

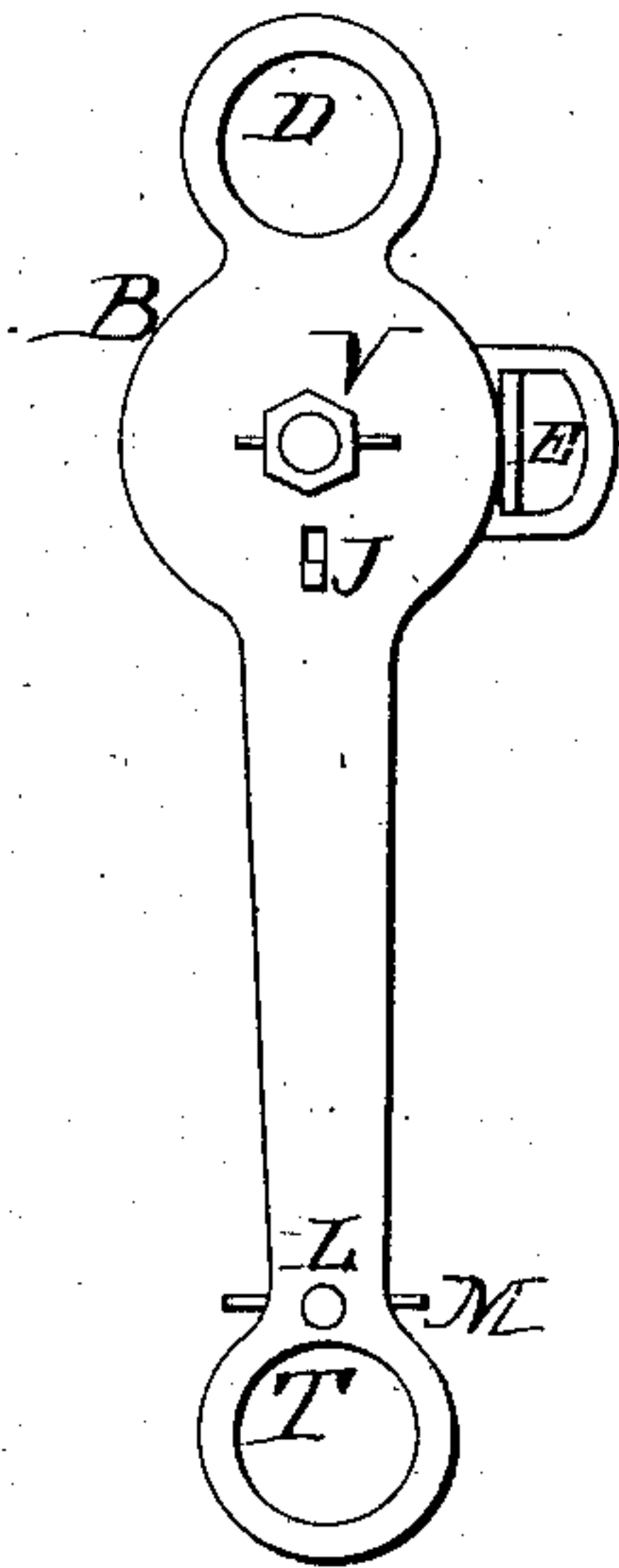
*J. P. Gates,*

*Bridle Bit.*

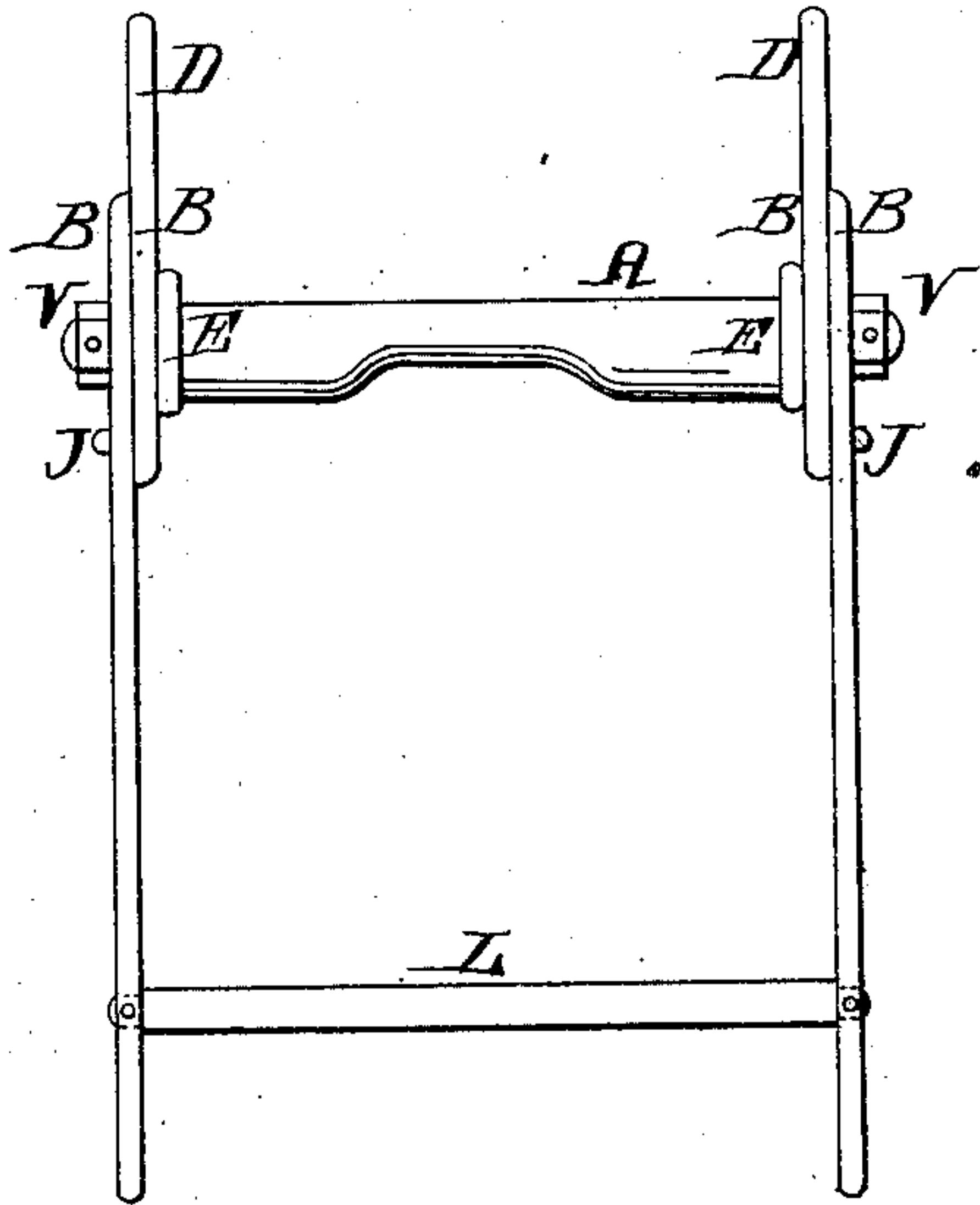
*N<sup>o</sup> 69,910.*

*Patented Oct. 15, 1867.*

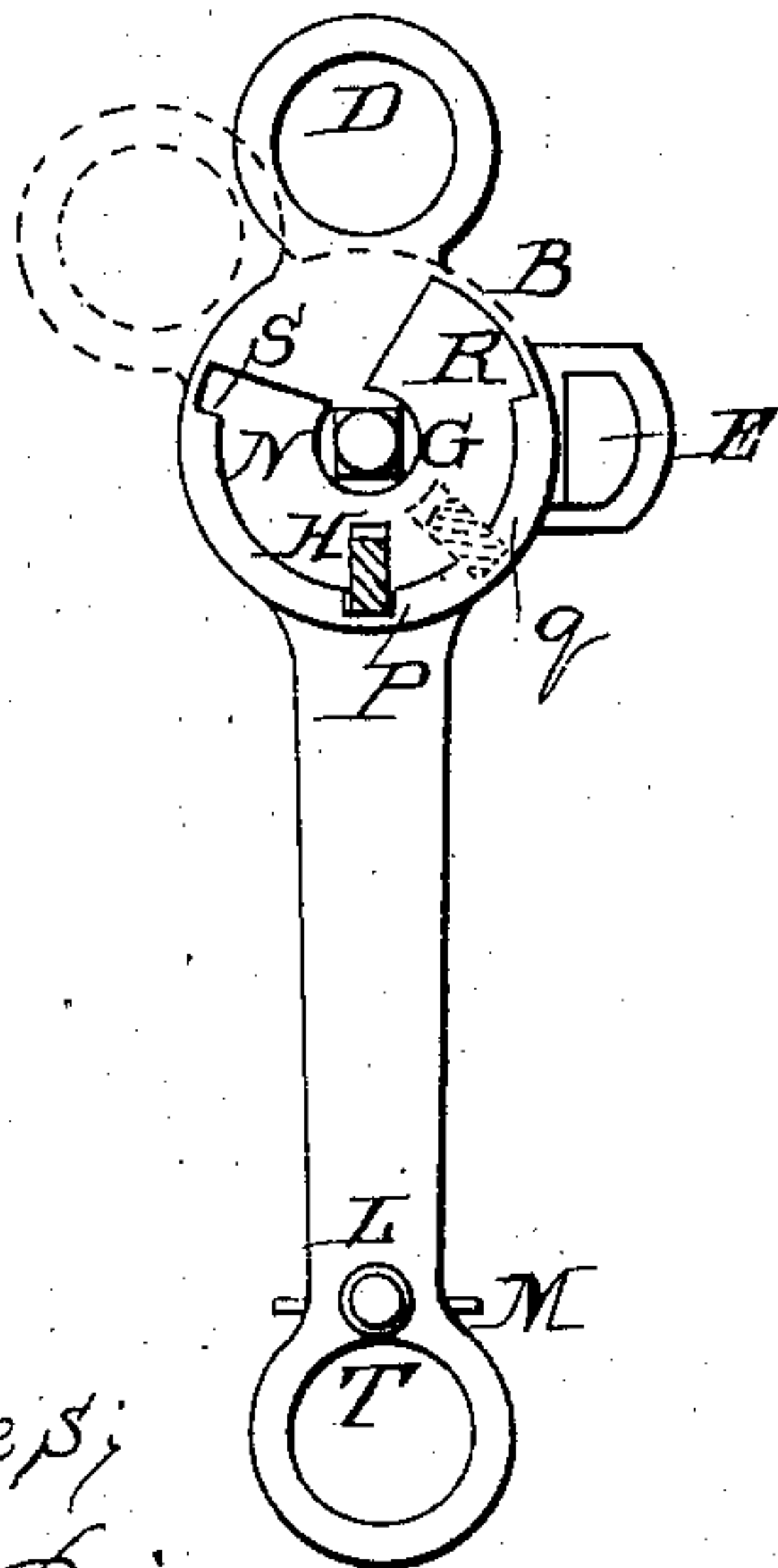
*Fig; 1.*



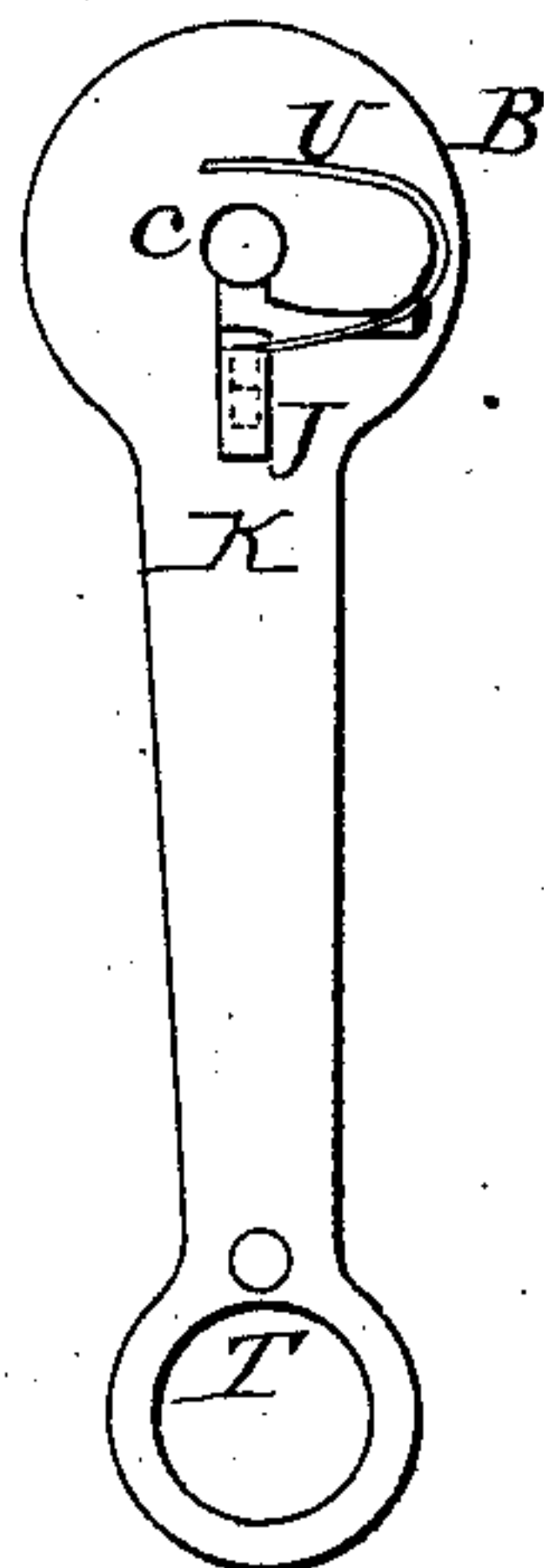
*Fig; 2.*



*Fig; 3.*



*Fig; 4.*



*Witnesses;*  
*J. Franklin Reigart*  
*Lewis Dillenberg*

*Inventor;*  
*J. P. Gates*

# United States Patent Office.

JOSEPH P. GATES, OF LINCOLN, ILLINOIS.

*Letters Patent No. 69,910, dated October 15, 1867.*

## IMPROVED BRIDLE-BIT.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH P. GATES, of Lincoln, Logan county, State of Illinois, have invented an Improved Bridle-Bit; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 represents a side elevation of the bit.

Figure 2, a front view.

Figure 3, an inside view of the disk.

Figure 4, a view of the opposite disk, showing the construction and location of the spring on the inside.

Figure 5, an end view of bit-bar.

A is the bit-bar or mouth-piece, that is rounding at top, flat on one side, and tapers to the bottom, and has a concavity near the centre on its lower edge. B B are two disks, the outer disk being part of the bit forming the lever-disk, having a round mortise, C, in which the round ends of the bit-bar A