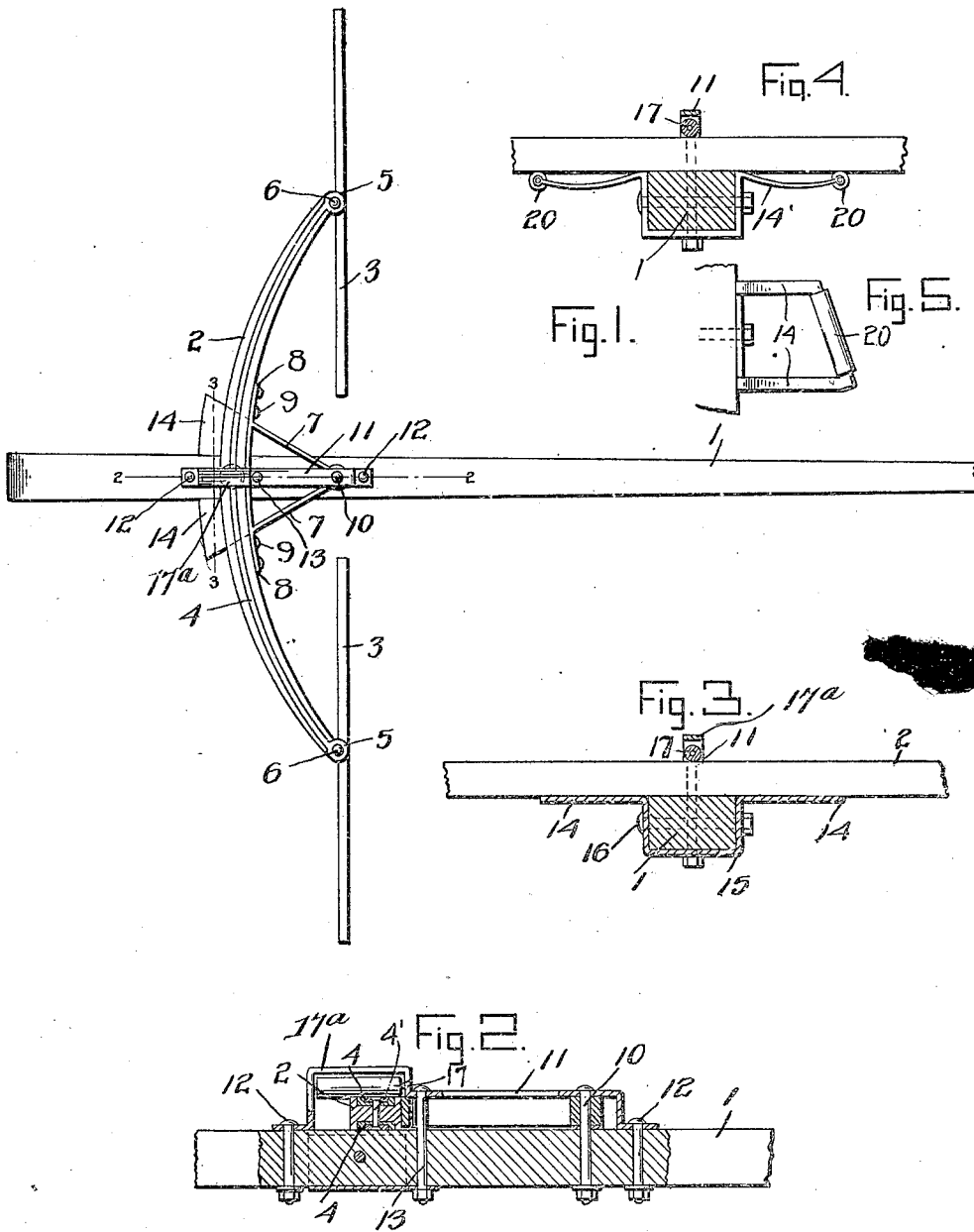


J. J. BUNTING.
WHIFFLETREE.
APPLICATION FILED JAN. 18, 1910.

958,089.

Patented May 17, 1910.



Witnesses

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WHIFFLETREE.

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To all whom it may concern:

Be it known that I, JOHN JAMES BUNTING, a citizen of the United States, residing at Grandview, in the county of Yakima and State of Washington, have invented new and useful Improvements in Whiffletrees, of which the following is a specification.

The invention relates to improvements in whiffletrees.

10 The object of the present invention is to improve the construction of whiffletrees for two horse vehicles, and to enable the double-tree and the singletrees to be arranged in the same horizontal plane for eliminating
15 twisting or rolling, and at the same time to permit a free movement of the singletrees, and to maintain an equal pull on both horses at all times.

With these and other objects in view, the
20 invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that
25 various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the inven-
30 tion.

