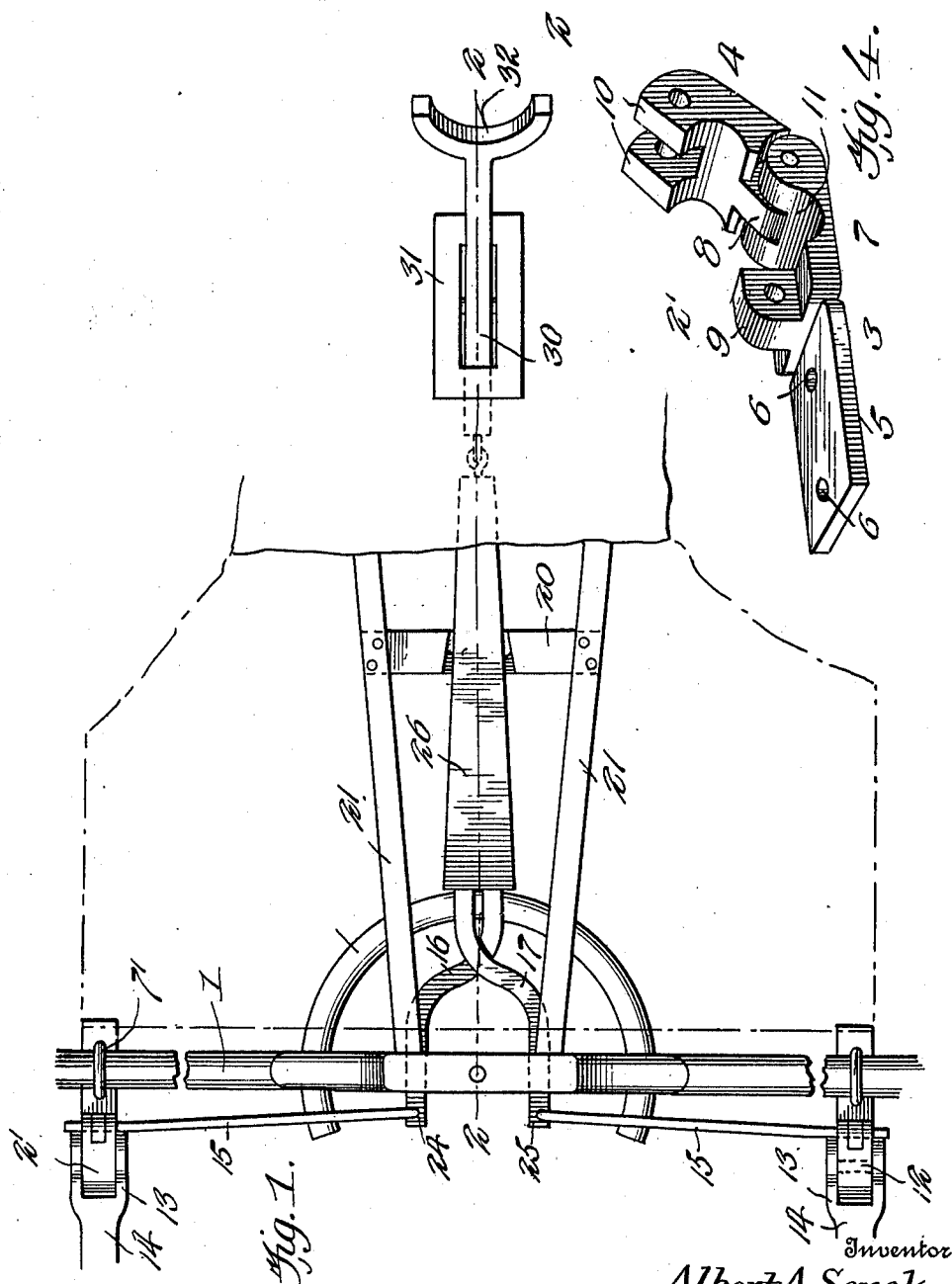


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A. A. SONAK.
HORSE DETACHER.
APPLICATION FILED NOV. 8, 1909.

Patented Apr. 18, 1911.

