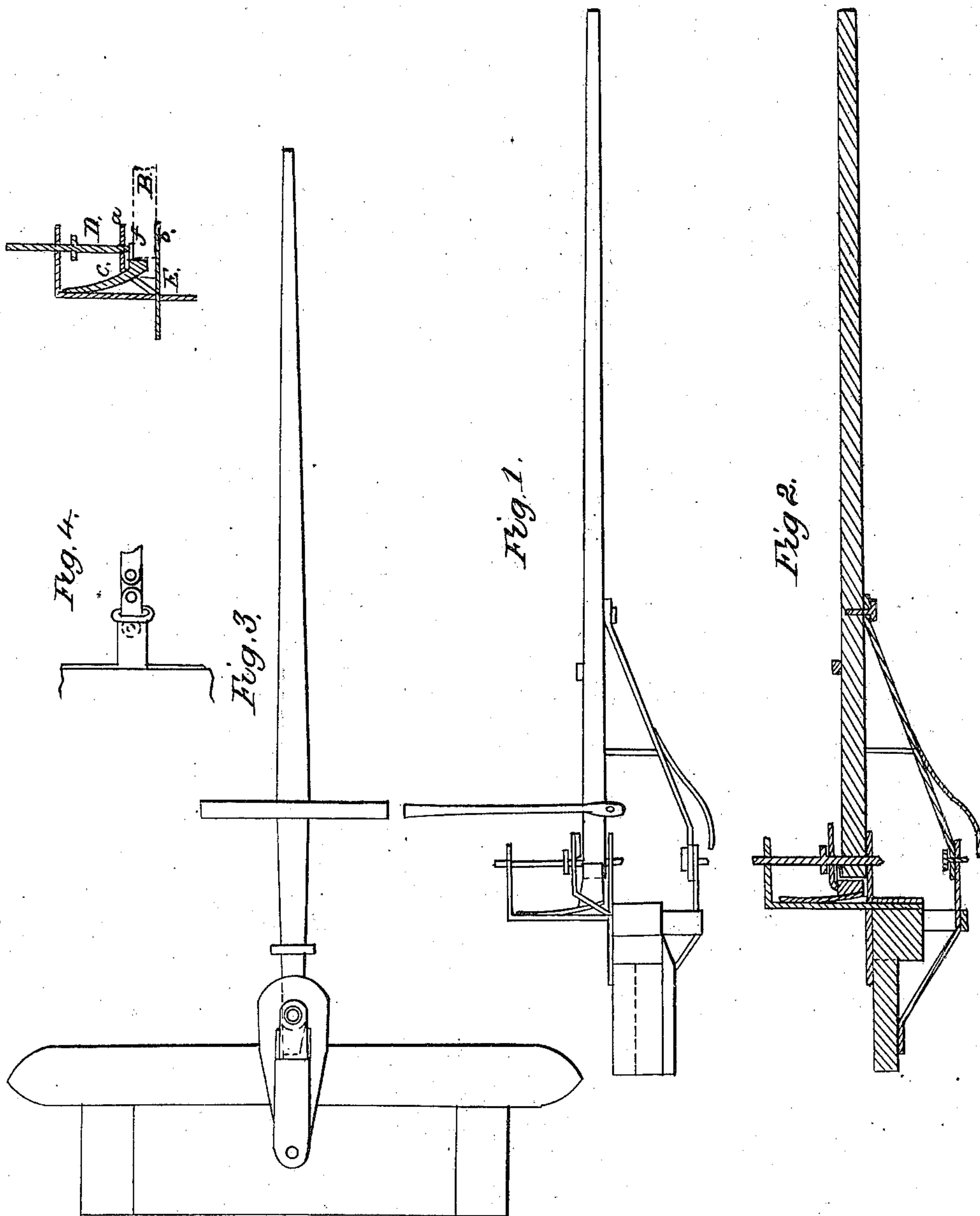


B E. SAMPSON.
Tongue-Coupling for Horse-Cars.

No. 21,026.

Patented July 27, 1858.



UNITED STATES PATENT OFFICE.

BLANEY E. SAMPSON, OF BOSTON, MASSACHUSETTS.

COUPLING FOR HORSE-RAILWAY CARS.

Specification forming part of Letters Patent No. 21,026, dated July 27, 1858; Reissued February 21, 1860, No. 906.

