

(No Model.)

A. PLÖNZKY.
HORSE DETACHER.

No. 252,968.

Patented Jan. 31, 1882.

Fig. 1.

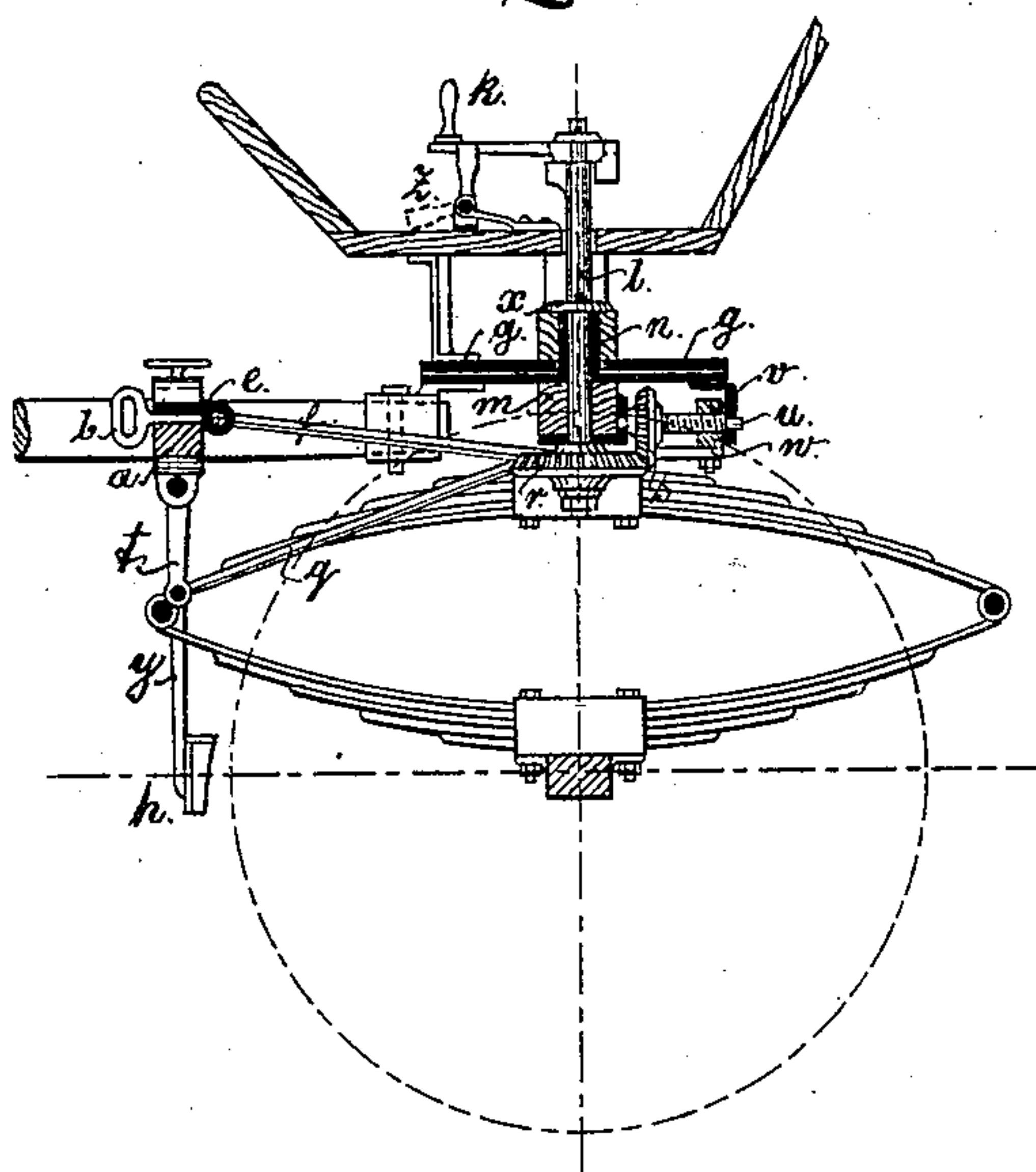


Fig. 3.

