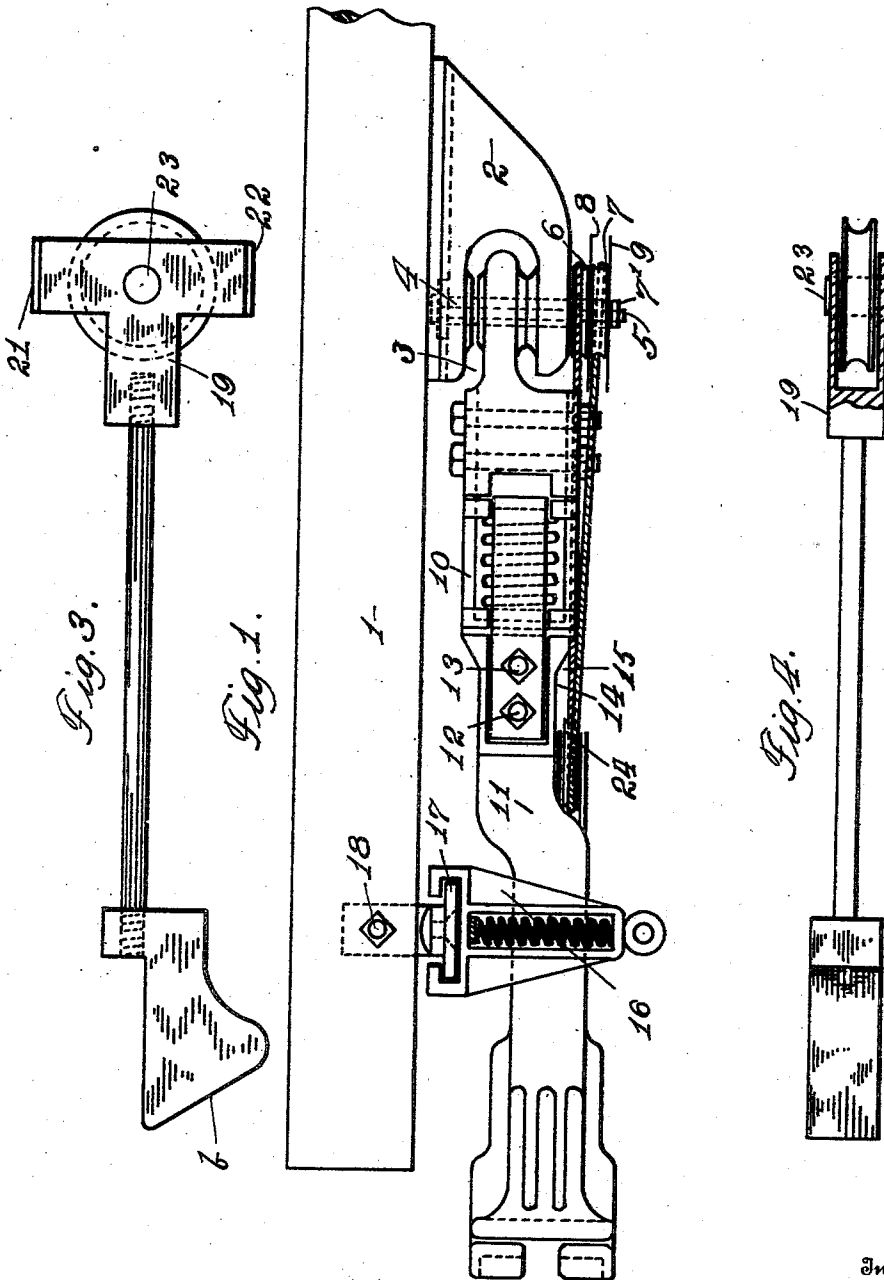


C. H. TOMLINSON.
 UNCOUPLING MEANS.
 APPLICATION FILED APR. 5, 1909.

1,032,313.

Patented July 9, 1912.

2 SHEETS-SHEET 1.



Witnesses

Fred A. Schlosser.
 Paul C. Sherman.

