

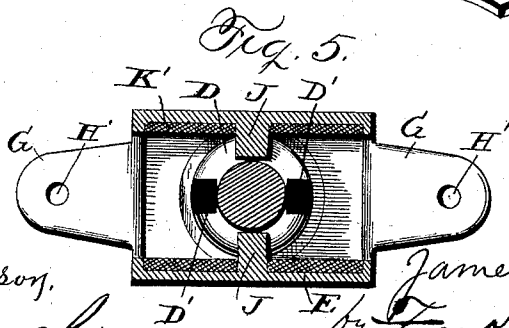
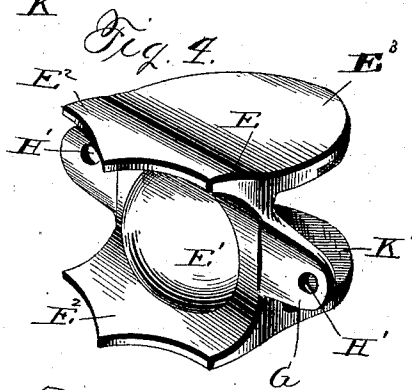
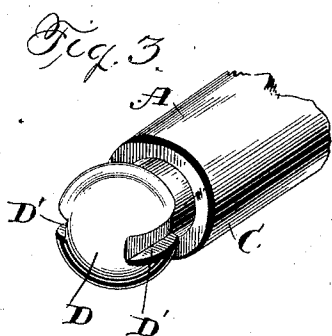
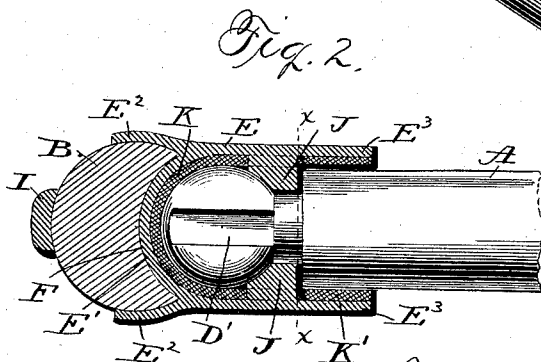
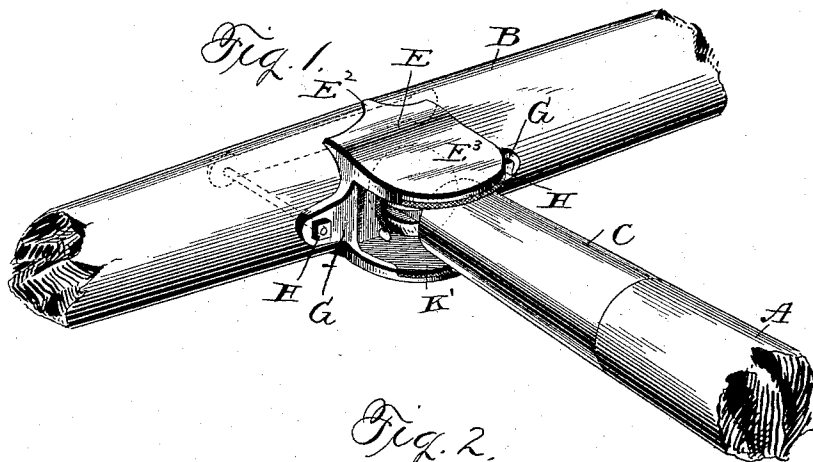
(No Model.)

J. L. COX.

NECK YOKE ATTACHING DEVICE FOR VEHICLE POLES.

No. 469,432.

Patented Feb. 23, 1892.



Witnesses
J. Williamson,
A. L. Hough

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UNITED STATES PATENT OFFICE.

JAMES L. COX, OF MOORE'S SALT WORKS, OHIO.

NECK-YOKE-ATTACHING DEVICE FOR VEHICLE-POLES.

SPECIFICATION forming part of Letters Patent No. 469,432, dated February 23, 1892.

Application filed December 4, 1891. Serial No. 414,016. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. COX, a citizen of the United States, residing at Moore's Salt Works, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Means for Attaching Neck-Yokes to Vehicle-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 certain new and useful improvements in neck-yokes and in the means of attaching the same to vehicle-poles; and it has for its object to provide a simple and inexpensive device whereby the neck-yoke may be quickly and securely attached to the end of the vehicle-pole.

