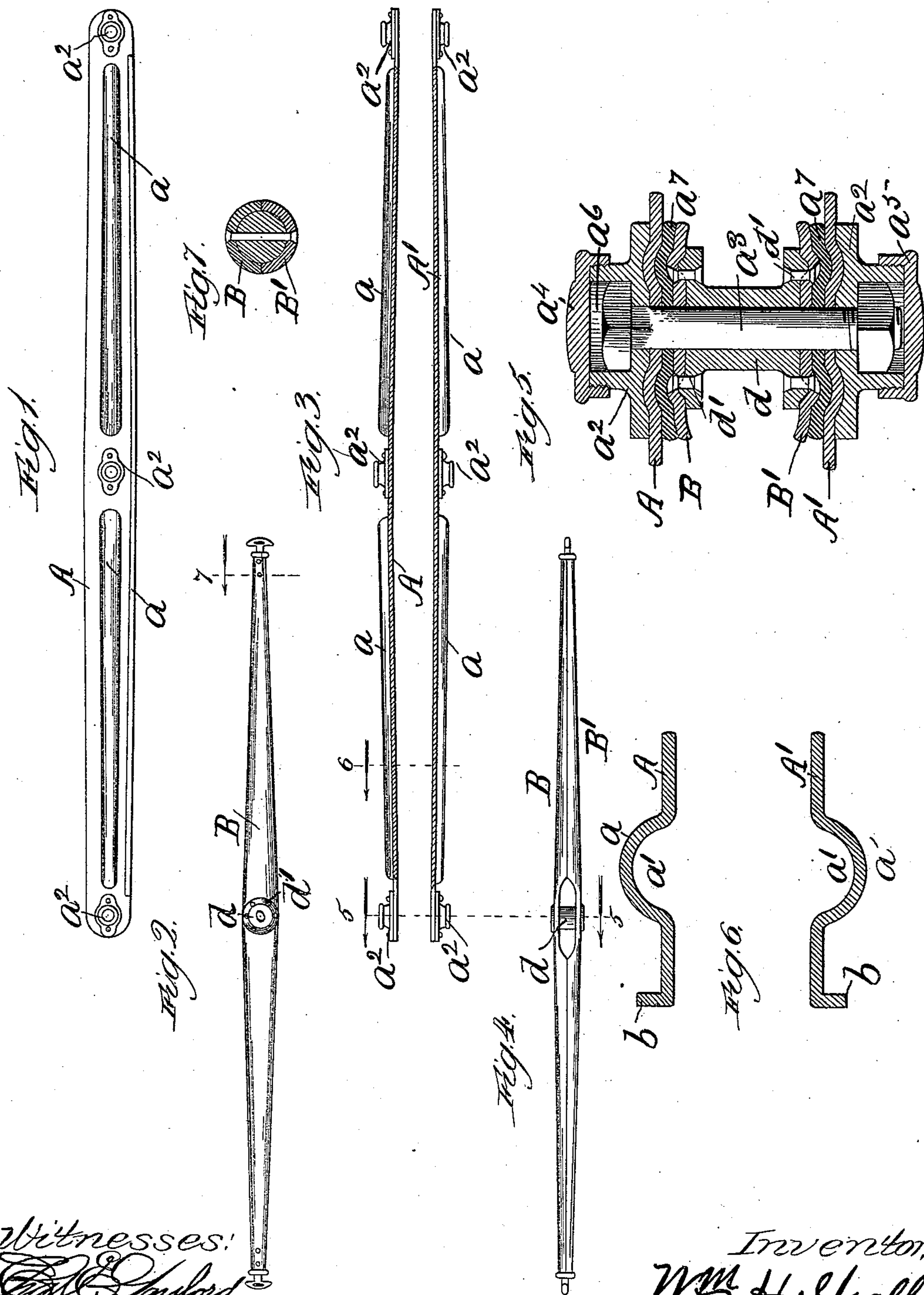


(No Model.)

W. H. SHOLL.
WHIFFLETREE.

No. 446,156.

Patented Feb. 10, 1891.



Witnesses:
L. M. Freeman

Inventor:
Wm. H. Sholl.
By *L. B. Coupland & Co.*
Attys

UNITED STATES PATENT OFFICE.

