

No. 619,488.

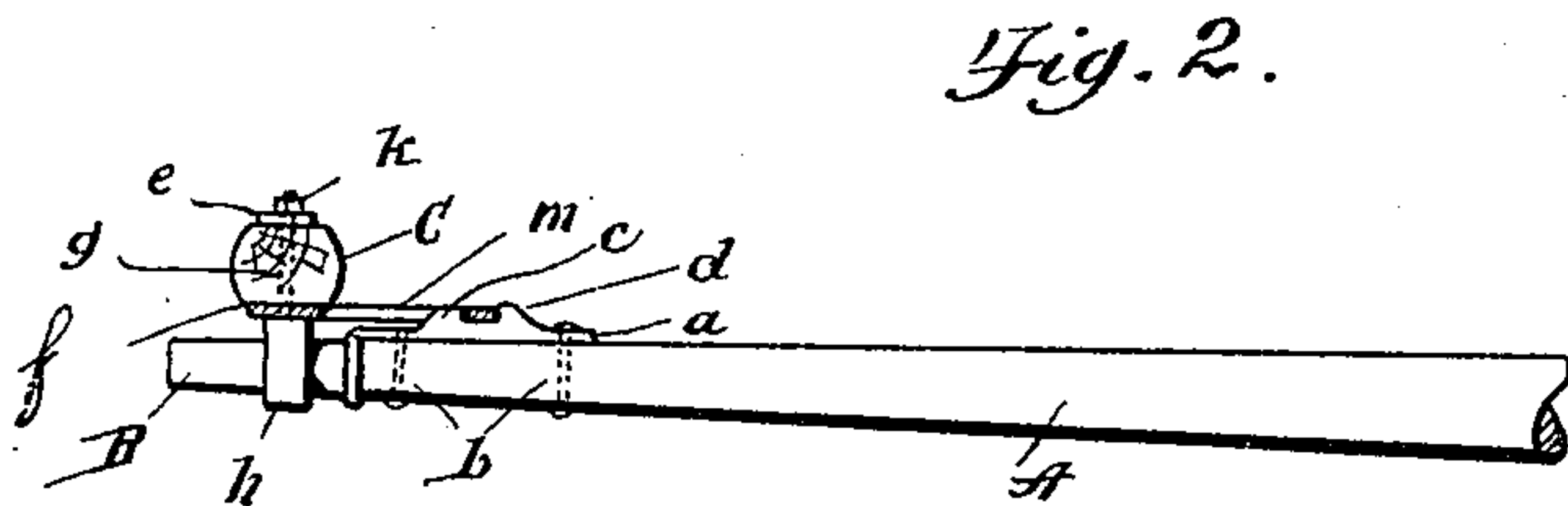
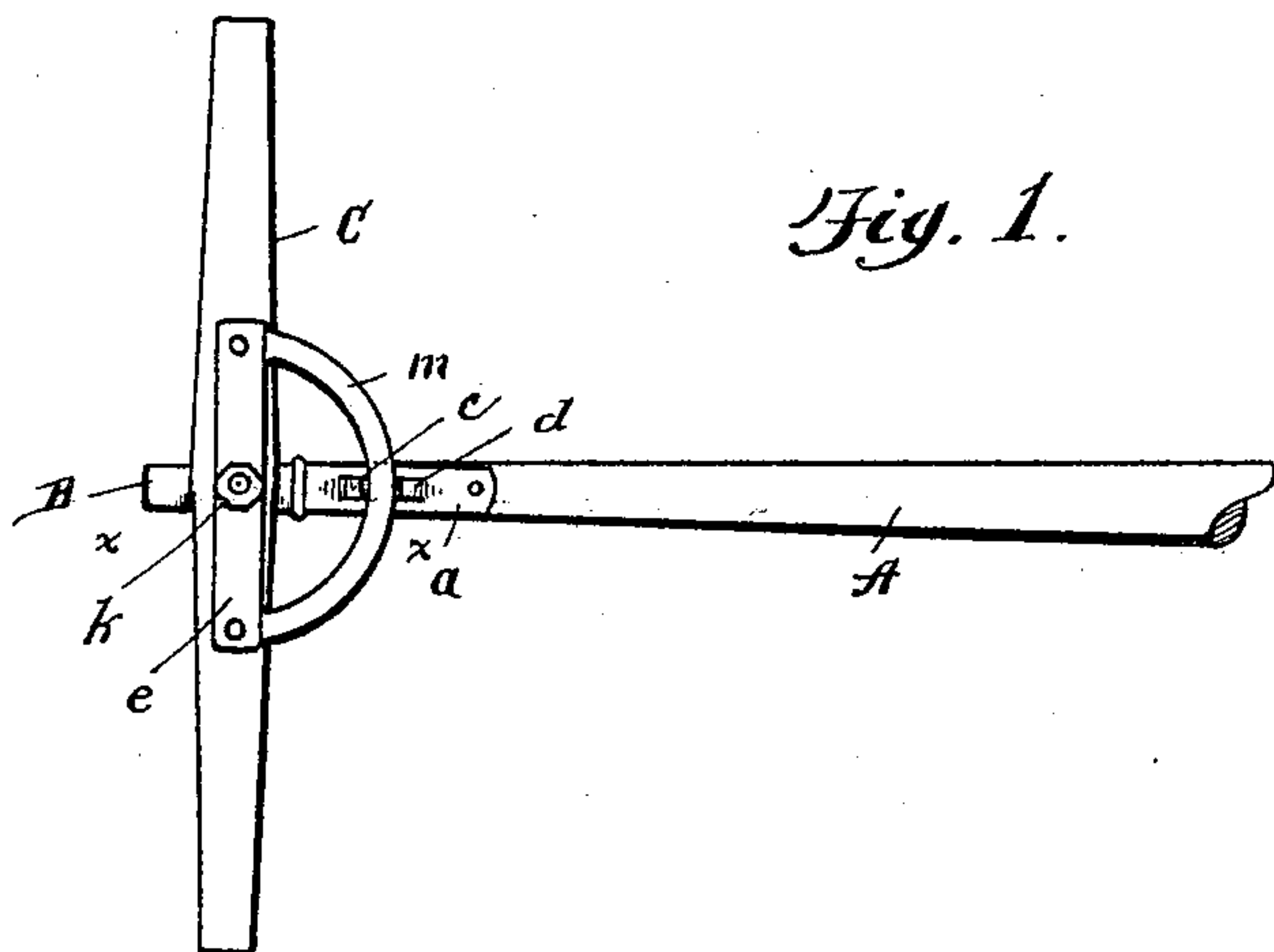
Patented Feb. 14, 1899.

