

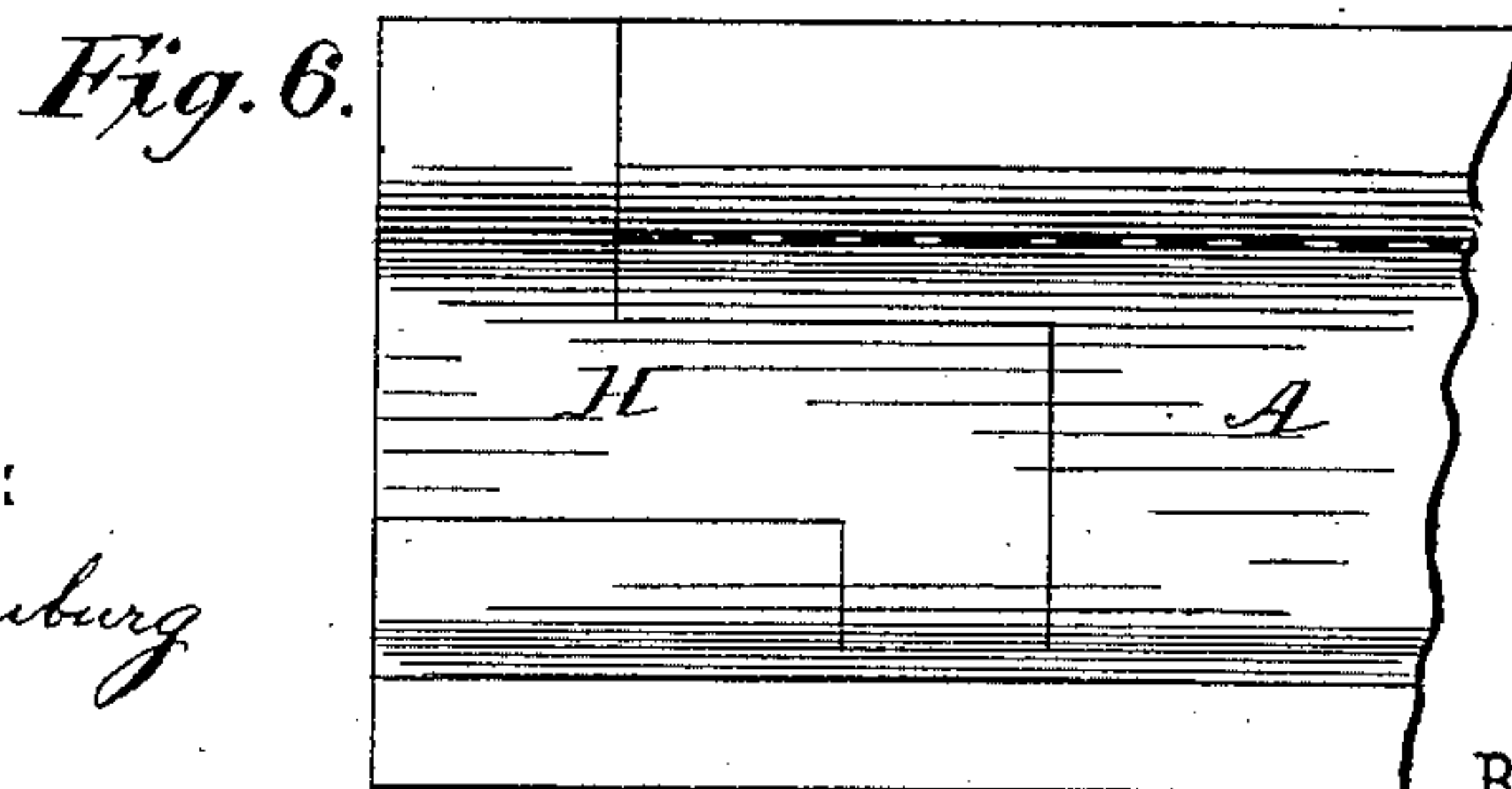
