

(No Model.)

W. A. GALBRAITH.
CARRIAGE POLE.

No. 422,393.

Patented Mar. 4, 1890.

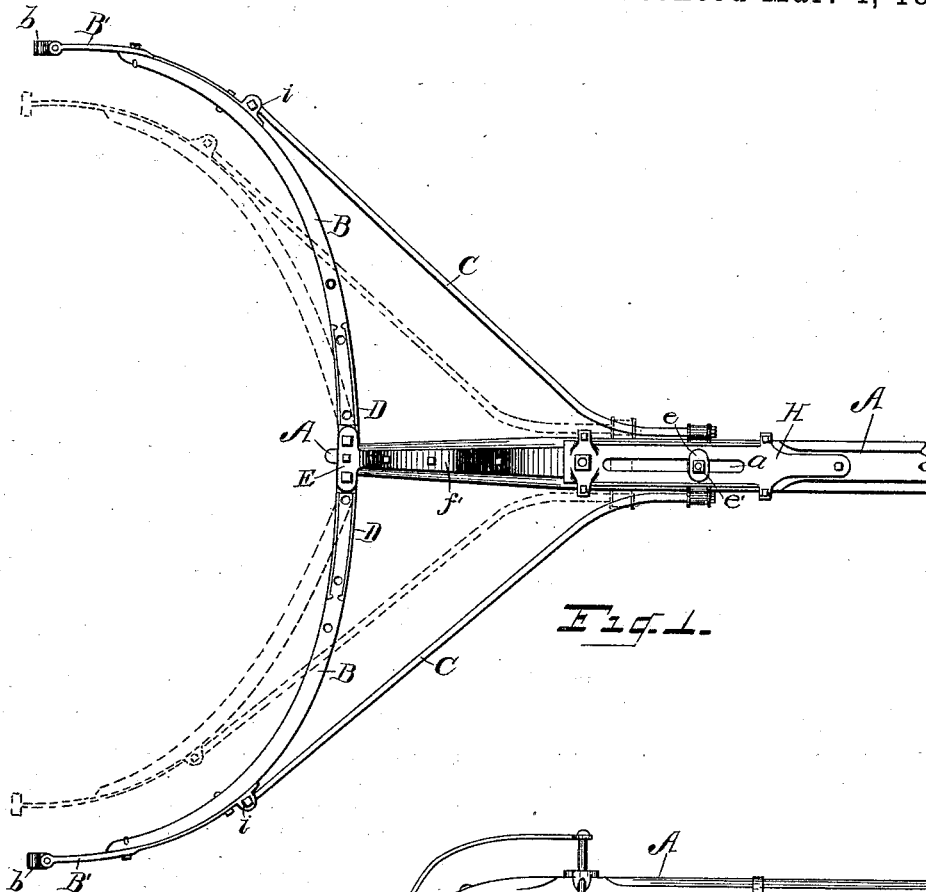


Fig. 1.

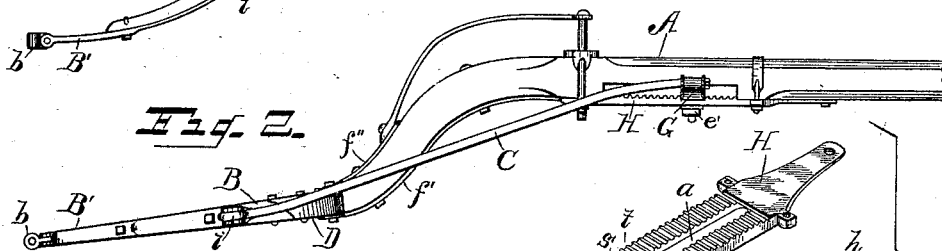


Fig. 2.

