

(No Model.)

W. H. HOWELLS.

MECHANISM FOR REDUCING OLD RAILS TO RAILS OF SMALLER SIZE.

No. 366,395.

Patented July 12, 1887.

Fig. 1.

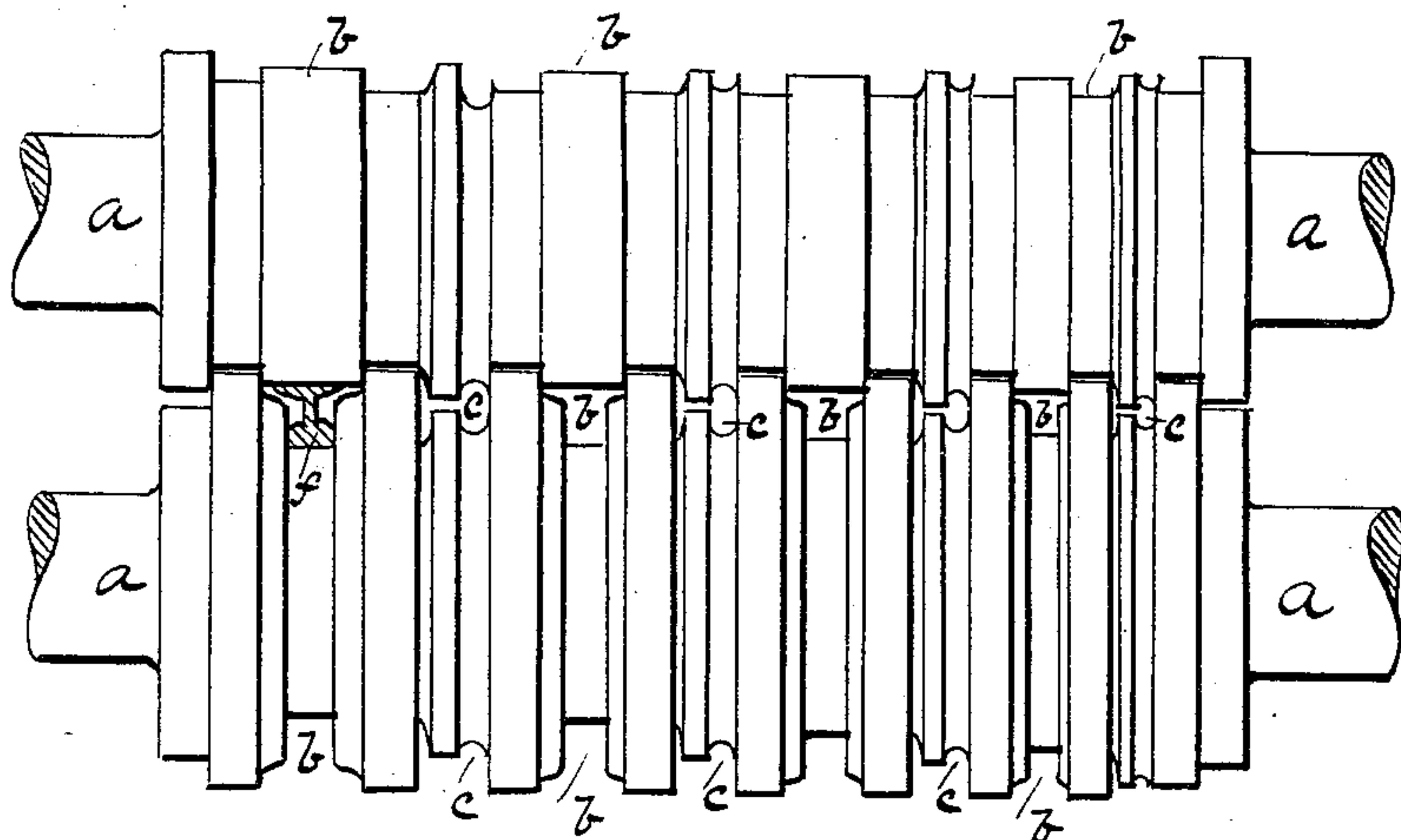


Fig. 2.

