

No. 636,219.

Patented Oct. 31, 1899.

G. C. SUTTON.

SPRING DRAFT APPLIANCE AND TONGUE SUPPORT.

(Application filed Apr. 17, 1899.)

(No Model.)

FIG. 1.

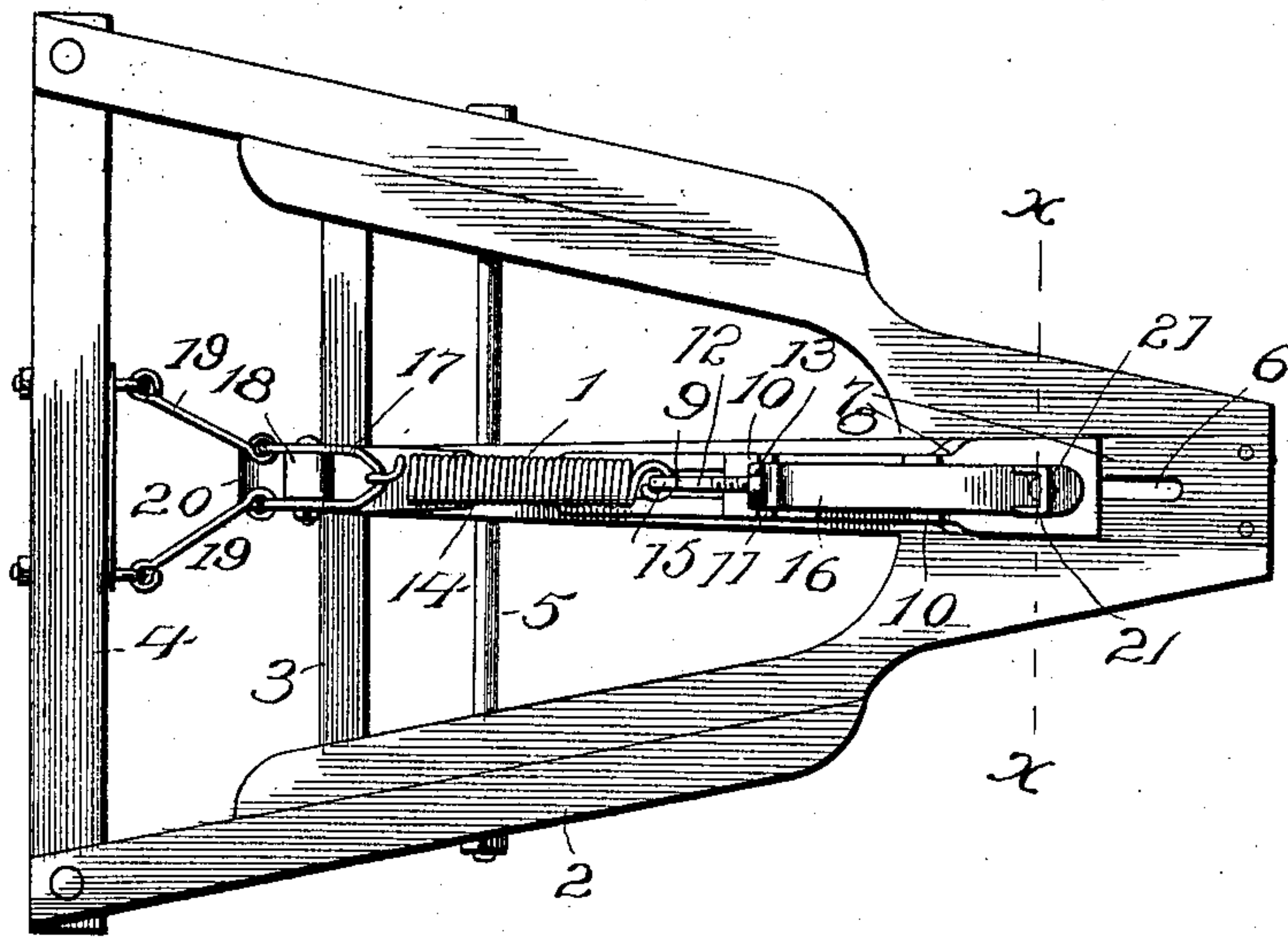


FIG. 2.

