

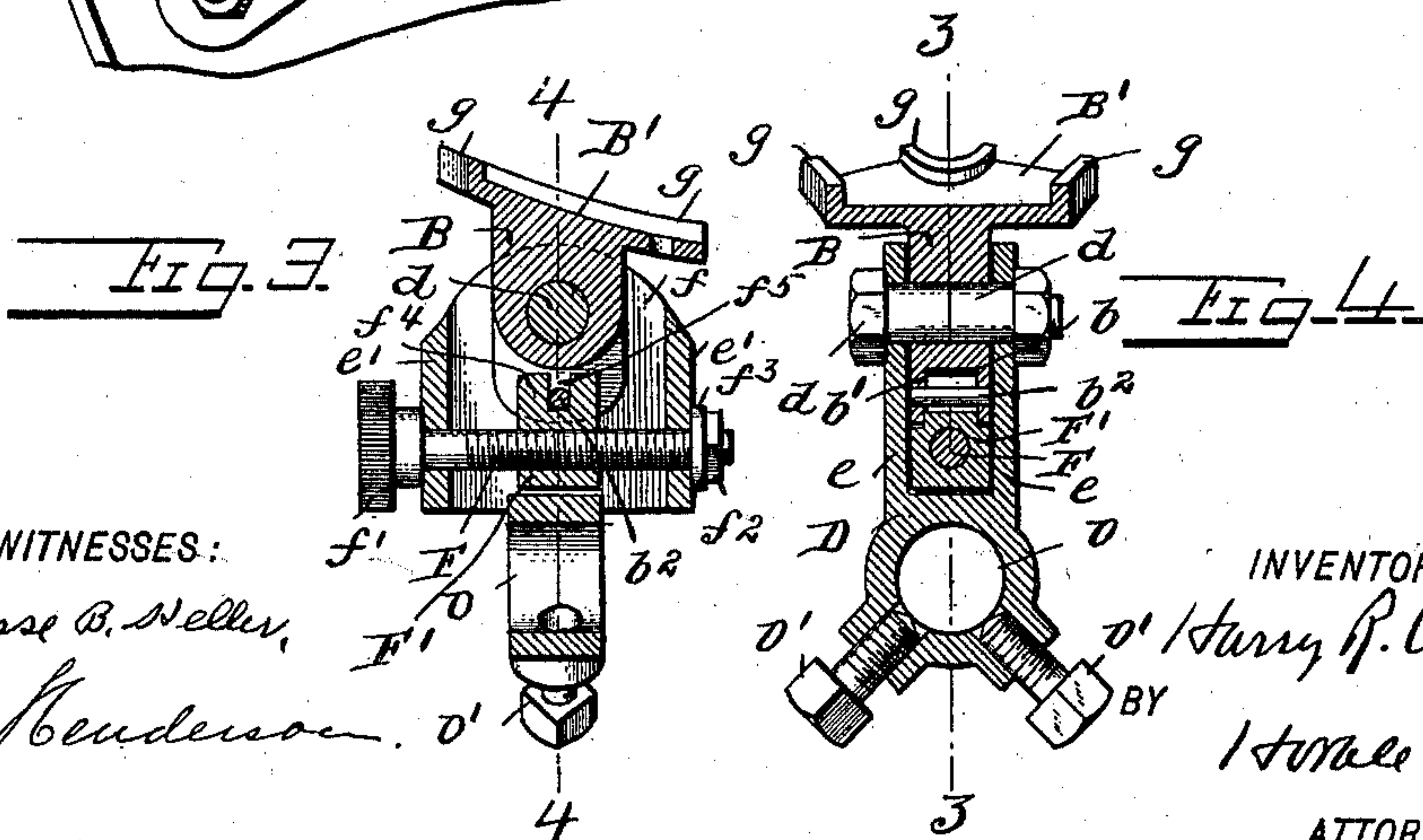
