G. W. EDDY.

Whiffletree and Neck Yoke.

No. 167,322. Patented Aug. 31, 1875.

Fig. 1

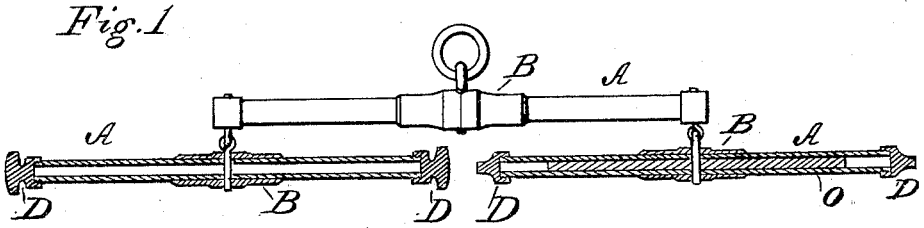


Fig. 2.

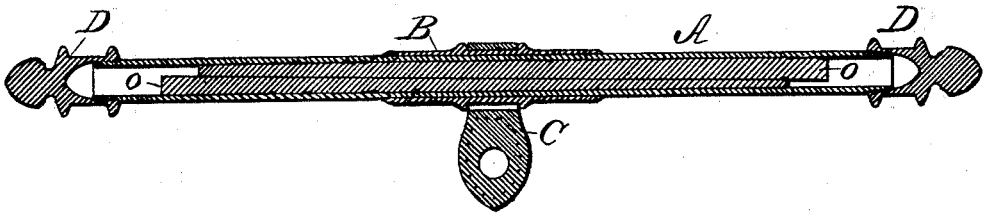
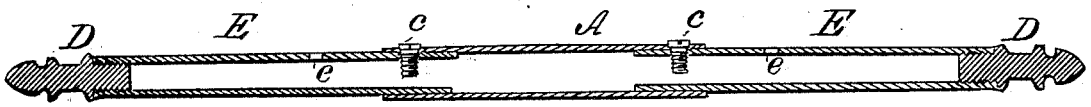


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. EDDY, OF WATERFORD, NEW YORK, ASSIGNOR TO LYMAN K. EDDY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WHIFFLETREES AND NECK-YOKES.

Specification forming part of Letters Patent No. **167,322**, dated August 31, 1875; application filed July 8, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. EDDY, of Waterford, in the county of Saratoga and State of New York, have invented certain Improvements in the Construction of Whiffletrees and Neck-Yokes, of which the following is a specification:

My invention relates to whiffletrees and neck-yokes; and the invention consists in constructing these articles of tubular pieces of metal, together with certain details of construction, all as hereinafter more fully set forth.

Figure 1 represents a set of whiffletrees made on my plan. Fig. 2 is a longitudinal section of a neck-yoke; and Fig. 3 is a longitudinal section of a whiffletree or neck-yoke, showing a modification thereof.

Whiffletrees and neck-yokes are ordinarily constructed of wood, though occasionally they are made solid of metal. In either case they are comparatively heavy and clumsy, and if made of wood are liable to injury and decay.

The object of my present invention is to make these articles in such a manner as to render them light and durable, as well as more ornamental. To do this I construct them of pieces of tubular metal of proper size and shape. For this purpose wrought-iron pipe, such as is ordinarily used for gas or water pipe, may be used. To construct a whiffletree or neck-yoke I take a piece of pipe and cut it to the required length, as represented by A, Figs. 1 and 2. I then fit over this, at its center, a shorter piece, B, to strengthen it, and to secure the connections or attachments. This central piece B may be either of wrought or malleable iron, or if preferred, in case of the more ornamental ones, it may be made of brass. In the case of the neck-yoke, if made for light carriages with a strap, C, as usual, for holding the pole or tongue, the piece B may be made with an annular recess to receive and hold the strap C, as represented in Fig. 2. For the heavier class of articles used with lumber-wagons and the like, instead of the strap C the ordinary metal ring may be used, it being secured, as represented in Fig. 1, by one or more eyebolts, or in any other suitable manner. The ends, whether for whiffletrees or neck-yokes, will be provided with caps or terminals D, as represented in the several figures, they being made to screw on over the ends of the part A, as shown in Figs. 1 and 2, or made to screw inside of the tube A, as shown in Fig. 3. These terminals may be otherwise secured---for instance, they may be brazed or soldered fast, or they may be fastened by a pin, screw, rivet, or bolt, but I prefer to have them screwed fast, as represented, as by so doing they can be more readily detached, so as to change the peculiar fastenings for the tugs, in case it be required, and also enable them to be turned half over, so as to bring the wear on the opposite side when one side becomes worn. In the case of whiffletrees these terminals D will be provided with suitable hooks, rings, or other devices, as may be desired, for fastening the traces to. So on the neck-yokes the terminals D may be made with annular recess for the reception of the usual straps at the ends, as shown in Figs. 2 and 3, or they may have rings attached, as may be preferred, these being optional with the manufacturer, and depending mainly on the special purpose for which the article is to be used, whether for light or heavy work.

In order to render these articles still stronger I fill their interior with wood, as represented in Figs. 1 and 2. In order to fit this wood in tight, I divide it longitudinally and diagonally, as shown in Fig. 2, the two pieces *o* thus being made slightly wedged-shaped, by which means they can be driven or forced in very tight, thus being made to fill the tube snugly, so that the wood will not become loose therein. If, by any means it should become loose, it can be readily tightened up by removing one of the terminals D, and driving up the pieces *o*. This wooden core may extend the whole or a part only of the length of the tube A', as may be found most expedient. By the use of the wood filling a smaller or thinner tubing may be used, and the required degree of strength be obtained.

By this method of constructing these articles of tubular metal pieces they may also be made adjustable, as to length, as represented in Fig. 3. In that case the part A will be made shorter, and the smaller piece E will be

fitted into each end, the parts being provided with a series of holes, *e*, and screws or bolts *c*, by which means they can be lengthened or shortened, as may be required. This is more especially important for the use of teams performing heavy hauling on ordinary roads, as at certain times it is desirable to use a long neck-yoke, and at other times a short one. So, too, it is useful in cases where one of the animals has the habit of "hauling" or "crowding," as in such cases its end of the neck-yoke can be lengthened or shortened to suit.

If it be desired the tubular body of these articles can be made of an oval form in cross-section, so as to impart to them greater rigidity. This can be done either by passing the tubing through rolls before it is cut up into lengths, thereby flattening the tube somewhat, or it may be done after the parts are cut of proper length. The end portions may be thus flattened, while the central portion retains its original form.

It will at once be seen that by this improvement in the art of constructing whiffletrees and neck-yokes very light and strong articles may be thus made, and that they may be either painted or plated, and thus be made exceedingly ornamental. Articles thus made combine lightness and strength with durability to a degree far exceeding the ordinary articles made of wood.

I do not limit myself to any particular kind of metal, nor to any special form or style, as it is obvious that they can, and indeed must be, varied more or less, according to the special use for which they may be intended, and the taste of the party designing or manufacturing them.

Having thus described my invention, what I claim is—

1. As an improvement in the construction of whiffletrees and neck-yokes the tubular body A and the central re-enforce or sleeve B, constructed substantially as described.

2. In combination with the tubular body A the wood filling applied thereto, substantially as shown and described.

3. In combination with the tubular body A the terminal or caps D, constructed and applied substantially as set forth.

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