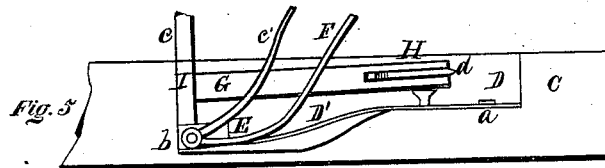
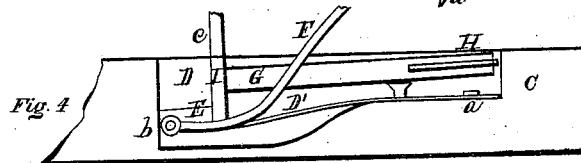
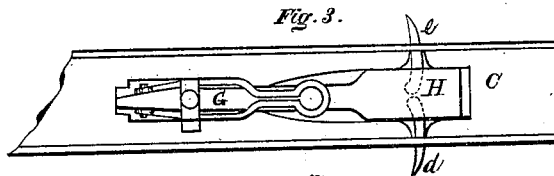
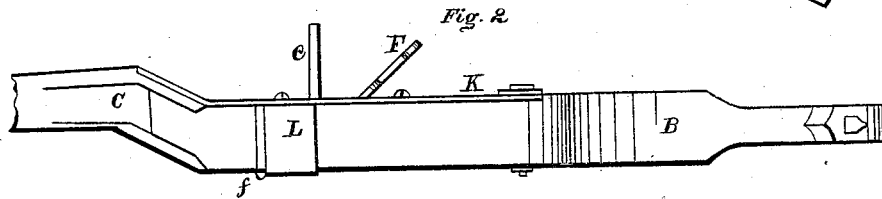
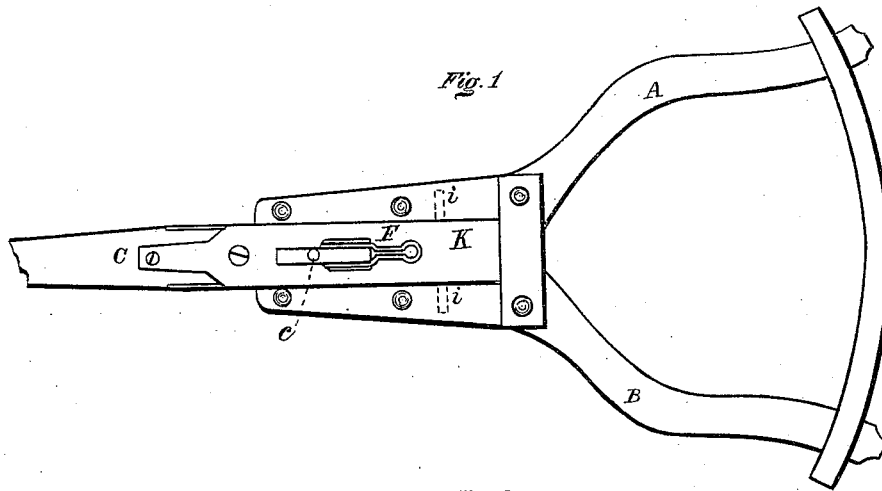


F. J. LEIDORF.
Horse-Detacher.

No. 199,298.

Patented Jan. 15, 1878.



Witnesses
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UNITED STATES PATENT OFFICE.

FRIEDRICH J. LEIDORF, OF CHICAGO, OHIO.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. **199,298**, dated January 15, 1878; application filed October 18, 1877.

To all whom it may concern:

Be it known that I, F. J. LEIDORF, of Chicago, in the county of Huron and State of Ohio, have invented new and useful Improvements in Mode of Attaching Wagon-Tongues to Wagons, of which the following is a description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the wagon tongue and hounds. Fig. 2 is a side view. Figs. 3, 4, and 5 are detached sections.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to a wagon-tongue; and the object of the same is to so attach the tongue to the hounds of the wagon that it can be immediately detached therefrom by persons in the wagon by pulling a cord attached to a trip or lever arranged in connection with a device whereby the tongue is secured in the hounds.

