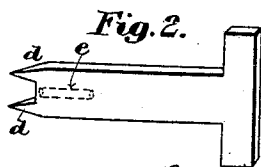
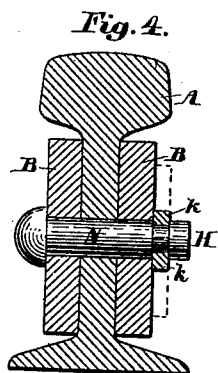
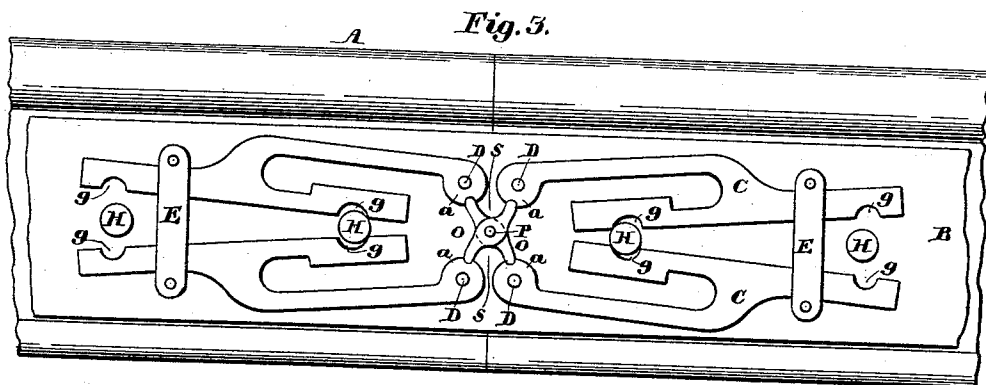
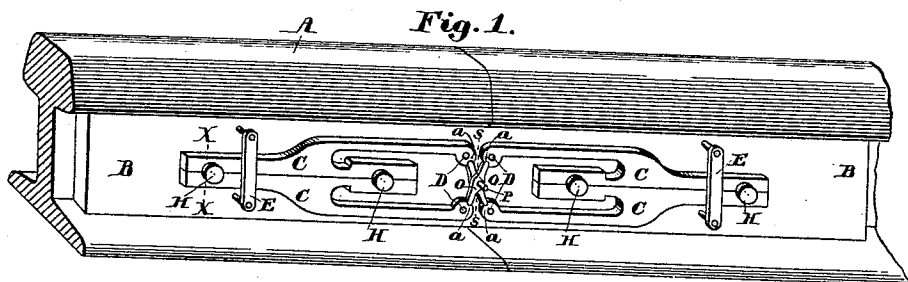


(No Model.)

J. H. DAVIS & A. DICK.
FISH PLATE.

No. 499,874.

Patented June 20, 1893.



Witnesses:

J. C. Borger
Embrey

Inventors:

James H. Davis, & Adam Dick,
per Wall & Knight,
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES H. DAVIS AND ADAM DICK, OF DREXEL, FLORIDA.

FISH-PLATE.

SPECIFICATION forming part of Letters Patent No. 499,874, dated June 20, 1893.

Application filed May 17, 1892. Serial No. 433,392. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. DAVIS and ADAM DICK, citizens of the United States, residing at Drexel, in the county of Pasco and State of Florida, have invented a new and useful mechanical Improvement in Fish-Plates on Railroad-Iron, of which the following is a specification.

Our invention relates to fish-plates on railroad iron, especially in an addition to said fish-plates, and affixed to same, and the object of our improvement is to provide an arrangement of bolts and a secure lock to said bolts to said fishplates on railroad iron; to obviate the use of thread bolts and nut fastenings to couple and secure said fish-plates to the railroad iron when laid upon its tracks; and to provide a simple and ready way to take out or put in said bolts. We attain these objects by the mechanism illustrated in the figures in the accompanying drawings.

Similar letters refer to similar parts throughout the several views.

Figure 1 shows the position of the railroad iron, the position of the fish-plates, and the position of the bolts and the lock when closed and fastened. Fig. 2 shows the key used in fastening and unfastening the lock. Fig. 3 shows the lock unfastened and the bolts ready to be taken out. Fig. 4 is a section showing shape and design of each bolt, its position and part or end of the arms in position when locked.

Fig. 1 shows a railroad iron, A, with the fish-plates on it, B. B. B. The bolt lock is composed of four arms, C. C. C. C., pivoted at points on fish-plates and marked D. D. D. D., and held also by clamps on fish-plate and marked E. E. The four arms C. C. C. C., join flat on a center line and fasten over the four bolts N. N., and behind the heads H. H. of the same. In the center of the bolt lock, the four arms meet nearly together and have circular ends, each one being grooved or slotted, marked *a. a. a. a.*, and into said slots work two tumblers, O. O., placed one over the other on a pin, P.

The key Fig. 2, has two graduated points,

d. d., and a circular groove or key-hole, *e.*, running into the body of the key, and in its center. This key-hole fits on to the pin P., Fig. 1, and the two graduated points are inserted between the two tumblers O. O., Fig. 1, in the spaces marked and shown more plainly in Fig. 3 and marked S. S. By turning the key to the right and then to the left, or vice versa, the four arms are thrown open as in Fig. 3, and the bolts N. N. can be taken out. By reverse motions, right and left, the lock is closed.

In Fig. 3 the lock is open, showing the four arms C. C. C. C., cut out to fit over the four bolts and behind the heads H. H. of said bolts, and said cut out is marked *g. g.*

Fig. 4 is a sectional view showing shape and position of bolts. Section is made at point marked X. X., Fig. 1, and *k. k.* are the two arms fastening over the bolt, N., and behind the head H. of the bolt, as when the bolt lock is closed.

We do not claim any invention on fish-plates, but

What we claim for our invention, and desire to secure by Letters Patent, is—

1. The combination, in a fish-plate, of the lock for the bolts, having the four arms C. C. C. C. pivoted at points on fish-plates D. D. D. D., and held by clamps E. E., each of the four arms, C. C. C. C., having slotted ends *a. a. a. a.*, to receive tumblers O. O., and also having semi-circular slots to fit over bolts and behind the bolt heads H. H. H. H.; all as substantially set forth.

2. The combination of the two tumblers O. O. on the pin P. and working in the arm slots *a. a. a. a.*, substantially as shown and for the purpose specified.

3. The combination of the key, Fig. 2, having points, *d. d.* and hole *e.*, fitting over pin P., all for the purpose specified and as substantially set forth.

JAMES H. DAVIS.
ADAM DICK.

Witnesses:

ALFRED H. PARSLOW,
F. C. BARRYER.