

(No Model.)

H. W. LIBBEY.

RAILROAD RAIL.

No. 414,062.

Patented Oct. 29, 1889.

Fig. 1.

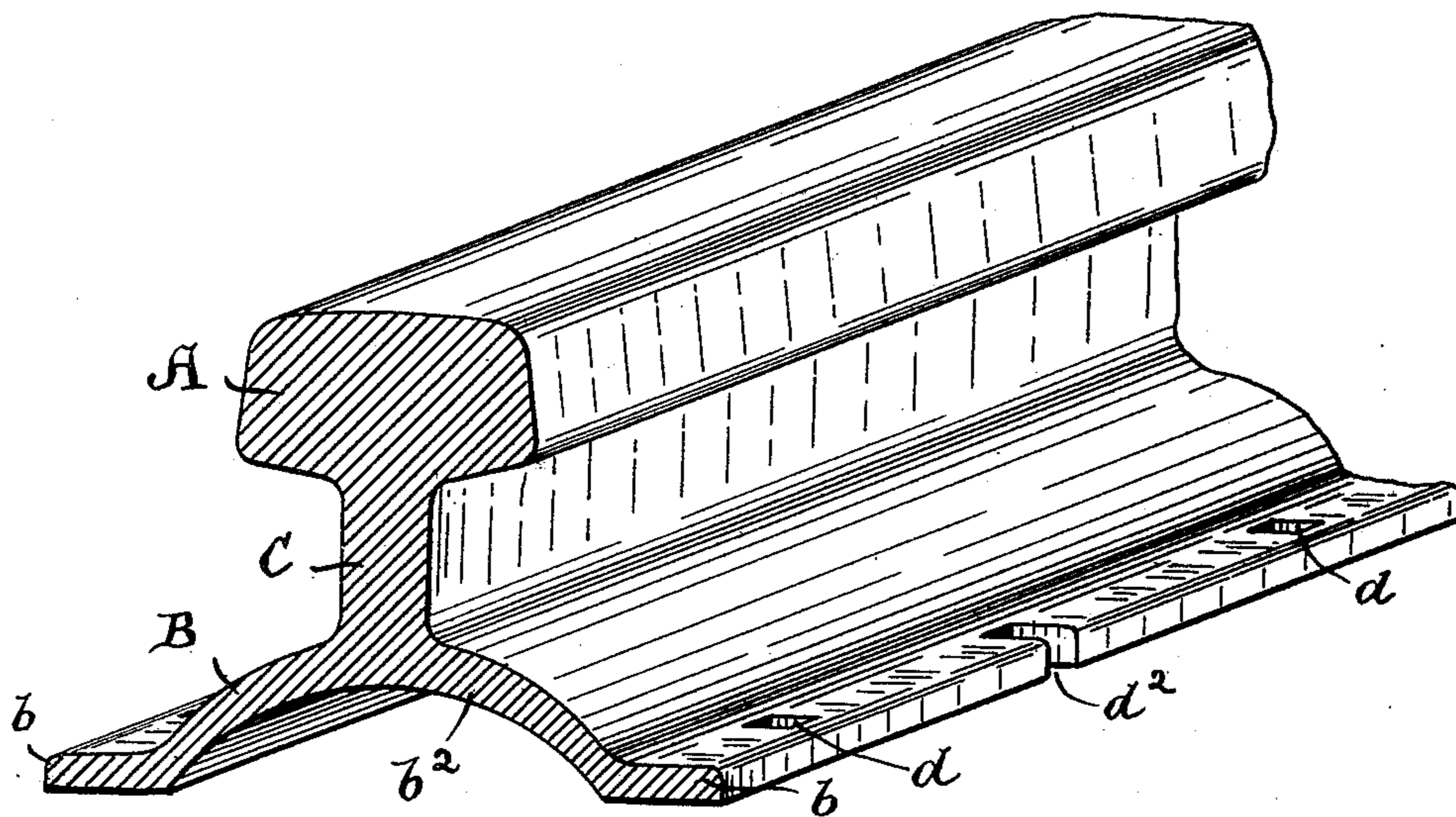
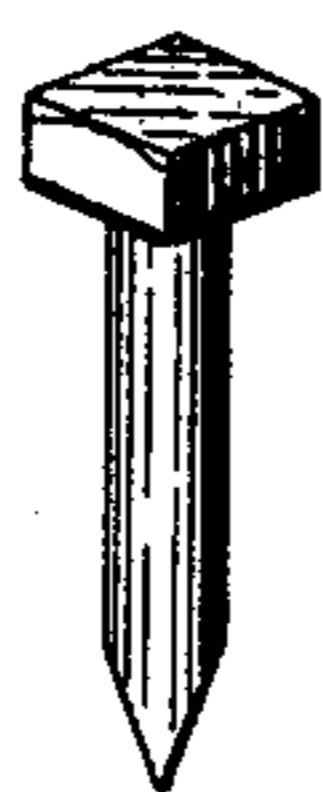


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

RAILROAD-RAIL.

SPECIFICATION forming part of Letters Patent No. 414,062, dated October 29, 1889.

Application filed December 17, 1888. Serial No. 293,788. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Railroad-Rails, of which the following, taken in connection with the accompanying drawings, is a specification.

10 The object of my invention is to produce a rail for steam-railroads in which there will be a certain degree of elasticity, thereby preventing to a great extent the jolting of the cars occasioned by the rigid rails now in use, and also saving wear and tear to the running-gear.

Referring to the accompanying drawings, Figure 1 represents a perspective view of a portion of a railroad-rail embodying my invention. Fig. 2 shows a spike with a square head for securing the rail to the sleepers.

A represents the head of the rail, which may be of any suitable form, and B the lower flange, which at its outer edges *b* is formed flat to rest upon the sleepers, and its central portion *b*² is arched or rounded up, as shown. The head or tread A and the lower flange B are connected together by a central web C, as in an ordinary railroad-rail. In the flat portion *b* of the lower flange B, I form oblong bolt-holes *d*, or long slots, as shown at *d*²,

through which square-headed spikes or bolts are passed to secure the rails to the sleepers, said spikes or bolts being driven in near the outer edge of the holes *d*.

When a train passes over the rails, the weight of the engine and cars will cause the rails to be depressed and the flanges *b b* to slightly spread out, and when the weight is removed the rail will assume its normal condition, the arched portion *b*² acting as a spring and the oblong holes allowing of sufficient movement of the flanges without interfering with the bolts or spikes. It will be seen that by this yielding of the rail its life will be much prolonged and the wear and tear of the rolling-stock much reduced, while the cars will run more smoothly.

What I claim as my invention is—

A railroad-rail consisting of a head and a lower flange arched in the center and flat at its outer edges, said flat edges being provided with oblong holes or slots, substantially as shown and described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 22d day of November, A. D. 1888.

HOSEA W. LIBBEY.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.