

No. 698,075.

Patented Apr. 22, 1902.

J. H. STORCH.

NECK YOKE.

(Application filed Sept. 10, 1901.)

(No Model.)

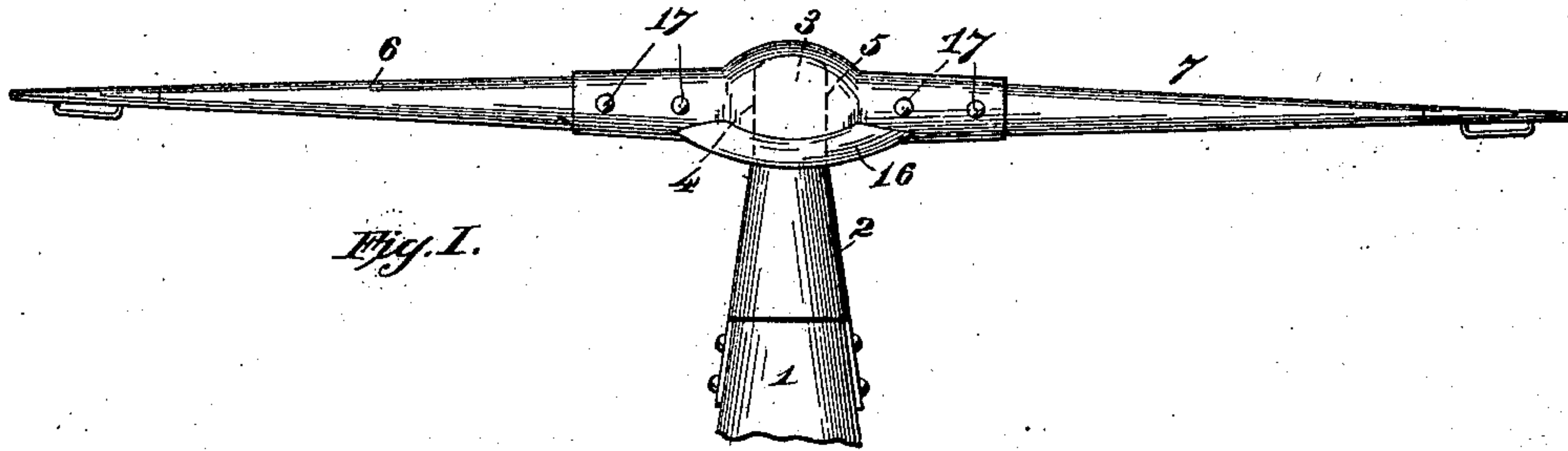


Fig. I.