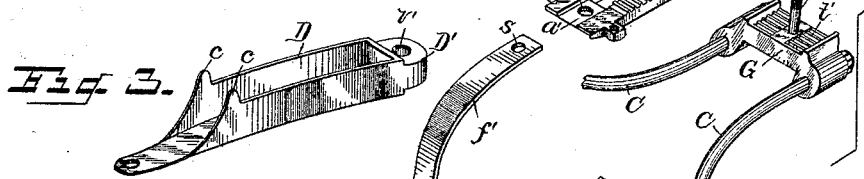


Fig. 3.

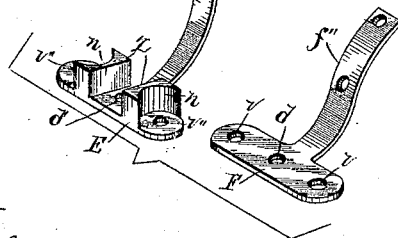


Fig. 5.

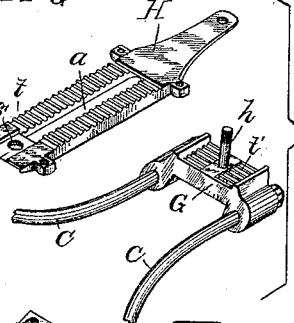


Fig. 4.

WITNESSES

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WILLIAM A. GALBRAITH, OF FLINT, MICHIGAN.

CARRIAGE-POLE.

SPECIFICATION forming part of Letters Patent No. 422,393, dated March 4, 1890.

Application filed November 25, 1889. Serial No. 331,561. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. GALBRAITH, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Carriage-Poles; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 This invention relates to carriage-poles and to that class known as "adjustable" poles, and is designed as an improvement over Letters Patent issued to me February 3, 1880, No. 224,171.

20 The invention consists in a traveling head, to which the forward ends of the brace-rods are coupled, said head being serrated on its under face to engage with the serrated upper face of a plate secured to the under side of 25 the pole. The rear ends of the brace-rods are pivotally coupled to the pole-irons that are bolted to the outer curved ends of the circle-bars, the inner ends of the circle-bars provided with metal casings that are journaled in a bearing secured to the rear end of 30 the pole.

The object of the invention is to increase and facilitate the adjustment of the pole, and to make a pole of better appearance and one 35 that is stronger and more durable, all of which will be hereinafter set forth, and the essential features of the device pointed out particularly in the claims.

In the accompanying drawings, forming a 40 part of this specification, Figure 1 is a plan view of the under side of a pole embodying my invention. Fig. 2 is a side elevation. Fig. 3 is an enlarged detached view of the metal case adapted to receive the inner end 45 of the circle-bar. Fig. 4 is an isometrical view of the serrated plate and an inverted plan of the sliding head detached, the brace-rods being broken away. Fig. 5 is a view of the plates removed that are attached to the rear 50 end of the pole and form journal-bearings for the inner end of the circle-bars.

As indicated in the drawings, A represents

the pole; B B, the circle-bars; C C, the brace-rods, and G the sliding head. The plate H, having the elongated slot *a* and serrated upper face *t*, is bolted to the under side of the pole. The sliding head G, having the serrated under face *t'*, is set between the pole A and plate H and is adapted to slide on said plate. The bolt *h* of the head G extends 60 through the slot *a* in the plate H and receives on its lower end the washer *e* and nut *e'*, as shown in Figs. 1 and 2. By tightening said nut *e'* the serrated faces of the head G and plate H are drawn together, thus securely 65 locking the parts.