fit and revolve. The inner or cheek disk B is round, having a ring, D, at top, to which the headstall and curb-chain are attached, and a half ring, E, to which a check-rein is to be attached. The centre of this inner disk B has a square mortise, G, in which the square tenon on the end of bit-bar is permanently fitted. H H are spring shuttle-keys, working in recesses between the cheek and lever disks B, and the shuttle-keys are adjusted or raised in their recesses by means of the studs J operating in their slots K. L is the movable stay-rod, that is fastened at the lower ends of the bit by passing through the levers of the bit and held by pins M. N, the circular recess, with stop recesses, so that the shuttle-key may pass around and fall into the several stop-recesses, to give the bit any required angle of less or greater leverage. P is the full lever-stop recess. Q, half-lever stop recess. R, anti-lever-stop recess. S, the hitch-stop recess. T, the ring to receive the rein. U is a spring fitted into the inner side of lever-disk B, and operating in a groove of the disk, and is attached to the shuttle-key for the purpose of forcing the shuttle-key H into the several stop recesses when required to change the angle of the bit. The bit-bar A is fastened to the disks B by screw-nuts V on the outside. I intend to cover the rims of the disks B with a flange, if necessary, so as to prevent the horse's slibbers from passing between the disks.

The advantages of this bridle-bit with double disks are its movable and adjustable principle, regulated by the devices, that make the bit easy on the horse's mouth, and when required is sufficiently severe to control the horse with perfect ease, the round or flat side of the bit-bar being brought to bear upon the tongue and under jaw of the horse at the will of the rider by merely changing the angle and leverage of the bit to suit a soft or hard-mouthed horse; the leverage of the bit being easily regulated, whenever required, by raising the studs J and turning the inner disk B until the shuttle-keys H fall into the stop recess to secure the proper angle and leverage required. The bit is likewise easily adjusted so as to allow the horse to drink freely where the water is shallow.

Another important advantage of this bit is that it prevents the horse from tearing his bridle and escaping from the hitching-post, by merely turning the stay-rod L around over his muzzle until the levers pass the point at right angles with the line of the head of the horse, when they will be held at that angle by the shuttle-keys H springing into the stop recesses S. The levers in this position are at right angles with the line of the bar and curb-chain, as also with the bit-bar and the point to which he is hitched. As the horse pulls upon the reins the tendency is to bring the reins T on the ends of the levers, and the rings D on the inner disks B, on a true line with the line of draught between the head of the horse and the point at which he is hitched, which tendency is resisted and counteracted by the curb-chain pressing on the under side of and the bit-bar on the upper side of the jaw of the horse. The severe pain caused by the sharp antagonism, caused by the pulling of the horse, compels him to cease pulling and remain quiet with slack reins. A horse is thus prevented from escaping by tearing or slipping his bridle—the tricks of many horses.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The shape and construction of the bit-bar A, as herein described, and for the purposes set forth.
2. The double cheek disks B B, constructed with the shuttle-keys H, studs J, circular recess N, and stop recesses P Q R S, when arranged, combined, and operated as herein described, and for the purposes set forth.

JO. P. GATES.

Witnesses:

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EDM. F. BROWN.