

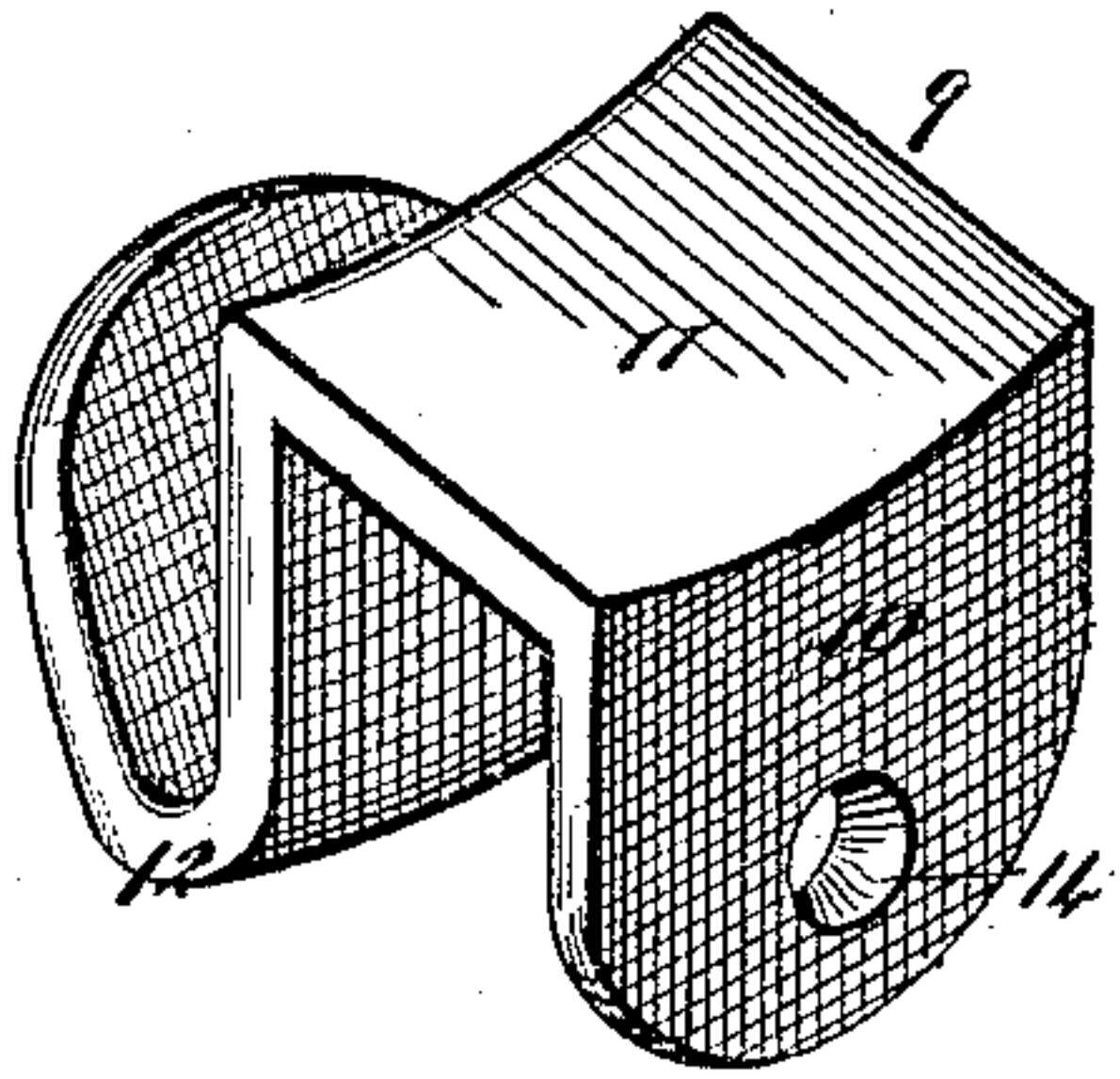
(No Model.)

