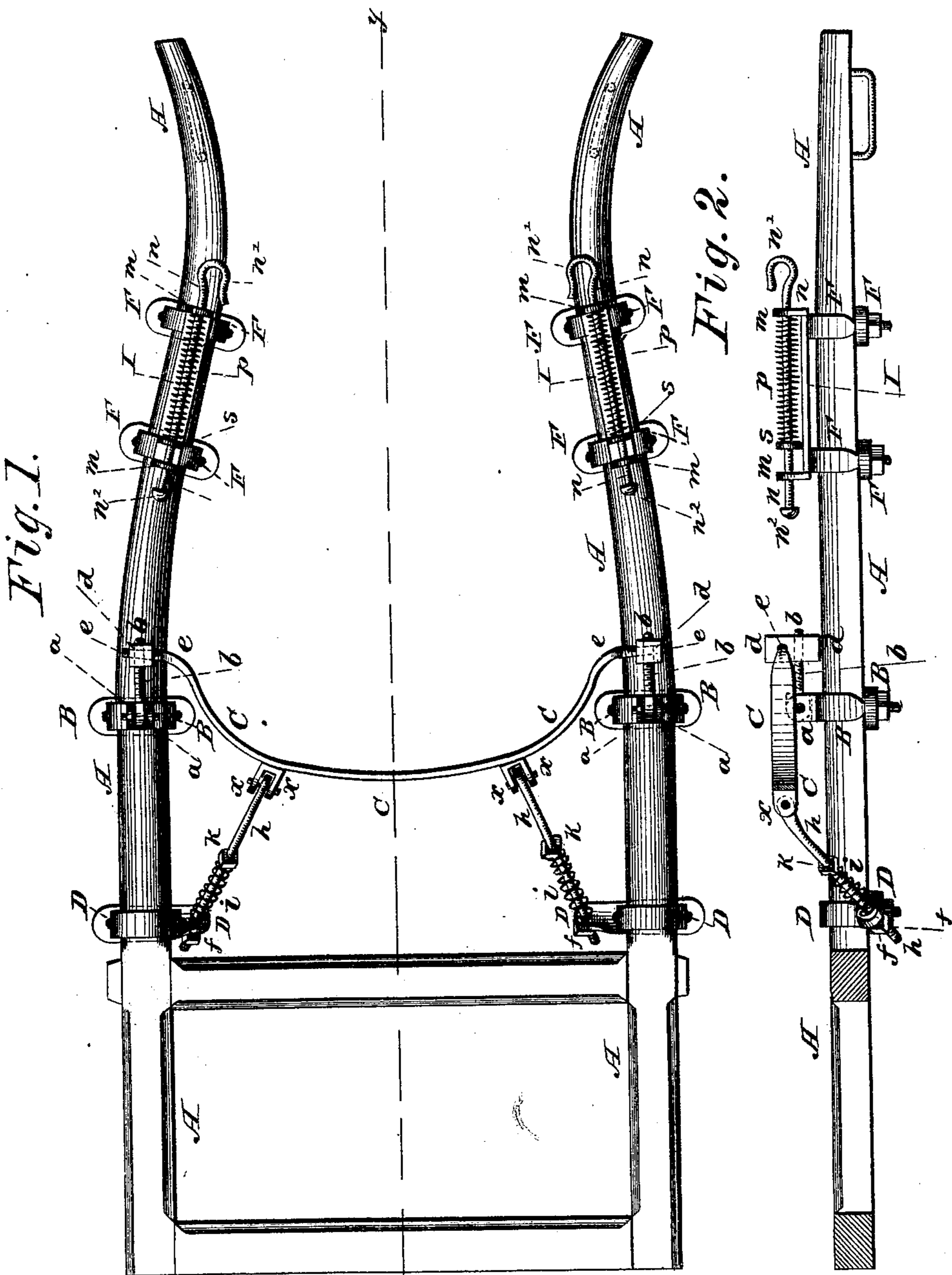


W. S. BOYD, 3rd.  
Shafts for Vehicles.

No. 208,787.

Patented Oct. 8, 1878.



Witnesses:

*P. Dieterich*  
*Frank Duff*

Inventor:

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Per *C. H. Watson & Co* Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM S. BOYD, 3D., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO C. S. BOYD, OF SAME PLACE.

## IMPROVEMENT IN SHAFTS FOR VEHICLES.

Specification forming part of Letters Patent No. **208,787**, dated October 8, 1878; application filed September 17, 1878.

### *To all whom it may concern:*

Be it known that I, WM. S. BOYD, 3d, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Shafts for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to shafts for vehicles; and it consists in providing the same with breech-band and trace-holders, and in the construction and combination of parts, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a plan view of a device embodying my invention, and Fig. 2 is a section of the same, taken on line *y y* of Fig. 1.

A A represent a pair of shafts for a vehicle. At a suitable point on each shaft A is fastened a clip, B, the upper side of which is formed with two lugs, *a a*, and between these lugs is pivoted a screw, *b*. Upon the screw *b* is adjusted a block, *d*, as shown.

C represents the breech-band, made of metal or any other suitable material, and having its ends formed with screws *e e*, which are screwed into the blocks *d d*, thus connecting the breech-band by joints with the shafts.

On the back of the breech-band C, a suitable distance from each end, are lugs *x x*, between which is pivoted a rod, *h*. This rod extends in an inclined position, as shown, and passes through the extended bottom plate or bar of a clip, D, fastened on the shaft. On the end of the rod is a nut, *f*, and surrounding the rod between the clip-bar and a shoulder, *k*, on the rod is a spiral spring, *i*. The springs *i i* are recoil-springs to take the first strain in holding back, and to return the breech-band to its proper position.

At a suitable distance in front of the breech-

band on each shaft are secured two clips, F F, the tops of which are connected by a bar or plate, I, having lugs *m m* at its ends, and through these lugs is passed a rod, *n*, having a hook, *n*<sup>1</sup>, on its front end, and a head, *n*<sup>2</sup>, on its rear end. There is also a shoulder, *s*, on the rod in front of the rear lug, and between this shoulder and the front lug is a spiral spring, *p*, surrounding the rod. The traces are connected to the hooks *n*<sup>1</sup> of the rods *n*.

The shafts are to be held up by means of straps attached to their front ends and connected to the hames or breast-strap of the harness.

By my invention I do away with everything of the leather harness except the collar and hames, and the traces will be made much shorter than usual.

The joints connecting the breech-band C with the shafts A may be made in various ways; hence I do not limit myself to the particular joints shown and described.

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

1. A breech-band, C, connected by suitable joints to the shafts, and provided with one or more recoil-springs, substantially as herein set forth.

2. The combination, with the shafts A A, of the clips B, pivoted screws *b*, with blocks *d*, breech-band C, rods *h*, and springs *i*, substantially as and for the purposes herein set forth.

3. The combination, with the shafts A A, of the clips F, bar I, with lugs *m*, rod *n*, having hook *n*<sup>1</sup>, head *n*<sup>2</sup>, and shoulder *s*, and the spring *p*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM S. BOYD, 3D.

Witnesses:

GEORGE M. SHETTER,  
JOHN L. KUEHN.