WILLIAM H. SHOLL, OF HOBART, INDIANA.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 446,156, dated February 10, 1891.

Application filed October 24, 1890. Serial No. 369,236. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SHOLL, a citizen of the United States, residing at Hobart, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in a Combined Doubletree and Singletree, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in a combined doubletree and singletree, and has for its object to provide a structure of this character which is light, strong, and durable, as will be hereinafter set forth.

Figure 1 is a plan of a doubletree embodying my improved features; Fig. 2, a plan of the singletree; Fig. 3, a side elevation of the doubletree, the two parts comprising the structure being separated; Fig. 4, a side elevation of the singletree; Fig. 5, an enlarged vertical section in line 5, Figs. 3 and 4; Fig. 6, a transverse section in plane 6, Fig. 3; and Fig. 7, an enlarged transverse section in plane 7, Fig. 2.

Referring to the drawings, A A' represent the upper and lower members, respectively, comprising the doubletree. These two members or parts are of equal proportions, and are stamped or otherwise formed out of sheet metal, steel being preferred; but any other metal suitable for the purpose may be used.

The doubletree members are provided on their top and bottom exterior sides with the longitudinal swell or rib a , which produces corresponding depressions or hollows a' on the insides, (see Fig. 6,) combining lightness and strength. The tube-plates a^2 are rigidly secured to the respective outside ends and the longitudinal center of the two members, as shown in Figs. 1 and 3 and in the enlarged section, Fig. 5, combining the double and single tree and showing the connecting pivot-bolt a^3 , which secures the double and single trees in their proper relative position.

The doubletree being in two parts, the pole or tongue may be inserted between the two members, so that the position of the doubletree is always in the direct line of draft and prevents a downward pressure on the necks

of the horses. The removable caps a^4 a^5 are adapted to engage with the tubular part of the plates a^2 , and thereby exclude the dust and dirt from the bearings. By removing the upper cap a^4 the chamber a^6 may be filled with a lubricant and the bearing parts kept in a good working condition.

The strip of flexible packing a^7 is inserted between the adjacent surfaces of the doubletree and singletree to prevent rattling.

The front edges of the doubletree members are provided with the right-angled flanges b b , as shown in Figs. 1 and 6.

In Fig. 3 the flanges are cut away, as indicated by section-lines, so as to show the raised surface of the doubletree parts. The object of these guard-flanges is to prevent the horses from being cut or injured when they back up or come in contact with the doubletree.

The singletree consists of the two semicircular members or halves B B', which are also made from sheet metal and form a structure of a tubular character, which is both light and strong. The structure gradually tapers in the direction of both ends, so as to present the usual form.

The two members comprising the singletree are riveted together at the ends and in the center are connected by the flanged spool or tubular post d , inserted therebetween and secured in place by the series of rivets d' .

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

1. A doubletree consisting of two members formed from sheet metal and provided on their exterior surface with longitudinal swells or ribs, which produce corresponding depressions on the opposite sides, substantially as described.

2. A doubletree consisting of two members formed from sheet metal and having exterior swells or ribs and corresponding depressions or hollows on the opposite sides, and the tube-plates secured to the respective members, substantially as described.

3. In a combined doubletree and singletree, each consisting of two members formed from sheet metal, the tube-plates secured to the respective ends of the doubletree members, the flanged spool or post inserted between the

members comprising the singletree, and the connecting pivot-bolt, substantially as described.

4. The combination, with a doubletree and
5 singletree, each consisting of two members formed from sheet metal, of the pivot-connecting bolt and the strip of packing interposed between the adjacent surfaces of the double and single tree, substantially as described.

10 5. The combination, with a doubletree and singletree, each consisting of two members formed from sheet metal, of the tube-plates secured to the respective ends of the double-tree members, the flanged spool or post in-

serted between the members comprising the 15 singletree, the connecting pivot-bolt passing therethrough, and the caps engaging with the tube-plates and covering the ends of the pivot-bolt, substantially as described.

6. A tubular singletree consisting of two 20 members formed from sheet metal and riveted together at the ends, and the spool or post inserted between said members at their longitudinal center, substantially as described.

WILLIAM H. SHOLL,

Witnesses:

L. M. FREEMAN,

J. P. DONALSON.