Inventor

Charles H. Tomlinson

By

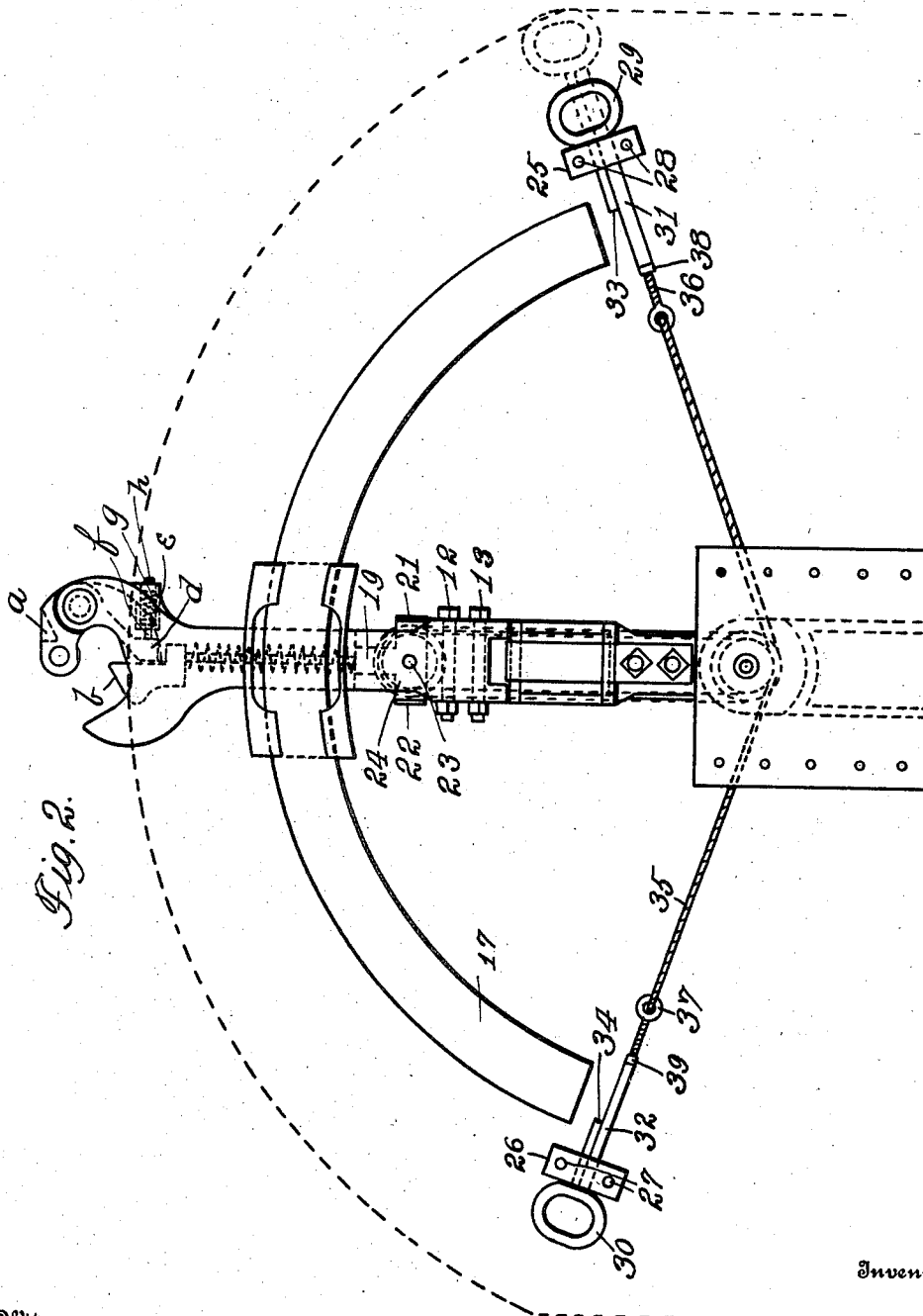
John H. Carr

his Attorney

1,032,313.

C. H. TOMLINSON.
UNCOUPLING MEANS.
APPLICATION FILED APR. 5, 1909.

Patented July 9, 1912.
2 SHEETS—SHEET 2.



Witnesses

Fred A. Schlosser.
Paul Eckerman.