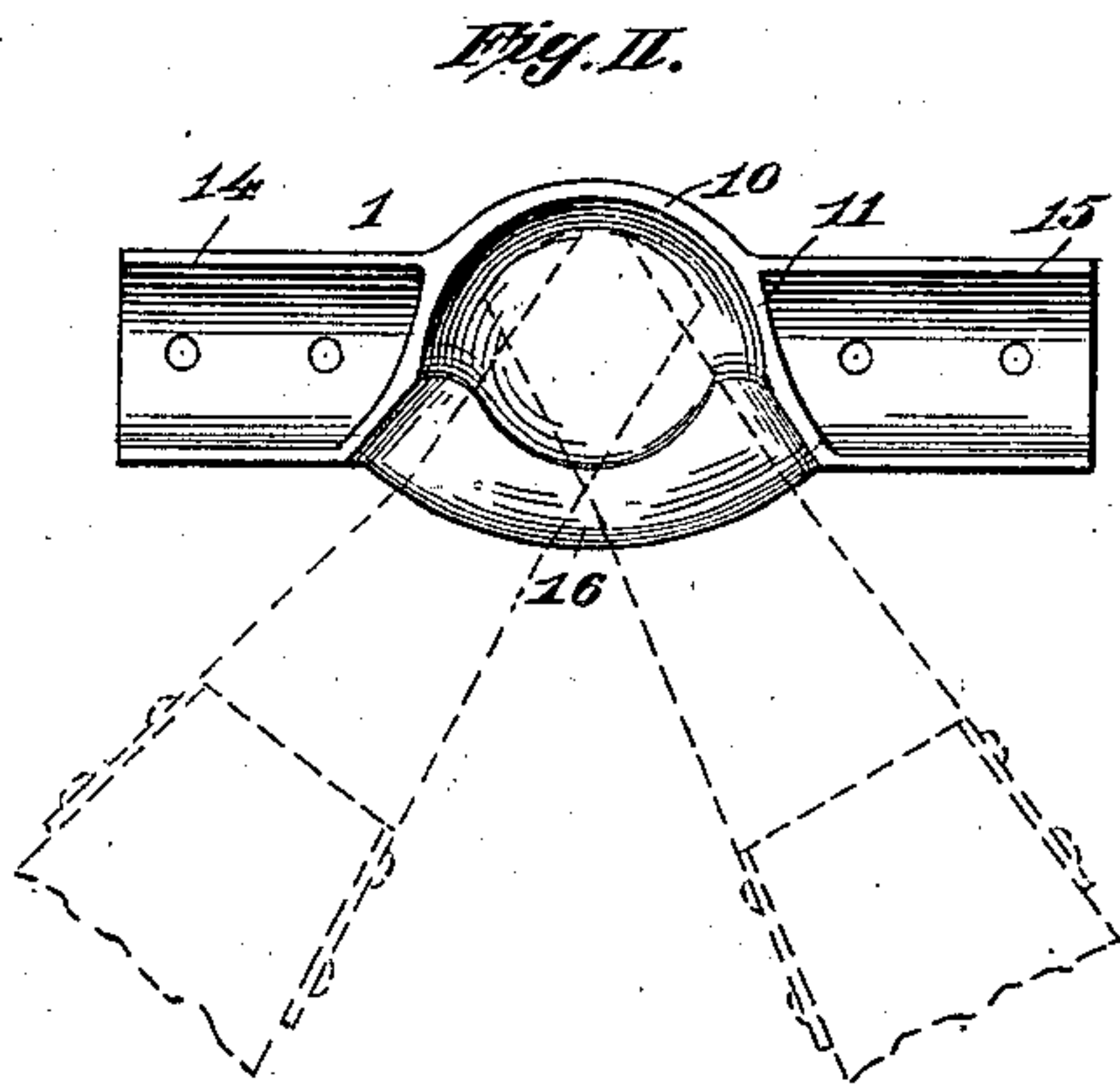


Fig. II.