C. N. WATERHOUSE.  
NECK YOKE ATTACHMENT.

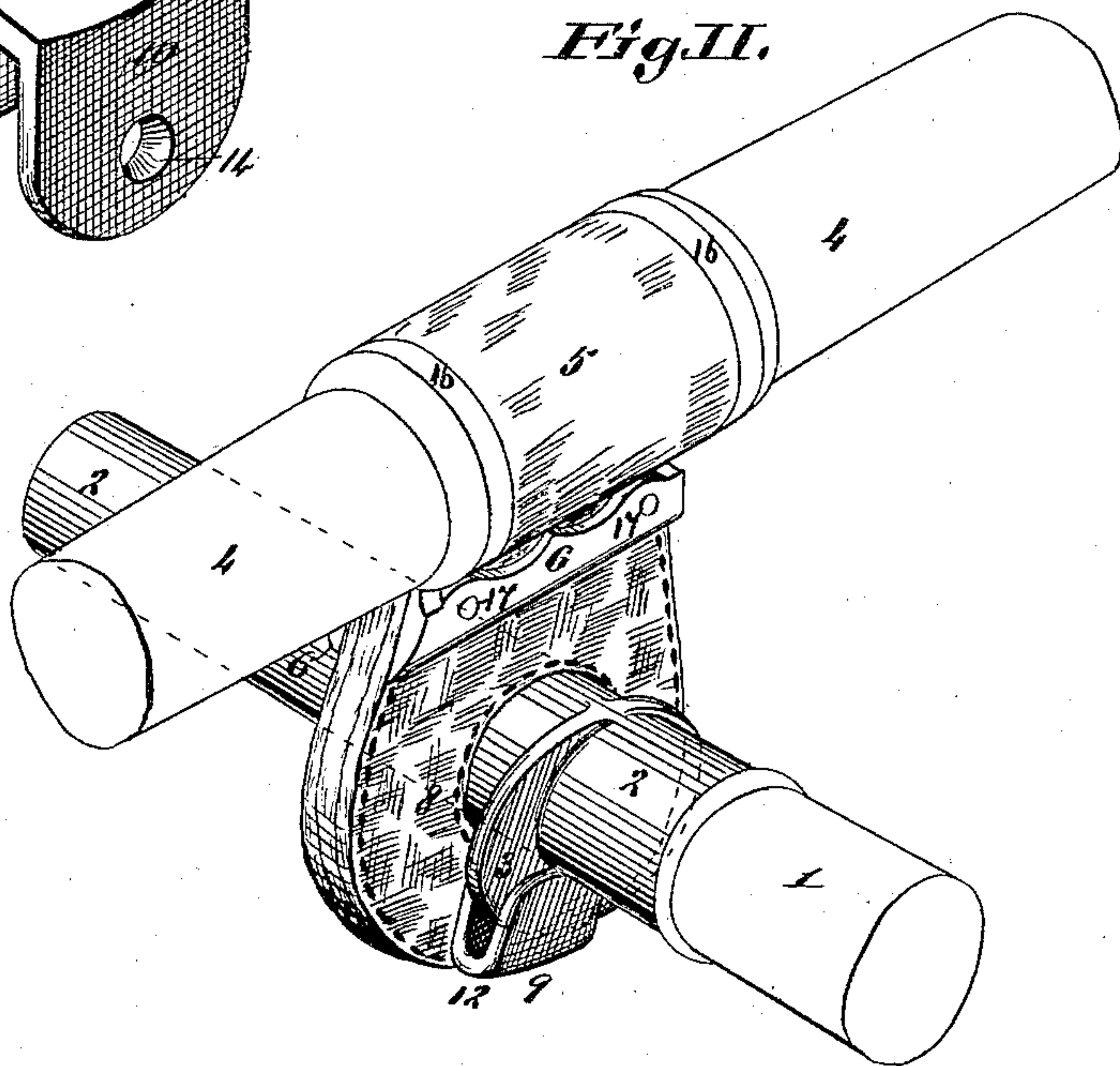
No. 430,495.

Patented June 17, 1890.

