

No. 667,000.

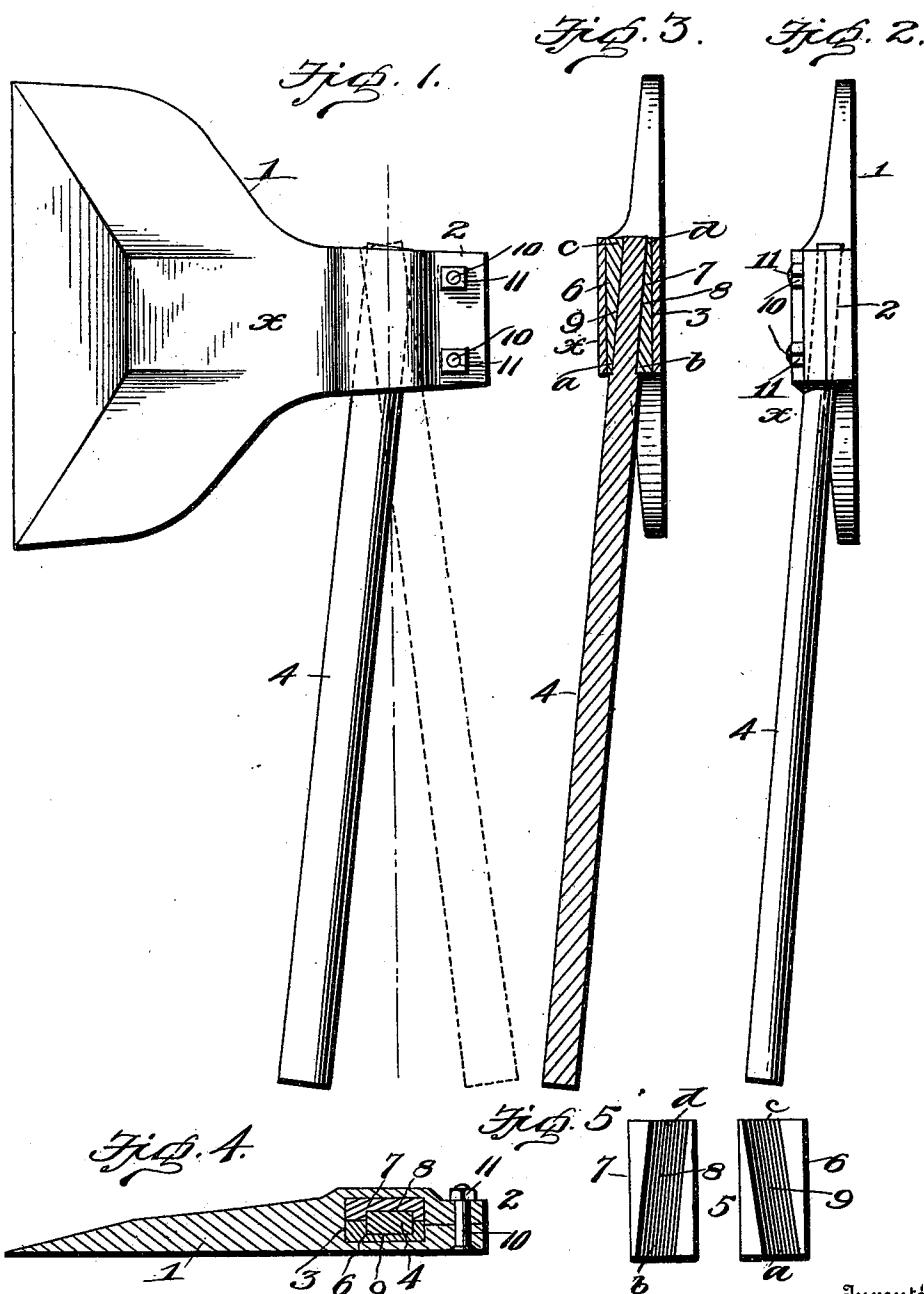
Patented Jan. 29, 1901.

J. BRIDGES.

BROADAX.

(Application filed Nov. 28, 1900.)

(No Model.)



John Bridges,  
Inventor

Witnesses

*C. Hunt.  
J. Dawson*

By *A. B. Williamson & Co.*

Attorneys

# UNITED STATES PATENT OFFICE.

JOHN BRIDGES, OF IMBODEN, ARKANSAS, ASSIGNOR OF ONE-HALF TO  
JAMES C. SHAVER, OF SAME PLACE.

