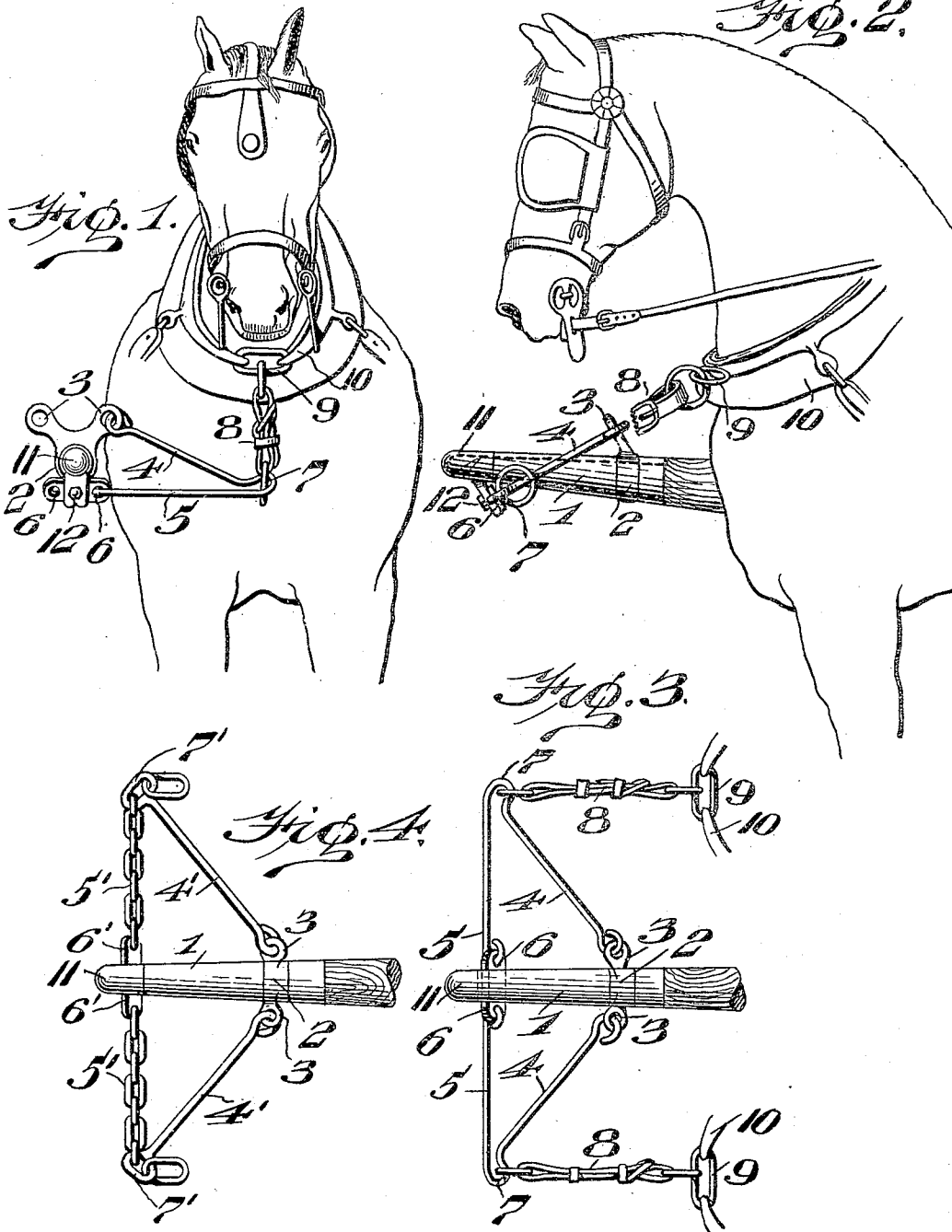


T. H. BRIGG.
POLE APPLIANCE.

APPLICATION FILED NOV. 19, 1909.

946,593.

Patented Jan. 18, 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS H. BRIGG, OF BRADFORD, ENGLAND.

POLE APPLIANCE.

946,593.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed November 19, 1909. Serial No. 528,921.

To all whom it may concern:

Be it known that I, THOMAS H. BRIGG, a subject of the King of England, a resident of Bradford, county of York, England, have invented a new and useful Pole Appliance, of which the following is a specification.

My invention relates to propelling mechanism for carriages and wagons and particularly to a pole appliance arranged to enable draft animals when backing or holding a team against forward movement to exert their muscular powers directly parallel to the pole, preventing sidewise pull and insuring a full and uniform utilization of the backing and retarding power in the fore legs of the animals, as the muscular powers of the animals are then shared by the forward and rearward muscles of the withers and hind quarters, and all mauling or knocking about of the animals so frequently observed in backing the horses attached to heavy civil or military transport vehicles is completely avoided.

