

(No Model.)

J. IVES.
CARRIAGE POLE.

No. 395,702.

Patented Jan. 8, 1889.

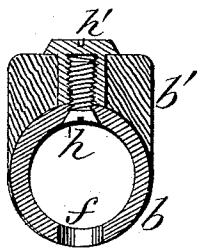


Fig. 4. zz.

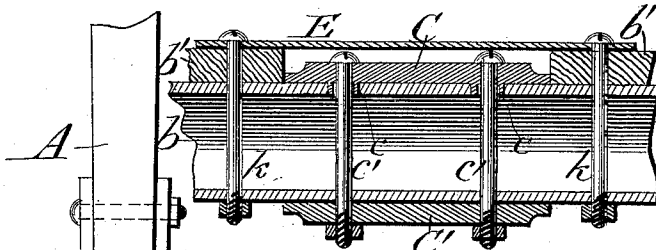


Fig. 3. yy.

Fig. 1.

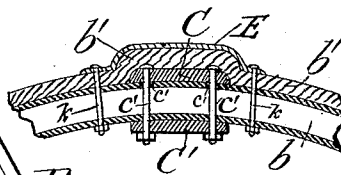
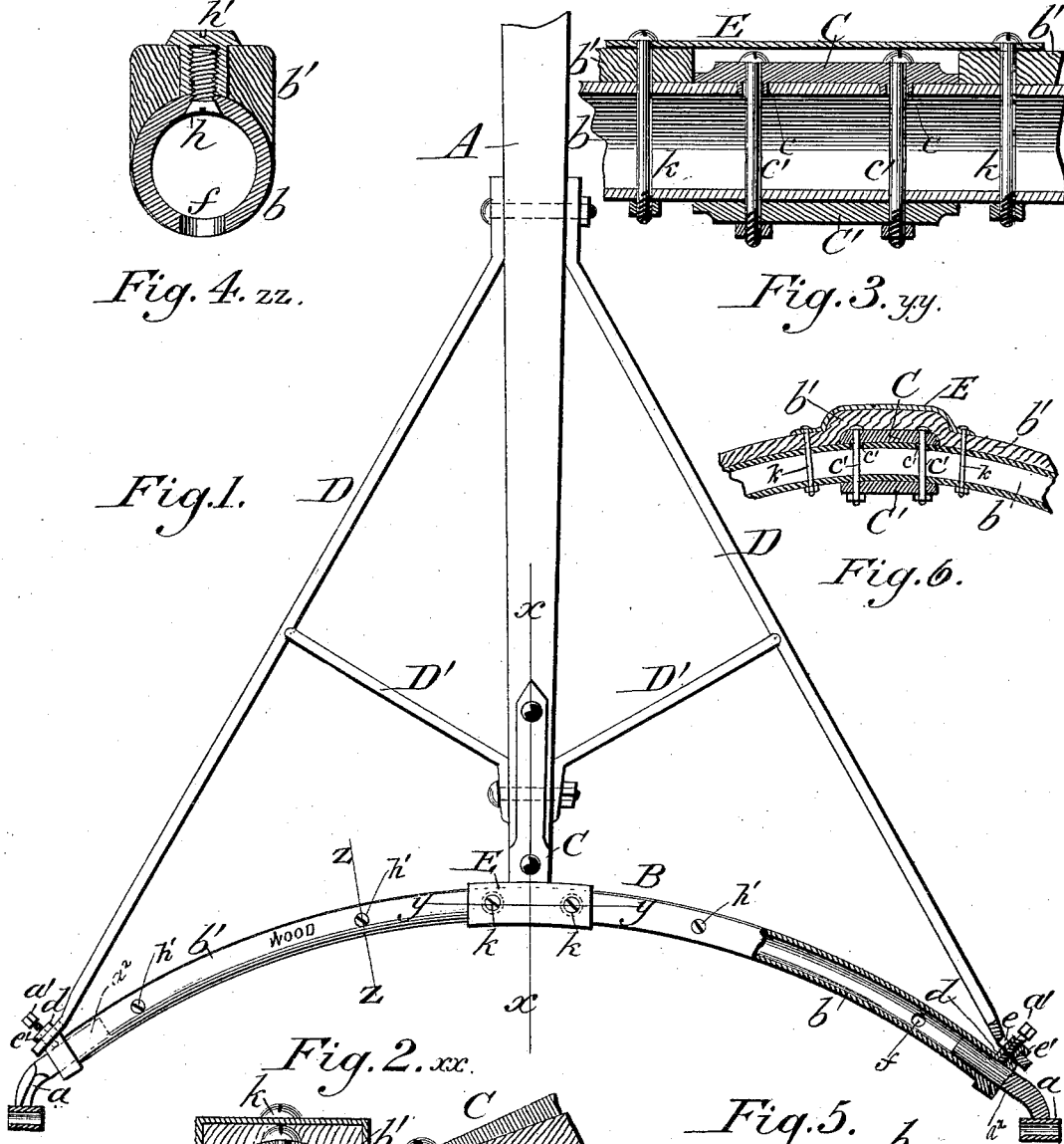


