

No. 612,393.

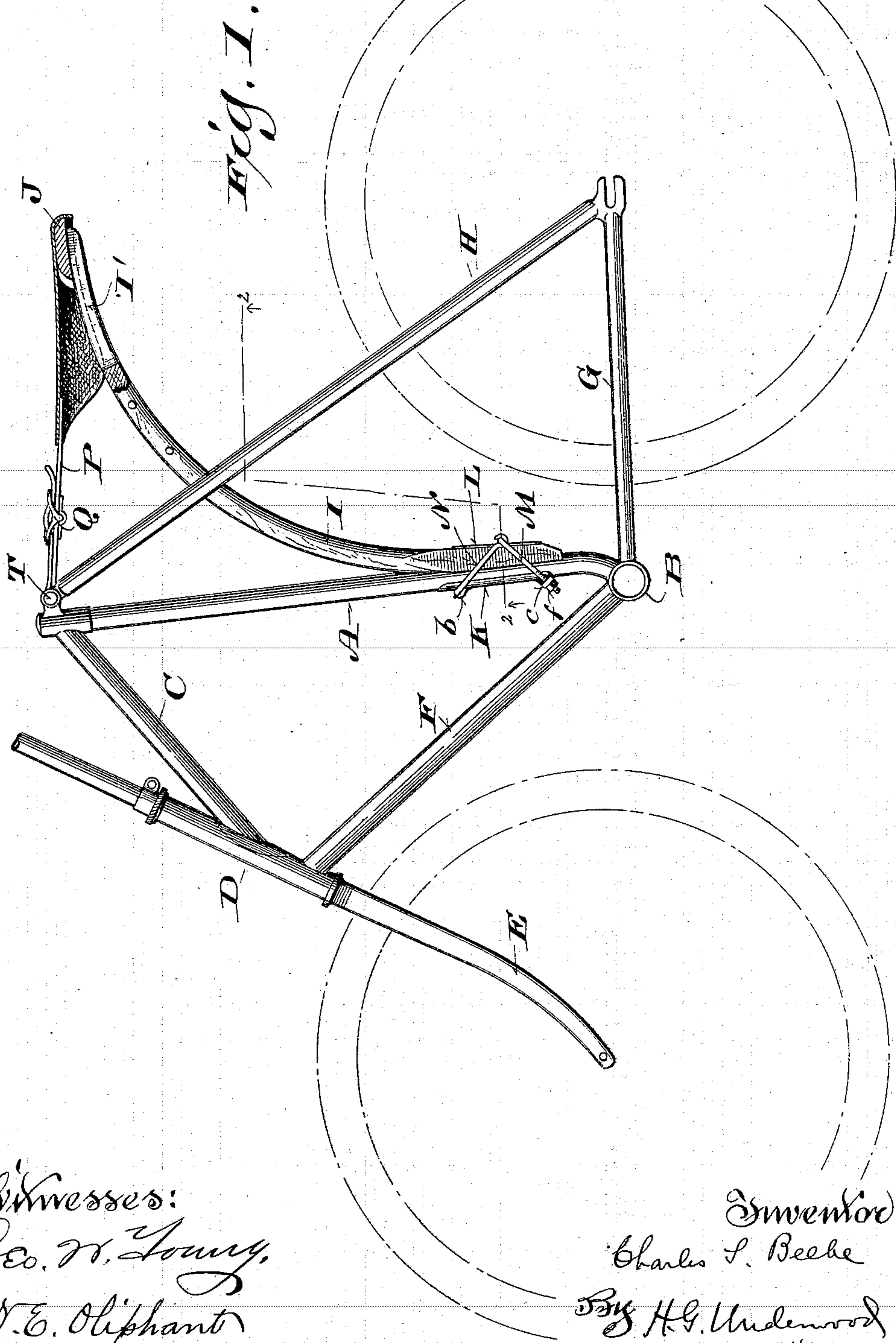
Patented Oct. 18, 1898.

C. S. BEEBE.
BICYCLE.

(Application filed Aug. 14, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
Geo. W. Young,
N. E. Oliphant

Inventor:
Charles S. Beebe
By H. G. Underwood
Attorneys

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2 Sheets—Sheet 2.

