17 are hinged to fittings 19 secured to the building wall 14, and the bars 16 are provided with bent ends 20 that are secured to the ends of the rod 7. Said rod is provided at its ends with a plurality of openings 21 and the ends 20 of bars 16 are provided with registering openings 22, whereby bolts 23 may be passed through the registering openings and the rod and bars secured to each other as shown. As the widths of the windows on which this awning is installed may vary, the ends 20 of bars 16 may be positioned at corresponding locations along the rod 7 and the bolts 23 may be then inserted through any registering openings 21, 22 to thereby secure the parts accordingly. In each of the bars 17 is provided a series of tapped holes 24 in any one of which may be threaded a headed screw 25 against which the socket 18 of bar 16 may abut to thereby regulate the extent of collapsing of the arms 15, as may be required for windows of various heights. Should the frame 3 tend to extend unduly, through wind action upon the cloth 2, the sockets 18 will abut against each other and thereby prevent accidental dislocation of the arms 15. In the modification shown in Fig. 6, the sockets 18 are enlarged and provided with rollers 18a which ride upon the bars 16, 17 as tracks, to eliminate possible undue friction between these parts.

In order that the top-cloth 2 may be fitted to windows of various widths and heights, and to the frame 3, the depth and width of which may have been adjusted in the above

described manner, the length of the cloth may be properly adjusted by being folded one or more times around its bar 10, as above mentioned, and the width thereof is regulated by being initially fabricated substantially wider than the expected width of any window. Upon being then secured to the frame 3 as adjusted, the side portions 26 thereof constituting a surplus will then bend downwardly over the folding lines 27 thereof and appear as fractional side flaps 28 of the awning. The contours of the edges of side flaps 28 may be preferably tapered or otherwise configured in any ornamented outline, as shown to add to the aesthetic appearance of the awning. The corner formed by the meeting of the upper end of the top-cloth and the flap portion 28 may be strengthened and converted into a rigid awning structure by being bent together with its reinforcing bar 10 about line 29, Fig. 12, folded against itself as shown in Fig. 13, and then bent again to form a rightangular shaping 30 as shown in Fig. 14. In this manner the construction is at this place rendered firm and well appearing, the folding line 27 of the cloth becomes pronounced, and the structural appearance of the awning is improved.

The elevating ropes 4 are secured to the frame-rod 7 by their extremities passing through key-shaped holes 31 in the former and being knotted, and passing also through registering similar holes 32, reinforced with metallic framings 32a, provided in the tape 5. From the rod 7 the ropes 4 extend over to and around usual pulleys 33, from which they reach to a cleat 34 secured directly to one of the bars 17 of the frame 3. Upon drawing the ropes 4, therefore, the frame 3 may be lifted about its hinges 19 and the top-cloth 2 thereby elevated, and the folding and elevating of the cloth may be continued to the window lintel, by the bars 16, 17 of arms 15 sliding relatively to each other through their sockets 18. When releasing the ropes 4 the arms 15 will first collapse and then swing outwardly about their hinges to unfold the awning to the operative position shown. The ropes 4 may be passed through the holes 32 only, without having to provide the holes 31.

In order to secure the side flaps 28 to the frame 3, one or more tapped holes 35 may be formed in the rods 16, for which may be provided a corresponding number of fittings 36, each of which, Fig. 8, comprises a threaded shank 37 having a piercing projection 38 and a knurled head 39. The cloth may be therefore pierced at the hole 35 by the sharp projection 37 and the fitting 36 may be then threaded into place as shown in Fig. 8 to fasten the cloth to the frame 3. In the same manner the spear heads 40 of a spear-type awning shown in Fig. 7 may be secured in place by being similarly pointed and pro-

vided with a threaded shank 41 that may be passed through the registering holes 21 of the frame 3, and nuts 42 may be threaded over said shanks and firmly fastened against the frame.