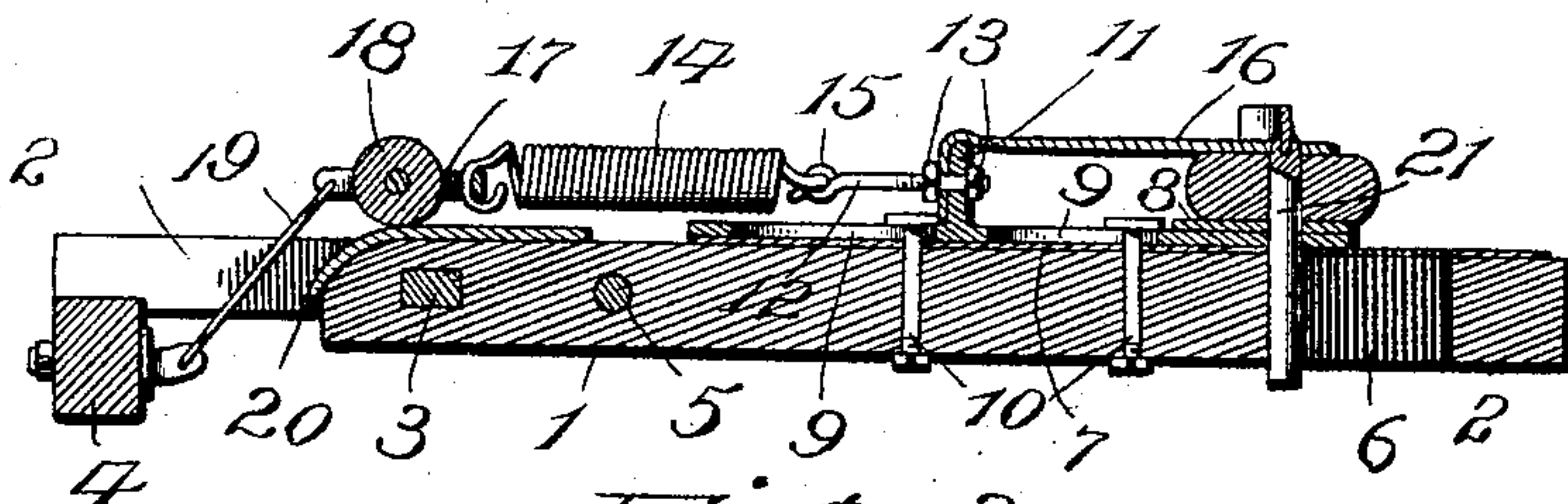
