W. B. ALLEN.
Vehicle Seat-Lock.

No. 212,345. Patented Feb. 18, 1879.

Fig. 1.

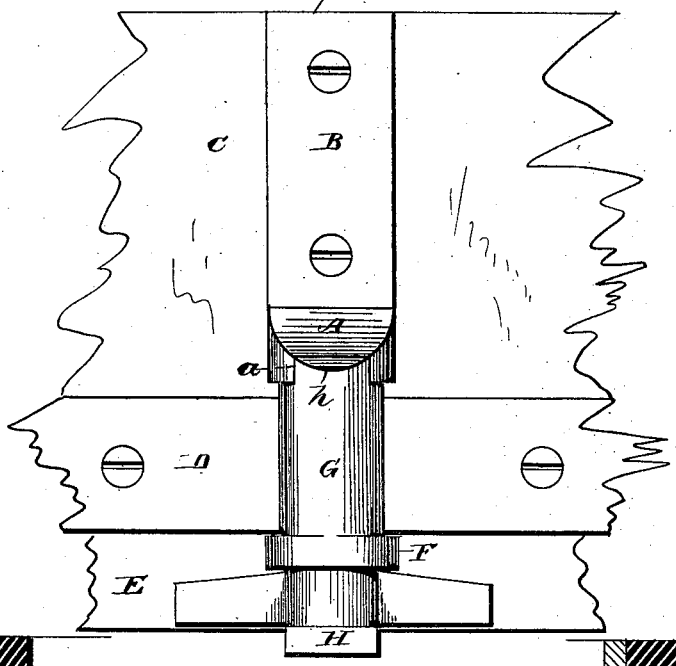


Fig. 2.

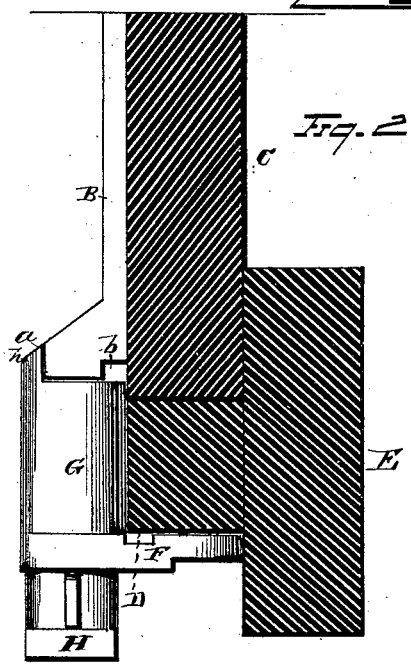
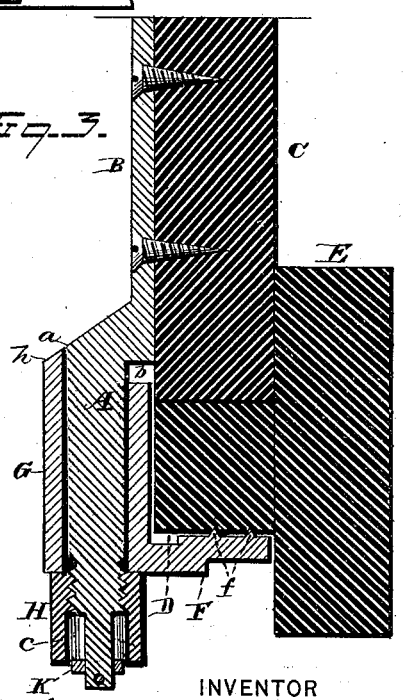


Fig. 3.



WITNESSES
E. F. Nottingham
A. M. Bright

INVENTOR
Wm B. Allen.
By A. A. Seymour.
ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM B. ALLEN, OF ORLEANS, NEW YORK.

IMPROVEMENT IN VEHICLE-SEAT LOCKS.

Specification forming part of Letters Patent No. **212,345**, dated February 18, 1879; application filed July 3, 1878.

To all whom it may concern:

Be it known that I, WILLIAM B. ALLEN, of Orleans, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Seat-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain improvements in seat-locks, and is designed to provide a simple, strong, and efficient device to adjustably secure the seat-support of a wagon or other vehicle to the seat-supporting rail.

It consists in a construction as follows: A bolt having a strap-head is fastened to the side of the usual seat-support. This bolt is screw-threaded at its lower extremity, and provided with a combined hand and wrench nut, which adjusts and secures in position a locking-plate, whose tubular stem has free vertical sliding movement upon said bolt. This locking-plate is formed at right angles to its stem, and has a number of upright studs projecting from its clamping-face. Its stem is adapted to engage with the head of the bolt in such a manner as to adjust said locking-plate in position to be clamped against the seat-supporting rail. Means are also provided whereby, when the locking-plate is not in use, it may be turned inwardly from the side, and there held in fixed position, thus being prevented from loose swinging, while at the same time it is protected by the seat and seat-support from becoming injured. The combined hand and wrench nut, which clamps the locking-plate in place, is secured against removal by a washer, which works within a chamber formed in said nut, and which is fastened on the screw-threaded end of the bolt.

Referring to the drawings, Figure 1 is a front view of my lock, shown as applied to sectional parts of a seat-support and a seat-supporting rail. Fig. 2 is a side view thereof, and Fig. 3 a vertical sectional view of the same.

