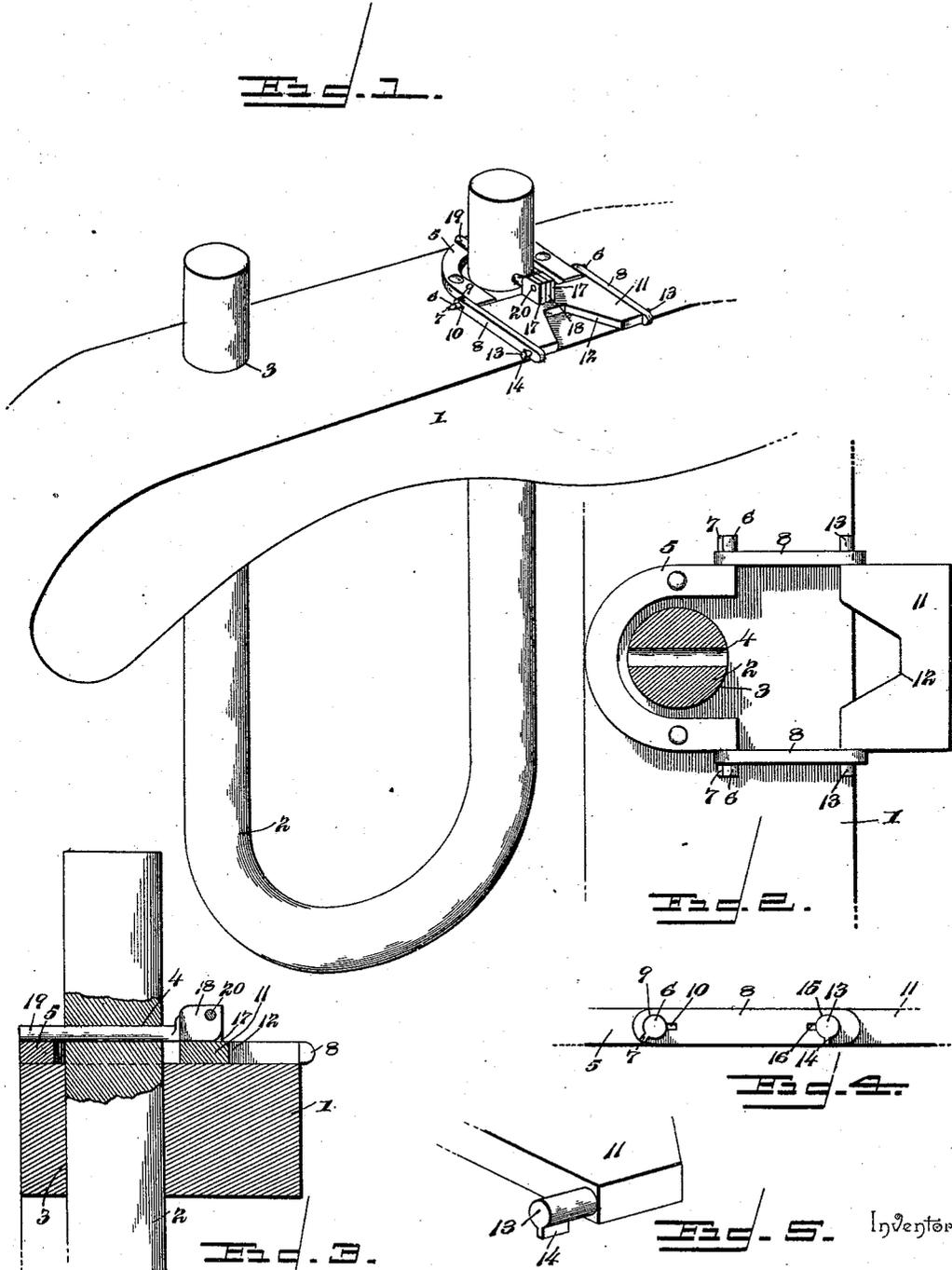


(No Model.)

B. W. JOHNSON.  
OX YOKE KEY.

No. 536,212.

Patented Mar. 26, 1895.



Witnesses

*C. H. Stewart*

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# UNITED STATES PATENT OFFICE.

BENJAMIN W. JOHNSON, OF BUNA, TEXAS.

## OX-YOKE KEY.

SPECIFICATION forming part of Letters Patent No. 536,212, dated March 26, 1895.

Application filed November 22, 1894. Serial No. 529,642. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN W. JOHNSON, a citizen of the United States, residing at Buna, in the county of Jasper and State of Texas, have invented a new and useful Ox-Yoke Key, of which the following is a specification.

This invention relates to an improvement in that class of yoke keys which are adapted for holding the bows of ox yokes in place; and it consists of certain hereinafter described improvements whereby it is possible to secure the key to the yoke in a way which will make it capable of easy movement thereon in the operation of passing it in and out of engagement with the bow of the yoke. This end I attain by providing a swinging plate capable of moving so that either side may be placed upwardly, and having pivoted to one side the key. By this arrangement the plate may be swung so as to move the key away from the bow, and so as to move it toward the same; and in this operation of advancing and retracting the key, the plate swings in the manner described abode. The plate is connected to the yoke by means of two links, which are pivotally connected to the plate, and which, in turn, are pivotally connected to an arch-shaped and supplemental plate. This plate is rigidly fixed to the yoke so as to partially embrace the upper end of the bow; while the swinging plate is arranged on the opposite side thereof.