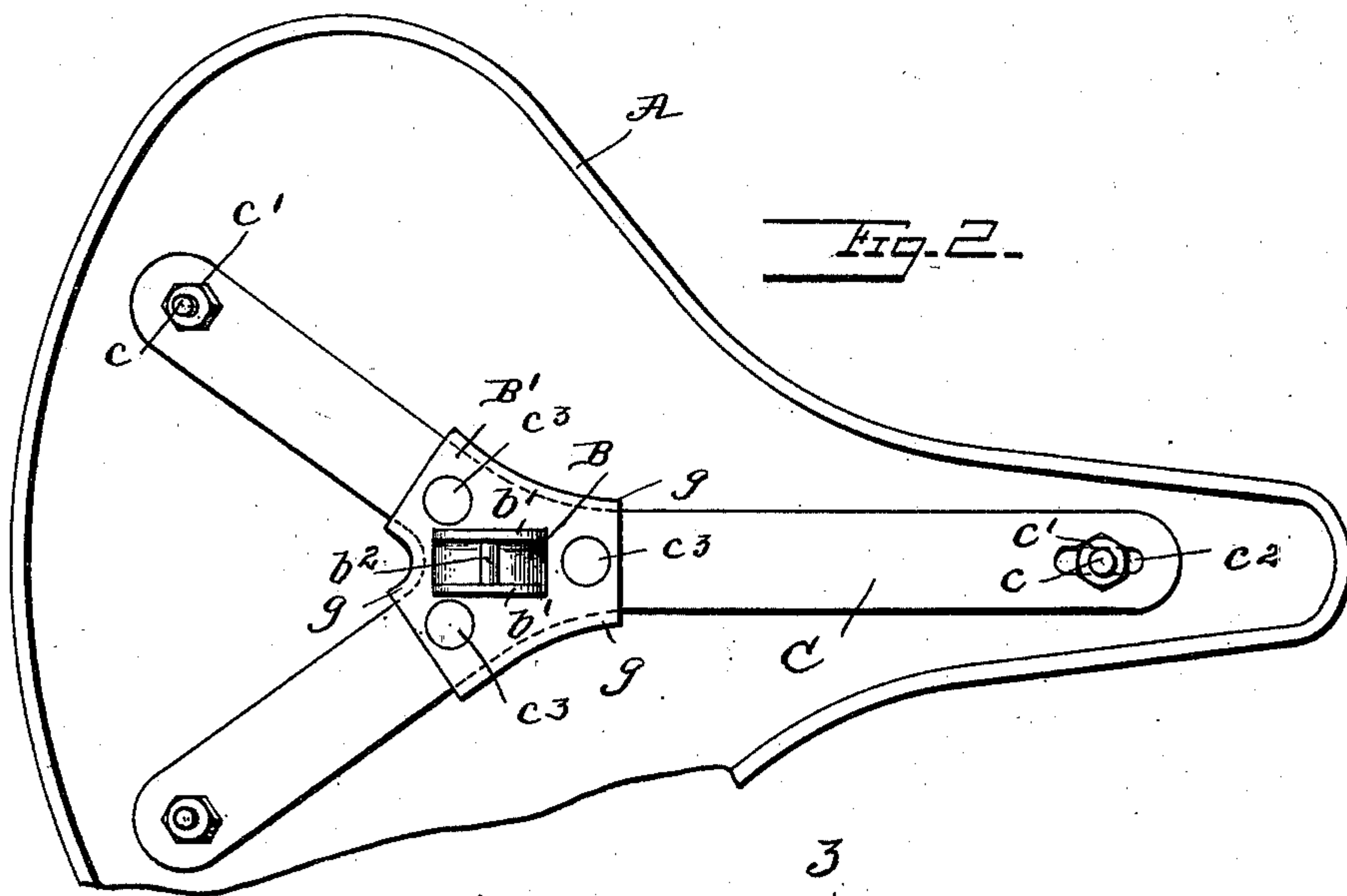
