

G. L. VOGEL.
SHUTTER FASTENER.

No. 571,586.

Patented Nov. 17, 1896.

Fig: 1.

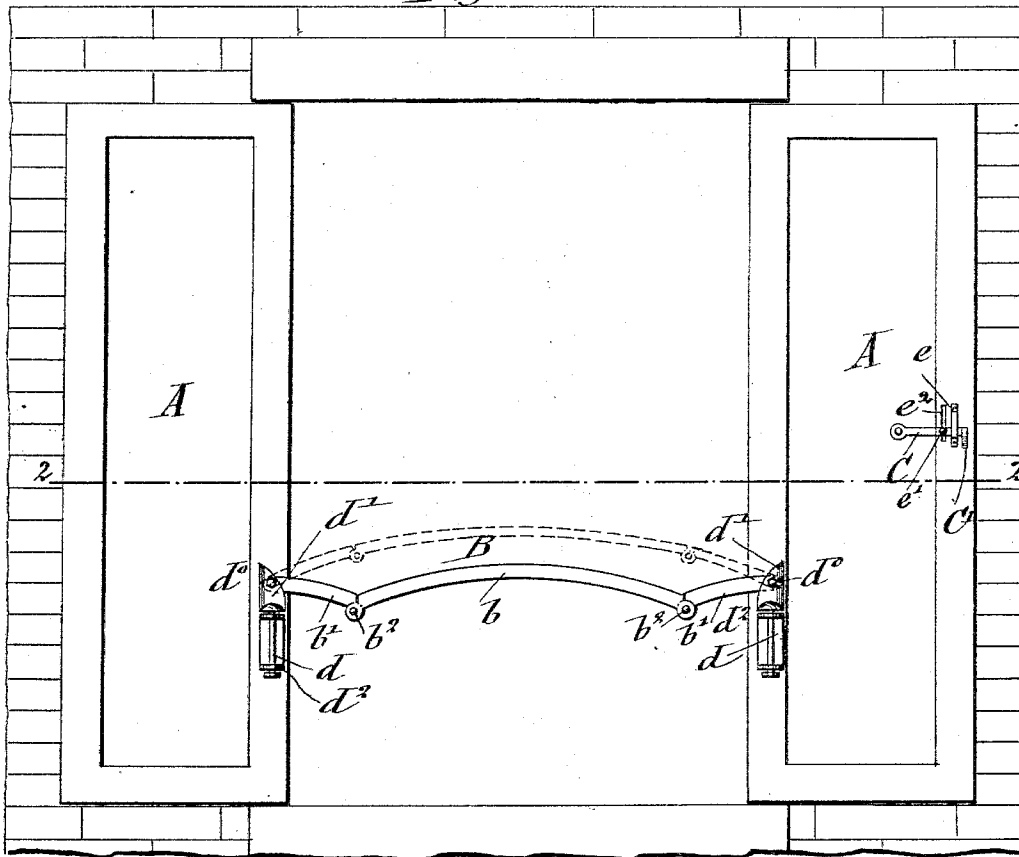


Fig: 2.

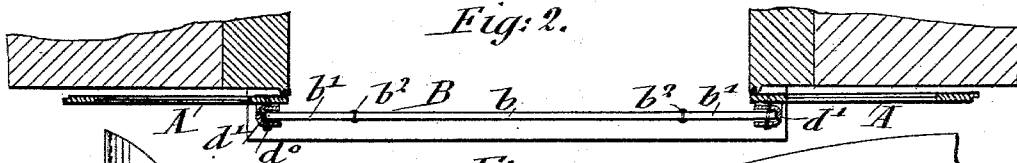


Fig: 3.

