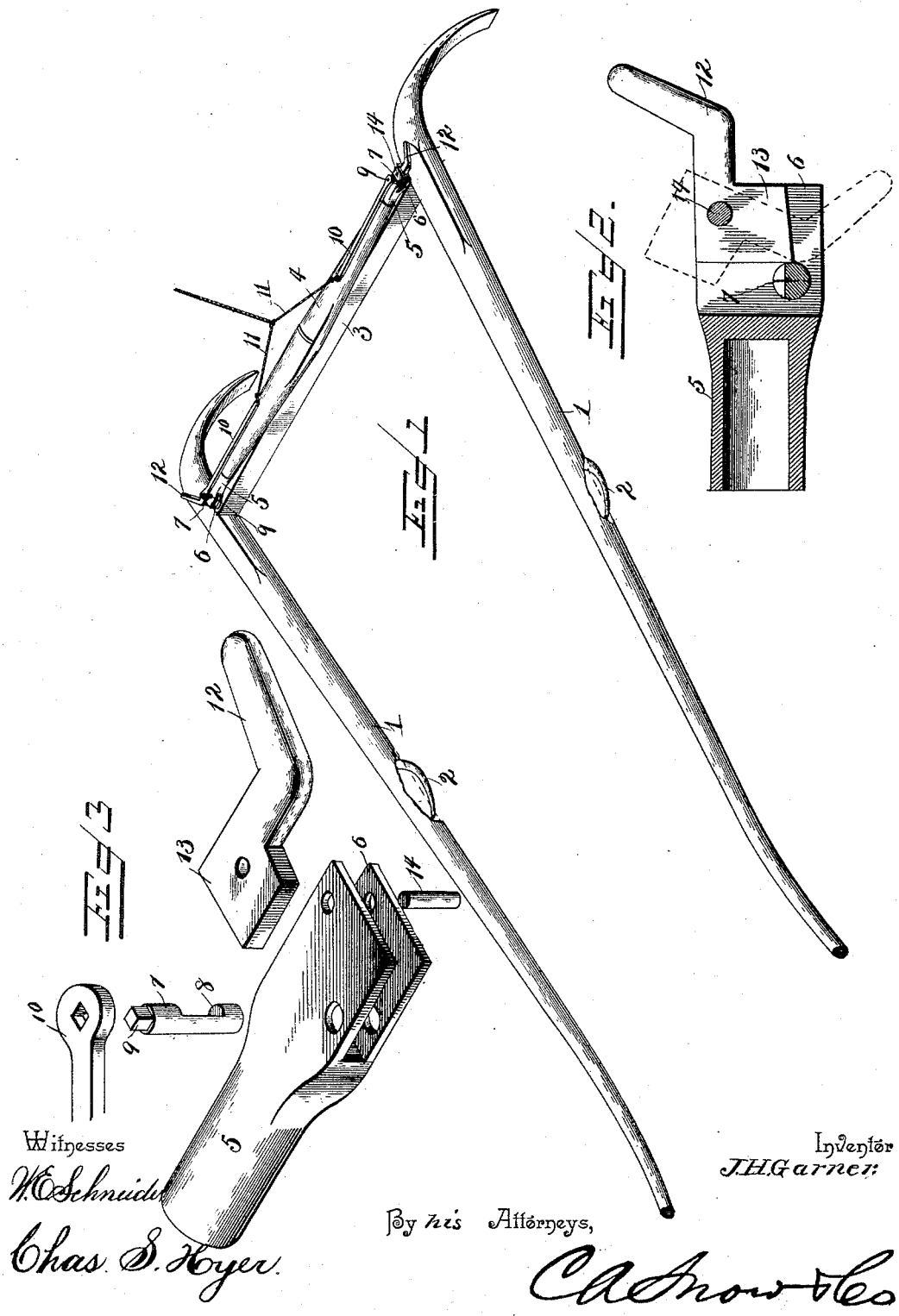
(No Model.)

J. H. GARNER.

HORSE DETACHER.

No. 491,734. Patented Feb. 14, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. GARNER, OF KINGWOOD, WEST VIRGINIA.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 491,734, dated February 14, 1893.

Application filed September 24, 1892. Serial No. 446,793. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GARNER, a citizen of the United States, residing at Kingwood, in the county of Preston and State of West Virginia, have invented a new and useful Horse-Detacher, of which the following is a specification.

