No. 835,251. PATENTED NOV. 6, 1906.

J. H. PARKER.

REVERSIBLE WINDOW.

APPLICATION FILED JAN. 29, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

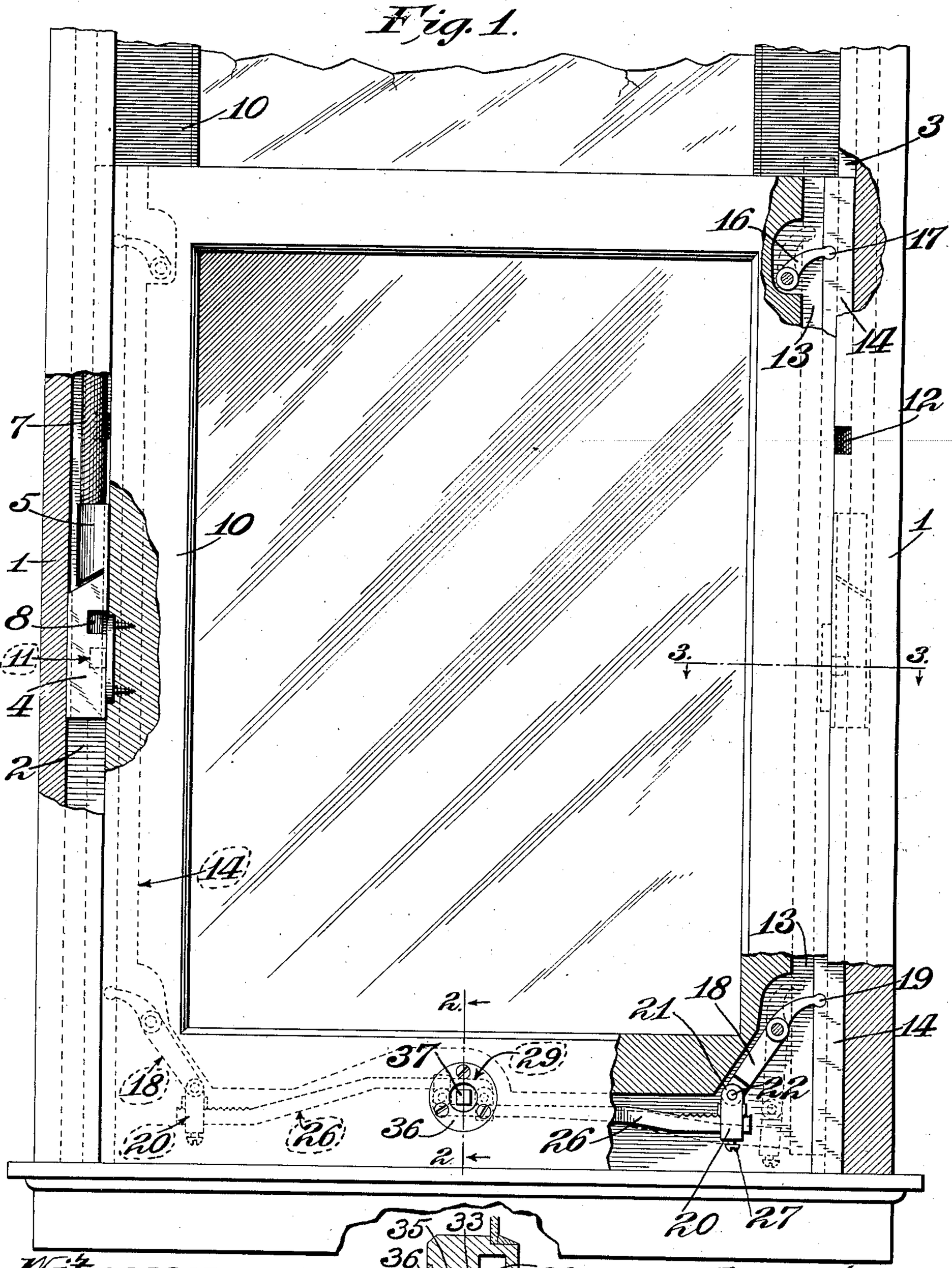
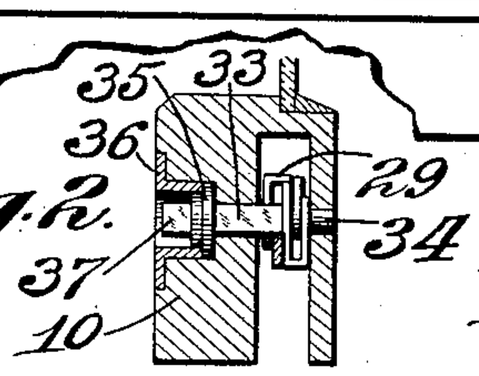


