Jan. 19, 1926. 1,569,918

R. I. FLYNN

GRAPPLE

Filed July 6, 1925

Fig. 1.

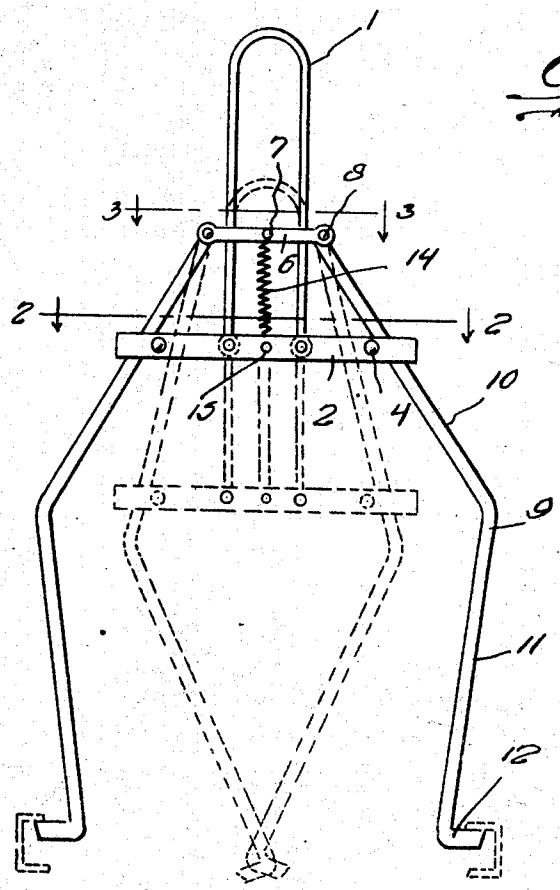


Fig. 2.

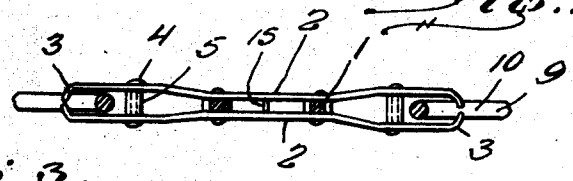
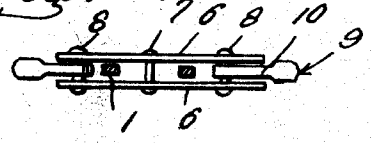


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROY I. FLYNN, OF WAGNER, SOUTH DAKOTA.

GRAPPLE.

Application filed July 6, 1925. Serial No. 41,637.

To all whom it may concern:

Be it known that I, ROY I. FLYNN, a citizen of the United States, residing at Wagner, in the county of Charles Mix and State of South Dakota, have invented certain new and useful Improvements in Grapples, of which the following is a specification.

The present invention relates to a grapple, and has for its principal object to provide a device of this nature which is particularly adaptable for engagement with the chassis of an automobile or like vehicles.

Another very important object of the invention is to provide a grappling device of this nature, which is exceedingly simple in construction, inexpensive to manufacture, reliable and efficient in its operation, strong, durable, not likely to easily become out of order, and otherwise well adapted for the purpose for which it is designed.

With the above and numerous other objects in view, as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a side elevation of the grapple embodying the features of my invention.

Figures 2 and 3 are enclosed transverse sections taken substantially on the lines 2—2 and 3—3 respectively of Figure 1, looking downwardly.

Referring to the drawing in detail, it will be seen that 1 designates an inverted U-shaped yoke, which has its ends engaged in spaced relation between the bars 2. The outer ends of these bars 2 are offset to be spaced farther apart than the intermediate portions and their terminals bent inwardly toward each other, as at 3. Pins 4, preferably in the form of rivets are extended through the outer portions of the bars 2 and have sleeves 5 thereon between the bars. A pair of bars 6 of shorter length than bars 2 are held in spaced parallel relation by pins 7 and 8, pins 8 being located adjacent the ends, and pins 7 being located at the center of the bars. The yoke 1 extends between the bars 6 and between the pins 8, one leg on each side of the pin 7. Grapple arms 9 are bent intermediate their ends to form upper portions 10 angularly disposed to lower portions 11. The upper portions 10 extend between the bars 2 and between pins 4 and the adjacent terminals 3. The upper ends of the portions 10 are pivotally engaged on the pins 8. The lower extremities of the lower portions 11 are bent outwardly to provide engaging extensions 12, which may be inserted in the channels of the channel irons forming a part of the automobile chassis. The jacking or hoisting means may then be attached to the upper intermediate portion of the yoke 1, and actuated to pull upwardly on this yoke 1, so that the sleeves 5 which form an anti-friction means may engage the upper portions 10 of the arms 9, thereby causing these arms to spread, so that the extensions 12 are held in very firm engagement with the chassis or the like. A coil spring 14 is attached at one end to the pin 7 and at its other end to a pin 15 disposed intermediately between the bars 2, and is tensioned to draw the bars 6 toward the bars 2, for the purpose of holding the arms 9 spread apart normally, so that they will be held in engagement with the channel iron, while the hoisting apparatus is being attached to the yoke 1. It will be seen that the arms 9, when the hoisting mechanism is slack may be manually moved toward each other, for disengaging the extensions 12, from the chassis.

It is thought that the construction, operation and advantages of the invention will now be clearly understood without a more detailed description. It is apparent that numerous changes in the details of construction and in the combination and arrangement of parts may be resorted to, without departing from the spirit or scope of the invention as hereinafter claimed, or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. A grappling device of the class described including an inverted U-shaped yoke, a pair of bars fixed to the terminals of the yoke, so as to extend rectangularly to the sides thereof, the other ends of the bars being curved inwardly toward each other, pins extending between the bars adjacent the ends thereof, sleeves on the pins, a second pair of bars of shorter length than the first pair, pins extending between the terminals of the second pair of bars, a yoke extending between the second pair of bars, grappling arms pivoted at their upper ends to the pins of the second pair of bars and ex-

tending between the first pair of bars and between the sleeves and terminals thereof, a coil spring of the traction type disposed between the two pairs of bars for normally drawing them toward each other.

2. A grappling device of the class described including an inverted U-shaped yoke, a pair of bars fixed to the terminals of the yoke, so as to extend rectangularly to the sides thereof, the other ends of the bars being curved inwardly toward each other, pins extending between the bars adjacent the ends thereof, sleeves on the pins, a second pair of bars of shorter length than the first pair, pins extending between the terminals of the second pair of bars, a yoke extending between the second pair of bars, grappling arms pivoted at their upper ends to the pins of the second pair of bars and extending between the first pair of bars and between the sleeves and terminals thereof, a coil spring of the traction type disposed between the two pairs of bars for normally drawing them toward each other, each arm being bent intermediate its ends to provide angularly disposed portions, the lower portion having its terminal provided with an outward extension.

In testimony whereof I affix my signature.

ROY I. FLYNN.