(No Model.)

P. A. LOCKE.

RAILROAD RAIL AND RAIL JOINT.

No. 282,739. Patented Aug. 7, 1883.

fig 1.

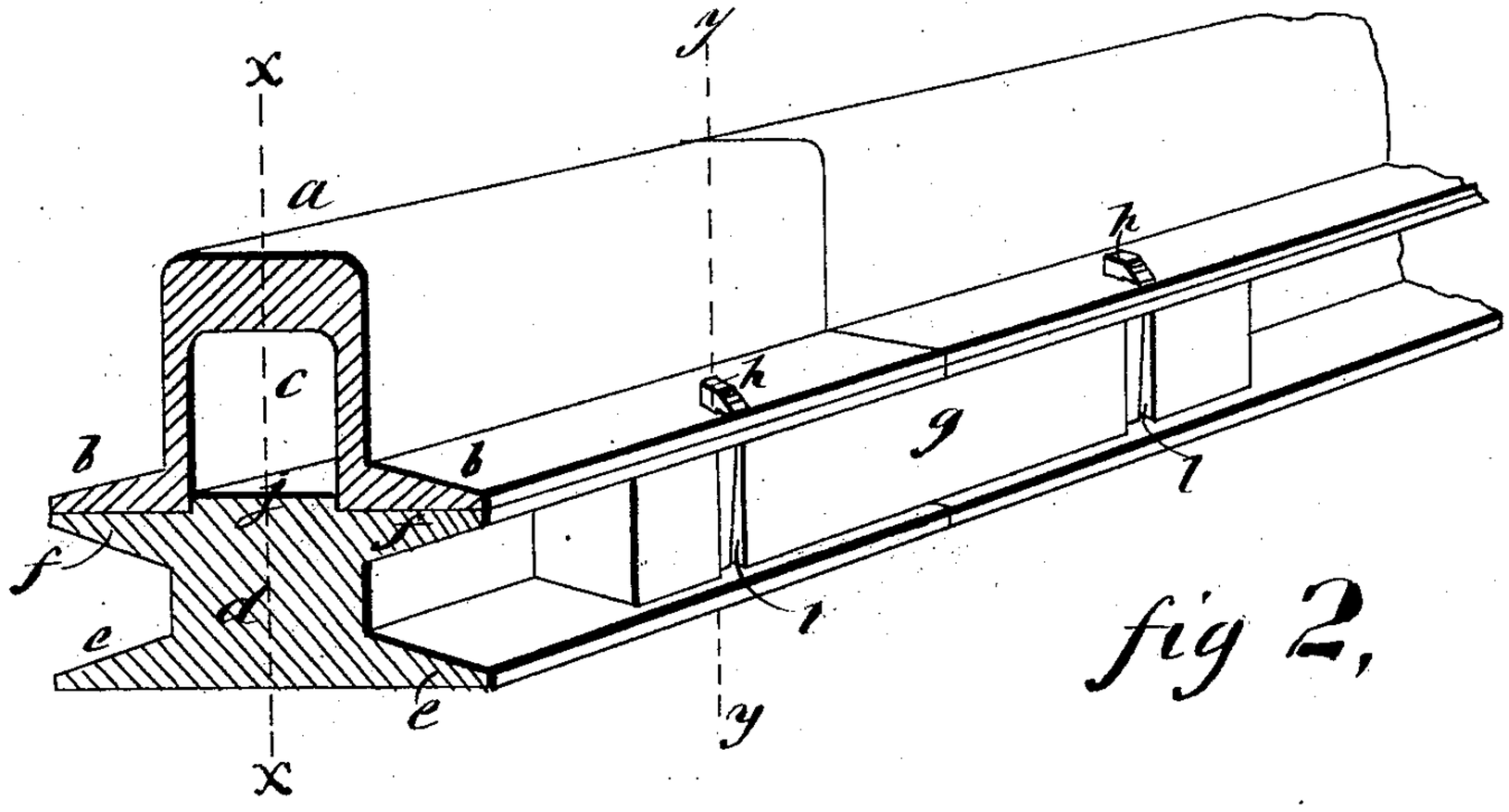


fig 2.