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

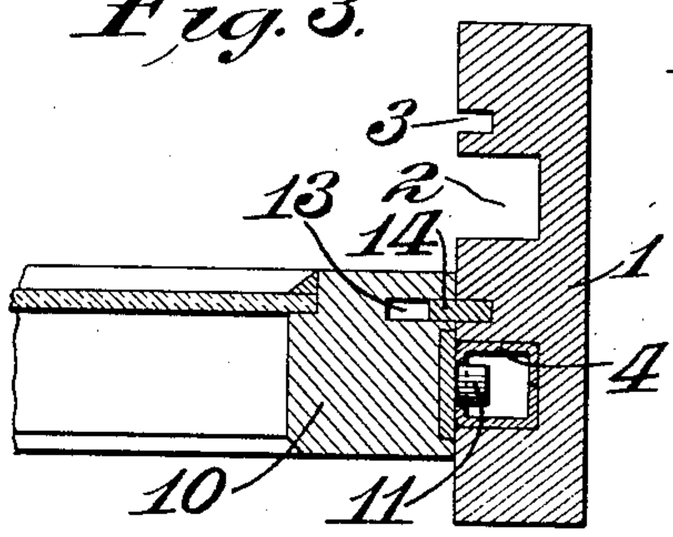


Fig. 6.

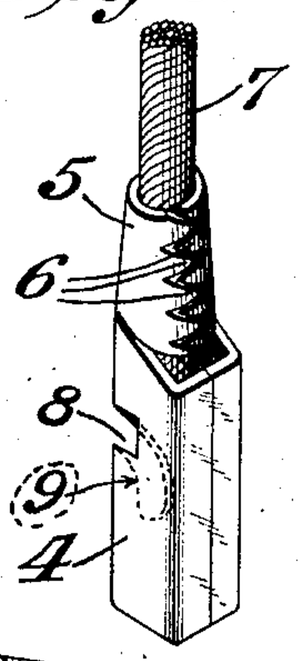


Fig. 4.

