(No Model.)

H. T. HAUGH & W. S. ZICKEFOOSE.

NUT LOCK.

No. 375,813. Patented Jan. 3, 1888.

Fig. 1.

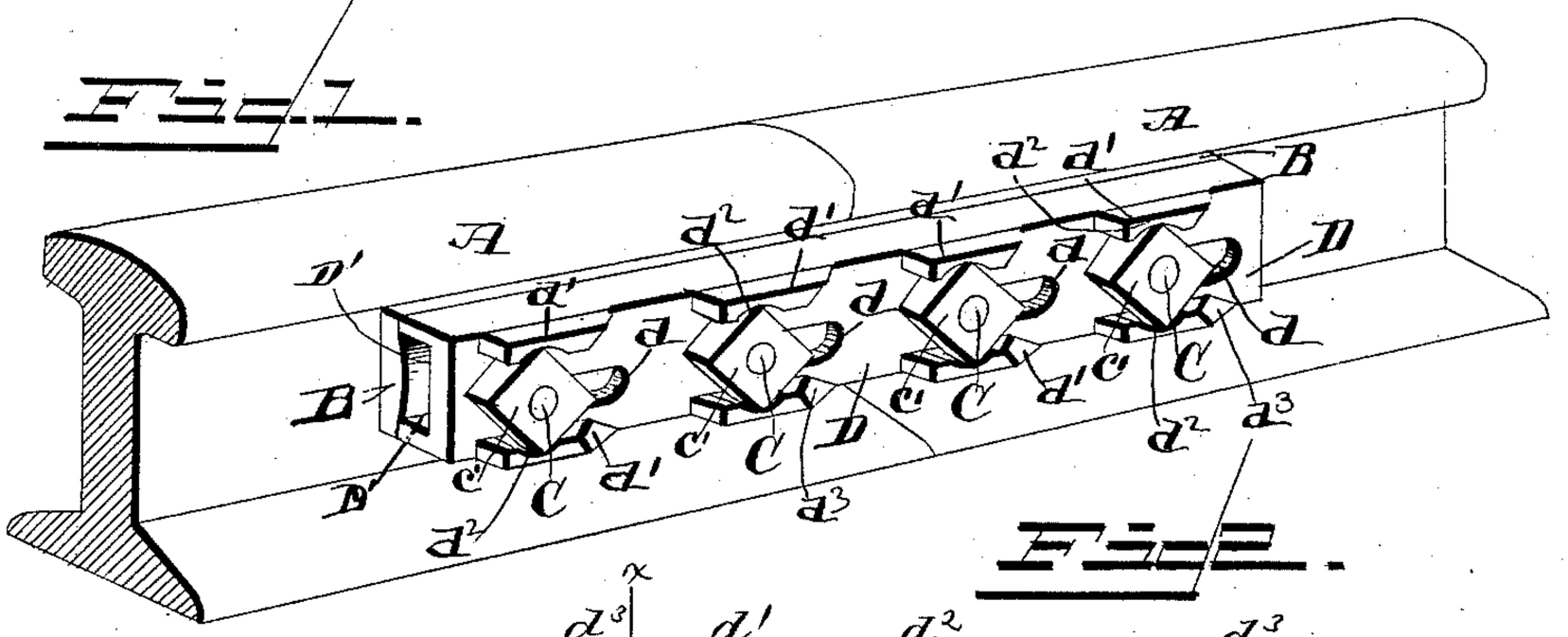


Fig. 2.

Fig. 3.

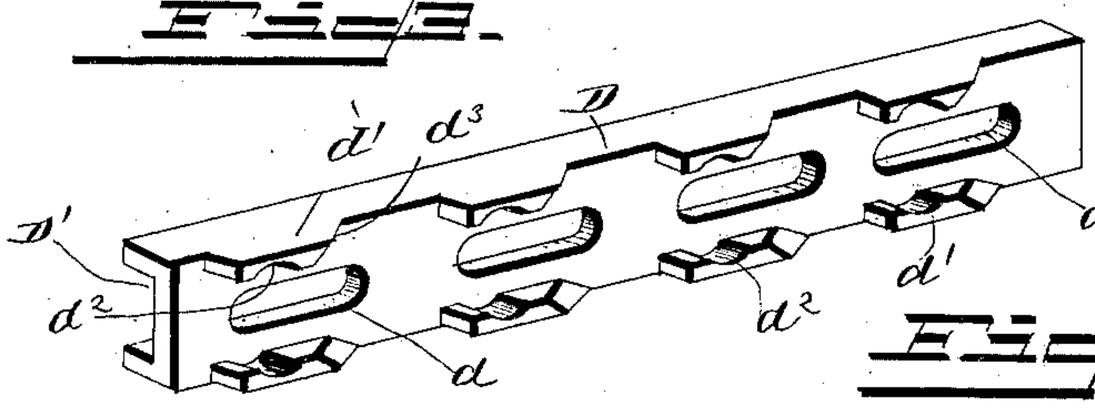


Fig. 4.

