(No Model.)

J. STALEY.

HORSE DETACHER.

No. 603,434. Patented May 3, 1898.

Fig. 1.

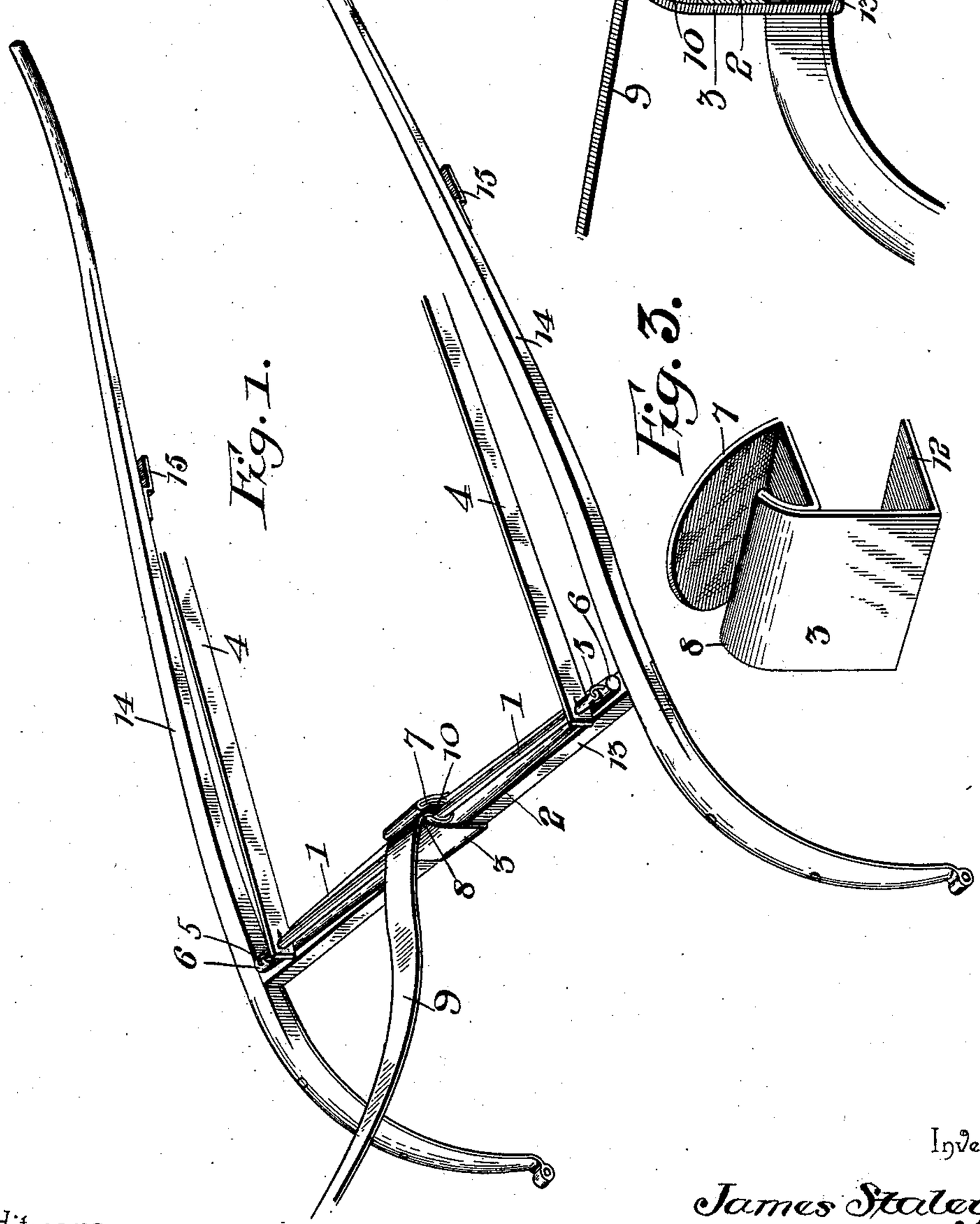

Fig. 2.

