(No Model.) 2 Sheets—Sheet 1.

H. BURNS

OX YOKE.

No. 313,052. Patented Mar. 3, 1885.

Fig. 1.

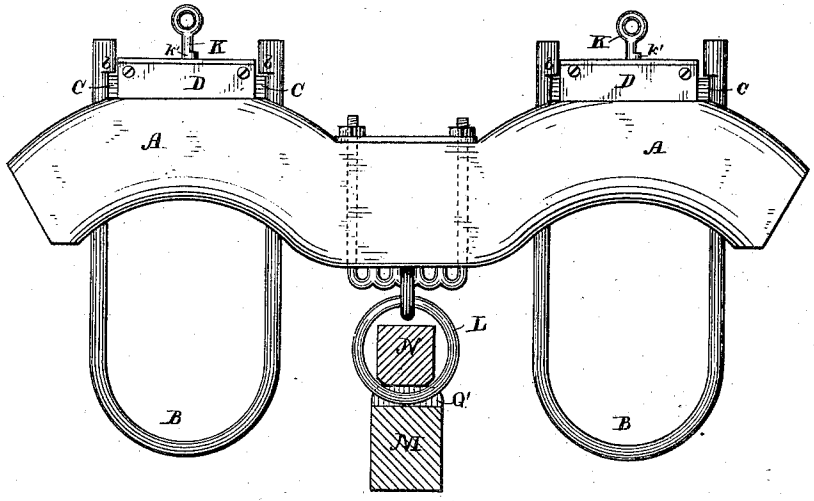
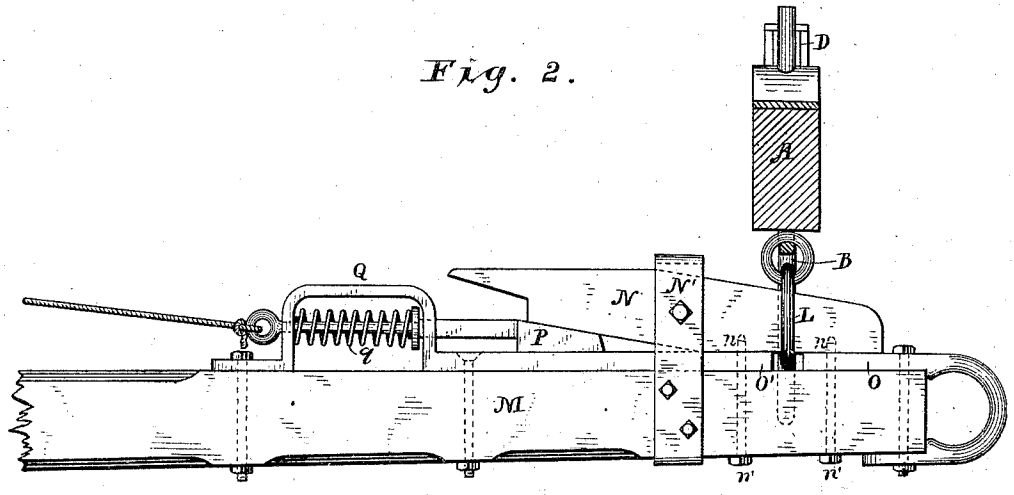


Fig. 2.



WITNESSES

Ed. A. Newman.

A. C. Newman.

INVENTOR

Hay Burns

By his Attorneys

Baldwin, Hopkins & Peyton.

(No Model.) 2 Sheets—Sheet 2.

H. BURNS.

OX YOKE.

No. 313,052. Patented Mar. 3, 1885.

Fig. 3.

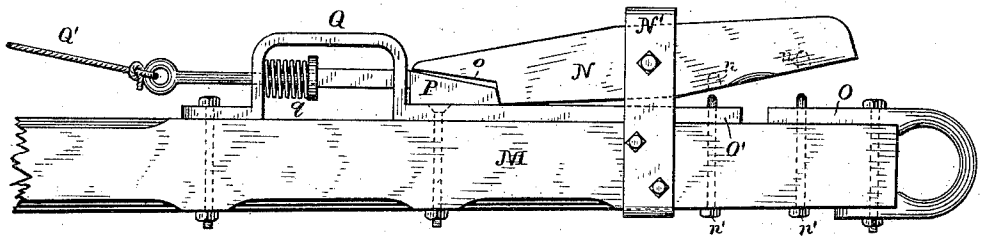


Fig. 4.