Inventor

By

Charles H. Tomlinson
John H. Boss
his Attorney

UNITED STATES PATENT OFFICE.

CHARLES H. TOMLINSON, OF MANSFIELD, OHIO.

UNCOUPLING MEANS.

1,032,313.

Specification of Letters Patent.

Patented July 9, 1912.

Original application filed May 4, 1908, Serial No. 430,647. Divided and this application filed April 5, 1909. Serial No. 488,004.

To all whom it may concern:

Be it known that I, CHARLES H. TOMLINSON, a citizen of the United States of America, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Uncoupling Means, of which the following is a specification.

My invention relates to an uncoupling means which is especially adapted to be used in conjunction with car couplers of the "Janney type," and is a division of an application filed by me on the 4th day of May, 1908, bearing Serial No. 430,647.

One of the objects of my invention is to provide an uncoupling means that can be operated from either side of the car and at an angle with the couplers.

Another object of my invention is to construct uncoupling means whereby a central draw or pull is exerted on the locking device to impart movement thereto to permit the knuckles to uncouple automatically and to be yieldingly held in open position for coupling purposes.

Another feature of my invention consists in constructing the operating mechanism so that in rounding curves or the like, the parts do not move, thereby obviating the wear incident to other uncoupling means, the parts of which move under like conditions.

I attain these and other objects by the mechanism illustrated in the accompanying drawing, in which:

Figure 1 is a side elevation of a radial draft-rigging showing the draw-bar and coupling device connected thereto and supported by a spring draw-bar carrier which permits additional vertical movement of the couplers, if necessary; also a side view of the sheave-pulleys and cable or wire rope. Fig. 2 is a plan view, largely diagrammatic, partly in section of the uncoupling means, draw-bar coupling device, locking bar, the spring draw-bar carrier and radial support. Fig. 3 is an enlarged plan view of one locking bar and bracket. Fig. 4 is a side elevation of Fig. 3.

In the drawings, 1 represents a part of the beam or support of the car body, 2 a bracket which is secured to the car body having a slotted portion 3. The bracket 2 is provided with a hollow pivot pin 4 which is fitted to an aperture in the bracket. A pivot bolt 5

is fitted to the inner periphery of the pivot pin 4 and the end extends below the bracket.

Two sheave pulleys 6 and 7 are journaled upon the end of the pin 5 and held in place by the nut 7' with the washer 8 interposed between the sheave pulleys and the washer 9 between the bottom of the pulley 7 and the face of the nut 7'. The washers 8 and 9 are for the purpose of keeping the wire rope or cable, which will be described hereinafter, in the grooves of the sheave pulleys and prevent it from moving from one sheave pulley to the other during the operation of the uncoupling means.

The draft rigging 10 is pivotally journaled on one end upon the pivot pin 4. The draw-bar 11 is secured to the end of the draft rigging by the bolts 12 and 13. Attention is called to the fact that the draw-bar 11 is provided with an offset 14 adjacent to its rear end leaving a space 15 extending upward from the bottom. The free end of the draw-bar 11 is yieldingly supported by the spring draw-bar carrier 16 which is in turn supported for lateral movement by the radial bar 17. The radial draw-bar 17 is secured to the beam 1 of the car by bolts 18.

A bifurcated jaw 19 is threadably secured to the end of the locking bar 20. Guide members 21 and 22 extend over the periphery of the sheave pulley and are fitted to the jaw 19 to guide the wire rope or cable; said pulley being hereinafter designated 24. A pin 23 is fitted to the jaw 19 and the sheave pulley 24 is journaled thereon. Brackets or supports 25 and 26 are secured to the car body by bolts 27 and 28. The adjustable sliding handle bars 29 and 30 are supported by the brackets. The body portion 31 and 32 of the handle bars are provided with offsets or shouldered portions 33 and 34. One end of the cable or wire rope 35 is connected to the sliding handle bar 29 and the free end is made to pass and travel over the sheave pulley 6; thence over the sheave pulley 24; thence over the sheave pulley 7 and is connected to the sliding handle bar 30. The eye bolts 36 and 37 form a connecting link between the ends of the cable or wire rope 35, one end of the bolts being threadably connected to the sliding handle bars to provide for adjustment of the cable. They are held in place by the nuts 38 and 39. It will be noted that the sliding handle

bars are connected to the sliding locking bar 20 and when movement is imparted to the handle, the locking bar is moved rearwardly unlocking the knuckle or moving the end of the locking bar back from the face of the coupler.

