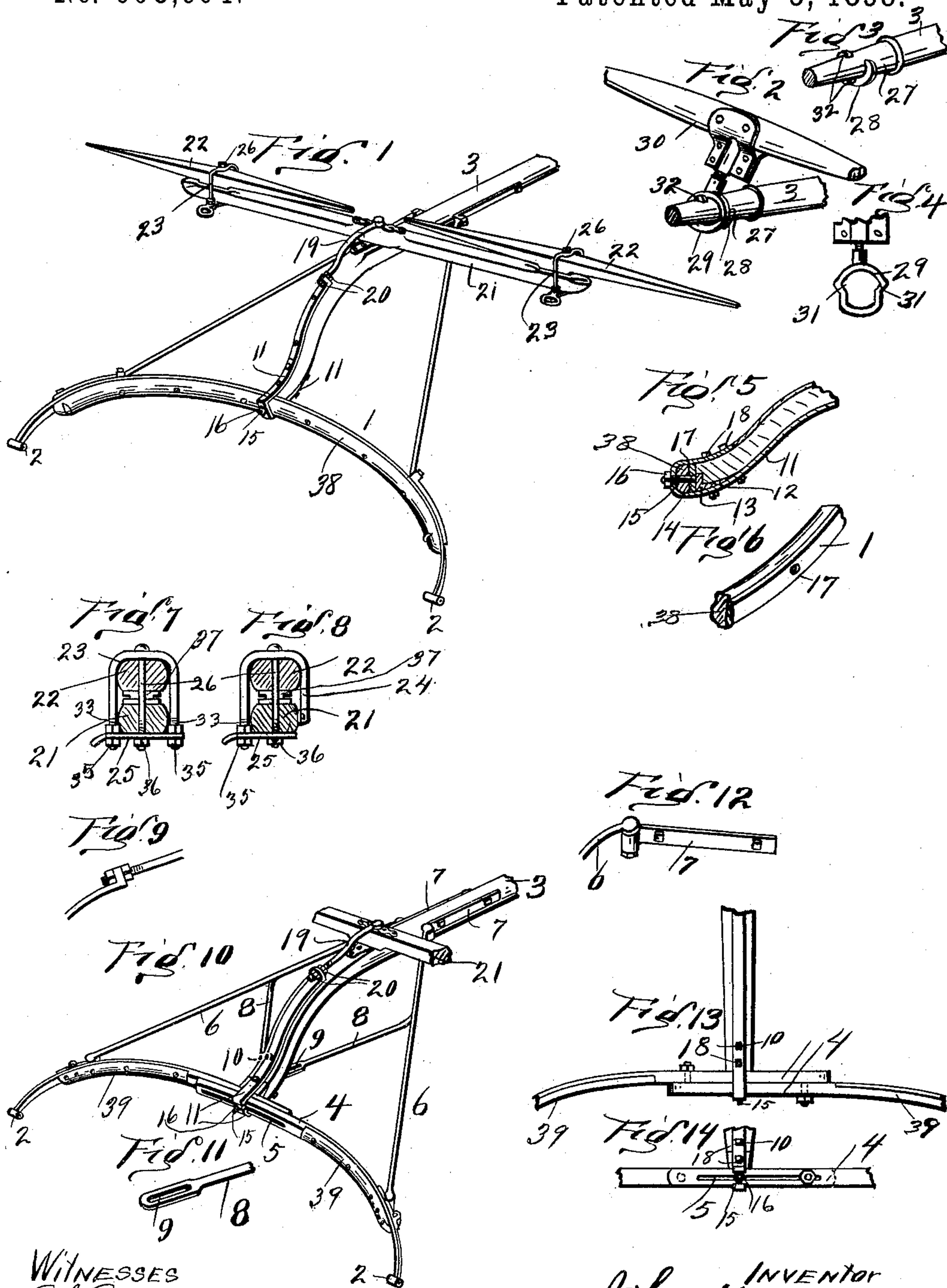


(No Model.)