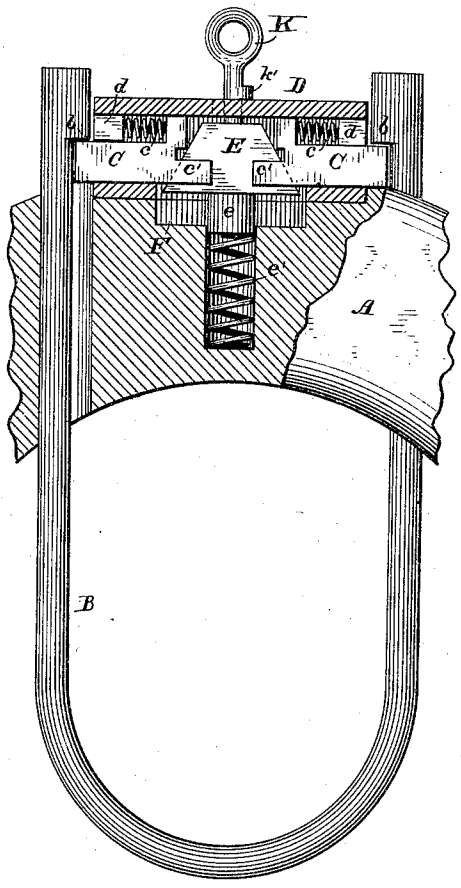


Fig. 5.

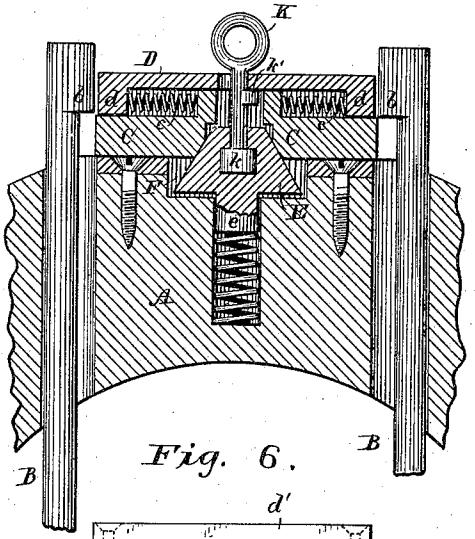


Fig. 6.

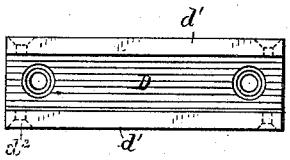
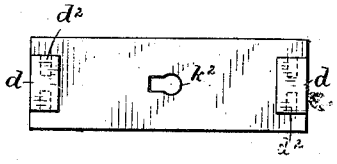


Fig. 7.



WITNESSES

Ed. A. Newman,

A. C. Newman.

INVENTOR

Harp Burns,

By his Attorneys

Baldwin, Hopkins & Peyton

UNITED STATES PATENT OFFICE.

HAYS BURNS, OF DOUBLE SPRINGS, ALABAMA.

OX-YOKE.

SPECIFICATION forming part of Letters Patent No. 313,052, dated March 3, 1885.

Application filed October 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, HAYS BURNS, of Double Springs, Winston county, Alabama, have invented certain new and useful Improvements in Ox-Yokes, of which the following is a specification.

The first part of my invention relates to means for connecting the bows with the yoke-bar; and the second part of my invention relates to means for connecting and disconnecting the yoke and the vehicle-tongue.

In the accompanying drawings, Figure 1 is a front view showing the yoke connected with the tongue; Fig. 2, a side view of the end of the tongue showing the devices for connecting and disconnecting the yoke, and also showing the yoke partly in section. Fig. 3 is a similar view of the connecting and disconnecting devices. Fig. 4 is a sectional view through a part of the yoke, showing the bows locked in place by their securing-bolts. Fig. 5 is a similar view showing the securing-bolts withdrawn, so that the bow may be separated from the yoke frame or bar; and Figs. 6 and 7 are detail views showing the housing or boxing in which the bolts are carried.

The ends of the bow B are passed up vertically through the yoke-bar A in the ordinary way, and are provided on their inner faces with locking-shoulders *b*. Bolts C, carried in a boxing or housing, D, mounted on the upper face of the yoke-bar A, between the ends *b b* of the bow, are caused to project from the housing to engage with the shoulder *b* of the bow and securely hold it in place, as shown in Fig. 4. The bolts are normally thrust outwardly by a block, E, having inclined ends, which work against the inner ends of the bolts, as will be described. Coiled springs *c*, which are connected with shoulders *d* on the under side of the top plate of the housing D, and with upright lugs or projections on the inner ends of the bolts, tend normally to retract the bolts into the position indicated in Fig. 5. The housing D is formed, as clearly shown in Figs. 6 and 7, of an upper and lower plate, between which the bolts C slide. The lugs or projections *d* on the under face of the top plate are embraced by longitudinal vertical flanges *d'* on the bottom plate. The top and bottom plates are secured together by screws, which pass through apertures in the flanges *d'* into the lugs *d*, as clearly indicated in Figs. 6 and 7. The bolts C, as will be plain from Figs. 4 and 5, slide between the bottom plate and the lugs *d*. The inner ends of the bolts C are preferably extended at *c'* beyond the vertical lugs with which the springs *c* are connected, and said extensions are bifurcated, so as to embrace a flat-sided block, E, having inclined ends, which slope from the base of the block inwardly. A socket, F, is formed in the yoke-bar A for the reception of the block E when pushed down into the position indicated in Fig. 5. A post or projection, *e*, on the under side of the block E projects into a well or socket formed in the bar A, in which well a coiled spring, *e'*, is placed, which tends normally to elevate the block, as clearly shown in Fig. 4. When the block is elevated, as in Fig. 4, its inclined ends acting on the bolts C press them out into engagement with the shoulders *b* on the bow, so that the bow is firmly locked in place in the yoke. When the block E is thrust downwardly, however, its inclined ends permit the bolts C to be pressed inwardly by the coiled springs *c*, so that the bow may be readily detached from the yoke-bar.

