

J. H. FELLOWS.
Carriage-Seat Fastening.

No. 105,789.

Patented July 26, 1870.

Fig. 1.

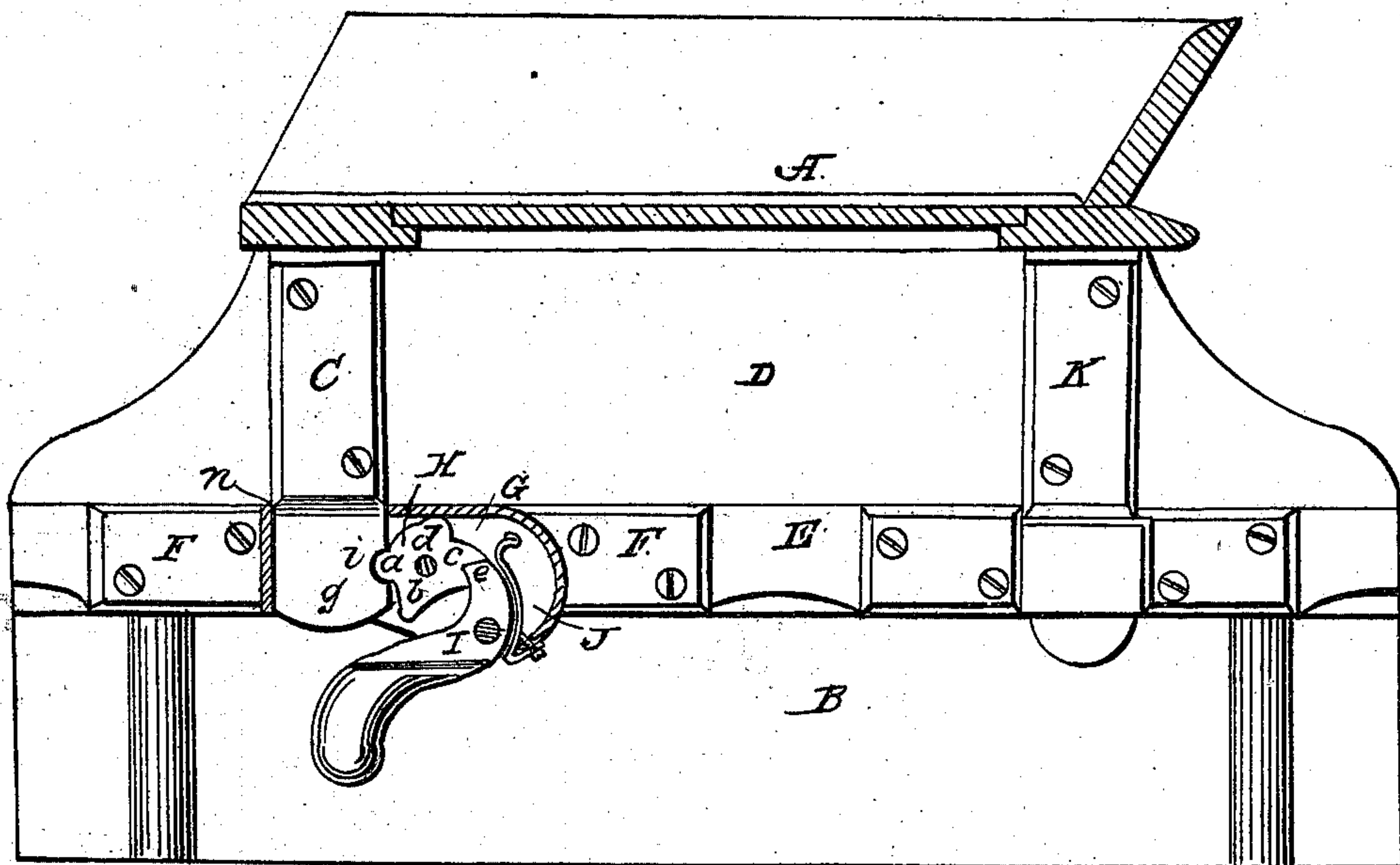
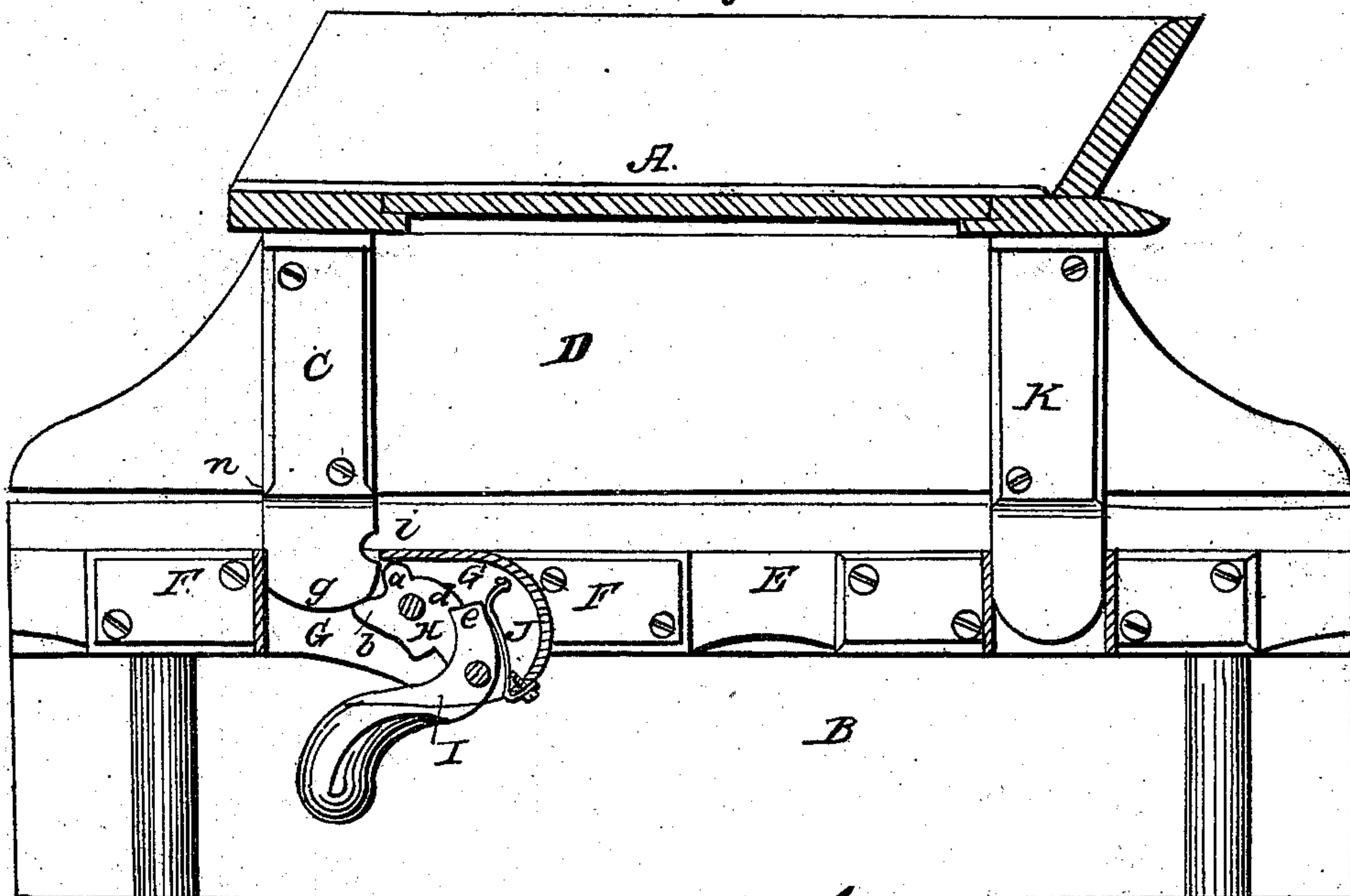


