(No Model.)

L. RECHT.

CAR COUPLING.

No. 266,720. Patented Oct. 31, 1882.

Fig. 1.

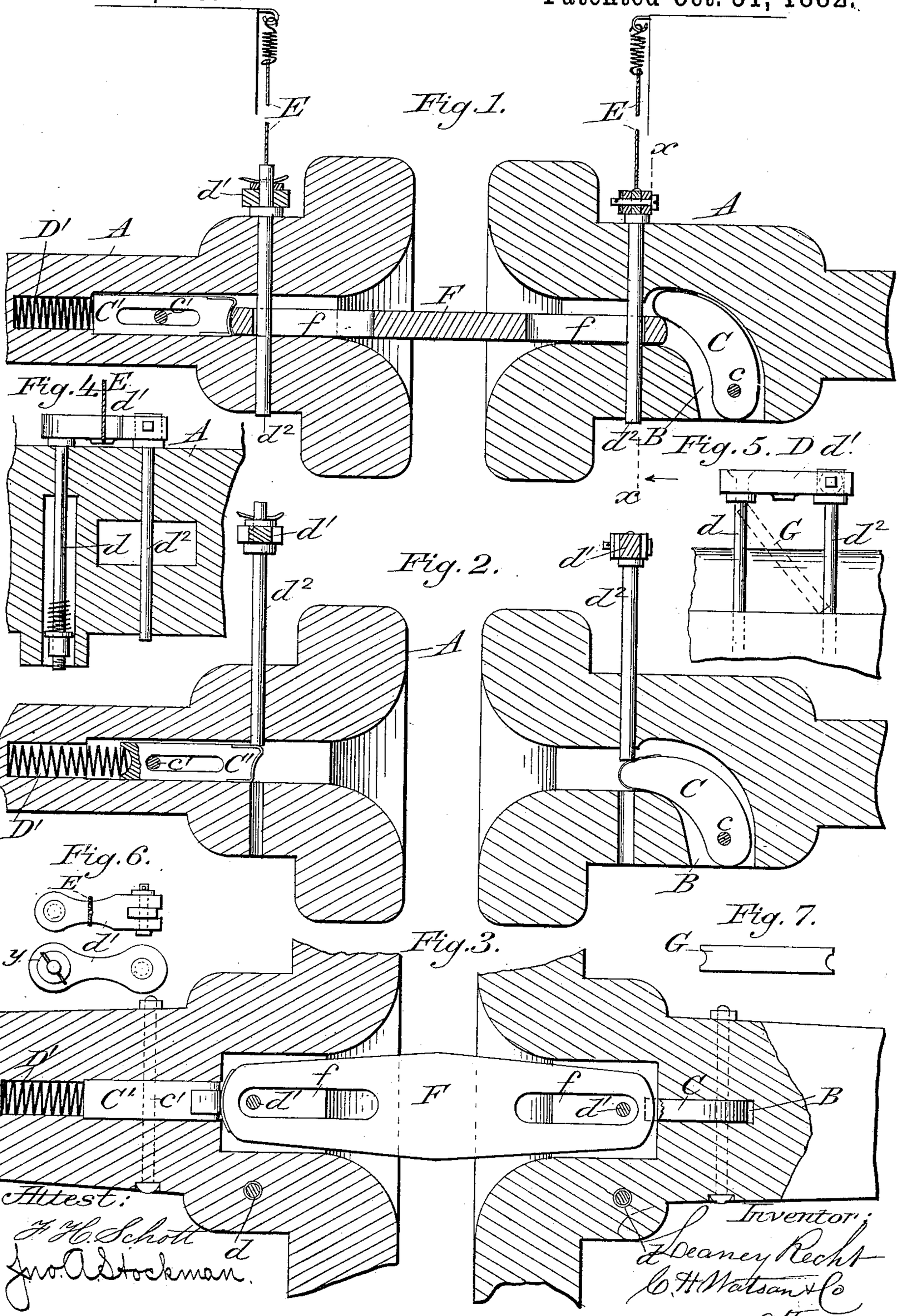

Fig. 4.

Fig. 5.

Fig. 2.

Fig. 6.

Fig. 3.

Fig. 7.

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LEANEY RECHT, OF PLATTE CITY, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 266,720, dated October 31, 1882.

Application filed July 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEANEY RECHT, a citizen of the United States, residing at Platte City, in the county of Platte and State of Missouri, have invented certain new and useful Improvements in Car Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in car-couplings; and it consists in the construction and arrangement of parts, as will be hereinafter more fully described and claimed.

In the annexed drawings, Figure 1 is a vertical longitudinal section of my improved coupling with the parts arranged in a coupled position. Fig. 2 is a similar view with the parts uncoupled. Fig. 3 is a horizontal section. Fig. 4 is a transverse sectional elevation on line *x x* of Fig. 1; and Figs. 5, 6, and 7 are details, to be hereinafter referred to.

Like letters indicate like parts.