Fig. 2.

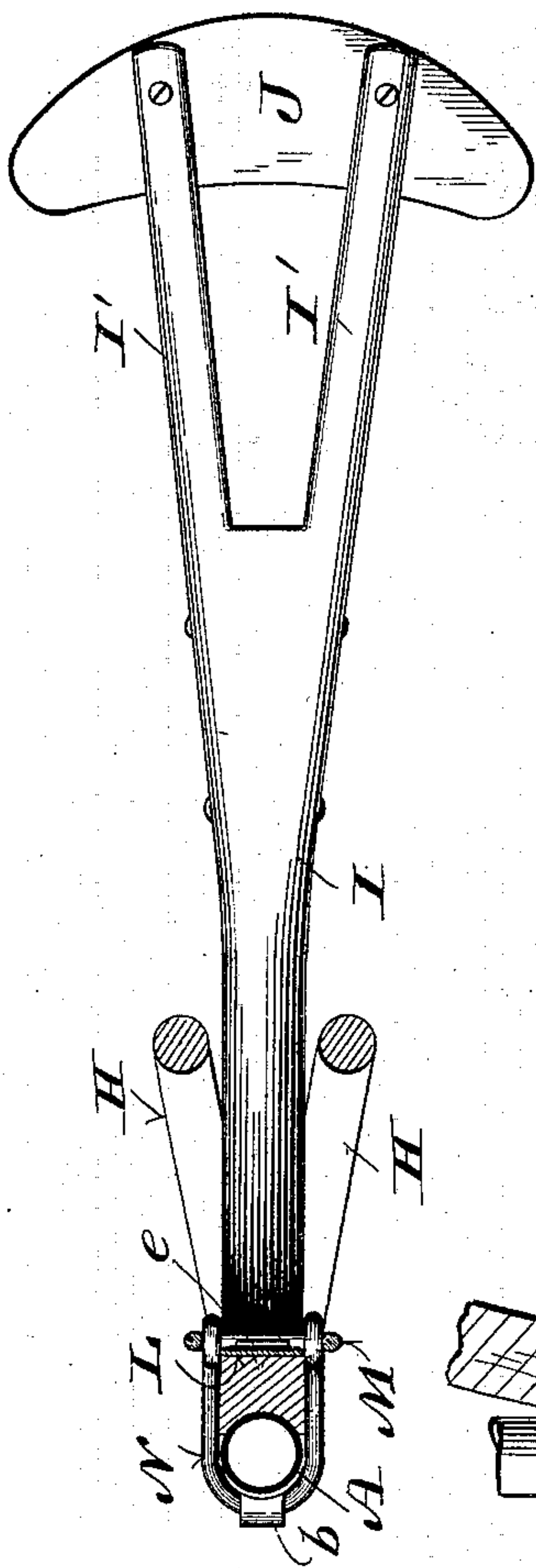


Fig. 4.