The device is simple in construction, of few parts, and will be found to be both serviceable and durable. The neck-yoke being attached directly to the extreme end of the pole, instead of having the end of the pole passed through a ring suspended from or otherwise attached to the neck-yoke, as has heretofore been common, it will be readily seen that the liability of accidents due either to the catching of the reins over the end of the pole or to the contact of the end of the pole, which protrudes beyond the neck-yoke with other vehicles or with obstructions upon crowded thoroughfares, will be entirely obviated.

25 A further object of the present invention is to provide a means whereby the neck-yoke may be attached to the pole by means of a universal or ball-and-socket joint, thereby permitting at all times a free and independent movement of the neck-yoke when attached to the pole.

To these ends and to such others as the invention may pertain the same consists in the novel features of construction and in the peculiar combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the

accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating the same parts throughout these several views, in which—

Figure 1 is a perspective view of a portion of a vehicle-pole with the neck-yoke attached in accordance with my invention. Fig. 2 is a central vertical section through the neck-yoke with the neck-yoke attached. Fig. 3 is an enlarged detail in perspective of the end of the pole. Fig. 4 is a perspective view, also, upon an enlarged scale of the neck-yoke casting. Fig. 5 is a section upon the line *xx* of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates a vehicle-pole, and B the neck-yoke. The pole is provided at its end with a casting C, the body portion of which is hollow and adapted to be fitted over the end of the pole, and is secured thereto in any suitable manner. This casting C is provided at its free end with a solid spherical head D, and upon its opposite sides this head is provided with slots D' for a purpose which will presently be explained.

E is a casting, which is provided with a semi-spherical dish-shaped body portion E', which is adapted to be fitted within a correspondingly-shaped recess F, which is provided for the reception of the casting at the longitudinal center of the neck-yoke. This casting E is provided with the horizontally-extended arms G G, which, when the casting is secured to the neck-yoke, as shown in Fig. 1 of the drawings, have a bearing against the face of the yoke, and the casting is secured to the yoke by means of bolts H H, passed through openings H' in the arms G, said bolts being passed through the neck-yoke and through a strengthening-bar I upon the opposite face of the yoke. The casting E is provided with flattened plates or extensions E², which embrace the neck-yoke, the under faces of said extensions being curved, as shown, to adapt the same to closely embrace the curved surface of the yoke, and rearwardly-extending plates or extensions E³, which, when the neck-yoke is in place upon the pole, overlap the pole-tip, which is received between them.

Within the opening in the casting leading

to the chamber E' are provided upon the upper and lower faces of the casting inwardly-extending lugs or projections J J.

In practice I usually provide the chamber 5 E' with a lining K of leather or other suitable material, and it is also my practice to provide the inner faces of the extensions or plate E³ with a similar wearing-plate or lining, as shown at K'. This lining of leather serves to 10 prevent the wearing of the contacting parts, and also serves to prevent unnecessary play. It is at once evident that this lining may be easily and quickly removed or replaced by new material at any time, and its use may, if 15 desired, be entirely dispensed with.

The operation of the device is simple and readily understood. By turning the neck-yoke into a vertical position the lugs J will be caused to register with the slots D' of the 20 head D of the pole-tip, when the said tip may be forced into the chamber E', when by turning the yoke in either direction the same will be locked to the pole-tip, but will be allowed a free rotary movement thereon.

25 It will be seen that by the construction described the necessity of extending the tip of the pole beyond the neck-yoke will be obviated, and that there will be no projections which will be liable to catch the reins or interfere with the turning of the vehicle in 30 limited space.

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

35 1. In a coupling of the class described, a

casting comprising in a single element a semi-spherical body portion, horizontal oppositely-arranged arms, and oppositely-arranged extensions in pairs, substantially as and for the purpose described. 40

2. In a coupling of the class described, a casting comprising in a single element a semi-spherical body portion, horizontal oppositely-arranged arms, and oppositely-arranged extensions in pairs, the extensions of one pair 45 being curved upon their inner faces, substantially as and for the purpose described.

3. The combination of the neck-yoke recessed, as described, at its longitudinal center, the casting E, secured to the neck-yoke with 50 its semi-spherical chamber seated within the recess, the extensions E² and E³, adapted to embrace the neck-yoke and to overlap the end of the pole, respectively, the casting C upon the pole, said casting being provided 55 with a solid spherical head D, having longitudinal opposite slots D', and the lugs J in the casting E, adapted to register with the slots D' when the neck-yoke is turned into a vertical position, and the lining to the chamber 60 of the casting and the inner faces of the extensions, substantially as and for the purpose described.

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

JAMES L. COX.

Witnesses:

A. L. HOUGH,
FRANKLIN H. HOUGH.