

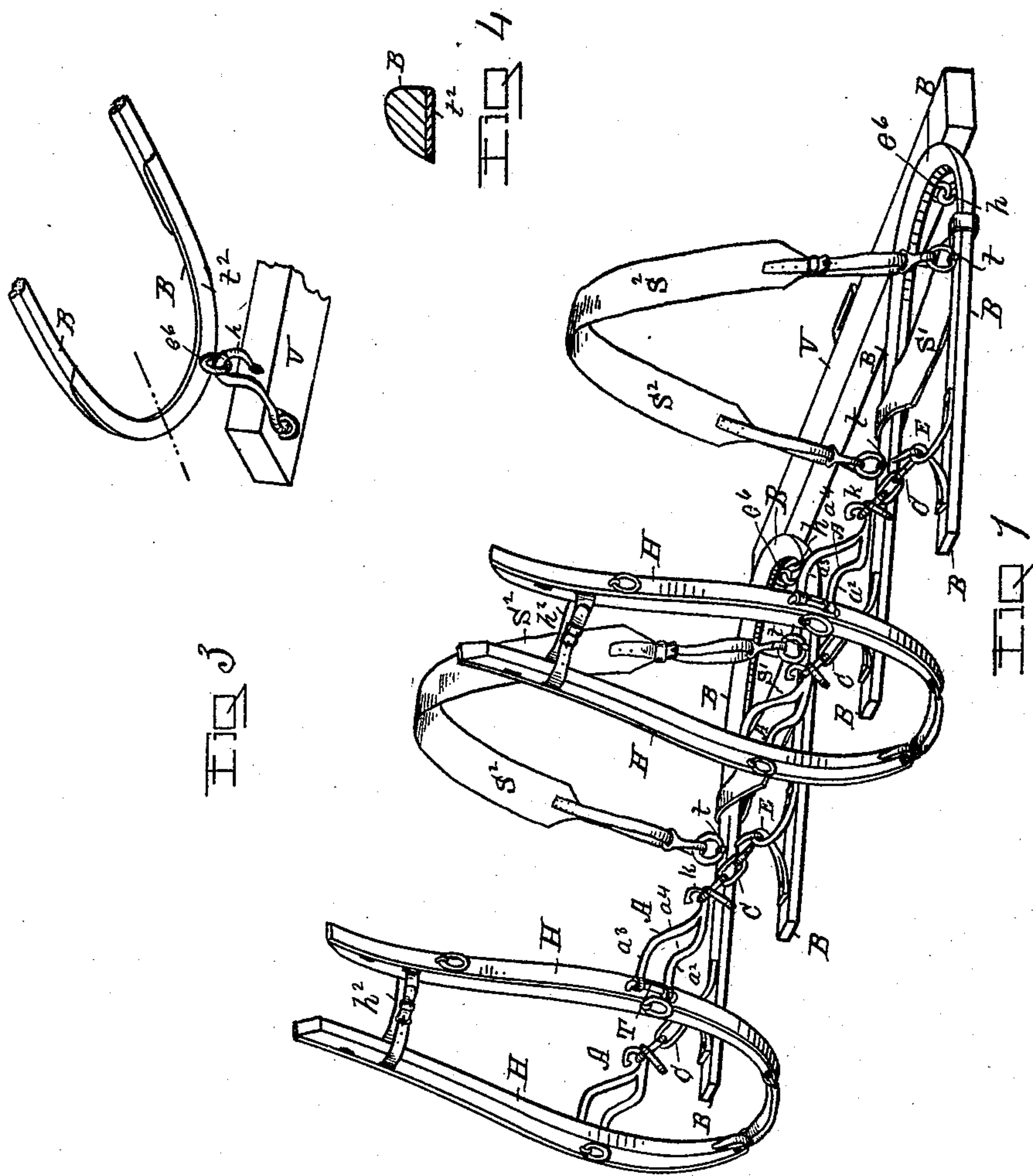
(No Model.)

2 Sheets—Sheet 1.

B. F. BAKER.
HARNESS.

No. 487,900.

Patented Dec. 13, 1892.



