

M. H. GRUBB.

Nut-Lock.

No. 217,612.

Patented July 15, 1879.

Fig. 1

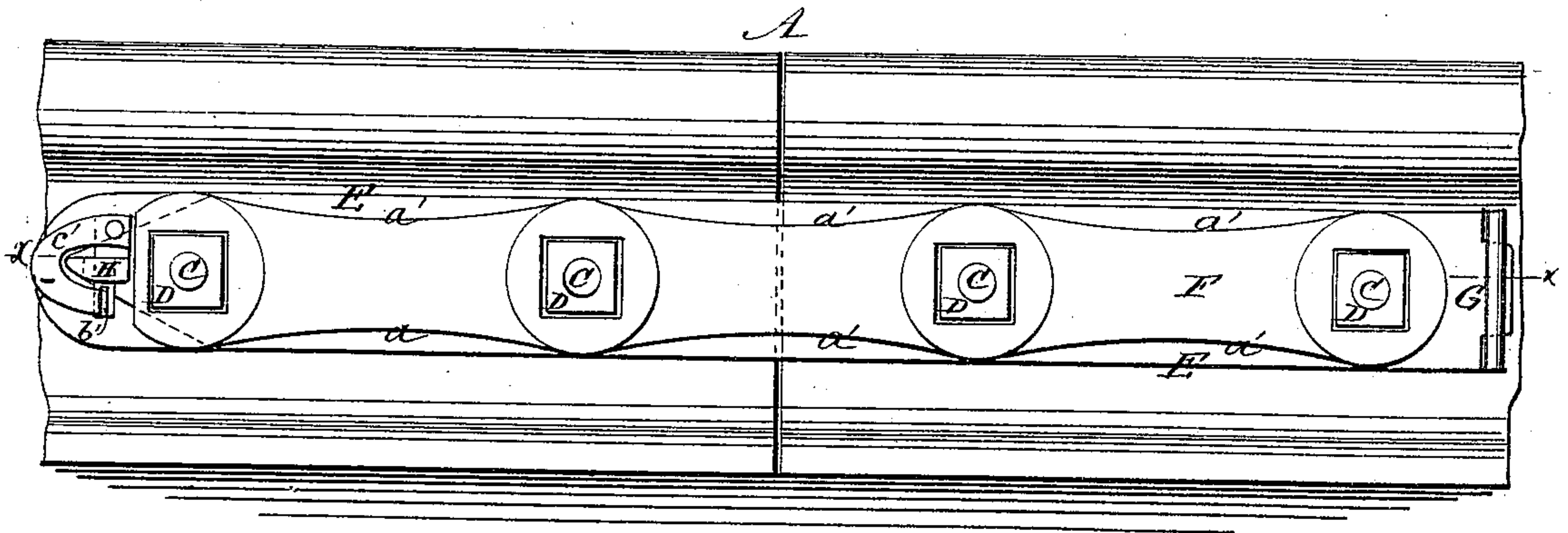


Fig. 2

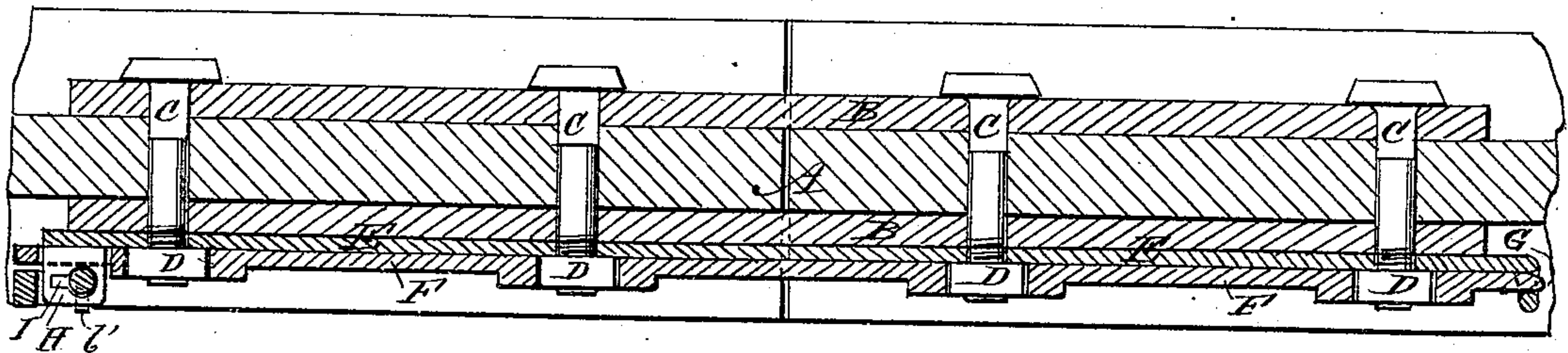
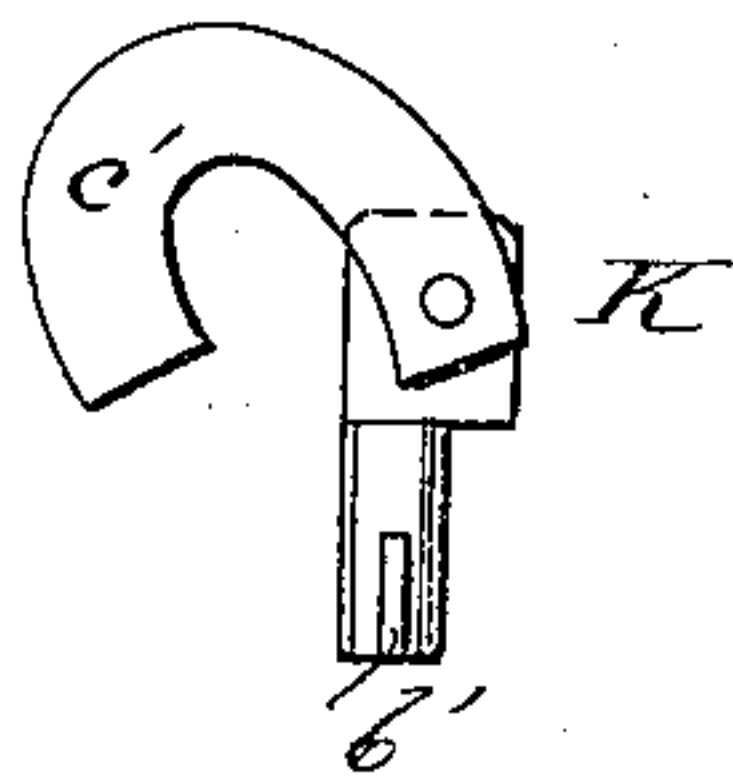


Fig. 3



WITNESSES:

C. A. Newell
C. Sedgwick

INVENTOR:

M. H. Grubb
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MOSES H. GRUBB, OF VINCENT, PENNSYLVANIA.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **217,612**, dated July 15, 1879; application filed January 6, 1879.

To all whom it may concern:

Be it known that I, MOSES H. GRUBB, of Vincent P. O., in the county of Chester and State of Pennsylvania, have invented a new and Improved Nut-Lock, of which the following is a specification.

Figure 1 is a view of the lock attached to a rail-joint. Fig. 2 is a horizontal section through line *x x*. Fig. 3 shows the key used with the lock.

Similar letters of reference indicate corresponding parts.

The object of this invention is to construct a simple and effective nut-lock for railroad or other purposes which shall excel all others in point of cheapness and durability.

In the drawings, A represents a rail-joint formed by the meeting of two rail ends. B B are the usual fish-plates; C C, the bolts attaching fish-plates to rails, and D D the nuts on said bolts.

The lock is formed of two pieces or plates of metal, (they may be of malleable iron,) E and F, which, when in place, are hinged together at G by a projection from F entering a slot in E.

Both plates are made of thin metal—an eighth of an inch in thickness is ample for railroad nut-locks—so that they may not take up too much room on the shanks of the bolts, and to diminish their weight without diminishing their essential strength both may be cut away between the bolts, as shown at *a' a'* on plate F, and, indeed, an entire section may be removed from that part of E which is between the central bolts without interfering with its efficiency, though this would divide E into two parts.

