

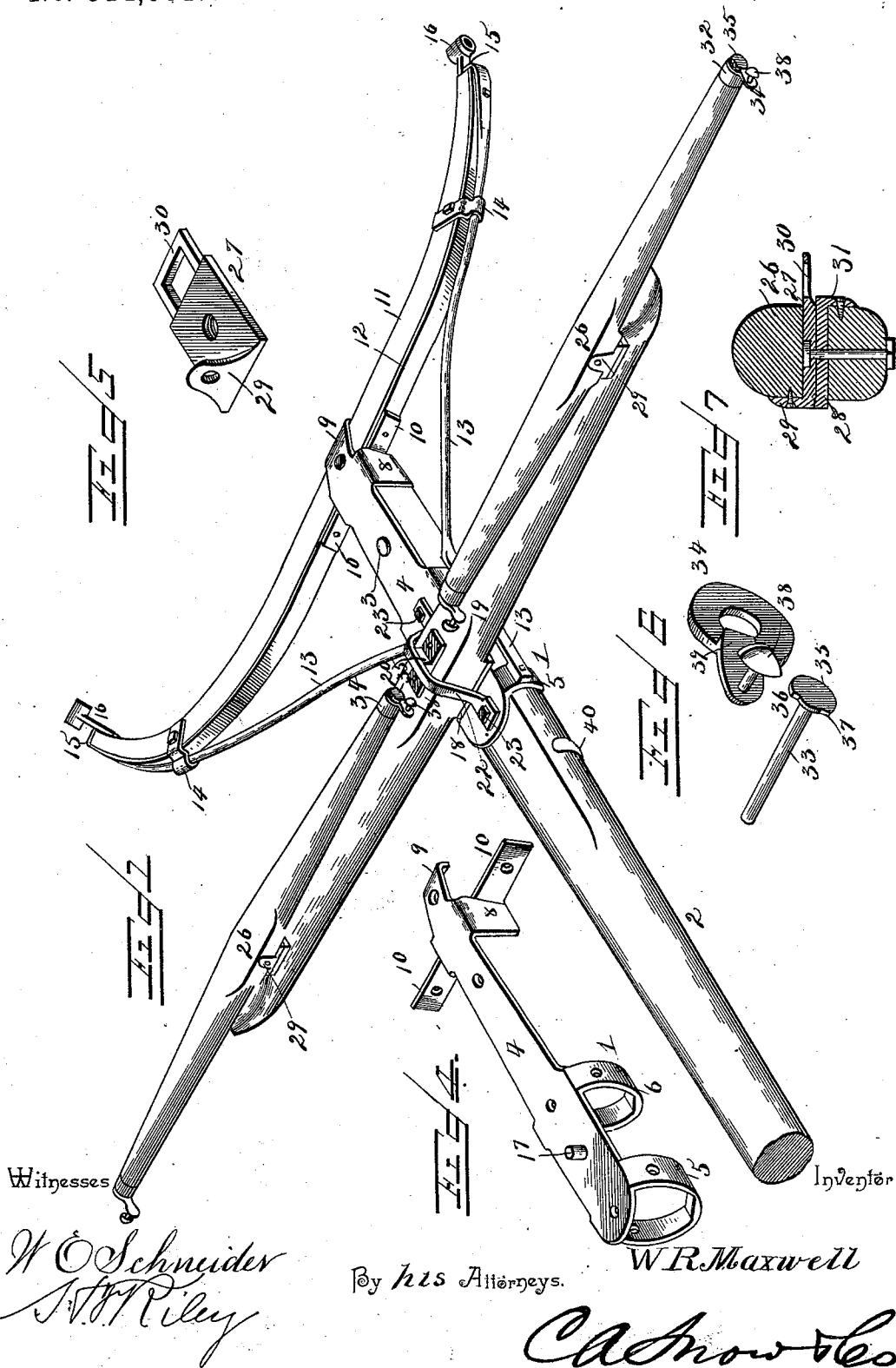
(No Model.)

