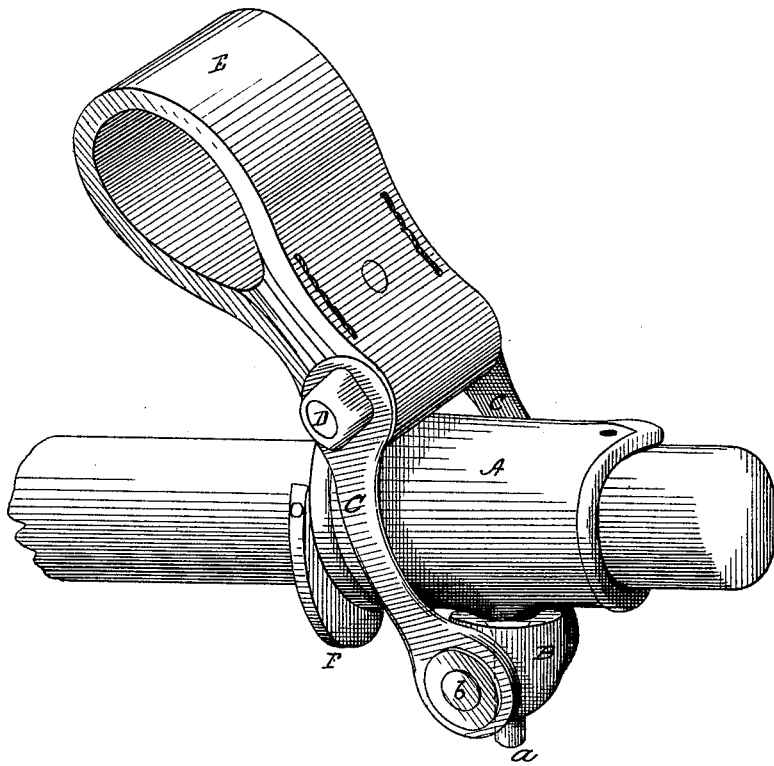


H. H. HARTZELL.
Neck-Yokes.

No. 196,011.

Patented Oct. 9, 1877.



WITNESSES:

Clarence Poole
Geo. H. Evans

INVENTOR:

Hillery H. Hartzell
Per Atty.
A. H. Evans & Co

UNITED STATES PATENT OFFICE.

HILLERY H. HARTZELL, OF HOLDEN, MISSOURI.

IMPROVEMENT IN NECK-YOKES.

Specification forming part of Letters Patent No. **196,011**, dated October 9, 1877; application filed September 5, 1877.

To all whom it may concern:

Be it known that I, HILLERY H. HARTZELL, of Holden, Johnson county, State of Missouri, have invented certain new and useful Improvements in Self-Adjusting Apparatus for Neck-Yokes for double buggies, spring-wagons, and other vehicles, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my invention.

This invention relates to certain new and useful improvements in self-adjusting apparatus adapted to be applied or attached to neck-yokes for double buggies, &c.; and the invention consists in the general construction and arrangement of parts, as will be hereinafter fully described.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents a thimble for fitting loosely over the front end of the tongue, so as to turn either way when the ends of the neck-yoke point up or down. This thimble is provided with a projection, *a*, which is loosely fitted into a socket in the plate B, which is journaled within the ends of the metallic plates C at *b b*, which journals also connect said plates together at their lower ends. These plates C are made curved in form, so as to fit

loosely around the thimble, and are pivoted together at their upper ends by a bolt, D, around which is secured the strap E, to which the neck-yoke is attached in the usual manner. The plates C, being thus constructed and secured together, allow the thimble A a free universal movement in all directions within the plates, whereby the apparatus is adapted to adjust itself to any position the neck-yoke may assume.

F is a plate secured to the tongue, and against which the thimble A bears or rests.

The thimble-journaled plate and side plates should be made of malleable iron or other suitable metal.

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

1. The combination of the thimble A, provided with the projection or stud *a*, journaled plate B, and curved plates C, substantially as and for the purpose specified.

2. The combination of the thimble A, provided with the projection or stud *a*, journaled plate B, curved plates C, and bolt D, arranged to operate, relative to each other and to the neck-yoke and tongue of a wagon or other vehicle, substantially as specified.

HILLERY H. HARTZELL.

Witnesses:

H. C. BETTES,
WM. C. TAYLOR,
J. W. PAGE.