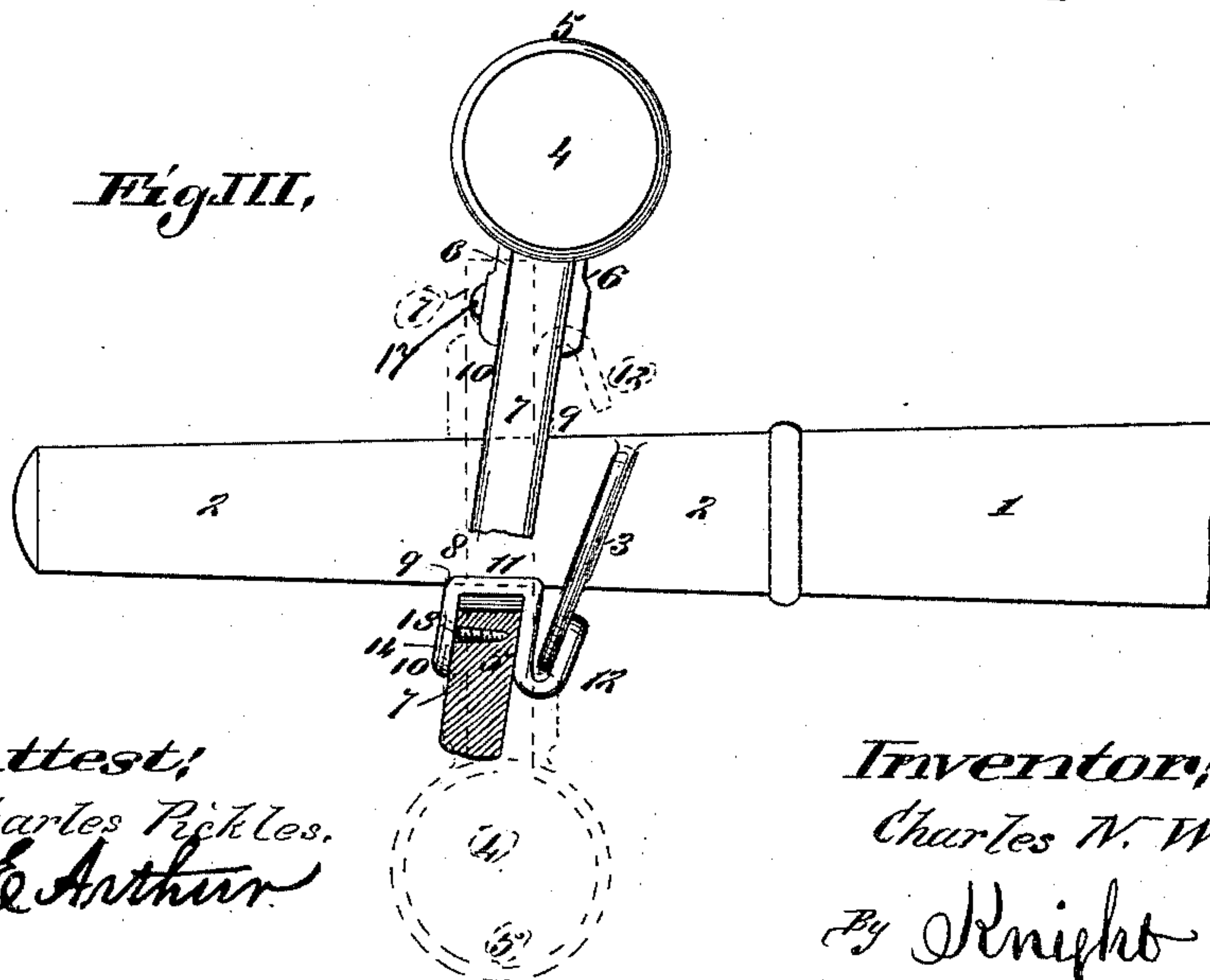
*Fig. I.*



*Fig. II.*



*Fig. III.*



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# UNITED STATES PATENT OFFICE.

CHARLES N. WATERHOUSE, OF ST. LOUIS, MISSOURI.

## NECK-YOKE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 430,495, dated June 17, 1890.

Application filed January 25, 1890. Serial No. 338,094. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES N. WATERHOUSE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Neck-Yoke Duplex-Hook Safety Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a duplex clutch-hook by which a conjoint interlock coupling is effected between the perforate pendent flap of the neck-yoke center and the holdback-collar of the metal pole-tip of a vehicle; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of the duplex clutch-hook. Fig. II is a detail perspective of the pole and neck-yoke lock-coupled together by the duplex hook; and Fig. III is a detail vertical section, and shows the means of attachment of the duplex hook to the pendent flap of the neck-yoke center and embracing the holdback-collar of the pole-tip.

