G. H. METZ.

Sash-Fastener.

No. 161,050. Patented March 23, 1875.

FIG. 1.

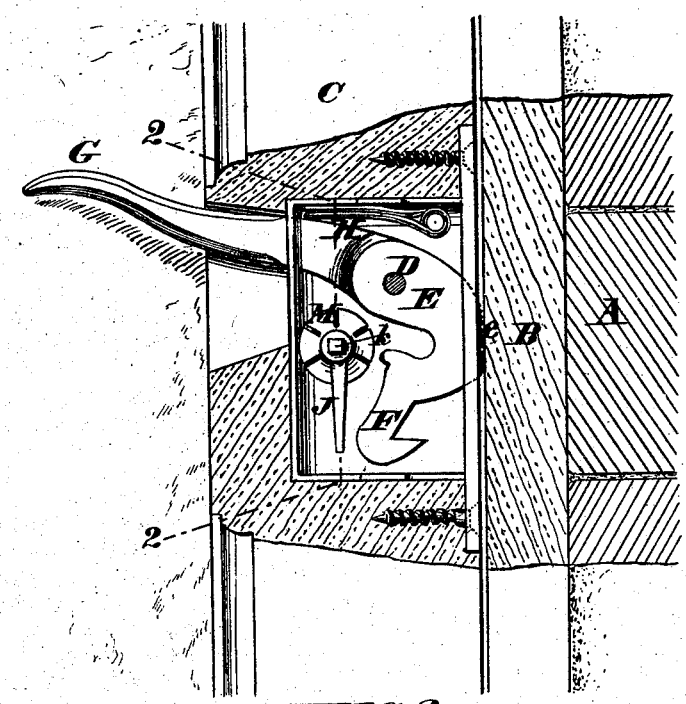


FIG. 2.

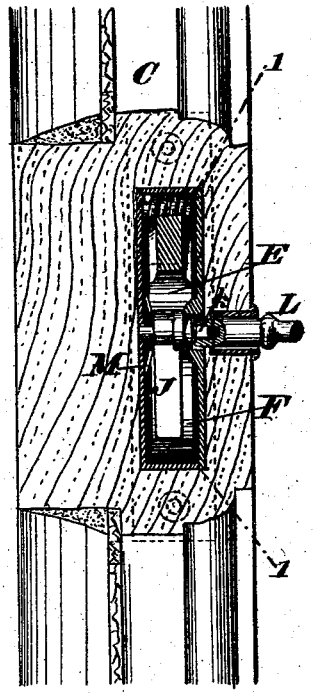


FIG. 3.

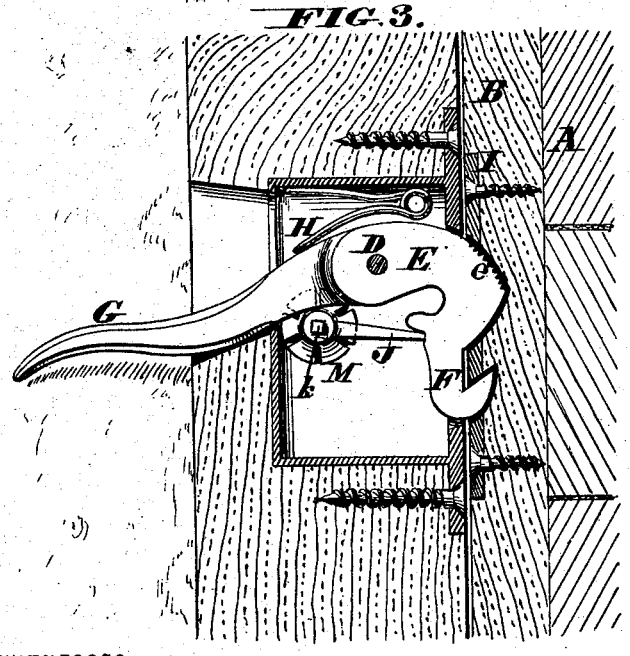
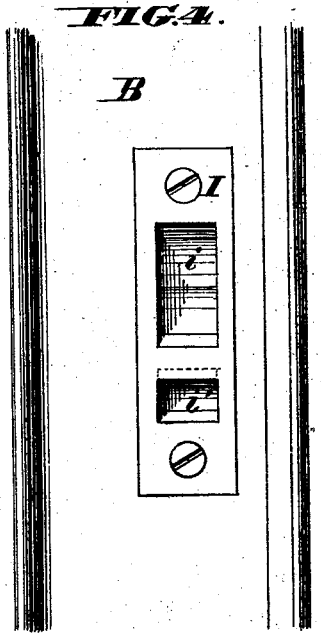


FIG. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN SASH-FASTENERS.

Specification forming part of Letters Patent No. **161,050**, dated March 23, 1875; application filed February 17, 1875.