Fig. 6.

Fig. 2. xx.

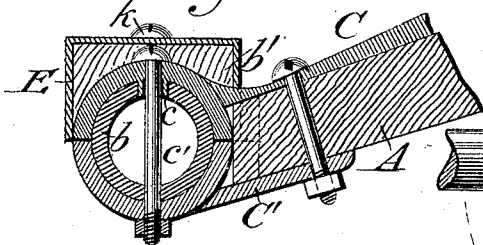
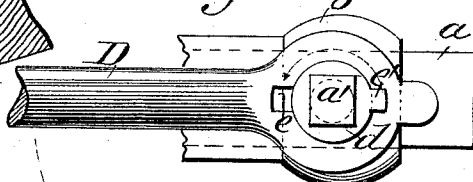


Fig. 5.



Witnesses.

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JAMES IVES, OF MOUNT CARMEL, CONNECTICUT.

CARRIAGE-POLE.

SPECIFICATION forming part of Letters Patent No. 395,702, dated January 8, 1889.

Application filed April 27, 1888. Serial No. 272,080. (No model.)

To all whom it may concern:

Be it known that I, JAMES IVES, a citizen of the United States, residing at Mount Carmel, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Carriage-Poles; and I do hereby 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.

This invention relates to improvements in carriage-poles, and especially to improvements upon the pole for which United States Patent No. 199,911 was granted to me on the 5th day of February, 1878.

The special objects of my invention are, first, to provide for making the pole with a strong connection between the wood tongue or pole proper and its tubular metallic sweep; second, to provide means for applying a wood-finishing and enlargement portion to said tubular metallic sweep in such a manner that the wood portion, whether made in two parts or in a single piece, can be firmly united to the metal tubular portion of the sweep, as well as to the coupling between it and the tongue or pole proper, and is strengthened and supported by said metallic portion, the coupling, and a cap used at the place where the coupling between the tongue and the metallic portion of the sweep is applied, and, third, to afford facilities for assembling and disassembling the parts of the portable carriage-pole, as will be hereinafter described, whereby a portable pole is produced which is strong and symmetrical, having either simply a metallic tubular sweep or a combined metallic and wood sweep, and said pole being portable—that is, with its parts easily separable for being compacted for shipment to distant places or for other purposes—and with its parts adapted for being readily reassembled when required for use. To carry out these objects, I form the tongue of the carriage-pole, in the usual manner, of wood and connect it by means of a novel socket-coupling with a tubular metallic sweep provided at its ends with either fixed or adjustable pole-eyes, said coupling consisting of an upper and under socket-piece secured by bolts to the pole proper and embracing the sweep,