J. HOWELL.
CARRIAGE TONGUE.

No. 603,604.

Patented May 3, 1898.



WITNESSES
C. J. Cross
B. M. Finch

INVENTOR
John Howell
By Fred W. Bond

ATTY.

UNITED STATES PATENT OFFICE.

JOHN HOWELL, OF CANTON, OHIO, ASSIGNOR OF ONE-THIRD TO URBAN E. ESSNER, OF SAME PLACE.

CARRIAGE-TONGUE.

SPECIFICATION forming part of Letters Patent No. 603,604, dated May 3, 1898.

Application filed December 6, 1897. Serial No. 660,840. (No model.)

To all whom it may concern:

Be it known that I, JOHN HOWELL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Carriage-Tongues; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a view showing the rear end of the carriage-tongue, showing whiffletrees and the doubletree properly connected thereto. Fig. 2 is a view of the front end of the tongue, showing the neck-yoke properly connected thereto. Fig. 3 is a view of the front end of the tongue, showing the neck-yoke removed. Fig. 4 is a view of the tongue-yoke clevis or connecting-link. Fig. 5 is a longitudinal section of the rear end of the tongue, showing manner of connecting the bow thereto. Fig. 6 is a view showing a portion of the bow. Fig. 7 is a transverse section of the doubletree and whiffletree, showing the same connected together by a clevis. Fig. 8 is a similar view showing modified form of the clevis. Fig. 9 is a view showing portion of the hammer-strap and its adjusting device. Fig. 10 is a view showing a portion of the tongue and its different braces, also showing an adjustable bow. Fig. 11 is a view showing the rear end of one of the inner braces. Fig. 12 is a view showing the front end of the outer braces and its connecting-bar. Fig. 13 is a detached view showing portion of the bow and tongue with braces removed. Fig. 14 is a view showing the sides of the bow and their slots.

The present invention has relation to carriage-tongues; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar numbers of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents a slotted bow provided with the ordinary eyes 2, which are for the purpose of connecting the bow and the tongue proper to the front or forward axle of the vehicle.

The tongue 3 is constructed in the ordinary manner and of the usual length, reference being had to my improved attachments belonging to and forming a part of the tongue. 55

In Figs. 10, 13, and 14 I have illustrated the bow formed in two sections or halves 4, each of which is provided with a slot 5, said slotted portions of the bow-sections being 60 lapped over each other, as illustrated in Figs. 10, 13, and 14. To the bow-sections 4 are pivotally attached the rear ends of the outer brace-rods 6, which outer brace-rods extend forward and are pivotally connected to the 65 bars 7, which bars are securely bolted or otherwise attached to the tongue 3. To the brace-rods 6 are securely attached the front or forward ends of the inner brace or stay rods 8, which stay-rods are provided with the 70 slotted ends 9, said slotted ends being lapped over each other, and when the bow-sections 4 are brought to the desired point of adjustment, as hereinafter described, the clamping-bolt 10 is securely tightened by its nut, so as 75 to firmly hold the stay-rods 8 in the desired or adjusted position, and when so clamped their rear ends will be held in a firm position. For the purpose of providing a firm and secure attachment of the tongue 3 to the bow 1 80 or to the bow-sections 4 the strap-iron 11 is provided, which strap-iron is located upon the bottom and upper sides of the tongue, as illustrated in Fig. 5, and, as shown in said figure, said strap-iron is bent around the bow 85 1 or the bow-sections 4, as the case may be, and is for the purpose of securely clamping said bow-sections or bow, as hereinafter described.

To the bottom or under member of the strap-iron 11 is securely attached or formed integral therewith the bar 12, which bar is provided with the angled portion 13, which angled portion comes directly in the rear of the cut-out portion or notch 14, as illustrated in 95 Fig. 5. To the angled portion 13 is attached or formed integral therewith the bolt 15, the bottom end of which is screw-threaded and provided with the screw-threaded nut 16.