One purpose of my invention is to maintain the parts in fixed arrangement.

Another purpose of my invention is to transmit the strain to the various parts of the pole throughout the entire thickness of the pole.

A further purpose of my invention is to facilitate the mounting of my structure upon the pole.

A further purpose of my invention is to reinforce the pole itself and to provide a tip for it.

A further purpose of my invention is to divide the strain upon the pole into true compressive strain lengthwise and side strain upon the end of the pole in its entirety, avoiding shearing of side fastenings.

My invention consists of other features of construction and combination of parts, as will be more fully set forth in the claim.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise ar-

rangement and organization of these instrumentalities as herein shown and described.

Figure 1 is a front elevation of a preferred form of my construction. Fig. 2 is a side elevation of the structure shown in Fig. 1. Fig. 3 is a top plan view of the form shown in Figs. 1 and 2. Fig. 4 is a top plan view of a modified form of my invention.

My invention comprises an improvement over that set forth in the specification of my Letters Patent No. 780,858, of January 24, 1905, with resultant advantage of construction and operation over the structures therein set forth. As compared therewith my present invention is self contained, and consists in combining a pole-crab and neck-yoke made up in a concrete unitary structure, stiffening and reinforcing the pole and providing a finish and interchangeability of the parts and a lightness of structure and convenience and practicability of operation hitherto considered unattainable. I also drop the pole point of front attachment below the pole to approximately the same extent as the rear attachment point is raised above the pole, in order to get the required vertical angle with as little distance of either of these from the pole as possible and to have the center point of the line of strain between these two attachments lie approximately in the transverse center of that portion of the pole lying between them. I am thus enabled also to secure the requisite vertical angle with as low an attachment as possible, a considerable advantage in this structure.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates a ferrule or sleeve having fixedly secured thereon a forwardly extending bracket 2 eyeleted above the pole at 3, 3 and mounted upon the tubular part 1. The eyelet is double in order to provide for the arms or rods 4—4 which form a part of the transverse front frame having continuous front pieces 5, extending toward the pole from the ends of the arms 4 and connected to the strap, plate or ring 6 at the front of the pole and below it. Between the arms 4 and 5 I provide eyes 7—7 and flexible connections, shown as straps, 8, 8 are connected thereto by rings or any other suitable means for the purpose of transmitting the pull from the

horse to the breast chain 9 and collar 10 or other suitable part of the neck harness.

In the form shown in Fig. 4, I make use of rods or arms 4'—4' terminating in eyes 5 which are connected to the plate, strap or ring 6' by chains 5', 5'.

I close the ferrule or tube at the end in both forms shown, preferably by a cap 11 rigidly attached to the tube, and prefer to attach the plate, strap or ring at that point to a rearwardly depending arm integral with the cap 11, which arm I have shown as riveted to the plate, strap or ring at 12. I prefer to make this plate, strap or ring of metal for heavy duty and of leather for light duty and provide it with any suitable eyes for the purpose intended. I thus secure a fixed relation of parts, which makes it practically impossible for coach or wagon builders to place them erroneously as to distance or angle. The same feature is most advantageous in finishing the parts and in the unitary structure for sale, since the tubular character of the mount gives additional opportunity for finishing and the unitary character of the structure avoids displacement or loss of any of the parts.

It will be evident that connection is made between the horse collar or other similar part and the side of the pole at a distance therefrom laterally and at an angle thereto vertically.

My invention may be used as supplemental to the ordinary pull back straps or

independent thereof and possesses considerable advantage over them in simplicity of construction and point of application.

I prefer to manufacture my invention of steel so far as permissible throughout, but it may be made of other materials without departing from the spirit of my invention.

It will be understood that the details of construction may be varied, and that the size and proportion of the parts may be changed, and that the connections for transmitting strain from the horses may be modified without departing from the spirit of my invention and without avoiding the claim thereof.

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

As an article of manufacture, a tubular pole piece of tapered shape, closed at the smaller end and having a pair of ears rigidly secured thereto near each end, the pair at the front end extending downwardly and rearwardly and the pair at the rear end extending upwardly and forwardly, in combination with a pair of arms forming a bracket on each side of the pole piece and connected at the free ends of each arm with one of each of the two pairs of ears.

THOMAS H. BRIGG.

Witnesses:

ERNOLD SIMPSON MOSELEY,
MALCOLM SMETHURST.