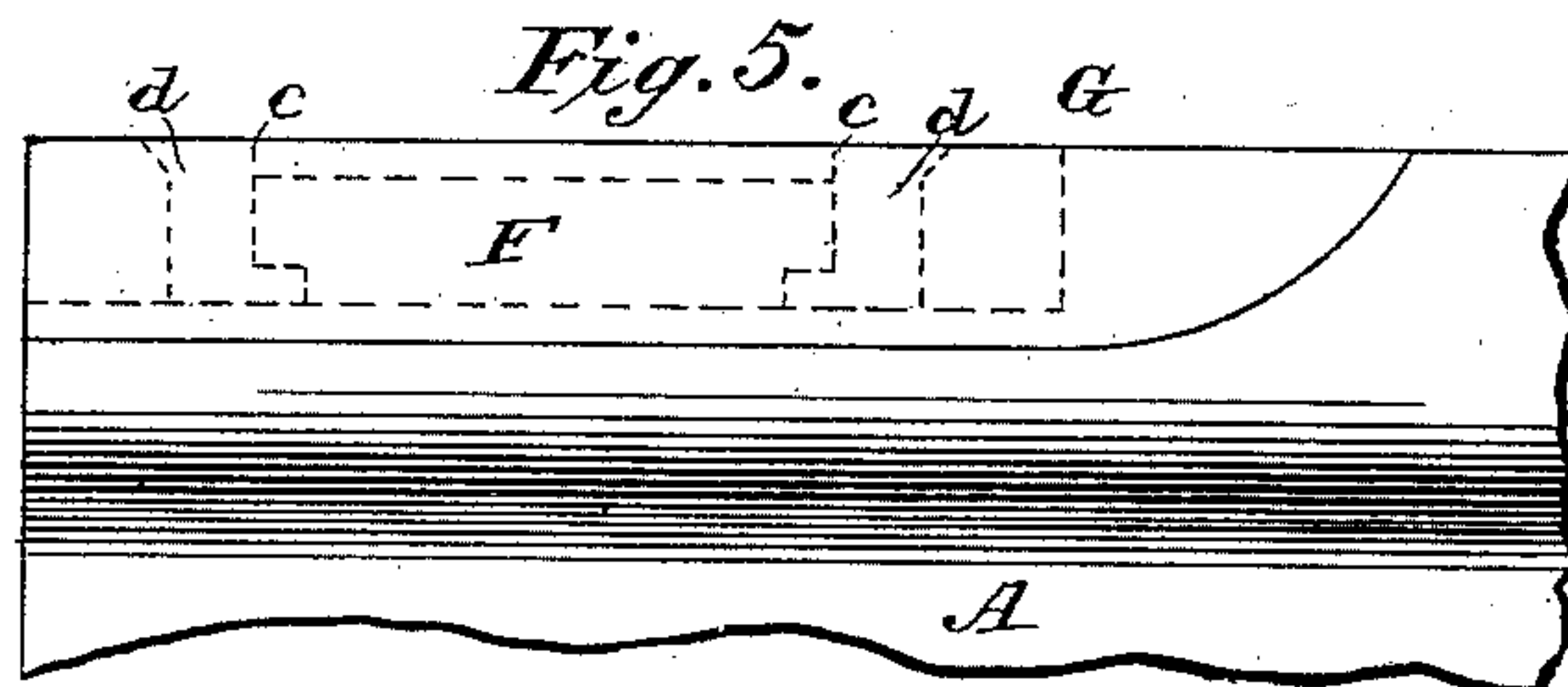