and to prevent the sweep from turning one of the socket-pieces which embrace it is provided with lugs that enter holes or depressions formed in the sweep for their reception. As the difference in the strength of the material—to wit, wood and iron—used for the pole proper and sweep, if the latter is alone of metal, would cause a great disparity in size, thus causing the parts to appear out of proportion where symmetry and strength are required, I remedy the defect by uniting wood and metal in its construction—to wit, providing the tubular metallic sweep with a finishing enlargement of wood, which is of the necessary dimension to present to the eye the proper proportions, this wooden portion being firmly secured to the tube by screws or bolts so constructed and inserted as not to interfere with the movement of the pole-eyes, if adjustable, as they are moved out and into the ends of the sweep, and, finally, as it becomes necessary to reduce the various parts of carriages to the most compact form for shipment, I provide in the same carriage-pole a divisible socket-coupling, a removable wood-finishing enlargement portion, and attach the braces which connect the extremities of the sweep to the tongue or pole proper by means of bolts, and provide the ends of the sweep with locking-lugs and the braces with oblong slots of such a construction that the ends of the braces may be readily attached or detached, thus facilitating the separation of the parts for shipment and their reassembling after having reached their destination.

In the drawings, Figure 1 is a plan view showing the general arrangement of the parts composing the device. Fig. 2 is a section through the sweep on the line *xx*, showing the means employed for connecting the tongue or pole proper and sweep and illustrating one way of employing the wood-finishing enlargement portion made in two pieces for producing symmetry and proportion of the whole device. Fig. 3 is a longitudinal section of the sweep in the line *yy* of Fig. 1. Fig. 4 is a transverse section of the metallic tubular portion of the sweep and its finishing enlargement portion of wood on the line *zz* of Fig. 1, illustrating the means used for securing the wood to the metallic tube. Fig. 5 illustrates the means employed for securing the rear end

of the braces to the outer end of the sweep. Fig. 6 is a broken sectional view of the sweep with the wood-finishing enlargement portion made in one piece and extending from end to end of the sweep over the socket-coupling, which connects it with the tongue or pole proper.

In the several figures, A represents the tongue or pole proper, which may be of wood and of the ordinary construction, and B the curved sweep secured to the pole proper and connected by adjustable eyes *a a* to the carriage. This sweep B comprises as its main portion a curved metallic tube, *b*, made straight for a short distance from each end to receive the shanks *a*² of the eyes *a*, which are made to enter therein, and are secured by set-screws *a'*, passing through projections or enlargements *d* of the tube at each end of the same. The principal coupling or connection of the tongue A and the sweep B consists of two socket-pieces, C and C'. The piece C rests upon the top of the tongue or pole proper and embraces the upper half of the sweep-tube *b*, and it is also provided with downwardly-projecting lugs *c c*, which enter corresponding orifices, depressions, or recesses formed in the top of said tube, and add strength to and prevent the tube from turning in the socket-pieces from the weight of the pole coming upon it so far in advance of its attachment to the carriage-axle. The socket-piece C' is secured to the under side of the pole proper, its lower end embracing the lower half of the tube *b*, and both parts of the coupling being firmly fastened to said tube by the bolts *c' c'*, or other suitable fastenings, passing through them at suitable places, but preferably through the lugs *c c*, as illustrated.

The braces D D are bolted at their forward ends to the pole proper and connected at their rear ends to the extremities of the sweep by a bayonet-fastening device, consisting of a lug or tongue, *e'*, upon each of the projections *d'* of the tube and an oblong slot, *e*, in the circular orifice at the end of each of the braces, which, when the respective braces are disconnected from the pole proper and their positions reversed, allow of the disconnection of the same from the sweep by the tongues *e'* coming opposite to and passing out through the said slots in the braces. The object of this construction is, in connection with the divisible socket-coupling C C', to facilitate the disengaging of the parts from each other and their compactment for shipment, and also their re-engagement when the pole proper is to be assembled for use.

An additional brace or strut, D', may be welded to the respective braces D midway between their ends, extending at right angles to the same and firmly bolted to the pole proper near its rear end, thus giving additional stiffness to the braces D and assisting in retaining the end of the pole proper in its true central position in relation to the sweep.

