(No Model.)

J. S. MILTON & M. PRESSNALL.

OX YOKE.

No. 439,760. Patented Nov. 4, 1890.

Fig. 1.

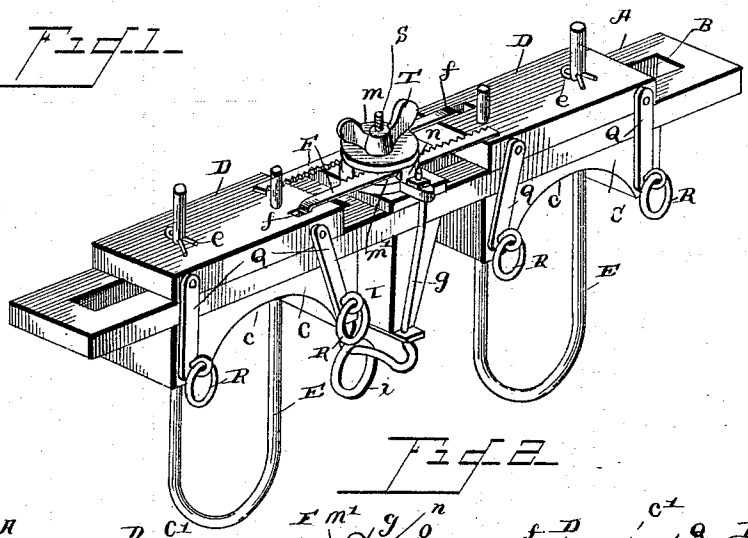


Fig. 2.

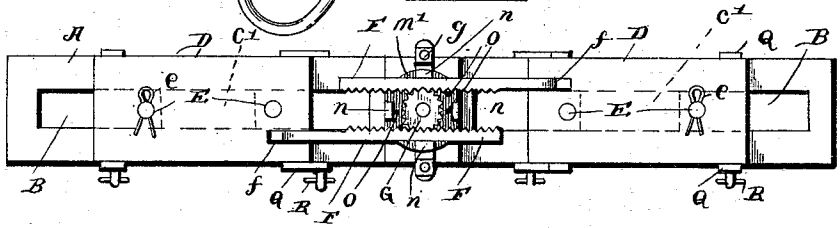


Fig. 3.

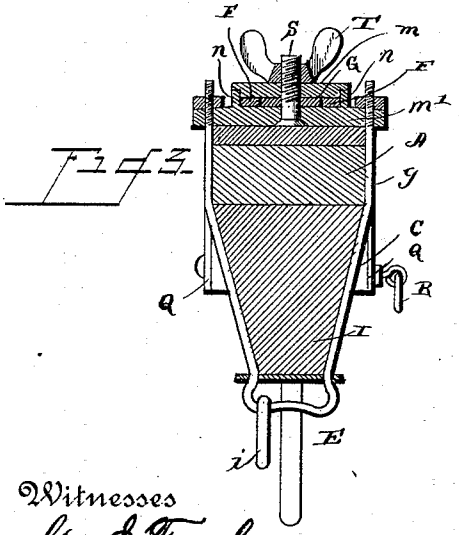
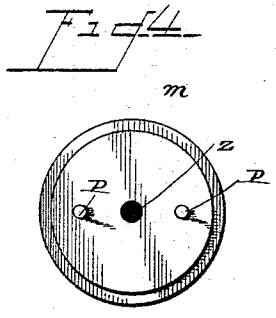


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH S. MILTON AND MELVIN PRESSNALL, OF DETROIT, MINNESOTA.

OX-YOKE.

SPECIFICATION forming part of Letters Patent No. 439,760, dated November 4, 1890.

Application filed April 3, 1890. Serial No. 346,450. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH S. MILTON and MELVIN PRESSNALL, citizens of the United States, residing at Detroit, in the county of Becker and State of Minnesota, have invented a new and useful Ox-Yoke, of which the following is a specification.

This invention relates to ox-yokes, more particularly of that class in which the two bows move oppositely and simultaneously upon the main bar by means of interposed mechanism; and the object of the invention is to improve the mechanical structure of devices of this character and provide means for positively locking the bows at any desired point of adjustment.

This object we accomplish by the hereinafter-described neck-yoke, the novel features of which consist, essentially, in a two-part frame, the lower part carrying a central threaded stud and provided with a number of holes and the upper part having a central opening passing over said stud and also having pins engaging a pair of said holes, whereby said upper part may be turned so that said pins will engage the teeth of the rack-bars, and a thumb-nut screwed onto said stud above the upper part and holding the parts in place.

