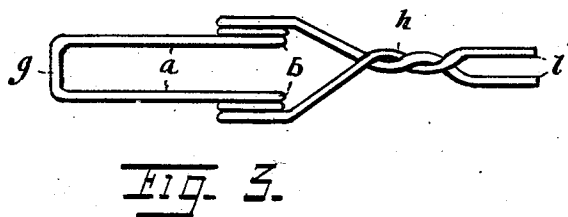
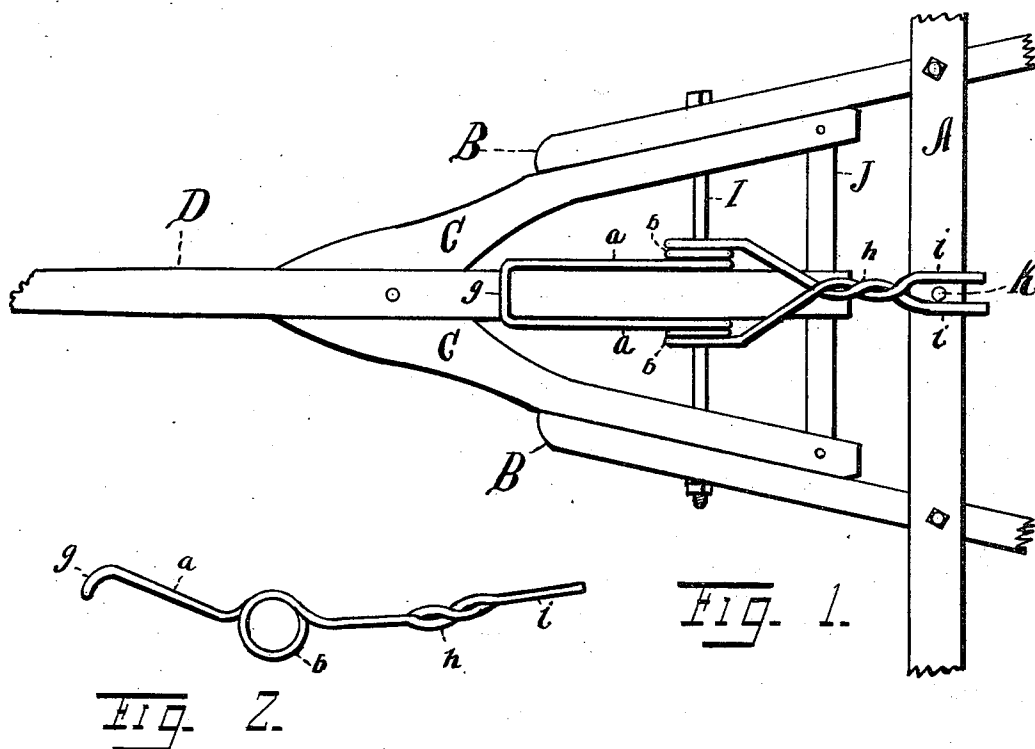


(No Model.)

T. N. SAVAGE.
TONGUE SUPPORT.

No. 515,060.

Patented Feb. 20, 1894.



Witnesses:

J. F. Romble
W. A. Bailey

Inventor

T. N. Savage

By George Schubert
his Attorney

UNITED STATES PATENT OFFICE.

THOMAS N. SAVAGE, OF WALNUT SPRINGS, TEXAS.

TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 515,060, dated February 20, 1894.

Application filed April 24, 1893. Serial No. 471,581. (No model.)

To all whom it may concern:

Be it known that I, THOMAS NEWTON SAVAGE, a citizen of the United States, residing at Walnut Springs, in the county of Bosque and State of Texas, have invented certain new and useful Improvements in Wagon-Tongue Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which drawings—

Figure 1 is a bottom plan view of a wagon axle, axle hounds and tongue hounds, and wagon tongue provided with my improvements. Fig. 2 is a detail side view of the spring, and Fig. 3 is a plan view of the same.

My invention relates to an improvement in a wagon tongue spring, to support a part of the weight of the free end of the tongue, thus avoiding the disagreeable weight and wear on the animal's neck. The spring is preferably formed of round spring steel, with two or more coils, resting on the tongue, and adjacent on each side of the tongue. Said coils can be varied in size and number to gain the proper amount of elasticity. The firmness of the spring is so adjusted as to receive about ninety per cent. of the weight of the free end of the tongue when said tongue is in its normal position; thus leaving about ten per cent. of the weight of the tongue to rest on the breast-straps, to hold the tongue steady and properly guide the wheels. This makes it far superior to a common stiff tongue which has a free play between the team of about ten or twelve inches, which allows the wheels to continually cut the ruts, thereby increasing the draft.

Referring to the drawings: A designates the front axle. B designates the axle hounds.

C designates the tongue hounds, and D designates the tongue. J is the usual cross bar, and I is the tongue rod, all shown as in general use. The axle A, the axle hounds B and the tongue are partly broken away.

The spring is preferably formed of one piece of about one half inch spring steel; bent near its center to a U form, with the lower end of the U bend downward, as shown at *g*, allowing the sides *a, a*, to rest on each side of the tongue D for about eight or ten inches, and then wound to two or more coils *b, b*, thence with the ends bent past each other and twisted together as shown at *h*, with the ends *i, i*, parted and of proper length to extend beneath the axle A on each side of the king bolt K, as shown.

To place the spring in position, the free end of the tongue D is elevated, the tongue rod I is withdrawn, the spring placed in position and the tongue rod I replaced extending through the coils *b, b*, which coils will rest on said tongue rod I.

The spring is of proper curvature to receive the proper amount of weight of the free end of the tongue when said tongue is in its normal position.

Having thus described my invention, what I claim is—

The combination of a wagon tongue spring, resting with its coils on the tongue rod I, with its end *g* extending across beneath the tongue, and with its rear ends bent beneath the tongue and twisted at *h* with its extreme ends parted and of proper length, substantially as and for the purpose specified.

In testimony whereof I have affixed my signature in presence of two witnesses.

T. N. SAVAGE.

Witnesses:

J. F. WOMBLE,
W. A. BAILY.