To all whom it may concern:

Be it known that I, BLANEY E. SAMPSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Pole-Couplings for Horse-Railway Carriages; and I hereby declare that the nature of the improvement is fully set forth in the following specification, reference being had to the accompanying drawings, to which the specification and letters refer.

My improvement consists in so applying or constructing the car pole, that it shall be sustained at the proper height to "couple" with the car bunter, and be self coupling at all horizontal angles of presentation, to which the pole may be liable. Also in so applying the pole that its weight shall be sustained by the car, instead of bearing upon the horses.

Figure 1, of the drawings denotes a side view of the pole, and the carriage platform connected in my improved manner. Fig. 2, is a vertical central section, and Fig. 3, a top view of the same.

A, in the same denotes the platform, B, the pole to which the horses are attached, C, the bunter of the platform, D, the bolt, which fastens the pole and bunter together. This bunter is composed of two horizontal plates, *a*, *b*, extending out from the platform D, and placed at sufficient distance apart to allow of the insertion of the end of the pole B. A spring bearing E, is placed between the plates, just in rear of the bolt poles of the bunter, this bearing block being attached to a spring *c*, as seen in Figs. 1 and 2. This spring has a tendency to push the block front in such manner as to cause a projection *f*, from its top, to slide under the bolt hole in the upper bunter plate, preventing the bolt from dropping when the pole is withdrawn, as seen in section in Fig. 4. The block has a curved or semi-circular depression in front, to correspond with the end of the pole which abuts against it.

When the pole is inserted into the bunter and pushed back, it will press the bearing block back, and allow the bolt pin to drop into the aperture at the pole. Now as the pole may not always be at right angles horizontally to the platform when entering the bunter, I make the bearing plate with the semi-circular depression, so that whatever may be the angle of the pole, the aperture

thereof shall be brought under the bolt, when the pole is pressed back, as at such time the curve of the depression is concentric to the aperture. As commonly made the bunter has an elongated hole in front, (as seen at *x*, in Fig. 4) through which the end of the pole enters, and the pole has (in coupling) to be brought up at right angles to the end of the car, and be made with an extra joint piece, which swings horizontally on the end of the pole. This joint piece is constantly getting loose or broken, occasioning much difficulty in shackling, and allowing the pole to sag down. These difficulties I overcome by making the pole in one undivided piece, and by applying or presenting its end between the two jaw plates of the bunter as described.

A guard usually extends down from the rear end of the pole, to keep the pole from contact with the ground when changing the horses from one to the other end of the car.

Instead of extending this guard from the pole, I attach it to a brace G, as seen at *f'*. This brace is attached at one end to the pole by a bolt or pin *g*, and extends down as seen in Figs. 1 and 2. A slot *h*, is made in its rear end, which receives a pin *i*, projecting from the upper side of a horizontal stationary plate *k*, which extends out from underneath the platform. This plate is intended to serve as a guide to the end of the pole when shackling, it being placed at such distance under the platform that when the end of the brace is dropped on to the plate, the pole shall be at the proper height to enter the bunter.

The pin *i*, is placed directly under the bolt pin, and when the slot *h*, straddles the pin *i*, and the brace is pushed against it, it serves to keep the pole horizontal while shackling. Another purpose in having the brace slot, and pin, is to keep the pole horizontal when the car is moving, so as to prevent the weight of the pole from hanging or bearing upon the horses, as it does where the pole is made with the joint. A lifter bar H, may be attached to the pole to lift it into place.

In shackling the pole to the car, the end of the brace is dropped onto the plate *k*, and pushed against the pin *i*, when whatever may be the angle of presentation of the pole horizontally, by merely pressing the pole back hard, the bolt pin drops into place.

When the bolt is withdrawn, the block springs forward and keeps the bolt up.

I am aware that it is not new to make cars "self shackling" when brought together, 5 railroad cars often having couplings so applied and I am also aware that common carriage poles are made without joints. I therefore do not claim making horse cars self shackling, nor making a pole to a horse 10 car in one piece.

What I do claim as my invention, is—

1. The above described method of constructing and applying the pole so that it shall be in position to shackle when brought

against the platform at any common angle 15 of presentation.

2. I also claim as applying the pole, as described, that it shall be supported by the car instead of upon the horses, as is usually 20 done.

In testimony whereof, I have hereto set my signature this fifth day of September, A. D. 1857.

BLANEY E. SAMPSON.

Witnesses:

LEONARD M. FITCH,
FRANCIS GOULD.

[FIRST PRINTED 1911.]