The invention also consists in certain details and auxiliaries of construction, all as hereinafter more fully described, and as are illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a top view, one of the plates being removed therefrom to better show the construction. Fig. 3 is a vertical sectional view. Fig. 4 is a bottom plan of the upper plate.

The letter A designates the main bar of this neck-yoke, the same having vertical slots B near each end, and within these slots are blocks *c'*, which are shorter than said slots, in order to allow them to slide therein. To the upper sides of the blocks *c'* are secured the plates D and to their lower sides the neck-pieces C, the latter having recesses *c* adapted to fit the back of the neck of the animal when in place.

The letter E designates the bows, which pass through aligned perforations in the neck-pieces, the blocks, and the plates at each side of the recesses *c*, and are secured in place by pins *e* through their upper ends, which lie against the upper face of the plates D.

F are toothed or rack bars secured at their outer ends to the inner ends of the plates D at opposite sides of the opposite plates and engaging a pinion G, which is carried over the center of the main bar A. By this arrangement when one bow is moved inwardly or outwardly upon the main bar the other bow has a corresponding movement. The pinion is mounted in a metallic frame that is secured to the center of the bar A by a long clip *g*, the latter also embracing a block I below the center of the bar, and at the lower end of the clip is provided a ring *i*, adapted to receive the tongue of the vehicle. Said frame consists of upper and lower plates *m m'*, the latter carrying integral blocks *n* for holding the plates apart and for guiding the rack-bars F and holding them in engagement with the pinion G, all as is common and well known in this class of devices.

Coming now to the present invention, the lower plate *m'* has a threaded stud S, which rises from its center between the two side blocks *n*, and in the face of said plate concentric with said stud are arranged four holes O, two of them being at the sides of said stud in alignment with the center of the main bar A, and the other two being located at such points therein that they will stand beneath the openings between the teeth in the rack-bars F, as shown in Fig. 2. The rack-bars are pivoted, as at *f*, to the plates D, whereby they can be raised to disengage the pinion G when it is desired to set one bow differently from the other, as is sometimes necessary with oxen of different strengths. The upper plate *m* is of the form shown in Fig. 4—that is to say, it has a central opening Z, adapted to loosely fit upon the stud S, and two depending pins P, adapted to engage the holes O in the lower plate. A thumb-nut T is provided, which is screwed onto the upper end of the stud S to retain the plates in position and prevent the dislodgment of the rack-bars F when the device is in use; but this thumb-nut may be replaced by an ordinary nut, if preferred. The plates I are connected with the neck-pieces C by side strips Q of metal, which stand at an angle with the members, as shown, and these strips prevent the plates and neck-pieces

binding in the slots B B in the bar A. The pins by which the lower ends of the strips Q are connected to the neck-pieces are provided with rings R, to which traces may be connected or which may be useful for connecting other parts of the harness in case it is necessary to use one.

By the use of the hereinbefore-described device the oxen will be kept at an equal distance from the pole, so that they will draw equally and will not swing the pole or cart from side to side. After the bows E have been adjusted to the proper position they may be locked by loosening the nut T, raising the upper plate *m*, and turning it so that the pins thereon will engage between two of the teeth on each rack-bar and be seated in the outer of the holes O, as will be understood; but by seating these pins in the inner two holes the bows E will be permitted to move in and out upon the bar A with the movements of the oxen's heads and necks.

We claim as the salient points of this invention—

1. In a neck-yoke, the combination, with a slotted bar, plates and neck-pieces sliding thereon, neck-bows carried thereby, and rack-bars mounted on horizontal pivots in the inner ends of said plates and extending inwardly, of a central plate, a pinion journaled on a stud carried by said plate, with which pinion said rack-bars engage, and a removable top plate seated upon said stud above said rack-bars, all substantially as described.

2. In a neck-yoke, the combination, with a slotted bar, plates and neck-pieces sliding thereon, neck-bows carried thereby, and rack-bars pivoted in said plates, of a frame mounted at the center of said bar, the lower plate thereof having holes in its upper face diamentrically arranged around its center, two in the central line of the bar and two beneath the teeth of said rack-bars, a threaded stud rising from the center of said lower plate, and blocks at its periphery against which said rack-bars bear at their rear edges and the upper plate thereof having a central opening loosely embracing said stud, and depending pins adapted to enter an opposite pair of said holes, and a nut above said upper plate upon said stud, the whole adapted for use as and for the purpose hereinbefore set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOSEPH S. MILTON.
MELVIN PRESSNALL.

Witnesses:
HANS HANSON,
J. T. BESTICK.