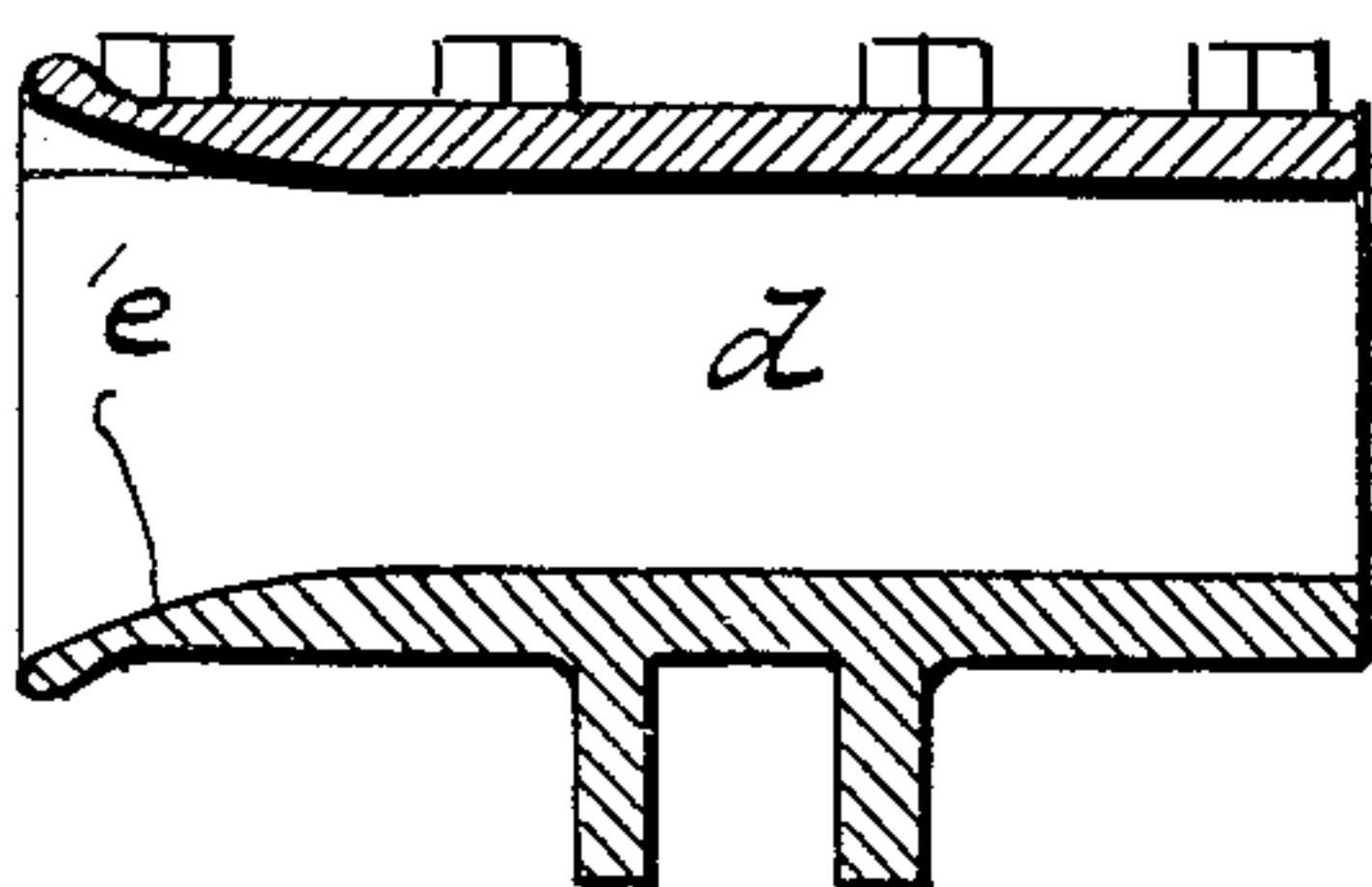
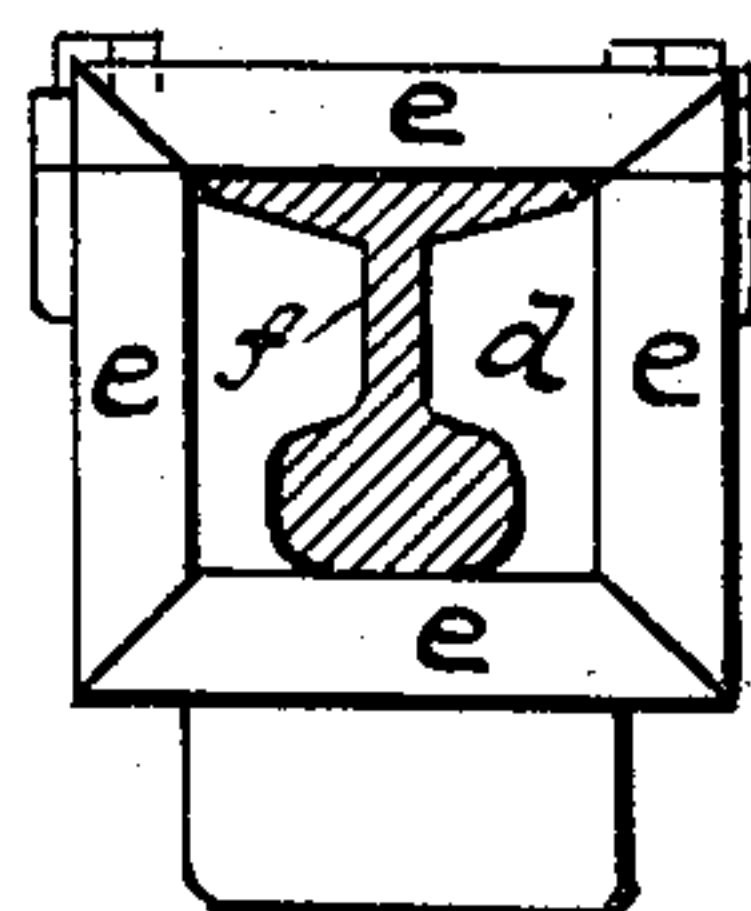


