

J. Potter
Railroad Track.

Sheet 1-2, Sheet's.

N^o 83,880.

Patented Nov. 10, 1868.

Fig. 1

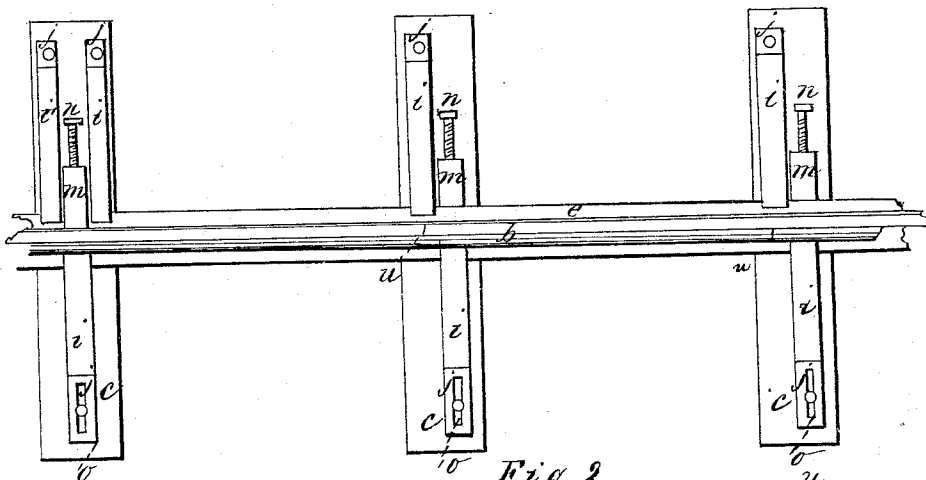


Fig. 2.

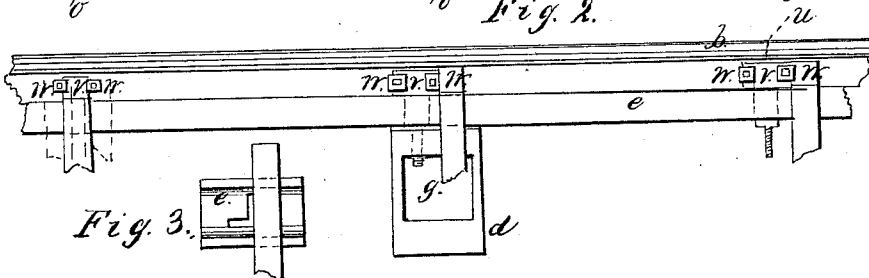
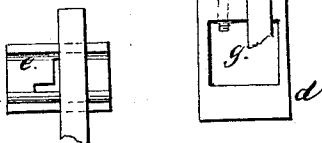


Fig. 3.



Witnesses

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Sheet 2-2 Sheet 5.

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Fig. 4.

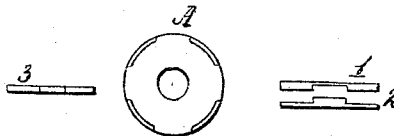


Fig. 1.

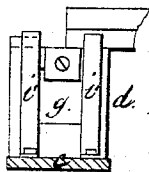
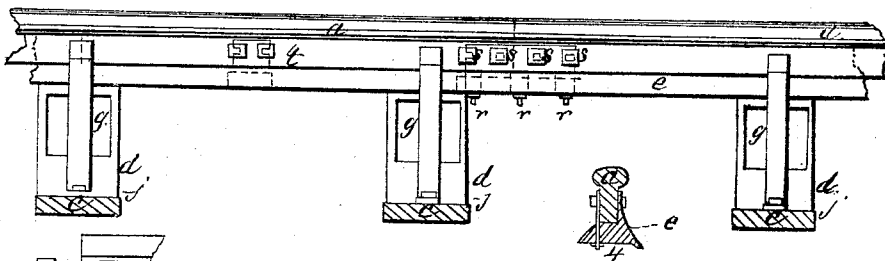
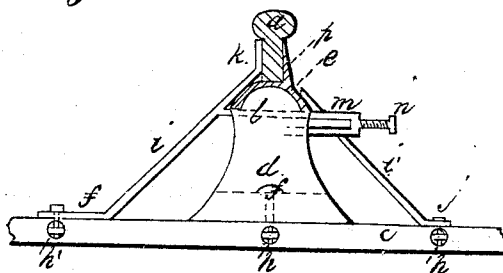


Fig. 2.

Fig. 3.



