

(No Model.)

2 Sheets—Sheet 1.

J. E. CLARK.
HARNESS.

No. 532,534.

Patented Jan. 15, 1895.

Fig. 1.

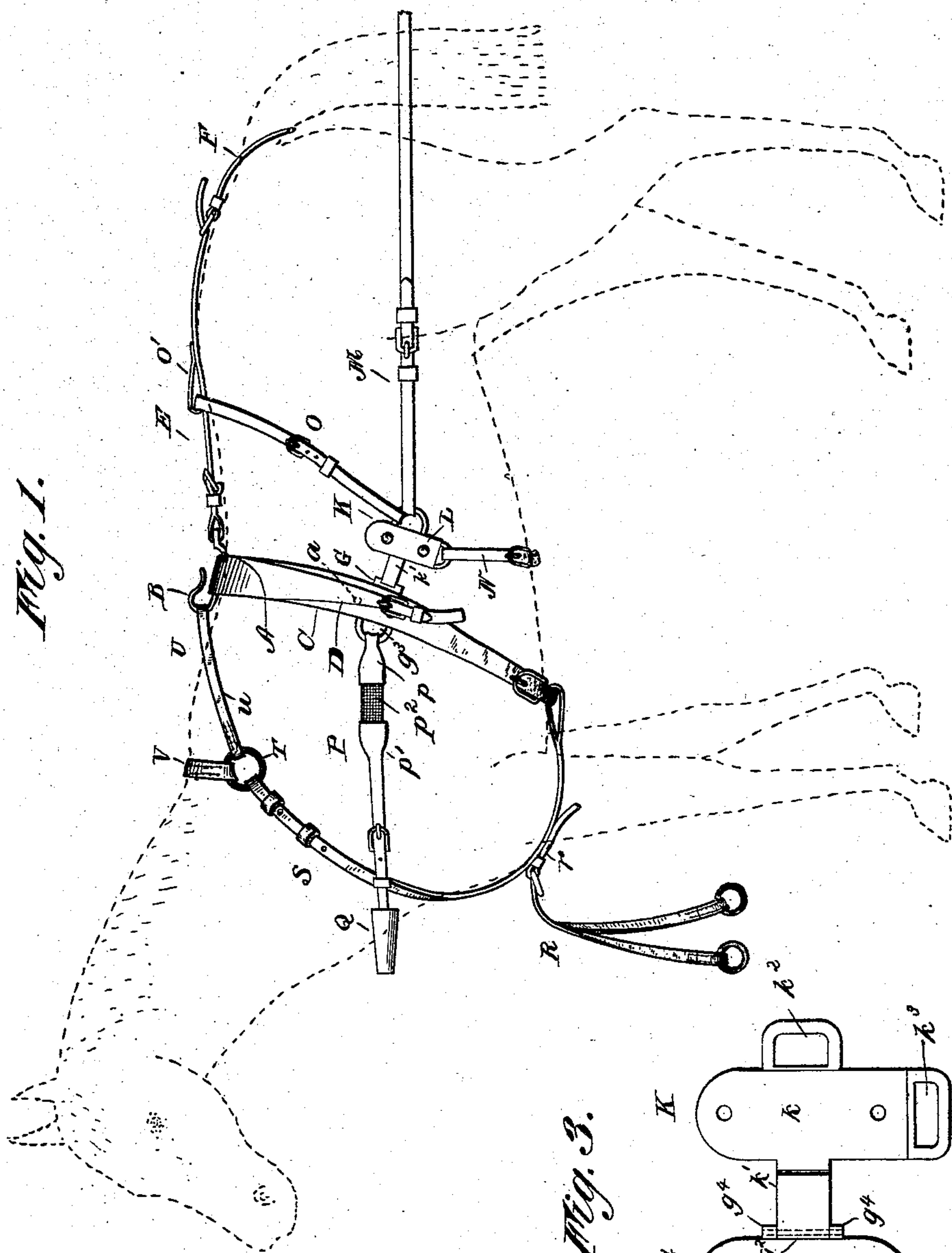
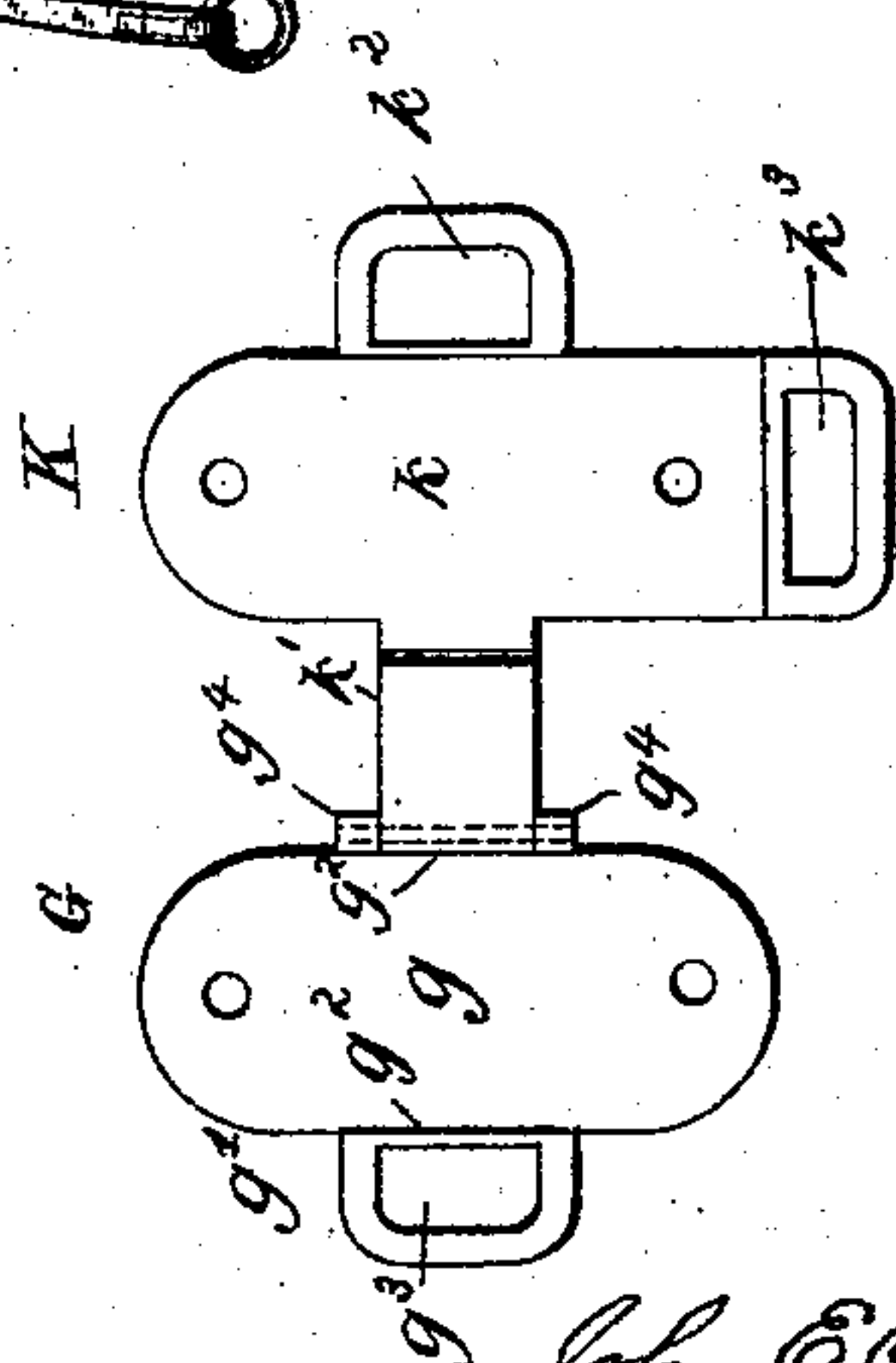


