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[54] **JALOUSIE LOUVER BRACKET**

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[52] **U.S. Cl.** **49/403**
[51] **Int. Cl.²** **E06B 7/08**
[58] **Field of Search** 49/403

[56] **References Cited**

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Attorney, Agent, or Firm—Edelson and Udell

[57] **ABSTRACT**

A swingable bracket assembly for removably holding in operative position the louver or panel of a jalousie window, door or the like having a swingably mounted main bracket member and a louver-engaging spring which is quick-detachably interfitted with the bracket member to permit rectilinear insertion of the louver and removal thereof from and into the bracket assembly. The louver-engaging spring, which serves to positionably lock the louver in its bracket, is normally provided at its upper end with a lip for engaging the upper edge of a standard size of louver to prevent any upward displacement thereof from the supporting bracket. The locking spring is so designed that its said upper end portion may be cut-off to adapt the bracket for support of a louver which is of a narrower width than the standard size louver normally accomodated in the bracket.

10 Claims, 4 Drawing Figures

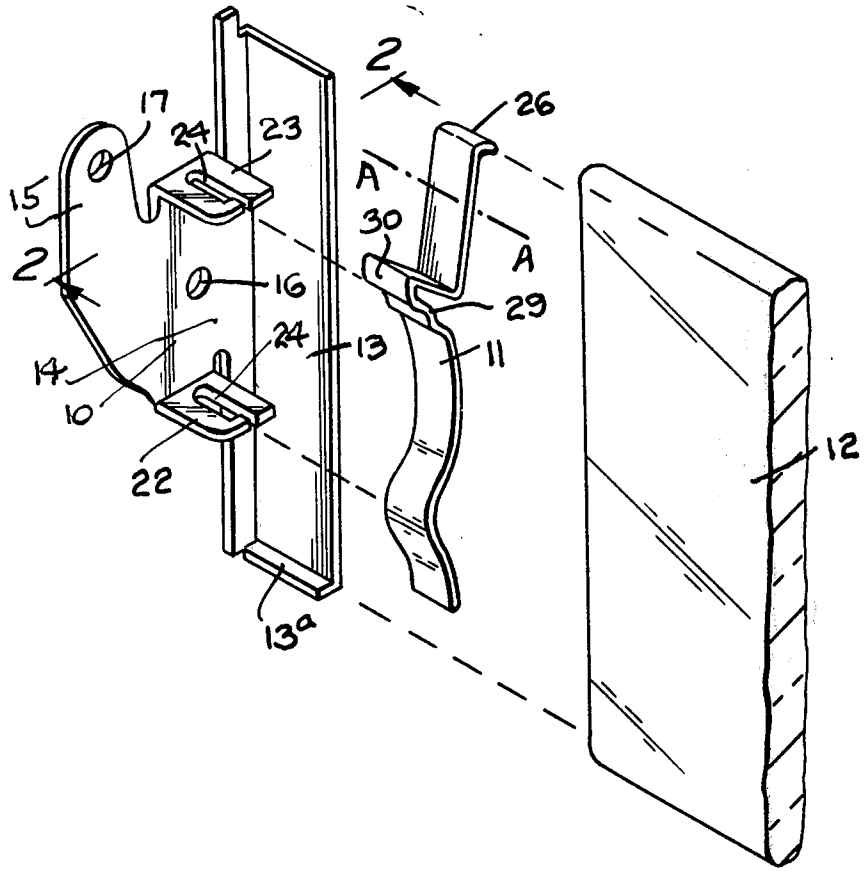


FIG. 1

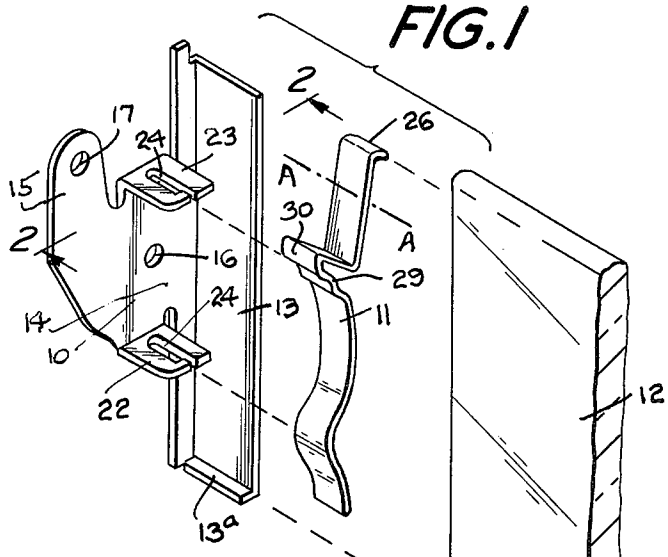


FIG. 2

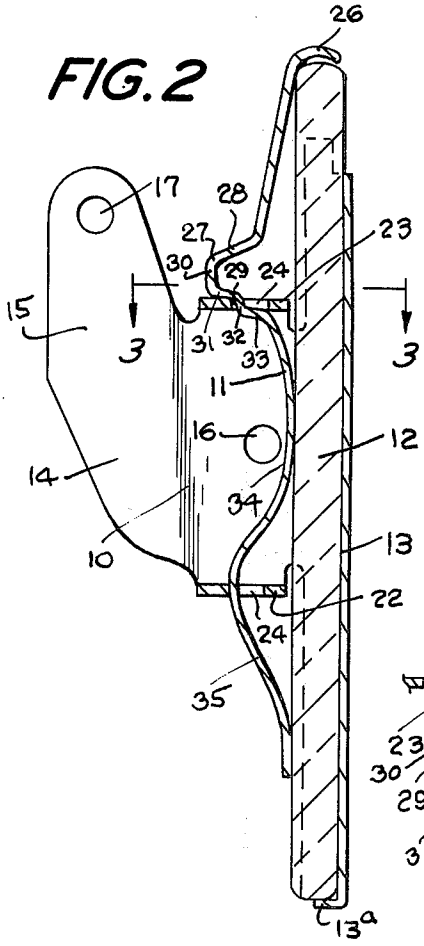
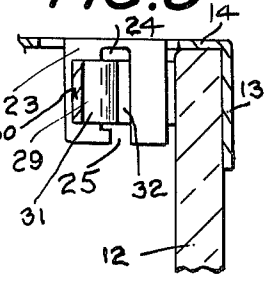


FIG. 3



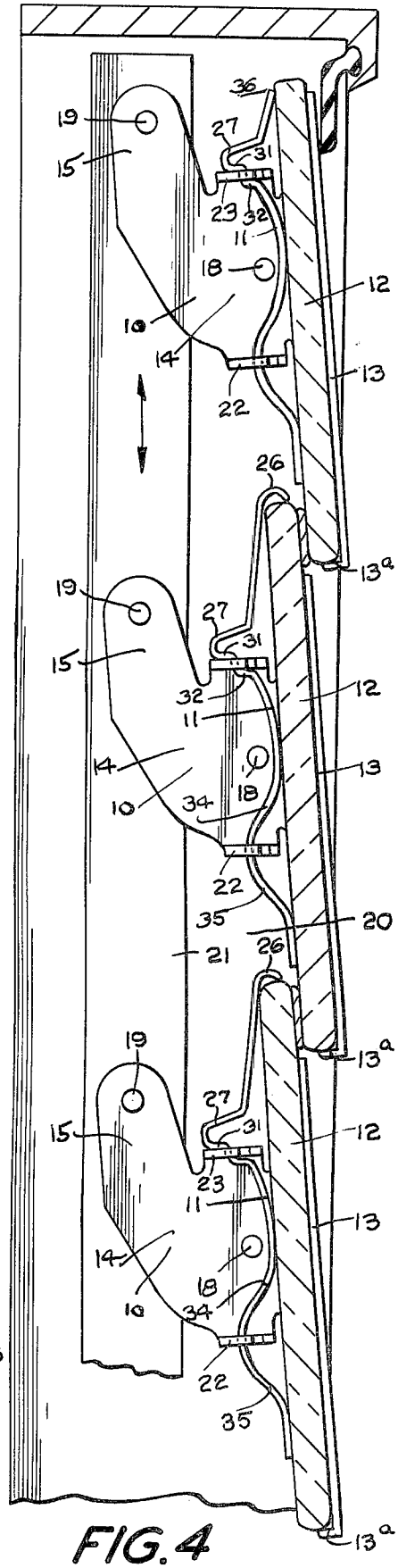


FIG. 4

JALOUSIE LOUVER BRACKET

This invention relates to jalousies and more particularly to improvements in the construction and design of the brackets in which are removably supported the swingable louvers or panels of jalousie windows, doors and the like.

