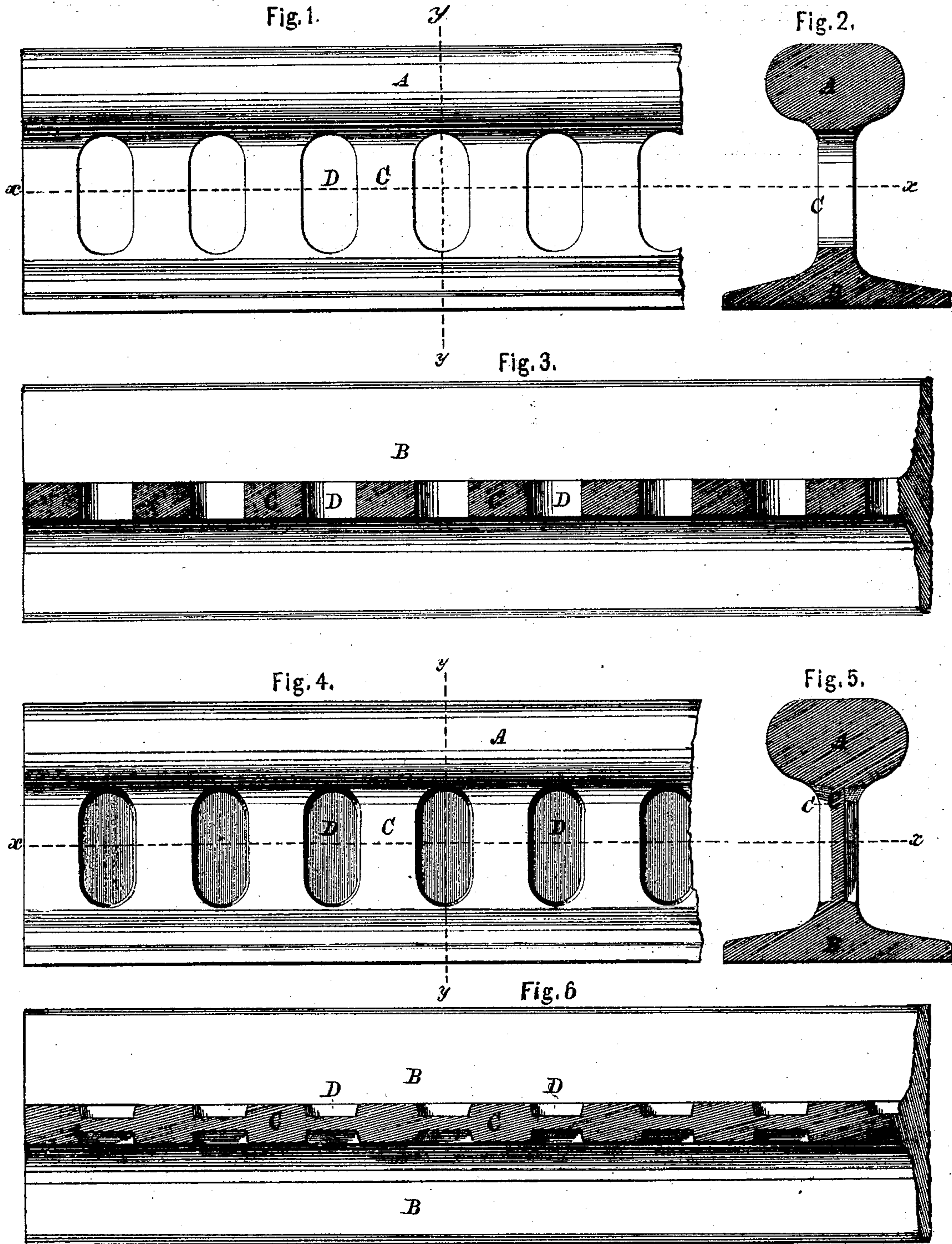


T. R. TIMBY.

Improvement in Railway Rails.

No. 124,174.

Patented Feb. 27, 1872.



WITNESSES.
J. Scheitlin
Walter Allen

INVENTOR.
Theodore R. Timby
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UNITED STATES PATENT OFFICE.

THEODORE R. TIMBY, OF TARRYTOWN, NEW YORK.

IMPROVEMENT IN RAILWAY RAILS.

Specification forming part of Letters Patent No. 124,174, dated February 27, 1872.

Specification of an Improvement in Railway Rails, invented by THEODORE R. TIMBY, of Tarrytown, in the county of Westchester, State of New York.

This invention consists in constructing a T-rail with recesses or cavities in its web, as hereinafter described, so that its weight may be much reduced without serious diminution of strength, or that the height, strength, and efficiency of the rail may be increased without adding to its weight.

In the drawing, Figure 1 is a side elevation of a portion of a T-rail illustrating my invention. Fig. 2 is a transverse section of the same on the line *yy*, Fig. 1. Fig. 3 is a horizontal section thereof on the line *xx*, Figs. 1 and 2. Fig. 4 is a side elevation of a portion of a rail illustrating the same invention under a modified form. Fig. 5 is a transverse section of the same at *yy*, Fig. 4. Fig. 6 is a horizontal section at *xx*, Figs. 4 and 5.

A is the head and B the base of a T-rail. These parts may be of any usual or suitable form. C is the connecting web, in the central part of which are formed recesses or cavities D, of greatest width at or near the vertical center of the web, at which part one-half of the metal may be removed, while above and below, where the web is united to the head and base, respectively, the shoulders are left intact.

It has been discovered by actual and careful experiment that a great reduction in the weight of the rail can in this manner be effected

without any perceptible diminution in its strength. It is not essential to the invention whether the cavities extend completely through the web, as illustrated in Figs. 1, 2, and 3, or only partially so, as shown in Figs. 4, 5, and 6. The former manner of carrying out the invention is in some respects more economical of metal, but the latter involves less difficulty or complication in manufacture, because no punching is necessary. The cavities shown in Figs. 4, 5, and 6 are readily formed, in the act of rolling, by means of suitable projections on the rolls. As height in a railway rail is a great desideratum in so far as it can be obtained without any element of weakness and without too great cost, I may illustrate the value of my invention by remarking that it enables me to produce a rail of greater height with a given weight of metal without impairing the efficiency of the web to resist either the crushing or the lateral strain to which it is subjected.

Claim.

I claim as my invention—

The T-railway rail herein described, having in its web elliptical recesses or perforations with curved shoulders, as and for the purpose specified.

THEODORE R. TIMBY.

Witnesses:

OCTAVIUS KNIGHT,
WALTER ALLEN.