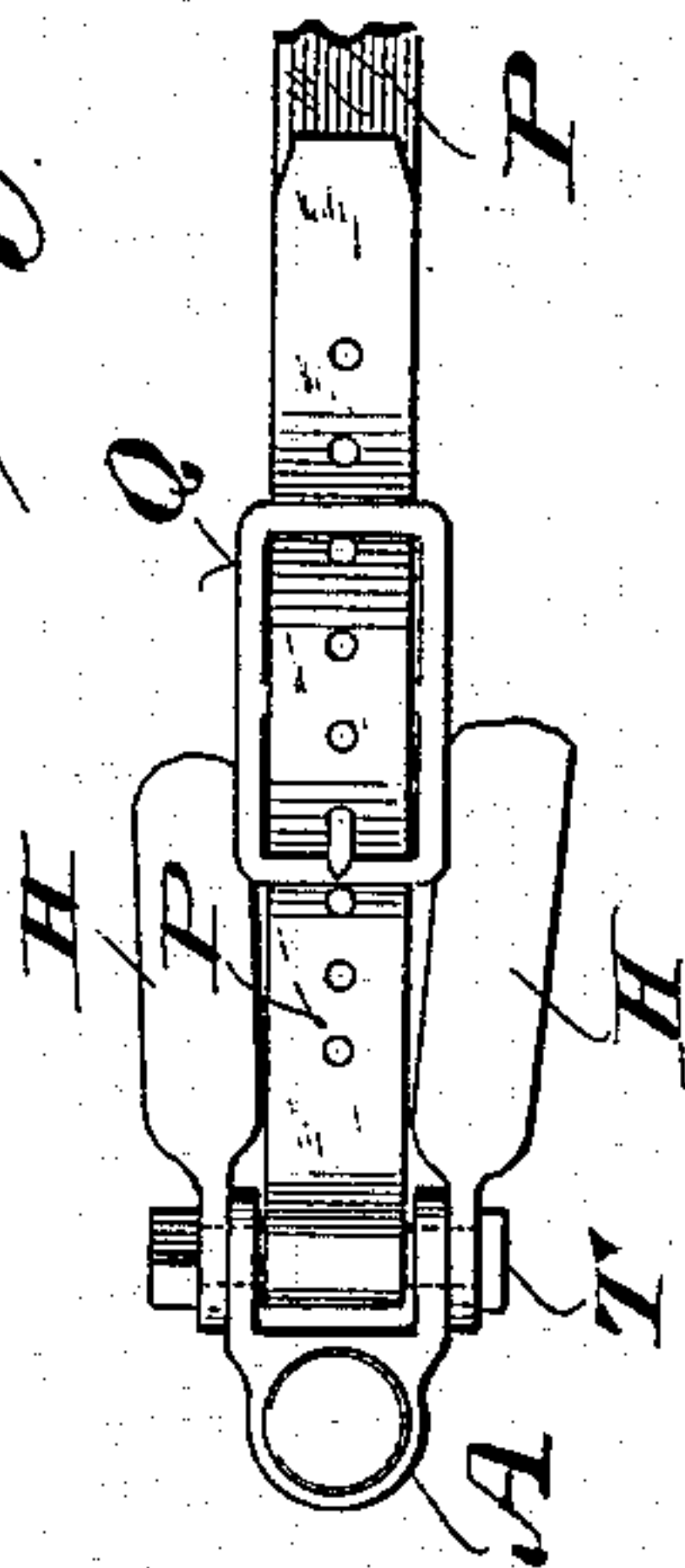
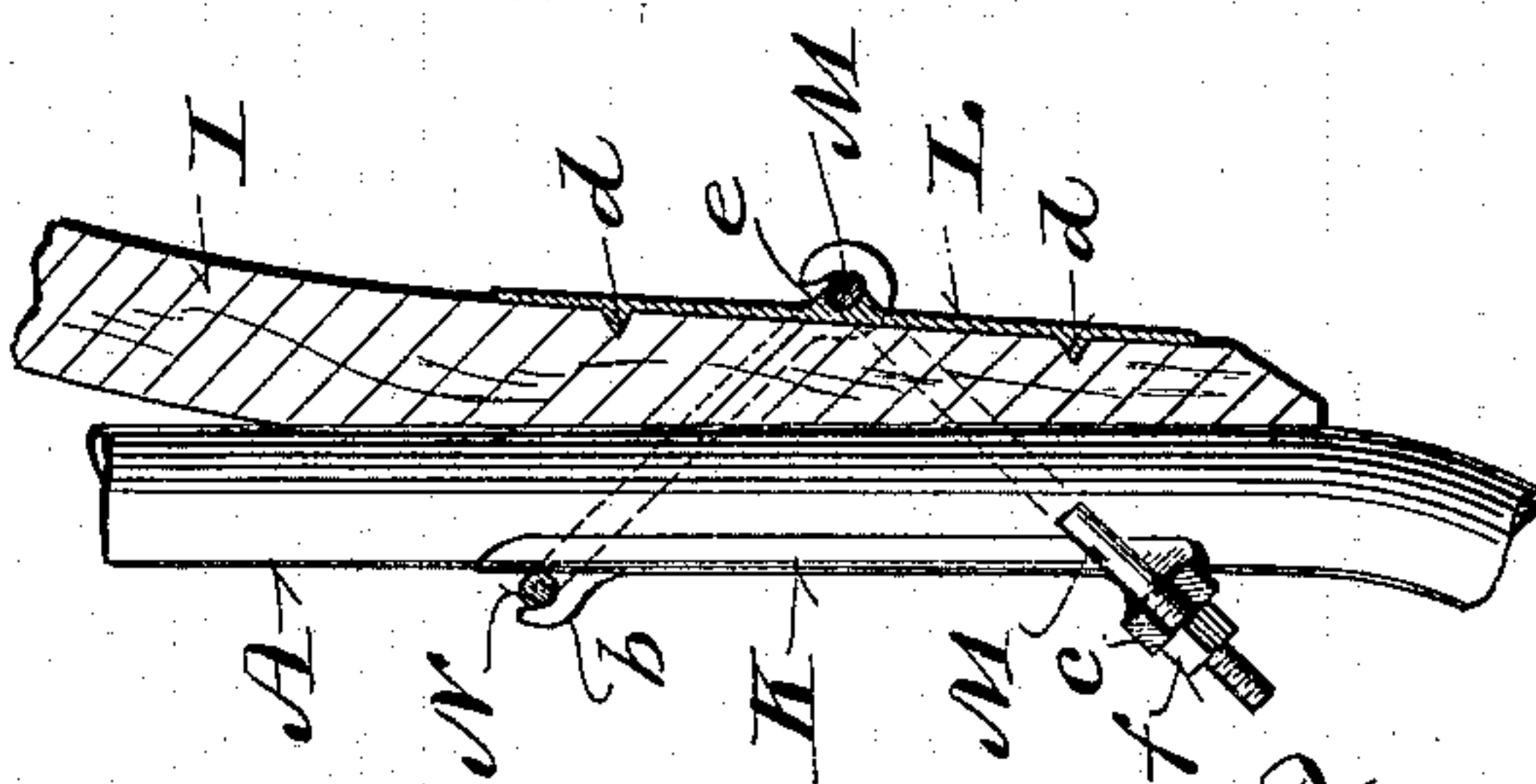