Among the principal objects of the present invention is to provide a unique and simple construction of the bracket which is not only inexpensive to manufacture but also extremely simple to install in the jalousie frame for quick and easy insertion and removal of the jalousie louvers into and out of their operative positions.

A further important object of the invention is to provide a swingable jalousie bracket having a quick-detachable spring member which effectively resiliently engages the jalousie louver at three spaced points to positively hold louver securely in its supporting bracket by simple rectilinear insertion of the louver between a base part of the bracket and its associated louver-retaining spring.

A still further object is to provide a jalousie bracket or clip which permits insertion and removal of the jalousie louver from the indoors side of the jalousie frame by simple rectilinear movement of the louver in its own plane into and out of a secure and positive retained position in the bracket.

Still another object is to provide a louver mounting bracket having a louver engaging spring member which forms a self-interlocked part of the bracket assembly for insuring safe insertion and removal of the jalousie louver and which spring member may be easily reduced in its overall length without impairing the ability to safely and adequately employ the bracket of which it forms a part for accomodating a louver which is of narrower width than those which may be supported by the brackets having full length spring members, thereby permitting off-size jalousie frames to be fitted with one or more swingable louvers of less than standard width as may be required to provide the frame with a full complement of overlapping louvers.

Other objects and advantages of the invention will appear more fully hereinafter, it being understood that the invention consists in the combination, construction, location and relative arrangement of parts as hereinafter described in detail, as shown in the accompanying drawings and as pointed out in the appended claims.

In the accompanying drawings:

FIG. **1** is a perspective view showing in exploded form the component parts of the bracket as constructed in accordance with the present invention for removably mounting the louver or panel in the frame of a jalousie window or door;

FIG. **2** is an inner side elevational of the bracket shown partially in section showing one end of a louver in engagement with and supported by said bracket;

FIG. **3** is a transverse sectional view as taken along the line **3—3** of FIG. **2**; and

FIG. **4** is an elevational view of a vertical section of one side of a jalousie frame assembly which includes therein the louver supporting brackets of the present invention.

Referring now more particularly to the drawing, it will be observed that the jalousie louver-supporting bracket or clip of the present invention is made of two separate parts, namely, a main bracket member **10** and a locking spring **11** made of suitable spring metal such as, for example, flat stainless steel, which is quick-detachably connected to the bracket member **10** to serve as a resilient device for securely locking the vertically spaced louvers **12** into their supporting brackets as shown in FIG. **4**. Each of the several louvers or panels which make up the complete jalousie is supported at its opposite ends by a pair of the supporting brackets and to this end each such pair of the brackets are mirror images of one another.

The main bracket member **10** includes a vertically extending part **13** having an inturned bottom flange or lip **13***a* which serves as a supporting base for the louver or panel **12** carried by the bracket. Formed integrally with and extending at right angles to the base part **13** is a flat mounting arm **14** having an upwardly inclined coplanar extension **15**, which arm **14** is apertured, as at **16** and **17**, to receive pivot studs or rivets **18** and **19** for respectively pivotally securing the bracket to a fixed side of the jalousie frame **20** and to a vertically reciprocable actuator bar **21** which is conventionally disposed on either side of the frame for vertical shifting movement by means of an operating handle and linkage (not shown) well known in the art.

The bracket arm **14** is provided with a pair of vertically spaced parallel lugs or ears **22–23** which extend crosswise of and are each spaced from the base part **13** a distance sufficiently greater than the thickness of the louver which is carried by the bracket to enable the louver to be inserted flatwise between said base part **13** and the proximate edges of the lugs or ears **22—23.** Each of these lugs or ears is provided with an open-ended slot **24** (as seen FIGS. **1** and **3**) the outer end of which is partially closed off, as at **25**, to provide a reduced entrance way into the slot. The length of the slot **24** beyond it restricted entrance **25** is just slightly greater than the width of the spring **11**, while the slot entrance **25** is of a width which just allows free passage of the spring **11** sidewise into its accomodating slot.

