Jan. 29, 1946. H. RUDNICK 2,393,657

COUPLING DEVICE

Filed Oct. 25, 1943

Fig. 1.

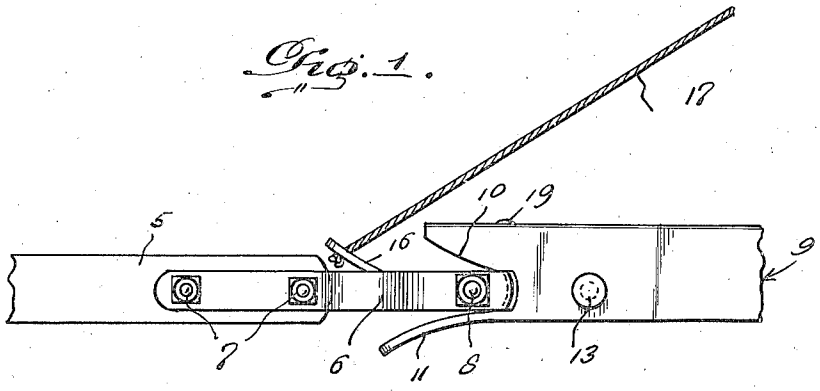


Fig. 2.

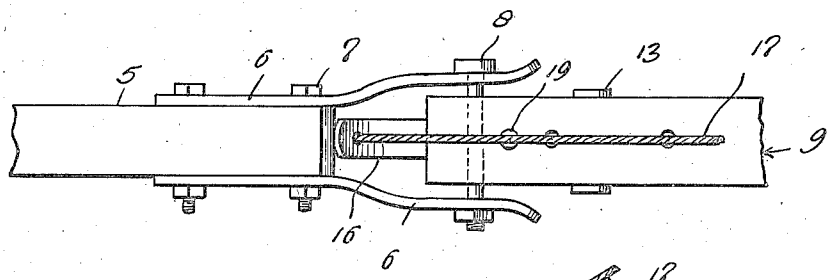
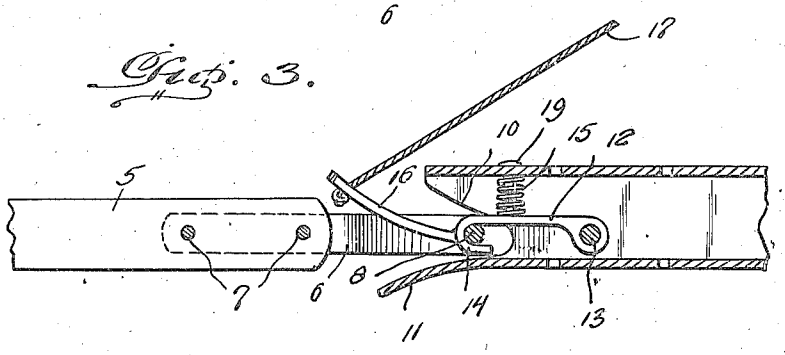


Fig. 3.



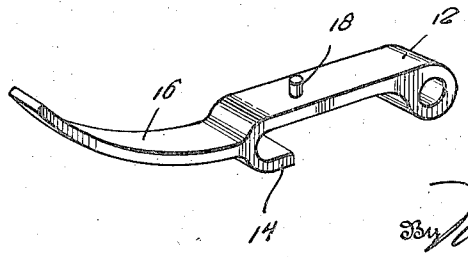


Fig. 4.

Inventor

Herbert Rudnick

By McMorrow & Berman

Attorneys

Patented Jan. 29, 1946 2,393,657

UNITED STATES PATENT OFFICE

2,393,657

COUPLING DEVICE

Herbert Rudnick, Gray, Iowa

Application October 25, 1943, Serial No. 507,587

1 Claim. (Cl. 280—33.15)

This invention relates to a coupler especially adapted for hitching a wagon or like vehicle to a corn picker for movement therewith and for receiving the corn as discharged from the picker, and has for the primary object the provision of a device of this character which will permit the wagon to be easily and quickly coupled and uncoupled from the picker and may be remotely actuated by a person on the picker whenever it is desired to release the wagon from the picker.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a fragmentary side elevation illustrating a coupler constructed in accordance with my invention.

Figure 2 is a fragmentary top plan view illustrating the device.

Figure 3 is a fragmentary vertical sectional view illustrating the interior workings of the coupler.

Figure 4 is a perspective view illustrating one of the coupling elements.

Referring in detail to the drawing, the numeral 5 indicates a fragmentary portion of a draft tongue of a wagon or similar vehicle and to which are secured elongated plates 6 by bolts or fasteners 7. The plates protrude beyond the free end of the draft tongue in diverging relation to each other and are apertured to receive a pin or bolt 8 forming one of the elements of the coupler.

A portion of a corn picker is indicated by the character 9 and this portion is of an elongated box-like construction. In order that said part 9 may form a part of the coupler or the present invention, an end thereof has opposite walls cut into substantially V shape formation, as shown at 10, for the purpose of slidably receiving the pin or bolt 8 between the elongated plates 6. The lower wall of the box-like construction is slightly longer than the top wall and is curved downwardly to form a tongue or guide element 11 for directing the pin or bolt 8 into the cut-out portions 10 as the draft tongue approaches the box-like construction.

A latch member 12 is pivotally mounted in the box-like construction, as shown at 13, and includes a bill portion 14. Interposed between the top wall of the box-like construction and the latch member 12 is a coil spring 15 acting to urge the bill portion in the direction of the tongue or guide element 11. As the bolt moves over the tongue or guide element toward the inner ends of the cutout portions 10 the latch element 12 is caused to swing upwardly so that the bolt or pin 8 may become engaged within the bill shaped portion, as clearly shown in Figure 3, thereby establishing a pivotal connection between the draft tongue and the corn picker.

Integral with the bill portion 14 of the latch member 12 is an arm 16 curved to extend upwardly and outwardly of the box-like structure and has fastened thereto a flexible element 17 which may extend to the operator of the corn picker so that the operator at any time may impart an upward pivotal movement to the latch member to bring about disengagement of the bill portion from the pin or bolt 8 thereby disconnecting the wagon or vehicle from the picker.

To prevent displacement of the spring 15, a pin 18 is formed on the latch element to enter one end of the spring while a pin 19 is carried by the top wall of the box-like construction and enters the other end of the spring.

While I have heretofore stated that the box-like construction is a part of a corn picker, it is to be understood that it may be a separable part therefrom and be detachably secured thereto in any well known manner.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:

In a coupler, a coupling pin, elongated plates connecting said pin to a draft tongue of a vehicle, a box-like construction secured to a towing vehicle and having opposite walls from one end thereof cut away in substantially V-shaped formation, the lower wall of said V-shaped formation comprising an elongated, downwardly curved, guide finger for directing said pin into the cut-out portions of said box-like construction, a latch element having one end pivoted in said box-like construction and having a hook formed on its under side intermediate its ends adapted to engage said pin, a spring acting on said latch to urge the hook into engagement with said guide finger, an elongated, curved arm on said latch, said arm projecting upwardly and outwardly from said hook and upwardly and outwardly from said guide finger, and a remotely operated means connected with said arm.

HERBERT RUDNICK.