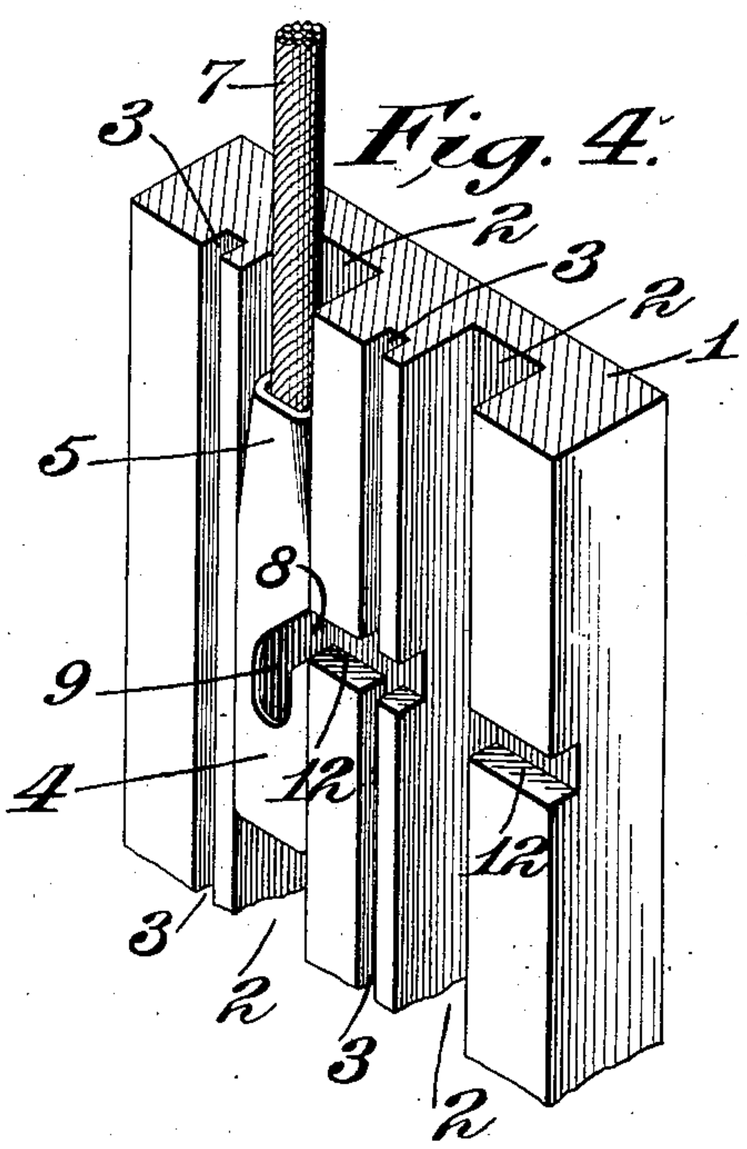


Fig. 5.

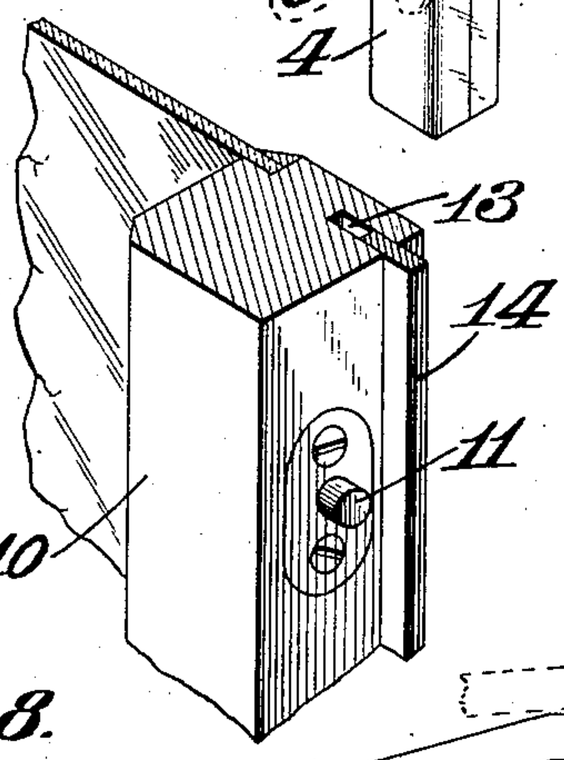


Fig. 7.

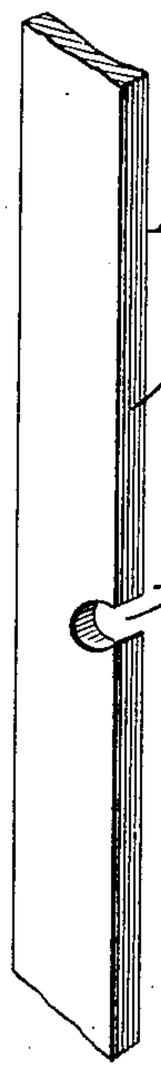


Fig. 8.

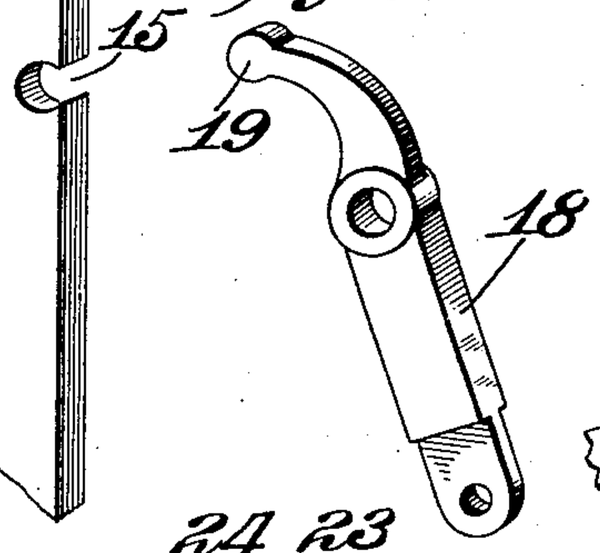


Fig. 9.