The locking springs **11**, except as modified in the manner and for the reason hereinafter described, is of the pre-shaped form best shown in FIG. **1** from which it will appear that said spring is of an overall length somewhat less than that of the base part **13** of the bracket and also less than the width of the louver which the bracket is designed to support. The locking spring **11** is inturned at its upper end to provide a lip **26** which fits over and closely engages the upper edge of the bracket-supported louver and is provided intermediate its opposite ends with an outwardly projecting section **27** having the stepped configuration best shown in FIGS. **2** and **3.** This stepped projection is located at a point along the length of the spring to enable it to be nested within the slot **24** of the uppermost lug or ear **23** of the bracket member **10.**

As will be noted, the projection **27** of the locking spring **11** is of a nose-shaped form having a downwardly and forwardly inclined upper section **28** and a Z-shaped lower section **29** interconnected by a frontal bridging section **30.** The Z-shaped section **29** includes a pair of vertically spaced substantially horizontally disposed branches **31** and **32** and a central vertically extending branch **33** which conjointly operate to securely hold the spring **11** in its louver-locking position when said spring is interfitted into the slotted lugs or ears **22-23.** In this interlocked condition of the spring **11**, the branches **31** and **32** of its Z-shaped section **29**, which are horizontally offset to either side of the central branch **32** thereof, respectively overlie the top and bottom surfaces of the upper lug **23** so that when the

central branch 33 of said Z-shaped section of the spring 11 is moved edgewise into its accomodating slot in the upper spring-supporting lug 23 and the lower portion of the spring is correspondingly moved into the slot of the lower lug 22, the spring is held restrained against any shifting movement longitudinally with respect to the base part 13 of the bracket member.

It will be noted that the portion of the spring 11 which extends below the nose-shaped projection 27 is reversely bowed to provide a pair of longitudinally spaced portions 34–35 which are adapted to respectively resiliently engage correspondingly spaced portions of the bracket-supported louver for holding it firmly in position against the base part 13 of the bracket. Also, it will be observed that the reversely curved portion of the spring 11 is nested in the bottom slotted lug 22, thereby providing a two-point interlock between each spring and its associated bracket member 10 to prevent any tendency for the spring to skew out of its proper louver-engaging position which desirably should be along a vertical line paralleling the longitudinal center line of the bracket base part 13. It will also be apparent that when the spring 11 is seated as shown in the slotted lugs or ears 22 and 23 the opposite end portions thereof which project outboard of said lugs, as well as the central portion thereof which extends between said lugs, are all inherently biased toward the base part 13 of the bracket for three point holding engagement with the louver when the same is inserted between the spring and its underlying base part 13.

In order to mount a jalousie louver or panel between a pair of the spring-fitted brackets of the present invention, it is only necessary to press the top ends of the springs inwardly, i.e., away from their associated base parts 13, sufficiently to permit the louver to be shifted downwardly into position between said base parts 13 of the paired bracket members and the retaining springs associated therewith until the bottom edge of the louver is seated against the bottom flanges 13*a* of the supporting brackets. The locking-springs 11 are of course normally so designed that when the bottom edge of the louver is seated upon the bottom lip or stop 13*a* of the base part 13 (as best shown in FIG. 2), the inturned tops 26 of the locking springs automatically spring over the top edges of the louver to hold it secured against unintentional vertical displacement. To remove a louver, it is only necessary to reverse the above described procedure, i.e, disengage the top ends of the springs 11 from the louver sufficiently to permit the latter to be vertically lifted free of its supporting bracket. It is an important feature of the present invention that the operations of inserting and removal of the louvers relatively to their supporting brackets are performed from the inside of the jalousie frame.

Another important feature of the bracket of the present invention is that it may be easily and conveniently altered to accomodate a louver which is of a somewhat reduced width as is often required when fitting a jalousie frame with a series of louvers of a uniform size which conjointly leave a space to be fitted which is of less vertical dimension than that of the uniformly sized louver. To accomplish this, it is only necessary to cut off a portion of the spring at a point just above the nose-shaped projection 27, as along the dashed line A—A of FIG. 1 and as shown as at 36, in the case of the locking spring for the topmost louver of FIG. 4. The upper free edge of the cut-off spring 11, because of its pre-shaped form, still functions through its inherent resiliency to bear against the top portion of the relatively narrow louver to hold it firmly pressed against the base part 13 of the bracket. In all other respects the altered bracket functions in the same manner as that previously described and shown in FIG. 2 to securely hold the off-size louver or panel in place.

