

ELBERT D. WEYBURN.

Improvement in Locks for Pianos, &c.

No. 120,804.

Patented Nov. 7, 1871.

Fig 1.

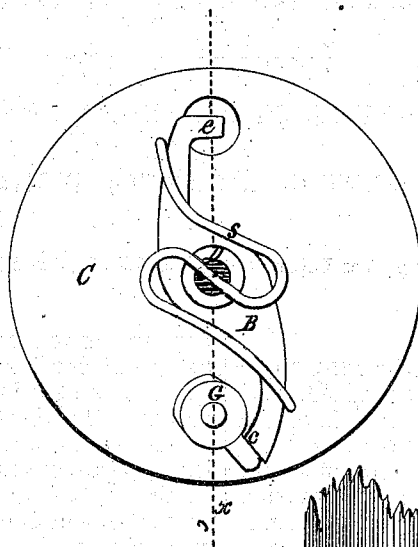


Fig 2.

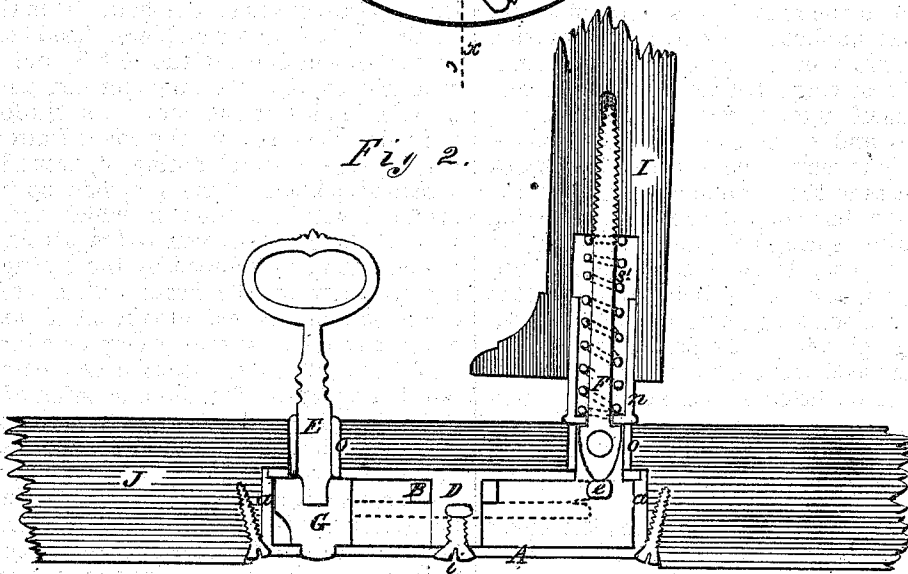


Fig 4.

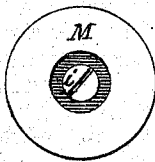
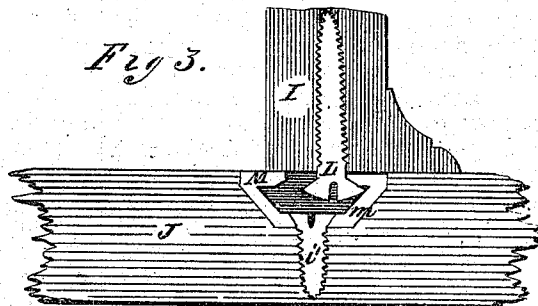


Fig 3.



Attest

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IMPROVEMENT IN LOCKS FOR PIANOS, &c.

Specification forming part of Letters Patent No. 120,804, dated November 7, 1871.

