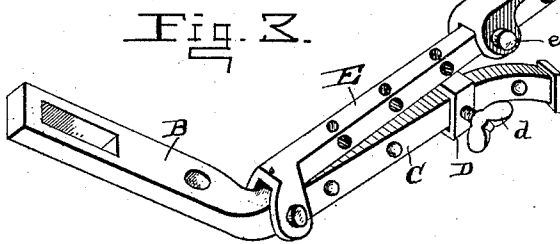
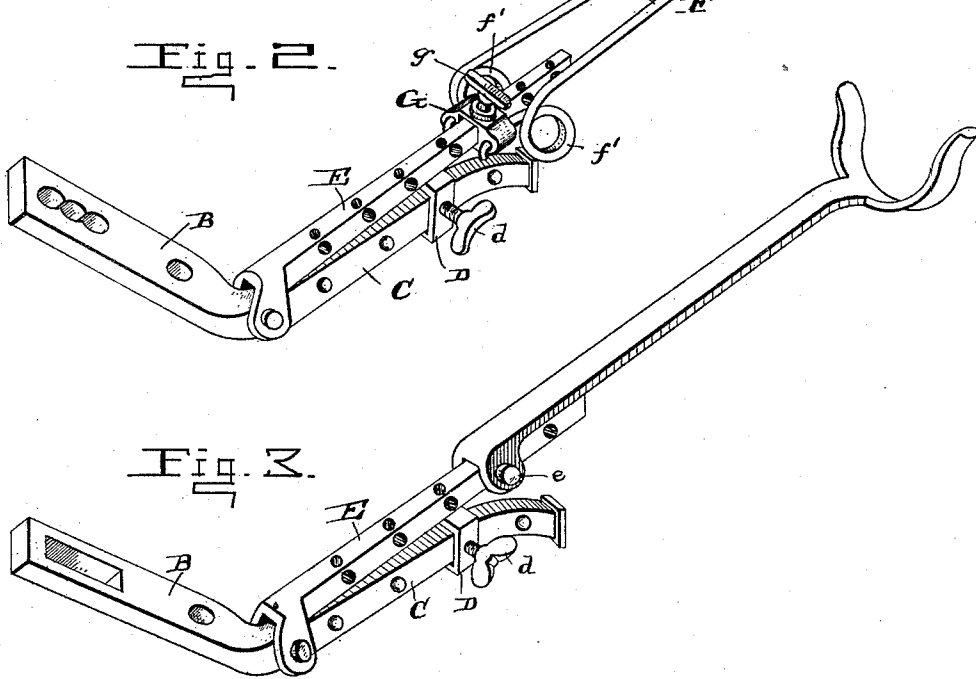
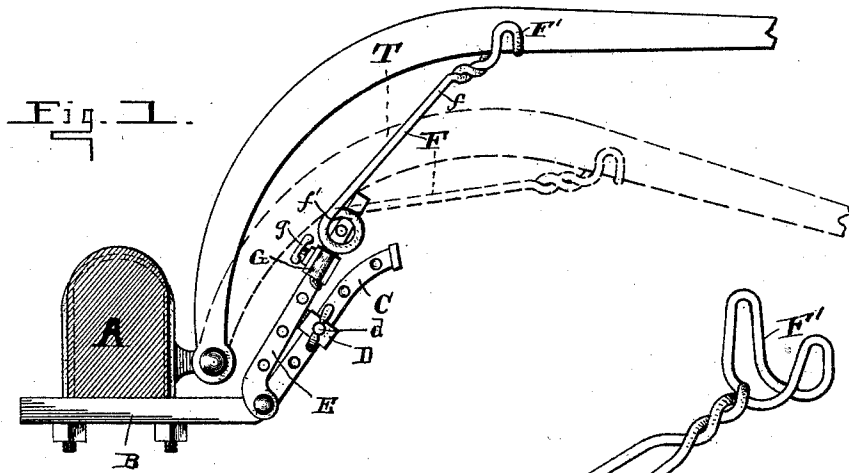


(No Model.)

L. T. BOW.
THILL SUPPORT.

No. 467,395.

Patented Jan. 19, 1892.



WITNESSES
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LAFAYETTE T. BOW, OF GLASGOW, KENTUCKY.

THILL-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 467,395, dated January 19, 1892.

