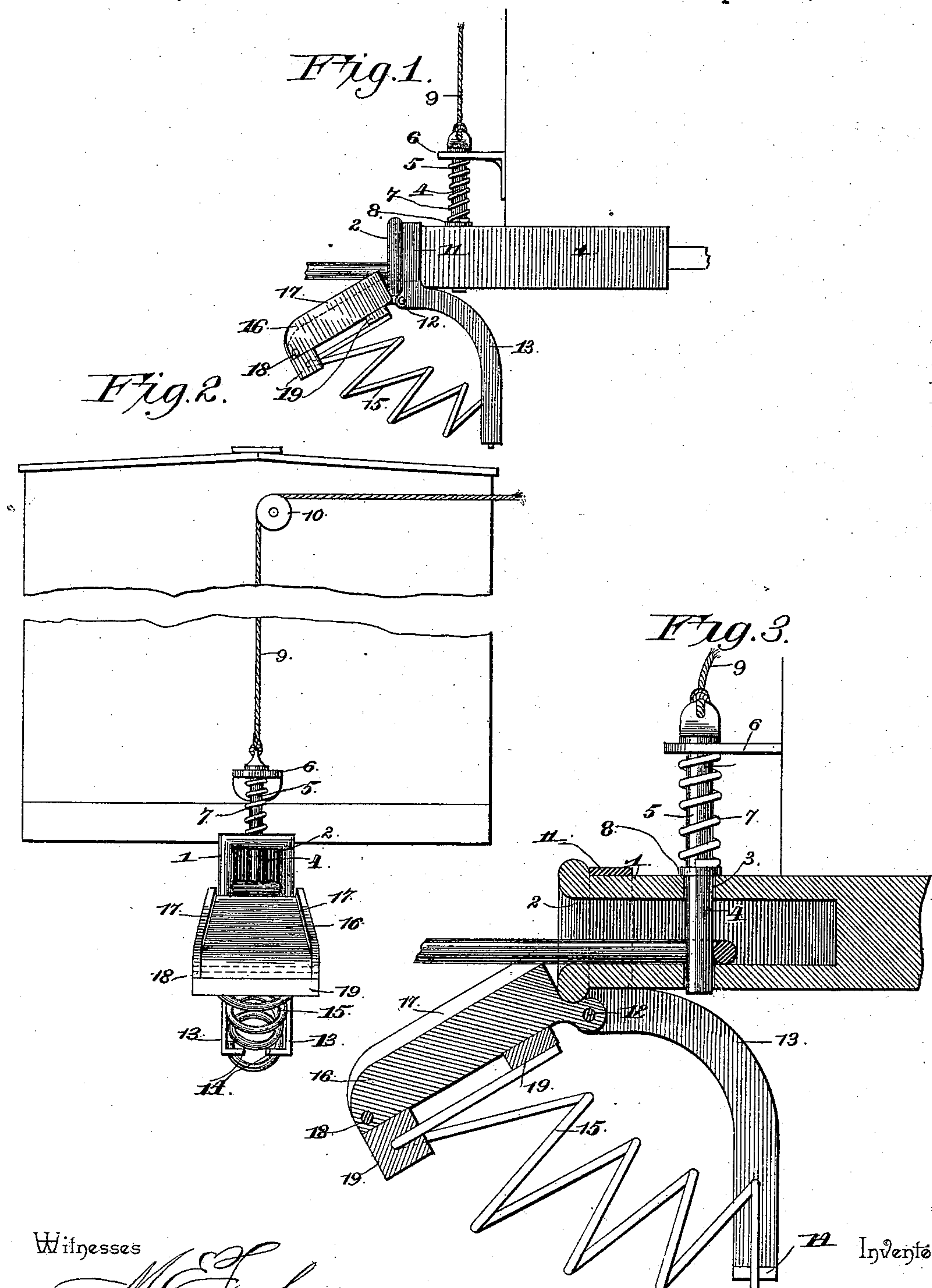


(No Model.)

J. N. SCARBOROUGH.
LINK LIFTER AND LINK GUIDE FOR CAR COUPLINGS.

No. 426,865.

Patented Apr. 29, 1890.



Witnesses

M. Fowler

Wm. Bagger

By *His* Attorneys,

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UNITED STATES PATENT OFFICE.

JOHN N. SCARBOROUGH, OF AMERICUS, GEORGIA.

