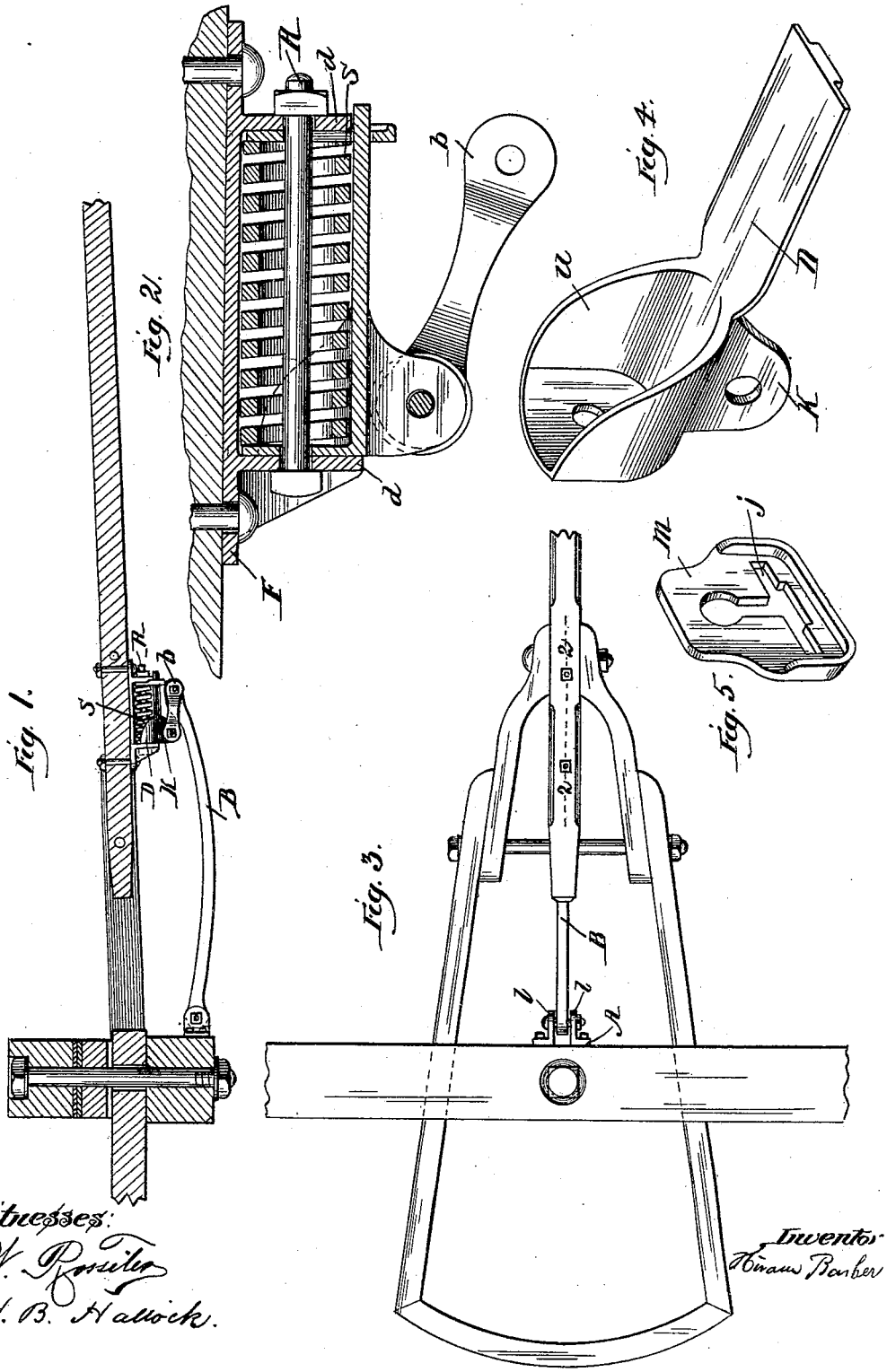
(No Model.)

H. BARBER.

TONGUE SUPPORT.

No. 493,470. Patented Mar. 14, 1893.



Witnesses:
W. Rossiter
H. B. Hallock.

Inventor:
Hiram Barber

UNITED STATES PATENT OFFICE.

HIRAM BARBER, OF CHICAGO, ILLINOIS.

TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 493,470, dated March 14, 1893.

Application filed January 22, 1892. Serial No. 418,868. (No model.)

To all whom it may concern:

Be it known that I, HIRAM BARBER, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tongue-Supports for Vehicles; and I do hereby declare the following to be 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.

My invention relates to improvements in the class of tongue supports wherein a spiral spring confined in an inclosing casing designed to be secured upon the tongue is employed, and consists in certain details of construction and arrangement of parts hereinafter more particularly described in the specification illustrated in the drawings and pointed out in the claims.