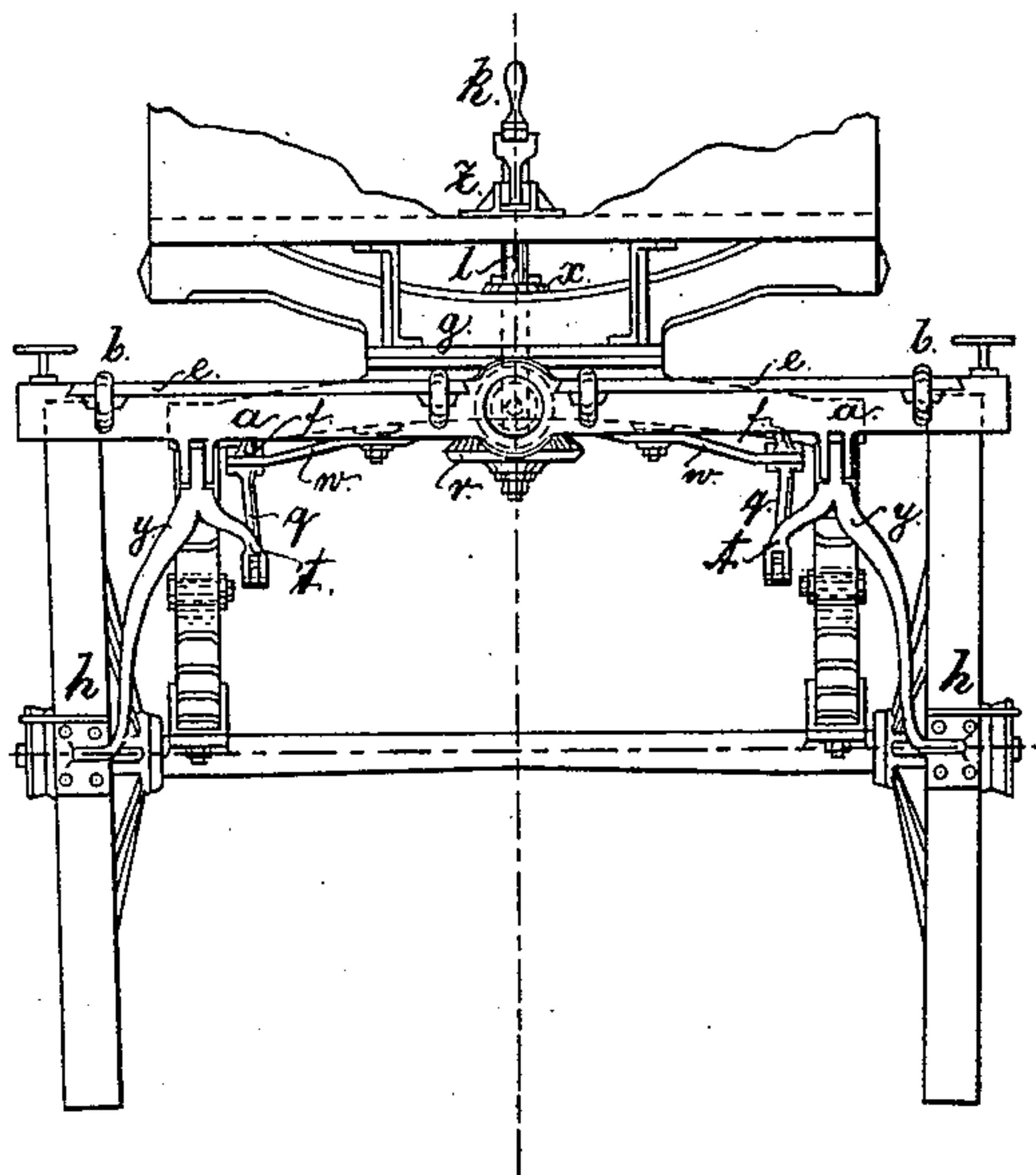


Fig. 2.