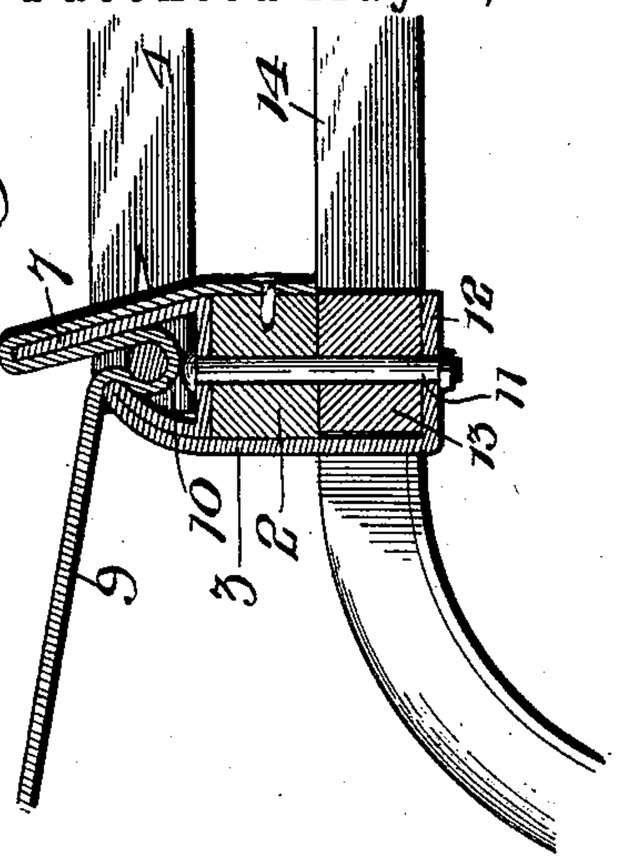

Fig. 3.

Inventor

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Witnesses

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

JAMES STALEY, OF SCOTTSBOROUGH, ALABAMA, ASSIGNOR OF ONE-HALF TO ROBERT H. SKELTON, OF SAME PLACE.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 603,434, dated May 3, 1898.

Application filed July 24, 1897. Serial No. 645,850. (No model.)

To all whom it may concern:

Be it known that I, JAMES STALEY, a citizen of the United States, residing at Scottsborough, in the county of Jackson and State of Alabama, have invented a new and useful Horse-Detacher, of which the following is a specification.

My invention relates to horse-detachers, and has for its object to provide a simple and efficient attachment for application to the whiffletree of a vehicle for normally maintaining trace-bars in their operative position and having means for displacing the free ends of said bars to disengage the trace-straps, the trace-bar holder, which forms the essential feature of the invention, being adapted for use in connection with a vehicle of any ordinary construction and being held in place by the bolt ordinarily employed for securing a whiffletree to the cross-bar of the shafts.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a detacher embodying my invention applied in the operative position to the cross-bar of a pair of vehicle-shafts. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail view in perspective of the trace-bar holder detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the drawings I have illustrated a pair of shafts 14, having stops or clips 15 and connected by a cross-bar 13 of the ordinary construction, upon which is mounted for pivotal movement a whiffletree 2, and connected by means of eyes 5 with the whiffletree are trace-bars 1 for engagement with the openings in the rear extremities of the trace-straps 4, said eyes 5 being carried by the usual terminal ferrules 6.

The trace-bar holder 3 embodying my invention is preferably constructed from a blank of flat plate or sheet metal of sufficient thickness to fulfil the functions hereinafter described and shaped at the upper side of the whiffletree to form an open-ended trace-bar seat, of which the front wall consists of a terminal upturned ear 7, inclining rearwardly toward its upper extremity, while the rear wall 8 consists of a doubled intermediate portion of the blank, which is inclined upwardly and forwardly toward the front wall 7, but terminates short of the surface thereof and also below the upper edge of the same. The floor of said trace-bar seat is horizontal and bears upon the upper surface of the whiffletree, as shown clearly in Fig. 2, while parallel therewith is arranged a lower terminal ear 12, and these upper and lower horizontal portions of the holder are engaged by opposite extremities of the whiffletree-bolt 11, which extends vertically through the cross-bar 13 and the whiffletree 2.

