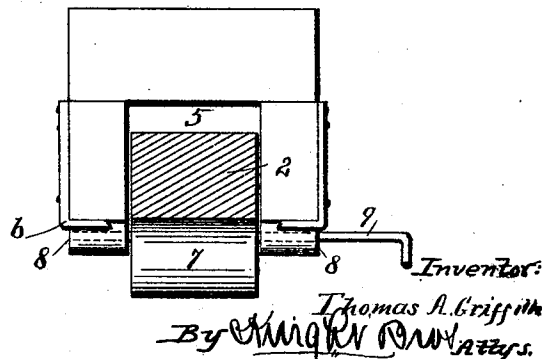
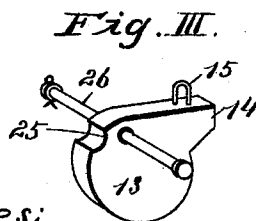
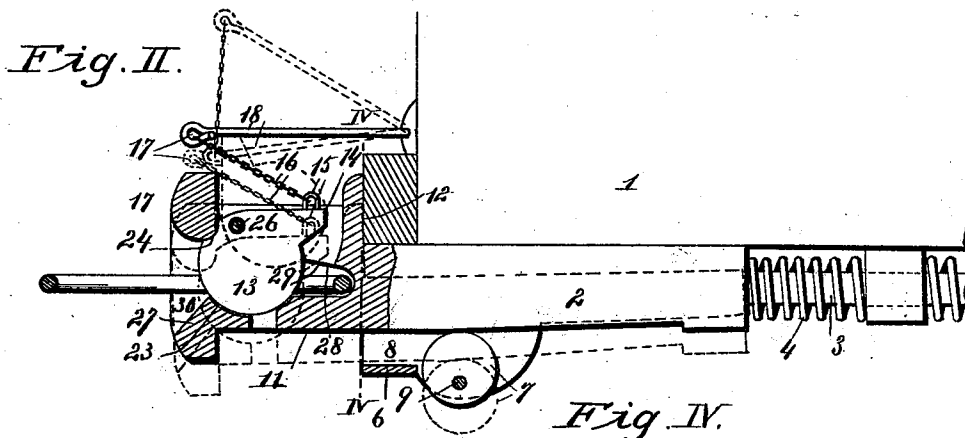
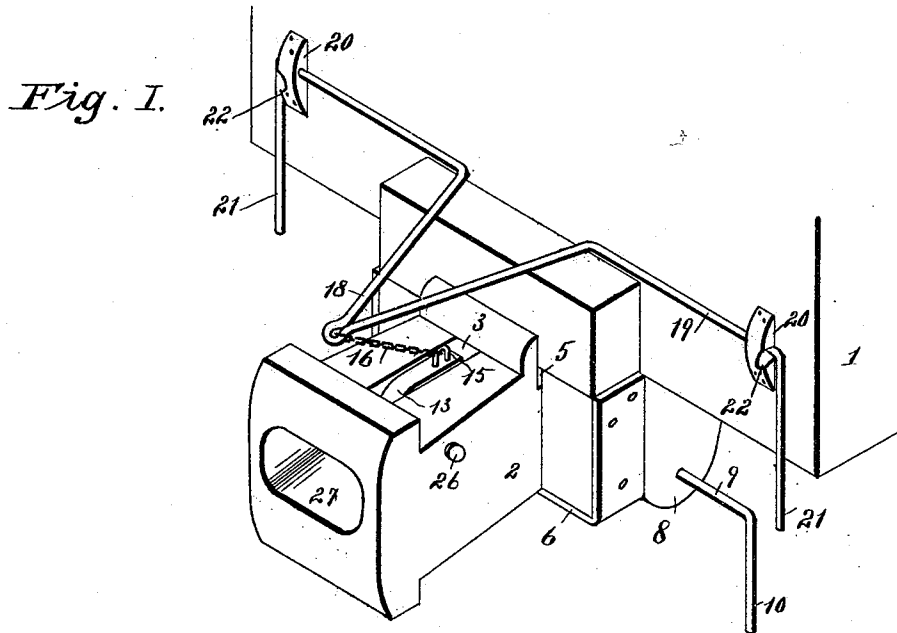


(No Model.)

T. A. GRIFFITH.
CAR COUPLING.

No. 515,215.

Patented Feb. 20, 1894.



Witnesses:
F. G. Fischer
R. L. Silverman

Inventor:
Thomas A. Griffith
By Chas. R. R. R. Attys.

UNITED STATES PATENT OFFICE.

THOMAS A. GRIFFITH, OF KANSAS CITY, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 515,215, dated February 20, 1894.

Application filed August 1, 1893. Serial No. 482,096. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. GRIFFITH, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in car couplings, and my invention consists in certain features of novelty hereinafter described and pointed out in the claims.

Figure I, is a perspective of my improved coupling, showing the same attached to the end of a car. Fig. II, is a longitudinal section showing a coupling formed, and means for raising and lowering the draw-bar. Fig. III, is a detailed perspective showing coupling disk. Fig. IV, is a transverse section taken on line, IV, IV, Fig. II.

Referring to the drawings: 1, represents the body of a car, to which the draw-bar, 2, may be attached, by the usual rod, 3, or by other suitable means.