To all whom it may concern:

Be it known that I, ELBERT D. WEYBURN, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain Improvements in Self-Locking Attachments, of which the following is a specification:

My invention applies in its entirety to securing detachable covers or casings, as, for instance, the cover of a sewing-machine to its table, and the lock of itself is for covers that are hinged, such as piano and other similar covers non-detachable. My invention, as it relates to the lock proper, consists in the arrangement and combination within a disk-shaped case of a vibrating and self-locking spring-bolt, and an unlocking cam with an adjustable screw catch-pin and lifting spring-tube; the object being to lessen the usual number of working parts, facilitate the adjustments, and give to all the parts requiring insertion in the wood such circular forms as will enable them to be fitted in bored auger or center-bit holes.

I will now proceed to describe more fully my invention, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of the lock, the cover being removed. Fig. 2 is a partial vertical transverse section of a sewing-machine table and cover, and through the line *x*, Fig. 1, of the lock. Fig. 3 is a similar section through the adjustable locking-screw and ring-plate. Fig. 4 is a top or plan view of the ring-plate.

The case of the lock consists of a disk-plate, C, and a cap or cover, A, having a rabbeted rim, *a*, which fits over the disk-plate. D is a stud cast on the disk-plate, and abutting against the cover. A countersunk screw, *i*, passing through the cover and screwed into the stud connects the two parts of the case firmly together. B is the locking-bolt hung on the stud, so that both ends will vibrate clear of the case-rim. The locking end of the bolt is bent, as at *e*, to enter the hole in the enlarged rounded head of the catch-screw pin F; and the opposite end is shaped as shown, or in any other manner adapted to the action of the cam G, which revolves in bearings in the case, and is provided with a suitable socket, not shown, for the insertion of the solid plug of the key E, to revolve the cam past the corner *c*, to vibrate the bolt for unlocking the end *e* from the catch, the key being turned in either direction. *s* is a

bent spring to throw the bolt back to place after being unlocked, the cam acting as a stop. This spring is seated in a slot in the stud, and is secured by the abutting of the screw *i*. The ends of the spring are turned or bent to act against the opposite edges of the bolt. F is the screw-catch pin, having a shouldered head bored to receive the bent end *e* of the bolt B, and conically rounded, so that its impingement against the chamfered side of the bolt end *e* will force back the bolt. To throw up the cover I after unlocking, I place a spiral spring, *s'*, around the unthreaded portion of the pin, said spring being confined within a tube, *n*, which slides freely within a hole in the cover's edge, the flanged end of the tube being forced by the spring against the shoulder of the head. The catch-pin is threaded and screwed into the bored wood of the cover, as shown, so that it may be adjusted to a half turn. Tubular escutcheons *o o* are driven into the apertures for the admission of the key and catch-pin head. L is the locking-screw, and M the ring-plate to fasten the back side of detachable covers to their tables. The heads of the screws are rounded to avoid marring the table J, and made with a slightly-wedging shoulder, and are simply screwed into the edge of the cover to a suitable depth, so that the projecting heads will pass through the opening in the ring-plate M and interlock firmly with it. The plate is formed with a bent cross-strap, *m*, on the under side, and is sunk flush in a hole bored in the table, and secured firmly by a single screw, *i'*.

The parts just described must be so placed in relation with the catch-pin and its hole that when the screw-heads are dropped through the holes in the ring-plates the act of forcing down the catch-pin head to lock it will push back the cover so that the screw-head shoulders will overlap the under bevel of the plate M, as clearly shown in Fig. 3, and form a strong connection, which cannot be readily broken apart.

The mode of locking and unlocking will be readily understood from the previous description of the several parts.

For pianos, trunks, &c., the catch-pin will enter the lock through a hole in the rim; and in the case of trunks the disk-case may have a hinged connection, and be provided with ward or permutation arrangements to regulate the penetration of a proper key in the unlocking-cam G.

The distinctive character and advantages of these locking attachments having been hereinbefore enumerated, I claim as my invention—

The vibrating bolt B actuated by the bent spring s, in combination with the unlocking-cam G and adjustable screw-catch pin F, arranged to operate within the disk-shaped case, as described,

and in co-operation with the spring-tube n, substantially as and for the purposes set forth.

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Witnesses:

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