2 SHEETS—SHEET 1.



Witnesses

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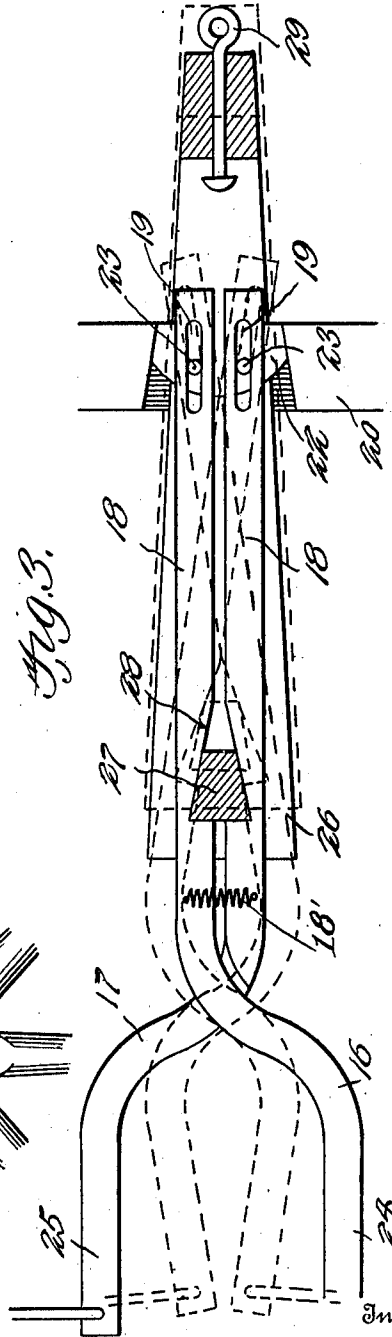
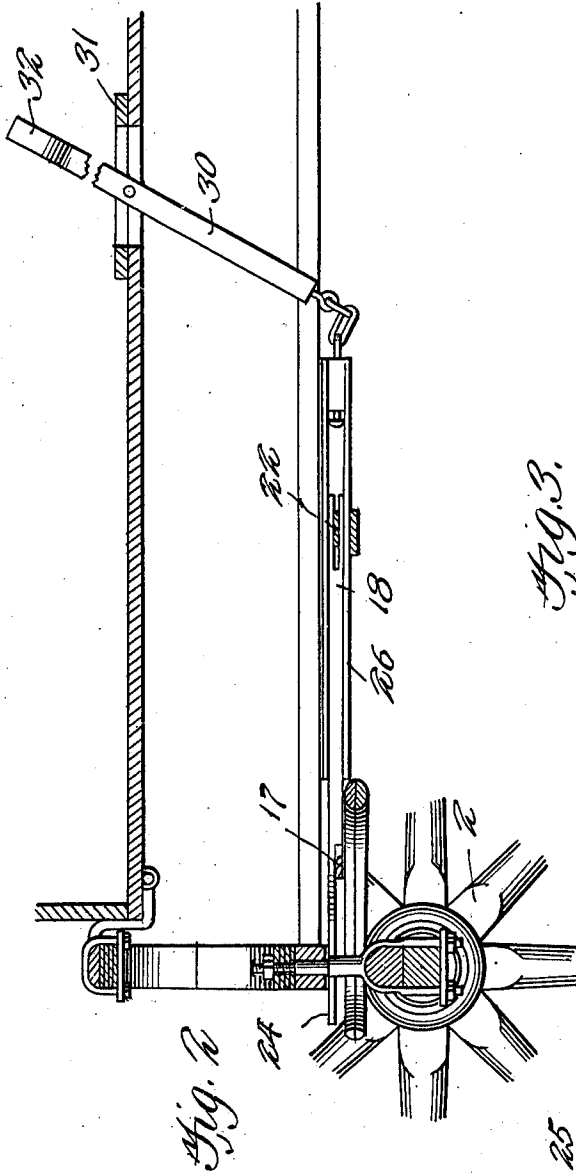
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UNITED STATES PATENT OFFICE.

ALBERT A. SONAK, OF SPRAGUE, WEST VIRGINIA.

HORSE-DETACHER.

990,019.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed November 6, 1909. Serial No. 526,555.

To all whom it may concern:

Be it known that I, ALBERT A. SONAK, a citizen of the United States, residing at Sprague, in the county of Raleigh and State of West Virginia, have invented new and useful Improvements in Horse-Detachers, of which the following is a specification.

This invention relates to improvements in horse detachers, and the device is primarily directed to that class of detachers wherein the vehicle shaft is disconnected from the running gear of the wagon or buggy, and the object of the invention is to provide a simple and effective device of this character which may be attached to the front axle of any ordinary vehicle and which effectively supports the shaft, the device being provided with novel mechanism whereby the shafts may be easily disconnected by the occupant of the vehicle when desired.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and arrangement of parts herein-
after fully described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of the front portion of the running gear of an ordinary vehicle showing my improvement in applied position thereon. Fig. 2 is a central longitudinal sectional view upon the line 2-2 Fig. 1. Fig. 3 is a horizontal sectional view of the detaching arms and their support. Fig. 4 is a perspective view of the thill coupler.

In the drawings the numeral 1 designates the front axle of an ordinary vehicle. The axle 1 is provided with the usual wheels 2 and is also provided with a pair of thill couplers designated by the numeral 2'. These couplers 2' are identical in construction and the reference characters applying to one of the couplers designate similar parts upon the second coupler. These couplers are, of course, supported upon the ends of the axle adjacent the wheels and each of said members comprises a lower section 3 and an upper section 4. The lower section 3 forms the body portion of the device and is horizontally flat for a suitable distance and provided with openings adapted for the reception of the U-shaped clip 7' whereby this portion of the coupler is secured to the axle. The lower member 3 is provided with a projecting portion 7 which has a rounded end centrally bifurcated to provide for the reception of a tongue 8 carried by the upper

member 4. The projecting member 7 is also provided with an upstanding tongue 9 and the member 4 is provided adjacent its free end with a central bifurcation or cut-away portion 10, the latter being adapted to straddle the said tongue 9 and to be connected thereto through the medium of a suitable rod which will hereinafter be set forth. The concaved portions 11 of the members 7 and 4 are adapted to engage a transverse connecting rod 12 carried between the ears 13 of thill irons 14.