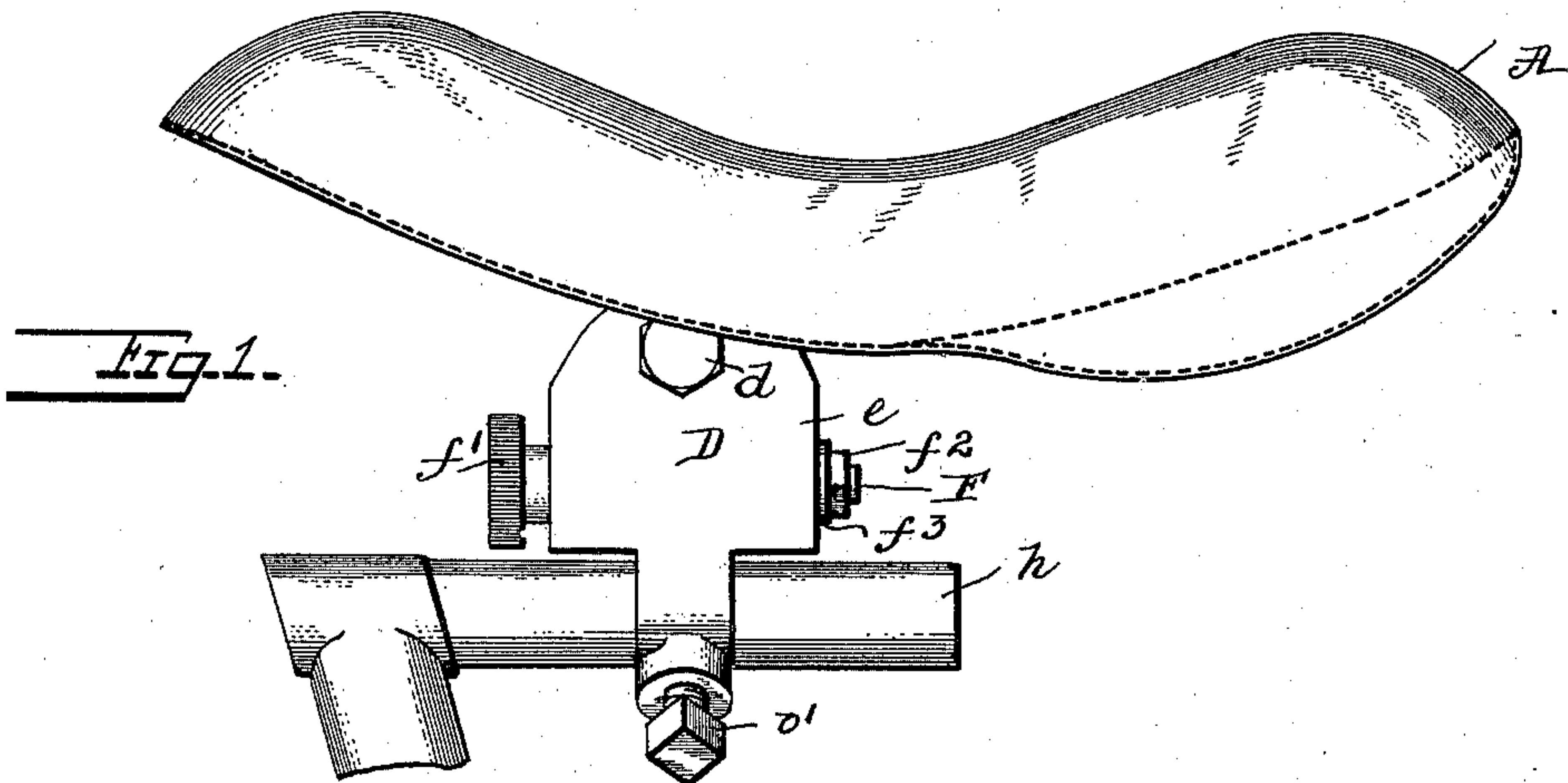
No. 625,873.

