

(No Model.)

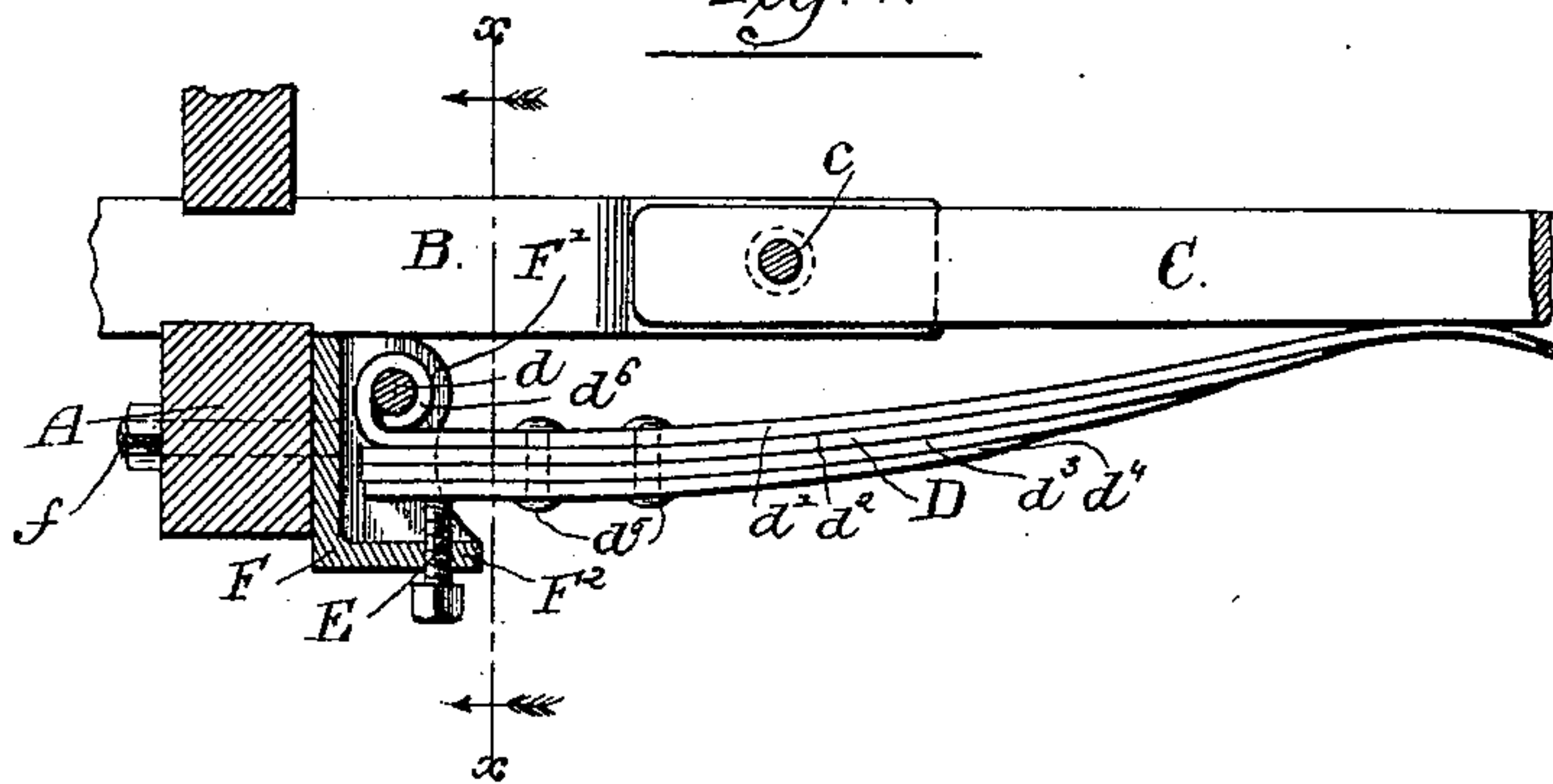
I. W. HAMMON.

TONGUE SUPPORT.