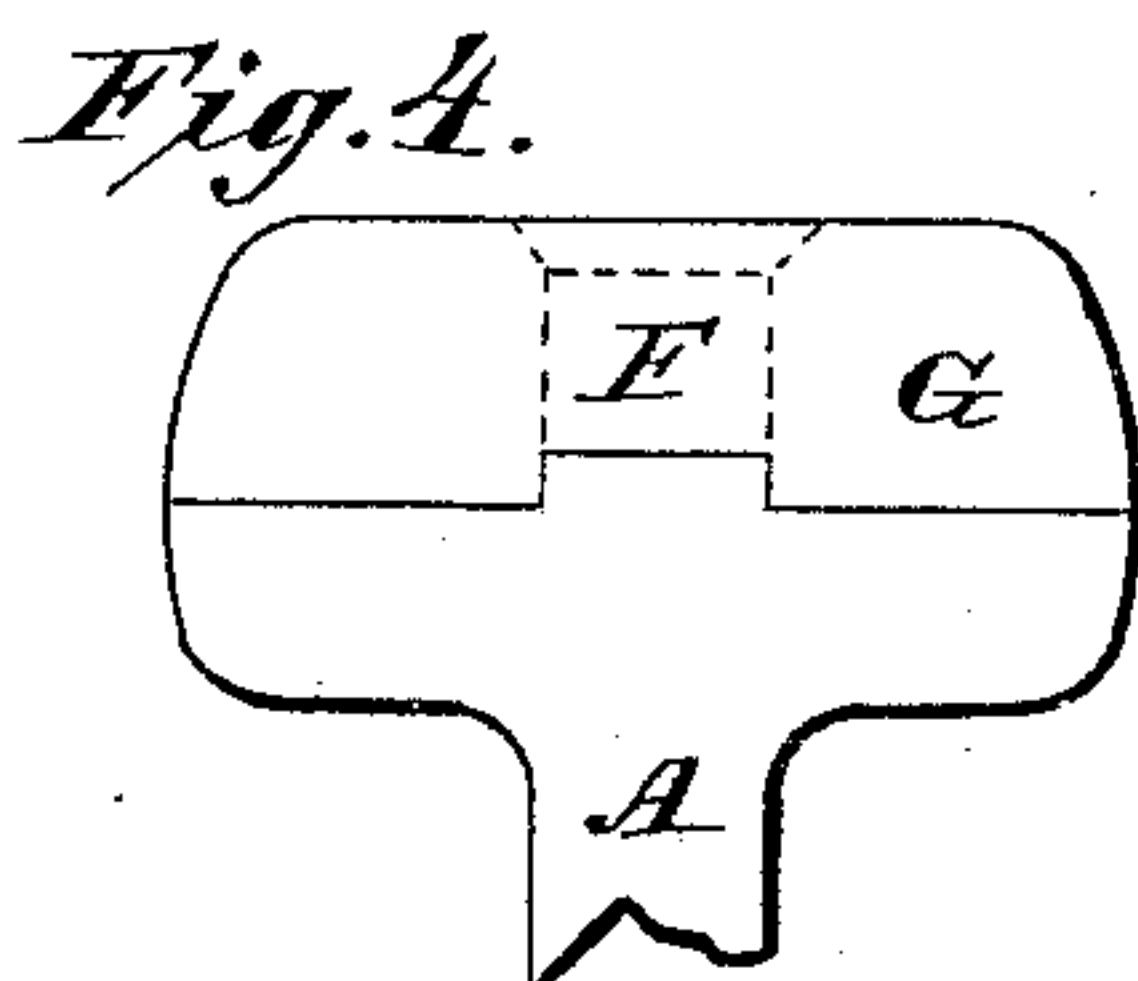
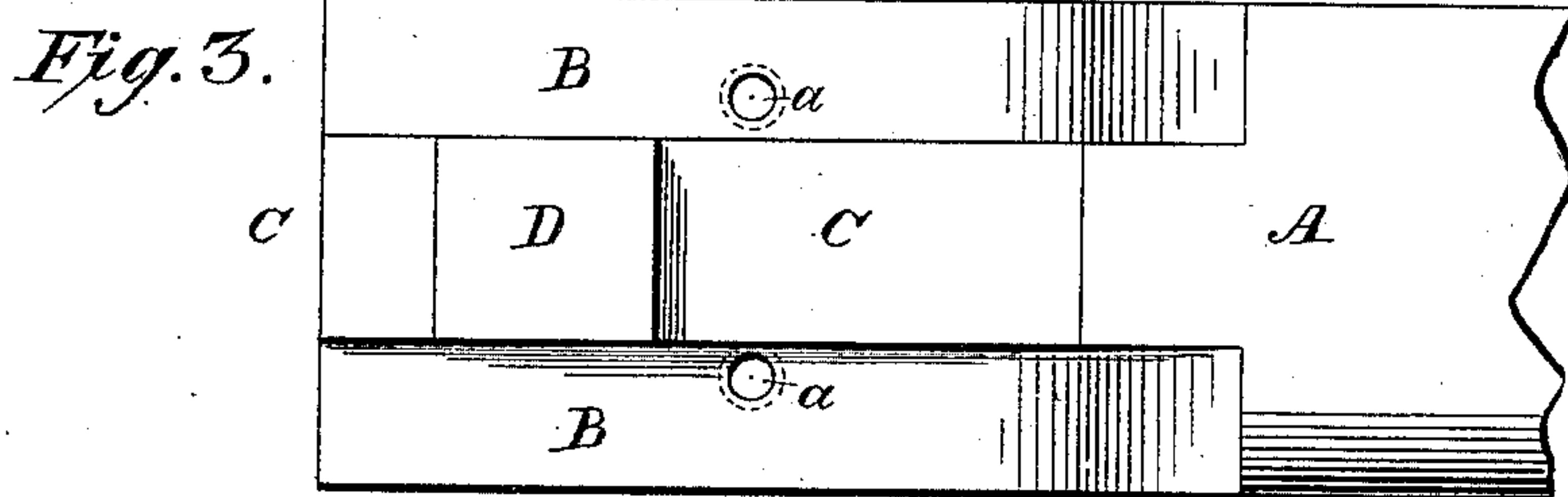