Fig. 2.



Witnesses
Geo. H. Pearson
Geo. R. Gray

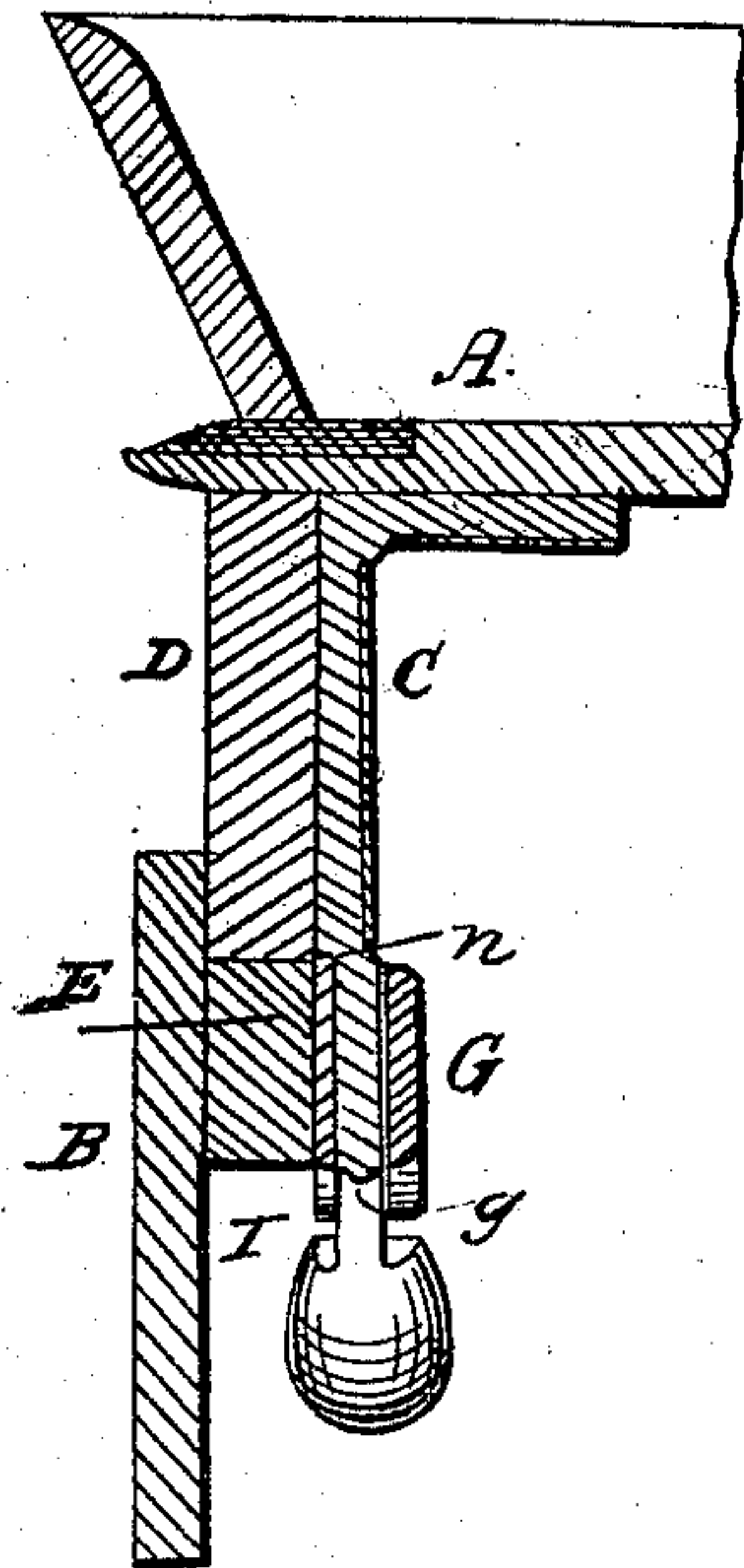
James H. Fellows, Inventor
By his Attorneys,
Vesperman & Johnson

J. H. FELLOWS.
Carriage-Seat Fastening.

No. 105,789.

Patented July 26, 1870.

Fig. 3.



UNITED STATES PATENT OFFICE.

JAMES H. FELLOWS, OF ALBA, PENNSYLVANIA.

IMPROVEMENT IN SEAT-FASTENINGS FOR CARRIAGES.

Specification forming part of Letters Patent No. **105,789**, dated July 26, 1870.

To all whom it may concern:

Be it known that I, JAMES H. FELLOWS, of Alba, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Seat-Fasteners for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which makes part of this specification, and in which—

Figure 1 represents a transverse section of a seat and a portion of the body of a vehicle, showing the several parts of the fasteners in elevation, except the case for inclosing the automatic tumbler, which is shown in section, the several parts occupying the position they do when the seat is locked. Fig. 2 represents a similar view, the seat being raised and the parts occupying the position they do when the tumbler is unlocked. Fig. 3 represents a vertical section through one side of the seat and a portion of the body of a vehicle, showing the seat-plate locked in its socket.

My invention relates to certain improvements in automatic seat-fasteners for which Letters Patent were granted to me May 4, 1869; and consists in the employment of an irregular-shaped tumbler inclosed within the case of the body-plate, and in the arrangement, in connection therewith, of a lever of peculiar form, whereby it is enabled to perform the several functions of locking and unlocking the tumbler and of striking the lower end of the seat-plate for the purpose of facilitating its removal when unlocked.

In the accompanying drawing, A represents the seat, and B a portion of the body of the vehicle, which may be of any approved construction.

The seat-fastening proper consists of a bar, C, of malleable iron or other suitable material, made in the form of an elbow, its vertical branch being fitted to the inner side of the seat-riser D and its horizontal arm secured to the under side of the seat. The lower end of this seat-plate C extends below the bottom of the riser a sufficient distance to project through a socket in the case of the body-plate.