As the metallic sweep-tube *b* if used alone

for forming the sweep would for some constructions of carriage-poles, where symmetry and strength are essential together, appear out of proportion to the other parts of the carriage, I, to overcome this objection and at the same time add additional stiffness to the sweep, apply a finishing enlargement portion, *b'*, of wood or other suitable material, and of such proportion as will increase the size of the upper part of the sweep to about the dimensions of an ordinary wooden sweep, and to apply this wood portion a piece of wood of suitable length and cross-sectional area is bent to the curve of the metallic sweep-tube, the same being hollowed on its under side to fit the upper surface of the tube *b*, as shown in Fig. 4 of the drawings, and in order to secure this wood portion firmly in place upon the tube *b*, and not have it interfere with the free movement into and out of the tube of the shanks *a*² of the coupling-eyes *a*, a series of holes, *f*, are bored through the under side of the tube to permit the passage of the heads of screws *h* and screw-driver into the tube. These screws pass upward through the upper side of the sweep-tube and have their heads countersunk therein, as shown. Their screw-threaded body portions may be inserted into the wood or received in headed and nicked sleeve-nuts *h'*, the sleeves of which pass through the wood, while their heads rest upon its surface, as shown. As it is not absolutely necessary that the finishing enlargement portion *b'* should be in one piece, as illustrated in Fig. 6, and it may be at times desirable to divide the same, so that the part covering each end of the tube shall abut against the socket-coupling, as shown in Fig. 3, and thereby not necessitate the use of a finishing wood portion extending over the socket-coupling, as shown in said Fig. 6, I, to meet this exigency, have devised a metal cap, E, which answers for use as a strengthening and finishing appliance for either the construction shown in Fig. 3 or Fig. 6, said cap being formed by bending a piece of sheet metal into proper shape or by casting the same from any suitable metal, and it being secured in place by bolts *k k* passed through the cap, the wood, and the metallic tube, as shown, thus firmly securing the whole together at this point and adding to the symmetry and efficiency of the whole, and making a carriage-pole that may be readily adjusted, if necessary, to coupling clips or irons set at different distances apart, and is strong and durable, and may be readily taken apart for shipment, is symmetrical in all its proportions, and is capable of ready reassembling for use.

It will be understood that the socket-coupling C C', with lugs *c c*, is not necessarily confined to sweeps formed of both wood and metal, nor to sweeps having adjustable eyes *a*, but is adapted to the construction of carriage-poles with fixed eyes, which style of sweep being generally used when a pole is to be furnished with a carriage as a part of its outfit,

and the connections with the axle being always in the same place, no adjustment of the pole-eyes is necessary.

What I claim is—

- 5 1. A carriage-pole comprising a pole proper, a divisible socket-coupling encircling the sweep and receiving the end of the said pole, a tubular sweep having connecting-eyes at its ends, screw-bolts connecting the pole proper, sweep, and parts of coupling together, and
10 braces between the pole proper and the tubular sweep, substantially as and for the purpose described.
- 15 2. A carriage-pole comprising a pole proper, a divisible socket-coupling encircling the sweep and receiving the end of the said pole, a tubular sweep having connecting-eyes at its ends, a wood-finishing enlargement portion, screw-bolts connecting the pole proper, sweep,
20 and parts of coupling together, and braces between the pole proper and the tubular sweep, substantially as and for the purpose described.
- 25 3. The divisible socket-coupling secured by bolts to the rear end of the pole and one of its parts provided with lugs, in combination with the curved metallic tube-sweep provided with orifices or recesses to receive the said lugs, substantially as and for the purpose described.
- 30 4. The combination, with the tubular sweep, of the wood-finishing enlargement portion *b'*,

secured to the said tube by screws passed through the lower side of the tube, their heads bearing against the inner upper side of the same, and their body portions embedded and retained by screw-threads in the wood portion, substantially as and for the purpose described. 35

5. The combination, with the tubular sweep and the wood-finishing enlargement portion thereof and the socket-coupling, of the cap E and screw-bolts, substantially as described. 40

6. The curved sweep-tube *b*, provided with the wood-finishing enlargement portion *b'*, in combination with the connecting-eyes *a*, provided with shanks entering the ends of said tube and secured by suitable fastenings, substantially as described. 45

7. A carriage-pole comprising, in combination, the pole proper, the sweep, braces from the pole to the sweep, the wood-finishing enlargement portion, and the bayonet-fastenings connecting the ends of said sweeps with the braces, substantially as and for the purpose described. 50

In testimony whereof I hereunto affix my signature in presence of two witnesses. 55

JAMES IVES.

Witnesses:

LYMAN H. BASSETT,
SAML. J. HAYES.