F. M. BEYDLER & H. K. KINNEY.

TRACTION ENGINE COUPLING.

APPLICATION FILED FEB. 26, 1909.

945,683. Patented Jan. 4, 1910.

Fig. 1.

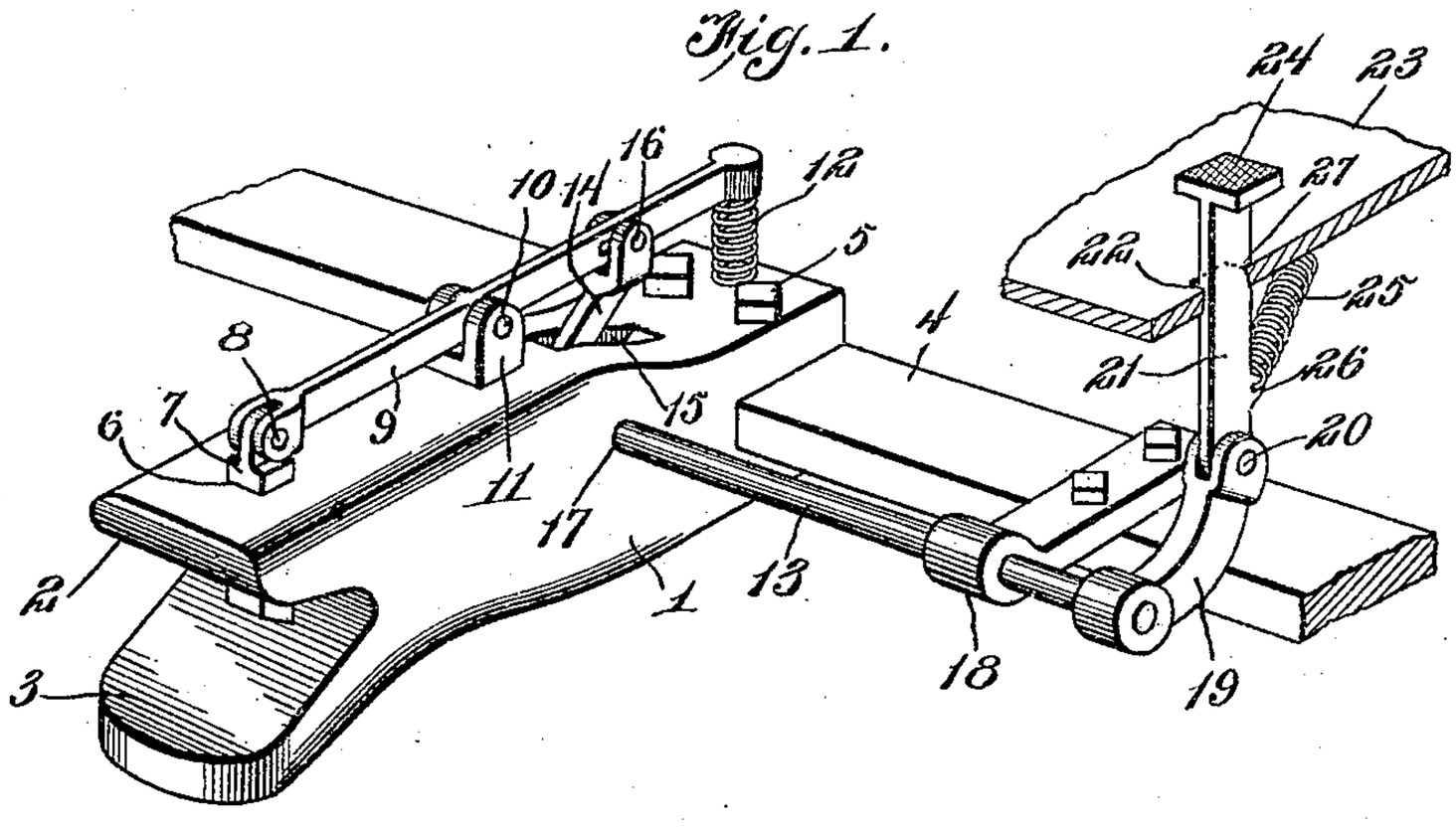


Fig. 2.