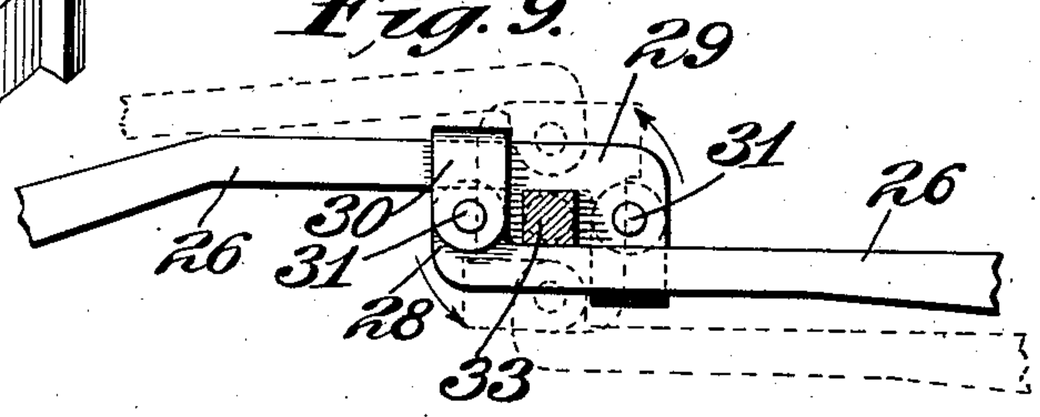


Fig. 10.

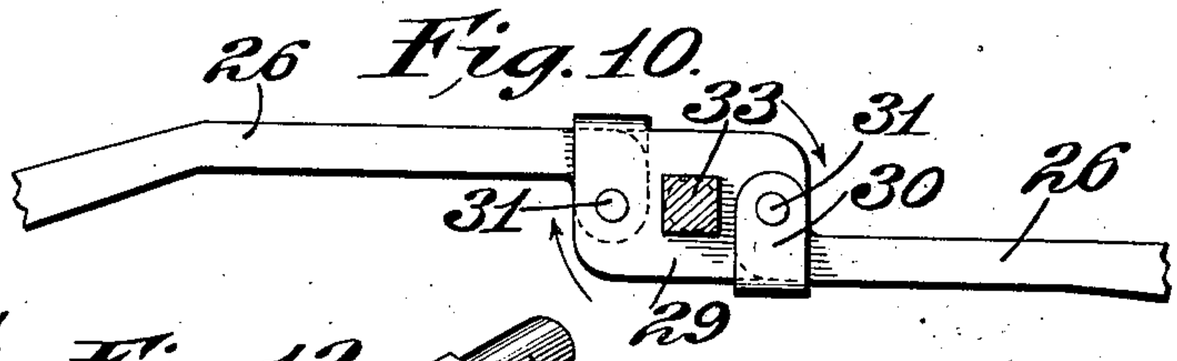


Fig. 14.

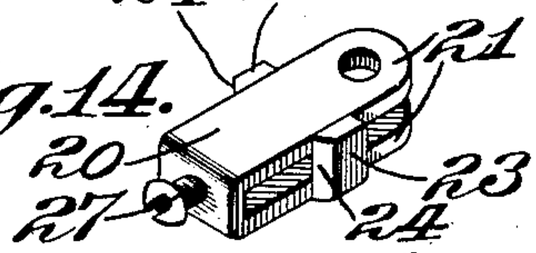


Fig. 12.