4, represents the usual coil spring, surrounding the rod, 3. The draw-bar, 2, is loosely mounted in a socket, 5, of a supporting frame, 6, so as to permit of vertical movement of the draw-bar. The draw-bar, 2, may be raised or lowered at the will of the operator, by means of an eccentric, 7, pivoted to the frame, 6, as shown at 8, by means of transverse shaft, 9, extending through the bearings in the frame, and through the eccentric. The shaft, 9, is provided with a hand extension, 10, by which the eccentric, 7, may be operated, and as the draw-bar rests upon the eccentric, the draw-bar may be raised or lowered so as to adjust it to the link of the coupling of the adjacent car. Some of the cars being higher or lower than other cars, it necessarily follows that the coupling link is higher or lower, and by the means described, the operator can, by operating the hand-piece 10, and moving the eccentric, 7, raise or lower the draw-bar, so that the link on the adjacent car will readily pass into the mouth of the draw-bar. The draw-bar, 2, is provided with a head, 11, on which there is a lug, 12, which, when the draw-bar is driven inward, comes in contact with the framework

at the end of the car, and prevents its being driven too far inward.

13, represents my improved coupling, which is made substantially in the form of a disk, having an extension, 14, with a staple, 15, to which one end of a chain, 16, may be secured, the opposite end of the chain, 16, being secured at 17, to an arm, 18, of a bar, 19, the bar, 19, being for the purpose of raising the disk through the connecting medium, 16, when it is desired to uncouple the car. The bar, 19, is journaled to brackets, 20, at the end of the car, and is provided with extensions, 21, near the end of the car, which the operator may grasp in order to raise the disk, and uncouple the car. The brackets, 20, are provided with shoulders, 22, on which the extensions, 21, may rest, by forcing the bar, 19, in a lateral direction, for the purpose of holding the disk, 13, in a raised position, when so desired, one of the shoulders, 22, on one of the brackets, being made higher than the shoulder on the opposite bracket, so as to accommodate it for the raising or lowering of the draw-bar. The disk, 13, is provided with a concave seat, 23, in the head of the draw-bar, on the under side, and extending forwardly of the disk; and is also provided with a convex bearing, 24, on the upper and forward portion of the draw-bar head, the disk, 13, having a concave recess, 25, to correspond with the convex bearing surface, 24.

26, represents a shaft to which the disk, 13, is pivoted in the head of the draw-bar, said shaft not taking the force of the strain upon the disk coupling, but merely acting as a guide for said coupling in raising and lowering the same, and holding it in its proper position, the strain of the coupling coming upon the convex and the concave surfaces as described. The convex bearing surface, 24, prevents the disk, 13, from being forced upward when an upward strain is brought upon the coupling link, 27, and the concave bearing surface forming a bearing surface of large extent in the head of the draw-bar, so as to distribute the strain upon the same. Thus it will be seen that the strain upon the pivot shaft, 26, is reduced to a minimum. The throat, 28, of the draw-bar head, is inclined on the upper side from the forward portion of the head, to the rear portion of the throat,

as shown at 29, and is also inclined on the under side, as shown at 30, thus assisting in guiding the coupling link to its proper destination, the coupling disk, 13, when struck on its outer surface, readily giving way and allowing the link to pass beneath the same.

31, represents a slot in the upper side of the draw-bar head, through which the disk, 13, is introduced, in placing it in position, and through which said disk extends partially when in its raised position. (See dotted lines, Fig. II.)

I claim as my invention—

1. A car coupling composed of a link and disk, the disk being mounted in a draw-bar, and having a convex-concave bearing therein; substantially as and for the purpose set forth.

2. In a car coupling the combination of a suitable draw-bar, a coupling disk pivoted therein, an inclined throat in the head of the draw bar, said disk having an under concave bearing, and an upper convex bearing in said draw-bar; substantially as and for the purpose set forth.

3. In a car coupling the combination of a draw-bar, suitably connected with a car, a disk coupling pivoted thereto, and capable of being moved upon its pivot, said disk coupling having a concave under and forward bearing, having a concave recess on its upward and forward side, and a convex extension on said draw-bar engaging the recess in the disk; substantially as and for the purpose set forth.

4. In a car coupling, the combination of a

disk and a draw-bar to which the disk is pivoted, said disk having a convex-concave bearing in the said draw-bar, an extension on said disk, and means for connecting said extension with a suitable device attached to the car for raising and lowering said disk; substantially as and for the purpose set forth.

5. In a car coupling the combination of a disk and a draw-bar having a head in which said disk is mounted, a convex-concave bearing in the draw-bar head for said disk, said draw-bar head having an inclined throat for guiding the disk to form the coupling, an extension on said disk, a bar pivoted to the body of the car, and having a hand-piece for operating the same, a forward extension on said bar, and a flexible means for connecting such forward extension with the extension on said disk, substantially as and for the purpose set forth.

6. In a car coupling the combination of a draw-bar having a suitable head, a disk pivoted therein, and having peripheral bearing seats a bar for raising and lowering said disk, brackets to which said bar is journaled, and shoulders on said brackets with which said bar engages for holding said disk in a raised position; substantially as and for the purpose set forth.

THOMAS A. GRIFFITH.

Witnesses:

O. P. COATS,

R. L. SILVERMAN.