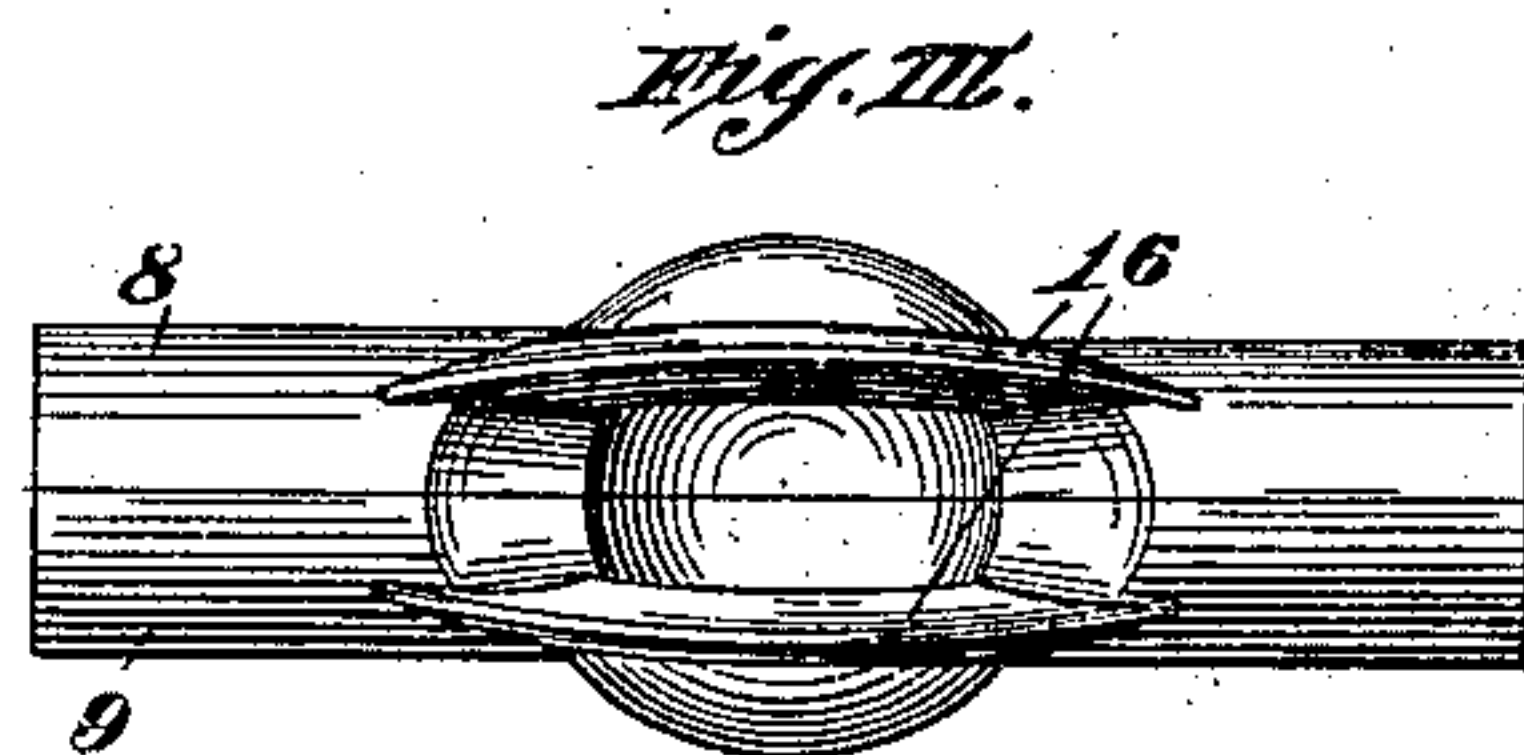


Fig. III.

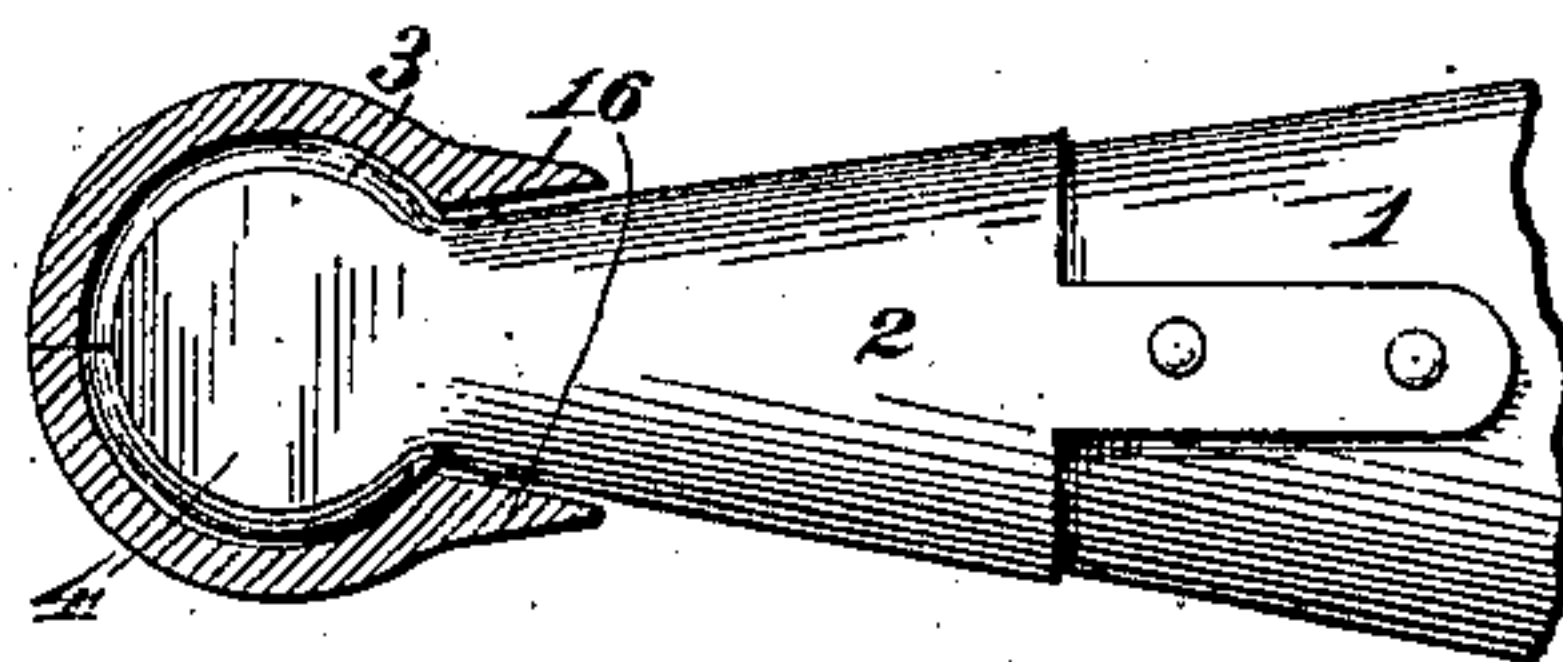


Fig. IV.

WITNESSES:

W. S. Austin,
Paul J. Daniel.

INVENTOR:

John N. Storch,
BY *Joseph H. Atkins,*
Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. STORCH, OF WETONA, PENNSYLVANIA.

NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 698,075, dated April 22, 1902.

Application filed September 10, 1901. Serial No. 74,975. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STORCH, of Wetona, in the county of Bradford, State of Pennsylvania, have invented certain new and
5 useful Improvements in Neck - Yokes, of which the following is a complete specification, reference being had to the accompanying drawings.

