

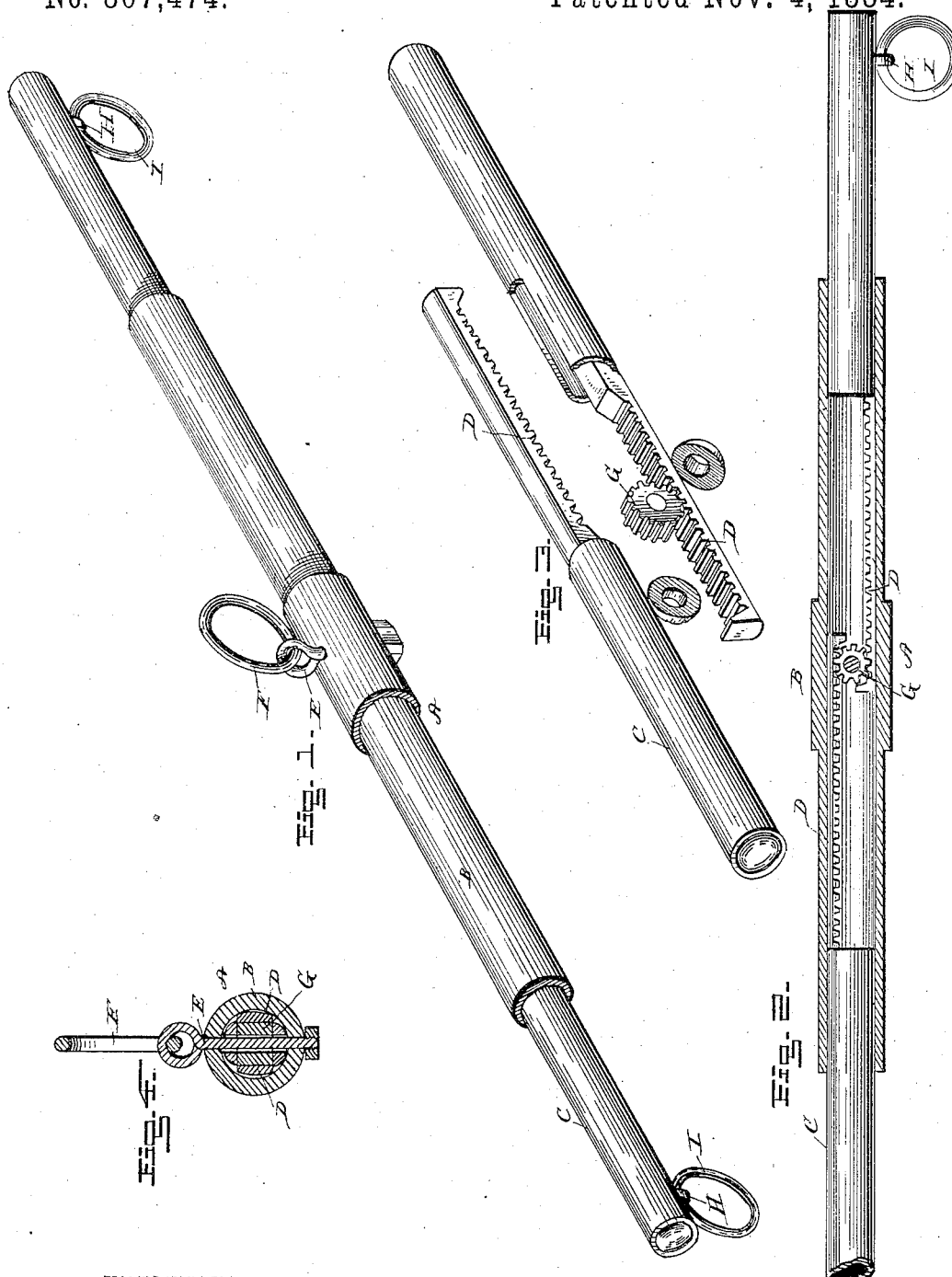
(No Model.)

M. D. LETTEER & S. V. BARLOW.

NECK YOKE.

No. 307,474.

Patented Nov. 4, 1884.