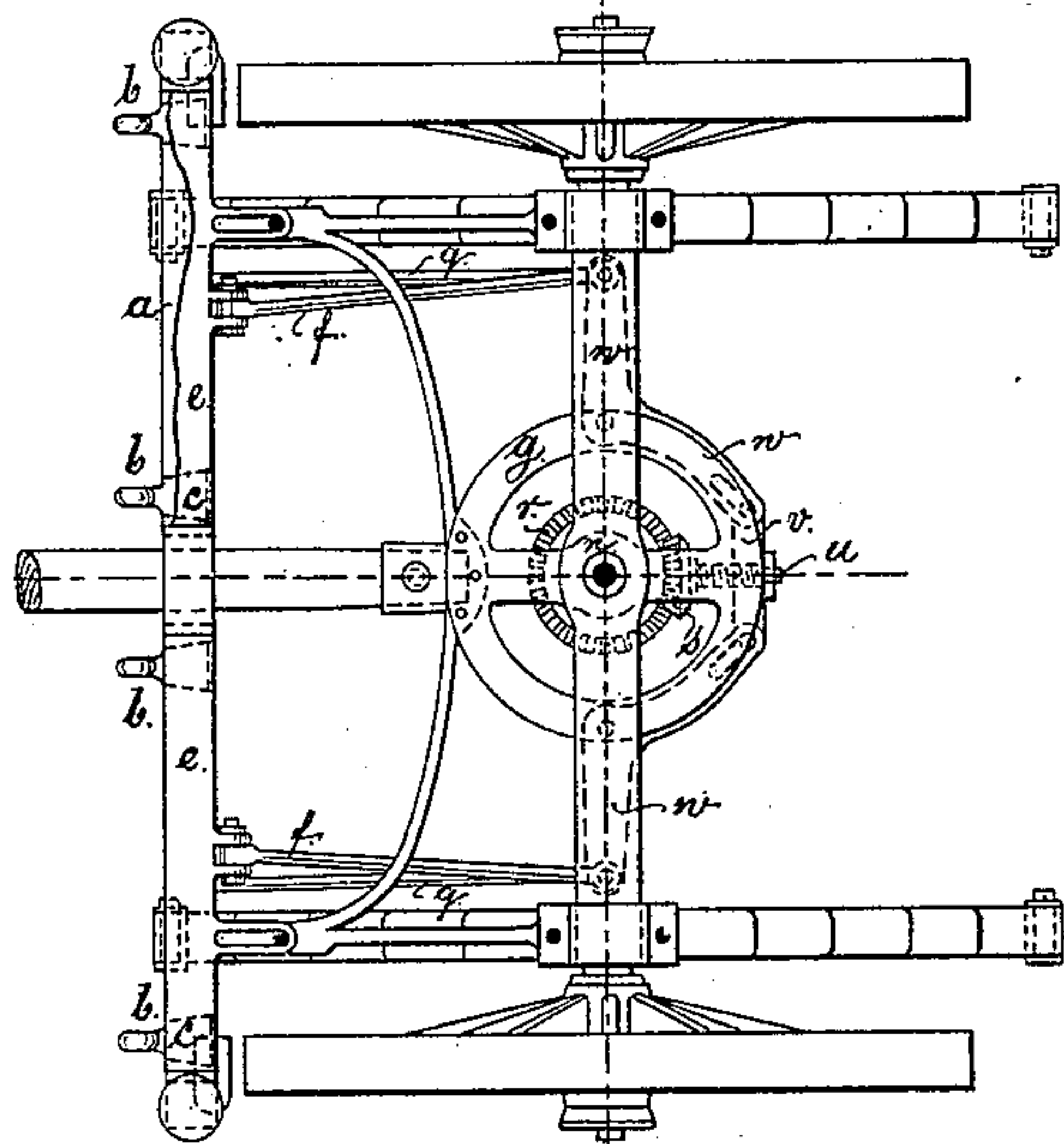


Fig. 4.