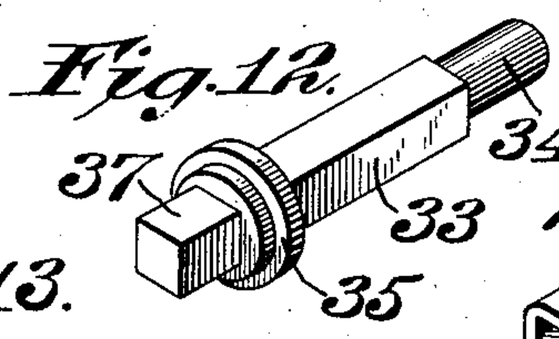


Fig. 11.

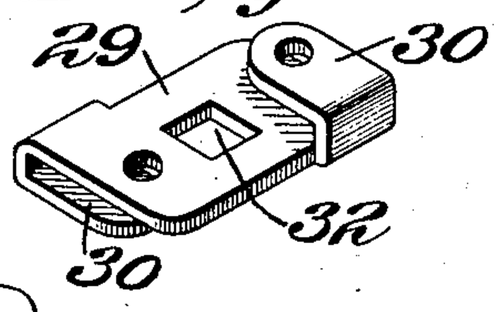
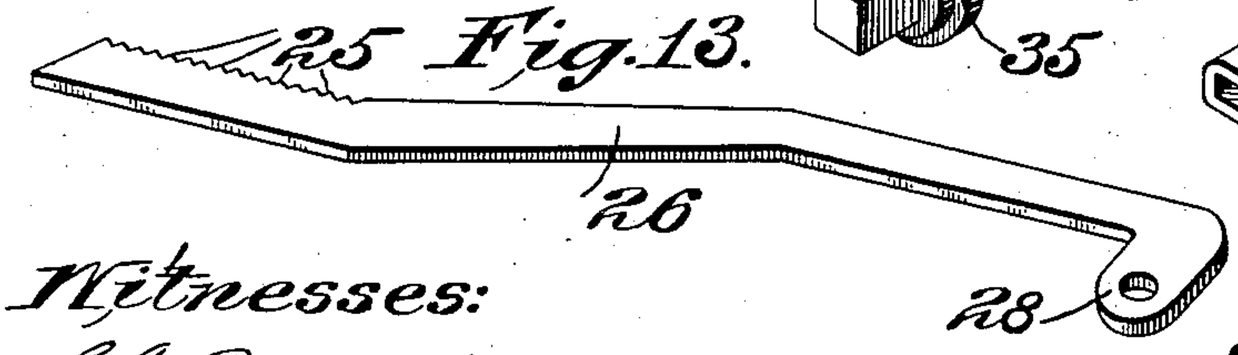


Fig. 13.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

JONES H. PARKER, OF ST. LOUIS, MISSOURI.

REVERSIBLE WINDOW.

No. 835,251. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed January 29, 1906. Serial No. 298,354.

To all whom it may concern:

Be it known that I, JONES H. PARKER, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Reversible Windows, of which the following is a specification.

My invention relates to reversible window constructions, and has for its principal objects to provide a reversible-window construction which can be applied in lieu of the ordinary window construction in common use without disfiguring or materially changing the outward appearance of the window sash or frame, to detachably mount the window-sash upon the cord-attaching blocks, to improve the construction of the cord-attaching blocks, to improve the means for manipulating the guide-strips, to provide means for locking the guide-strips either when retracted or when moved out into effective position, to generally simplify, cheapen, and improve the construction of reversible windows, and other objects hereinafter more fully appearing.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a front view of a portion of a window, parts being shown in section. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of a portion of the pulley-stile, showing the cord-attaching block for the upper sash in position. Fig. 5 is a detail perspective view of a fragment of the window-sash, showing a pintle and the guide-strip in its extended or effective position. Fig. 6 is a perspective view of a cord-attaching block, showing the manner of attaching the sash-cord. Fig. 7 is a fragmentary perspective view of a guide-strip. Fig. 8 is a detail view of one of the levers upon which the guide-strips are mounted. Fig. 9 is a detail view showing the position of the operating-lever and connecting-links when the guide-strips are moved out into effective position. Fig. 10 is a similar view showing the position of the parts when the guide-strips are retracted. Fig. 11 is a detail perspective view of the operating-lever. Fig. 12 is a detail view of the spindle. Fig. 13 is a detail view of a connecting-rod, and Fig. 14 is a detail view of an adjusting-block.