It will be understood that the present invention is susceptible of various other changes and modifications which may be made from time to time without departing from the general principles or real spirit thereof and it is intended accordingly to claim the same broadly, as well as specifically, as indicated by the appended claims.

What is claimed as new and useful is:

1. A bracket assembly for quick-detachably engaging and supporting one end of a louver in a jalousie frame comprising

a. a swingably mounted main bracket member having
   1. a mounting flange disposed in a plane extending orthogonally with respect to the plane of the louver for limiting endwise movement thereof,
   2. an elongated base flange integral with and right angularly related to said mounting flange adapted to overlie and engage the outside surface of the louver when the same is in substantial engagement with said mounting flange,
   3. a louver abutting stop at the bottom end of said base flange, and
   4. a pair of vertically spaced parallel lugs extending from said mounting flange crosswise of and at right angles to said base flange with corresponding edges thereof spaced from said base flange a distance greater than the thickness of the jalousie louver, said lugs being respectively provided with vertically registering openings each in the form of an open-ended slot for permitting edgewise insertion thereinto of a flat leaf spring member, and

b. an elongated spring metal member extending through said openings in said lugs in overlying relation to said base flange of said main bracket member, said spring member having spaced portions thereof resiliently biased to engage the inside surface of the jalousie louver when its aforesaid end is disposed in position between said base flange and said spring member, said spring member including means which coact with at least one of said slotted lugs to preclude shifting movement of said spring member longitudinally with respect to said bracket member when said spring member is interfitted in said lug openings.

2. A bracket assembly as defined in claim 1 wherein the elements set forth in paragraphs a-1 to a-4 thereof constitute integral parts of said bracket member and wherein the element set forth in paragraph (b) thereof is separably interfitted with said bracket member

3. A bracket assembly as defined in claim 1 wherein said vertically spaced lugs are respectively disposed in substantially parallel planes perpendicular to the plane of said elongated base flange to thereby provide a two-point interlock between said mounting flange and said spring member when the latter is nested in said open-ended slots of said lugs.

4. A bracket assembly as defined in claim 1 wherein said spring metal member is preformed out of spring metal to provide the same with a plurality of longitudinally spaced sections each of which is inherently biased toward said base flange of said main bracket member

when said spring member is in position extending through said openings in said bracket member lugs.

5. A bracket assembly as defined in claim **1** wherein said lug slots are each detented at its open end to provide a reduced entrance way for interlocking insertion of said spring member in said lugs.

6. A bracket assembly as defined in claim **1** wherein each of said lug slots is provided at its outer end with a detent for preventing skewing of said spring member out of its longitudinally alined overlying relation to said base flange.

7. A bracket assembly as defined in claim **1** wherein said spaced portions of said elongated spring member include a pair of oppositely extending end portions which respectively project freely beyond the outer sides of said spaced lugs and an intermediate portion extending between said spaced lugs, all of said portions being biased toward said base flange to simultaneously resiliently engage said inside surface of said louver.

8. A bracket assembly as defined in claim **7** wherein one of said end portions of said spring member is provided with an inturned lip for engaging the top edge of the louver inserted between said spring member and said base flange.

9. A bracket assembly as defined in claim **8** wherein said portion of said spring member having said inturned lip is adapted to be severed to reduce the same to a predetermined overall length for accomodation in the bracket of a louver of a width narrower than that having its upper edge engageable by said inturned lip without impairing the ability of said severed end portion of said spring member to resiliently engage the louver fitted in said bracket.

10. A bracket assembly as defined in claim **1** wherein the means last mentioned therein consists of a Z-shaped section in said spring member having a central branch which is insertable edgewise into the open-ended slot of said coacting lug and a pair of substantially parallel branches which are horizontally offset to either side of said central branch to respectively overlie the opposite sides of said coacting lug.

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