(No Model.)

C. G. LIND.

CAR COUPLING.

No. 587,218. Patented July 27, 1897.

Fig. 1.

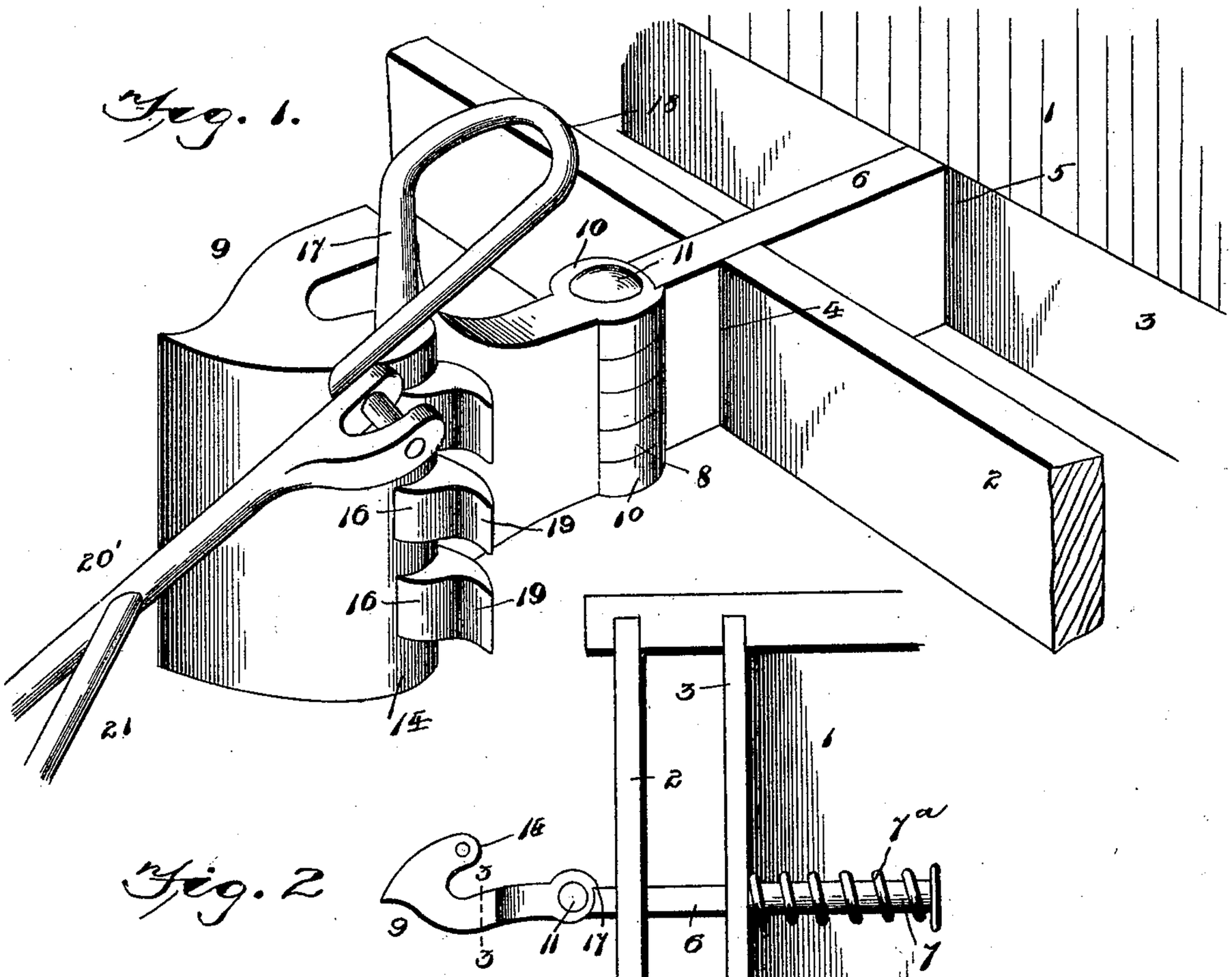

Fig. 2.

Fig. 4.

Fig. 3.

WITNESSES

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 587,218, dated July 27, 1897.

Application filed February 20, 1897. Serial No. 624,456. (No model.)

To all whom it may concern:

Be it known that I, CARL G. LIND, a subject of the King of Sweden and Norway, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers; and I do hereby 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.

My invention relates to certain new and useful improvements in car-couplers, the object being to provide a novel and simplified form of coupling which couples automatically and may be handled by a brakeman or trainman operating a lever without passing between the cars.