In use the strap-iron 11 is placed in the position illustrated in the drawings, and after 100 the bow 1 of the bow-sections 4 has been properly adjusted and the bolt 15 passed through suitable apertures 17 or through the

slots 5 the nut 16 is turned so as to securely bind the clamped parts together, it being understood that clamping-bolts, such as 18, are to be employed in securely holding the strap-iron 11 in proper position with reference to the tongue 3.

When it is desired to adjust the bow-sections 4 so as to bring the eyes 2 to or from each other, so as to adjust the distance between said eyes, the nut 16 is loosened and the bolt 10, after which said sections are free to be slid back and forth upon the overlapped ends, the stay-rods 8 sliding upon each other at their crossed point.

The hammer-strap 19 is screw-threaded at its rear end and is held at the desired point of adjustment by means of the nuts 20.

It will be understood that by my peculiar arrangement I am enabled to adjust the hammer-strap so that it will come in proper position to be connected to the doubletree 21, which is connected in the ordinary manner. For the purpose of attaching the whiffletrees 22 to the doubletree 21 clevises, such as 23 and 24, are provided, which clevises are connected to the strap-bars 25.

In Fig. 8 a modified form of clevis is illustrated, which clevis extends over the whiffletree and is connected to the doubletree, as illustrated in Fig. 8, by which arrangement but one member of the clevis is connected to the strap-bar. It will be understood that the ordinary connecting-bolts 26 are to be employed to connect the whiffletrees to the doubletree.

To the front or forward end of the tongue 3 is attached the tip 27, which tip is formed of metal, and, as shown, said tip is provided with the flange 28, said flange being for the purpose of holding the neck-yoke clevis 29 against backward movement, or, in other words, to form a rest for the neck-yoke clevis 29. For the purpose of preventing the neck-yoke 30, together with its clevis 29, from becoming detached from the tongue the clevis 29 is provided with the passes 31, which passes are so arranged that when the neck-yoke is in the position illustrated in Fig. 2 the lugs 32, formed upon the tip 27, will prevent said clevis from becoming detached, and in order to detach said neck-yoke it must be turned so that the passes 31 will register with the lugs 32, after which the neck-yoke, together with its clevis, is free to be removed.

For the purpose of stiffening the tongue

proper, or, in other words, to form a bow that will be rigid, the bow is set edgewise in each instance—that is to say, whether said bow is formed of a single piece or made in sections, such as 4—by which arrangement the tongue will be held in a firm and rigid position vertically.

The clevis 23 is provided with the screw-threaded ends 33. The connecting-bolt 34 is also screw-threaded at its bottom or lower end and nuts 35 and 36 located upon the screw-threaded portions, so that when the wear-plates 37 have become worn the whiffletree connection can be tightened by turning the bolts 35 and 36 so as to tighten the clevis upon the doubletree.

In the manufacture of tongues the bow 1 or the bow-sections 4 may be provided with the wood portions 38 and 39, if desired; but I do not desire to be confined to said wood sections, as it will be understood that the bows can be manufactured with or without said wood sections.

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

1. The combination of a tongue having connected to its rear end a bow, brace-rods 6, pivotally connected at their front and rear ends, stay-braces 8, provided with slotted ends, a strap-iron secured to the rear end of the tongue, a bar 12, provided with an angled portion and a screw-threaded bolt connected to the angled portion of the bar 12, substantially as and for the purpose specified.

2. The combination of the doubletree 21 having pivotally attached thereto the whiffletrees 22, a clevis having one of its members connected to the strap-bar, and the other member to the doubletree, substantially as and for the purpose specified.

3. The combination of the tongue 3, having connected thereto the iron strap 11, the hammer-strap adjustably connected to the upper member of the strap 11, a bow connected to the rear end of the tongue, and the bar 12, seated in a recess at the rear end of the tongue, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN HOWELL.

Witnesses:

J. A. JEFFERS,
F. W. BOND.