

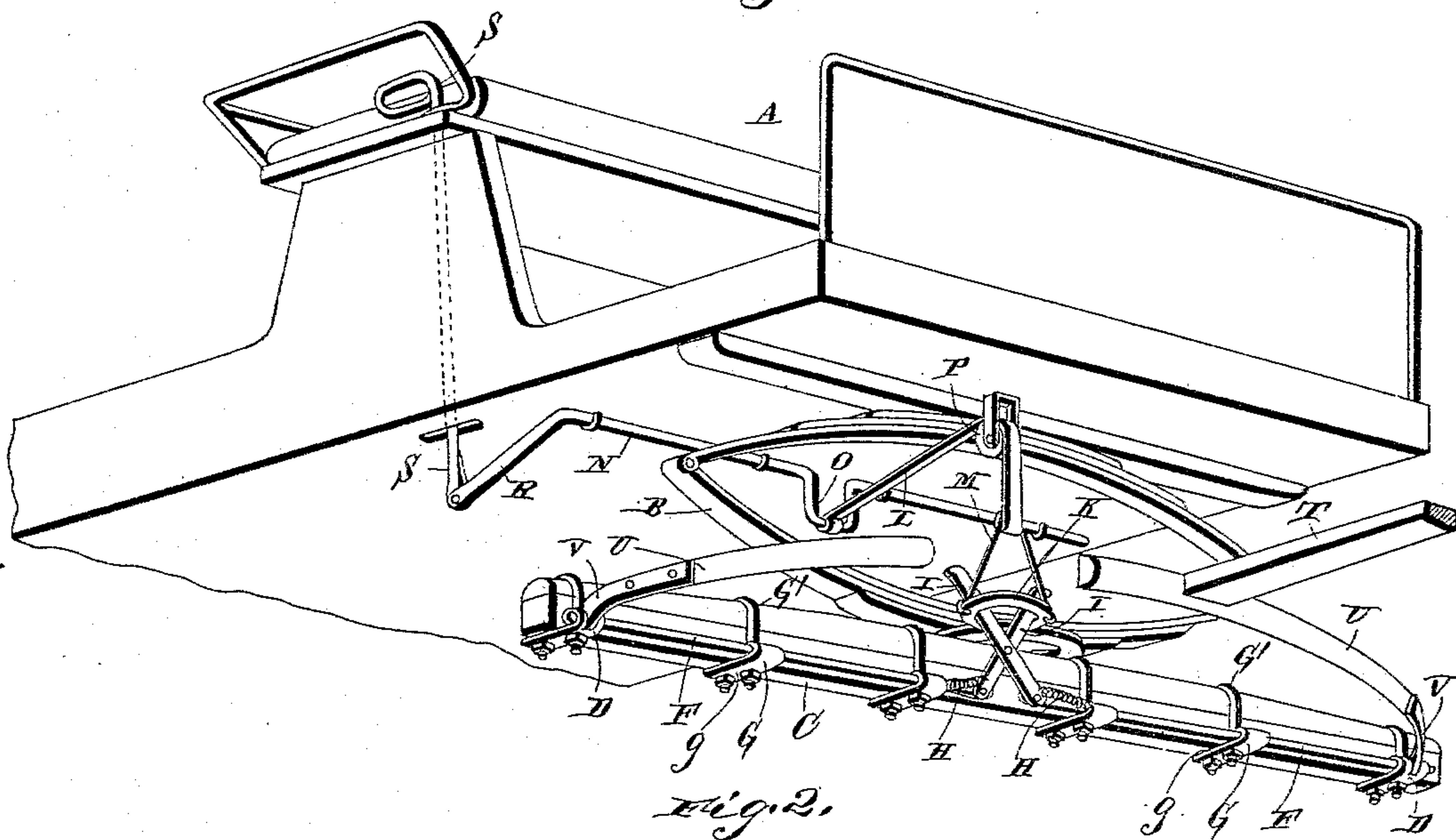
(No Model.)