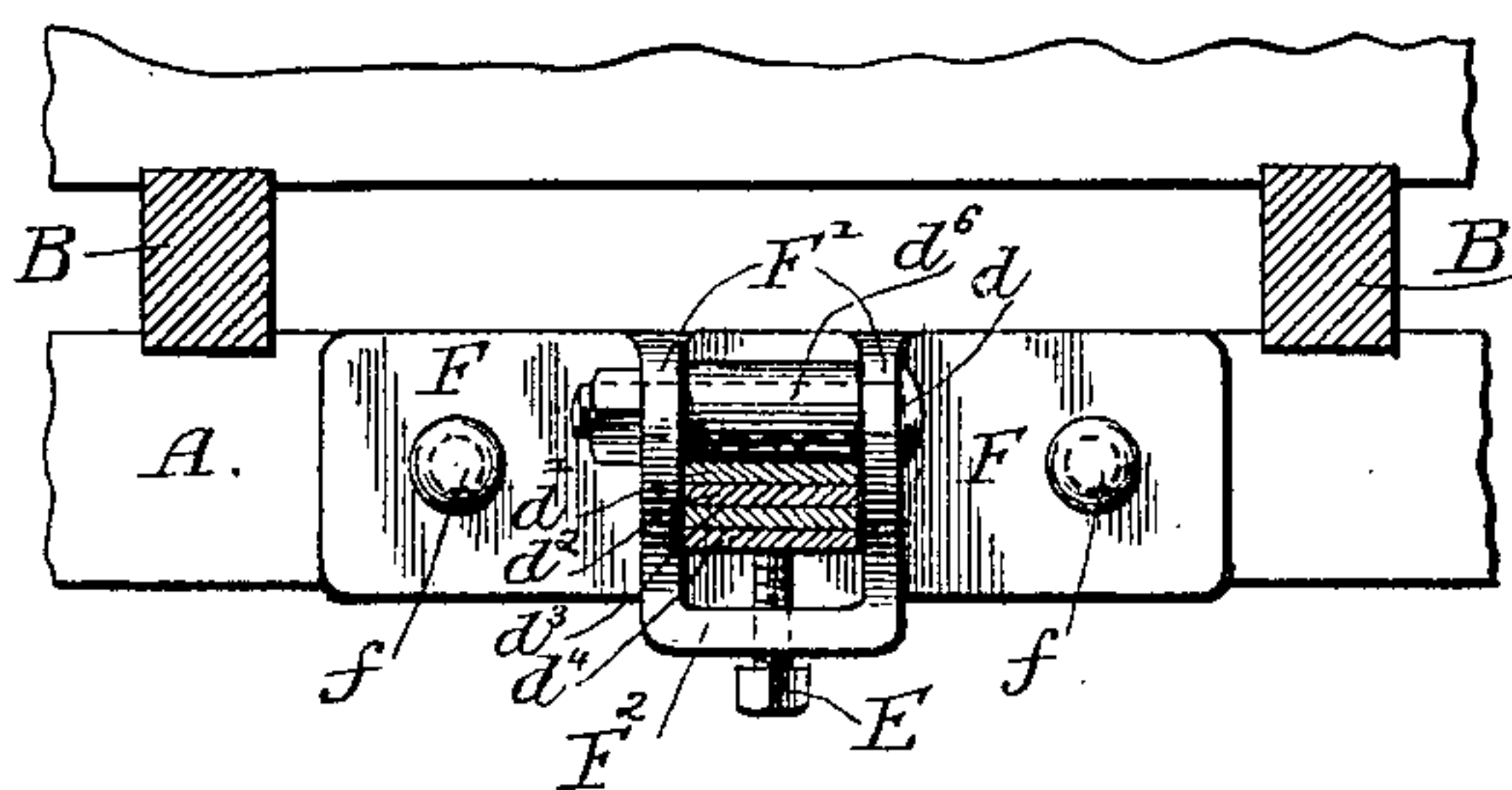
No. 368,392.

Patented Aug. 16, 1887.