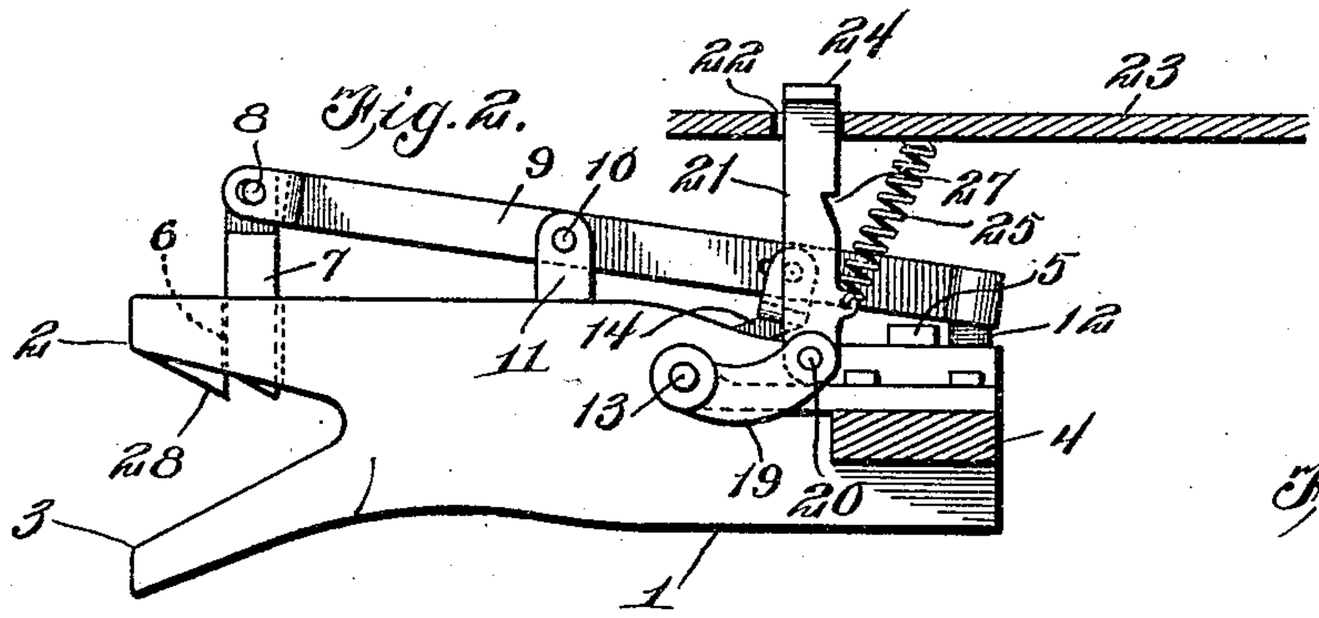


Fig. 4.

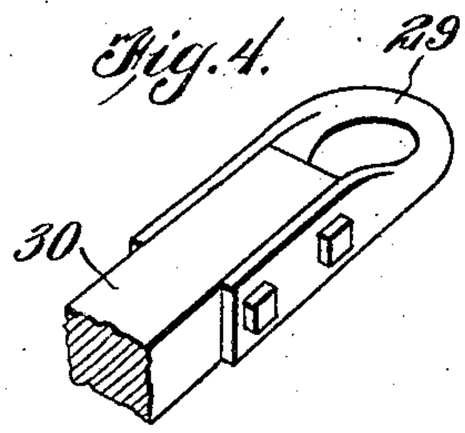
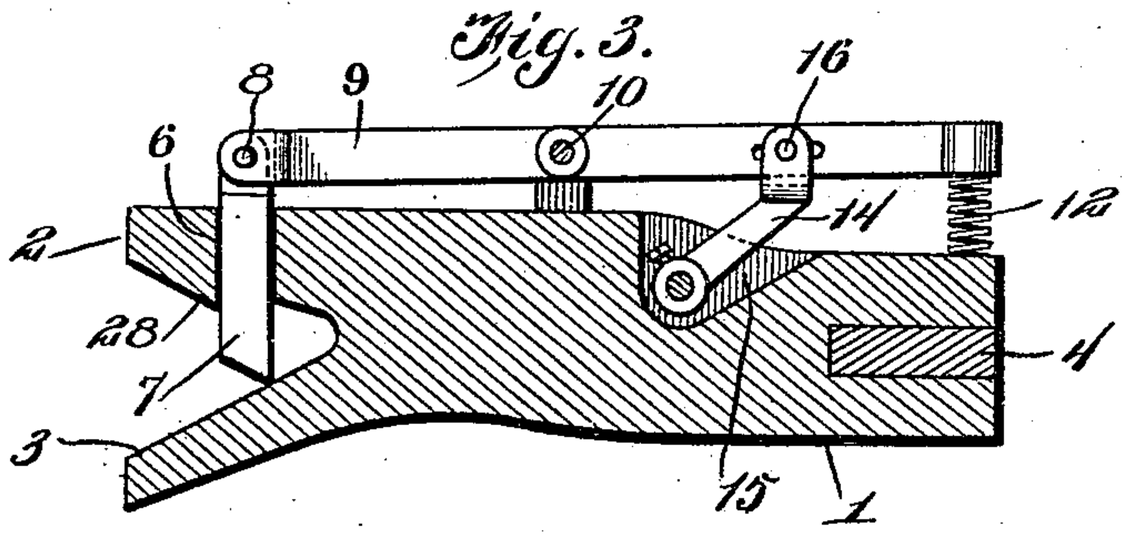


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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TRACTION-ENGINE COUPLING.

