A. L. SIMPSON.

Ox-Yoke.

No. 7,893. Patented Jan. 7, 1851

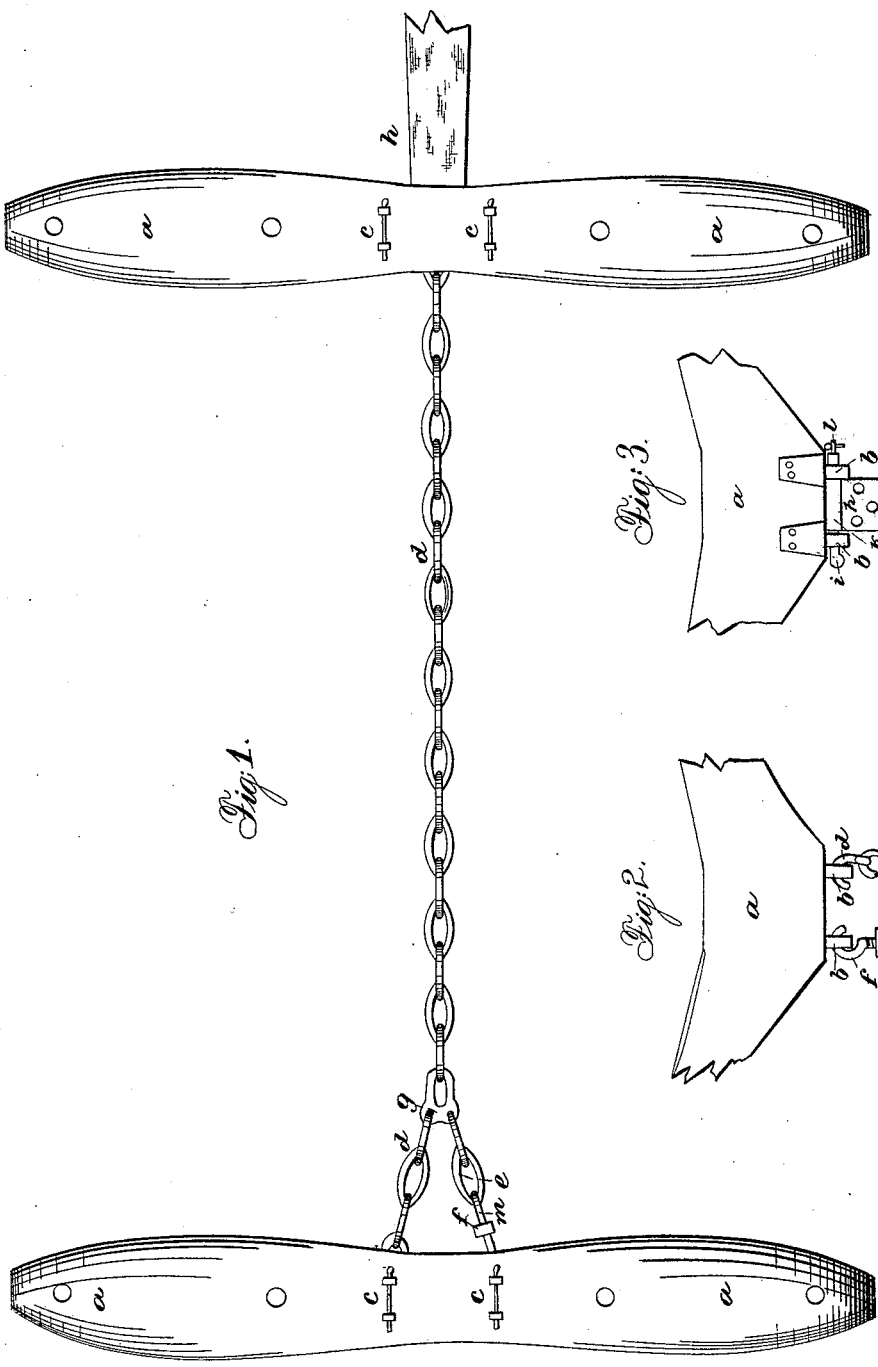

Fig. 1.