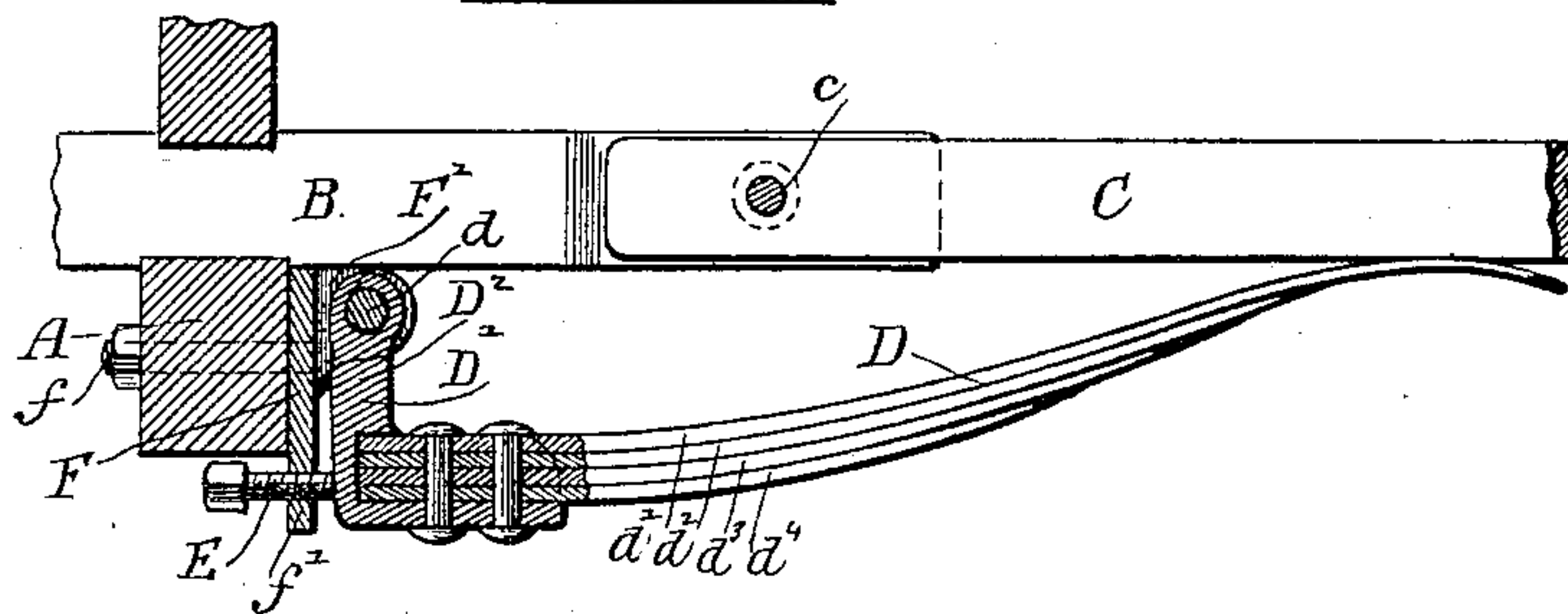
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:-

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# UNITED STATES PATENT OFFICE.

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## TONGUE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 368,392, dated August 16, 1887.

Application filed September 21, 1886. Serial No. 214,192. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC W. HAMMON, of Hammond, in the county of Lake and State of Indiana, have invented certain new and useful  
5 Improvements in Wagon Tongue or Shaft Supports; 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  
10 thereon, which form a part of this specification.

This invention relates to improved spring-supports for the tongue or shafts of vehicles.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.  
15

Figure 1 is a longitudinal vertical section taken through the front axle of a vehicle and a spring-support attached thereto, said view showing the tongue and the spring-arm in side  
20 elevation. Fig. 2 is a sectional elevation taken upon line *xx* of Fig. 1, showing the supporting arm or spring in section and the attaching devices for pivotally connecting it with the axle in elevation. Fig. 3 is a fragmentary sectional  
25 view similar to Fig. 1, showing another form of device embodying the main features of my invention.

In the said drawings, A indicates the front axle of the vehicle, B B the hounds, and C a  
30 tongue or pole pivoted between the front ends of the hounds at *c* in the usual manner.

D is the supporting arm or spring of the tongue-support, which is connected by a pivot-bolt, *d*, with vertical lugs *E'*, secured to and  
35 projecting in front of the axle and extends forward beneath the tongue to a point in advance of the pivot *c* of said tongue.