2 Sheets—Sheet 1.

W. R. MAXWELL.
VEHICLE POLE.

No. 514,951.

Patented Feb. 20, 1894.



By his Attorneys.

W. R. Maxwell

C. A. Snow & Co.

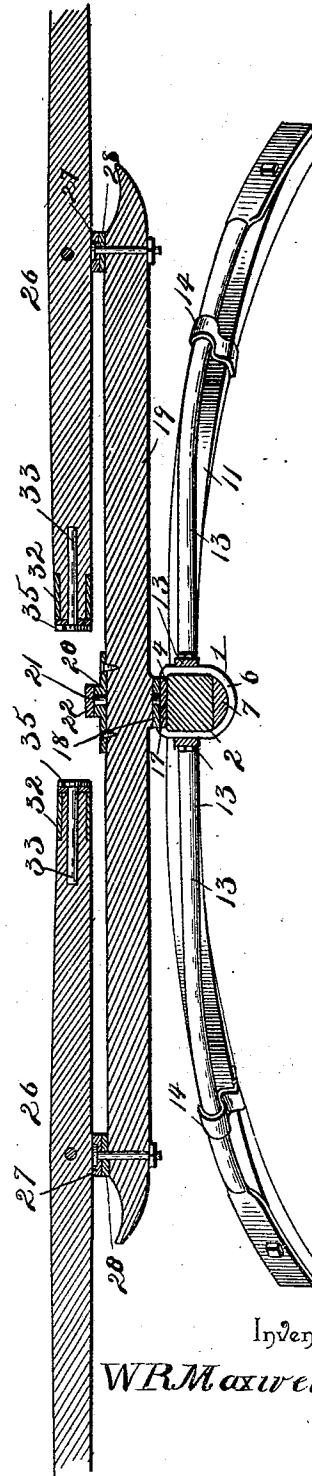
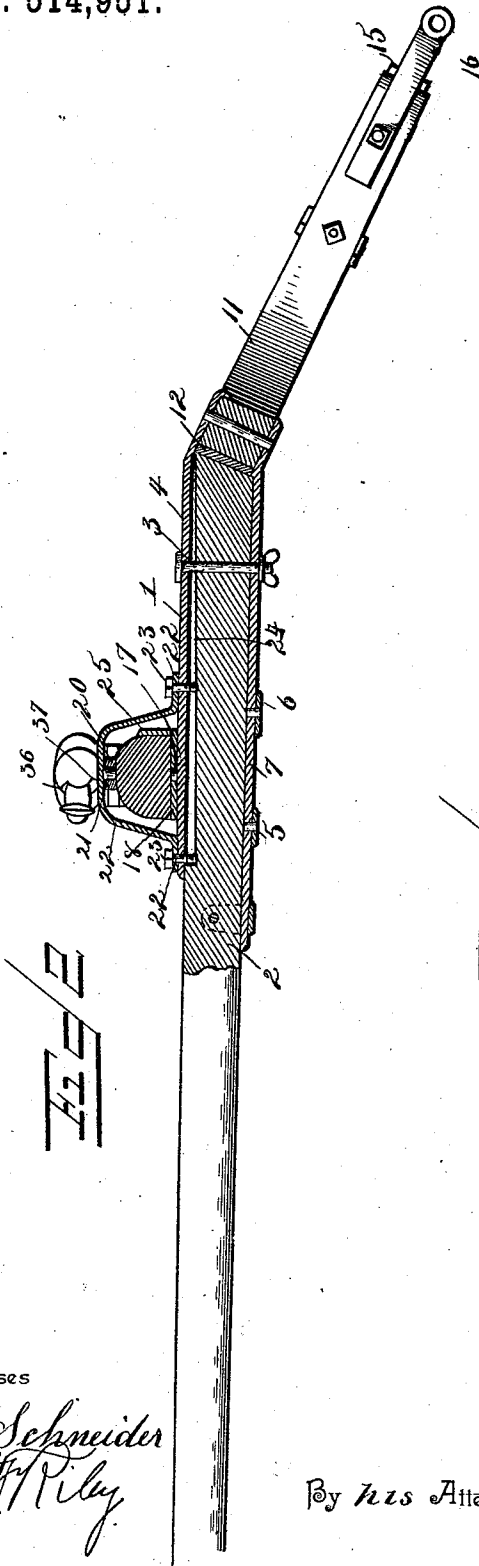
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2 Sheets—Sheet 2.