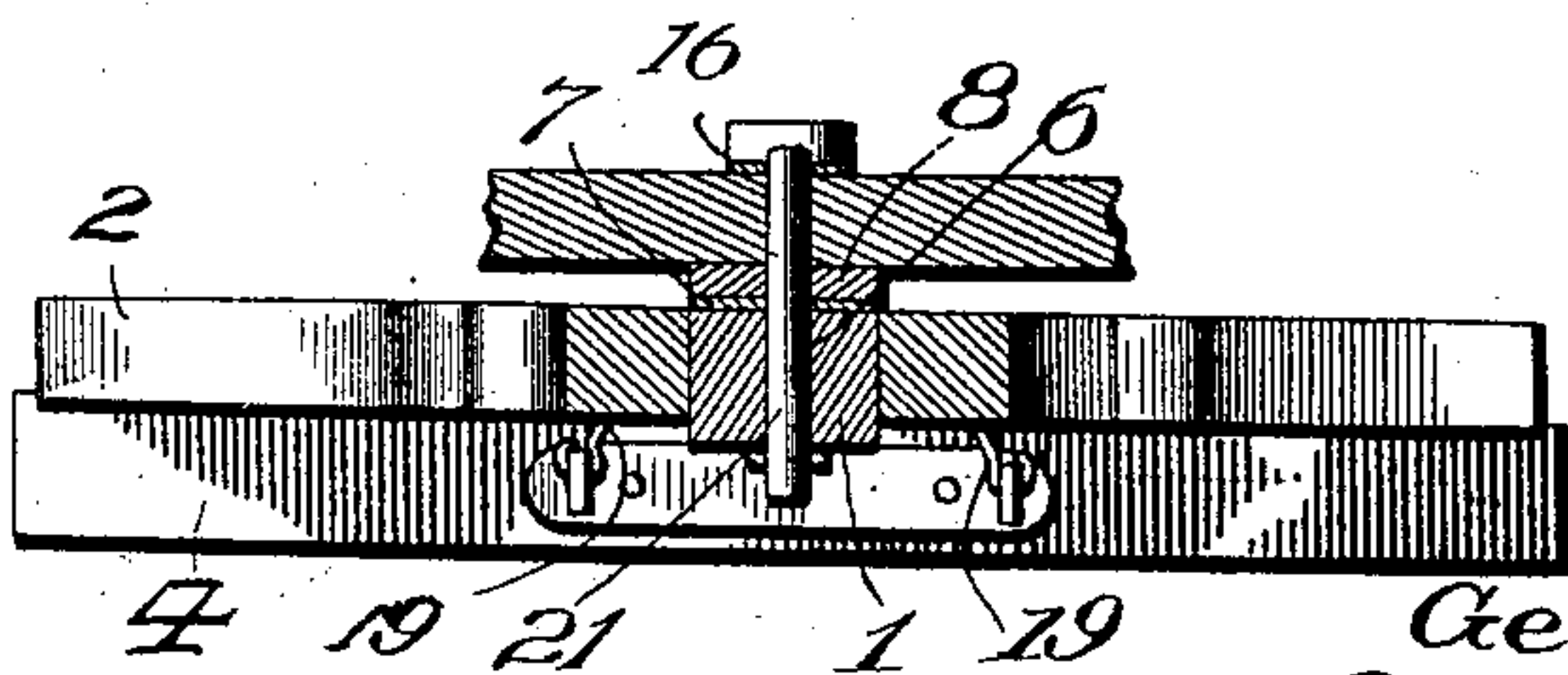