The trace-bar seat is of greater depth than the diameter of the engaged or inner extremities of the trace-bars measured from the upper edge of the rear wall 8, and as the front wall 7 extends upwardly and rearwardly beyond the upper edge of the rear wall the upper edge of said front wall is located approximately in the vertical plane of the upper edge of the rear wall, and hence overhangs the contiguous extremities of the trace-bars to prevent the accidental displacement of the latter by a draft exerted through the traces. Furthermore, the doubled rear wall of the trace-bar seat provides a rounded upper edge or bearing over which extends a releasing-strap 9, whereby when this releasing-strap is drawn rearwardly by a strain applied by the driver of the vehicle the sliding thereof over the rounded upper edge of the rear wall does not serve to chafe or cut the same. This releasing-strap after extending forwardly over the rounded upper edge of the rear wall of the seat extends under the contiguous extremities of the trace-bars, and thence upwardly and forwardly over the upper edge of the front wall and is terminally attached to the front side of the whiffletree, as shown in Fig. 2. Obviously there is no sliding movement of the releasing-strap over the front wall of the seat, and hence the doubling thereof, as described in connection with the rear wall, is unnecessary. When the releasing-strap is strained at its rear end, it is drawn slidingly over the rear wall, but is not moved with relation to the front wall. Nor-

mally the contiguous extremities of the trace-bars are located near the floor of the seat, and hence contiguous to the lower portion of the front wall 7, whereby but slight resistance in said front wall is sufficient to maintain the trace-bars in their positions in opposition to strain applied by the trace-straps, whereas when the releasing-strap is strained rearwardly it raises the said extremities of the bars through the contracted mouth of the seat and elevates them sufficiently to pass over the front wall, and thus releases the trace-straps. Also it will be seen that the rear wall of the seat, in addition to being inclined forwardly toward its upper edge, is curved or convexed at its rear side, the object of this construction, although not indispensable, being to resist the strain applied to the releasing-strap in the operation of disengaging the trace-bars from the seat. It will be seen that draft upon the rear end of the releasing-strap and resisted by the downward strain of the free ends of the trace-bars (due to the downwardly and forwardly inclined position of the front wall of the seat) will cause the resultant strain upon the rear wall of the seat to be applied approximately in alinement therewith, whereby deflection of said rear wall under an ordinary strain is avoided.

A further advantage of the above-described construction resides in the fact that it consists, as stated, of a flat blank of sheet metal, which is bent upon itself approximately at its center to form the rounded upper edge or bearing of the rear wall, one arm of the blank being extended vertically downward in rear of the whiffletree and cross-bar, and is then bent forwardly to form the lower terminal ear 12, while the other arm is bent forward to form the floor of the trace-bar seat parallel with the ear 12, and thence is terminally upturned and inclined rearwardly over the upper edge of the front wall of the seat to form the front wall 7.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a horse-detacher, the combination with trace-bars loosely connected at their outer extremities to a whiffletree, of a trace-bar holder having an open-ended seat for the reception of the trace-bars, said seat being provided with a rearwardly and upwardly inclined front wall, and a forwardly and upwardly inclined rear wall terminating short of the plane of the front wall, and having a rounded upper edge forming a bearing, and a flexible releasing-strap extending to slide over said bearing, under the contiguous extremities of the trace-bars and over the elevated upper edge of the front wall, and terminally attached at a point in front and outside of the seat, substantially as specified.

2. In a horse-detacher, the combination with trace-bars loosely connected at their outer extremities to a whiffletree, of a trace-bar holder, constructed of a flat blank of metal and having an open-ended seat for the reception of the contiguous alined extremities of the trace-bars, said seat having an upturned rearwardly-inclined front wall consisting of a terminal extension of the blank, and an upwardly and forwardly inclined rear wall consisting of a doubled intermediate portion of the blank and having a rounded upper edge forming a bearing, said rear wall being rearwardly convexed and terminating below the plane of the upper edge of the front wall, and a flexible releasing-strap extending forwardly over the bearing at the upper edge of the rear wall, under the contiguous extremities of the trace-bars, over the upper edge of the front wall and to a point of attachment in front and outside of the seat, substantially as specified.

3. The herein-described sheet-metal holder for trace-bars, the same consisting of a blank of flat metal doubled upon itself at an intermediate point to form the rear wall 8 of the trace-bar seat, having the front arm of the doubled portion extended horizontally forward to form the trace-bar-seat floor, and then terminally upturned to form the rearwardly-inclined front wall 7 of the trace-bar seat, said front wall extending above the plane of the rear wall; and having the rear arm of its doubled portion extended vertically downward and terminally forward to form a horizontal ear, said ear and the floor of the seat having alined openings for the reception of the pivot-bolt of a whiffletree, substantially as specified.

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

JAMES STALEY.

Witnesses:
D. P. SKELTON,
JOHN R. HARRIS.