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VEHICLE POLE.

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Witnesses

W. C. Schneider
N. H. Riley

By his Attorneys.

W. R. Maxwell
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM R. MAXWELL, OF WAKEFIELD, PENNSYLVANIA.

VEHICLE-POLE.

SPECIFICATION forming part of Letters Patent No. 514,951, dated February 20, 1894.

Application filed May 27, 1893. Serial No. 475,719. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. MAXWELL, a citizen of the United States, residing at Wakefield, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Vehicle-Pole, of which the following is a specification.

The invention relates to improvements in vehicle poles.

The object of the present invention is to improve the construction of vehicle poles, to increase their strength, durability and efficiency, and to enable the pole to be quickly removed from its cross-bar to enable a vehicle to be compactly stabled, shipped or stored.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a pole constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the pole socket. Fig. 5 is a detail perspective view of one of the singletree coupling plates. Fig. 6 is a similar view of one of the whiffletree hooks. Fig. 7 is a detail sectional view, illustrating the manner of pivoting a singletree to the doubletree.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a skeleton pole socket, in which a pole 2 is detachably secured by a single bolt 3, and which consists of an upper plate 4, integral transverse bands 5 and 6 and a bottom plate 7, which has its front portion arranged within the bands and secured to the bottom thereof and projecting forward from the front band 5. The top plate is provided at its rear end with side flanges to fit against the sides of the rear end of the pole, and it is provided with integral top and side securing plates 9 and 10, which are fastened to a curved cross-bar 11. The curved cross-bar is provided with a metal facing 12, and the rear end of the bottom plate 7 of the socket is secured to the lower face of the curved cross-bar, which has the ordinary downward pitch or inclination, to which the top securing plate 9, and

the rear end of the bottom plate 7 conform. The bolt 3 is disposed vertically and passes through the upper and lower plates of the socket and through the pole, and is provided at its lower end with a thumb nut to enable it to be readily detached to permit the removal of the pole. The pole when fitted in the socket is securely supported and braced at the front thereof by the integral bands 5 and 6, and at its rear end by the side flanges of the top plate, which side flanges 8 complete the socket at the rear end. The socket is supported by side brace rods 13, which have their front ends bent forward and bolted or otherwise secured to the sides of the depending integral bands 5 and 6, and the rear ends of the brace rods extend through eyes 14, and are bolted to the ends of the cross-bar, and are bent around the same to form lugs 15. The lugs 15 bear against the coupling irons 16, and serve to relieve the cross-bar 11 of strain.

The upper plate 4 of the pole socket is provided with a vertical short or stub pivot 17 which fits in an opening of a plate 18 of a doubletree 19. The doubletree 19, which is mounted on top of the pole socket has the bearing plate 18 secured to its lower face, and it is provided on its upper face with a bearing plate 20, which is provided with a socket to receive a depending stub pivot 21 of an arched brace 22, secured upon and disposed longitudinally of the pole socket. The ends of the arched brace are provided with elongated bolt openings, and receive bolts 23 or other fastening devices, and the upper plate 4 of the socket is provided with threaded openings to receive the bolts 23, and the tongue is provided in its upper face with a longitudinal groove 24, to permit it to pass the depending projecting ends of the bolts when it is inserted in the socket. The bolts 23 are not strained or screwed up too tightly in mounting the doubletree, in order to enable the slight wear of the bearing plates to be readily taken up. The stub pivots are of a length to agree with the thickness of the bearing plates, and do not pass through the doubletree, which is not weakened by a pivot bolt opening at its center. The lower bearing plate 18 is provided at its rear side with an upwardly extending flange 25 to support the

