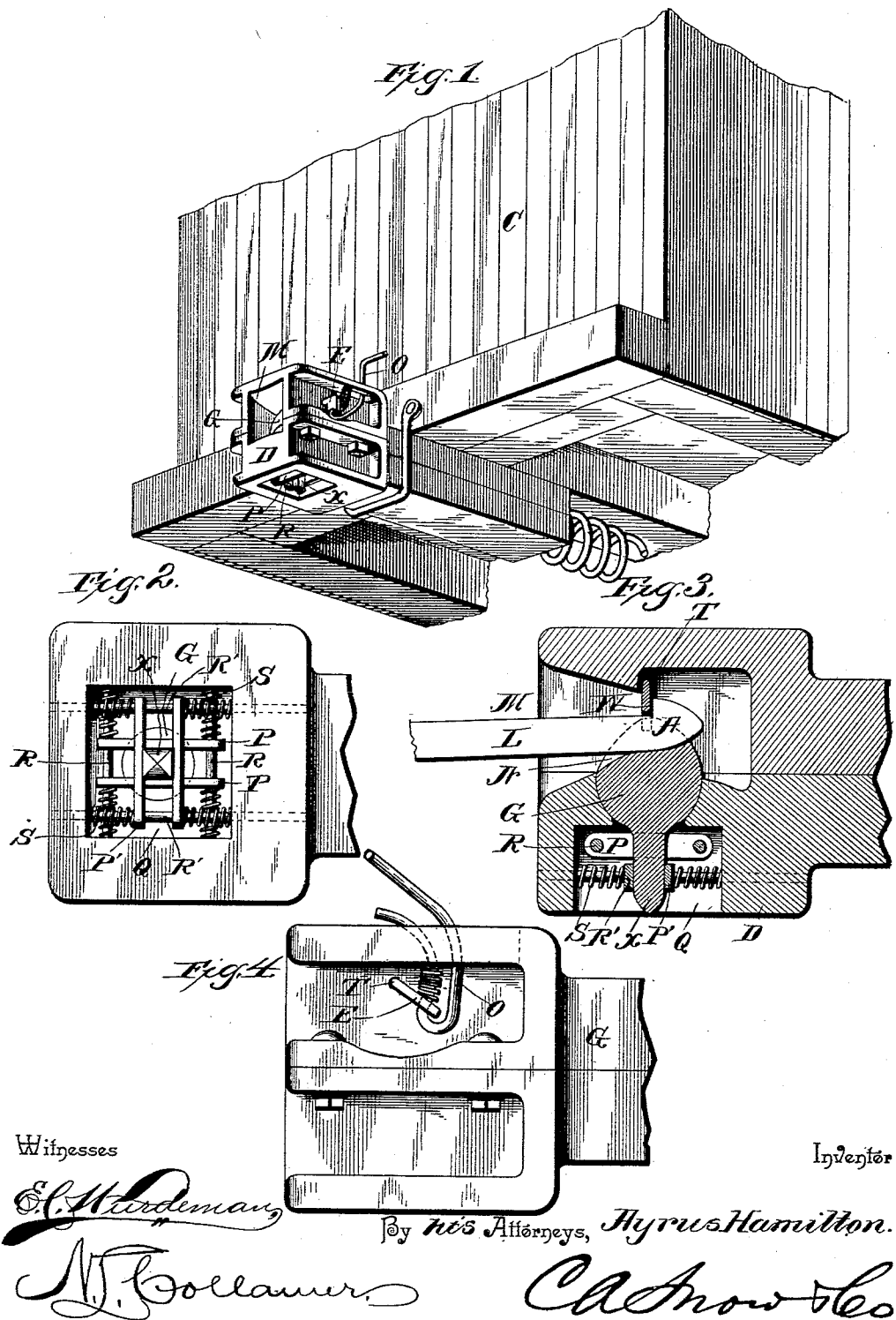


(No Model.)

A. HAMILTON.
CAR COUPLING.

No. 476,633.

Patented June 7, 1892.



UNITED STATES PATENT OFFICE.

AYRUS HAMILTON, OF FORT GARLAND, COLORADO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 476,633, dated June 7, 1892.

Application filed September 16, 1891. Serial No. 405,893. (No model.)