To this end my invention consists in certain novel constructions, combinations, and arrangements of parts in a coupler, as will be hereinafter fully described, and specifically set forth in the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a portion of one end of a car, showing my invention applied thereto. Fig. 2 is a bottom plan view of the same. Fig. 3 is a vertical sectional view on the line 3 3 of Fig. 2. Fig. 4 is a plan view showing two coupling-jaws united.

Like numerals designate like parts throughout the several views.

Referring to the drawings, the numeral 1 designates a portion of a car provided on the under side thereof with two transverse bars 2 3, one having a slot 4 and the other an opening 5 through the center thereof.

The draw-head 6 is provided with an extension 7, which fits in the said slot in one transverse bar and passes through an opening in the other transverse bar. A spiral spring 7^a surrounds the said extension between the said two bars and serves as a buffer to cushion the shock sustained when two couplers are engaged by the coming together of two adjoining cars. The draw-head is provided at its front end with a series of spaced leaves 8, each having an opening therethrough and the several openings being in coincidence. The coupling-jaw 9 is provided with a series of pivot-lugs 10, adapted to fit between the said leaves 8 on the end of the draw-head, and a pin 11, passing through said lugs and leaves, pivots the jaw to the draw-head. These pivots 10 are provided with inwardly-projecting stops 12, adapted to engage the inner side of the draw-head and limit the inward movement of the coupling-jaw. A plate-spring 13, secured to the draw-bar, normally presses against the exterior side of the coupling-jaw and limits its outward movement.

The coupling-jaws are formed with a curved inturned knuckle 14, constructed with a series of pivot-leaves 15, and between the adjacent leaves a series of uncoupling devices having heads 16, swiveled or pivoted thereto by a rod or pivot-pin 17, passing through the same. This rod has an extension provided with a curved hook-shaped shielding bar and handle 18, by which the said swivel-heads may be moved, the said heads being rigidly secured thereto. These swiveled heads are each provided with a lip 19, having an outer curved face adapted to engage the knuckle of the adjoining coupler when the heads are turned outward and force the coupler out of engagement, the said curved faces constituting cams upon which the knuckle rides. When the heads are forced inwardly out of operative position and when two couplers are engaged, the lips 19 seat within recesses 20 in the inner sides of the knuckle, so as to readily permit the knuckles of two adjoining couplers to engage each other.

The provision of a series of uncoupling devices is advantageous, for the reason that platforms of cars are of varying height, and consequently the coupler on one car often projects some little distance above the coupler on the adjoining car. By employing a series of these uncoupling devices, one of which will always be adapted to engage the knuckle of the next adjoining coupler, the uncoupling operation may be readily effected.

The hook-shaped shielding-handle 18 projects outward from one side. A jaw-operating lever 20′ is connected with said curved handle 18, and its free end 21 is forked and projects toward one side of the car and serves as a handle, whereby the jaws may be un-

coupled. The hook-shaped shield 18 serves to prevent a brakeman from reaching between the cars in uncoupling.

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

1. In car-couplers, the combination of a draw-head, a jaw pivoted thereto and provided with a curved inturned knuckle formed with a series of spaced leaves and a recess on its inner side between the adjoining leaves, a series of uncoupling devices each comprising a head fitting in the space between the leaves and formed with a lip having an outer or cam face adapted to engage the knuckle of an interlocking coupler to effect uncoupling, said lips being adapted to fit within the said recesses, a rod or pin passing through said leaves and head and pivoting the latter, and a lever engaging the rod for operating the said uncoupling device, substantially as described.

2. In car-couplers, the combination of a draw-head, a jaw pivoted thereto and provided with a curved inturned knuckle formed with a series of spaced leaves, a recess on its inner side between the adjoining leaves, a series of uncoupling devices each comprising a head fitting in the space between the leaves and formed with a lip having an outer curved or cam face adapted to engage the knuckle of an interlocking coupler to effect uncoupling, said lip being adapted to fit within the recesses, a rod or pin passing through said leaves and heads and pivoting the latter and provided with a hook-shaped shield at the upper end thereof, and a lever attached to the shield, substantially as and for the purpose described.

3. In car-couplers, the combination of a draw-head, a jaw pivoted thereto and provided with a curved inturned knuckle formed with a series of spaced leaves and recesses on its inner side between the adjoining leaves, a series of uncoupling devices each comprising a head fitting in the space between the leaves and formed with a lip having an outer curved or cam face adapted to engage the knuckle of the interlocking coupler to effect uncoupling, said lips being adapted to fit within the said recesses, a rod or pin passing through said leaves and heads and pivoting the latter and provided with a hook-shaped handle at the upper end thereof, a spring bearing against the outer side of the knuckle to limit the outward movement therein, and a lever pivoted to said hook-shaped handle and adapted to operate the parts, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CARL G. LIND.

Witnesses:
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