The movement of the sliding bars is illustrated by the full and dotted lines 29, the full lines showing the position of the locking bar when engaging the recesses (a) of an opposed knuckle in coupled position, and the dotted lines showing its position when with-drawn from the recess. (See Fig. 1.)

When one of the sliding handle bars are pulled half way out the shouldered or offset portion 33 or 34 of the sliding handle bars are adapted to contact with the end of either bracket 25 or 26 to withdraw and hold the inclined end "b" of sliding locking bar 20, from entering the recess "a" of the opposing knuckle, but not allowing the knuckle of its own coupler to open. The means of retaining the inclined end "b" of the sliding locking bar 20 from the recess "a" of the opposing knuckle is necessary to uncouple the couplers. Also a great advantage when it is necessary to couple the type of couplers as shown in the drawings to a different type of coupler as it keeps the inclined end "b" of the sliding locking bar 20 behind the face or contour line of the coupler.

The operation of my uncoupling means is as follows: When two cars are coupled together through the medium of my improved couplers as shown in the drawings, and it is desired to uncouple the cars, movement is imparted to one of the sliding handle bars that is connected to the locking bar of one of the draw-heads through the medium of the cable 35 or wire rope, the inclined end (b) of the locking bar is withdrawn from the recess (a) of the opposed knuckle, an operator then pulls the handle of one of the sliding bars on the other car which bar is connected to the locking mechanism of a coupler as described above, pulling the lock-bar backward against the tension of the spring (c) thereby compressing the spring until the inclined end (b) of the locking bar is forced back far enough to clear the tail piece (d) of the knuckle. In order to cause the knuckles to automatically return to uncoupled position, I provide a tubular member or casing (e) into which a shoulder pin (f) is inserted leaving one end projecting into the draw-bar in the path of the tail piece (d). A coil-spring (g) is inserted in the casing leaving one end contacting with a pin (f) and is held in place by the screw threaded plug (h) which compresses the coil spring (g) and thereby constantly exerts a pressure against the pin (f) to keep the end project-

ing into the hollow portion of the draw-bar and in the path and contacting with the tail piece of the knuckle so that when the knuckles are released from each other by the uncoupling means, they will be started to their proper positions for coupling purposes.

Having fully described by invention, what I claim and desire to secure by Letters Patent is:

1. In a device of the character described, a radial coupler, a locking device therefor and releasing mechanism for said locking device including rotating means mounted on the pivot of said coupler, a handle mounted on said car body and suitable means connecting said locking means, rotating means and said handle.

2. In a device of the character described, a radially movable coupler, a horizontal sliding latch therefor, said latch projecting in front of forward face of said coupler, releasing mechanism for said sliding latch, including a handle, a bracket for said handle and cooperating means on said handle and bracket whereby the said handle may be held in an intermediate position to retain said latch within said coupler.

3. In an uncoupling means, the combination of a hollow draw-head, a pin to pivotally support the draw-head, a locking bar movably mounted in said draw-head leaving one extremity extending outside the draw-head, a sheave-pulley secured to said extremity, sliding bars mounted on the bottom of the car, sheave pulleys journaled on said pin, a cable connected to the sliding bars and looped around the sheave pulleys whereby movement is imparted to the movable locking bars for uncoupling purposes when the sliding bars are moved.

4. In a radial movable car coupler, the combination of a hollow draw-head, a locking bar movably mounted in said draw-head having one of its extremities extending outside of the draw-head, a bifurcated jaw secured to said extremities, a sheave pulley journaled in said jaw, sheave pulleys journaled upon the pivot pin of a radial coupler, brackets mounted on the car body, sliding bars supported by said brackets, a cable connected to said sliding bar and adapted to pass around said sheave pulleys and connect with the locking bar for a central pull and impart movement thereto as and for the purpose described.

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

CHARLES H. TOMLINSON.

Witnesses:

JOHN H. COSS,
PEARL ACKERMAN.