Of the drawings herewith submitted, Figure 1, is a side elevation of my improved tongue support with the tongue in longitudinal section and the axle in cross-section. Fig. 2 is a longitudinal sectional view of the frame F, coil spring S, shoe or draw-plate D, and plate M, in my improved tongue support on the dotted line 2—2 Fig. 3. Fig. 3, is a plan view of my improved tongue support. Fig. 4, is a view in perspective of the shoe or draw-plate D, in my improved tongue support. Fig. 5, is a view in perspective of the plate M, in my improved tongue support.

In constructing my improved tongue support I make use of the plate A, bar B, braces *b*. *b*. the frame F, coil spring S, shoe or draw-plate D, rod R, and head-plate M. The plate A, is provided with the lugs *l*, *l*, and is attached to the front face of the forward axle of the wagon or vehicle. The frame F, is provided with the standards or brackets *d*, *d*. The frame F, is securely attached to the under surface of the tongue or pole of the wagon with the standards *d*, *d*, projecting downward. The shoe or draw-plate D, is provided with the hood U, on the rear end and the lug K, on the back thereof. The hood U, is designed to receive and hold the rear end of the coil spring S. The lug K, and braces *b*, *b*, are designed to furnish a flexible connection between the forward end of the bar B, and the shoe or draw-plate D. The forward end of the shoe or draw-plate is held in position by the plate M, and is so fitted as to permit the backward and forward movements of the same in the slot *j*, of the plate M. The standards *d*, *d*, plate M, and the rear wall of the hood U, are perforated so as to permit the insertion of the rod R, which when in position passes through the coil spring S, longitudinally and also through the rear wall of the hood U, the standards *d*, *d*, and plate M. The plate M, and rear end of the shoe or draw-plate D, are thus held in position by the rod R.

The rear end of the bar B, when in position is pivoted to the plate A, by means of the lugs *l l*, while the forward end of the same is attached to the shoe or draw-plate D, by means of the braces *b*, *b*, and the lug K.

It will be observed that in my improved tongue support the design is to hold up the tongue by means of a bar, the rear end of which is pivoted to the front face of the forward axle—while the forward end of such bar has a flexible attachment to the underside of the tongue. The necessary flexibility in this connection is secured by means of the compression of the coil spring S, when the tongue moves downward—and by the opening of the elbow formed by the braces *b*, *b*, and the front end of the bar B, when the tongue moves upward. When the downward pressure of the tongue is applied to the front end of the bar B, the interior face of the rear wall of the hood U, is driven against the rear end of the coil spring S, while the forward end of the shoe or draw-plate D, is driven through the slot *j*, and the coil spring S, is thus compressed. On the other hand when upward pressure is applied to the under surface of the tongue the elbow formed by the braces *b*, *b*, and the bar B, opens and permits the free upward movement of the tongue. Both of these results are highly desirable. On rough and uneven roads where the weight of the tongue is properly sustained it is a great relief to the draft animal. The danger to the animal and the wear and tear upon the wagon resulting from the thrash of the pole are thus reduced to the minimum.

Various devices have long been in use of varying degrees of excellence as tongue supports. The great objects to be obtained in

such a device are simplicity of construction efficiency in operation and durability; in all which essential particulars my improved tongue support has I believe great merit.

Having thus fully explained the purpose, method of construction, and operation of my improved tongue support, what I claim as of my invention, and for which I seek Letters Patent, is as follows:

1. In a tongue support the frame F consisting of the back plate adapted to be secured to the tongue and provided with the integral perforated right angled brackets *d d* and the rod R for holding the coiled spring S in combination with the draw plate D having at its rear end the hood U formed to inclose the rear end of the spring, said hood being provided with a perforation in its rear wall to receive the rod R and a lug K on its back substantially as and for the purpose described.

2. In a tongue support for vehicles, the spring frame F consisting of the back plate provided with the integral, perforated right angled brackets, the rod F extending through the perforations in the brackets, the coiled spring S surrounding the rod R, the draw plate D provided with the hood U at its rear end to inclose the rear end of the spring, said hood having its rear wall perforated to receive the rod R, the perforated plate M having the recess or opening *j* to receive and support the forward end of the draw plate D, and the bar B, having one end hinged to the front axle and its opposite end to the draw plate all combined and arranged substantially as and for the purpose set forth.

3. In a tongue support for vehicles, the combination of the frame F adapted to be secured to the tongue and provided with the perforated brackets *d d*. The rod R extending through the brackets, the coiled spring S surrounding the rod R between the brackets, the perforated plate M interposed between the forward end of the spring and the front bracket and provided with the opening *j* in its lower edge, the draw plate D provided on its back with a lug K and at its rear end with the hood U the rear wall of which is perforated to receive the rod R and is interposed between the rear bracket and rear end of the spring; with the plate A secured to the front axle, the bar B having its rear end hinged to the plate A and the link bars *b. b.* connecting the forward end of the bar B with the lug K on the draw plate, substantially as and for the purpose set forth.

Chicago, January 19, 1892.

HIRAM BARBER.

In presence of—
JOHN HONKOMP,
HARMAN C. ST. CLAIR.