In the drawing:—Figure 1 is a plan view of a draft appliance provided with whiffletrees, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional
35 view on the line 2—2 of Fig. 1. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1. Fig. 4 is a transverse sectional view, illustrating another form of the invention. Fig. 5 is a plan view of a portion of the sup-
40 port, illustrated in Fig. 4.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the embodiment of the invention illustrated in Figs. 1 to 3 inclusive, 1 designates a tongue or pole, having pivotally mounted on it, by the means hereinafter described, an arcuate doubletree 2, which pivotally
50 supports at its terminals a pair of singletrees 3. The doubletree 2 consists of a body portion of wood, or other suitable material, reinforced at its upper and lower faces by a pair of metallic bars 4, curved longitudinally to conform to the configuration of the arcuate body portion of the doubletree and se-
55 cured at intervals to the same by counter-

sunk fastening devices 4'. The body portion of the arcuate doubletree tapers from the center to the ends, and the reinforcing upper and lower metallic bars, which are co-
60 extensive in length with the said body portion, are provided at their terminals with registering eyes 5, arranged in pairs and spaced apart to receive the singletrees 3, which are secured between the eyes 5 by
65 pivot bolts 6. The pivot bolts, which pass through the eyes 5, pierce the singletrees equi-distant from the ends thereof.

The means for mounting the doubletree on the tongue comprises a substantially tri-
70 angular metallic frame 7, tapered forwardly and provided at the back with a curved plate 8, connecting the rear ends of the sides of the triangular frame and extending laterally therefrom to form terminal attaching
75 portions, which are secured to the front face of the doubletree by bolts 9. The triangular metallic frame 7 is provided at its front or apex with an eye, through which passes a pivot bolt 10, which also passes through the
80 tongue. The pivots of the doubletree and the singletrees are in transverse alinement and the pivots of the singletrees are equi-distant from the tongue in every position of the doubletree, so that the draft is equalized
85 and an equal pull on both of the horses is maintained at all times. Also the space at the opposite sides of the triangular frame is open to permit a free movement of the singletrees. A strap or bracket 11 extends
90 over the swinging frame 7 and the doubletree, and it provides means for retaining the doubletree and the swinging frame against tilting or other displacement. The strap or
95 bracket 11 is secured at its ends to the tongue by bolts 12, and it is also connected therewith by the pivot bolt 10 and an intermediate bolt 13, located within the triangular frame adjacent to the front face of the
100 curved plate 8, and adapted to operate as a safety device to prevent the doubletree from becoming disconnected from the tongue should the pivot bolt 10 become broken.

Coöperating with the retaining strap or bracket is a supporting bracket or plate 14,
105 having horizontal side portions located at opposite sides of the tongue and contiguous to the lower faces of the doubletree, and connected with each other by a depending yoke or loop 15, which embraces the tongue. The
110 depending yoke or loop, which is rectangular, conforms to the configuration of the

tongue and is secured to the same by a horizontal bolt 16. If desired the laterally projecting horizontally disposed supporting portions of the bracket 14 and the bearing surface of the retaining strap or bracket 11 may be covered with leather, rubber belting, or other suitable material to prevent noise and friction. It may, however, be preferable to equip the retaining strap or bracket with a roller 17, mounted in a rectangularly bent off-set portion 17^a of the retaining bracket or strap 11, and constructed of rubber, or other suitable material to prevent noise and friction.

In Figs. 4 and 5 is illustrated another form of the invention, the base plate or bracket being provided with laterally extending loops 14', having angularly disposed outer ends forming spindles for rollers 20. The laterally projecting loops space the rollers 20 from the tongue and the said rollers form a support for the doubletree to prevent the same from twisting, whereby the doubletree is maintained in a horizontal position.

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

1. The combination with a tongue, of an arcuate doubletree, means connected with the center of the doubletree for pivotally connecting the same with the tongue, swingle-trees pivotally connected with the eyes of the doubletree, and a base or supporting bracket composed of a central loop or yoke portion embracing and secured to the tongue, and laterally extending supporting portions projecting from opposite sides of the tongue

and receiving and supporting the doubletree.

2. The combination with a tongue, of an arcuate doubletree, means centrally connected with the doubletree for pivoting the same to the tongue, a retaining strap or bracket secured to the tongue and extending over the doubletree and provided with an off-set portion, and a longitudinally disposed combined anti-friction and sound deadening roller mounted in the off-set portion of the retaining strap or bracket and bearing against the upper face of the doubletree, and swingle-trees connected with the terminals of the doubletree.

3. The combination with a tongue, of an arcuate doubletree, means centrally connected with the doubletree for pivoting the same to the tongue, a base or supporting bracket having a central loop or yoke to embrace the tongue and provided with supporting portions extending laterally from opposite sides of the tongue and receiving the doubletree, a retaining strap or bracket extending over the doubletree and secured to the tongue, a combined sound deadening and anti-friction roller mounted in the retaining strap or bracket and bearing against the upper face of the doubletree, and swingle-trees connected with the terminals of the doubletree.

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

JOHN JAMES BUNTING.

Witnesses:

W. J. EARNEST,
F. S. BAYLES.