J. McMORRIES.  
HORSE DETACHER.

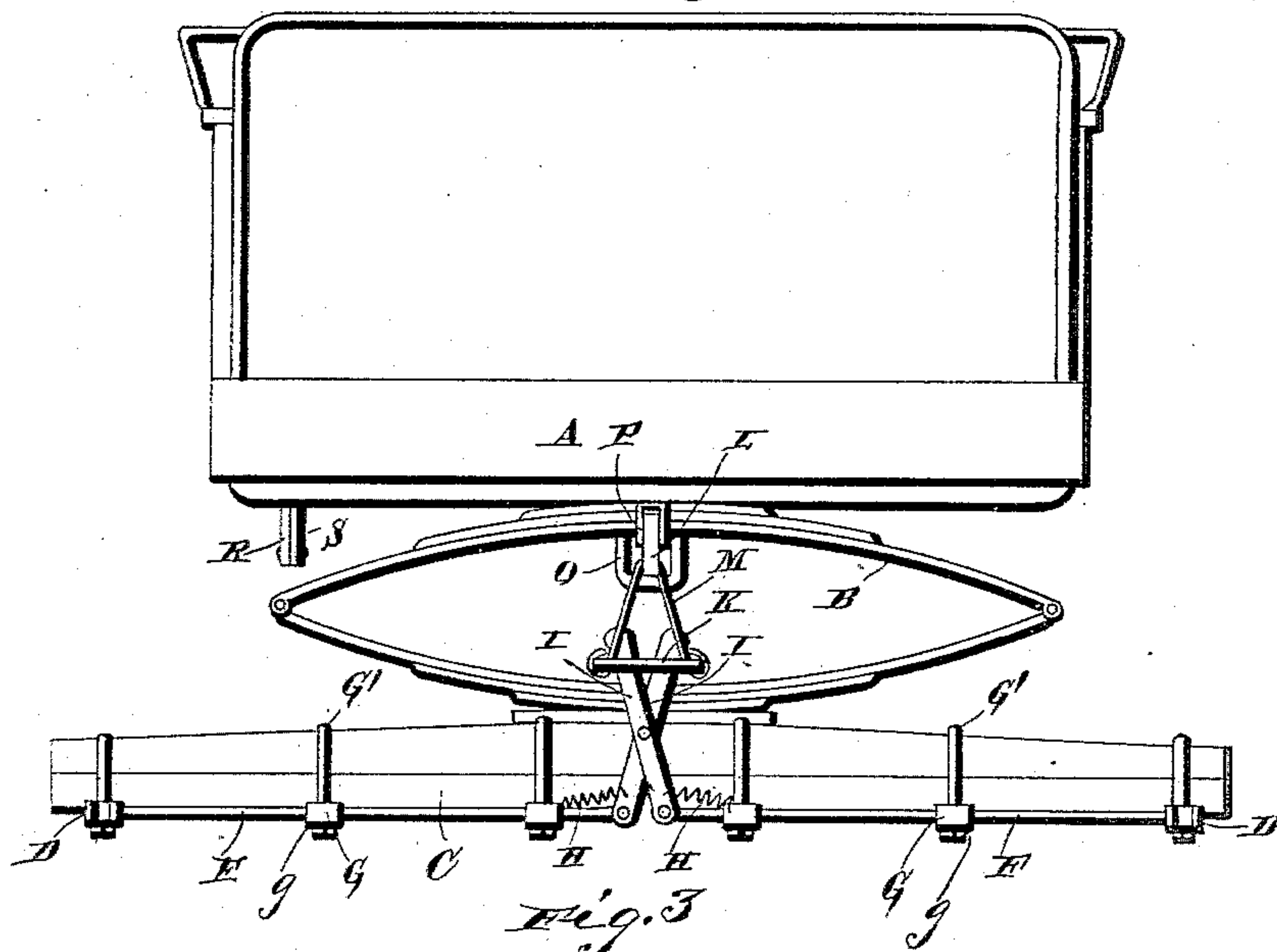
No. 381,712.

Patented Apr. 24, 1888.