My invention belongs to that class of neck-yokes in which the yoke is directly attached
10 to a pole-tip in such manner as to afford freedom of movement in all requisite directions to the yoke upon the pole, which permits convenient separation of the parts when re-
15 quired, and which prevents their accidental separation in use.

The object of my invention is to produce an improvement in the class of neck-yokes referred to in which neat, economical, and
20 effectual means are provided for uniting a yoke to a pole and in which structural provision is made for resisting such strain upon the parts which unite the two as occurs in practice.

In the accompanying drawings, Figure I is a top plan view of my neck-yoke complete attached to a pole-tip. Fig. II is a plan view
25 of one of the socket members of the neck-yoke, illustrating in dotted lines the pole-tip in different positions therein. Fig. III is an
30 end view of both socket members united as in use, looking at them from the rear. Fig. IV is a section on the line IV IV of Fig. I, the parts being shown upon an enlarged scale
35 and the pole-tip in elevation.

Referring to the numerals on the drawings, 1 indicates the forward end of a pole, to which is secured in any suitable or preferred man-
40 ner a metallic pole-tip 2. The pole-tip is provided with a bulbous or spheroidal head 3, having opposite flattened sides 4 and 5, located in practice in parallel vertical planes, as shown in dotted lines in Fig. I, as well as in Fig. II.

6 and 7 indicate the opposite end pieces, which united constitute my neck-yoke. They are united by a pair of metallic socket mem-
45 bers 8 and 9 of special construction, each of the socket members being, preferably, identical in shape and interchangeable.

The construction of each socket member is clearly shown in Fig. II and comprehends a

hollow and substantially semispherical body part 10. The lateral walls of the body part 19 are respectively defined by webs 11, 55 which extend across the semicylindrical end pieces 14 and 15 of the socket member. The rear of the body part 10 is provided with an opening, which when two socket-pieces are assembled defines an aperture fitted to re-
60 ceive, when properly presented, the head 3 of the pole-tip 2. The upper and lower sides of the opening are defined by curved flanges 16, which extend upon each socket member from one web 11 thereof to the other. These in a
65 pair of assembled socket members, as shown in Fig. III, define a space adapted to receive the flat sides 4 and 5 of the head 3 between them and to confine the head 3 when the
70 sides 4 and 5 thereof are disalined with the flanges. Consequently the sides 4 and 5 being located in parallel vertical planes, if the axis of the united socket members is brought into vertical alinement with them, they may
75 be readily applied to or withdrawn from the pole-tip; but when the pole-tip is turned out of the vertical line the head 3 of the pole-tip is securely confined in the hollow or cavity of the body part 10.

The flanges 16 not only lend strength and
80 rigidity to the socket members, but extending along a portion of the shank of the pole-tip 2, as shown clearly in Fig. III, afford means for resisting twisting movements of the yoke about its axis in any position which
85 the yoke may assume with respect to the pole-tip in use, as suggested, for example, in dotted lines in Fig. II of the drawings.

The end pieces 14 and 15 of the socket-pieces, being semicylindrical, are adapted in
90 an assembled pair of socket members to receive the ends of the parts 6 and 7 of the yoke, and both they and the socket members are united to form a complete neck-yoke, as by bolts 17. (Shown in Fig. I of the drawings.)
95

In manufacture the socket-pieces, respectively comprising the body parts 10, with their webs 11 and flanges 16 and the end pieces 14 and 15, are preferably made of a single cast-
100 ing or forging and, being made to a standard, are universally interchangeable.

In addition to the description already given of the operation of the several parts it is necessary only to add, by way of description of

the operation, that in practice a neck-yoke consisting of parts 6 and 7, duly assembled with a pair of socket members, may be applied to a pole-tip of the kind specified by
5 bringing it into vertical position, when by turning the neck-yoke into the proper operative position the parts are united ready for use. The neck-yoke is readily removed from the pole-tip by bringing it to the position in
10 which it was applied thereto and drawing the parts asunder.

What I claim is—

1. The combination with a pole-tip having a flattened bulbous head, of a neck-yoke provided with means for securing it to said pole-
15 tip, said means comprising a hollow body part having an opening adapted to receive between its walls the flat sides of the pole-tip, said

opening being defined by opposite external flanges extending from end to end of the opening.
20

2. As a part of a neck-yoke, a socket member consisting of a hollow body part, semicylindrical end pieces, and webs, constituting walls of the body part and extending
25 across the semicylindrical end pieces.

3. As a part of a neck-yoke, a socket member consisting of a body part, semicylindrical end pieces, webs, and a flange extending from one web to the other.
30

In testimony of all which I have hereunto subscribed my name.

JOHN H. STORCH.

Witnesses:

C. W. BALLARD,
H. U. HUFF.