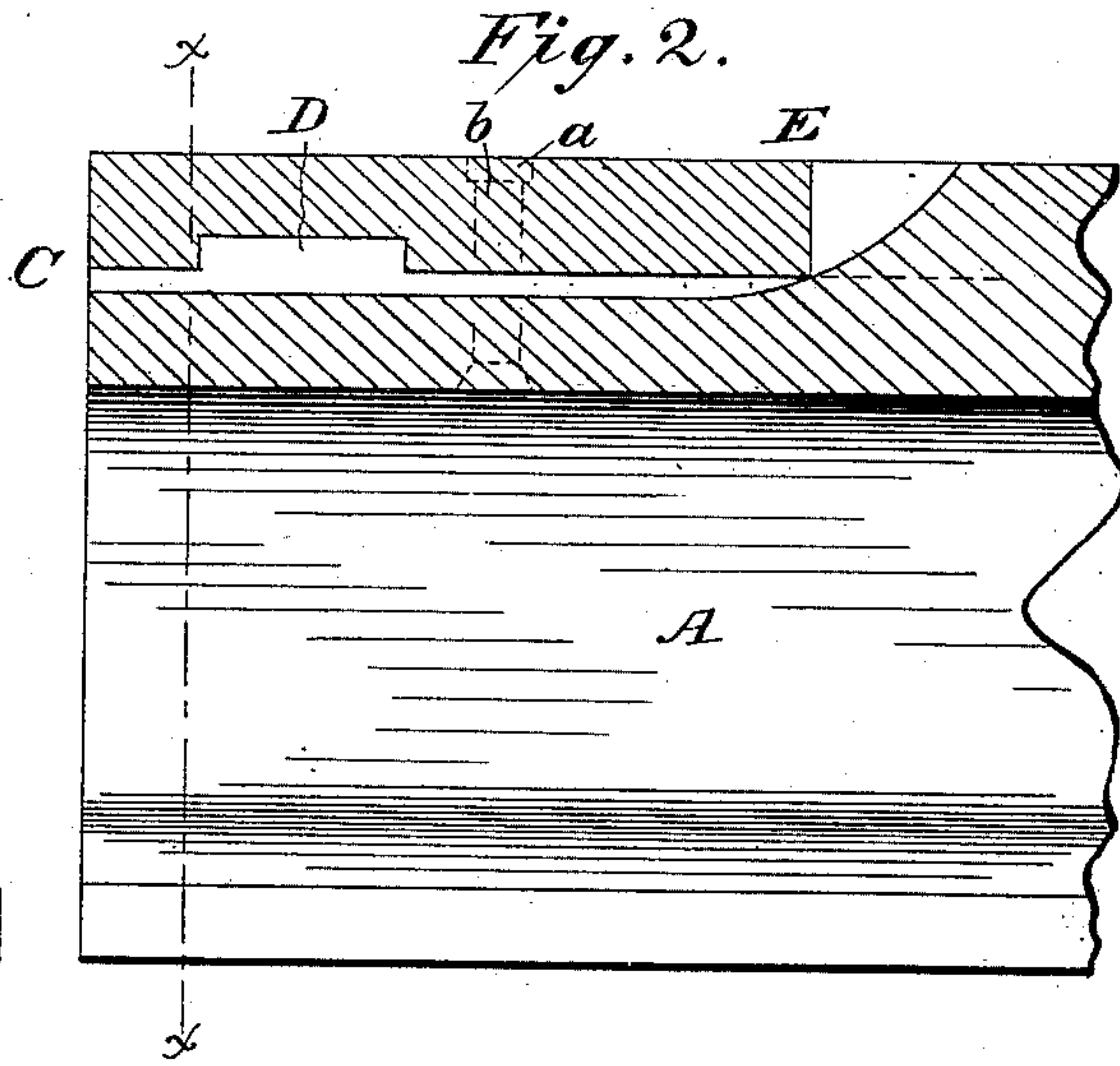