Referring to the drawings, 1 represents the pole of a vehicle, 2 the metal pole-tip, and 3 the holdback-collar that is integral with said tip.

4 represents the neck-yoke, and 5 the center, which is preferably made of leather encircling the yoke, around which it is tightly clamped and firmly held by the encircling rings 16 and the clamping-plates 6, that are integral with said rings, hang pendent therefrom, and are clamped by the screws 17, that are screw-seated therein. The center flap 7 hangs pendent from said center. In the perforate center 8 of said flap the pole-tip of the vehicle has its seat close to the holdback-collar, which is preferably integral with said tip.

9 represents the duplex hook, which is forward of the pendent front hook or strap 10, that fits snugly against the front side of the pendent center flap 7, the curved bridge 11, that couples said duplex hooks and whose curve (when in operative position) fits to the lower side of the perforate flap beneath and to the metal tip above, and the rear pendent hook 12, the attachment-strap of which em-

braces the rear of said flap on one side and the front side of the holdback-collar 3 on the other, and its hook terminal embraces the rear side of said collar. A screw 13 passes through the screw-hole 14 in the pendent front hook 10, and is screw-seated at 15 in the center flap 7, so as to secure the retention of the position of the duplex hook as regards said center flap, on which it is hooked, when the same is either removed from the pole or when the hook and the neck-yoke that carries it is in the act of attachment or of removal.

I have shown and described the duplex hook permanently secured to the pendent flap of the center, and it is preferably so secured merely for its retention in position, as stated, in course of attachment and detachment from the pole-tip, for when once attached it would be firmly held to its post without said screw attachment, and so (although not as convenient for attachment to and detachment from the tip) it may be used without said attaching-screw.

The operation of the device is as follows: The forward member of the duplex hook is secured in rigid connection with the flap of the center, as stated, by the screw 13. The neck-yoke is then inverted from the position shown in full lines in Figs. II and III to the position shown in broken lines in Fig. III, and the perforated flap of the center, with its duplex hook attached, is slid onto the pole-tip, the rear member of the duplex hook passing freely in its inverted position over the holdback-collar, which at top feathers or tapers down to the surface-line of the tip itself, with which it is preferably cast or formed integral. (See the broken-line view in Fig. III.) The neck-yoke is then turned round to its normal operative position, the rear member of said duplex hook turning into clutched engagement with said flanged holdback-collar, as shown in full lines in Figs. II and III. It will now be seen that the pendent pole-bearing flap of the neck-yoke center is firmly locked to the holdback-collar by the duplex hook. It will also be seen that when the attachment of the neck-yoke to the pole is thus locked by the duplex coupling-hook, even although a trace should unhitch or break,



(which when driving over hilly roads is a frequent occurrence,) yet the pole cannot drop from its coupling to the neck-yoke when it is most required that it should maintain its hold, as has frequently been the case where traces have become unhitched or broken, so that by the use of this safety-hook a frequent source of accidents is avoided.

I claim as my invention—

10 1. The duplex coupling-hook, in combination with the neck-yoke center and the holdback pole-tip formed with a collar, with which said duplex hook interlocks, substantially as and for the purpose set forth.

15 2. The combination of the duplex coupling-hook, the neck-yoke provided with a pendent perforate center flap, the pole, the pole-tip, the flanged holdback-collar integral with said pole-tip, and the attachment-screw that se-  
20 cures the duplex hook to said center flap, the said duplex hook arranged to interlock with the attachment of the neck-yoke to the pole-

tip, substantially as and for the purpose set forth.

3. The combination, with the center flap of 25 a neck-yoke having an orifice, of a duplex hook having one hooked portion presented in one direction and adapted to pass through the orifice of the center flap and engage the flap and the other reversely-presented hooked 30 portion adapted to engage the holdback-collar, substantially as set forth.

4. The combination, with a finished neck-yoke center having an orifice, of a duplex integral hook having reversely-turned ends and 35 attached through said orifice to said center by one of its hooked ends, and the other hooked end engaging the holdback-collar upon the pole of a vehicle, substantially as shown and described.

CHARLES N. WATERHOUSE.

In presence of—

BENJN. A. KNIGHT,  
E. S. KNIGHT.