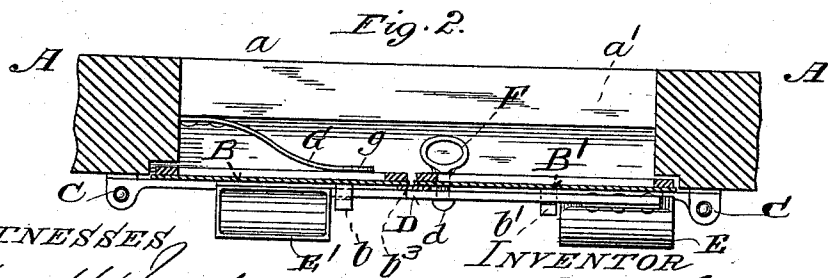
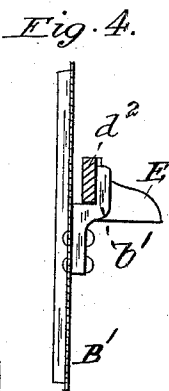
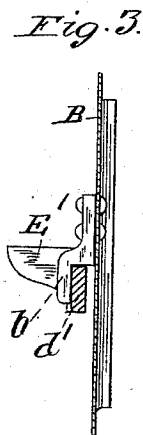
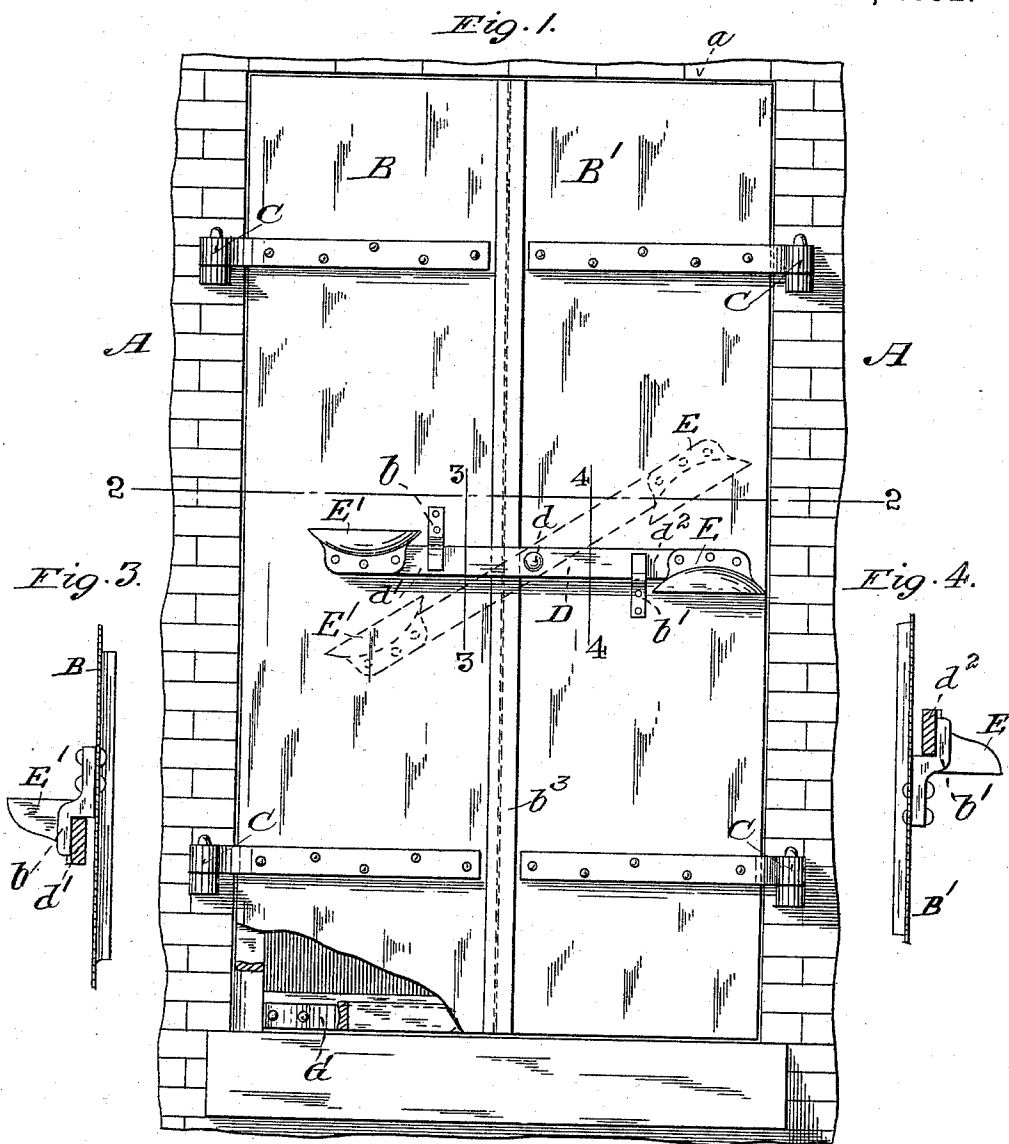


(No Model.)

F. MESKER.
SHUTTER FASTENER.

No. 488,478.

Patented Dec. 20, 1892.



WITNESSES
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UNITED STATES PATENT OFFICE.

FRANK MESKER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MESKER & BRO.,
OF SAME PLACE.

SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 488,478, dated December 20, 1892.

Application filed September 23, 1892. Serial No. 447,188. (No model.)

