

(No Model.)

J. B. STRUBLE.
VEHICLE POLE.

No. 525,295.

Patented Aug. 28, 1894.

Fig. 1.

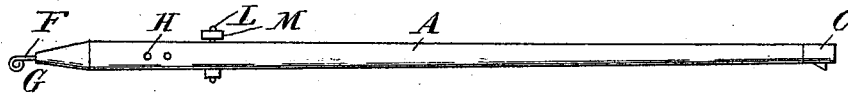


Fig. 2.

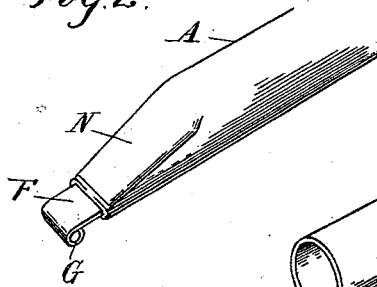


Fig. 3.

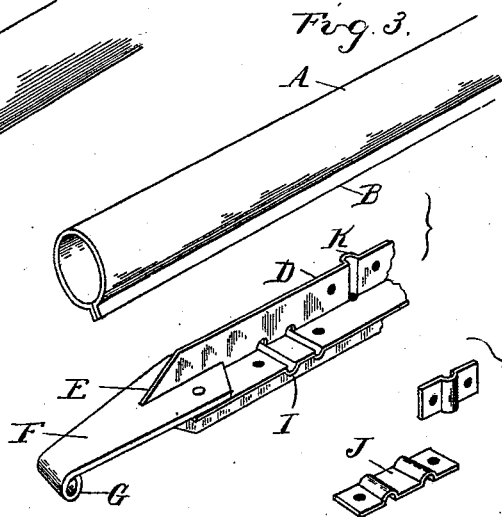


Fig. 4.

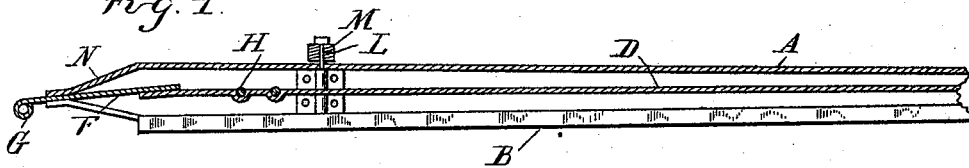


Fig. 5.



Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

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VEHICLE-POLE.

SPECIFICATION forming part of Letters Patent No. 525,295, dated August 28, 1894.

Application filed March 26, 1894. Serial No. 505,136. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. STRUBLE, a citizen of the United States, residing at Shepherd, in the county of Isabella and State of Michigan, have invented certain new and useful Improvements in Vehicle-Poles, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention consists in the peculiar construction of a metallic vehicle and implement tongue comprising a pole of tubular sheet metal, an interior strengthening diaphragm, and further in the peculiar construction of 15 the reinforcement of the butt, and further in the peculiar construction, arrangement and combination of the various parts.

In the drawings, Figure 1 is a side elevation of a tongue embodying my invention. 20 Fig. 2 is a perspective view of the butt of the pole. Fig. 3 is a perspective view of the parts of the pole detached. Fig. 4 is a vertical, central, longitudinal section. Figs. 5 and 6 are cross sections.

25 A is a sheet metal pole formed in the shape of a tube and tapering from the butt toward the point. This may be formed by rolling or it may be formed by taking a piece of sheet metal, cut tapering and bending it into tubular form with flanges B at the lower edge, 30 which may be riveted, or otherwise secured together, or the two edges may be overlapped, as shown in Figs. 5 and 6, and the overlapping portions riveted or welded together.

35 At the outer end of the pole I secure a suitable tubular cap C. Within the pole I arrange a longitudinal diaphragm D, preferably extending the whole length or it may be shorter if desired according to the work which 40 will be required of the pole. This diaphragm I may make of a single plate, as shown in Fig. 5, or I may make it of two intersecting plates, forming a cross shaped reinforcement, as shown in Fig. 6. The rear end of this diaphragm is provided with a tapering portion 45 E, and to one member of the diaphragm is secured the draft plate F, having an eye G formed at its rear end for pivotal engagement with suitable bolt on the wagon or im- 50 plement.

I preferably bolt the diaphragm to the pole by means of cross bolts H, which preferably

pass through grooves I in the diaphragm, and if desired plates J having segmental grooves may be secured upon the diaphragm, so as to 55 make a tubular bearing for these bolts. This, however, may be omitted. The corresponding vertical groove K is formed in the vertical member of the cross-shaped diaphragm for the pivot bolt L of the eye M. 60

When the pole is shaped and has received the diaphragm I form the tapering closed rear end by pressing the rear portion, as shown at N tightly upon the draft plate F tapering up 65 to the pole.

The advantages of such a pole are numerous, being much more rigid and stronger than the wooden device, and it is advantageous to build it in this particular manner as it enables me to construct it cheaper and stronger 70 for a given amount of material than other metallic tongues.

What I claim as my invention is—

1. In a vehicle tongue, the combination with a split-tapering tubular pole, of a continuous strengthening diaphragm within the pole 75 extending longitudinally substantially the length of the same, and cross-bolts for securing the diaphragm to the pole, substantially as described. 80

2. In a vehicle tongue, the combination of the tapering, tubular metallic pole, formed from sheet metal, with overlapping edges, means for securing the edges together, a cap at the small end, an interior reinforcing diaphragm, a draft plate secured to the rear end 85 of said diaphragm and extending beyond the end of the pole having a tapering rear end, and the rear end of the pole closed by being pressed upon the draft plate, substantially as 90 described.

3. In a vehicle tongue, the combination with a hollow tubular pole having a tapering rear end, a continuous strengthening diaphragm plate within the pole extending longitudinally 95 the length of the pole, a draft plate secured to the rear end of the diaphragm within the pole having its rear end clamped by and extending out beyond the rear tapering end of the pole, substantially as described. 100

4. In a vehicle tongue, the combination with a hollow tubular pole having apertures therein, diaphragms within the pole having grooves extending across the faces thereof, and bolts

resting in the grooves having their ends engaging the apertures in the pole, substantially as described.

5. In a vehicle tongue, the combination with a hollow tubular pole having apertures therein, diaphragms within the pole having grooves across the faces thereof, bolts resting in the grooves having their ends engaging apertures in the pole, and plates having grooves adapted

to be secured to the diaphragms over the bolts, substantially as described.

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

JOHN B. STRUBLE.

Witnesses:

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