doubletree. The ends of the doubletree have pivotally mounted on them singletrees 26; and the pivotal connection consists of upper and lower bearing plates 27 and 28, and a depending cheese-bolt, which has its head seated in a socket of the upper bearing plate, and depending from the latter and passing through the lower bearing plate and the doubletree and provided with a nut and washer. The upper bearing plate is provided at its front side with an upwardly extending flange 29, and is secured to the singletree 26 by fastening devices, which pass through the flange and the plate. At its back the upper bearing plate is provided with an integral stay strap eye 30. The lower bearing plate is provided at its rear side with a depending flange 31 similar to that of the upper bearing plate, and is similarly fastened to the doubletree. This construction obviates the necessity of passing the pivot bolt through the singletree and weakening the latter.

Each singletree is provided at each end with a socket and is supported by a ferrule or sleeve 32, and has arranged in its socket a pin 33, which pivots a whiffletree hook 34 to the whiffletree. The pin is provided with a segmental head 35, which forms shoulders 36 and 37 to limit the swing or pivotal movement of the whiffletree hook. The whiffletree hook consists of a plate provided with an opening to receive the pin and a headed stud 38; the head of the stud is elongated and rounded at the edge and adapted to fit in the eye of a trace; and the plate has its outer face reduced to form angularly disposed shoulders of an enlargement 39. The shoulders 36 and 37 are arranged at nearly diametrically opposite points, the swing of the whiffletree hook being a little less than a half revolution; the upper shoulder 36 stops the whiffletree hook when the head of the stud is horizontal or longitudinally of the trace opening to permit the ready insertion of the head in the opening for fastening a trace. Any strain or pull on the whiffletree hook swings it forward and downward into engagement with the lower shoulder 37 which forms a rest or support for holding the head of the stud transversely of the trace eye.

It will be apparent that the pole and its attachments are simple, inexpensive, strong and durable, that the pole may be readily detached from the socket when not in use, that the pivots of the singletrees do not pass through them, and that the doubletree is not centrally pierced for a pivot bolt.

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 in-

vention, such as changing the manner of supporting the curved cross-bar by employing metal facings at front and back and the like.

The pole is provided on its lower face with a depending segmental keeper 40, which when the pole is in the socket receives the projecting portion of the bottom plate 7.

What I claim is—

1. The combination with a pole, of a skeleton socket receiving the pole and composed of a top plate provided at its front with depending integral bands and having at its rear end side flanges, a bottom plate having its front portion arranged within the bands and secured thereto, and a bolt passing through the upper and lower plates and the pole and detachably securing the pole in the socket, substantially as described.

2. The combination of a pole provided near its rear end with a depending keeper, a socket composed of an upper plate provided at its front end with depending bands and having at its rear end side flanges, and a bottom plate secured to the bands and projecting forward from the socket and fitting in the keeper of the pole, and a removable bolt passing through the upper and lower plates of the socket and through the pole, substantially as described.

3. The combination of a curved cross-bar provided at its ends with coupling irons and having forwardly projecting eyes, a socket composed of an upper plate provided at its front end with depending integral bands and having at its rear end side flanges and top and side securing plates fastened to the curved cross-bar, and a bottom plate secured to the bands, a pole detachably secured in the socket, and side brace rods having their front ends secured to the bands and extending rearward therefrom through said eyes and secured to the ends of the curved cross-bar and having their rear ends extended around the latter and bearing against the coupling irons, substantially as described.

4. The combination of a pole socket provided on its upper face with a stub pivot, an arched guard disposed longitudinally of the socket and mounted thereon and provided with a depending stub pivot, and a doubletree mounted on the socket and provided with upper and lower bearing plates receiving the stub pivots, 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.

WILLIAM R. MAXWELL.

Witnesses:

WM. H. LONG,

EMMA W. PETERS.