To raise and lower the block E to lock or unlock the bow, I preferably employ a key, K, having an enlarged end, *k*, which is swiveled in the block E, as shown in Fig. 5. A lateral projection, *k'*, on the side of the key K passes through the aperature k^2 in the top plate when the key is thrust down to depress the block, and when turned as shown in Fig. 5 securely holds the block in its depressed position.

When it is desired to lock the bow on the yoke, it is only necessary to rotate the key until the projection *k'* registers with the aperture k^2, when the spring *c'* will elevate the block. This device is one of considerable simplicity, not at all liable to get out of order, and affords a ready means for yoking and unyoking the oxen.

The yoke is provided with a coupling-ring, L, between the bows, as usual, and this yoke is connected and disconnected with the vehicle-tongue M in the following manner: A latch, N, is pivoted in a strap, N', bolted to the tongue, as clearly shown in Figs. 2 and 3.

The under face of this latch in front of its pivot is provided with a couple of apertures or sockets, *n*, for the reception of the ends of the bolts *n'* when that end of the latch is thrown down, as clearly illustrated in Fig. 2. The bolts *n' n'* are shown as serving to bolt the plates O O' to the upper face of the pole. The ends of the plates O O' are placed sufficiently far apart to form a socket for the reception of the coupling-ring L, as clearly shown in Figs. 1 and 2. When the coupling-ring L is slipped over the latch N and placed in said socket, as clearly indicated in Fig. 2, the depression of the forward end of the latch will hold it securely. The rear end of the latch N is cut away at *o*, so as to form a socket for the reception of a wedge-shaped sliding locking-bar, P. This bar slides in bearings in a bracket, Q, on the upper face of the tongue, and is normally thrust forward by a coiled spring, *q*, as clearly shown in the drawings.

With the parts in the position shown in Fig. 3—that is, with the locking-bolt retracted and the rear end of the pivoted latch M pressed down upon it—the pressure of the end of the locking-bolt upon the shoulder on the pivoted latch N will hold it in the position shown in that figure. If in coupling the yoke to the tongue the ring L now be slipped over the forward end of the latch N into proper position, and the forward end of the latch N depressed into the position shown in Fig. 2, the wedge-shaped locking-bolt P will be forced forward under the rear end of the latch N, as clearly shown in Fig. 2, and securely lock the ring L to the pole. It is obvious, now, that by withdrawing the locking-bolt P the strain of the yoke will elevate the front end of the latch N and disconnect the yoke and tongue. This may be done from the vehicle by means of a rope, Q', so that the driver from his seat on the wagon can unhitch the oxen when desired.

This construction affords a secure coupling between the yoke and tongue, and a very simple and efficient means of disconnecting them at the will of the driver.

I claim as my invention—

1. The combination of the yoke-bar, the bow having the shouldered ends, sliding locking-bolts, and the wedge-block.

2. The combination of the yoke-bar, the bow having shouldered ends, the sliding locking-bolts, the wedge-block, and the springs which act on the bolts.

3. The combination of the yoke-bar, the bow having the shouldered ends, the sliding locking-bolts, the springs which act thereon, the wedge-block, the spring which acts on the wedge-block, and the key swiveled in the block.

4. The combination of the yoke, the vehicle-pole, the pivoted securing-latch, and the bolt which locks the latch.

5. The combination of the pole, the pivoted latch M, and the wedge-shaped locking-bolt P.

6. The combination of the pole, the pivoted latch M, the wedge-shaped locking-bolt P, the bracket in which it is mounted, and the coil-spring which normally thrusts it forward.

7. The combination of the pole, the pivoted latch M, the locking-bolt P, and a rope for operating said bolt from the vehicle.

In testimony whereof I have hereunto subscribed my name.

HAYS BURNS.

Witnesses:

DAVID CARROLL,

A. HARLIND.