

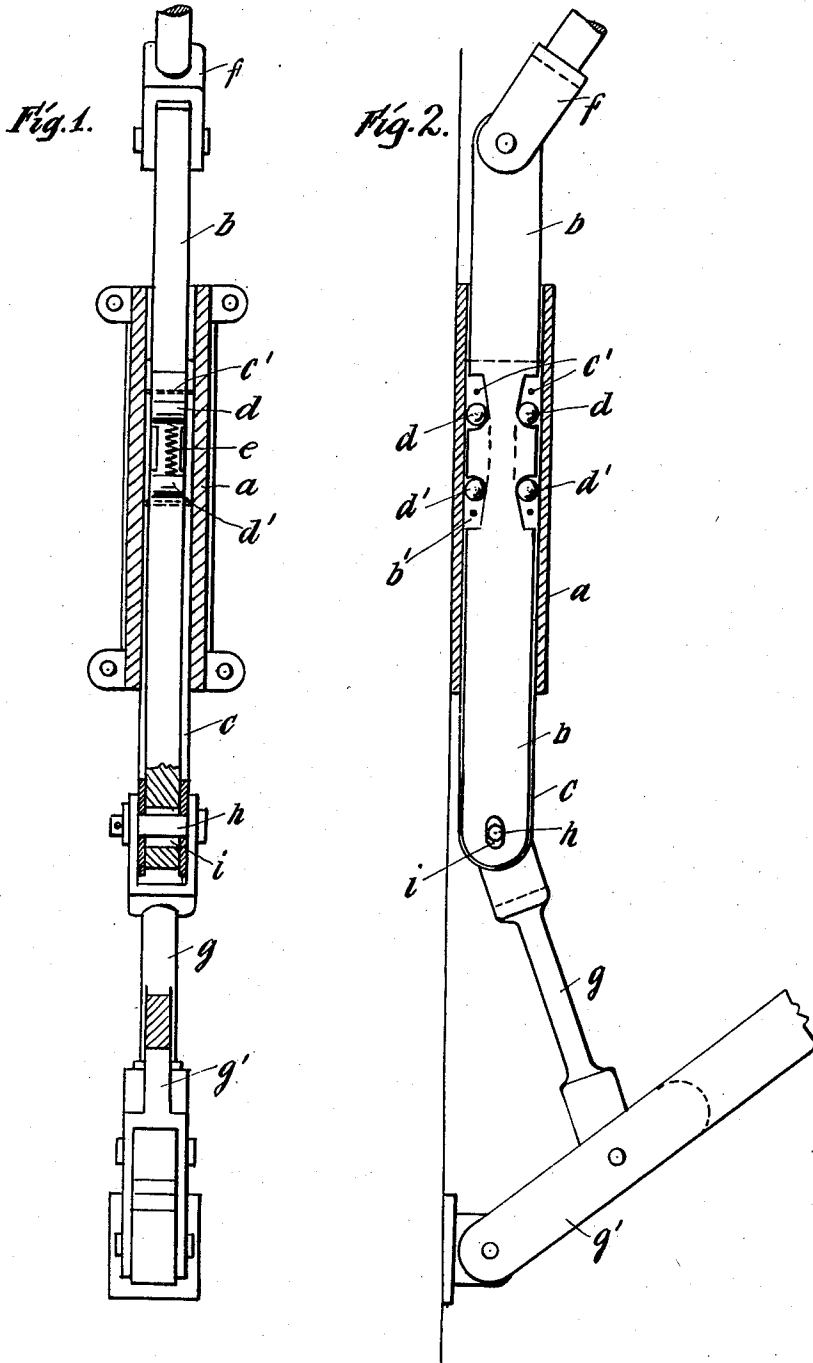
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LOCKING DEVICE

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LOCKING DEVICE

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1 Claim. (Cl. 268—111)

This invention relates to a device for locking such arrangements which are actuated by handles or similar means. The locking device is intended for use in connection with rod systems for openers of skylight windows, tumblers on window and door locks and the like. The handle or the means necessary according to the purpose of use is, according to the invention, connected with the arrangement to be actuated through the intermediary of a brake, locking device or the like in such a manner that the handle is adjustable into any position, whereas the device to be actuated and engaging the other end of the locking device by means of a rod system or the like is locked in any position of the handle. The handle therefore indirectly controls the locking elements of the locking device. Consequently for example in connection with skylights the window cannot be banged to by the wind, in the case of emergency doors the slipping down of the bascule rod is prevented, and in the case of locks the complicated tumblers are eliminated and so forth.