Witnesses.
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JAMES POTTER, OF PORTLAND, MAINE.

Letters Patent No. 83,880, dated November 10, 1868; antedated October 28, 1868.

IMPROVED RAILWAY-RAIL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES POTTER, of Portland, in the county of Cumberland, and State of Maine, have invented a new and useful Improved Railroad; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention; reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, plate 1, is a side view of a portion of a railroad with the whole rail.

Figure 2 is a side view of the chair and base, showing the manner in which the chair receives the joints of the base.

Figure 3, a sectional end elevation of fig. 1.

Figure 4, a washer for the bolts, to present a flat bearing-surface for nuts.

Figure 1, plate 2, is a top view of railroad with divided rail.

Figure 2, a side view of same.

Figure 3, a view of portion of top of chair, showing the slot for the reception of the securing-bolt.

My invention relates to an improved method of constructing a railroad, and the following references to the drawings will serve to illustrate the same.

I use two kinds of rails, one whole, (see *a*.) and another divided, (see *b*.) *c* are sleepers; *d*, chairs; *e*, the base for the rail or cap.

I will first describe the chairs, and the manner of placing and securing the same. These are bolted to the sleepers by screw-bolts *f*, inserted in the open space *g*, and passing down into the sleepers, and entering nuts *h*, placed in apertures in the sleepers, as illustrated. These receive the screw-bolts, and thus bind the chairs to the sleepers. The sleepers are further secured by means of braces *i*. These braces are connected with the sleepers by means of the feet *j*, and with screw-bolts and nuts, in the same manner as the chairs *d*. The brace *i* presses against the side of the rail by the feet *k*, as seen in fig. 3, plate 1. It, moreover, has the horizontal part, *l*, passing through a slot in the chair, and so constructed on the other side as to form the part, *m*. Through this is the screw-bolt *n*, with its base pressing against the outside of the chair. By turning the bolt *n* in the proper direction, the part, *k*, is brought close against the rail, the part, *l*, slipping through the chair. The foot *j* has a slot, *o*, to allow the brace to be adjusted to the rail, and the foot is then secured by its bolt. Thus the brace *i* is pressed firmly against one side of the rail *a*.

e is the base for the rail to rest on, and has the lip *p* to receive the other side of the rail, when tightened

by the screw-bolt *n*, as first described. The brace *i* binds both rail and base; *f* binds only the base, *e*.

The method of uniting the ends of the various rails of this form of construction is as follows: The clamp *q* overlaps the ends of the rails, and has bolts, *r r r*, passing down through the base, *e*, and there secured with nuts; also bolts *s s*, &c., passing horizontally through the rail, and secured with nuts on the opposite side. At one-third the distance of the rail's length, they are again bolted with a smaller clamp, in a similar manner. (See *t*.) The base, *e*, is always so arranged that its ends are at the middle of the chairs. (See fig. 2, plate 1.) The divided rail, fig. 1, plate 2, is so arranged as to have the two halves break joints over the chairs. (See *u*.) Thus arranged, they are placed on the base, *e*, and the adjustable brace *i* tightened by the screw *n*, as before described, when the rails are held by lip *p* and the brace. At the joints of the divided rails, the clamp-bolts *v* are placed, down through the base, *e*, with nuts at the bottom ends. Horizontally through the two parts of the divided rail are then inserted bolts *w*.

A is a washer, to hold the head of a bolt, being composed of two parts, 1, 2, with a disk of rubber, 3, being made to protect the bolt-heads, and to prevent entire rigidity when such is not desired.

4, plate 1, is a washer, placed under the rail, in the concavity thereof, to make a flat surface to receive the nuts of bolts.

The adjustable foot *j* may be secured to a stone sleeper, by simply reversing the bolt, and soldering it into the stone, and placing the nut over the adjustable foot and slot.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The chairs *d*, when secured to the sleepers *c*, as described, by bolts *f* and braces *i*, as and for the purposes set forth.

2. The base, *e*, in combination with braces *i*, part, *m*, and screw-bolt *n*, as and for the purposes set forth.

3. The construction of the brace *i* with projection *m* and slotted base *j j*, operating as described, on the rail and chair.

4. The method of attaching the whole rail *a* to the chair, by means of base, *e*, braces *i*, and clamps *s r t*, constructed and combined as herein set forth.

5. The combination of the divided rail *b* with the base, *e*, chair *d*, clamps *v w*, and braces *i*, as and for the purposes set forth.

JAMES POTTER.

Witnesses:

HENRY C. HOUSTON,
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