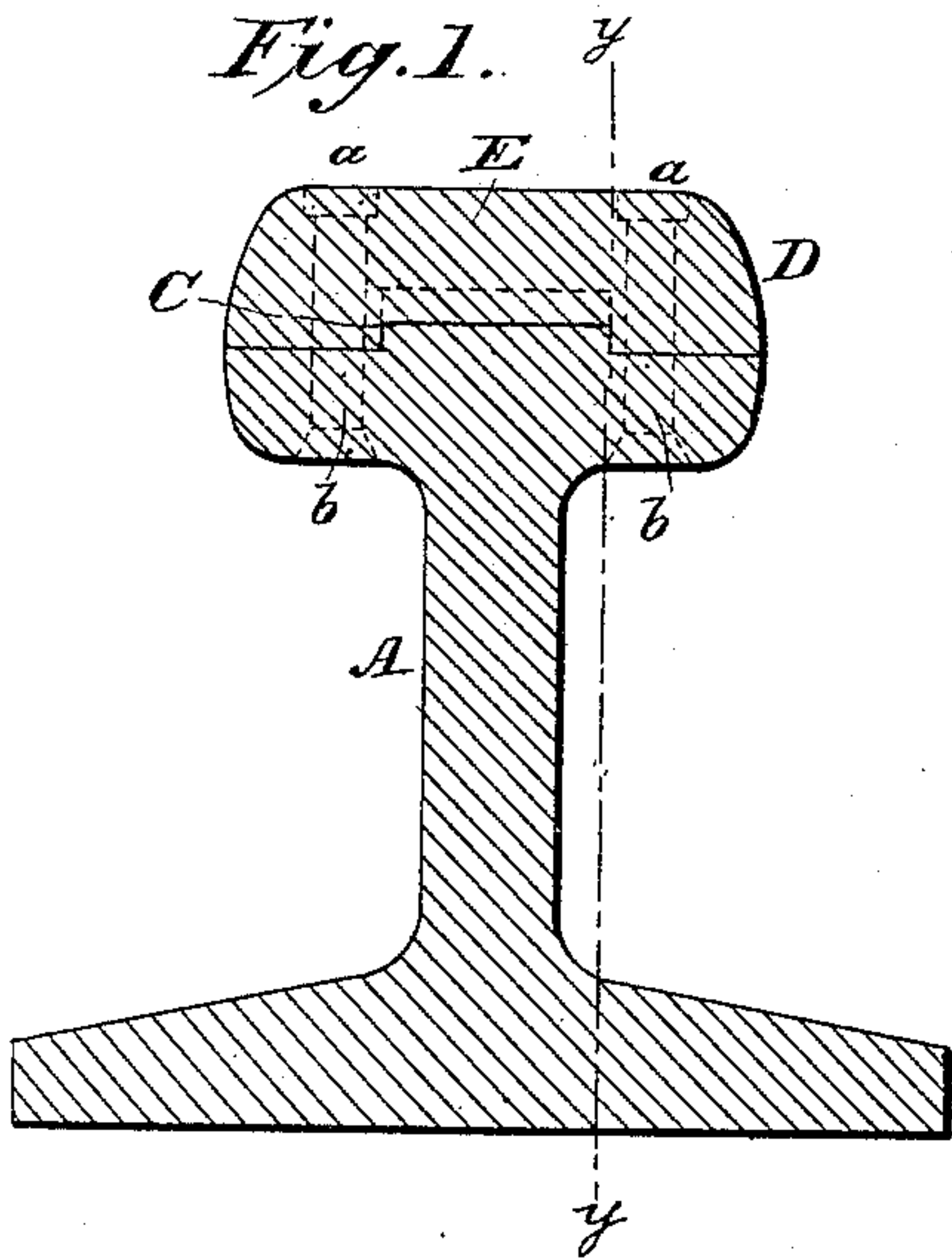
(No Model.)