The letter A represents a draw-head, which is attached to the underside of a car, at one end, in the usual manner, and may, if desired, be provided with a spring at its rear end to prevent jarring when the cars are coupled. The mouth of this draw head A is made flaring; but it is preferably built in with blocks having beveled outer faces, so that there is just enough space to receive and support the coupling-link. In the rear of the draw-head may be formed an enlarged cavity, B, having curved walls, as shown in Figs. 1 and 2; and in said cavity a supporting block or dog, C, is pivoted by means of the pivot-pin *c*, passing transversely through the draw-head, and through said dog C, near its under side. This dog C is preferably of a curved or semi-lunar shape, to correspond with the curved outline of the cavity B, and it is preferably provided at one end with a bushing or wearing-plate, as shown.

D is a coupling-pin, which is preferably composed of the guide-pin *d*, the transverse connecting portion *d'*, and the coupling pin or post d^2, as shown in Fig. 4. The guide-standard *d* is placed in a vertical recess or slot formed in the forward portion of the draw-head A, a little to one side of the mouth of the same, and its lower end is provided with an adjustable nut to prevent it from being entirely withdrawn from said draw-head. The post or pin *d* is also surrounded by a coiled spring for the purpose of diminishing jar. To the upper end of this post *d* one end of the transverse portion *d'* is rigidly attached. The opposite end of the portion *d'* extends across the draw-head A to about the center thereof, and is detachably connected to the upper end of the coupling-pin d^2, which plays in a vertical slot or recess formed in the center of the forward portion of the draw-head. The upper end of the pin d^2 is square, and provided with a shoulder, upon which the forked end of the portion *d'* rests. The parts *d'* and d^2 of the coupling-pin D are connected by a bolt passing through them. The underside of the transverse portion of the pin D is provided with a bracket, through which is passed one end of a rope or chain, E, the opposite end of which is provided with a spiral spring, and is attached to the roof or upper part of the car.

The form of link which I prefer to use in conjunction with my coupling is shown in Figs. 1 and 3, and consists of a solid strip, F, of suitable material, provided with longitudinal slots *f f* near its ends for the reception of the coupling-pin.

When it is desired to hold the coupling-pin D permanently in a raised position I provide a block, G, (see Fig. 7,) having notched or concaved ends, which block is of such size as to rest diagonally against the parts *d* d^2 and beneath the part *d'* of said pin D, as shown in Fig. 5, and thus prevent the pin from falling down into the draw-head.

Instead of using the pivoted supporting block or dog C above described, I prefer to use a rectangular sliding block, C', which is formed with its front face curved to conform to the rounded end of the link, the rear end of the block being recessed for the reception of the end of a spring, D'. This sliding block C' is provided with a slot, through which is passed a pin, *c'*, which serves to restrict its play. When this form of supporting-block is used the cavity in the rear of the draw-head is the

same size as said mouth, except at its extreme rear end, which is slightly diminished in order to more firmly embrace the spring D′ set therein.

It will be understood that instead of bifurcating one end of the transverse portion d' and squaring the upper end of the pin d^2 of the pin D, I may perforate said transverse portion d' and place it over the part d^2 until it rests upon the collar formed on said part, and then secure it in place by means of a bolt and washer, as shown at *y*, Fig. 6.

By attaching suitable levers to the end of the car and connecting them with the link and pin said parts may be operated from the side of the car.

It will be observed that by raising the pin D, which can be accomplished from either the top or side of the car, and then withdrawing the link the pivoted supporting block or dog C will fall forward and downward until it rests upon the bottom of the draw-head, over the pin-hole in same, while the pin will fall upon said block and be held in a raised position. When the link enters the mouth of the draw-head it will come in contact with the dog C, so as to raise and force it back and permit the pin D to drop into its proper place in the link, thus automatically coupling the cars. The operation is the same when the block C′ is used, except that the spring D′ forces said block outward until it comes beneath the part d^2 of the pin D. The construction of the pin D is such that should the part d^2 become broken it could be readily removed and replaced by a new one, and the joint will also allow said pin d^2 to have slight lateral play to correspond with the motion of the cars. The nut is so adjusted upon the part *d* of the pin D as to prevent the pin d^2 from being entirely withdrawn from the draw-head, and the part *d* also serves to guide the movement of the pin d^2.

It is obvious that a link of ordinary construction may be used with my coupling device.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination, with the recessed draw-head A and coupling-pin D, composed of the vertical parts *d* d^2 and horizontal portion d', of the supporting-block G, substantially as shown and described.

2. In a car-coupling, the combination of the recessed draw-head A, horizontal spring-slide C′, coupling-pin D, composed of the vertical parts *d* d^2 and horizontal part d', and the link F, substantially as shown and described.

3. In a car-coupling, the combination of the recessed draw-head A, coupling-pin D, composed of the parts *d* d' d^2, having spring-connection E, extending to the top of car, link F and means for supporting the pin when the link is withdrawn, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

LEANEY RECHT.

Witnesses:

WILLIAM C. WELLS,

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