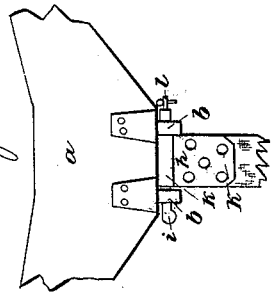

Fig. 3.

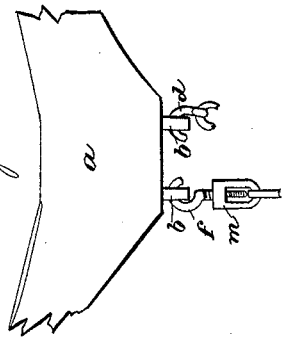

Fig. 2.

UNITED STATES PATENT OFFICE.

ANDREW L. SIMPSON, OF DURHAM, NEW HAMPSHIRE.

OX-YOKE.

Specification of Letters Patent No. 7,893, dated January 7, 1851.

To all whom it may concern:

Be it known that I, ANDREW L. SIMPSON, of Durham, in the county of Strafford and State of New Hampshire, have invented certain new and useful Improvements in Ox-Yokes, and the Arrangement of the Draft-Chains Used with the Same, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said invention, by which it may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a plan of two yokes, constructed on my improved plan, one connected to the tongue of a wagon, and the other to the draft chains arranged on my improved plan. Fig. 2 is a detail view of the center of the yoke showing its attachment to the chains, and Fig. 3 is a similar view showing its attachment to the tongue of the wagon.

The great object of my improvement, the device to secure which constitutes the distinguishing feature of my invention, consists in relieving the weaker ox, where there is a difference in the strength of the two, by having two staples some six inches apart, in lieu of one staple, to one of which staples the draft chain is fastened while to the other staple a branch chain, some sixteen inches long, is connected by a hook, its other end being connected to the main draft chain. The effect of this is, that when the stronger pulls more than the weaker one, he instantly straightens the main draft chain, and slackens the branch chain, so that the strength of the weaker ox then acts with a lever six inches longer than when both chains are tightly drawn. This is a great desideration.

aa—aa in the several figures represents the beam of the yoke, having the two staples *b*, *b* secured therein at a proper distance, six inches more or less, apart and fastened by the bolts *c*, *c*, *c*, *c*, passing through proper holes formed in the upper ends of the staples as shown in Fig. 1 or in any other suitable way. This arrangement, it should be observed, strengthens the beam by making the holes through which the staples pass nearer the bows, than it would be if the staple passed through the center. To one of the staples *b* the main draft chain *dd* is attached, while a branch chain *ee* having an adjustable hook *f* is fastened to one eye of the triple eyed link *g* of the main draft chain. The hook *f* is formed with a screw which works in the socket link *m* of the branch chain *ee* so as to adjust the length of said chain in order to make the oxen draw equally, when they both pull alike.

It will readily be seen, that when either ox pulls stronger than the other, one side of the triangle formed by the branch chain and main draft chain, immediately becomes loose, the stronger ox straightening the chain on his side, while the other or weaker draws with a lever increased by the distance between the two staples.

When the yoke is connected to the tongue of a wagon, the two staples *b b* fit on each side of the tongue *h h*, and a bolt *i* passes through a wide iron clasp formed by the metallic strap *k k* bent around the end of the tongue. The bolt *i* should be fastened in its place by the key *l*, and the operation of the arrangement of the two staples in the beam, will by the play of the bolt *i*, be just the same as with the chains, changing the line of draft from one to the other staple, as either ox pulls stronger than the other, and always giving the weaker ox the advantage of a longer lever to work with.

Having thus described my improvements I shall state my claim as follows:—

What I claim as my invention and desire to have secured to me by Letters Patent, is—

Arranging in the beam of the yoke, two draft staples, some six inches apart, in lieu of one at the center, and the combination or use therewith, of a branch chain of proper length, connected to the main draft chain at a proper distance from the beam and the adjustable hook for modifying the length of the branch chain, as hereinabove specified and for the purpose set forth.

ANDREW L. SIMPSON.

Witnesses:

J. A. RICHARDSON,

GEORGE FROST.