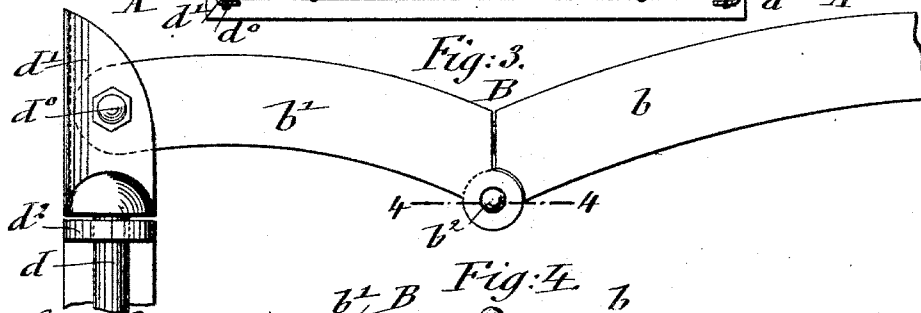
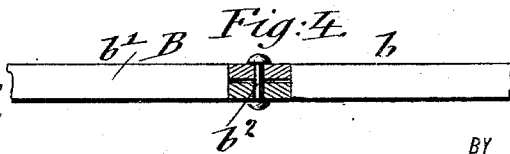


Fig: 4.



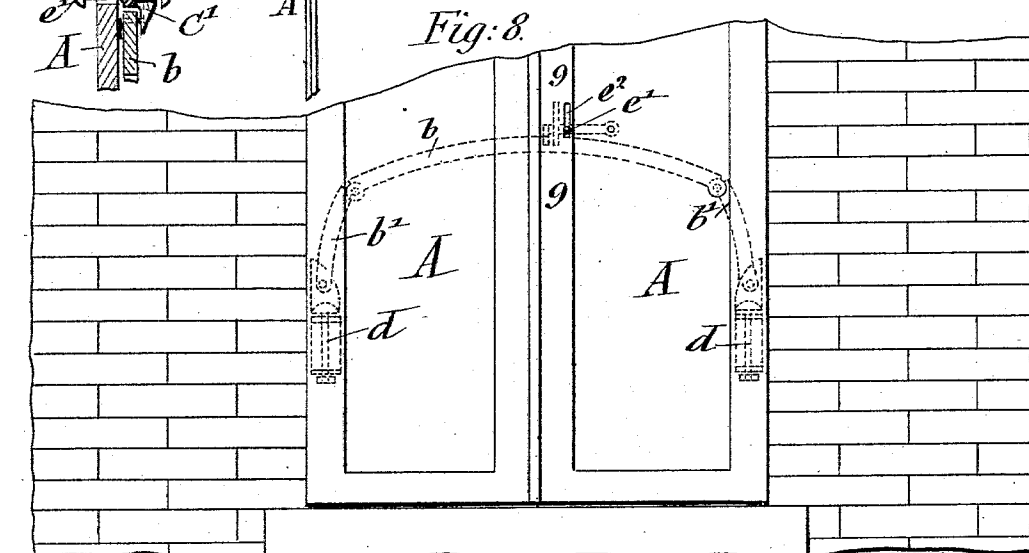
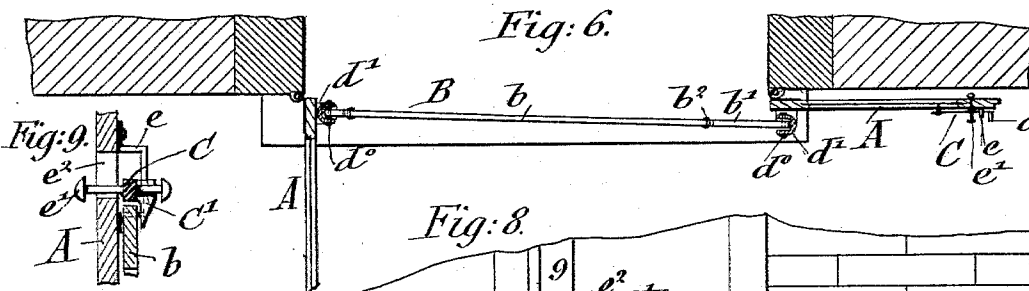
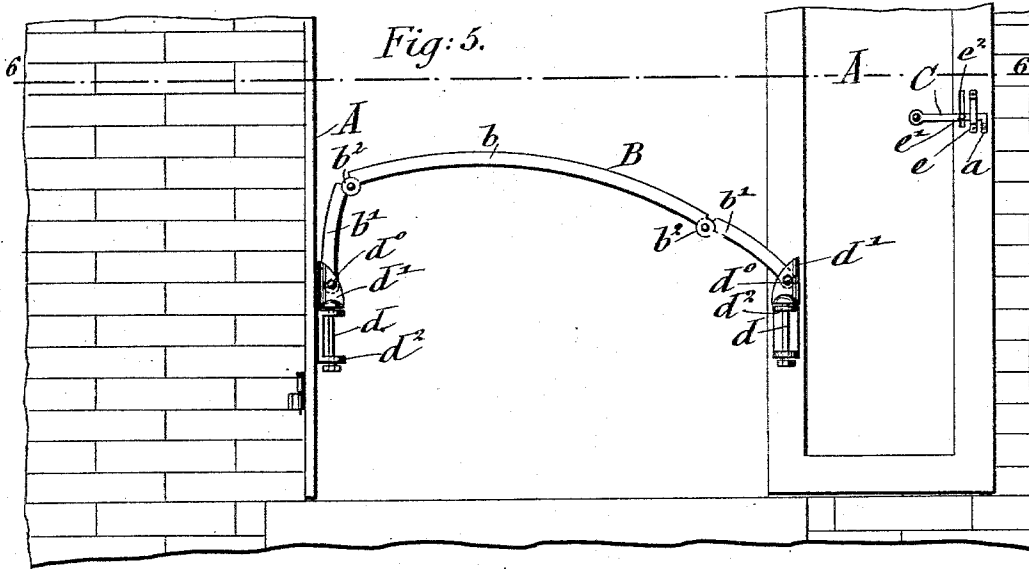
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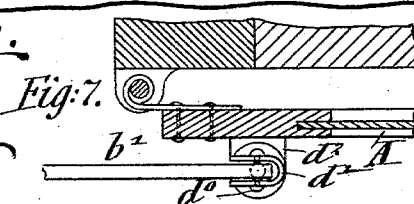
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UNITED STATES PATENT OFFICE.