In Fig. 9 are shown the improvements in this invention as adapted to an awning for fitting to a casement window. In this case an additional lifting frame 43 is provided which is similar to the frame 3 and is similarly hinged, and its front rod 44 is secured to the top-cloth 2 at a requisite intermediate location 45 of the latter. Upon pulling of the ropes 4, therefore, both frames 43 and 3 will properly fold up and elevate the awning.

According to the modification shown in Figs. 10 and 11, the front rod 46 of the lifting frame 3 is made arcuate, and of a single bar of material. The end portions of rod 46 are provided with a series of openings 21 for securing thereto the rods 16 of arms 15 at various locations to conform to the varying widths of the windows, and the top cloth 2 may be secured to the rod 46 as shown in Fig. 10 in uniform location irrespective of the width of the window, and converge therefrom toward the top of the window at varying angularities depending upon the width of the window.

In Fig. 15 is shown a modification of the awning frame 3 which in this case is constructed of round material. The front rod 7 telescopes into and out of tubes 7a and may be adjusted therein by a pin 7b passing through its terminal and through any one of holes 21 in said tubes. The forward end of rod 16 is similarly secured to tube 7a, and its remote terminal 16a has threaded thereover a socket 18b through which the bar 17 telescopes. An abutting pin 17a on bar 17 serves to limit the collapsing of the frame, and the terminal 17b is bent to prevent any possible accidental withdrawal of the frame-bars 16, 17 from each other.

A thumb-nut 25a threads through the socket 18 belonging to the bar 16 and may be made to tighten against the bar 17 to thereby firmly secure the two bars to each other against relative slidable movement. When the awning is in operative state, the user may tighten up the nut 25a and by this means prevent any accidental relative movement or rattle of the bars 16, 17 caused by wind action. The user may in the same manner vary the outward extension of the awning frame 3, and he may permanently set the frame to any desired extended position and fix it in such position, so that it may operate about the hinges 19 only without utilizing slidable action upon elevation of the awning. The latter utility may be of particular advantage in the use and operation of the awning forms illustrated in Figs. 7 and 9.