*Fig. 1.*



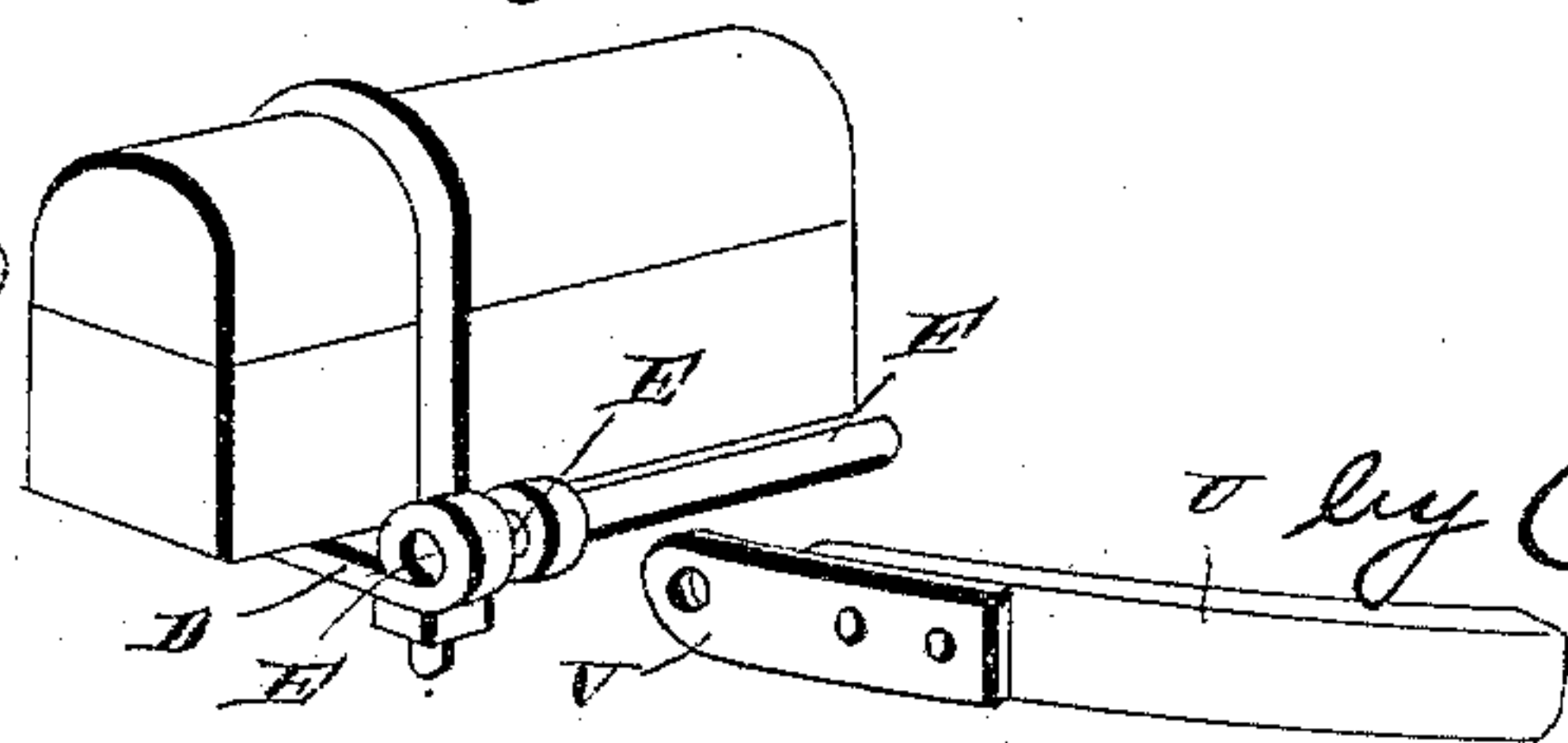
*Fig. 2.*



*Fig. 3.*

Witnesses.

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# UNITED STATES PATENT OFFICE.

JAMES McMORRIES, OF THORP'S SPRING, TEXAS.

## HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 381,712, dated April 24, 1888.

Application filed December 10, 1887. Serial No. 257,542. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES McMORRIES, a citizen of the United States, residing at Thorp's Spring, in the county of Hood and State of Texas, have invented new and useful Improvements in Horse-Detachers, of which the following is a specification.

My invention relates to improvements in horse-detachers; and it has for its object to provide a simple, cheap, light, and easily-operated device which may be attached to any vehicle.

The invention consists in two longitudinally-movable rods or bolts which are attached to the front axle and are adapted to engage the eyes of the thill-clips; the levers connected at their lower ends to the adjacent ends of the said rods or bolts; a ring embracing and adapted to slide on the upper arms of the said levers, whereby they may be drawn together to disengage the outer ends of the rods or bolts from the thill-clips; the band or strap connected to the said ring, and means whereby the said strap may be drawn by the driver of the vehicle to operate the detacher.

The invention consists, further, in certain novel details of construction and arrangement of parts, fully set forth hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is perspective view, looking upward, of the body of a vehicle provided with my detacher. Fig. 2 is a front view with the sliding rods in the detaching position. Fig. 3 is a detail view.

Referring by letter to the drawings, A designates the body of the vehicle; B represents the front spring, and C represents the front axle, all constructed and arranged in the ordinary or preferred manner.

D D represent the thill-clips, which are secured to the ends of the axle in any ordinary manner, and they are provided with registering-eyes E E, between which the eyes on the ends of the thill-irons are adapted to be placed.