E is a set-screw inserted through a part or projection upon the axle and bearing upon the  
40 spring-arm D in such manner as to prevent the free end of the latter from dropping, while at the same time affording means for raising and lowering the said free end of the arm, so that the latter may sustain the front end of the  
45 tongue in a higher or lower position, as desired.

In the particular form of the device shown in Figs. 1 and 2 the said spring-arm D is formed by a series of leaf-springs, *d'* *d''* *d'''* *d''''*, secured together by bolts or rivets *d<sup>5</sup>* *d<sup>6</sup>*, the upper  
50 spring or layer, *d'*, being bent upwardly and formed into an eye, *d<sup>6</sup>*, through which the piv-

ot-bolt *d* is inserted. In this instance the vertical lugs *F'*, between which the inner end of the spring-arm D is placed, and through which the pivot-bolt *d* is inserted, are cast integral  
55 with a plate, F. The said plate F is, as shown, secured to the axle. At the lower edge of said plate F is formed a horizontal forwardly-projecting lug, *F<sup>2</sup>*, through which the set-screw E is inserted vertically in such manner as to bear  
60 against the under side of the spring-arm D forward of the pivot *d*. The plate or lug *F<sup>2</sup>* is desirably cast or otherwise made continuous with the lateral plates or lugs *F'*, so as to give the necessary rigidity therein without giving  
65 too great weight to the parts. This construction obviously affords the necessary support to and adjustment in the spring-arm without any complicated or expensive construction in the parts to attain these ends.  
70

Another desirable construction whereby the main features of the invention may be carried out is shown in Fig. 3. In this example the spring-plates *d'* *d''* *d'''* *d''''*, composing the spring-arm D, are bolted or riveted at their inner ends  
75 to a casting, *D'*, having an upwardly-extending part or arm, *D<sup>2</sup>*, which is located between lugs *F'* upon a plate, F, and pivoted to said lugs by a pivot-bolt, *d*, inserted through the lugs and through an aperture in the upper part of the  
80 said arm *D<sup>2</sup>*. The adjusting-screw E is in this case arranged horizontally, and is inserted through a downwardly-extending part or prolongation, *f'*, upon the plate F in such manner as to bear upon the rear or inner face of the  
85 casting *D'*. The said set-screw in this construction obviously operates in adjusting the position of the free end of the spring-arm D in the same manner as before stated.

In the application of a spring-support of the  
90 character above described to a wagon or carriage having shafts the spring-arm of the support will be attached so as to bear upwardly upon one or both shafts, or upon the connecting-bar between them in a manner readily understood.  
95

I am aware that it has been proposed heretofore to employ for a wagon-tongue support a spring-arm pivotally connected with the outer  
100 ends of the hounds by a depending yoke or bar and provided with a short arm extending past its pivotal point and adjustably connected with



the tongue itself near the pivot of the latter. I am also aware that a spring-arm consisting of a series of thin connected plates has been rigidly attached to the end of the reach forward of the axle and extended over the top of the tongue and connected with the latter at its outer end. A tongue-support pivotally attached to the axle and extending beneath the tongue, in combination with an adjusting device attached to lugs secured to the axle and acting upon the spring-arm near its pivotal point, as herein shown, has obvious and important advantages in point of simplicity and rigidity over supports of the kind heretofore made, and above referred to.

I claim as my invention—

1. The combination, with the axle and pivoted tongue or shafts of a wagon-gear, of vertical lugs  $F' F'$ , secured to and projecting in front of the axle, a spring-tongue-supporting arm pivoted between said lugs, and an adjusting-screw,  $E$ , supported by the axle and bearing

upon the spring-arm, substantially as described.

2. The combination, with the axle and the tongue or shafts of a wagon-gear, of a supporting device for said tongue or shafts, consisting of a plate or casting,  $F$ , secured to the front surface of the axle and provided with vertical lugs or projections  $F' F'$ , a spring-arm pivoted between said lugs or projections, and a set-screw threaded through the said plate or casting and bearing upon the spring-arm, substantially as described.

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

ISAAC W. <sup>his</sup>  $\times$  HAMMON.  
mark.

Witnesses:

C. CLARENCE POOLE,  
EDWARD SINKS.