Patented May 30, 1899.

H. R. CRESSMAN.
CLIP FOR BICYCLE SADDLES.

(Application filed Sept. 24, 1898.)

(No Model.)



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CLIP FOR BICYCLE-SADDLES.

SPECIFICATION forming part of Letters Patent No. 625,873, dated May 30, 1899.

Application filed September 24, 1898. Serial No. 691,782. (No model.)

To all whom it may concern:

Be it known that I, HARRY R. CRESSMAN, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Tilting-Clips for Bicycle-Saddles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention has relation to improvements in clips for securing bicycle-saddles to the saddle-posts; and it consists in the construction hereinafter described of an adjustable tilting-clip arranged so that the angle of the saddle may be readily adjusted to any desired degree of inclination by a slight movement of an adjusting-screw so located as to be readily accessible and may be adjusted even while in the act of riding by reaching with one hand beneath the saddle and turning the adjusting-screw.

The proper adjustment and regulation of a bicycle-saddle is, as is well known to experienced riders, a most important factor in riding a bicycle, and it often occurs in riding, especially upon roads where occasional hills have to be mounted and descended, that in order to properly accommodate the rider to the work of the machine the angle of the saddle should be occasionally shifted, depending upon the fact whether a hill is to be mounted or descended or whether a level road is to be traveled. In mounting a hill it is well known that the rear of the saddle should be canted upwardly, so that the inclination of the saddle shall tend to throw the rider forward. In descending this inclination is not desirable, and the angle of the saddle should therefore be changed so as to slightly depress the rear of the saddle. When riding upon level roads, an intermediate angle is desirable. It is therefore essential to accommodate the rider thoroughly to the work before him, especially in hilly country, that the tilting construction should be such that the saddle may be readily canted to the desired angle by a simple adjustment, and it is essentially preferable that the construction shall be such that this adjustment may be accomplished while in the act of riding by simply throwing the weight upon the pedals temporarily and reaching be-

neath the seat, where the adjusting-screw is readily accessible.

In the accompanying drawings, Figure 1 is a side elevation of a bicycle-saddle having my improved tilting-clip provided thereon and secured to the post. Fig. 2 is a bottom view of the same with a portion of the clip removed. Fig. 3 is a sectional view of my improved tilting-clip in connection with the riveting-plate adapted to be riveted to the frame and the securing-eye for securing to the saddle-post, drawn on the lines 3 3, Fig. 4. Fig. 4 is a sectional view of the same construction drawn on the line 4 4 of Fig. 3.

The saddle A may be of any desired construction, to which the member B' of the clip is secured by riveting or by any other suitable means. In the construction illustrated the plate C is secured to the lower portion of the saddle through the medium of the bolts *c* and the nuts *c'*, which is a preferable method for securing the same. The slot *c''*, through which the forward bolt *c* is passed, is preferably elongated, so that the plate may in assembling be adjusted upon the saddle without difficulty and loss of time.

The downwardly-projecting tongue or arm B is rigidly secured to or integral with the securing-plate B' and is pivoted to the section D through the medium of the transverse bolt *d*. The section D is provided at its lower end with an orifice *o* for the reception of the horizontal arm *h* of the saddle-post, upon which the section D is adapted to fit, lock-nuts *o'* being provided in the said lower section, as illustrated in the drawings, for the purpose of clamping the section D upon the seat-post. Provided upon the section D are perpendicularly-disposed walls *e e'*, forming a recess *f* for the reception of the downwardly-projecting tongue B, which is supported therein pivotally upon the transverse bolt *d*, extending through the walls *e* and through the said tongue B.

A worm-screw F, screw-threaded throughout the greater portion of its length, is journaled in a substantially horizontal position through the lower portion of the recess *f* in the walls *e'* and has preferably an enlarged milled head *f'* for readily rotating the same, the opposite end being provided with a nut *f''* upon a screw-thread turned thereon to pre-

vent displacement of the worm-screw, a washer f^3 being preferably interposed between the nut f^2 and the outer surface of the adjacent wall e' to allow of the free rotation of the worm-screw F without loosening said nut. Upon the screw-threads of the worm-screw F in the recess f is provided a traveling nut F' , of a width slightly less than the distance between the inner surfaces of the walls e , adapted to travel to and fro upon the worm-screw F, the nut F' being prevented from rotation by the walls e . The nut F' is provided with upwardly-extending tongue f^4 , adapted to fit in a recess b , provided in the lower portion of the tongue B, formed by the downwardly-projecting tongues b' , which carry a transversely-disposed pin b^2 , fitting in a vertical slot f^2 , formed in the upwardly-projecting tongue f^4 of the nut F' .