W. JOHNSTON.

NECK YOKE.

(Application filed Apr. 16, 1898.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 619,488, dated February 14, 1899.

Application filed April 16, 1898. Serial No. 677,883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM JOHNSTON, a citizen of the United States, residing at Ellsworth, in the county of Pierce and State of Wisconsin, have invented certain new and useful Improvements in Neck-Yokes; and I do hereby 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, forming a part of this specification.

This invention relates to improvements in neck-yokes, and has for its object to provide means whereby the strain upon the center point of the neck-yoke is distributed, thereby enabling the neck-yoke to be made much lighter and more durable.

A further object of this invention is to provide a safety attachment to prevent the accidental disengagement of the yoke from the tongue in the event of the traces becoming unhitched.

The invention consists in the general construction and arrangement of the parts to be hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 represents a plan view of my improved neck-yoke, showing it in connection with the vehicle-tongue. Fig. 2 is a horizontal section taken at the line X X of Fig. 1.

A indicates the forward end of a vehicle-tongue, having mounted upon the upper side thereof the plate *a*. In the construction of this plate I prefer to form it integral with the end thimble B, so that it will extend backward over the pole or tongue, where it may be fastened by means of the bolts *b*, and formed integral with the upper surface of this plate are two lugs *c* *d*, arranged in line with the axis of the pole and a short distance apart for a purpose to be hereinafter pointed out.

The neck-yoke proper is indicated at C and has at its central point, suitably bolted upon its upper and lower surfaces, plates *e* and *f*. Through the center of these plates and neck-yoke passes the bolt *g*, which is formed integral with the upper end of the ring *h*. The upper end of the bolt *g* terminates with a threaded portion, with which the nut *k* en-

gages to secure the ring in position and at the same time permit it to turn freely in its bearing. Upon the inner edge of the lower plate *f*, either secured thereto or formed integral therewith, is the segment *m*, having its ends engaging the extreme outer ends of the plate and the body of the circle arranged to be guided between the two lugs *c* and *d*, above described, and as this segment is formed in the outer curve around the bolt or pivot *g* as a center it will turn freely between the lugs as the yoke swings upon the pivot *g*, thus forming a guide and stop at every point in the partial circular movement of the neck-yoke. Thus it will be seen from the foregoing that the neck-yoke may be placed in position by tipping one end higher than the other until the segment *m* passes in between the lugs, whence it is then swung to its horizontal position to be securely held from accidental disengagement.

The ring *h* is made of sufficient width and constructed of such size as to fit the bolts *b* freely, yet sufficiently snug to prevent the rocking motion, which might cause the segment to be lifted high enough to escape the holding-lugs. Thus it will be seen that should the traces of the harness become unhitched or accidentally disengaged the lugs in their engagement with the segment would prevent the disengagement of the neck-yoke, thereby avoiding the serious results usually following such accidents.

A further novel advantage to which attention is directed is the fact that the ends of the segment being connected with the plate at its outer ends a considerable distance from the pivot center and the body portion engaging the rear lug *d* as the animals draw back upon the neck-yoke acts as a brace to distribute the strain, thus enabling the yoke to be made much lighter and rendering it more durable. This addition also possesses merit from the fact that the dangers in descending steep grades with heavy loads are much lessened.

It will be obvious to those familiar with the art that some slight modifications may be made in the general construction an arrangement of the parts without materially affecting the results, and I desire to have it understood that although I prefer the construc-



tion herein shown equivalent means may be adopted without departing from the spirit and scope of my invention.

Having thus described my invention, what  
5 I claim is—

The combination of a vehicle-tongue, a plate *a*, mounted upon the upper side of said tongue, a thimble *B*, mounted upon the end of said tongue and adapted to receive said  
10 plate, said plate being provided with two lugs *c*, and *d*, arranged in line with the axis of the pole, the neck-yoke *C*, plates *e*, *f*, bolted upon the upper and lower surface of said neck-yoke, a ring *h*, having the bolt *g*, formed inte-

gral therewith and adapted to pass through 15 the center of said plates and neck-yoke, the nut *k*, arranged to engage the upper end of said bolt *g*, whereby it is permitted to turn freely in its bearing, and a segment *m*, having its ends engaging said plate *f*, said seg- 20 ment arranged to be guided between said lugs *c*, and *d*.

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

WILLIAM JOHNSTON.

Witnesses:

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M. K. SMITH.