In the drawings the details of my invention are fully illustrated, and therein—

Figure 1 represents a perspective view of a portion of a yoke and bow, showing my improvements applied, the key being shown in positive connection with the bow; Fig. 2 a plan view of the device, the key being shown disconnected from the bow, and the bow in section, so as to facilitate the illustration of the invention; Fig. 3, a vertical section of a portion of an ox bow and yoke having my improvements applied thereto, and showing the same in operative adjustment; Fig. 4, an enlarged side elevation, illustrating the construction of the links and adjacent parts, whereby they are pivotally connected to the swinging and supplemental plates; Fig. 5, a

detail perspective of a portion of the swinging plate, showing the stud thereon.

The reference numeral 1 indicates the yoke and 2 the bow, both of which may be of the usual construction, and the bow 2 has its arms passed through the respective openings 3 in the yoke. One arm of the bow is formed with a transverse passage 4 through which the securing key is passed. Rigidly secured, by bolting or riveting, to the yoke 1, and adjacent to one of the arms of the bow, is the supplemental plate 5.

The plate 5 is formed of cast metal, and is arranged so as to partially embrace the end of the bow with which it is associated. Formed integral with, or rigidly secured to, each end of the plate 5, and at the outer sides thereof, are the transverse studs 6, which are one for each end and which are formed at their outer portions with the feathers or spiles 7. These feathers are disposed diagonally and rearwardly, and are located at the outer portions of the studs, so as to leave the inner halves thereof with a smooth and regular surface.

8 indicates the links hereinbefore referred to, and these are two in number and have their inner ends provided with openings 9, in which the studs 6 are received, and whereby the links are mounted upon the plate 5, so as to be capable of swinging thereon. The openings 9 each have an offset portion or extension 10, which are provided to permit the passage of the feathers or spiles 7 of the studs 6; and these offset portions are extended longitudinally with the links, so that they may register when the links are being placed upon the studs 6, and so that they may be placed out of alignment after such operation.

11 indicates a swinging plate, which is rectangular in shape and which is formed with a notch 12 at one side thereof. The purpose of this notch is to receive the adjacent end of the bow 2 as the plate swings in its operation, and to reduce the weight of the plate 11.

Formed integral with the ends of the plate 11, and directly adjacent to one side thereof, are the studs 13, which are two in number and which are each provided with the downwardly-projecting spile or feather 14. The

studs 13 and feathers 14 co-operate with openings 15 and offsets 16 in the links 8; and it is by these means that the plate 11 is mounted so as to be capable of swinging freely on the supplemental plate 5.

Formed integral with that side of the plate 11 which will be upward when the plate is moved as far toward the supplemental plate 5 as possible, are the lugs 17, which are two in number and duplicates of each other, and are oppositely arranged. Between these lugs the flattened portion 18 of the key 19 is arranged and pivoted therein by means of a pin 20.

In the use of my invention the parts are arranged as shown in the drawings, and supposing that it is desired to lock the bow 2 on the yoke, the key 19 should first be inserted into the opening 4, which may be done by swinging the plate 11 so as to place the side having the lugs 17 directly adjacent to the ends of the supplemental plate 5, thus causing the key 19 to be reciprocated toward the bow and through the opening. When in place, the key 19 will extend above the supplemental plate 5. The parts are disconnected by swinging the plate 11 to a vertical position, and then by causing it to move outwardly at its lower end, thus moving lugs 17 away from the bow, and supplemental plate 5, which will cause the key to move in a similar direction, and result in its disconnection from the bow. Fig. 3 being a vertical section of the end of the bow, and the adjacent portions of the yoke, shows how this operation may be performed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, I claim—

1. The combination with a yoke and bow, of a plate rigidly secured to the yoke and at one side of one end of the bow, a swinging plate

connected to the rigid plate so as to be capable of swinging thereon and located at the opposite sides of the bow, and a key pivoted to the swinging plate and capable of being moved in and out of an opening in the bow, substantially as described.

2. The combination with a yoke and bow, of a plate secured to one side of the bow and on the yoke, links pivotally connected to each end of the plate and arranged one on each side of the bow, a swinging plate pivotally connected to the remaining ends of the links and on the opposite sides of the bow, and a key pivoted to the swinging plate and capable of being moved in and out of an opening in the bow, substantially as described.

3. The combination with a yoke and bow, of a supplemental plate arc-shaped in form and rigidly secured to the yoke at one side of one end of the bow and so as to partially embrace the same, links pivotally connected to each end of the supplemental plate, a swinging plate pivotally connected to the remaining ends of the links and on the opposite sides of the bow, said plate having at one side a pair of duplicate lugs, and a key formed with a flattened portion, which portion is fitted between said lugs and pivoted therein, the key being capable of being moved in and out of an opening in the bow, substantially as described.

4. The combination with a yoke and bow, of a swinging plate mounted on the yoke, and a pivoted key carried by the swinging plate and arranged adjacent to the bow, whereby it is adapted to be moved into and out of an opening in the bow, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN W. JOHNSON.

Witnesses:

T. A. STONE,  
C. E. KELLIE.