LINK-LIFTER AND LINK-GUIDE FOR CAR-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 426,865, dated April 29, 1890.

Application filed September 13, 1889. Serial No. 323,848. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. SCARBOROUGH, a citizen of the United States, residing at Americus, in the county of Sumter and State of Georgia, have invented new and useful Link-Lifters and Link-Guiding Devices for Car-Couplings, of which the following is a specification.

This invention relates to link-lifters and link-guiding devices for railroad-car couplings; and it has for its object to provide a device of this class which shall be simple in construction and durable, which shall efficiently guide the link of the opposing car into the draw-head to which it is attached, and which may be easily and quickly exchanged or shifted from one draw-head to another.

With these ends in view the invention consists in the improved construction, arrangement, and combinations of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a side view showing a draw-head having my invention applied thereto. Fig. 2 is a front view of the same. Fig. 3 is a longitudinal vertical sectional view.

Like numerals of reference indicate like parts in all the figures.

1 designates the draw-head, which is arranged in the usual manner at the end of the car. The draw-head is provided with the mouth 2 and with the vertical openings 3, in which is arranged the vertically-sliding pin 4, which has an upward extension 5, sliding in a suitable guide arm or bracket 6. A spring 7 is coiled around the extension of the coupling-pin and bears against the under side of the bracket 6 and against a flange or collar 8, formed upon the coupling-pin, which latter, by the action of the said spring is forced automatically in a downward direction and retained safely in position when the cars are coupled. To the upper end of the extension of the coupling-pin is attached one end of an operating-cord 9, which passes over suitably-arranged guide-pulleys 10 to a point where it may be conveniently operated either by hand or by suitable operating mechanism.

11 designates a clip or saddle, which straddles the draw-head 1, upon which it is detachably secured by means of a transverse pin

or bolt 12, passing through the sides of the clip below the mouth of the draw-head, as shown. The lower end of said clip is provided with downwardly and rearwardly extending brackets 13, having lugs or ears 14 for the attachment of one end of a coiled spring 15, the opposite end of which bears against and serves to support an inclined plate or guide 16, which is hinged by means of the pin or bolt 12 to the clip or saddle 11, whereby the inner end of said guide-plate is brought into alignment with the lower edge of the mouth of the draw-head. The guide-plate 16 is wider at its outer end, and it is provided at its sides with flanges 17, which are pivoted to the front end of said guide-plate by means of pins or bolts 18, and connected by cross-pieces 19 under the said guide-plate. The spring 15, which supports the said guide-plate, also bears against the cross-pieces 19, thus supporting the flanges 17 in a raised position with relation to the said guide-plate.

The operation of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The clip or saddle, with the link-lifting attachment, may be readily detached and removed from one end of the car to the other. The link is mounted in the draw-head, which is not provided with the link-guide. When the cars come together, the link will strike the inclined plate or guide 16, and be guided by the said plate and by the flanges 17 thereon into the mouth of the draw-head, where it is held by means of the vertically-sliding pin. In case the link should strike the pivoted flanges 17 the latter will yield to the pressure, and injury to any of the working parts will thus be prevented.

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

1. The combination, with a draw-head, of the detachable clip or saddle having downwardly and rearwardly extending brackets, the transverse pin or bolt serving to secure the said clip or saddle upon the draw-head, a plate or guide hinged upon the said bolt, and a spring attached to the arms or brackets of the clip or saddle and serving to support the hinged guide-plate, substantially as set forth.

2. The combination, with a draw-head, of a

hinged plate or link-guide, flanges pivoted to the sides of said link-guide, cross-pieces connecting the said flanges under the link-guide, and a spring pressing in an upward direction 5 against said cross-pieces, substantially as set forth.

3. The combination, with a draw-head, of the detachable clip or saddle having downwardly and rearwardly extending brackets, a 10 transverse connecting-bolt, a plate or link guide hinged upon the said bolt, flanges pivoted to the sides at the front end of said link-guide, cross-pieces connecting the said flanges

under the link-guide, and a spring attached to the downwardly-extending brackets of the 15 clip or saddle and pressing in an upward direction against the said cross-pieces, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own invention I have hereto affixed my 20 signature in presence of two witnesses.

JOHN N. SCARBOROUGH.

Witnesses:

EVERETT SPEAR,
W. M. JONES.