945,683. Specification of Letters Patent. Patented Jan. 4, 1910.

Application filed February 26, 1909. Serial No. 480,125.

To all whom it may concern:

Be it known that we, FRANK M. BEYDLER and HOWARD K. KINNEY, citizens of the United States, residing, respectively, at Ashland and Readout, in the counties of Clark and Harper and States of Kansas and Oklahoma, have invented new and useful Improvements in Traction-Engine Couplers, of which the following is a specification.

This invention relates to couplers and has special reference to traction engine couplers, the object of the invention being to provide a simple, practical and reliable coupler for connecting various farming implements to traction engines and readily disconnecting the same, the coupler embodying means for releasing the coupling pin by foot pressure.

With the above general object in view, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawing:—Figure 1 is a perspective view showing the coupler and means whereby it is secured to a traction engine. Fig. 2 is a side elevation of the coupler, showing the draw bar and platform in section. Fig. 3 is a vertical longitudinal section through the coupler. Fig. 4 is a detail perspective view of a portion of the tongue and clevis of a farming implement adapted to be connected with the coupler.

The coupler comprises the main head 1 which is horizontally elongated as shown in the drawings and provided at the front with a V-shaped entrance throat forming upper and lower jaws 2 and 3, respectively, having inwardly converging beveled faces. This coupler head is slotted at its rear end to receive the draw bar 4 to which the coupler head is firmly connected by bolts 5 or their equivalent. The upper jaw 2 is provided with a square vertical opening 6 to receive a vertically slidable coupling pin 7 square in cross section to prevent the same from turning and having its upper end reduced and pivotally connected at 8 to the forward arm of a pin operating lever 9 which is fulcrumed about centrally at the point 10 between the lugs 11 on the top of the coupling head. At its rear end, the lever 9 is upheld by means of an expansive spring 12 which is interposed between said lever and the coupling head, the tension of said spring being exerted to depress the coupling pin 7 and hold the same depressed.

Extending horizontally into the coupling head is a rock shaft 13 having secured to one end thereof a crank arm 14 which works in a recess 15 in the upper side of the coupling head and has a pin and slot connection at 16 with the rear arm of the lever 9 as best illustrated in Figs. 1 and 3. The shaft 13 is journaled in a bearing opening 17 in the coupler head and also in a hanger or bracket 18 secured to the draw bar 4. At its outer end, the shaft 13 has fast thereon a lever arm 19 which has pivotally connected thereto at 20 a foot-operated plunger 21 which works through an opening 22 in the platform 23 of the engine and is provided at its upper end with a head or treadle 24. A spring 25 is connected at one end to a lug 26 on the plunger 21 and connected at its opposite end to the under side of the platform 23. The plunger 21 is provided at a suitable point with a notch 27 adapted to engage the platform 23 or a plate thereon, the spring 25 acting to draw the plunger 21 laterally so as to maintain the engagement between the shoulder formed by the notch 27 and the platform. This serves as a lock or catch for the plunger and prevents the untimely movement of the coupling pin 7 and the parts connected therewith. The upper jaw 2 is provided on its under side with a beveled deflecting lip 28 to insure the sufficient depression of the clevis 29 on the tongue 30 of the farming implement to be connected to the traction engine, to cause said clevis to be properly directed into the entrance throat of the coupler in position to receive the coupling pin 7 when the latter moves downward.

To uncouple, all that is necessary is to depress the treadle 24 which overcomes the tension of the springs 12 and 25, rocks the lever 9 and lifts the pin 7 until the clevis 29 is released.

We claim:—

A traction engine coupler comprising a coupling head having an entrance throat, a coupling pin movable across said throat, a pin-operating lever fulcrumed on the coupling head, a spring acting on said lever to hold the coupling pin normally closed, a rock shaft journaled in said head and provided with a crank arm operatively connected to said lever, a second crank arm on said rock shaft, a foot operated plunger connect-

ed to said last-named arm and extending upward through the engine platform, a shoulder on said plunger adapted to interlock with a fixed point on the platform, and a spring interposed between said plunger and platform and adapted to yieldingly maintain the interlocked engagement between the plunger and platform.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK M. BEYDLER.
HOWARD K. KINNEY.

Witnesses:
W. H. BLANTON,
J. L. LYNCH.