F F represent the sliding rods, which are mounted in guides G G on the front side of the axle, the said guides being attached to the axle by means of the clips G' G', which pass around the axle, are inserted at their lower ends in apertures in the plates g g, and have

nuts screwed on their ends. The outer ends of the rods F F engage in the registering-openings in the eyes E E. The adjacent ends of the rods F F are separated a short distance, and they are normally held separated by the springs H H, which are attached thereto. It will therefore be seen that the outer ends of the rods F F are normally held in engagement with the eyes E.

I I represent levers, which are pivoted together and are attached at their lower ends to the adjacent ends of the sliding rods. It will be seen that if the upper ends of these levers are drawn together the rods F F will be drawn inward out of engagement with the eyes E E.

K represents a ring, which embraces and slides on the upper arms of the levers I I, and M represents a link, which is attached to the ring for a purpose to be explained.

N represents a transverse shaft, which is mounted in suitable bearings on the underside of the body A, and this shaft is provided at the center with a crank, O. To the said crank is attached the rear end of a band or strap, L, which passes forward over a pulley, P, at the front end of the body, and is connected at the end to the upper end of the link M. This pulley may be secured at any suitable point to suit the construction of the vehicle to which the detacher is applied; but in the drawings it is shown attached to the under side of the body A.

It will be seen that if the shaft N is rotated the crank O will draw rearwardly on the band L, the band will be drawn around the pulley P, and the ring K will be drawn upward on the levers I and cause the latter to operate the rods F F, as described.

The lever-arm R is attached to one end of the shaft N, and to the extremity thereof is attached the lower end of the operating-rod S, which passes vertically through a suitable bearing in the bottom of the body and terminates a short distance above the seat of the vehicle within easy reach of the driver.

Fig. 1 of the drawings shows a tongue or pole, T, having a transverse bar, U, at its rear end, and the ends of the said bar are provided with clips or eyes V V, which are fitted between the eyes E E of the thill-clips D D. The ends of the rods F F are engaged in the reg-



istering-eyes E E and V, and they thus pivot the said tongue or pole to the axle. It will be understood that shafts are pivoted to the axle in the same manner as a pole.

5 The operation of releasing a horse from the wagon will now be readily seen. It is simply necessary to draw the rod S upward, thereby rotating the shaft N, and the rods F F will be drawn inward against the force of the springs  
10 H H, and the clips or eyes on the ends of the shafts or the bar U will be released. When the rod S is released, the springs H H force the rods F outward, thereby operating the levers I, which draw the ring K downward, thus  
15 returning the parts of the device to their original positions.

This detacher is very simple, and it may be applied, with but slight alterations in the arrangement of the parts, to any vehicle.

20 It will be understood that the levers I I are pivoted together; but they are not pivoted or attached in any way to the body or any part of the vehicle. They are only connected at their lower ends to the adjacent ends of the  
25 sliding rods. Therefore the rods F are connected together at their inner ends by the levers and are capable of simultaneous longitudinal movement in either direction. This arrangement is of advantage, from the fact that  
30 it prevents an undue straining of the parts of the device when a detachment is being effected.

Having thus described my invention, I claim—

1. The combination, with the body and the  
35 axle, of the crank-shaft journaled on the under side of the body, the sliding rods mounted on the front side of the axle, the ring con-

nected to said rods to draw them together when it is raised, the pulley mounted on the under side of the body, the link connected to  
40 the ring, the strap passing over the said pulley and connected to the link, and the crank-shaft, as set forth.

2. The combination of the sliding rods, springs to normally hold said rods projected,  
45 the crossed levers pivoted together and having their lower ends pivoted to the sliding rods, the ring mounted loosely on the upper ends of said crossed levers, and mechanism for raising and lowering said ring, as set forth. 50

3. In a horse-detacher, the combination, with the thill-clips having the registering-eyes E E, of the sliding spring-actuated rods F F, engaging normally in the said eyes, the levers I I, pivoted together and attached at their lower  
55 ends to the said rods, the ring K, sliding on the upper arms of the levers, the link M, attached to the ring, the pulley P, mounted on a suitable bearing on the vehicle, the transverse shaft  
60 N, having the crank O, the band L, passing over the pulley P and connected at its ends respectively to the crank O and the link M, the arm R, attached to the end of the shaft N, and the vertical operating-rod S, connected at  
65 the lower end to the extremity of the said arm, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES McMORRIES.

Witnesses:

C. H. RICHARDS,  
GEOR. W. KENNON.