WITNESSES
Charles S. Brintnall
William A. Loe et

INVENTOR
Benjamin F. Baker by
W. E. Hagan atty

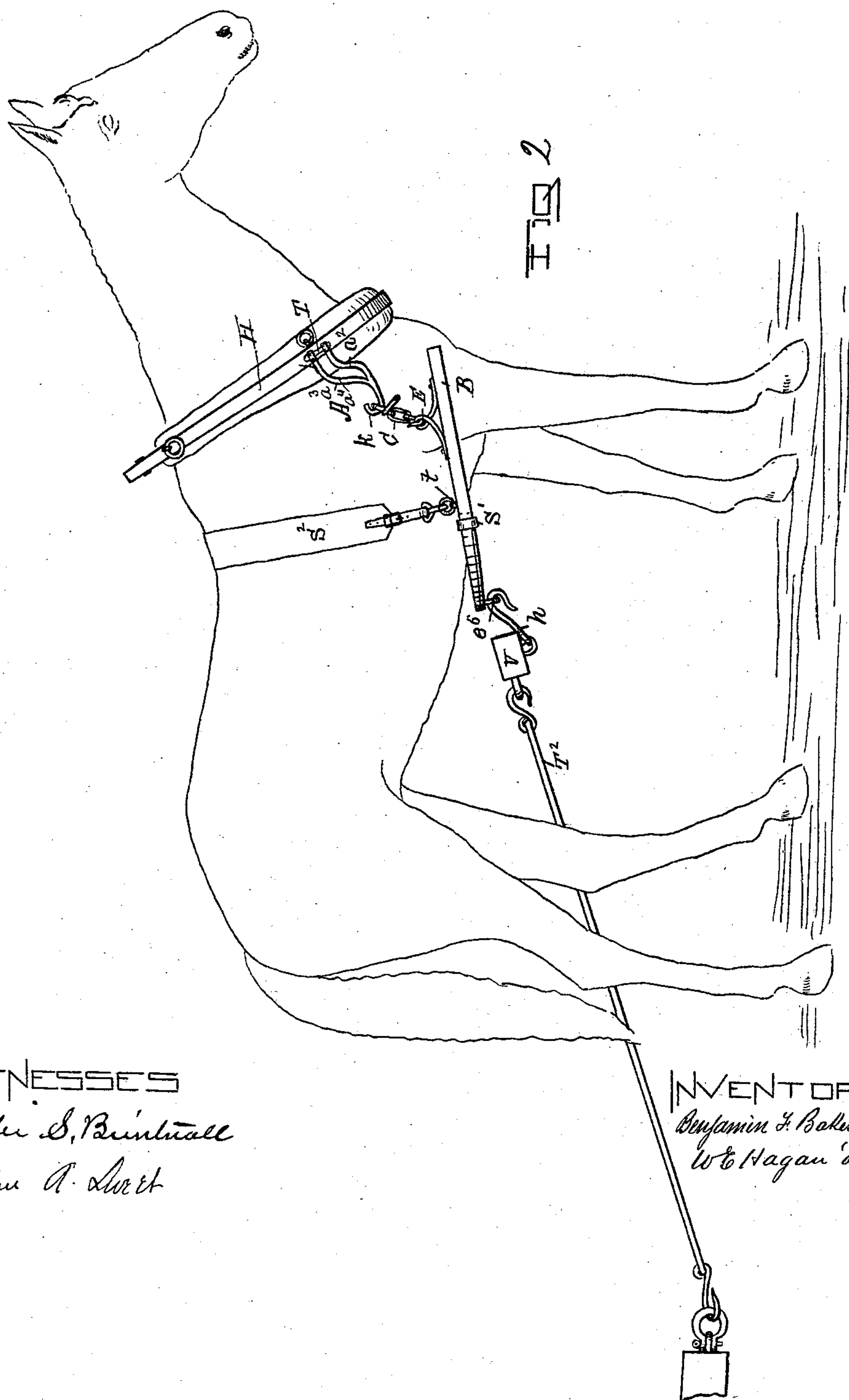
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UNITED STATES PATENT OFFICE.

BENJAMIN F. BAKER, OF BALLSTON, NEW YORK.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 487,900, dated December 13, 1892.

Application filed July 21, 1892. Serial No. 440,752. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. BAKER, of Ballston Lake, Saratoga county, State of New York, have invented new and useful Improvements in Harness, of which the following is a specification.

My invention relates to improvements in animal-harness, and more particularly to that class of it which is used in heavy work, such as plowing, harrowing, logging, or drawing mowing-machines or harvesters; and my improvements have for their object to better adapt this class of apparatus to the uses for which it is designed by making it more comfortable to the animals on which it is used, and to better adapt the draft-line to the pulling capacities of the team, and also to reduce the weight of the harness by an improved construction.

Accompanying this specification, to form a part of it, there are two plates of drawings containing four figures illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a perspective of my improved harness, shown as detached from the team. Fig. 2 is a side elevation of it, shown as applied. Fig. 3 is a perspective of the connection made between one of the bows and the evener or whiffletree, with the ends of the bow-arms shown as broken off; and Fig. 4 is a section taken on the line $x x$ of Fig. 3.