Fig. 3.



Witnesses
Geo. W. Young.
N. E. Oliphant

Inventor:
Charles S. Beebe.
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

CHARLES S. BEEBE, OF RACINE, WISCONSIN.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 612,393, dated October 18, 1898.

Application filed August 14, 1897. Serial No. 648,224. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. BEEBE, a citizen of the United States, and a resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Bicycles; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide economical, strong, and durable bicycles especially designed with reference to affording ease and comfort to their riders when traveling on rough roads.

It therefore consists in certain peculiarities of construction and combination of parts hereinafter set forth, with reference to the accompanying drawings, and subsequently claimed.

Figure 1 of the drawings represents a side elevation of the greater portion of a bicycle constructed according to my invention; Fig. 2, a view indicated by line 2 2 in the preceding figure, illustrating certain of the parts inverted and in horizontal section; Fig. 3, a detail side elevation, partly in section, illustrating a clamp connection that constitutes part of the improved bicycle; and Fig. 4, a detail plan view illustrating a flexible strap-and-buckle connection that also constitutes part of said bicycle.

Referring by letter to the drawings, A represents a vertically-disposed mast joined at its lower end to a horizontal crank-hanger B and having its upper end joined to a reach C, that is also joined to a steering-head D, in which the shank of a front fork E has its bearings. Another reach F is joined at its ends to the crank-hanger and steering-head, and extending back from said crank-hanger are rear forks G, connected to braces H, herein shown as having shackle-joint connection with the upper end of the aforesaid mast.

The construction and arrangement of parts above specified constitute a pyramidal frame, and in vertically-adjustable clamp connection with the mast member A of this frame is the lower end of a curved spring-bar I, the latter being also intermediate of the rear-fork braces H and having its upper end divided and spread to form a fork.

Made fast on the upper rear branches I' of the curved spring-bar is a horizontal rigid plate J, that may, as herein shown, constitute

the cantle of the bicycle-saddle, the pommel end of this saddle being in preferably adjustable flexible connection with the apex of the aforesaid frame, this apex being at the junction of the mast and rear-fork braces.