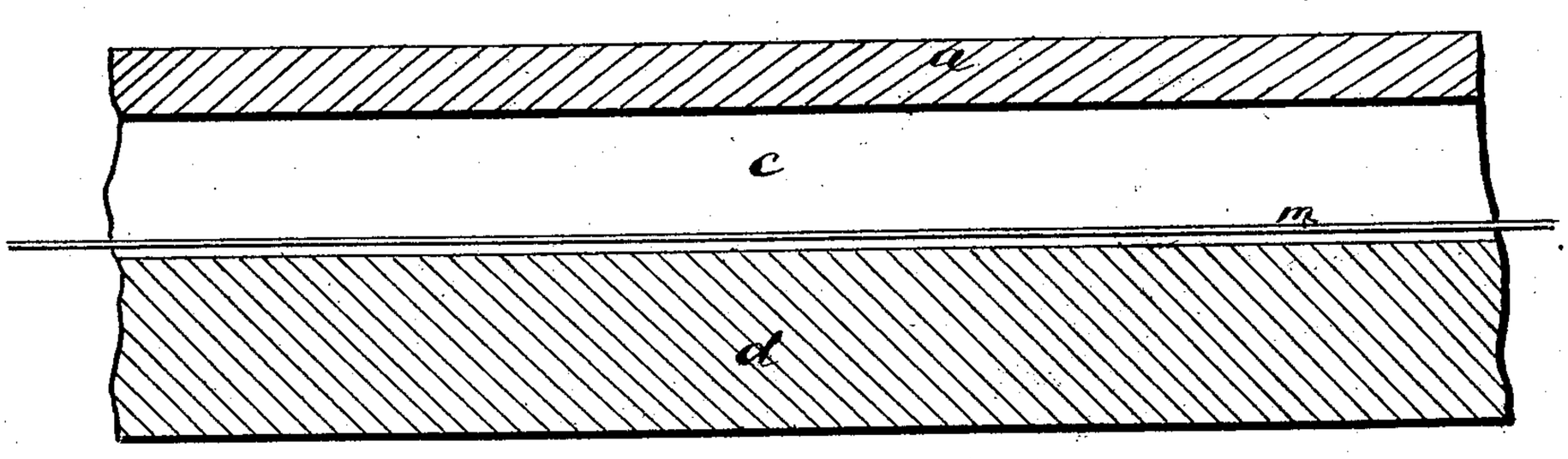
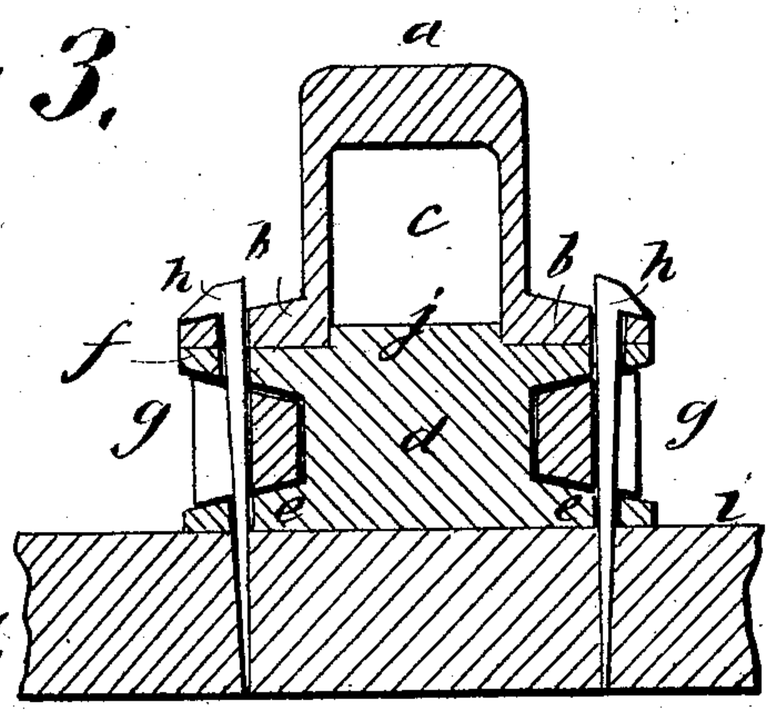


fig 3.



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PETER A. LOCKE, OF SILVER CLIFF, COLORADO.

RAILROAD-RAIL AND RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 282,739, dated August 7, 1883.

Application filed April 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, PETER A. LOCKE, of Silver Cliff, in the county of Custer and State of Colorado, have invented a new and Improved Railroad-Rail and Rail-Joint, of which the following is a full, clear, and exact description.

The object of the invention is to improve railroad-rails and their joints, as hereinafter described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved rail and rail-joint. Fig. 2 is a longitudinal sectional elevation of Fig. 1 on line *x x;* and Fig. 3 is a transverse section on the line *y y* of Fig. 1.

I make a steel cap, *a*, of less height than the ordinary rail—say about half—with base *b* of about the usual breadth, and being grooved along the middle of the bottom at *c* to dispose the metal in the best form for strength to support the weight, and with this cap I combine a bottom portion, *d*, of iron, having the usual base, *e*, and also having a top, *f*, corresponding in width with the width of the base *b*, and being slightly raised at *j* along the center for a stay to prevent lateral displacement of the cap *a*.

The web of the part *d*, between base *e* and top *f*, being narrower than said base and top makes a deep groove in each side, in which steel splice-bars *g* may be confined by spikes *h* or bolts employed for spiking the cap and bottom to the ties *i*, so as to make very substantial rail-joints, in which the splice-bars are secured without bolting through the web of the rails, thus avoiding the weakening of them by making holes for the bolts. The spikes are designed to wedge the splice-bars in the grooves of the rails.

The caps and the bottom portions of a compound rail of this form may be arranged to break joints, so that the joints of one part will be strengthened by the other part in addition to the re-enforcement of the splice-plates, so as to make practically substantial endless rails.

It is believed that a compound rail of this form may be constructed as cheaply as solid rails, and will be equal in strength and bearing capacity between the joints and greatly superior thereat. The spikes will prevent the top or cap *a* from spreading, and the splice-bars, being grooved for the spikes at *l*, will be secured by the spikes against lengthwise movement.

The lines *m* represent a telegraph-wire arranged in the groove *c* of the cap as I propose to arrange them, using any approved insulating material to prevent the escape of the electric currents.

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

1. The combination, in a railroad-rail, of a cap, *a*, having base *b* and groove *c*, and a bottom portion, *d*, having base *e*, top *f*, and rib *j*, substantially as described.

2. In a compound railroad-rail consisting of cap *a*, having base *b* and bottom part, *d*, having base *e* and top *f*, the fastening spikes or bolts *h*, extending through bases *b e* and top *f*, substantially as described.

3. The combination of the splice-bars *g* with the compound rail *a d*, having bases *b e* and top *f*, said splice-bars being secured by spikes or bolts passing through said bases and top, and securing the rails to the ties, substantially as described.

PETER A. LOCKE.

Witnesses:
T. S. SMITH,
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