An embodiment of the invention is illustrated by way of example in the accompanying drawing in which:—

Fig. 1 shows in front elevation the arrangement with lock casing in section.

Fig. 2 is a side elevation of Fig. 1.

A locking rod *b* is shiftable in a fixed casing *a* and enclosed by two control elements for locking rollers *d*, likewise slidable in the casing *a* and shown as flat bars *c*. The rollers *d* are arranged in pairs and move in recesses *b'* in the rod *b*, being mutually supported by springs *e*. These springs *e* are intended to maintain the rollers *d*, *d'* at a certain distance apart when in position of rest. The control elements for the locking rollers *d* are pins *c'* which are connected with the flat bars *c* and project into the recesses *b'* in the rod *b*.

The guide tracks for the rollers *d* of the locking bar *b* are inclined to the vertical plane so that the rollers *d* in locking position are pressed against the inner wall of the casing *a*.

Whilst the rod system *f* for the device to be operated is hingedly connected to one end of the rod *b*, the other end carries in known manner the connecting rod *g* for the handle *g'*. The bolt *h* of the rod *g* extends through bores in the flat bars *c* and is slightly shiftable in a slot-shaped recess *i* in the rod *b*.

The device operates in the following manner:—

If the handle *g'* is swung in the one or other direction, the bolt *h* together with the flat bar *c* is moved in the slot *i* on the lower end of the rod

b by the connecting rod *g* until it comes into contact with the end of the slot *i*. Owing to this movement of the part *c*, which may be called a preliminary movement, the pins *c'* are also moved in the recesses *b'* towards the pairs of rollers *d*, *d'* according to the direction in which the handle *g* is swung. Consequently, the rollers *d* are prevented from arriving in locking position owing to the subsequent movement of the rod *b*. Thus, any actuation of the handle always results in an unimpeded movement of the locking rod *b* and consequently of the rod system *f*.

If, however, the rod system *f* exerts a pull or push on the locking bar *b*, the pairs of rollers *d* or *d'* will wedge between the inclined faces in the recess in this bar and the inner surface of the casing *a* and thus lock this bar and consequently also the rod system *f*.

I claim:—

A locking device for skylights and the like, comprising in combination a fixed casing, a flat rod longitudinally shiftable in and projecting at both ends from said casing, a skylight operating lever hingedly connected to the upper end of said rod, said rod having a slot at its lower end and two recesses opposite one another intermediate its length, said recesses tapering towards both ends of said rod forming two wedge-shaped surfaces, two rolling locking elements in each of said recesses adapted to wedge between said wedge-shaped surfaces and the inner side of the casing to lock said rod in any adjusted position, means between said elements pressing the same apart towards said wedge-shaped surfaces, a handle oscillatable about a point below said casing, a link hingedly connected at one end to said handle at an intermediate point of its length, a bolt mounted in the other end of said link and extending through the slot in said slidable rod to allow limited displacement between said link and said slidable rod, two plates pivotally mounted on said bolt without play and extending into said casing one on each side of said slidable rod, said plates capable of a limited longitudinal displacement relatively to said rod during the operation of said handle, and pins connecting said plates and extending through the recesses in said bar one on the outer side of each of said elements, said pins adapted during the displacement of said plates relatively to said bar to press said elements into the wider portion of said recesses against the action of said springs to disengage the locking effect and allow the free movement of said bar to shift said skylight operating lever.

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