## BROADAX.

SPECIFICATION forming part of Letters Patent No. 667,000, dated January 29, 1901.

Application filed November 23, 1900. Serial No. 37,453. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BRIDGES, a citizen of the United States, residing at Imboden, in the county of Lawrence and State of Arkansas, have invented certain new and useful Improvements in Broadaxes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to broadaxes.

One object of the invention is to provide a broadax with means for attaching an ordinary straight handle in such a way that the usual crooked handle will not be necessary, thereby enabling the handles when they become damaged or broken to be readily replaced, thus obviating the difficulty heretofore experienced in selecting a handle with the proper curvature or crook.

A further object is to provide means which will enable the handle to be adjusted to the ax from a point at one side of a vertical line drawn through the eye thereof to a point on the opposite side of said eye.

A still further object is to provide simple and effective means for clamping the handle in place.

With these and other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is an elevation of my improved ax, showing in full lines the handle adjusted to a point in advance of a line drawn vertically through the eye of the ax and in dotted lines showing the position of the ax when adjusted to a point at the rear of said line. Fig. 2 is an end view. Fig. 3 is a horizontal sectional view through the ax and the handle. Fig. 4 is a view at right angles to Fig. 3; and Fig. 5 is a plan view of the two parts of the key, showing them separated.

Referring to the drawings, 1 denotes a broadax, 2 its pole, and 3 its eye, which latter is preferably polygonal in cross-section.

4 denotes an ordinary straight ax-handle, and 5 denotes the key, consisting of two counterpart superposed members 6 and 7, the in-

ner faces of which are provided with diagonally-disposed grooves 8 and 9. The base-walls of these grooves incline in opposite directions, as shown. When placed together with the grooves facing, these members fit snugly within the eye of the ax and may be secured in place in any suitable manner. One way is shown in the accompanying drawings and consists in splitting the rear wall of the ax-eye and clamping the split member together by bolts and nuts 10 and 11.

The members of the key are placed together with the ends *a c* of the section 9 registering with the ends *b d* of the section 8, and with the handle placed between the sections they are inserted into the eye of the ax and, as before stated, may be secured in place in any desired manner. In this position it will be noticed that the lower end of the handle leans laterally toward the side *x* of the ax, so that in use the knuckles of the operator will not be grazed against the timber when hewing. It will also be noticed that the handle inclines forward of the vertical line drawn centrally through the eye. If it be desired to incline the handle in an opposite direction, the key and handle are withdrawn, the key turned over to reverse the position of the sections, and then turned to reverse the position of the ends, and then inserted in the eye, as before described.

By the use of my invention the necessity for the employment of a crooked handle is entirely obviated, and yet all the advantages of a crooked handle are secured. When it is desired to replace a handle in a broadax, it is oftentimes very difficult to find a handle possessing the proper crook or curvature, and unless a stock of handles of the desired shape are available the workmen must discontinue their work until they can find the proper-shaped handle. By my invention an ordinary straight stick may be readily engaged with the ax and will be held in the same position with respect to the ax as would a crooked handle, thus making it wholly unnecessary to carry a stock of peculiarly-shaped handles on hand.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages

of my invention will be readily understood without requiring an extended explanation.

The device is exceedingly useful for the purpose for which it is designed and may be 5 placed upon the market at a comparatively small cost.

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 10 this invention.

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

15 1. The combination with an ax and a handle, of a key consisting of two members adapted to embrace the handle, said key being composed of two counterpart sections provided with tapering grooves into which the 20 handle fits, substantially as set forth.

2. The combination with an ax and a handle, of a key consisting of two members adapted to embrace the handle, said key being composed of two counterpart sections provided with tapering diagonal grooves into 25

which the handle fits, substantially as set forth.

3. The combination with an ax and a handle, of a key consisting of two members adapted to embrace the handle, said key being 30 composed of two counterpart sections provided with diagonal grooves into which the handle fits, substantially as set forth.

4. The combination with an ax provided with a polygonal eye, the rear wall of which 35 is split vertically and longitudinally, and means for drawing the split ends together, of a handle, and a key consisting of two members adapted to embrace the handle, said key being composed of two counterpart sections 40 provided with tapering grooves into which the handle fits, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN BRIDGES.

Witnesses:

W. A. PORTER,  
A. B. KINDER.