To all whom it may concern:

Be it known that I, FRANK MESKER, of St. Louis, Missouri, have made a new and useful Improvement in Shutter-Fasteners, of which the following is a full, clear, and exact description.

The improvement relates to that class of shutter-fastenings which are adapted to be operated, from the outer side of the closed shutters, by means of a stream of water from a fireman's hose pipe.

It consists mainly in the special construction and combination of parts whereby the shutters can be opened either by a stream of water thrown downward or by one directed upward or by both an upward and a downward stream acting simultaneously, substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is an outside elevation exhibiting a pair of shutters having the improved fastener; the shutters are shown closed; Fig. 2 a horizontal section on the line 2—2 of Fig. 1; Fig. 3 a vertical section on the line 3—3 of Fig. 1, looking to the left in that figure, and Fig. 4 a vertical section on the line 4—4 of Fig. 1, looking to the right.

The same letters of reference denote the same parts.

A represents the wall of the building, and B B' represent a pair of shutters applied to a window, *a*, therein. The shutters and the parts therewith coacting are of the usual construction, saving as they are modified or supplemented by the improvement under consideration. The shutter-hinges C, are of the usual construction, and the shutters, in opening and closing, swing in the customary manner, although in this respect I desire not to be restricted, but to be able to employ any form of hinge capable of use in connection with the improved fastener under consideration.

D represents a bar pivoted at *d* in one of the shutters—say the shutters D'—to enable the bar to be turned as indicated substantially by its two positions shown respectively in the full and in the broken lines in Fig. 1.

One end, *d'*, of the bar is adapted to engage in a clip or keeper *b* upon the shutter B, and

open at the lower end thereof, and the other end, *d*², of the bar at the same time to engage in a clip or keeper *b'*, upon the shutter B', and which is open at the upper end thereof. The shutters are fastened by turning the end *d'* upward and the end *d*² downward. The end *d*² is provided with a shoulder, E, preferably of the cup or disk-form, inverted, as shown, against which the force of the water, when directed upward, is exerted, and when the stream strikes the shoulder with sufficient force the bar D is turned, as indicated by its broken line-position, to disengage it from its keepers, and the shutters are thereby unfastened, and when unfastened the shutters by any means, and preferably by the means hereinafter especially described, may be automatically opened. The pivot, *d*, is preferably connected with the bar D to turn as one part therewith, and extends inward through the shutters B', and at the inner side of the shutter it is provided with a handle F by means of which the bar from the inner side of the shutters can be turned to fasten and unfasten the shutters.

Any suitable form of keeper can be used in place of the one shown for receiving and confining laterally the ends of the bar D so long as it permits of the described movement of the bar. As thus far described the construction is analogous to that shown in Letters Patent of the United States No. 417,064, December 10, 1889, granted to me for an improvement in shutter fasteners. But in the construction referred to there is no provision for operating the bar D by a stream from overhead, as from the roof of the building, something which not infrequently is quite desirable in a shutter fastener. To obviate the objection referred to, and to provide an improved mechanism for opening shutters in the manner described, is the aim of the improvement under consideration, which consists mainly in providing the bar with another shoulder against which the force of a stream of water directed from above the shutters can be exerted, and so as to cause the bar to move in the same direction as that in which it moves when operated by a stream from beneath it.

E' represents the additional shoulder re-

ferred to. It is attached to the bar D at the opposite side of the pivot *d* to that at which the shoulder E is attached to the bar, and it is suitably shaped, and preferably in the form of the upright cup shown, to enable the water to act effectively upon the bar. It is important that it should be suitably distanced from the shoulder E to enable the stream to act upon it without at the same time encountering the other shoulder E. Accordingly, in practice, the shoulders are arranged well toward the opposite ends respectively of the bar. Thus in the manner described, the bar D can be turned, to disengage it from its keeper, by either an upward or a downward stream, or an upward stream may be directed against the shoulder E at the same time a downward stream is directed against the shoulder E'.

G represents a spring secured at one end to the window-sill *a'*, or other fixed part of the construction within the shutters, and having its free end *g* adapted to press, when the shutters are closed, against the inner side of the shutter with sufficient force to cause the spring, when the shutters are unfastened, to throw the shutters open. One such spring in most instances suffices as the shutter, B, against which it immediately acts in turn presses against the flange *b*³, of the other shutter B' and thus that shutter as well as the shutter B is thrown open by the action of the spring. That one of the keepers—the

keeper *b'* in the present instance—which is upon that one—the shutter B' in the present instance—of the shutters upon which the bar D is pivoted may be omitted, but it is better to employ the two keepers as shown. It is desirable, and it is so shown in the drawings, for that portion of the bar D, including its shoulder, which moves upward in unfastening to be heavier than the opposite portion of the bar, and, in practice this can be variously carried out, and preferably by making the rising portion of the bar longer than the opposite portion.

I claim:—

1. The combination of the shutters, and the pivoted bar, the shutter B having the keeper, and said bar having shoulders at opposite sides respectively of its pivot, substantially as and for the purpose described.

2. The combination of the shutters, the pivoted bar, the window-frame, and the spring, the shutter B having the keeper, the bar having shoulders at opposite sides respectively of its pivot, and the spring acting to open the shutters when unfastened, substantially as described.

Witness my hand this 23d day of September, 1892.

FRANK MESKER.

Witnesses:

B. F. ROY,
C. D. MOODY.