GEORGE L. VOGEL, OF NEW YORK, N. Y.

SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 571,586, dated November 17, 1896.

Application filed June 6, 1896. Serial No. 594,514. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. VOGEL, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Shutter-Fasteners, of which the following is a specification.

This invention relates to certain improvements in shutter-fasteners of that class which are designed for the shutters of storage-warehouses, office-buildings, factories, and similar places, and by which the shutters are locked in open or closed position in a strong and reliable manner, while at the same time they can be opened from the outside in case of fire or other reason; and the invention consists of a shutter-fastener in which the hinged shutters are connected and rigidly held in position by a transverse brace formed of knuckle-jointed sections, namely, a middle section and two end sections, which latter are pivoted swivel-pins on the shutters, said brace being retained in the closed position of the shutters by a latch, which is capable of being raised and disengaged from the middle section of the brace by an outwardly-projecting pin or knob from the outside, so that the shutters can be opened in case of a fire; and the invention consists, further, of certain details of construction and combinations of parts to be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front elevation of my improved shutter-fastener shown with the shutters in open position. Fig. 2 is a horizontal section on line 2 2, Fig. 1. Fig. 3 is a front elevation of a portion of the connecting-brace of the shutter drawn on a larger scale. Fig. 4 is a detail horizontal section of the knuckle-joint between the sections, taken on line 4 4, Fig. 3. Fig. 5 is a front elevation of the shutter-fastener, showing the position with one shutter in open position and the other in the act of being closed. Fig. 6 is a horizontal section on line 6 6, Fig. 5. Fig. 7 is an enlarged broken detail of Fig. 6. Fig. 8 is a front elevation of the device, showing the shutters in closed position; and Fig. 9 is an enlarged detail section on line 9 9, Fig. 8.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the shutters of a warehouse, office, or factory building, which shutters are preferably made of suitable sheet metal surrounded by an iron frame and hinged in any approved manner to the wall of the building.