The numerals 21 designate the front hounds of the running gear of a wagon or other vehicle, and connected transversely to the said hounds is a bar or support 20. Adapted to overlies the bar 20 are the upper and lower longitudinal members 26 of a slidable housing. This housing comprises the upper and lower members 26 which are spaced apart through the medium of suitable blocks. One of these blocks 27 is positioned adjacent the forward ends of the members 26 while the opposite block is connected to the rear ends of the said members 26. The rear connecting block is provided with a suitable eye 29 which is adapted for the reception of a link which is loosely connected with a foot lever 30, the latter being mounted in a longitudinal slot formed in the base of the vehicle and which has the edges provided thereby protected by a slotted plate 31. The upper extremity of the lever 30 is provided with oppositely arranged offsets as designated by the numeral 32 and adapted to form means whereby the foot of the operator may be readily and easily positioned therebetween so as to swing the lever to operate the device in a manner which will be hereinafter fully described. The connecting bar or member 20 is centrally provided with a depression, and positioned between the longitudinal walls formed by the said depression is a transversely arranged plate 22. This plate 22 is provided with a pair of spaced projecting pintles 23.

The numerals 16 and 17 designate the operating bars of the device. These bars 16 and 17 have their longitudinally extending members 18 adapted to lie within the housing. These members 18 are arranged in parallel relation with each other and each of the said members has its extremity provided with an elongated opening 19, the latter being adapted to co-act with the pintles 23 of the plate 22. The said members 18 have

2
 their meeting faces adjacent the forward end of the housing provided with oppositely arranged inclined cut away portions 28, the latter being adapted to contact the inclined side walls of the beveled member 27, and the said inclined walls 28 are held tightly against the member 27 through the medium of a helical spring 18', which connects the said members forward of the housing. The portions of the bars 16 and 17 adjacent the front end of the vehicle are curved in opposite directions, one overlying the other, and are thence brought forward in parallel relation with each other, as designated by the numerals 24 and 25. The forward portions or ends of the said members 24 and 25 are adapted for the reception of the rods 15, and the said rods 15 are adapted to engage the opening provided within the vertical ear 9 and the openings provided within the members 10 adjacent the bifurcation of the member 4, of each of the couplers 2'.

Briefly stated the operation of the device is as follows: Should the animals attached to the vehicle become frightened or unmanageable so as to endanger the driver of the vehicle, the contents of the vehicle or the vehicle itself, it is merely necessary for the driver to press his foot upon the lever 13 to swing the same rearwardly, causing the housing to move rearwardly and the inclined walls of the connecting member 27 sliding upon the inclined or beveled faces 28 of the members 18, will readily swing the ends 24 and 25 of the members 18 toward each other as illustrated in the dotted lines of Fig. 3 of the drawings, which position withdraws the rods 15 from the openings of the coupler sections and disengages the thills from the said couplers, thus allowing the animal to escape without damaging the vehicle or the contents thereof.

Having thus fully described the invention, what I claim as new is:—

1. In combination with a vehicle having pivoted thill connecting members and slidable rods engaging the said connecting members, of a slidable housing upon the bottom of the vehicle, the outer wall of said housing comprising a wedge-shaped block, rod mem-

bers within the housing, said rod members having their inner faces provided with beveled walls adapted to engage the sides of the wedge-shaped block, a spring member for retaining the bars in contact with the said block, the said bars projecting beyond the housing, and the said projecting portions of the bars being curved away from each other for a suitable distance and then continued in a parallel line with each other, the extremities of each of these projecting portions being provided with rods adapted to engage the pivots of the thill couplings, and means for sliding the housing, substantially as and for the purpose set forth.

2. In combination with a vehicle, thill connecting members for the vehicle, said thill connecting members comprising a pair of sections, rods for retaining the sections in a normally closed position, a slidable housing positioned upon the vehicle, a transversely arranged bar supporting the housing, the said housing comprising an upper and a lower longitudinally extending member and a front and a rear connecting member or block, the forward block being wedge-shaped, a plate carried by the supporting member, said plate being provided with pintles, a pair of bars having longitudinal slots engaging said pintles, said bars having a portion of their meeting faces beveled to contact the wedge faces of the block, a resilient element connecting both the bars and adapted to force the inclined portions thereof into engagement with the beveled block, said bars adapted to extend beyond the housing and the said bars being curved away and straddling each other and thence continued in a parallel plane with each other, the extremities of the said bars being connected with the rods of the coupling, and a foot lever for sliding the housing, substantially as and for the purpose set forth.

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

ALBERT A. SONAK.

Witnesses:

E. O. PHLEGAR,
 J. B. SHREWSBURY.