The bolt A has a strap-head, B, which may be of greater or less length, proportionately to the body of the bolt, and may be fastened in any desired manner to the inner side of a seat-support, C, which rests upon a seat-supporting rail, D, which latter may be made in same or separate piece from the side E of the wagon-body.

The locking-plate F is adapted to engage against the under side of this seat-supporting rail, and is formed with any desired number of studs, *f*, projecting vertically from its clamping-face. These studs press into the under surface of the said rail, and serve to prevent any tendency of the locking-plate to slip in engagement with the same.

The locking-plate is formed right-angularly on the lower body of the tubular stem G, which has free vertical sliding movement upon the bolt, and by means of the combined hand and wrench nut H, which engages with the threaded lower body of the bolt, this locking-plate, together with its stem, is adjusted vertically upon the bolt, and adapted to be clamped in any desired engagement with the seat-supporting rail.

In order to adjust the locking-plate in position to be clamped against the seat-supporting rail, a projection, *h*, is formed on the upper front body of its tubular stem, which is adapted to have square horizontal engagement with a flat bearing, *a*, formed on the lower front portion of the bolt-head.

While in order to keep the locking-plate from loosely swinging when not in use—as, for instance, in removing a seat from its wagon or in putting a seat on the same—I provide the slot *b*, formed in the outer side portion of the under surface of the bolt-head. The stud on the tubular stem, which serves by its engagement with the flat bearing on the face of the bolt-head to hold the locking-plate against lateral displacement when the same is being vertically adjusted to or from the seat-supporting rail, is also adapted to fit in the said slot made in the bolt-head.

When a seat is not to be used with a wagon the tubular stem is run down on its bolt until the said stud will permit the stem to be rotated a half-circle distance, and the stud is in line to enter the bolt-head slot. Then the hand-nut is turned so as to clamp the stud up into said slot. The locking-plate is thereby held in a fixed position, and is also

protected from injury, since it is turned inward from the side, so that the seat and seat-support serve as guards to shield it.

The combined hand and wrench nut is secured against removal or loss by means of a washer, K, which is riveted or otherwise suitably fastened to the screw-threaded end of the bolt, and which works within a chamber, *c*, formed in the nut. By this means a saving in material is also obtained, since the bolt need not be made as long as would be necessary if this construction were not provided.

Although I preferably use the combined hand and wrench nut, yet it is apparent that either a simple wrench or hand nut may be substituted.

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

1. The combination, with a bolt whose head is rigidly secured to a seat-support, of a locking-plate which engages with the seat-supporting rail, and is formed with a tubular stem, which latter has free vertical sliding movement upon the bolt, together with a clamping device, which engages with the lower extremity of the bolt, and adjusts said locking-plate in working position, substantially as set forth.

2. The combination, with a bolt formed with a strap-head, which is rigidly fastened to a seat-support, of a locking-plate which engages with a seat-supporting rail, and is formed with a tubular stem adapted to have free vertical sliding movement upon the bolt, together with a combined hand and wrench nut, which is adjustable upon the lower threaded extremity of the bolt, and by its bearing against said tubular stem clamps the locking-plate in operative position, substantially as set forth.

3. In a seat-lock, the combination, with a seat-bolt and a locking-plate, of a nut formed with a chamber in which a washer fits, said washer being secured to an end extension of the bolt of less diameter than the remaining bolt-body, and which is adapted to permit said nut to have suitable movement upon the bolt, while at the same time it is prevented from removal therefrom, substantially as set forth.

4. The combination, with a bolt whose head is rigidly fastened to a seat-support, together with a locking-plate which engages with this seat-supporting rail, and is formed with a tubular stem having free vertical sliding movement upon the bolt, of a chambered nut, which has screw-thread engagement with the latter, and is prevented from removal by means of a washer riveted to a suitable end extension of said bolt, substantially as set forth.

5. In a seat-lock, the combination, with a bolt fastened to a seat-support, of a locking-plate provided with a tubular stem having free vertical sliding movement upon said bolt, the upper front body of said stem being formed with an upright projection adapted to have square horizontal engagement with a flat bearing formed on the bolt-head, whereby said locking-plate is guided in position preparatory to being clamped against the seat-supporting rail, substantially as set forth.

6. The combination, with a bolt whose head is fastened to a seat-support, and a locking-plate provided with a tubular stem having free vertical sliding movement upon said bolt, of a chambered nut, which is guarded against removal from the latter by a washer secured to a suitable end extension thereof, said tubular stem being formed with a projection on its upper front body, adapted to engage with said bolt-head and cause the locking-plate to be adjusted in clamping position relative to the seat-supporting rail, substantially as set forth.

7. In a seat-lock, the combination, with a bolt whose head is formed with a transverse slot in its rear under side, of a locking-plate provided with a tubular stem having free vertical sliding movement upon said bolt, the front upper body of said stem being formed with an upright projection, adapted to engage with said slot when the locking-plate is turned inwardly in position, secure from injury when the same is not in use, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 26th day of June, 1878.

WILLIAM B. ALLEN. [L. S.]

Witnesses:

ROBT. M. SMITH,

G. R. STETSON.