G. STRATTON.

REPAIRING RAILS.

No. 354,493.

Patented Dec. 14, 1886.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GEORGE STRATTON, OF PLAINVIEW, MINNESOTA.

REPAIRING RAILS.

SPECIFICATION forming part of Letters Patent No. 354,493, dated December 14, 1886.

Application filed September 11, 1886. Serial No. 213,310. (No model.)

To all whom it may concern:

Be it known that I, GEORGE STRATTON, of Plainview, in the county of Wabasha and State of Minnesota, have invented a new and Improved Rail-End, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a transverse section, taken on line *xx* of Fig. 2, of a part of a rail to which my improvement has been applied. Fig. 2 is a longitudinal section taken on line *yy* in Fig. 1. Fig. 3 is a plan view showing the rail prepared for the reception of the cap; and Figs. 4, 5, and 6 show modified forms of my improvement.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide an easily-applied and efficient rail-end for repairing the worn and battered ends of railroad-rails.

My invention consists in a cap or rail-head section applied to the end of the rail and milled or cut away so as to form a retaining device for holding the cap or section of the rail-head.

When rails are battered and worn by use, they are generally removed from the road-bed and the worn or battered portion cut from the end of the rail, thus shortening the rail and necessitating the relaying of the entire track. The design of my invention is to repair the ends of rails without removing them from the road-bed, and to provide a rail-end better adapted to withstand the wear than the end of the ordinary rail.

In carrying out my invention I cut away the head of the rail A at the end thereof by the process of milling, so as to form rabbets B, leaving a tongue, C, in the middle of the head. I then mill the tongue C transversely, so as to leave the lug D. To the lug D, the tongue C, and the rabbets B, I fit a cap, E, of steel of superior quality—such as tool-steel—hardened and tempered to enable it to withstand the concussion and wear to which it is

subjected; and in the rail-head and cap E, I form holes *a* on opposite sides of the tongue C, in which are inserted rivets or bolts *b*, which hold the cap E firmly in place upon the rail-end. The tongue C, being received in a corresponding groove in the cap E, prevents the cap from moving laterally, and end motion of the cap is prevented by the lug D.

In the device shown in Figs. 4 and 5 the rail-end is milled away in a similar manner, leaving a T-shaped tongue, F, which is received in a recess in the cap G. At the ends of the recess in the cap G are formed holes *c* for receiving the rivets *d*, while L-shaped heads engage the T-shaped tongue F. The rivets or bolts *d* are upset, so as to thoroughly fill the hole *c*, and are finally riveted down in the countersunk upper ends of the hole *c*.

In Fig. 6 I have shown a rail in which the end is cut away for a short distance nearly down to the foot thereof, and a right-angled notch is cut in the web of the rail for receiving the offset rail-section H, which is inserted in the notch and carries a section of the rail-head to fill the place of that cut away. The movable piece is held in place by the ordinary fish-plates.

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

1. Jointly with a railroad-rail having a portion of its head cut away at the end, a rail-head section formed of harder material than that of the rail and fitted and connected to said cut-away portion to complete the rail, substantially as shown and described.

2. Jointly with the rail A, having formed on the end thereof the tongue C and lug D, the cap E, grooved and recessed to receive the tongue C and lug D, and means, substantially as shown and described, for securing the cap to the rail.

GEORGE STRATTON.

Witnesses:

ASA Y. FELTON,
R. P. FELTON.