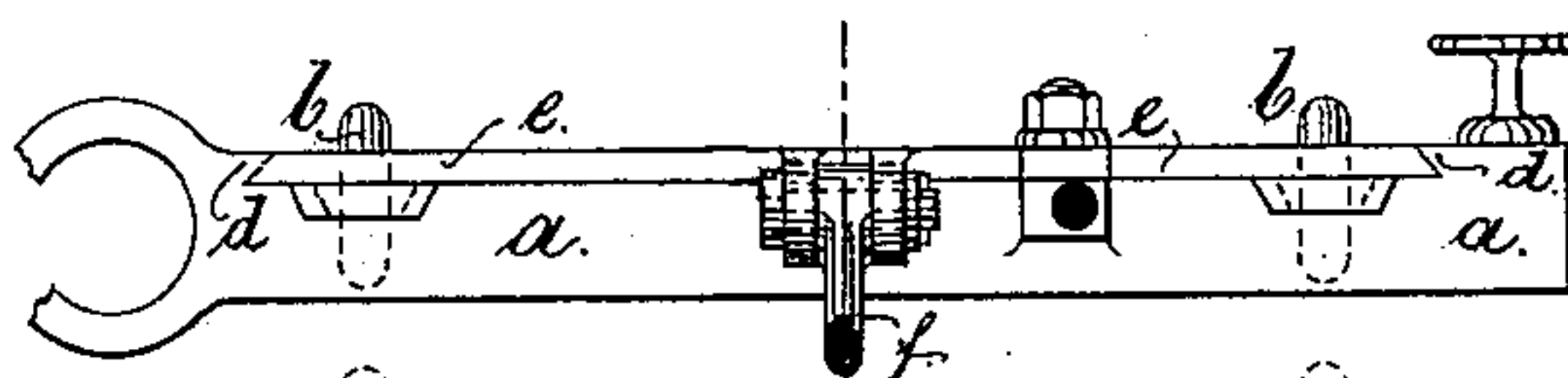
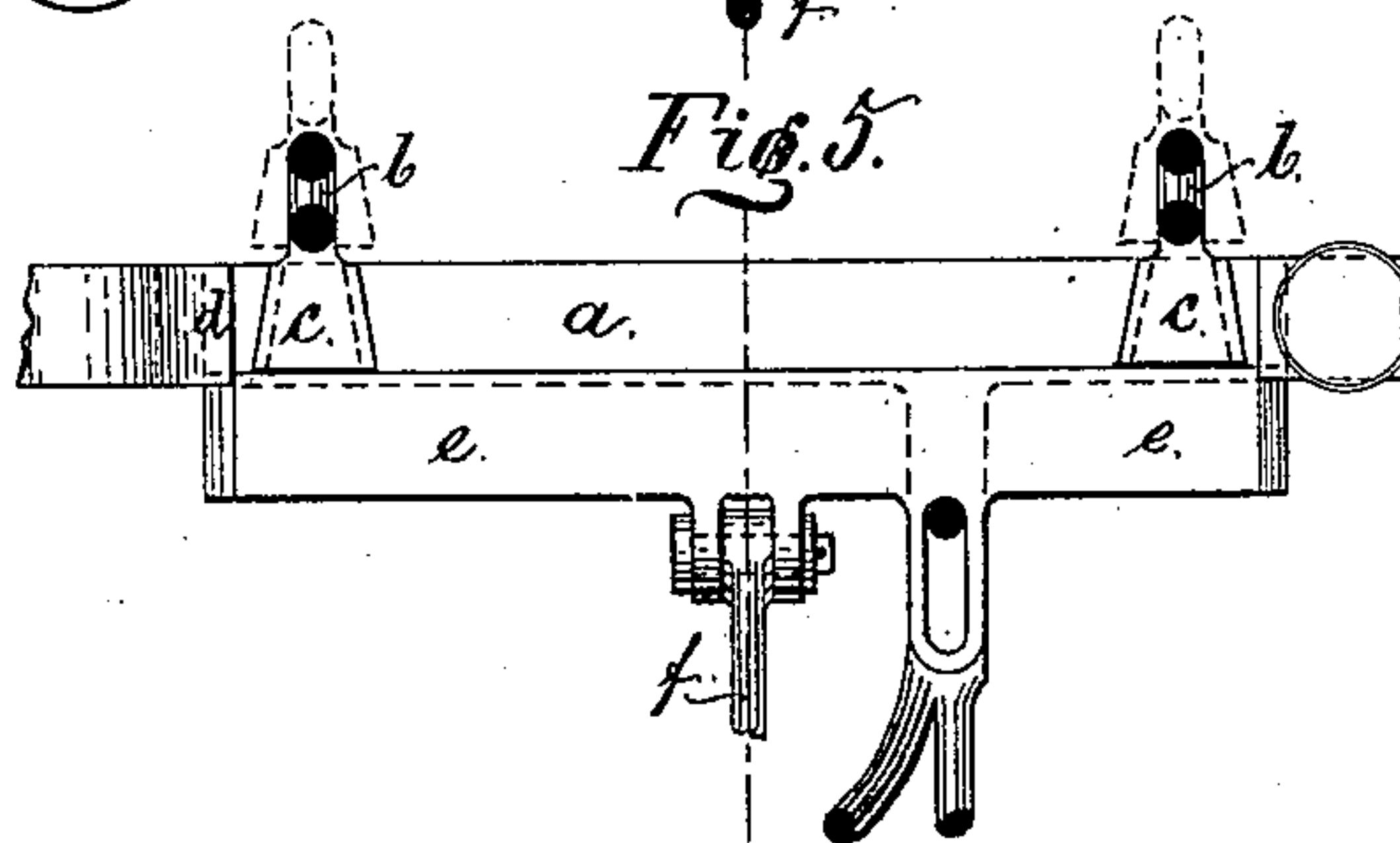


Fig. 5.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

AUGUST PLÖNZKY, OF LIPPEHNE, PRUSSIA, GERMANY.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 252,968, dated January 31, 1882.

Application filed October 11, 1881. (No model.) Patented in Germany October 15, 1879, and October 15, 1880.

To all whom it may concern:

Be it known that I, AUGUST PLÖNZKY, of Lippehne, Prussia, Germany, have invented an Improvement in Apparatus for Detaching Runaway Horses from the Carriage, of which the following is a specification; and which has been patented to me by the Empire of Germany by Letters Patent Nos. 9,811 and 14,199, dated respectively October 15, 1879, and October 15, 1880, both expiring October 14, 1894.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is a vertical longitudinal section of a fore carriage with improved detaching apparatus; Fig. 2, a plan of the same; Fig. 3, a front elevation; Fig. 4, a rear elevation of a portion of the stationary draft bar; Fig. 5, a plan of the same.