Fig. 3.



Attest.
D. P. Moore.
H. R. Blanchard.

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by *D. P. Moore*
Atty.

(No Model.)

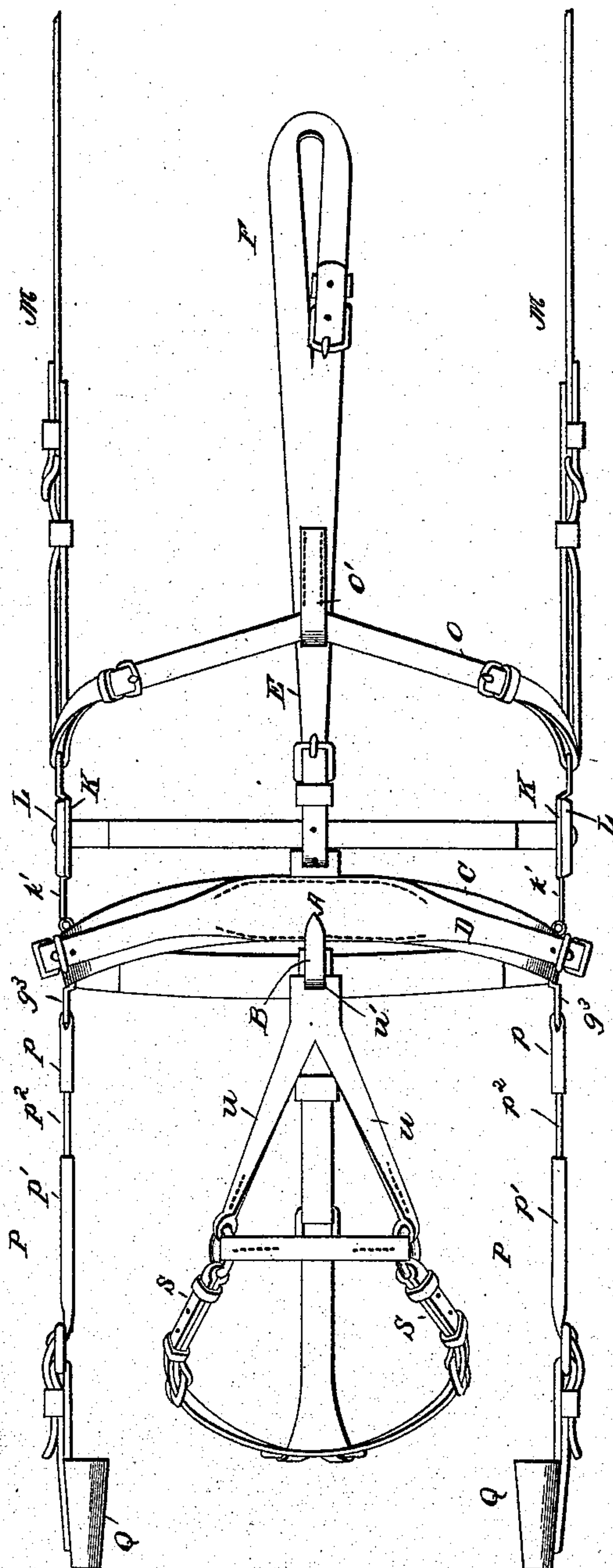
2 Sheets—Sheet 2.

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Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN E. CLARK, OF FARMER CITY, ILLINOIS, ASSIGNOR TO ROBERT C. MARTIN, OF SAME PLACE.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 532,534, dated January 15, 1895.

Application filed November 2, 1894. Serial No. 527,740. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. CLARK, a citizen of the United States of America, residing at Farmer City, in the county of De Witt and State of Illinois, have invented certain new and useful Improvements in Harness, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in harness particularly designed and adapted for use with sulkies or other light vehicles used when speeding horses; and the object of the invention is to provide a harness of the class named which will be light in weight, strong and will not interfere with the free action of the animal on which it is placed.

With these ends in view the invention consists in the peculiar construction and arrangement of parts as will be hereinafter fully pointed out and claimed.

In the accompanying drawings:—Figure 1 is a perspective view showing my improved harness in position on a horse. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view of my improved saddle attachment.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates the saddle, which may be of any well known form and style, having the usual hook B, girth C, and shaft attaching strap or band D. To the saddle is attached the forward end of a back strap E terminating at its other end in the usual crupper F.

G, K designate, as a whole, the two main plates or sections of my improved saddle attachment to which the traces or tugs M and hold back devices P are connected as will be hereinafter more particularly described. The forward section G of this attachment consists of two members or sections g, g' , which are preferably made integral being formed from a single blank or sheet of suitable metal, extending at substantially right angles to each other and the ends of each section projecting beyond the sides of the other. The member or arm g is rigidly fastened to the body of the saddle A, by means of rivets a or any other suitable devices, and the sections of the arm or member g' , on opposite

sides of the member g , are bent upwardly at an intermediate point of their length to form side flanges g^2 which bear against the sides or edges of the saddle. As stated the sections of the member or arm g' are bent upwardly to a point slightly above the portion of the saddle A to which the member g is attached and the ends of said member g' are then bent outwardly to extend parallel to the main body thereof. In one of these outwardly extending portions is formed an eye g^3 , while the central portion of the other similarly situated portion is removed and the remaining parts thereof are bent or rolled upon themselves to form aligned eyes g^4 .

