J. ABORN.

COMBINED SHUTTER-WORKER AND FASTENER.

No. 193,311. Patented July 24, 1877.

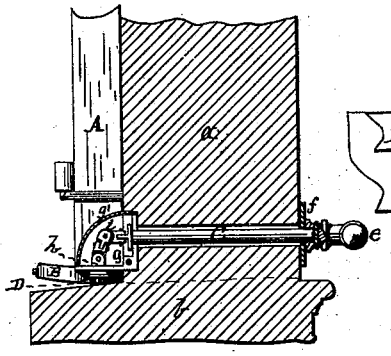

FIG. 1.

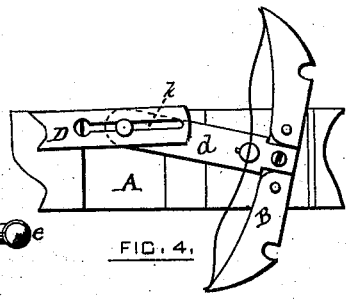

FIG. 4.

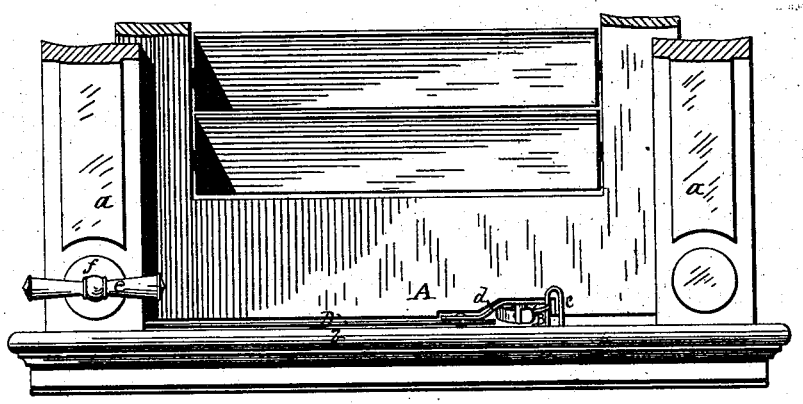

FIG. 2.

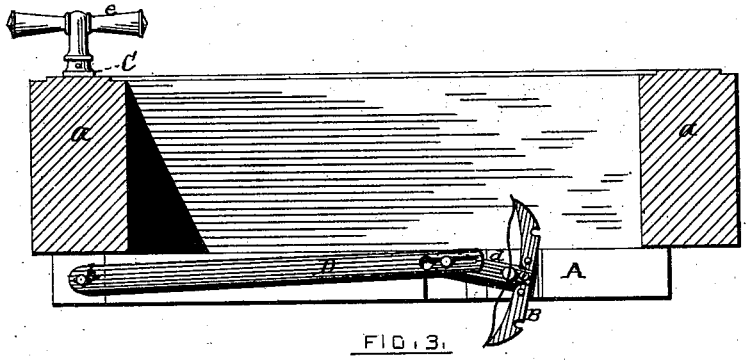

FIG. 3.

WITNESSES.

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JAMES ABORN, OF CRANSTON, RHODE ISLAND, ASSIGNOR TO ANDREW G. SMITH, OF SAME PLACE.

IMPROVEMENT IN COMBINED SHUTTER WORKER AND FASTENER.

Specification forming part of Letters Patent No. **193,311**, dated July 24, 1877; application filed May 14, 1877.

To all whom it may concern:

Be it known that I, JAMES ABORN, of Cranston, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Mechanism for Swinging Blinds or Shutters, and Controlling their Latches; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a true, clear, and complete description thereof.

My invention relates to that class of mechanism by means of which an outside blind or shutter may be swung to and fro, and secured by or detached from its fastenings without opening a window; and it consists, mainly, in the combination, with the blind or shutter, of a pivoted spring-latch, a lever-arm attached thereto, and a controlling-lever connected at one end with the latch, and at the opposite end with a knob-rod, which, when manipulated, causes the controlling-lever to swing to and fro, to release the latch from its fastening, and to carry the blind with it in all its movements.

To more particularly describe my invention I will refer to the accompanying drawings, in which—

Figure 1 represents, in section, the lower portion of one side of a window-frame, to which a blind is attached, provided with my controlling device. Fig. 2 represents an inside view of the same portion of such a frame, and a blind mounted thereon. Fig. 3 represents the same as in Fig. 2, with the sill of the frame detached, showing the bottom edge of the blind. Fig. 4 represents on an enlarged scale a portion of the lower edge of the blind, its fastening, and a portion of the main lever.

The window-frame is, as usually, constructed with the sides *a* and sill *b*. The blind or shutter A is mounted on one side of the frame in the usual manner, and I employ the well-known staple-catches for fastening the blind to the sill, as at *c*, when closed, or to the side of the house when opened. The double spring-latch at B, considered purely as a latch, is not materially unlike one form of blind-latch long in use. It differs from the common form in being provided with a central rectangular lever, as at *d*, which projects toward the hinged edge of the blind, parallel with its lower edge.

Housed in one side of the frame, near the sill, is a rod or shaft, as at C, with a handle at *e* at the inner side of the frame. This shaft has a bearing at its inner end in a circular plate, *f*. At the outer end of said shaft is a rectangular plate, *g*, secured to the frame. The vertical portion of said plate *g* has an opening, which serves as a bearing for the outer end of shaft C. The horizontal portion has a similar opening, which serves as a bearing for a short, vertical, cylindrical stud, *h*, which is secured at its lower end to the main controlling-lever D, so that this lever may swing on said stud substantially as the blind swings on its hinges. The shaft C and the stud *h* of lever D are connected by a universal joint, as at *i*, so that when the shaft is rotated in either direction the lever D will be swung on its stud in a corresponding direction. The plate *g* is provided with an inclosing-hood, *g'*. The vibrating end of lever D is provided with a longitudinal slot, as at *k*, through which a pin is inserted for operatively connecting this lever with the lever *d* of the spring-latch.

As thus constructed, the operation of the mechanism is as follows: The blind being closed, for instance, and its latch engaged with its catch, the handle of the rod or shaft C is turned to the right hand, which causes the outer end of the main lever to swing outward. The first effect thereof is the vibration of the spring-latch moving its inner end away from the sill-staple, and, when thus released, the movement of the lever being continued, it carries the blind with it, until, having been fully swung, its latch engages with the house-staple. For closing the blind the hand-rod will be turned in the opposite direction, the latch being disengaged from the house-staple in like manner.

While I prefer the universal joint to any other means for rotatively connecting the shaft C with the stud of the main lever, I am well aware that a segmental-geared plate attached to the stud, and a bevel-pinion on the shaft may be employed with approximately-

desirable results, and that still other mechanism may be profitably employed in the same connection, and I therefore do not limit my invention to the precise construction shown.

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

The combination, with a blind or shutter, and its window-frame, of a pivoted spring-latch, a lever-arm attached thereto, and to the window-frame, and a controlling-lever, provided with a hand-rod, substantially as described, whereby the manipulation of the hand-rod, mounted in the frame, releases the latch from its fastenings, and swings the blind on its hinges, as set forth.

JAMES ABORN.

Witnesses:
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