Before the nuts are placed upon the bolts the part E of the lock is put in place, the

nuts are then turned on, and E is put in position, as shown, so that the nuts engage in the corresponding holes in the plate.

It will be seen in the drawings that around each hole is an increased thickness or a boss on plate F. In some cases, where the plate is made of thin or weak metal, the additional strength at these points may be advisable. In all other instances I dispense with it.

I find it well, too, to make the holes in both plates to extend laterally sufficiently to permit the plates to accommodate themselves easily to the contraction and expansion of the rails.

At one end of the nut-lock is a staple, H, belonging to plate E, and a corresponding eye or slot, I, to receive it in plate F. When the plate F is placed over the nuts the staple enters the slot or eye, and the key K is then inserted in the hole in the staple and secured in position, so that it cannot be jarred loose by giving it a quarter-turn, and then turning down against its projecting blank *b'* its looped and swiveled handle C', as shown in Fig. 1.

The advantage of locking or unlocking all the nuts at once will be apparent to every one, and it is easily seen that the key that I have designed is especially secure against danger of breaking or becoming loose.

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

The projecting lug H, with its slot I, on the end of the locking-plate F, jointly with the key K, as and for the purpose specified.

MOSES H. GRUBB.

Witnesses:

HENRY G. KULP,
AMOS BROWER.