G. B. KAIGHN.

ATTACHING HORSES TO SHAFTS.

No. 15,103. Patented June 10, 1856.

Fig. 1.

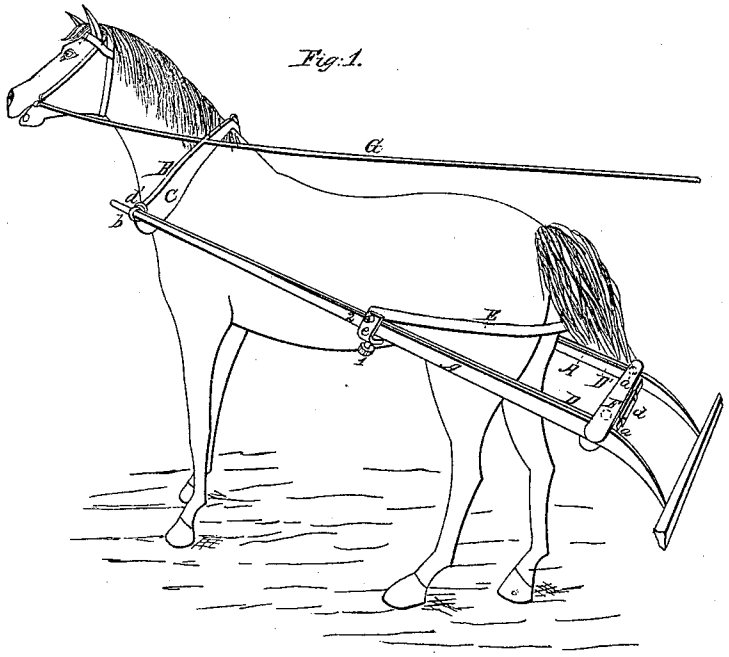
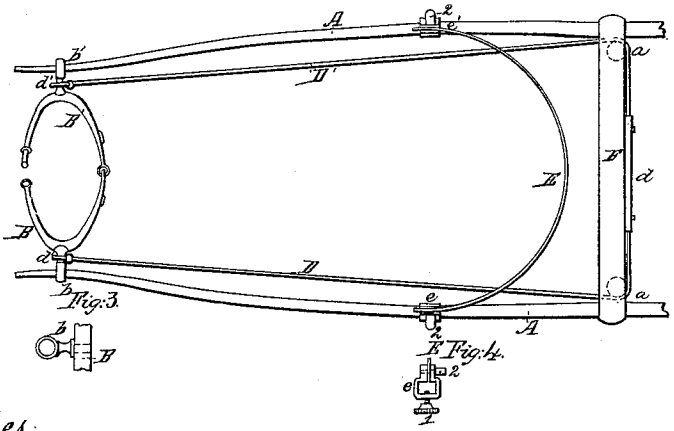


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE B. KAIGHN, OF LUMBERTON, NEW JERSEY.

MODE OF ATTACHING HORSES TO SHAFTS OF VEHICLES.

Specification of Letters Patent No. 15,103, dated June 10, 1856.

To all whom it may concern:

Be it known that I, GEORGE B. KAIGHN, of Lumberton, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in the Mode of Attaching Horses to the Shafts of Riding-Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a perspective view showing the invention as applied to a horse within the shafts; Fig. 2 a plan view of the same when the horse is detached; Fig. 3, a side view of one of the metallic, swivel-tugs which are attached to the hames for supporting and controlling the ends of the shafts; and Fig. 4, an end view of the breeching holder—like letters indicating the same objects when on the different figures.

The nature of my invention consists in providing metallic loops or tugs to the hames for supporting and controlling the ends of the shafts; making the breeching a permanent adjustable part of the shafts; and passing the braces around pulleys and attaching their rear ends together at the back end of the shafts; all so as to dispense with the saddle, belly bands, crupper, and breech supporting bands, and also with the whiffle tree—thereby greatly reducing the weight upon the horse, and also the cost of harness, and increasing the facilities for attaching and detaching the horse.

Referring to the drawings—A, A′ are the shafts of a light vehicle; B, B′, the harness; C, the collar; D, D′, the traces; and E, the breeching.

The shafts are made in the usual manner, with the addition of two small pulleys (*a*, *a*,) placed vertically so as to rotate in mortises made through the cross piece F, at the back part of the shafts—the usual whiffletree being dispensed with, and the traces (D, D′,) made long enough to pass through the mortises, and in contact with the pulleys (*a*, *a*,) and united together within a sheath (*d*) by means of suitable pins—or secured together in any adjustable and secure manner—and so that the said traces may move freely on the pulleys to suit the motions of the horse's shoulders. The forward ends of the traces are hitched by means of a ring or loop (*d′*) to the shanks of the tugs (*b*, *b*,) of the hames B, B′. The tugs are made of metal and formed with a ring or loop and stem so as to admit the ends of the shafts loosely within the rings, as shown in the drawings, and also attached to the hames so as to swivel thereon or turn, to suit any inclination of the shafts. The two parts of the hames are jointed together at the upper ends, and their lower ends fitted with a hook or strap so as to be readily hooked or buckled together around the collar in the usual manner. The breeching (E) is composed of a thin plate of spring steel or other similar material, covered with leather and bent into a curve to suit the horse, and so as to be clamped and held rigidly at each end, between the jaws of two adjustable holders (*e e′*) which are made of metal and so as to be slipped over the shaft, and then be held firmly at any suitable place thereon, by means of a set screw (1) on the under side—the jaws being operated by means of a small clamping screw (2)—all substantially as shown in the drawings.

Operation: The horse being bridled and collared as usual, is placed under and between the elevated shafts, which have the hames (B B′), traces (D D′) and breeching (E) attached thereto as shown in the drawings. The hames and shafts are now pressed outwardly and the former brought down around the collar and hooked together—thus harnessing and securely attaching the horse to the vehicle (as shown in Fig. 1,) in the space of a few moments—the driving reins (G) having been kept permanently attached to the bridle. The breeching (E) and traces (D, D′) require but one adjustment to suit the length and size of the particular horse, after which they are intended to remain with the harness as permanent fixtures upon the shafts. In detaching, all that is necessary is to open the hames, raise the shafts and walk the horse out.

It will be now perceived that the saddle and belly bands, crupper, and breech supporting bands, hitherto required, are entirely dispensed with, thus reducing the cost, and also the weight upon the horse; avoiding the heating and chafing incident to the saddles and bands hitherto used; and also that the whiffle tree, hitherto necessary, is not required, and the trouble and time required for attaching and detaching these

several devices, hitherto necessary, altogether saved, the greatest facilities being afforded by my invention in attaching and detaching the horse, without detracting from the required safety and security in any respect.

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

Supporting and controlling the ends of vehicle shafts (A, A′) by means of the loops or tugs (*b*, *b*′,) secured to the harness (B, B′,); making the breeching, (consisting of the band (E) and the adjustable holders (*e*, *e*′,), or their equivalents) a permanent and adjustable part of the said shafts; and attaching the back ends of the traces (D, D′,) together at the back end of the said shafts so as to bear against, and move on the pulleys (*a*, *a*,) in accordance with the forward motions of the horse; the whole being arranged and operating together substantially as described and set forth, and for the purpose of dispensing with the usual saddle, belly bands, crupper, breech supporting straps, and whiffle tree, and thus facilitating in connecting and disconnecting horses and vehicles, as described.

GEORGE B. KAIGHN.

Witnesses:
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