FIG. 3.



Witnesses

J. D. Miller
E. P. Bumpers.

Inventor

George C. Sutton.
by Burton J. Doyle,
Attorney

UNITED STATES PATENT OFFICE.

GEORGE C. SUTTON, OF BISON, KANSAS.

SPRING-DRAFT APPLIANCE AND TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 636,219, dated October 31, 1899.

Application filed April 17, 1899. Serial No. 713,343. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. SUTTON, a citizen of the United States, residing at Bison, in the county of Rush and State of Kansas, have invented certain new and useful Improvements in Spring-Draft and Tongue-Support Appliances; 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.

My invention relates to spring-draft appliances and tongue-supports for vehicles; and the objects sought to be accomplished are to produce a device of this character which shall consist of but few parts, shall be simple in construction, efficient in operation, strong, durable, and not easy to get out of order.

In its broadest aspect my invention consists of a spring connected to a doubletree or whiffletree at one end and having its opposite end attached to the rear cross-bar of the hounds or to the shaft in a manner to serve both as a spring-draft appliance and as a tongue or shaft support for vehicles.

My invention may readily be placed upon either an old or new vehicle, the necessary alterations for attachment being very slight and easily effected upon a vehicle of ordinary construction, such as are in common use.

I have also provided means for quickly adjusting the tension of the spring to suit different conditions, such as tongues of varying weight, light and heavy drafts, and to take up wear of parts.

The foregoing objects and advantages, together with others which will be set forth hereinafter, are attained by means of the construction shown in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of my invention shown attached to the rear portion of a wagon-tongue and to the hounds thereof. Fig. 2 is a longitudinal section of the same, taken at one side of the spring. Fig. 3 is a vertical transverse section taken in a line adjacent to the draft-bolt.

Like figures of reference designate like

parts wherever they occur in the various views of the drawings.

The tongue or pole 1 may be that of any ordinary or well-known construction, and the hounds 2 and cross-bars 3 and 4 may also be those of any usual construction. The tongue is pivoted on the rod 5 in the customary manner. The tongue is slotted at 6. The length of this slot limits the expansion and contraction of the spring which supports the tongue and sustains the draft. A wear-plate 7 is bolted to the tongue. A sliding plate 8 is seated upon the plate 7 and is provided with slots 9, through which the headed bolts 10 pass. A lug 11 rises from the plate 8. A draft-bolt 12 passes through this lug for adjusting the tension of the spring. The front end of the spring 14 is attached to an eye 15 at the rear end of the draft-bolt 12. The bolt 12 also passes through the hammer-strap 16 and holds the rear end of the same against the lug 11. The rear end of the spring is connected to a bail 17. An antifriction-roller 18 is journaled within the bail 17. The bail is connected at its rear ends by rods 19, which extend backward and are secured by eyebolts to the cross-bar 4 or in any suitable manner.

Secured to the rear end of the tongue is a wear-plate 20, the rear end of which is inclined to serve as a bearing for the roller 18.

The bolt 21, which holds the whiffletree to the tongue, passes through the front end of the hammer-strap, through the whiffletree or doubletree, and through the sliding plate 8 and the slot 6 in the tongue. The head of this bolt is or may be formed into a wrench to fit the various nuts used in securing the parts of my device to the vehicle.

It will be readily understood by those familiar with this class of devices that the weight of the tongue or pole is almost, if not entirely, sustained by the tension of the spring 14 and that a direct pull of the team upon the doubletree communicates with the spring through the sliding plate 8. In this way all jars and shocks in starting a heavy load or in striking an obstruction are reduced to a minimum.

The tension of the spring may be adjusted

by turning the lock-nuts 13. The roller 18 holds the spring out of contact with the tongue when the latter is slightly depressed at the front end and also serves to reduce the friction at that point.

It will be understood that my device can be applied to a single vehicle with but slight modification in the manner of attachment. Therefore I do not desire to be limited to the exact construction shown, as I am aware that slight modifications may be resorted to within the spirit and scope of my invention.

What I desire to secure by Letters Patent and claim is—

1. A combined spring-draft appliance and tongue-support consisting of a sliding plate on the tongue, a doubletree secured to the plate, a spring superposed upon the tongue and secured at one end to the sliding plate and its opposite end attached to a cross-bar or other suitable part of the vehicle.

2. A spring-draft appliance and tongue-support comprising a sliding plate to which the whiffletree is attached, a lug rising from said sliding plate, a threaded bolt passing

through said lug, and adjustable therein, a spring connected to the opposite end of said bolt, said spring having its rear end secured to a fixed part of the vehicle.

3. In a spring-draft appliance, a sliding plate on the tongue or thills, a spring connected at one end to said plate and at its other end to the vehicle, and a friction-roller intermediate the spring and vehicle, substantially as described.

4. A device of the character described comprising a slotted tongue or pole, a sliding plate above the tongue, a spring attached to the plate, means for adjusting the tension of said spring, a friction-roller connected to the spring and adapted to bear upon the tongue, the rear end of the spring being connected to a fixed part of the vehicle, substantially as described.

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

GEORGE C. SUTTON.

Witnesses:

W. A. THORP,

SAMUEL ROTHWEILER.