To all whom it may concern:

Be it known that I, GEORGE H. METZ, of the city and county of Wyandotte, in the State of Kansas, have invented a new and useful Improvement in Sash-Fasteners, of which the following is a specification:

My fastener is constructed with an eccentric head, pivoted within the side of the sash, so as to project from the head thereof, and having a roughened surface, to adapt it to hold by friction against the side of the window-frame. A spring is employed to press the head outward into its working position, and it is constructed with a handle or lever for retracting it. It is also provided with a hook-shaped extremity or projection, which, when the window-sash is down, constitutes the lock, the said locking-hook being made in one piece with the eccentric by which the sash is supported when raised. The invention further consists in the combination of the aforesaid eccentric head and hook with a locking-arm operated by a key, and serving, when the window is closed, to prevent the retraction of the fastening-hook without the application of the said key.

In the accompanying drawings, Figure 1 is a front elevation of the device, with a portion of the window sash and frame in section, showing the position of the parts when the sash is raised and supported by the eccentric. Fig. 2 is a vertical section on the line 2 2, Fig. 1. Fig. 3 is a front elevation, showing the position of the parts when the sash is down and locked. Fig. 4 is a view of the locking-plate in the side of the window-frame.

A may represent a portion of the wall of a building; B, a portion of the window-frame; C, a portion of the side of the sash. Within the latter is pivoted, by a bolt or pin, D, an eccentric, E, having on its working face the customary roughened surface *e*, to adapt it to hold against the side of the window-frame, so as to support the sash. Projecting from the eccentric head E, and cast in one piece therewith, is a hook, F, employed to fasten the window when closed. Projecting horizontally from the rear side of the eccentric head E, and also cast in one piece therewith, is a lever or handle, G, for retracting the eccentric head and hook by an upward pressure applied to the said lever or handle. H represents a spring pressing downward upon the heel of the eccentric head, so as to hold the roughened surface *e* in contact with the side of the window-frame, or to press the hook F into lock with a plate, I, which is fixed in the side of the window-frame in proper position to receive the hooked eccentric E F when the sash is closed. For this purpose the plate I is formed with two apertures, *i i'*, the latter of which receives the extremity of the hook F, and the former of which admits the projecting portion of the eccentric E, so as to allow the head to turn sufficiently to cause the hook to enter its cavity *i'* in the locking-plate. The side of the window-frame is excavated beneath the apertures *i i'* to a sufficient extent, as illustrated in Fig. 3. For the purpose of locking the fastening F so as to prevent its retraction and the release of the window-sash by an unauthorized person, I employ an arm, J, projecting from a shaft, K, which is formed at its outer end with a square, *k*, for the reception of a key, L. M represents a disk-spring, pressing outward against a suitable shoulder on the shaft K, and bearing against the back of the lock-casing, so as to provide sufficient friction to hold the locking-arm J in any position in which it may be set. To lock the hook F the arm J is turned up with its end against the back of the hook, as shown in Fig. 3. To release it, it is turned down, as shown in Fig. 1.

From the above description it will be understood that when the window is closed and locked, as shown in Fig. 3, it is only necessary to turn the locking-arm J down in order to retract it from the locking-hook F. By then applying the hand to the lever G the upward pressure employed to raise the window retracts, by the same action, the eccentric E and hook F, so as to allow the window to be raised to any extent desired, and when it is released the spring H, throwing the roughened surface *e* of the eccentric E into contact with the window-frame, instantly supports the sash wherever it may be set.

I am aware that sash-fasteners have before been made with an eccentric for supporting the sash and a bolt for locking it shut, which could both be retracted by the action of a single lever; but in my invention material advantage in simplicity, efficiency, and durabil-

ity results from casting the eccentric E, locking-hook F, and lever G all in one piece. The construction shown renders the hook F a more secure fastening than an ordinary sliding bolt, because the relative positions of the said hook and the pivot on which it turns enable me to give to the end of the hook a considerable inclination or obliquity, so that in an attempt to raise the window the hook will catch within its socket *i'* in the holding-plate I, so as to fasten the window with perfect security from any attempt to raise it from the outside, even without the use of the locking-arm J. An upward pressure of the hook, as applied by an attempt to raise the window-sash without pressure on the lever G, causes the said hook to nip the edge of the locking-plate I so firmly between the face of the hook and the face-plate of the sash-lock as to securely hold the lock, and render its retraction impossible except by the required upward pressure on the lever. A further advantage is seen in the use of the locking-arm F, by which the window can be securely fastened, so that it cannot be opened without the application of the proper key.

The following is claimed as new:

1. The eccentric E *e*, hook F, and handle G, constructed as herein shown and described.

2. The combination of the eccentric head E, hook F, locking-arm J, and key-shaft K, substantially as and for the purposes set forth.

GEORGE H. METZ.

Witnesses:
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