The frame for my improved window may be of the same construction as that ordinarily used, except that the pulley-stiles 1 are not provided with the usual parting beads or strips which guide the sashes and form grooves in which the sashes move. Instead the pulley-stiles are flat and are provided with grooves 2 to receive the cord-attaching blocks, upon which the sashes are supported, and grooves 3 to receive the guide-strips, which are movably mounted on the sashes. A cord-attaching-block groove 2 and a guide-strip groove 3 are provided for both the upper and lower sashes, the equipment of the two sashes being similar. Each sash is thick enough to cover both of its respective grooves 2 and 3, as shown in Figs. 1 and 3, and fits snugly between the pulley-stiles.

The preferred form of cord-attaching block 4 is made of sheet metal, its lower portion being box-shaped, as shown in Figs. 3 and 6, the upper portion 5 being formed with prongs 6 and turned over the end of the sash-cord 7 to firmly secure the cord-attaching block thereto. The full length of sash-cords, counterbalance-weights, and pulleys are not shown, as they are of the ordinary construction.

A horizontal slot 8 is formed in the side of the cord-attaching block toward the inside of the window, said slot 8 connecting with a bayonet-slot 9 in the side of the block adjacent to the window-sash.

The window-sashes 10 are provided at each side with a pintle 11, which is adapted to enter through the slot 8 and rest in slot 9 of the cord-attaching block. To permit the insertion of the sashes with their pintles, a horizontal groove 12 is provided in the faces of the pulley-stiles 1. The groove 12 extends from the front of the stile to the cord-attaching-block groove for the upper sash. These grooves are arranged near the middle of the pulley-stiles, and hence a single groove in each stile suffices for the insertion of both the upper and lower sashes. To insert a sash, its respective cord-attaching blocks are pulled down until the horizontal slots 8 register with the grooves 12 in the stiles. Then the pintles 11 are passed along the grooves 12 and into the cord-attaching blocks.

The window-sashes are provided with ver-

tical grooves 13 for the guide-strips, which will register with the grooves 3 in the pulley-stiles when the sashes have their pintles mounted in the cord-attaching blocks and are turned into the vertical position. Guide-strips 14 are movably mounted on the window-sashes in said grooves 13. The guide-strips are provided at their inner edges, near their upper and lower ends, with recesses 15, having circular walls with an angular extent a little greater than a semicircle. Near the top of the sash a link 16 is pivoted, which has a cylindrical head 17 fitting in the recess at the upper end of the guide-strip. Near the bottom of the sash a bell-crank lever 18 is pivoted, which has a cylindrical head 19 fitting in the recess at the lower end of the guide-strip.

Pivotally mounted on the end of the bell-crank lever 18 opposite the head 19 is an adjustable securing-block 20, preferably made of sheet metal and formed in one piece. As shown more clearly in Fig. 14, the block 20 is substantially U-shaped, thereby providing overlapping ears 21, which are perforated for the reception of pivot-pins 22, and is formed with upturned lugs 23, whose lower edges 24 are beveled to engage serrations or teeth 25 on the outer ends of connecting-links 26. The block 20 is locked in its adjusted position on the link 26 by a set-screw 27, which impinges against the link and forces its serrated edge into intimate engagement with the beveled lugs on the block.

The links 26 are formed with perforated lugs or ears 28, which are pivotally connected to a bell-crank operating-lever 29, preferably made of sheet metal and formed in one piece with the oppositely-disposed overlapping ears 30, having perforations which register with like perforations in the body portion of said bell-crank lever for the reception of pivot-pins 31. The lever 29 is provided with a square opening 32 for the passage of a squared shank of a spindle 33. The spindle is mounted in the lower portion of the window-sash, about the center thereof, and has for its bearing a cylindrical portion 34, which is seated in a suitable recess in the sash. The spindle also has a shouldered collar 35, which has a bearing in a countersunk escutcheon 36.