From the foregoing description it is clear that when the parts are connected and in position upon the seat-post of a bicycle as the worm-screw F is rotated through the medium of the milled disk f' the nut F' will be traveled in the recess f forward or backward, and the slotted tongue f^4 , engaging on the pin b^2 , provided on the lower end of the arm B, forces this lower end of the arm in the direction in which the nut F' is traveling and will consequently throw the upper end of the said pivoted arm B in the opposite direction and will tilt the saddle in that direction. The saddle may thus be tilted to any desired angle, the length of the recess f (illustrated in the drawings) being sufficient to provide for any necessary tilting for all ordinary purposes. The length of this recess and of the worm-screw F may be varied, however, as desired. The milled disk f' for operating the worm-screw F may be located either under the rear or forward portion of the saddle, as desired.

In the construction illustrated I have represented the securing-plate B' as integral with the downwardly-projecting arm B and provided with marginal walls g , adapted to fit snugly around the edges of the plate C, to which it is riveted at c^3 to better secure the same. This, however, is a matter of detail. The clip may be secured to the saddle in any desired manner.

It is clear that the connections hereinbefore described in detail between the traveling worm-screw and the lower end of the pivoted arm may be readily transposed without departing from my invention. The connecting member described as provided upon the worm-screw may be, if desired, provided upon the lower end of the pivoted arm, and the connecting portions described as provided upon the lower end of the pivoted arm may be provided upon the nut, which would make exactly the same connection in this reverse order and would operate exactly as hereinbefore described. This is too obvious to require illustration or further description. It is also clear that the details of construction

may be modified and changed without departing from the spirit of my invention.

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

1. A tilting-clip for bicycle-saddles comprising a supporting-section adapted to be secured to the saddle-post of the machine, a downwardly-projecting pivoted arm rigidly secured to the frame of the saddle and pivoted intermediate of its length upon the supporting-section, a rotatable horizontally-disposed worm-screw journaled in said supporting-section carrying a nut upon said screw-threads adapted to travel to and fro in said supporting-section when said worm-screw is rotated, said nut being loosely connected with the lower arm of said pivoted section and adapted to oscillate the same in its backward-and-forward movement to regulate the tilting of the saddle and to hold the same in the desired given position, substantially as described.

2. A tilting-clip for bicycle-saddles comprising a supporting-section adapted to be rigidly secured upon the seat-post of the machine, a movable arm rigidly secured to the frame of the saddle and pivotally connected to said supporting-section, a longitudinally-disposed worm-screw journaled in the walls of the said supporting-section, a nut provided upon said worm-screw adapted to travel to and fro in said recess, upwardly-projecting portion provided upon said nut adapted to a recess in the lower portion of said pivoted arm and transversely-disposed pin provided through said recess in the walls thereof adapted to a slot in said upwardly-projecting portion of said bolt for communicating the motion of said pivoted nut to said pivoted arm and to hold it in any given position as desired.

3. In a tilting-clip for bicycle-saddles, a section, D, adapted to be rigidly secured upon the saddle-post, upwardly-extending walls, e , e' forming a recess, f , a longitudinally-disposed worm-screw, F, journaled in the walls, e' provided with an enlarged head for rotating said bolt, a pivotal section secured to the frame of the saddle having a downwardly-projecting arm, B, pivotally secured in said recess upon the transverse bolt, d , said arm, B, being provided with a recess, b , traveling nut, F' , provided upon the screw-threads of said worm-screw, F, prevented from rotation by the walls, e , upwardly-extending slotted tongue, f^4 , provided upon said nut, F' , adapted to project within the recess, b , transversely-disposed pin, b^2 , provided through said recess, b , secured in the walls thereof and engaging in said slot, substantially as described.

In witness whereof I have hereunto set my hand this 22d day of September, A. D. 1898.

HARRY R. CRESSMAN.

Witnesses:

H. L. DAVID,
HENRY FISHER.