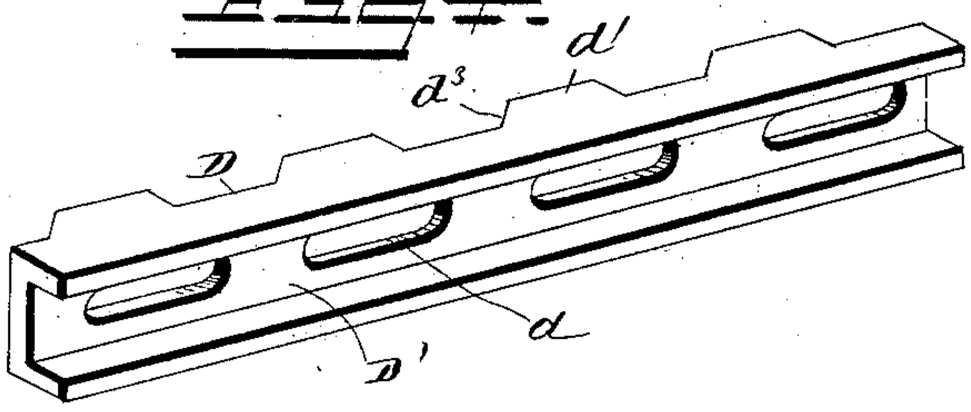
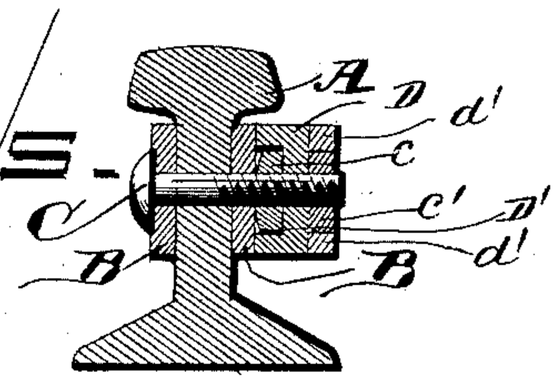


Fig. 5.



Witnesses

W. A. Rumphrey,

[illegible]

Inventors

H. T. Haugh.

W. S. Zickefoose.

by Edmonds & Co.

Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

HENRY TARR HAUGH AND WESTERN SUMMERS ZICKEFOOSE, OF WAYNE, IOWA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 375,813, dated January 3, 1888.

Application filed September 14, 1887. Serial No. 249,681. (No model.)

To all whom it may concern:

Be it known that we, HENRY TARR HAUGH and WESTERN SUMMERS ZICKEFOOSE, citizens of the United States, residing at Wayne, in the county of Henry and State of Iowa, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification.

Our invention relates to an improvement in nut-locks; and it consists in the construction and arrangement of the parts thereof, which will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, wherein like letter of reference indicate similar parts in the several views, Figure 1 is a perspective view of portions of rails showing the joint with our improvement shown in connection therewith. Fig. 2 is a side elevation of the mechanism shown in Fig. 1. Fig. 3 is a detail perspective view of the locking-plate, looking toward the front thereof. Fig. 4 is a similar view looking toward the rear thereof. Fig. 5 is a transverse vertical sectional view on the line *x x* of Fig. 2.

A A indicate the rails, B B the fish-plates, and C the bolts passing through the rails and fish-plates, and provided with nuts *c* and *c'*. The locking-plate D is constructed with a series of elongated openings, *d*, over the end of each one of which, at the upper and lower front edges of the plate, suitable lugs or enlargements, *d'*, are integrally formed, which are provided with recesses d^2. The front edges of each of the lugs *d'* are formed with an inward bevel, d^3, which gives easy passage of the nuts between the lugs *d'*. The rear side of the plate D is formed with an extended groove or recess, D', sufficiently wide to give access therein of a nut.

In applying our improved nut lock in connection with the rail the operation is as follows: The bolts C are passed through the fish-plates B and rails A over the joint therein, and nuts *c* screwed home against the outer fish-plate, as shown. The bolts C used in this instance are slightly longer than the ordinary construction. When the nuts *c* are adjusted in connection with the bolts, as above set forth, the locking-plate D is placed against the outer fish-plate, with the nuts *c* resting in the groove or recess D' and prevented from turning thereby. The ends of the bolts C pass through the openings *d* and nuts *c'* placed thereon, which are screwed home against the outer surface of the plate D, and thereby secure the said plate against the adjacent fish-plate B. When the nuts *c'* are screwed home, they will be arranged in a diagonal position, with their corners resting in the recesses d^2 in the enlargement *d'* and held against movement. The inner nuts, *c*, are arranged squarely in the groove D', with the curved top surfaces thereof resting against the adjacent fish-plate, and their plain surfaces bearing against the grooved side of the plate D. By this arrangement a secure fastening is formed, as will be readily understood.

If preferred, the nuts *c'* may be placed on the ends of the bolts C in the spaces between the lugs *d'*, and the plate D then driven longitudinally, so as to bring the nuts within the recesses in the said lugs.

The elongated openings *d* allow slight movement of the bolts in the expansion and contraction of the rails, as will be readily understood, as well as forming means for the sliding of the plate D, if necessary.

Having thus described our invention, we claim—

1. The combination, with the rails having the fish-plates and the extended bolts C, of the locking-plate D, having the elongated slots *d* formed therein, and the upper and lower integral recessed enlargements, *d'*, on one side of the plate arranged over the end of each of the slots *d*, and the continuous groove D' on the opposite side of the plate D, and the nuts *c* and *c'*, arranged as set forth, substantially as described.

2. The locking-plate D, having the elongated slots *d*, and the integral upper and lower recessed lugs or enlargements, *d'*, having inward beveled ends d^3 formed on one side of the plate, and a continuous groove, D', on the opposite side of the plate, in combination with the bolts C and the nuts *c* and *c'*, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

HENRY TARR HAUGH.
WESTERN SUMMERS ZICKEFOOSE.

Witnesses:
MYRON BENNET MARTIN,
MARION EUGENE BROWN.