The invention embraces the detaching apparatus proper and the mechanism by which the same is actuated.

The draft-hooks *b* possess dovetailed blades *c*, fitting into corresponding recesses of the stationary draft-bar *a*. The blades *c* are not only wider on the rear end than on the front, but their sides are also beveled from top to bottom, so that the top area is larger than the lower one. The hooks *b*, lying with these blades *c* flush with the surface of the draft-bar *a*, are for the time covered by the slides *e*, guided and kept down to the bar *a* by means of ways *d*, which may, as shown in the drawings, be beveled or hook-shaped. As long as the slide *e* lies above the bar *a* and the blades *c* the latter cannot be drawn out, but keep the horses rigidly attached to the carriage. In that moment, however, when the slide *e* is pulled back from above the blades *c* the latter do not render any more resistance to the draft of the horses, but are pulled out of their sockets. In this way the horses are detached from the carriage, and it remains only to stop the latter by applying a brake, which is done at the same time and by the same means in and by which the slides *e* are pulled back.

To each slide *e* is hinged a connecting-rod, *f*, which is hung with its other end to the arm of a bell-crank lever, *w*, the other arm of which is jointed, by means of a pin working in a slot of this arm, to a cross-head, *v*, which has in its middle part a hole with screw-threads cut

in it, and serves as a nut for the screw *u*. This screw *u* revolves in bearings supported by the cross-tree *m*, connecting the two top springs, and by the bottom guide of the fifth-wheel *g*, and bears on its front end a bevel-wheel, *s*, gearing in another bevel-wheel, *r*, mounted on the lower end of the vertical shaft *l*. This shaft *l* has its bearing in the hollow king-bolt *n*, which turns with the fore carriage in a bushing fixed to the center of the fifth-wheel *g*. To the top of the shaft *l*, which protrudes through the carriage-bottom in front of the driver's seat, is mounted a crank, *k*, or a hand-wheel, so that the shaft *l* may turn for nearly half a revolution loosely in the hub of the crank *k*, so that the fore carriage can be turned for about ninety degrees to the right or left without moving the crank *k*. That is effected by a nose on the under side of the crank *k*, and by two stops on the shaft *l*. After one-fourth revolution to the right or left of the crank its nose strikes one of the stops and throws the crank *k* in gear with the shaft *l*. When the slide *e* has to be withdrawn the hinged catch *z*, which kept till then the crank *k* in its middle position, is pushed down by a kick of the driver, and the crank *k* turned round by the latter till the nut *v* is drawn up close to the hub of the bevel-wheel *s*, whereby the bell-crank lever *w* is moved and the slide *e* drawn back, so as to set free the hooks *b*. The horses take the hooks along with them, but the carriage is left behind and out of danger. To bring the carriage itself as quick as possible to a standstill the brake-shoes *h* are brought in contact with the rims of the front wheels, and that at the same time when the slide-bar *e* is drawn back. For this purpose the levers *y*, carrying the brake-shoes *h*, are hung to the under side of the draft-bar *a*, and connected by means of a second arm, *t*, and the rods *q* to the same arm of the bell-crank lever *w* to which are connected the slides *e*, so that the levers *y* are moved when the slides *e* are moved.

It must be understood that the shaft *l* may be turned, instead of directly by the crank *k*, by a crank situated on the side of the driver's seat, and connected to the shaft *l* by suitably-arranged shafts and bevel-gears.

The brake-shoes *h* are fitted on their upper part with roughened metal plates, so as to give

a good foothold and to serve as steps for mounting the driver's seat.

I claim—

5 1. For detaching runaway horses from the carriage, the described hooks *b*, set free by drawing back the slide *e* by means of a combination of devices comprising the crank *k*, or its equivalent, shaft *l*, bevel-gearing *r s*, screw *u*, cross-head *v*, bell-crank lever *w*, and connecting-rods *f*, arranged and working as shown
10 and described.

2. The brake-shoes *h*, attached to the forked

lever *y t*, and connected by the bar *q* to the bell-crank lever *w*, and actuated by the movement of the crank *k*, or its equivalent, in combination with trace-detaching mechanism connected to said crank *k*, substantially as shown and described. 15

This specification signed by me this 4th day of August, 1881.

AUGUST PLÖNZKY.

Witnesses:

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FRIEDRICH SCHWARZ.