In my patent referred to the plate H is placed on the pole with the toothed surface down, and I used a toothed washer to engage with said plate. In this case I turn the 70 toothed plate over and form on the under face of the sliding head a toothed surface of such form as to engage with the teeth or serrations of the plate H, thereby forming a stronger and more practical fastening, using an ordinary washer and nut on the under face of the plate H to complete the fastening. The forward ends of the brace-rods C are attached to the sliding head. The rear diverging ends 80 of said rods are pivotally coupled at *i* to the circle-bars or pole-irons B', that are bolted to the outer curved ends of the circle-bars B B, said pole-irons or extensions B' having the heads *b* pivotally attached to their rear ends, that are adapted to be coupled to the 85 clips on the axle of the vehicle. The inner ends of the circle-bars are provided with a metal case D, the sides of which have the extended malleable ears *c c*. Said case also has the annular head D', provided with the hole 90 *v'*. (See Fig. 3.) The end of the circle-bar is secured in the case by bolting through said case and bar, the ears *c* of the sides of the case being bent over onto the under face of the wooden bar B to assist in securing the 95 sides of the case from springing out. The rear end of the pole A is provided with the plates E and F. The plate E lies on the under side of the pole. The curved arm *f'* of said plate extends along the under face of 100 the pole and lies in the recess *a'* in the rear end of the plate H and is secured therein by a bolt passing through the pole and the holes *s* and *s'*, respectively, in the plate H and arm

f'. Said arm serves to retain in shape the bent portion of the pole. The rear end of the pole lies between the inner faces of the posts Z of the plate E, and extends slightly beyond said plate. The plate F forms a cap for the plate E and rests on the posts Z of said plate. The plates are held in place and secured to the pole by a bolt passing through the hole *d* in the plate F, through the pole, and through the hole *d'* in the plate E, the arm *f''* of the plate F being bolted to the upper curved face of the pole. The annular heads *D'* of the cases D extend between the adjacent faces of the plates E and F and lie in the concave *n* of the posts Z, and are pivotally secured therein by bolts or rivets passing through the holes *v* in the plate F, through the holes *v'* in the annular head, and through the holes *v''* in the plate E, thus permitting said heads to rotate in the plates as the circle-bars are moved in adjusting the pole.

To adjust the pole for a narrow vehicle, the nut *e'* is loosened and the head G slid toward the rear end of the pole, carrying the brace-rods back and swinging in the free ends of the circle-bars, as clearly shown by dotted lines in Fig. 1. To adjust the pole for a wide vehicle, the head G is moved in the opposite direction, as will be readily understood. When the pole is adjusted to the proper width, the nut *e'* is tightened, which securely locks the sliding head G and holds the brace-rods C, whereby the circle-bars are firmly braced. By pivoting the brace-rods to the circle-bars the adjustment is greatly facilitated and the circle-bars uniformly adjusted.

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

1. In combination with the pole, the two-part circle-bar, the inner ends thereof having a metal casing D, said casings having a pivotal connection with the rear end of the pole, and the brace-rods pivotally coupled to the circle-bar at their rear ends, their forward ends at-

tached to the sliding head, said sliding head adjustably coupled to the pole, substantially as and for the purposes set forth.

2. In combination with the pole having the metal coupling-plates E and F attached to the rear end thereof, the two-part circle-bar, the inner ends thereof having a pivotal coupling with the coupling-plates of the pole, the set of metal extensions mounted on the free ends of the circle-bar, and the brace-rods having a pivotal connection with said extension-irons, their forward ends being coupled to the traveling head mounted on the pole, said traveling head adapted to be locked when adjusted, as and for the purposes specified.

3. In combination with the pole having the irons E and F mounted on the rear end thereof, the two-part wooden circle-bar, and the metal cases D, attached to the inner ends thereof, said cases having a pivotal connection with the irons mounted on the rear end of the pole, the free or outer ends of the circle-bar adapted to be swung toward or from each other.

4. In combination with the pole having the irons E F attached to the rear end thereof, the two-part wooden circle-bar, the inner ends thereof having the metal casings D, which casings are pivotally coupled to the irons on the rear end of the pole, the brace-irons having their rear ends pivotally coupled to the circle-bar, their forward ends coupled to the sliding head, the toothed and slotted plate attached to the under face of the pole, the traveling head having the toothed face *t'*, which engages with the toothed face of said plate, the bolt attached to the traveling head and passing through the slot *a* of the plate, and nut, whereby said parts are locked when adjusted.

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

WILLIAM A. GALBRAITH.

Witnesses:

JAMES H. MCFARLAN,
SUMNER HOWARD.