

(No Model.)

C. MATHIE & E. A. FLETCHER.
NUT LOCK.

No. 471,875.

Patented Mar. 29, 1892.

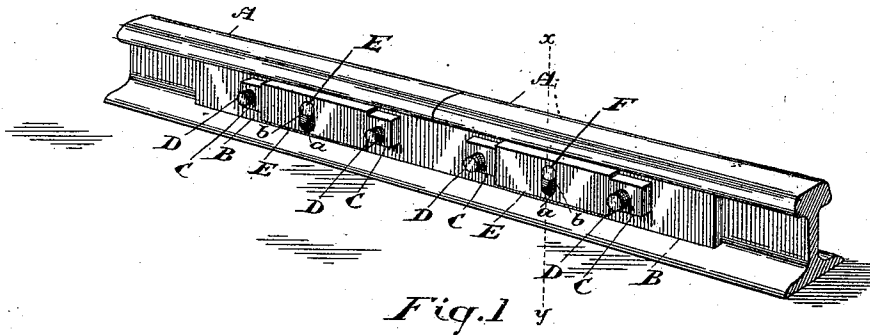


Fig. 1

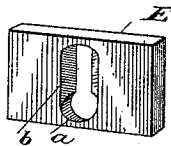


Fig. 3

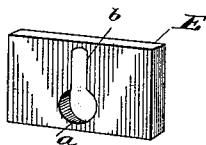


Fig. 4

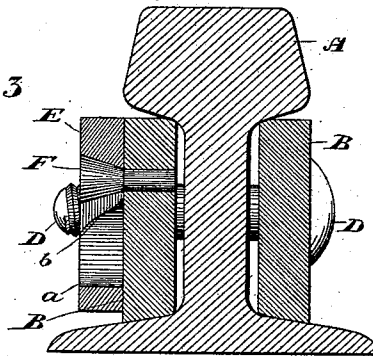


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES MATHIE AND ESTEN ASPREY FLETCHER, OF TORONTO, CANADA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 471,875, dated March 29, 1892.

Application filed May 15, 1891. Serial No. 392,803. (No model.)

To all whom it may concern:

Be it known that we, CHARLES MATHIE, blacksmith, and ESTEN ASPREY FLETCHER, contractor, both of the city of Toronto, in the
5 county of York, in the Province of Ontario, Canada, have jointly invented a certain new and Improved Nut-Lock, of which the following is a specification.

The object of our invention is to design a
10 nut-lock specially adapted for locking the nuts on fish-plate bolts; and it consists, essentially, of a block designed to fit between a pair of fish-plate nuts or bolt-heads and secured in position by a conically-shaped pin
15 extending from the fish-plate through a beveled slot made in the block, substantially as and for the purpose hereinafter explained and then definitely claimed.

Figure 1 is a perspective view of a rail-joint with our improved nut-lock applied for the purpose of locking the nuts of the fish-plate bolts. Fig. 2 is an enlarged cross-section through *xy*. Fig. 3 is a perspective view of the front face of the block. Fig. 4 is a perspective view of the back face of the block.

A represents the rail; B, the fish-plate; C, nuts fitted onto the fish-plate bolts D. All these parts may be made of the ordinary shape and style.

30 E is a block fitted between the pair of nuts C. With the view of securing this block in position in such a manner that it may be easily placed in position and removed when not required, we fix to the fish-plate B a conically-shaped pin F, the base of the cone being at the outer end of the pin. A hole *a* is made through the block E sufficiently large to permit the end of the pin F to pass through it. A slot *b* extends vertically from this hole *a*.
40 The width of the said slot on the inner surface of the block corresponds with the diameter of the pin F close to the fish-plate B, while the diameter of the slot on the outer surface corresponds with the diameter of the base of the cone at the outer end of the pin F. When the nuts C have been screwed home, a block E is placed between each pair of nuts, the said block being held so that the
45 end of the pin F will pass through the hole *a*.

When pushed against the fish-plate B, the
50 block E is pressed down, so that the neck of the pin F will enter the slot *b*. From this it will be seen that so long as the block E is held in the position indicated between the nuts C it is impossible for the said nuts to work off. 55 At the same time when it is necessary to remove the nuts the block E may be easily raised and withdrawn from its position without in any way being injured.

In all other nut-locks with which we are
60 familiar the device employed for locking the nuts soon wears and becomes useless, and in many of them they are destroyed the first time becomes necessary to remove the nut they are employed to lock, whereas by our inven- 65 tion the nut-lock will practically last forever, so that the first expense is all that is necessary to incur, no renewals being required.

Our nut-lock is specially designed for fish-plate bolts; but of course it may be used with
70 all kinds of machinery when circumstances will permit of its employment.

We are aware of the United States Patents Nos. 149,808, 229,175, and 384,767, and claim
75 nothing shown therein, as we regard our invention as essentially different from the devices shown in said patents. By our arrangement of the conical-headed pin and the inclined sided slot the head of the pin does not project beyond the edge of the plate E, and
80 is therefore not likely to be knocked off, which is a decided advantage.

What we claim as our invention is—

As an improved nut-lock, a block E, having a hole *a* made through it, and a slot *b*, having
85 inclined edges and extending from said hole, in combination with a conically-shaped pin F, fixed in a fish-plate B and fitting said slot, all constructed and arranged substantially as shown and described, and for the purpose
90 specified.

Toronto, April 30, 1891.

CHARLES MATHIE.
ESTEN ASPREY FLETCHER.

In presence of—

H. MCCONAGHY,
FRED. W. GARVIN.