Application filed April 17, 1891. Serial No. 389,323. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE T. BOW, of Glasgow, in the county of Barren and State of Kentucky, have invented certain new and useful Improvements in Thill-Supporters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side view of my improved thill-supporter applied to an axle and thill, showing the normal position of the parts in full lines and the position when the thills are forcibly depressed. Fig. 2 is a perspective view of the supporter detached. Fig. 3 is a similar view of a modification of the same detached.

This invention is an improvement upon the thill-supporters for which Letters Patent of the United States No. 441,350 were granted to me on the 25th day of November, 1890; and the objects of this invention are to provide the thill-supporting arm with an adjustable spring-extension which can be adjusted to suit different thills, and, further, to make this adjustable spring-extension in such manner that if the thills be forcibly depressed, as by the falling of the horse, the spring will yield sufficiently to prevent breaking of either the spring, rod, or thills and the invention consists in the novel construction and combination of parts, as will be hereinafter clearly described and claimed.

Referring to the drawings by letter, B designates a plate clipped or otherwise secured to the axle A and projecting slightly in front of the same in such position that its front end underlies the thill or shaft T, which is coupled to the axle in any suitable manner; or, if desired, the thill may be coupled to the forwardly-extending portion of the plate. On the front end of the plate is an upstanding arm C, on which is a sliding collar D, adjustably secured in any position on the arm by a set-screw d. This arm inclines or curves slightly upward and forward.

E designates a rod having its lower end pivoted or hinged to the plate or lower end of arm C and standing between arm C and the

thill, as shown, its position in relation to the arm being regulated by the collar D, against which it rests.

F designates a bifurcated spring, which, as shown, is formed of stout wire and has two limbs f, the lower ends of which are connected to rod E, and their upper ends are connected to or twisted into a U-shaped transverse thill-rest F', as shown, in which the thill rests. Preferably the lower end of limbs f are bent into short tension-coils f' f', and then connected to a collar G, adjustably mounted on rod E and provided with a locking thumb-screw g, as shown, to fasten it into desired position. The rod E and spring form virtually a single but extensible or contractible support for upholding the thills. The limbs f of the spring do not overlie the rod, but extend beside it, so that the spring may be depressed without catching on the end of the rod or on the end of the arm C, both of which could pass or play between the limbs of the spring, so that if the shafts or thills be forcibly depressed, as by the horse harnessed thereto falling down, the spring F would yield and bend down without bending down or contacting with either the rod or arm, and hence the danger of breaking any of the parts is greatly lessened.

In Fig. 3 I show the flat spring, as illustrated in my patent, but instead of having it rigidly connected to rod E, I may attach it to an adjustable collar on the rod-like spring F or may form ears on its ends and adjustably connect it to the rod by means of a screw or pin e, as shown. By thus adjustably connecting the spring to the rod I can regulate the height of the thill-rest and its projection beyond the arm C independently of and in addition to the regulation and adjustment afforded by collar D, as described in my said patent. Instead of the wire spring a bifurcated plate-spring could be used, if desired.

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

1. In a thill-support, the combination of the plate, the upstanding arm attached thereto, the pivoted rod overlying said arm, and the spring adjustably connected to said arm and forming an extension thereof, substantially as described.

2
2. In a thill-support, the combination of the plate, the upstanding rod attached to the front end thereof and underlying the thill, and the bifurcated spring attached to said rod and
5 underlying and upholding the thill, substantially as specified.

3. The combination of the axle and thill, the upstanding arm attached to the axle, and the adjustable collar thereon with a rod in-
10 terposed between the thill and arm and rendered adjustable by the said collar, and the spring extension of said rod adjustably connected to said rod, substantially as described.

4. The combination of the axle, thill, or
15 shaft and the upstanding arm attached to the axle, having an adjustable collar, with the pivoted rod lying between said arm and thill, and the bifurcated spring extension attached

to said rod, substantially as and for the purpose set forth.

5. The combination of the axle and thill and the plate attached to the axle, having an upstanding arm on its front end and an adjustable collar on said arm, with the pivoted rod lying between the arm and thill, and the bifurcated spring forming an extension of said rod
25 and adjustably connected thereto, constructed substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of
30 two witnesses.

LAFAYETTE T. BOW.

Witnesses:

W. O. ALLEN,
S. H. WALLER.