The rear section or trace carrier K of my improved saddle attachment is in general form similar to that just described, it consisting of two main arms or members k, k' , the former of which is riveted or otherwise rigidly secured to a strap L. The forward extending portion of the other arm k' of this section is preferably reduced in width and the free end thereof is bent around and suitably secured to a transverse rod, the ends of which project beyond the sides of the arm k' and into the eyes g^4 at the rear end of the section G. A hinge joint is thus formed between the two sections G, K, and the latter, to which the traces are attached does not, therefore, interfere at all with the breathing of the animal on which it is placed. The arm k' is provided near its rear end with an eye k^2 to which the forward end of the trace M is secured.

The lower end of the arm k of the section K extends a short distance below the strap L to which it is secured and in such downwardly projecting portion is formed an eye k^3 to which is connected one end of a girth N, the other end of which is adapted to be connected to the corresponding eye on the other side of the harness. By reference to Fig. 3 it will be seen that the portion of the arm k below the arm k' is of greater length than the portion thereof above such cross arm; and I attach to the under face of the strap L, above the upper end of such arm k suitable pad.

To the eyes k^2 are connected the ends of a strap O which extends through a loop or

guide O' secured on the back strap E. This strap serves to maintain the crupper in position at all times and effectually prevents a horse from slipping such strap out of position.

The rear end of a hold back P is connected to the eye g^3 at the forward end of the arm g' of the section G of the saddle attachment and at its forward end the hold back is provided with a thimble Q designed to receive the forward end of a shaft of the sulky or other vehicle to which the horse is hitched.

The hold back P consists of a section p , of leather or similar material, attached to the saddle A, as described, a forward section p' carrying the shaft thimble Q, and an intermediate elastic or flexible section p^2 . This elastic section p^2 prevents the hold back device from interfering with the free action of a horse's shoulders which is one of the greatest objections to devices for this purpose as commonly constructed.

Another objection to harness, for the purpose for which my improvements are particularly designed, as commonly constructed is that the harness is very apt to slip back on the animal when in use. To overcome this I have devised the following means:—The martingales R are formed with or connected to shoulder straps S. As shown in the drawings these shoulder straps are the bifurcated members of a strap the lower rear end of which is connected to the saddle girth C in the manner in which the martingales are commonly connected. On the outer face of such strap is secured a loop r to which the martingales R are connected. The shoulder straps S extend up to the horse's shoulders and have their upper ends connected to rings T. To said rings T are also connected the forward bifurcated ends u of a strap U the rear end of which is provided with an eye or slot u' or other suitable means for connecting it to the hook B on the saddle A. The rings T are also connected by a cross strap V.

It will thus be seen that I have provided a very simple, light and strong harness which can be readily adjusted to any horse and which will not in any way interfere with the free action of any of the animal's muscles.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a harness, the combination of the saddle, the shoulder straps and martingale connected to the forward portion of the saddle, the back strap carrying the crupper, the plates having the hinge connection with the saddle, the traces, back strap and girth strap connected to said plates on one side, and the hold backs connected to the other side of said plates.

2. In a harness, the combination of the saddle having the girth strap, the shoulder straps connected to the saddle and girth strap and carrying the martingales, the plates secured to the saddle and consisting of the hinged and stationary sections, the hold backs connected to the stationary sections, and the back strap, girth and trace straps connected to the hinged sections, substantially as described.

3. In a harness, the combination of the saddle, the plate connected to the saddle at the center and having the hook at one end and the eye at the opposite end, the shoulder straps connected to the hook, the back strap carrying the crupper connected to the eye, the plates connected to the side of the saddle and extending on each side thereof, the hold backs connected to one side of the plates, and the girth, traces and back straps connected to the other side of said plates.

4. In a harness, the combination with the saddle and back strap, of the plate G rigidly connected to the saddle and projecting on opposite sides thereof, the hold backs, provided with the intermediate elastic section, connected to one end of said plates and adapted to engage with the tips of the shafts of a vehicle, the trace carriers K connected by a hinged joint to the other ends of the plates G, and the strap O extending through a guide on the back strap and connected to the trace carriers, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN E. CLARK.

Witnesses:

A. G. ALBRIGHT,
L. G. HERRICK.