Fig. 3.



Witness:
H. E. Harrison.
Josiah W. Ellis

Inventor.
William H. Howells
Per. O. D. Lewis

Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM HOPKIN HOWELLS, OF BRIDGEPORT, OHIO.

MECHANISM FOR REDUCING OLD RAILS TO RAILS OF SMALLER SIZE.

SPECIFICATION forming part of Letters Patent No. 366,395, dated July 12, 1887.

Application filed April 11, 1887. Serial No. 234,436. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HOPKIN HOWELLS, a citizen of the United States, residing at Bridgeport, in the county of Belmont and State of Ohio, have invented a certain new and useful Process for Reducing Old Railway-Rails to Small T-Rails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a process for reducing old railway-rails to small T-rails, the object being to provide a means whereby the "web" of the rail may be staved or increased in thickness to correspond in the reducing to the head and base of the same. This I accomplish by means of suitably-constructed set of rolls having alternately arranged therein a series of staving and shaping grooves acting in conjunction with guide-boxes having bell-mouthed entrances and a flat cap or top to prevent the rails from warping, together with certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a front elevation of my improved rolls, having the guide-boxes removed therefrom, which are constructed in accordance with my invention. Fig. 2 is a sectional side elevation of one of the guide-boxes. Fig. 3 is an end view of the same, showing the position of the rail while passing through the same.

To put my invention into practice, I provide a set of rolls, *a*, having alternately arranged therein a series of dummy (*b*) and shaping grooves (*c*) gradually decreasing in size but of the same form throughout. At the front of each

of these groove *b* and *c* I place a suitably-constructed guide-box, *d*, having a bell-mouthed entrance, *e*, which allows the rails *f* to be easily entered and guided to the proper groove. 45

In reducing an old and worn rail to a small T-rail, the same is given a proper degree of heat and first passed through a dummy-groove, *b*, which operation staves or increases the thickness of the web, the flat top or cap of the guide-box *d* preventing the same from warping. After this pass the rail *f* is rapidly entered into a shaping-groove, *c*, which reduces the rail *f* in size. The next pass is through a dummy-groove, *b*, which further staves the web of the rail, being somewhat smaller than the previous dummy-groove. This operation is continued until the rail *f* has successively passed through all the grooves *b* and *c* of the rolls *a*. 50 55 60

By alternately staving the web of the rail and shaping the same sufficient metal is gathered in the web to correspond to that of the head and foot.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is— 65

1. The improved apparatus for the purpose described, consisting of a pair of rolls having alternated dummy staving-grooves and shaping-grooves decreasing in internal area from one end to the other, and a guide of rectangular form having a bell-mouthed entrance, substantially as specified. 70

2. The combination, with a pair of rolls for the purpose described, of a guide of rectangular form having a bell-mouthed entrance and a removable top, substantially as specified. 75

WILLIAM HOPKIN HOWELLS.

Witnesses:

M. E. HARRISON,
H. H. SALLADE.