My improved shutter-fastener is so arranged that it connects the shutters and locks the same both in open as well as in closed position, said shutter-fastener being for this purpose composed of a knuckle-jointed transverse brace B, that is formed of three sections, namely, a long middle section *b* and shorter end sections *b'*, which are connected with the middle section by knuckle-joints *b²*, as shown clearly in Figs. 3 and 4. The end sections *b'* are pivotally connected at *d⁰* to the upper U-shaped ends *d'* of pintles *d*, which are swiveled in ears *d²*, attached to the inner sides of the shutters and prevented from getting detached from said ears by enlarged heads *d³* or screw-nuts at the lower ends of the pintles *d*, as clearly shown in Figs. 1 and 5. When the shutters are opened, the knuckle-jointed brace B extends transversely across the window-opening, as shown in Fig. 1. The middle section *b* of the brace is pressed downward, so as to form, with the end sections *b'*, a fastener by which the shutters are firmly held in open position, which is caused by the knuckle-joints being then arranged below the pivots *d⁰* and by the abutting of the sections *b* and *b'*.

When it is desired to close the shutters, the transverse brace B is first raised into the position shown in dotted lines in Fig. 1, so that the sections of the brace are moved from their locked position into unlocked position, after which one shutter is moved through an angle of ninety degrees, so that the middle and the opposite end section *b'* are raised into inclined position, while the end section connected to the pintle of the shutter is moved into raised position, as shown in Fig. 5. The shutter is farther moved through another angle of ninety degrees until it arrives in closed position. The opposite shutter A is then likewise moved through an angle of one hundred and eighty degrees from its closed into its open position, by which the end section *b'* and the middle section *b* are moved into raised position, as shown in dotted lines in Fig. 8.

In this position the middle section *b* of the brace is engaged by a pivoted latch *C*, which is guided within the keeper *e* at the inside of the shutter and which is provided with a pin *e'*, that passes through a vertical slot *e²* of the shutter to the outside of the same. The locking portion or hook *C'* of the latch is arranged at right angles to its shank and adapted to engage with the central section *b* of the brace, so as to lock the brace in its closed position, and thereby prevent the shutters from being opened from the inside or outside except by first disengaging the latch from the middle section *b* of the brace *B*. In this manner the shutters can neither be opened by storm or by accident, so that the shutters when closed form a fire and storm proof structure for the windows of the building to which they are applied.

If it should be necessary, as in case of fire, (the firemen not having access to the building,) the shutters can be readily opened from the outside by lifting the outwardly-projecting pin or knob of the latch *C*. This releases the latch from the transverse brace *B* and permits the opening of one shutter after the other. When the shutters have to be opened for giving access to light and air, the latch is raised from the inside, so as to be disconnected from the middle section of the brace *B*, after which first one shutter and then the other can be readily opened, the knuckle-jointed brace following the changed position of the shutters, and when the brace-sections are in the position shown in full lines in Fig. 1 the shutters are locked in open position by the transverse brace *B*. The knuckle-jointed brace extends transversely across the window and forms a reliable locking device for holding the shutters in open position, while in the closed position of the shutters the brace

forms, in connection with the latch, a reliable locking device for the shutters.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with hinged shutters, of a knuckle-jointed brace extending from shutter to shutter and consisting of a middle section and two end sections, vertical swivels or pintles journaled in suitable bearings on the shutters and to which swivels the end sections of the brace are pivoted, a brace-latch applied to the inner side of one of the shutters, and adapted to interlock with the middle section of the brace, and means for operating the latch from the outside of the shutter, substantially as set forth.

2. The combination, with hinged shutters, of a knuckle-jointed brace extending transversely across the window from shutter to shutter, and being formed of three sections, namely a middle section and two end sections, the end sections being pivoted to the upper ends of pintles swiveled to ears of the shutters, and a pivoted latch applied to one of the shutters and adapted to engage the middle section of the brace when the shutters are in closed position, said latch being provided with a pin passing through to the outside of the shutter so as to permit a release of the latch from the middle section of the brace when it is desired to open the shutters from the outside, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GEORGE L. VOGEL.

Witnesses:

PAUL GOEPEL,
GEORGE W. JAEKEL.