Variations may be resorted to within the

scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:—

- 5 1. An awning having a lifting frame, a top cloth having its lower end secured to said frame, a rod secured to the upper extremity of said cloth, and said cloth being adapted to fold around said rod a varying plurality of times and to be secured to said rod in said folded state to adjust the length of the cloth to windows of various heights.
- 10 2. An awning having a top cloth, a flat rod secured to the upper extremity of said cloth, and said cloth being adapted to fold around said rod a varying plurality of times to adjust the length of the cloth to windows of various heights.
- 15 3. An awning having a top cloth, a flat bracing rod secured to the upper extremity of said top cloth, and the ends of said rod being bent rightangularly thereto while covered by the corners of said cloth to form shapings for side cloths.
- 20 4. An awning having a fabricated top cloth of predetermined dimensions possessing sufficient width to allow lateral adjustment of said cloth to windows of various widths, a bracing rod secured to the upper extremity of said top cloth, and the ends of said rod being bent to form bracings for said fractional side flaps.
- 25 5. An awning having a top cloth, an extensible frame therefor hinged to descend to a horizontal position and to elevate to an upright state, said frame having means to expand when elevated and to contract when lowered, and said frame having selective means for limiting the extent of its contraction.
- 30 6. An awning having a top cloth, a frame therefor, and means for securing said cloth to said frame including an opening in said frame, a fitting having a threaded shank for engaging said opening, said shank having a piercing portion for penetration of said cloth before engaging said opening, and a nut for threading over said shank.
- 35 7. An awning having a top cloth, a frame therefor, and means for securing said cloth to said frame including a tapped opening in said frame, a fitting having a threaded shank for engaging said opening, said shank having a piercing portion for penetration of said cloth before threading into said opening, and said shank having headed manipulating means wherewith to thread it into said opening.
- 40 8. An awning having a cloth, a frame therefor having a hole, a spear for said frame, and means for securing said spear including a threaded shank on said spear for engaging said hole, said shank having a piercing portion for penetration of said cloth before threading into said hole, and a nut for threading over said shank.
- 45 9. An extensible awning for a casement window having a top cloth, a hinged frame for the lower end thereof being adapted to contract when lowered to a horizontal position and to expand to an elevated upright state when raised, and a hinged frame for an intermediate portion of said cloth being adapted to contract when lowered to an oblique position and to expand when raised to a vertical position.
- 50 10. An extensible awning for a casement window having a top cloth, a hinged frame for the lower end thereof being adapted to contract when lowered to a horizontal position and to expand to an elevated upright state when raised, a hinged frame for an intermediate portion of said cloth being adapted to contract when lowered to an oblique position and to expand when raised to a vertical position, and each of said frames having selective means for limiting the extent of its contraction.
- 55 11. An awning having a fabricated top cloth of predetermined dimensions possessing sufficient width to allow lateral adjustment of said cloth to windows of various widths, a frame for said cloth having a front portion and side portions, said front portion projecting laterally beyond each of said side portions, and means to secure said side portions to said front portion at a plurality of points to adjust said frame to windows of various widths.
- 60 12. An awning having a fabricated top cloth of predetermined dimensions possessing sufficient width to allow lateral adjustment of said cloth to windows of various widths, a frame for said cloth having a front portion and side portions, said front portion being arcuate and projecting laterally beyond each of said side portions, and means to secure said side portions to said front portion at a plurality of points to adjust said frame to windows of various widths.
- 65 13. An awning having a fabricated top cloth of predetermined dimensions possessing sufficient width to allow lateral adjustment of said cloth to windows of various widths, said cloth being wider at its lower end and tapering therefrom convergingly toward its upper end, a frame for said cloth having a front portion and side portions, and said front portion projecting laterally beyond each of said side portions.
- 70 14. An awning having a fabricated top cloth of predetermined dimensions possessing sufficient width to allow lateral adjustment of said cloth to windows of various widths, said cloth being wider at its lower end and tapering therefrom convergingly toward its upper end, a frame for said cloth having a front portion and side portions, and said front portion being arcuate and project-

ing laterally beyond each of said side portions.

5 15. An extensible awning having a top cloth, a frame therefor hinged to be lowered to a horizontal position and to rise to an upright state, said frame having means to expand when elevated and to contract when lowered and said frame having selective means for limiting the extent of its expansion.

10 16. An extensible awning having a top cloth, a frame therefor having side arms each comprising a pair of parallel bars slidable relatively to each other to contract when lowered to a horizontal position and to expand when raised to an upright state, and means to prevent said bars from sliding relatively to each other to either expand or contract.

20 17. An awning having a top cloth, a swingable hinged frame therefor, a rope to elevate said frame, and said frame having a key-hole shaped opening therein for passing said rope therethrough to bind therein.

25 18. An awning having a top cloth, a swingable hinged frame therefor, a tape to hold said cloth to said frame, a rope to elevate said frame, and said tape having a reinforced key-hole shaped opening therein for passing said rope therethrough to bind therein.

30 19. In an awning, the combination of a lifting frame having means for adjustment to windows of various widths, and a fabricated top cloth of predetermined dimensions for said frame possessing sufficient width to allow lateral adjustment of the cloth to any adjustment of said frame.

40 20. In an awning, the combination of a lifting frame having means for adjustment to windows of various widths, a fabricated top cloth of predetermined dimensions for said frame possessing sufficient width to allow lateral adjustment of the cloth to any adjustment of said frame, and said cloth being wider at its lower end and tapering therefrom convergingly toward its upper end to permit efficient folding thereof at said upper end when adjusting to windows of narrower widths.

50 Signed at New York, in the county of Kings, and State of New York, this 16th day of November, A. D. 1931.

LOUIS KASAN.

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