F. W. CARPENTER & J. HERRING.

Toy Railway-Train.

No. 227,216. Patented May 4, 1880.

FIG-1-

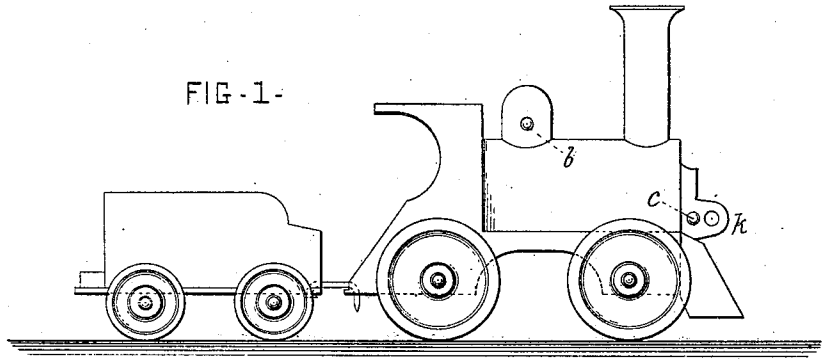


FIG-2-

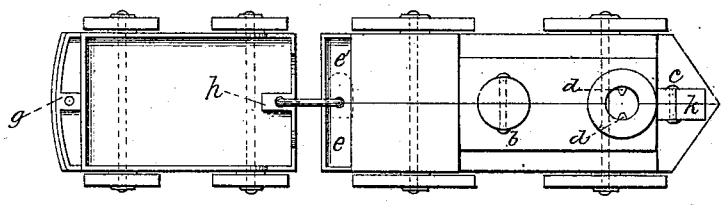


FIG-3-

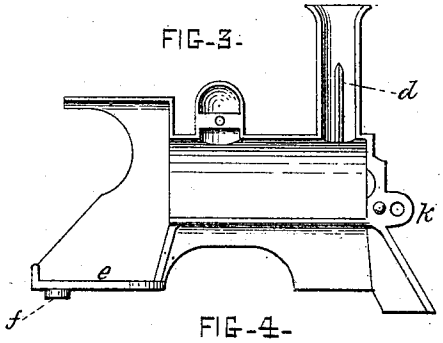
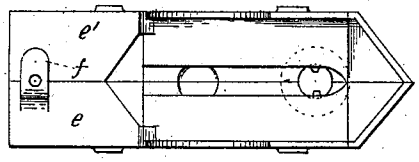


FIG-4-



ATTEST=

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their attys.

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UNITED STATES PATENT OFFICE.

FRANCIS W. CARPENTER, OF RYE, AND JAMES HERRING, OF BROOKLYN, NEW YORK; SAID HERRING ASSIGNOR TO SAID CARPENTER.

TOY RAILWAY-TRAIN.

SPECIFICATION forming part of Letters Patent No. 227,216, dated May 4, 1880.

Application filed December 11, 1879.

To all whom it may concern:

Be it known that we, FRANCIS W. CARPENTER, of Rye, Westchester county, New York, and JAMES HERRING, of Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Toy Railway-Trains, of which the following is a specification.

Our invention relates more especially to the locomotive and tender of a toy train, and our aim is to construct the same in metal, so as to produce a stable and durable toy, and in such manner as to obtain the advantages of simplicity and cheapness and secure greater strength with less metal. To this end we construct the toy locomotive of cast metal in two longitudinal hollow halves or shells riveted or otherwise joined together; and our invention consists in certain minor features of construction, as hereinafter fully set forth.

Figure 1 of the annexed drawings presents a side elevation of our toy locomotive and tender, and Fig. 2 a plan thereof. Fig. 3 is an internal elevation of one of the hollow halves of the locomotive, and Fig. 4 an inverted plan of both halves.

The locomotive and its tender are both formed of cast-iron or other cheap cast metal in the design illustrated, the body of the tender being cast in one piece, while the body of the locomotive is formed in two parts. The locomotive is formed in a simple and neat design, which embodies all the prominent features of an ordinary locomotive, including the frame, cab, boiler, steam-dome, smoke-stack, and pilot. Above the pilot a lug, *k*, projects forward, and is perforated with a hole, thus forming a loop to receive a string, by which the toy may be drawn along the floor. The locomotive as thus designed is divided on its longitudinal center into two similar halves, which are cast hollow, forming two thin shells, one of which is shown viewed from the interior or hollow side in Fig. 3, and these two halves are riveted together by a rivet, *b*, through the steam-dome and a rivet, *c*, through the lug *k*, thus forming the complete body of the engine.

By this construction a cheap, neat, and durable toy is produced, and, while strength and stability are secured, comparatively little metal is used.

To further increase the strength and lightness of the casting, the concave internal face of the smoke-stack on each half is formed with a raised longitudinal rib, *d*, (see Fig. 3,) which materially strengthens this prominent part of the toy and renders it more proof to blows.

To further reduce the metal in the casting and improve the appearance of the locomotive, the sides of its frame between the wheels are arched, as shown, and the body is open along the bottom from the tip of the pilot to the front of the cab, the metal in this portion of the casting terminating at the lower edges, as seen best in Figs. 3 and 4. At the bottom of the cab, however, the casting extends at right angles from the sides in transverse webs *e e'*, which, meeting together when both halves of the locomotive are joined, form the bottom or platform of the cab.

The web on one of the halves is formed with an underlying lug, *f*, which projects under the web on the other half when the two are joined, and the vertical hole for the coupling-link is bored through the web of one and the lug of the other half, as shown in Figs. 2 and 4, by which means it will be observed that a better socket is obtained for the coupling; and, furthermore, when the coupling is in place the two halves of the locomotive will thus be prevented from spreading and releasing the coupling.

The coupling consists preferably of a stout wire bent in the form of a staple, the vertical prongs being dropped into the vertical holes in the ends of the locomotive and tender, one prong of the staple being riveted in one of the parts, while the other is free to engage the other part, as illustrated.

The tender is formed with a short platform behind, but is without a platform in front. The body of the tender is inclosed by vertical sides on the back and on either side, but is open at the top and also at the front, the sides being cut away at the front to nearly a level with the bottom of the tender.

The bottom and sides of the tender are cast as thin as practicable, and the bottom of the

tender at the coupling ends is strengthened by a raised boss, *g h*, through which the holes for the couplings are bored. The boss *g*, on the back end of the tender, extends from the edge flange of the platform to the hind side of the tender, as shown, and thus strengthens both parts, while the boss *h*, at the front end of the tender, is directed within the body of the tender, as shown, and by this construction of the front end greater strength, simplicity, lightness, and cheapness of construction are obtained, as will be readily appreciated.

The wheels of the locomotive and tender, which may be of wood or iron, are held on wire axles, which, in the locomotive, are secured in holes bored through bosses near the lower edge of the frame, and on the tender are held in short lugs depending from the bottom of the tender and cast solid therewith.

It will be readily understood that instead of riveting the halves of the locomotive together they may be held together by screws or cement; but riveting is much preferable.

We lay no claim, broadly, to a toy locomotive of cast metal made in two longitudinal halves fastened together.

What we claim as our invention is—

A cast-metal toy locomotive, tender, or car having its front open and its coupling end provided with a perforated boss, *h*, raised from the floor or platform thereof and directed inward from its front edge or end, substantially as herein shown and described.

FRANCIS W. CARPENTER.
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Witnesses:
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CHAS. M. HIGGINS.