If the spring-bar I be of wood, the preferred clamp for its lower end comprises a metal plate K in slip fit upon the front of mast A, pertaining to the pyramidal frame and provided with an upper hook-lug *b* and lower eye-lugs *c*, another metal plate L, provided with inner stay-lugs *d*, embedded in said spring-bar, and a central outer lug *e*, having a transverse concavity, a bail M, engaging the concave lug and having screw-threaded ends extending through the aforesaid eye-lugs, nuts *f*, run on said screw-threaded ends of the bail, and another bail N, supported by the aforesaid hook-lug and coupled at its ends to the bends of the former bail.

The elevation of the saddle is determined by vertical adjustment of the curved spring-bar, and adjustment of the flexible connection between the mast member A of the frame and saddle determines the fore-and-aft adjustment of the latter.

The preferred connection between the pommel end of the saddle and apex of the frame is a strap P, provided with a buckle Q, intermediate of its ends, one end of said strap being herein shown looped on the shackle-joint bolt T and adjustably engaged with the buckle.

Owing to the rigid connection of the spring-bar at its lower end with the mast member of the frame and the curvature of said bar the latter will have forward yield when the front wheel of the bicycle strikes an obstruction, and there is also up-and-down play of the aforesaid bar when said bicycle is propelled over rough roads, these two motions affording ease and comfort to the rider. The backward yield of the spring-bar imparts tension to the flexible connection between the saddle and mast member of the frame, thereby keeping said connection taut when the weight of a rider is not on said saddle.

The general design of the frame and other details may be somewhat modified or changed from what is herein shown without departure from the generic scope of my invention.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A bicycle comprising a pyramidal frame having a vertically-disposed mast as a member thereof, a rearwardly-extending yielding support in the form of a curved spring-bar made fast at its lower end to said mast adjacent to the crank-hanger portion of said frame, a saddle connected to the upper end of the yielding support, and a flexible connection between the saddle and apex of the aforesaid frame.

2. A bicycle comprising a pyramidal frame having a vertically-disposed mast as a member thereof, a rearwardly-extended yielding support in the form of a curved spring-bar having its lower end in adjustable clamp connection with said mast adjacent to the crank-hanger portion of said frame, a saddle connected to the upper end of the yielding support, and a flexible connection between the saddle and apex of the aforesaid frame.

3. A bicycle comprising a pyramidal frame having a vertically-disposed mast as a member thereof in rigid connection with the crank-hanger, a curved spring-bar having its lower end in clamp connection with the mast and its upper rear end divided and spread, a saddle having its cantle made fast on the upper rear branches of the spring-bar, a strap connected to the pommel end of the saddle, and a buckle on the strap intermediate of its ends, one end of the strap being in looped connection with the apex of the frame and adjustably engaged with the buckle.

4. A bicycle having a frame comprising a crank-hanger, a vertically-disposed mast joined at its lower end to the crank-hanger,

a steering-head, a reach connecting the upper end of the mast with the steering-head, and another reach connecting said crank-hanger and steering-head, forks extending rearward from the aforesaid crank-hanger, and rear-fork braces in connection with said upper end of the mast; a rearwardly-extended curved spring-bar having its lower end in adjustable clamp connection with said mast, a saddle connected to the upper end of the spring-bar, and a flexible connection between the saddle and apex on the frame at the junction of the aforesaid mast and rear-fork braces.

5. A bicycle comprising a pyramidal frame having a vertically-disposed mast as a member thereof, a plate in slip fit with the front of the mast and provided with an upper hook-lug and lower eye-lugs, a rearwardly-extended curved spring-bar provided at its lower end with a rear plate having an outer lug, a bail supported on the latter lug and having screw-threaded ends run through the aforesaid eye-lugs, nuts run on said ends of the bail, another bail supported by the aforesaid hook-lug and coupled at its ends to the bends of the former bail, a saddle connected to the upper end of the spring-bar, and a flexible connection between the saddle and apex of the frame.

In testimony that I claim the foregoing I have hereunto set my hand, at Racine, in the county of Racine and State of Wisconsin, in the presence of two witnesses.

CHARLES S. BEEBE.

Witnesses:

T. E. THORKELSON,
M. J. HAGEN.