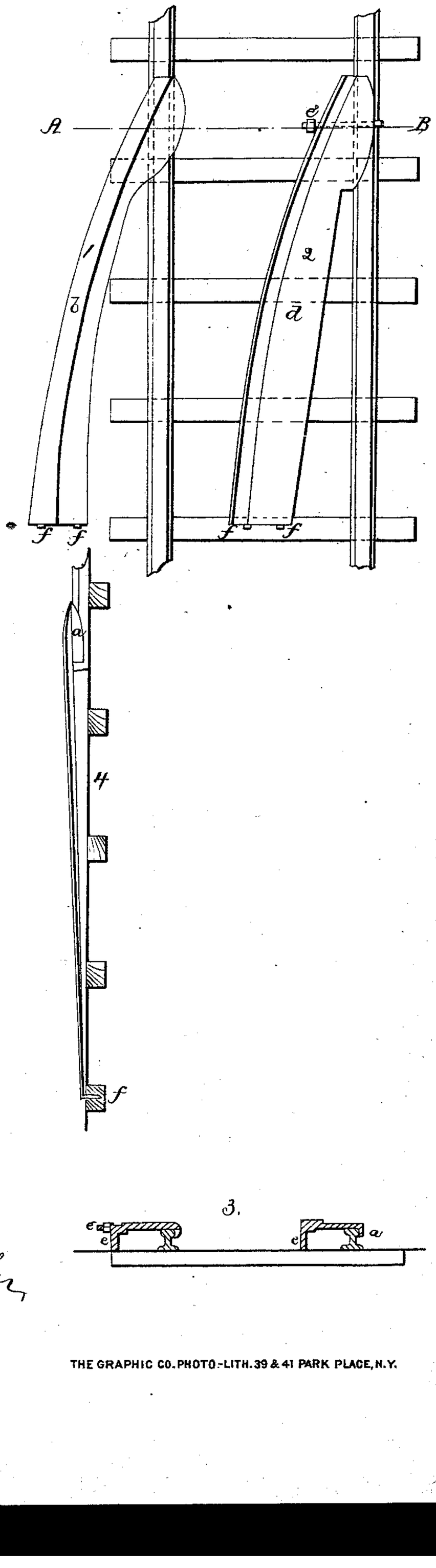
J. P. Lipps.

Car Replacer.

No. 80,191. Patented Jul. 21, 1868.



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JOHN P. LIPPS, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND HENRY GUYER, OF THE SAME PLACE.

Letters Patent No. 80,191, *dated July* 21, 1868.

IMPROVED CAR-REPLACER OR GUIDE-RAIL.

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

Be it known that I, JOHN PH. LIPPS, of the city of Newark, in the county of Essex, and State of New Jersey, have invented a new and useful Machine for Leading upon the Track Railroad-Locomotives and Cars that may have run off; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

Figures 1 and 2 represent a perspective view of my invention as applied to both rails of a railway-track.

Figure 3, a section through the line A B, in figs. 1–2; and

Figures 4 and 5 are side views of figs. 1 and 2.

Car-replacers, as hitherto constructed, have been either too clumsy, too complicated, or required, in their application and adjustment to the rail, too many bolts, hooks, or other detached appliances, to render them altogether practicable and efficient, and whilst sometimes operating with tolerable success, fail at others, by reason of not guiding accurately the car-wheels from the guides to the track, and also because of their liability to shift position, by being pushed forward out of place by the car-wheels as they commence to engage with them.

It is therefore essential that guide-rails or replacers designed for this purpose should be so formed as to be readily applied to the rails, and also be self-sustaining when applied thereon, without requiring any loose, detached supplemental pieces, such as bolts, wedges, hooks, or similar devices, which require to be always ready, and need to be adjusted with nicety to serve their ends, and which, when mislaid or out of order, render the whole apparatus comparatively or altogether useless.

Now, in order as far as possible to simplify the construction, and consequently the facility of application, as well as to secure an absolute certainty of action, by which the car or locomotive cannot fail to be guided aright to resume its place upon the track, I make my device as follows:

Each guide is made separate and distinct from the other, and each has its higher and forward end so constructed in its cross-section as that, when applied to the rail ready for action, it may clasp the flanged edge of the rail, and so be incapable of gliding off or rising out of place. Instead of having this clasping portion (shown at *a* in fig. 3) made in one piece with the guide, it may be made separate and in the form of a hook-bolt, *c;* but in such case I prefer to connect it, as shown, with the guide, so that it forms part of and is always attached to it. Such bolts may be applied to both rails or to neither, as found desirable. I prefer to employ one in connection with the right-hand rail, and the screw-nut thereon affords a means for securing it tightly to the rail.

The upper surface of guide 2 is made with a groove thereon, throughout its whole length, and which is rectangular in cross-section, and which receives the flanges of the car-wheel, and positively prevents its being deflected out of course, either to the right or left.

The upper surface of guide 1 is made with a longitudinal rebate for its whole length, to receive the flanges of the opposite wheels.

It will thus be seen that after the wheels have once properly commenced to rise the incline of the guides, they cannot run out of the desired course. The inclination of the guides is gradual and uniform; and that portion which laps over and grasps the rail is elevated as little as possible above it, so as to reduce as much as practicable the elevation to which the car is to be raised, and from this elevated part it gently declines again. There is thus no abrupt part anywhere in the path of the wheel, and no liability or tendency to get diverted from its course to the rail.

At the rear end of each guide are affixed metal points or projections, *f f*, which serve to fasten the guides to the same cross-tie of the track, to prevent their slipping when the wheels are started upon the guides.

The upright sides *e e* are merely supports or strongholds for the rails, which serve to keep them in proper horizontal position on their upper surface when applied for use.

I claim a railway-guide rail or car-replacer, constructed with a portion which embraces and clings to the rail, a groove for the car-wheel, and a pin or pins for securing the device to the cross-tie, substantially as shown and described.

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