The end of the spindle within the escutcheon is squared, as at 37, to receive a suitable key (not shown) having a complementary recess or pocket, whereby the spindle and bell-crank lever may be turned, and, through the medium of the herein-described connections and levers 18, the guide-strips at both sides of the sash are simultaneously moved in or out. When moved outwardly, the guide-strips extend to the bottom of the grooves 3 in the pulley-stiles and lie partly in the grooves in the sash, as shown in Fig. 3. When retracted, the guide-strips lie entirely within the grooves in the sash, and the sash is then free to turn on its pintles in the cord-attaching blocks.

The arrangement of the bell-crank lever 29 and connecting-links 26 serves not only as a means for manipulating the guide-strips, but also serves as an automatic locking means at either extremity of its movement.

In Fig. 9 the parts are shown in the position they assume when the guide-strips are moved outwardly. When in this position, the entire manipulating mechanism is locked and prevented from being moved except upon the proper rotation of the bell-crank lever by applying a suitable key to the square end of the spindle. By turning the bell-crank lever in the direction indicated by the arrows the parts will be moved into the position shown in Fig. 10, when the guide-strips will be retracted and the parts locked, except that a reverse movement be imparted to the bell-crank lever. Thus a lock is provided for the manipulating mechanism at each extremity of its movement. This locking means is desirable, as it insures the holding of the guide-strips in either their retracted or outermost positions. The locking is performed automatically, the operator merely inserting the key and turning the operating-lever until it stops at the limit of its movement. When the window is entirely equipped, practically none of the mechanism is visible from the outside except the escutcheon for the keyhole, which may be ornamental.

Obviously my device is capable of considerable modification within the scope of my invention, and therefore I do not wish to be limited to the specific construction shown and described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A window construction comprising pulley-stiles provided with grooves, a sash movably mounted between said pulley-stiles and provided with grooves arranged to register with said grooves in said pulley-stiles, guide-strips movably mounted in said sash-grooves and adapted to enter said pulley-stile grooves, a link supporting one end of each of said guide-strips, and a lever supporting the opposite end of each of said guide-strips and provided with means for manipulating said lever.

2. A window construction comprising pulley-stiles provided with vertical grooves, a sash movably mounted between said pulley-stiles and provided with grooves arranged to register with said grooves in said pulley-stiles, guide-strips movably mounted in said grooves in said sash, and adapted to enter said grooves in said pulley-stiles, a link supporting one end of each of said guide-strips, a lever supporting the opposite end of each of said guide-strips, and an operating-lever connected to said supporting-levers, said operating-lever

being adapted to simultaneously move said guide-strips into and out of said grooves in said pulley-stile, and also lock said guide-strips at either extremity of their movement.

3. A window construction comprising pulley-stiles provided with grooves, a sash movably mounted between said pulley-stiles and provided with grooves arranged to register with said grooves in said pulley-stiles, guide-strips movably mounted in said grooves in said sash and adapted to enter said grooves in said pulley-stiles, a lever operatively connected to each of said guide-strips to move the same in and out, and means for simultaneously operating each of said levers, said means comprising a bell-crank lever and links connecting said first-mentioned levers.

4. A window construction comprising pulley-stiles provided with grooves, a sash movably mounted between said pulley-stiles and provided with grooves arranged to register with said grooves in said pulley-stiles, guide-strips movably mounted in said grooves in said sash and adapted to enter said grooves in said pulley-stiles, a lever operatively connected to each of said guide-strips to move the same in and out, and means for simultaneously operating each of said levers, said means comprising a bell-crank lever having a key-receiving portion, and links hinged to said bell-crank lever and adjustably connected to said first-mentioned levers.

5. A window construction comprising pulley-stiles provided with grooves, a sash movably mounted between said pulley-stiles and provided with grooves arranged to register with said grooves in said pulley-stiles, guide-strips movably mounted in said grooves in said sash and adapted to enter said grooves in said pulley-stile, a link supporting one end of each of said guide-strips, a lever supporting the opposite end of said guide-strip, and means for operating said levers, said means comprising a bell-crank lever mounted on a spindle having a key-receiving portion, links pivotally connected to said bell-crank lever and adjustably connected to blocks pivotally mounted on said first-mentioned levers.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 26th day of January, 1906, at St. Louis, Missouri.

JONES H. PARKER.

Witnesses:

WILLIAM S. CAMPBELL,

C. L. KUHLMAN.