The several parts of the apparatus thus illustrated are designated by letter reference, and the function of the parts is described as follows:

The letters B B designate the two bows of a set of my improved harness, and which when in use are arranged in a horizontal position or nearly a horizontal position, with their rounded ends back of the fore legs of the team and with their bow ends pivotally connected to the evener or whiffletree V by means of a hook h on the latter and an eye e^6 on each of the bows.

The letters S' designate a strap that is in a horizontal position when the harness is applied. There is one of these straps for each of the bows B, and each of these straps connects at its ends with the sides of one of the bows, and the function of these straps is to

strengthen the bows by holding the sides of the same together in case one of the chains should break, and to aid the draft capacity of the team when the rear end of the draft-line is elevated to more closely approach a horizontal direction.

The letters S² designate a back-strap that is nearly vertical in position when applied to the back of each of the animals over which it passes, with the pendent ends of the straps connecting with the opposite sides of each of the bows by means of a staple t , the function of these straps being to hold or support the weight of the harness when the team is not drawing.

The letters H H designate the hames, and h^2 the hame-straps, and the letters A designate arms made with forked bars $a^2 a^3$, which back of where bifurcated are made with a hook k and where forked are extended forwardly on an incline upwardly, as designated at a^2 , and then they are each curved forwardly at a^4 , with their ends each separately looped onto, so as to make a hinged connection with, the upcast part of the flat-head staple T at each end of the latter where projecting from the hame, as shown at Fig. 2, said staple being in each instance secured to the sides of the hames. The bars a^2 and a^3 make their connection with the staple so as to be at or nearly at right angles to the side edges of the hames.

The letter C designates a chain that connects at one of its ends with the hook k and at its other end with a strap-formed eye E, that is upwardly projected from each of the tops of the bow sides, and this strap-eye is preferably located on each of the bow sides at or about one-fourth of the distance between the outer end of the bow sides and the bow ends. The function of this connection of the hames and bows is to connect the draft capacity of the team with the bows and evener by a line of direction that will insure the best use of the exerted draft force, and by its construction will, as the harness in the line of the exerted draft force bears upon the breast of the animals more or less downwardly, thus relieve the pressure upon the back of the neck by forcing frontwardly the upper ends of the hames, these better results being caused by the manner in which the hames

and bows connect by means of the arm A. The bows are made of wood, and are preferably constructed with a reinforce-strip t^2 , made of metal, that gives strength to them, although
5 by making the bows heavier the metal reinforce-strip may be omitted.

The letter T^2 designates the draft trace or connection between the evener and the apparatus to be drawn.

10 As thus made and arranged, my improved harness can be made with a weight much less than other constructions of its kind, and as applied to animals so adjusts itself to their movements as to avoid all torsion of the harness from the jointed character of its connections. It also facilitates by its construction
15 the harnessing and unharnessing of the team.

I am aware that a single bow has been arranged to include a team, with the end of the
20 bow attached to the outer one of the hames of each horse of the team. This differs from my harness in the fact that I use two bows, one for each horse, and connect the ends of each bow with one of the hames at each side of
25 each of the animals, or to the breast-collar at each side of the latter.

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

30 1. The combination, with two bows having their bow ends projected rearwardly, of an evener connected to each of the bows at the bow ends of the latter, a back-strap arranged to pass over the back of each of the animals

of a team, with the depending ends of each 35 of said straps connected to one of the opposite sides of each of the bows, hames making a draft connection with each of the bow sides at each side of each of the animals of the team, and a horizontal strap connecting the
40 sides of each of the bows, substantially in the manner as and for the purposes set forth.

2. The combination of the bows B B, each suspended on the animal's back by means of a strap S^2 , which at each of its lower ends 45 connects with the opposite side of one of the bows, with the rounded ends of the bows projected rearwardly and laterally, the evener V, connected to the lower end of each of said bows, and the hames H H at each side of each
50 of the animals of the team, connecting with the end of one of the bows, substantially in the manner as and for the purposes set forth.

3. The combination, with the hames H H, of the connections A, made with the forked 55 bars a^2 and a^3 , the bows B B, and the chains C, connecting the bows with the hames, and the evener V, connected to said bows, substantially in the manner as and for the purposes set forth. 60

Signed at the city of Troy this 23d day of June, 1892, and in the presence of the two witnesses whose names are hereto written.

BENJAMIN F. BAKER.

Witnesses:

CHARLES S. BRINTNALL,
W. E. HAGAN.