WITNESSES  
F. L. Orand  
C. E. Siggers.

INVENTORS  
Melvin D. Letter  
Silas V. Barlow  
by C. A. Snow & Co  
Attorneys

# UNITED STATES PATENT OFFICE.

MELVIN DELOS LETTEER AND SILAS VINESS BARLOW, OF DELAVAN, WIS.

## NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 307,474, dated November 4, 1884.

Application filed March 22, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, MELVIN D. LETTEER and SILAS V. BARLOW, citizens of the United States, residing at Delavan, in the county of Walworth and State of Wisconsin, have invented a new and useful Neck-Yoke, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to neck-yokes, the object being to provide a device of this character which shall be self-adjusting to any desired length.

A further object of the invention is to equalize the pressure or sudden jar caused by any unevenness of the road by allowing the yoke to give to said motion, thus preventing any strain to the horses.

A further object of the invention is to provide a device of this character which shall be simple in its construction, and durable, and thoroughly effective and certain in its operation.

With these ends in view the invention consists in the combination of a tube or pipe of suitable dimensions with tubular extensions adapted to slide therein, and carrying rack-bars to engage with a pinion loosely mounted upon a shaft of said pipe.

The invention further consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a neck-yoke constructed in accordance with our invention, showing the tubular extensions laterally adjusted. Fig. 2 is a front view of the same, partly in section; and Fig. 3 is a perspective view of the tubular extensions and pinion detached. Fig. 4 is a cross-section through the ring.

In the accompanying drawings, in which like letters refer to corresponding parts in the several figures, A represents a neck-yoke, which is constructed as follows:

B represents a pipe or tube, the diameter of which is slightly enlarged at about its center. Within this pipe or tube are located sliding tubular extensions C, the ends of which are adapted to extend through the openings in the ends of the tube B. Upon the upper side of

one of these tubular extensions C is suitably secured a rack-bar, D, while the other tubular extension is provided with a similar rack-bar secured upon its lower side. The tubular extension which is provided with the rack-bar upon its under side is provided with a longitudinal slot or recess upon its upper side, while the extension carrying the rack-bar upon its upper side is provided with a similar slot upon its lower side, in order that the rack-bars, when the tubular extensions are closed, will rest within said slots, respectively, and thus occupy but a minimum amount of room.

E represents a bolt passing through the enlarged portion of the tube B, and having secured upon one of its ends the pole-ring F. Upon this bolt E is loosely mounted a pinion-wheel, G, which is held in position against lateral movement on said bolt by means of washers, which are preferably convex on their outer faces, thus conforming to the shape of the tube B. The ends of the tubular extensions C are closed by means of a plug, which is secured therein by means of a bolt passing through openings in the said tubular extensions. The end of this bolt H is bent to form a loop, which carries the hame-ring I.

It will be seen from the above description that by the use of our improved neck-yoke, when the tongue or pole is moved laterally by reason of the wheels striking a rut or obstruction in the road, the tubular extensions will automatically give to said motion and draw apart the extensions, thus relieving the horses from such strain. The extensions will then resume their normal position.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A neck-yoke consisting of a tube or pipe, in combination with extensions adapted to slide therein, said extensions each carrying a rack-bar adapted to mesh with a pinion mounted on a transverse bolt, washers mounted on said bolt and adapted to bear against the sides of the rack-bars, and a pole-ring secured to one of the ends of said bolt, substantially as set forth.

2. In a neck-yoke, the combination, with a suitably-constructed tube or pipe, of tubular

extensions carrying rack-bars, and provided  
with slots for the reception of the ends of the  
same, a pinion-wheel loosely mounted upon a  
shaft to gear with said rack-bars, washers in-  
5 terposed between the sides of the pipe and the  
said pinion, and plugs mounted in the ends of  
the extensions, and a bolt passing through  
said plugs and carrying the hame-rings, sub-  
stantially as set forth.

In testimony that we claim the foregoing as  
our own we have hereto affixed our signatures  
in presence of two witnesses.

MELVIN DELOS LETTEER.  
SILAS VINESS BARLOW.

Witnesses:

A. H. KENDRICK,  
C. H. SHULZ.