To the inner side of the upper rail, E, of the vehicle, upon which the seat is mounted, I secure a body-plate, F, within which a chamber,

G, is formed, in such manner as to serve as a socket for the projecting end of the seat-plate C, to receive the automatic tumbler H and its locking-lever I. The projecting end of the seat-plate extends through and beyond the socket of the body-plate and is rounded, for a purpose to be presently described.

Within the chamber G of the case the tumbler H is secured by an axis, upon which it may oscillate. This tumbler is of peculiar form, having two tongues, *a b*, and two shoulders, *c d*, and it is placed adjacent to the inner edge of the seat-plate C.

Within the chamber G the thumb-lever I is secured by an axis, which allows it to vibrate. This lever is of concave and convex form, only one end of which projects within and is inclosed by the case, while its oppositely-curved end extends without the case and forms a thumb-trigger. This latter projecting end is much heavier than its opposite end, so as to serve as a weight, and, as this end hangs downward, its constantly tends to hold its inner end up. The pendent position of the heavier end of this lever is such as that when it is raised by the thumb to unlock the tumbler it will strike the curved projecting end *g* of the seat-plate and start it from its socket, and thus allow the seat to be more readily removed. The upper end of this lever is square, so that the shoulder *c* of the tumbler rests thereon and forms a lock to the tumbler when the seat is in place; and when the seat is unlocked and removed the other shoulder, *d*, will also rest upon this square end *e* of the lever and form a stop to hold the tumbler in the proper position to allow of the insertion of the seat-plate C into its socket, to be again locked, as shown in Fig. 2. The two projecting tongues *a b* of the tumbler are on the side opposite to that of the shoulders *c d*. One of these tongues, *a*, is of curved form, and its position is such that when the plate C is inserted within its socket this tongue will fit exactly into a curved recess, *i*, in the edge of the seat-plate C, so that when the shoulder *c* of the tumbler is against the square end, *e*, of the lever the seat A will be locked in its position, as shown in Fig. 1. The other tongue, *b*, of the tumbler projects below the locking-tongue *a* in such manner that when

the stop-shoulder *d* rests upon the square end *e* of the lever the side of this last-named tongue *b* will be in a horizontal position and project within the range of motion of the seat-plate, so that in inserting the latter into its socket its curved end will strike upon the said projecting tongue *b* and turn the tumbler *H*, releasing its stop-shoulder *d* from the end *e* of the lever, and bringing the locking-shoulder *c* thereon at the same time the locking-tongue *a* of the tumbler is brought into the recess *i* of the seat-plate.

It will be seen that the tumbler thus constructed and operating must preponderate on the side next the upper end of the lever, so as to hold its stop-shoulder *d* thereon when the seat is removed. Should the tumbler become turned to the locking position when the seat is removed, it is only necessary to raise the weighted end of the lever, when the rear end of the tumbler will fall back by its preponderating weight, and thus bring the receiving-tongue *a* in position to be acted upon by the seat-plate *C*.

To prevent the danger of the lever *I* being thrown out of its locking position by a sudden motion of the springs of the vehicle, I arrange a spring, *J*, within the chamber *G*, so as to bear against the upper curved end of the lever *I*, and thus act in conjunction with its weighted end to avoid its being suddenly thrown out of lock with the tumbler. In this particular the spring is important, and renders doubly sure the security of the lock.

Besides this automatic locking device another right-angled iron, *K*, secured to the rear side of the seat, and a body-plate, *L*, having a socket therein to receive the projecting end

of the seat-plate *K*, may be arranged as in my former patent.

The operation of removing and replacing the seat and automatically securing it having been described, I need only state that a shoulder, *n*, on the seat-iron forms the limit of the descent of its projecting end into and through the socket of the body-plate, and this shoulder *n*, with the locking-tongue *a* and the locking-shoulder *c* of the tumbler, act in unison with the end *e* of the locking-lever *I*, so that the tumbler cannot bind either in inserting or withdrawing the seat-plate.

I claim as my invention—

1. An automatic seat-fastener consisting of a seat-plate, *C*, a body-plate, *E*, a tumbler, *H*, and a lever, *I*, arranged and constructed substantially as before described.

2. The tumbler *H*, constructed with a stop-shoulder, *d*, and a locking-shoulder, *c*, in combination with the lever *I*, whereby the tumbler is locked when the seat is in place and held in a position to be acted upon by the seat-plate in inserting the same into its socket, substantially as before described.

3. The thumb-lever *I*, constructed so that the act of unlocking the tumbler *H* will also cause said lever to strike and start the seat-plate *C* from its socket, substantially as before described.

4. In connection with a weighted lever, *I*, of concave and convex form, the guard-spring *J*, arranged to prevent the accidental unlocking of the tumbler, substantially as before described.

Witnesses: JAMES H. FELLOWS.

DAVID PALMER,

ORREN E. BARTLETT.