To all whom it may concern:

Be it known that I, AYRUS HAMILTON, a citizen of the United States, residing at Fort Garland, in the county of Costilla and State of Colorado, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings, more especially of that class known as "draw-heads and draw-bars;" and the object of the same is to effect certain improvements therein.

To this end the invention consists in the construction hereinafter more fully described and claimed, and as illustrated on the accompanying sheet of drawings, wherein—

Figure 1 is a perspective view of the end of a car with my coupling attached, viewed slightly from the under side. Fig. 2 is a bottom plan view of the draw-head. Fig. 3 is a central longitudinal section thereof with the link coupled in place. Fig. 4 is a left side elevation showing the devices in uncoupled position.

Referring to the said drawings, the letter C designates the car-body, beneath which is mounted in any suitable manner the draw-bar and draw-head D, having the usual flaring mouth M. This draw-head has a large central cavity, within which is loosely fitted a globular ball G, having a depending extension X, which passes through a hole in the bottom of the draw-head, as seen in Fig. 2.

R R and R' R' are parallel bars or rods, arranged in a recess Q beneath the draw-head in two pairs at right angles to each other and in different planes and having coiled springs S thereon, and P P and P' P' are parallel plates in pairs having eyes at their ends which slide on the rods, the said plates being pressed inwardly toward the extension X by the springs. In this manner the said extension is held normally upright and the globe G in its proper position; but it can yield in any direction, as will be clear, although it cannot draw out of the draw-head.

Through the globe G is formed a notch N in alignment with the smaller end of the mouth M and open at the top, and into this notch the link L is adapted to pass, the same being provided with semi-arrow-heads A at its ends, as seen.

T is a transverse shaft journaled through the draw-head above the globe G and having a depending web W, adapted to fall across the upper end of the notch N and engage the semi-arrow-head A when the link is forced into place. One end of the shaft T has a perforated ear E, and O is an operating-rod about of the shape shown in Fig. 4, which passes through the perforation in this ear and extends to the top of the draw-head. This rod is useful, as will be clear, for turning the shaft T so as to throw the web W to the rear and out of engagement with the link to free the latter, when desired. However, I do not confine myself to this precise method of operating the web, as others might be devised which would operate successfully in connection with a draw-head containing the globe, as above described.

With a coupling of this character, when the link is driven into the draw-head it couples therein automatically, and thereafter the end of the link while locked in place is free to turn from side to side or up and down to accommodate itself to the conditions of railroad travel.

The device can be cheaply constructed and is useful and durable.

I claim as the salient features of this invention—

1. In a car-coupling, the combination, with a draw-head having a mouth and a globular ball turning in a cavity within said draw-head and having a notch registering normally with the mouth, of a link adapted to enter said mouth and notch and means for locking the link detachably therein, substantially as described.

2. In a car-coupling, the combination, with a draw-head having a flaring mouth and a globular ball turning in a cavity within said draw-head and having a notch registering with the rear end of the mouth, said ball having, also, a depending extension passing through the bottom of the draw-head, of a link adapted to enter said mouth and notch, means for detachably locking it therein, and spring-actuated plates beneath the draw-head pressing against said extension from all sides, as and for the purpose set forth.

3. In a car-coupling, the combination, with

a draw-head having a cavity and in its bottom
a recess, a globular ball turning in said cavity
and having an extension depending into the
recess, and means for coupling a link to said
5 ball, of four rods arranged in two pairs at
right angles to and in different planes from
each other in said recess, coiled expansive
springs on said rods, and four plates having
eyes near their ends sliding on the rods, the
10 springs bearing the plates normally against
said extension, as and for the purpose set
forth.

4. In a car-coupling, the combination, with
a ball mounted loosely in a cavity in the draw-
15 head and having a notch, and a link having

a semi-arrow-head at its end, of a transverse
shaft in the draw-head having a web adapted
to fall across the upper end of the notch, a
perforated depending ear at the outer end of
said shaft, and a spring-actuated operating- 20
rod engaging said ear and extending through
the top of the draw-head, as and for the pur-
pose hereinbefore set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 25
the presence of two witnesses.

AYRUS HAMILTON.

Witnesses:

I. H. GRAY,

G. W. HAMILTON.