This invention relates to horse detachers, and has for its object to provide means for readily and quickly disconnecting traces or trace-chains from connection with a singletree either in single or double form to obviate accidents in case of runaways or for other purposes, and with this object in view the invention consists of the construction and the arrangement of the parts as will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of a pair of shafts and a singletree in connection therewith, showing the improved mechanism applied thereto. Fig. 2 is a horizontal section on the line *x*—*x* of Fig. 1. Fig. 3 is a detailed perspective view of one of the trace-detaching devices, showing the parts disconnected.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 represents the thills of a pair of shafts, each having an elongated spring hook 2 secured to the under side thereof through which the hold-backs are passed, and when the traces are detached they may be readily slipped off the thills by the forward movement of the animal and outward from the hooks, it being observed that the front open portions of the said hooks are situated toward the front of the thills, and that the rear of each of the hooks is extended upward and secured to the thills to form a back-stop.

To the rear cross brace or tie 3 of the thills is pivotally mounted a singletree 4 in the usual manner, and to the outer ends of the said singletree are attached metallic sockets 5, having outer flattened ends with horizontally disposed bifurcations 6 extending therethrough from front to rear. Extending vertically through each of the sockets, and the front inner corners of the bifurcations thereof, is a locking post or pin 7, which is movably mounted to turn or rotate and has a recess 8 therein which is of the same length as the width of the bifurcation 6, and of a depth proportionate to the inner end of the trace-holding device, as will be more fully hereinafter set forth. The upper end of the pin or stud 7 is squared, as at 9, to form a key, and receives a key-lever 10, which extends inward toward the center of the singletree any suitable distance. One of these key-levers 10 extends inward from the opposite ends of the singletree toward the center of the latter, and the two inner ends of said levers have pull-cords 11 attached thereto and run upward through or over or to one side of the dash-board of the vehicle within convenient engaging position to the driver. Without departing from the spirit of the invention, the said cord may be supplemented by a chain or pull wire, or any other analogous device of a kindred nature. Within the bifurcated end of each of the sockets 5, and in rear of the post or pin 7, is pivotally mounted a trace-engaging hook 12, of such form as to hold the trace in connection therewith and prevent the latter from slipping therefrom, and having an inner enlarged head 13 of substantially rectangular form with angular straight edges, the pivot of the said hook being eccentrically mounted in said head and extending through the outer rear corner of the socket, as at 14. When the recess 8 of the post or pin 7 is turned outward toward the end of the socket, the head 13 of the hook 12 can freely turn in the bifurcation 6 of the socket and a portion of the said recess 8; but as soon as the post or pin 7 is turned to remove the recess 8 out of line of the circle of rotation of the head 13, one edge of said head abuts against the interposed portion of the post or pin and prevents the hook 12 from being drawn forward, and thereby sustains the trace on each side in locked position with the singletree, whereas in the former position of the said hook in front of the socket the trace could be easily detached from the hook 12 and the animal detached or released from connection with the vehicle. To attain this movement of the posts or pins 7, the key-levers 10 and cords 11, or analogous devices, are employed, and when the said cord is properly operated the levers are drawn back in order to turn the

posts or pins 7 to arrange the recesses 8 thereof in line of rotation of the heads 13 of the pins 12, and thereby simultaneously release both traces, as the draft on the traces will draw the hook around toward the front and automatically disconnect themselves.

The construction of the device herein set forth is simple in its nature and positive in its action.

The improved device may be readily applied to whiffletrees now in use, and being of a few number of parts can be cheaply manufactured and sold.

Having described the invention, what is claimed as new is:—

1. In a horse detacher, the combination of a horizontally-disposed hook having a pivotally-mounted head integrally formed therewith and of a substantially rectangular form with angular straight edges, the pivot of said head being vertically disposed and eccentric thereto, a vertically-disposed rotatable post or pin having a recess therein extending longitudinally thereof, an open-ended socket in which said parts are movably mounted, and a lever attached to the upper end of said vertically-disposed post or pin and having an operating cord secured to the free end thereof by means of which the said post or pin may be turned to release the head, substantially as described.

2. In a horse detacher, the combination of a singletree having a socket on each end thereof with a horizontally-disposed bifurcation in the outer portion of the same, a head pivotally mounted in said bifurcation and having a hook extending therefrom, said head being of substantial rectangular form with angular straight edges, and the pivot thereof eccentrically mounted therein and extending through the outer rear corner of the said socket, a post or pin having a recess therein and adapted to be rotated, an operating lever connected to said post or pin of each socket and projecting inward toward the central portion of the singletree, and a cord attached to each of said levers and adapted to be operated to simultaneously rotate the posts or pins and permit the hooks to be extended forward to release the traces, substantially as described.

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

JOHN H. GARNER.

Witnesses:
JOHN H. SIGGERS,
HORACE G. PIERSON.