The following is a more full and complete description of the invention:

In the drawings, A and B represent the hounds of a wagon, which are or may be the same as those in ordinary use. In the hounds is fitted tongue or pole C, which is secured therein by the following-described device: In the end of the tongue held in the hounds is cut a recess or chamber, D, Figs. 4 and 5, in the bottom of which, secured by the end *a*, is a spring, D'. The opposite end of the spring terminates in a block, E, forming a shoulder to the spring. To said block is pivoted a bifurcated lever, F, at the point *b*. Above the spring referred to is fitted in the recess a slide consisting of the stem G and a head, H, Fig. 3. The stem of the slide passes through the bifurcation of the lever, as seen in Fig. 3, and to the end thereof is attached a head, I, from the upper side of which projects a standard, *c*, the purpose of which will presently beshown.

In the head H referred to is pivoted a pair of arms, *d* and *e*, Fig. 3, which may be closed up within the head, as shown in Figs. 4 and 5, so that the arms will not project beyond the sides of the head, but be flush therewith. Over the recess and slide is secured a plate, K. An elongated opening is made therein for

the projections of the bifurcated lever F and the standard *c*, as seen in Fig. 2.

Both sides of the tongue, between the hounds, are covered by a metal plate, through which the arms project, as seen in Fig. 3, and by said arms the tongue is secured in the hounds. To this end they are withdrawn into the head by lifting upward the lever F and pushing the lever or standard *c*, which will draw the arms in, so that the end of the tongue can be pushed in between the hounds until the nib *f*, Fig. 2, comes to the band L, which prevents it from going farther. At this point the arms are again sprung out by pushing back the standard *c*, thereby pushing out the arms into the sides of the hounds, holes being made therein for their admission, as indicated by the dotted lines *i* in Fig. 1. By means of said arms the tongue is not only secured in the hounds, but the wagon is also drawn thereby. For this purpose the double-tree is placed on the standard *c*, which serves as the double-tree bolt ordinarily used for this purpose.

As aforesaid, the purpose of attaching the tongue or pole to a wagon, as above described, is to admit of its being immediately detached therefrom in the event the team should be running away. To this end, a cord is made fast to the upper end of the lever F, which is then carried to and attached to the wagon within reach of the driver. The position of the lever and that of the standard *c* when the tongue is attached to the wagon, and under ordinary circumstances, is such as shown in Fig. 2, also in Figs. 3 and 4.

It will be seen in Fig. 4 that the head I of the slide is down against the end or shoulder of the block E, with the lower side of the head resting upon the spring. It will be obvious that in this condition of the slide it cannot be moved forward, as the block E checks it; hence the tongue will remain secure in its attachment with the hounds, as shown in Figs. 1 and 2, a plan view of which is shown in Fig. 3, representing a detached view of the tongue, showing the slide, &c.

In order to detach the tongue from the hounds, the lever F must be lifted up from the position shown in Fig. 4 to that indicated by *c'* in Fig. 5. This lifting of the lever depresses

the spring D and the block E below the head I by pushing upward upon said head, but which, however, cannot rise up, for the reason that the upper part of the head is directly under the plate K; hence the spring must bend downward, the edge of the head serving as a fulcrum for the lever. When the spring is so far depressed as to bring the block E below the head the slide can be drawn forward either by hand or by the team, should they be hitched to the wagon. This drawing forward of the slide withdraws the arms from the hounds into the head H, thereby allowing the tongue to become detached from the wagon, which, in the event the team is running away, leaves the vehicle and the occupants behind in safety.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the slide, consisting of the stem G and head H, the head I and

arms *d e*, substantially in the manner as described, and for the purpose specified.

2. The spring D', block E, and bifurcated lever F, in combination with the head I and slide, consisting of the stem G and head H, provided with arms *d e*, in the manner substantially as described, and for the purpose set forth.

3. The spring D', block E, bifurcated lever F, and slide consisting of the stem G and head H, arms *d e*, head I, and standard *c*, arranged to operate substantially as described, in combination with the tongue C and hounds of a wagon or other vehicle, as set forth, and for the purpose specified.

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Witnesses:

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